



Version 1.0

# Life Sciences Sector and Cell and Gene Therapy Cluster Action Plan

SEPTEMBER 2022



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# Preface

This is one of a suite of Strategies and Action Plans which is being developed by Hertfordshire LEP, working alongside Hertfordshire Growth Board. It is designed to help reinvigorate the economy of Hertfordshire following both the pandemic and the UK's departure from the EU. It is founded on principles of 'good' economic growth which is both socially inclusive and environmentally sustainable.

## What we have learned

Over the last decade – and guided firmly by our board – Hertfordshire LEP has developed a strong, coherent and consistent strategic narrative for Hertfordshire. Previously, Hertfordshire was perceived as an apparently prosperous and 'leafy English shire county'. There was, with hindsight, a hint of complacency and some detachment from the realities of economic, social, technological and environmental change.

Through successive strategic statements – including an early Growth Strategy (in 2011/12), a Strategic Economic Plan (in 2014, and then updated in 2017); and a draft Local Industrial Strategy (2019) – Hertfordshire LEP has sought to change the discourse. It has highlighted the real opportunities available to businesses and communities across Hertfordshire, but also both the risks and the responsibilities that come with them. At the same time, it has 'shone a light' on what isn't working within Hertfordshire. It has highlighted some continuing tensions and contradictions that really do need to be addressed.

## Looking forward

As we – like the rest of the UK – come to terms with the implications of the pandemic and the realities of life outside the EU, the

LEP is developing a suite of strategic statements that will guide it through to the 2030s. These capture the learning of the last decade. They also anticipate a future that is likely to be guided by stronger imperatives linked to economic well-being in a rounded sense. Over the next decade, technological change will continue apace but environmental considerations will be prominent as will commitments to inclusivity. To be clear, economic growth will still be essential, but it will find new expressions in a global political economy characterised by new alliances, expectations and possibilities.

For Hertfordshire LEP, this will mean closer working relationships with partners, particularly with Hertfordshire Growth Board – whilst still recognising the crucial importance of a business-led partnership in defining, debating and delivering an agenda for economic growth. It will also mean closer working relationships with neighbouring areas, recognising that businesses have scant regard for administrative boundaries and much will be gained from working across functional economic areas (in terms, for example, of supporting key clusters).



## Our Strategies and Action Plans

The suite of strategic statements will be a live resource and it will evolve over time. It will include:

- **foundational strategies** which will focus on the breadth of enterprise and innovation across 60,000 businesses, and the criticality of employment and skills across almost 1.2 million people
- **action plans which accelerate the growth of key clusters and sectors:** these are distinctive in their character and offer particular opportunities for high value and 'additional' growth which will equip Hertfordshire to compete internationally as well as nationally
- **strategies for responsible growth** in Hertfordshire including in relation to clean growth, inclusive growth, and growth which embraces the possibilities of digital technology in an informed and responsible manner.

All of these strategies will be developed in partnership. In delivery, some will be led by the LEP.

Others will primarily be the responsibility of other partners, notably Hertfordshire Growth Board. In all cases, they are crucial to the future of Hertfordshire's economy and the LEP will help to drive them forward.

### This document

This document presents our **Action Plan for the Life Sciences Sector and the Cell and Gene Therapy Cluster**.

This is amongst the most dynamic parts of Hertfordshire's economy and it has seen significant investment over recent years. It presents a substantial opportunity currently, and it is one that we intend to harness to the full. Our Action Plan explains how we will do this.

This Action Plan is a living document will be regularly updated.



# The evolution of the Life Sciences Sector and Cell and Gene Therapy Cluster<sup>1</sup>

Hertfordshire's Life Sciences Sector has emerged over decades. It is diverse and includes biopharmaceuticals and medical technology businesses. It has real growth potential. From within it has emerged a Cell and Gene Therapy Cluster. Over recent years, this has attracted substantial early-stage investment. It is now recognised as the third largest Cell and Gene Therapy Cluster globally.

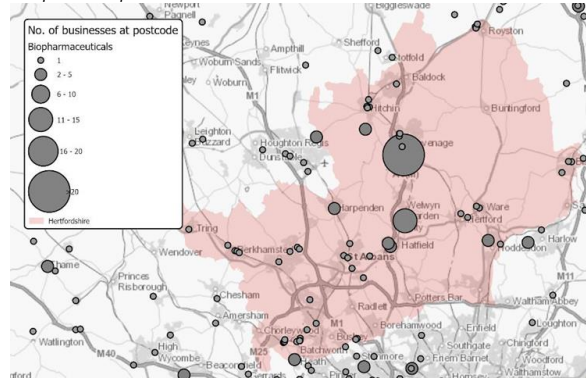
## Life Sciences in Hertfordshire

Hertfordshire's **Life Sciences sector** has emerged over many decades. Today there are over 200 Life Sciences businesses in the county. Biopharmaceuticals businesses are predominantly concentrated in Stevenage, but with notable activity also in Hatfield and Welwyn Garden City, two other towns on the A1(M) Corridor. Medical technology activity is much more widely distributed, with Hemel Hempstead, Stevenage and the north Hertfordshire towns of Hitchin/Letchworth/Baldock leading the way.

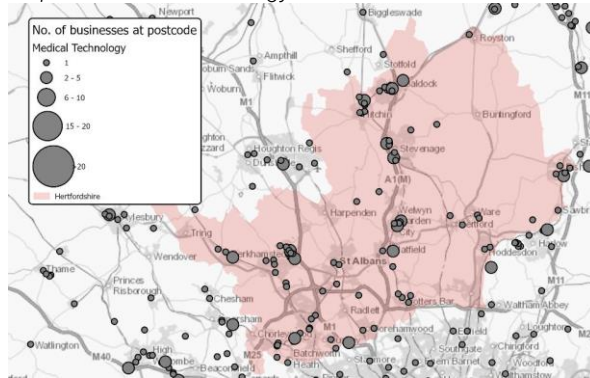
'Big pharma' has played a critical role in the evolution of the sector. Through major companies like GSK (GlaxoSmithKline), MSD (Merck Sharp & Dohme) and Roche, Hertfordshire has seen periods of investment and growth in pharmaceuticals since the 1930s – partly because it is close to London and partly because, at key moments, pharmaceuticals businesses have been able to secure major sites. But there has also been 'churn' and phases of restructuring and retrenchment. This has all created both a legacy and an endowment, linked for example to workforce skills and supply chain possibilities.

Figure 1: The distribution of Life Sciences businesses across Hertfordshire

Map A: Biopharmaceuticals businesses in Hertfordshire



Map B: Medical Technology businesses in Hertfordshire



Source: Maps produced by SQW 2021 (License 100030994) using the database provided in August 2020 alongside "Bioscience and health technology sector statistics 2019", published by Office for Life Sciences

<sup>1</sup> For a much more detailed account of the evidence underpinning this Action Plan see 'Life Sciences in Hertfordshire and the emergence of a global Cell and Gene Therapy Cluster', Report to Hertfordshire LEP by SQW, July 2021. Available at [hertfordshire-s-cell-and-gene-therapy-cluster-july-2021.pdf](https://www.hertfordshire-lep.com/wp-content/uploads/2021/07/life-sciences-in-hertfordshire-and-the-emergence-of-a-global-cell-and-gene-therapy-cluster-july-2021.pdf) ([hertfordshirelep.com](https://www.hertfordshirelep.com)).



## The early growth of the Cell and Gene Therapy Cluster

It is within this context that the **Cell and Gene Therapy Cluster** has emerged over the last decade or so.

In 2008/09 – against a backdrop of the then-pending ‘patent cliff’ and the more general credit crunch – GSK investigated the idea of developing a major campus at Stevenage, premised on principles of open innovation. Signalling a major departure from past models, the intention was that this should be developed in stages, creating an ecosystem in which companies could collaborate and share facilities and advice, allowing them to grow.

Through a £38m partnership with then-Department of Business, Innovation and Skills, Wellcome, then-Technology Strategy Board and then-East of England Development Agency, GSK provided land and investment to build and launch what is now Stevenage Bioscience Catalyst (SBC). This opened in 2012 and by spring 2017, Phase 1 was at capacity. In 2017, the Cell and Gene Therapy Catapult Manufacturing Centre opened. With £55m investment – and additional support from Hertfordshire LEP – this sought to address a critical part of the translation process – from laboratory scale activity to small scale batch production which is needed for Phase III clinical trials.

Currently, it is estimated that the Cell and Gene Therapy campus in Stevenage –

including both the Catalyst and Catapult – is delivering over 1,000 jobs and is home to over 45 companies, 13 of which are in the Cell and Gene Therapy space.

Some of these have received equity funding from Syncona (the investment company set up by the Wellcome Trust) and many have links with UCL; the inference – borne out through consultations undertaken for this study – is a research-funding nexus with its origins in the Knowledge Quarter area of London (around the Francis Crick Institute, UCL, Wellcome Trust, King’s Cross/Euston) but extending to Stevenage, some 20-30 minutes away (by train), where early stage businesses can progress towards clinical trials. Many of the Cell and Gene Therapy businesses also have strong international connections, and in this context, the Cell and Gene Therapy Catapult Manufacturing Centre is seen by many as a unique facility globally.

The government’s Life Sciences Vision<sup>2</sup> observes that *“the UK has a very strong cluster of Advanced Therapy companies forming in Stevenage around the Cell and Gene Therapy Catapult”*. This has been recognised as the UK’s largest Cell and Gene Therapy Cluster, and the third largest globally. The companies within it have attracted private sector equity investment which sums to more than £739m. In 2020, private equity investment in R&D activities linked to biotechnology was higher in Stevenage than for the clusters in Cambridge and London, and very close to the figure for Oxford.

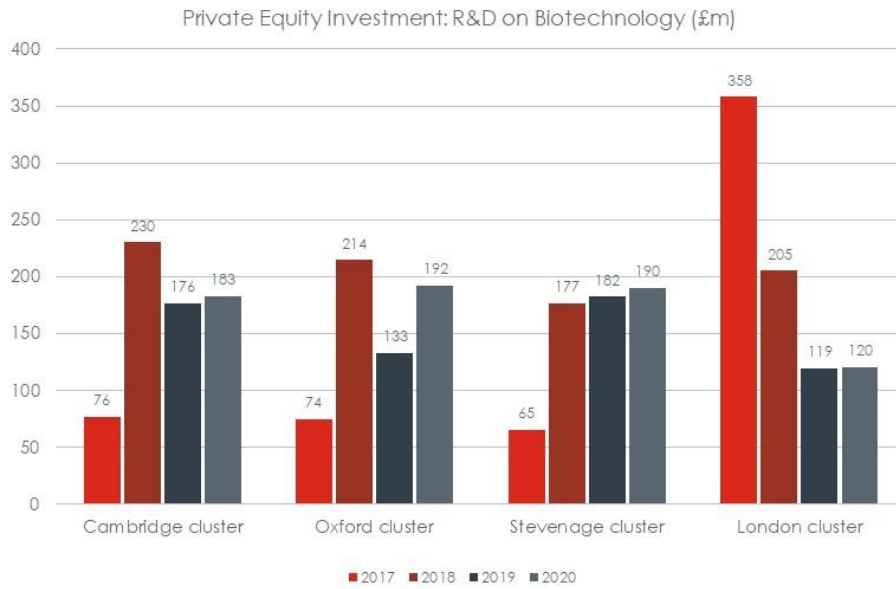
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<sup>2</sup> Life Sciences Vision: Build Back Better – Our Plan for Growth. HM Government, 2021



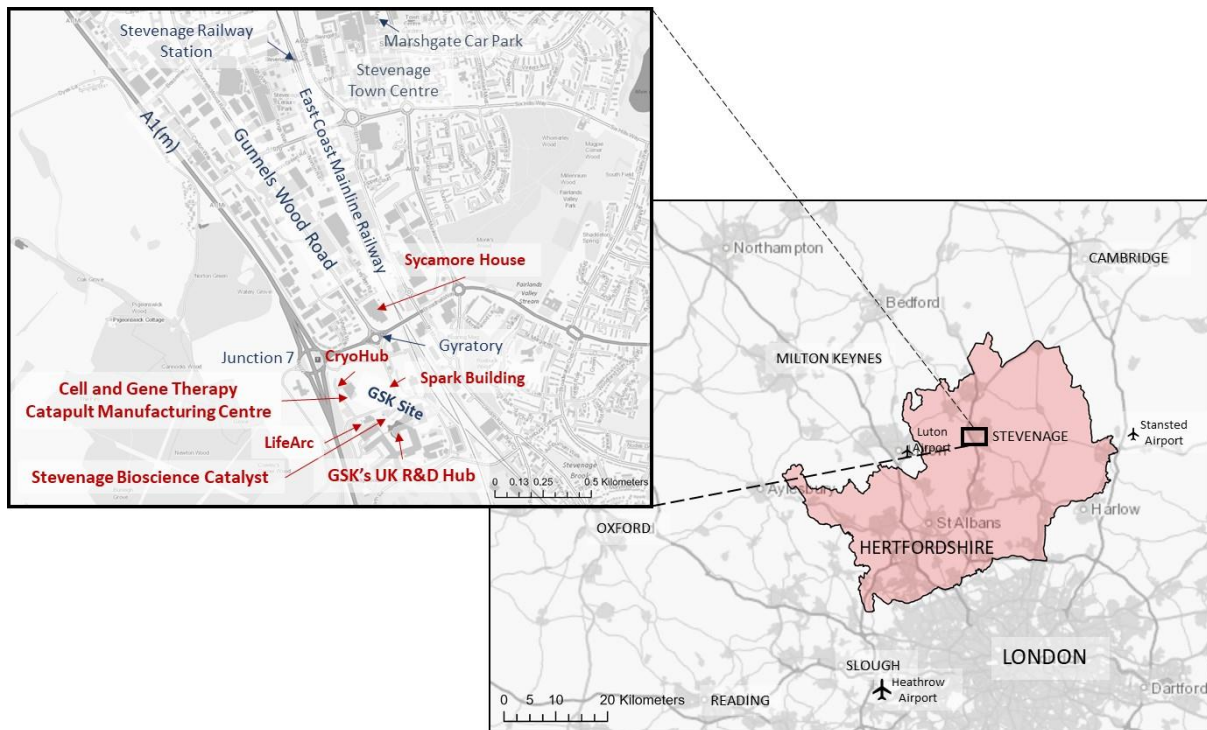


Figure 2: Scale of private equity investment in 'R&D on Biotechnology' in Stevenage and selected comparators, 2017-2020



Source: Beauhurst, based on data sourced by Hertfordshire LEP, March 2021

Figure 3: Key locations in relation to the Cell and Gene Therapy Cluster



Source: Produced by SQW 2021. Licence 100030994



# Our Vision

We believe that through our Cell and Gene Therapy Cluster – and the wider Life Sciences Sector – we have something very special in Hertfordshire. We have an opportunity, now, to make that count. If we succeed, we will deliver benefits to residents, communities, and businesses in Hertfordshire. We will also achieve wider societal outcomes across the UK and beyond.

## Our Vision for the wider Life Sciences Sector in Hertfordshire...

Over the next 3-5 years, the Life Sciences Sector across Hertfordshire will see sustained growth across medical technologies as well as biopharmaceuticals. This will be achieved both through the growth of existing businesses and through inward investment.

This will result in:

- improved healthcare and health outcomes across the UK and internationally
- improved economic outcomes in Hertfordshire (and the UK)

As a result, by 2027, Hertfordshire's Life Sciences sector will be thriving across the county, and it will be known more generally for the breadth and depth of Life Sciences activity.

It will include:

- a wide mix of businesses – from big pharma to small medtech firms – with different functions
- a new group of inward investors
- well-functioning supply chains

It will benefit from:

- an appropriate supply of commercial property of all different forms – including some major sites and some 'cheap' space
- an effective supply of labour with both highly qualified scientists and researchers, but also those engaged in production activities
- outstanding digital infrastructure

## ...and for the Cell and Gene Therapy Cluster

Over the next 3-5 years, Cell and Gene Therapy businesses that have been nurtured in and around Stevenage will accelerate their 'commercialisation journey', and more new businesses will follow.

This will result in:

- improved healthcare and health outcomes across the UK and internationally
- improved economic outcomes in Hertfordshire (and the UK)
- a new focus and image for Stevenage

As a result, by 2027, Hertfordshire will be home to a growing and maturing Cell and Gene Therapy Cluster which will be fuelled both through inward investment and organic growth.

It will include:







- manufacturing and logistics businesses (providing a range of local jobs), as well as research-intensive early-stage ventures
- a specialist labour market
- a supply of commercial property consistent with the changing needs of the cluster
- specialist financial and business support services
- strong and vibrant knowledge networks, both within Hertfordshire and beyond (particularly involving Cambridge and London)





Across both the Life Sciences sector – and the Cell and Gene Therapy Cluster – it is critical that we deliver six key outcomes. Led by the private sector, achieving these will need to be a shared commitment across partners in Hertfordshire – the LEP, the Growth Board, Hertfordshire County Council and the district/borough councils.

Figure 4: Key Outcomes for this Action Plan

-  1: A reliable supply of talent which is aligned to the changing needs of the Life Sciences Sector and the Cell and Gene Therapy Cluster
-  2: Appropriate sources of early stage business support and finance
-  3: International profile and visibility, particularly for the Cell and Gene Therapy Cluster in Hertfordshire
-  4: Strong levels of networking within and beyond Hertfordshire, and high levels of ‘embeddedness’ as a result
-  5: Effective commercial property solutions (including both specialist and generic space)
-  6: Effective digital infrastructures consistent with the needs of a strong Life Sciences Sector and a global Cell and Gene Therapy Cluster



# Priorities for the Sector and Cluster

For both the Life Sciences sector and the Cell and Gene Therapy Cluster, the opportunities for growth are substantial. In order to achieve the outcomes set out in the previous Section, there is a series of priorities that we need to address locally. Many of these are on the ‘supply side’. They represent risks to the growth of both the Sector and Cluster. Addressing them will be imperative.

## Growing the Life Sciences Sector

Hertfordshire has long been attractive to Life Sciences businesses – partly because of the quality and depth of the local labour market, and partly because of proximity to London and Heathrow Airport. We have attracted major inward investors in recent years – like Eisai in Hatfield and Pharmaron in Hoddesdon – while companies like Smith and Nephew (near Watford) and Roche in (Welwyn Garden City) continue to have a significant presence and span both medtech and biopharma.

Across the breadth of the Life Sciences Sector – and across all parts of Hertfordshire – priorities for growth can be simply stated. They boil down to:

- ensuring that appropriate sites and premises are available – including in relation to enquiries from inward investors
- improving the provision of workforce skills, including digital skills
- ensuring that Hertfordshire’s digital infrastructure is genuinely world class.

## Growing the Cell and Gene Therapy Cluster

In relation to the Cell and Gene Therapy Cluster, the challenge now is to harness the momentum that has been generated and to sustain and enable the Cluster’s further growth. This means providing an environment in which businesses can scale up very complicated production processes.

We therefore need to ensure:

- that there is provision of sufficient and appropriate sites and buildings across different parts of Hertfordshire, both to accommodate scaled-up production and to facilitate the growth of the wider supply chain, including with regard to specialist logistics
- that it is possible to staff those facilities with appropriately trained and qualified personnel (reflecting the comment from many businesses that there is real ‘competition for talent’ and also the scale of employment growth identified through national skills surveys<sup>3</sup>)
- that Stevenage – which defines the Cluster’s geographical core – is regenerated as a vibrant 21st Century

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<sup>3</sup> See for example ‘2021 UK Cell and Gene Therapy Skills Demand Survey Report’, Cell and Gene Therapy Catapult, 2021



New Town in which the Cell and Gene Therapy Cluster can thrive.

Particularly with regard to sites and buildings, local partners have done much to engineer short term solutions – through, for example, the modular Spark Building. Kadans acquired Sycamore House which has been redeveloped to provide further capacity. In addition, over recent months, planning permission has been secured for a bio-pharmaceutical manufacturing facility on Marshgate car park on St George's Way, Stevenage. Construction is now underway and the new facility will be home to Autolus (a NASDAQ-listed business, nurtured within the Cell and Gene Therapy Cluster). In the longer term, GSK's announcement linked to the redevelopment of 33 acres on its Research and Development site over 5-10 years should also prove to be very important.

All these ventures need to be pursued. More generally, it will be imperative that appropriate provision is made on Gunnels Wood Road and, potentially, on relevant sites within Stevenage town centre.

Local partners have also put in place measures to support workforce skills development. These have included, *inter alia*, a new cell and gene therapy integration laboratory (run by the CGT Catapult Manufacturing Centre and based at Sycamore House, Stevenage) which is delivering basic lab and GMP skills; aseptic training provision through University of Hertfordshire; and many different measures

to support apprenticeships. There are also plans for Stevenage Innovation and Technology Centre (SITEC) (aimed at assisting the delivery of STEM focused qualifications). Looking ahead, global assessments of the Cell and Gene Therapy industry are invariably quick to emphasise the importance of software and data science in many different forms. Appropriate provision will be needed for the digital dimensions of the cluster's growth. Broadband infrastructure needs to be exemplary and capable of handling large amounts of data across Cell and Gene Therapy businesses and the wider cluster. In addition, digital skills will need to be enhanced.

Finally, it will be essential that the global nature of Cell and Gene Therapy is fully recognised. Hertfordshire must be prepared to compete with established and emerging clusters worldwide (such as Kendall Square, Boston, and Navy Yard, Philadelphia). Within this context, the designation of Stevenage as first (in 2018) a Life Sciences Opportunity Zone and then (in 2020) a High Potential Opportunity Zone has helped give the cluster profile.

## Our Action Plan

The priorities outlined above need to be translated into deliverable actions. These are set out in detail in Annex A. Our actions are SMART (specific, measurable, achievable, realistic and timed) and there must be a commitment to delivering them.



# Delivering our Action Plan

What now matters is that our Action Plan is delivered. This will need to be a partnership commitment which is shared by Hertfordshire LEP, Hertfordshire Growth Board, and various other partners. Fundamentally, however, it must be owned by – and responsive to – industry.

## Industry Panel

In April 2022, we established an Industry Panel that will drive forward this Action Plan.

The Industry Panel is chaired by Dianne Lee. Dianne runs a growing Life Sciences business (which operates globally and is based in Letchworth Garden City) and is also one of the LEP's private sector Board members.

The Panel includes 6-8 other experts from the heart of the Life Sciences and Cell and Gene Therapy communities in Hertfordshire. Among these are representatives from major businesses including Eisai and Pharmaron. It also includes leaders from both the Cell and Gene Therapy Catapult Manufacturing Centre and Stevenage Bioscience Catalyst. Two leading cluster groups (MedCity and One Nucleus), both of which have a footprint which extends beyond Hertfordshire, will also be part of the Panel. We are looking to further strengthen the panel to deepen SME involvement.

The Industry Panel will meet around four times a year and it will focus solely on the delivery of this Action Plan. It will receive regular reports of progress and – with an operating model akin to that of a Select Committee – it will 'call in' key delivery partners from time to time.

It will also take a view on whether the Actions identified continue to be the right ones and/or whether other Actions need to be prioritised.

In short, its key functions will include:

- **scrutiny** – holding different parts of the public sector architecture to account
- **challenge** – testing whether the 'right steps' are being taken
- **leverage** – helping to ensure, through the Plan, that private sector resources are fully aligned and supporting overall delivery
- **learning** – making sure that we learn what works and what doesn't, and ensuring that the Action Plan is attuned to the realities of changing market and other drivers.

## LEP Life Sciences Sector / Cell and Gene Therapy Cluster Lead

The LEP is providing a secretariat function to the Industry Panel following the appointment of a Life Sciences Sector/Cell and Gene Therapy Cluster Lead. This is a new senior post. As well as supporting the Panel, the job holder will work across the wider Sector and Cluster – literally 'keeping an ear to the ground' whilst also supporting the delivery of the Action Plan.



## Hertfordshire LEP Board and Hertfordshire Growth Board

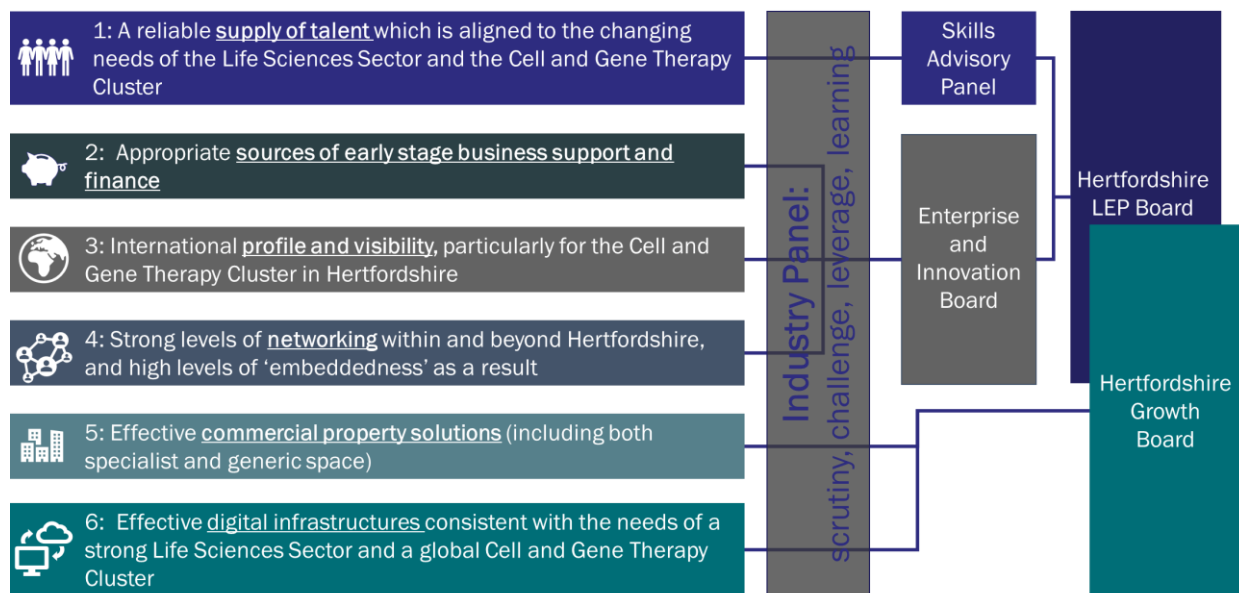
In seeking to brigade resources to achieve the six key outcomes, both the LEP Board (principally through two Programme Boards) and Hertfordshire Growth Board will have key responsibilities.

Four of the key outcomes rest with the LEP Board and two with the Growth Board – but in delivery, all six need to be advanced

together and in a synergistic and complementary way.

In addition, there is an important role for Stevenage Development Board. Stevenage defines the geographical core of the Cell and Gene Therapy Cluster – and the effectiveness of Stevenage as a place is therefore important. Issues like the vibrancy of the town centre and the quality of housing stock will all have a bearing on the overall growth of the Cell and Gene Therapy Cluster into the medium term.

Figure 5: Advancing the Action Plan: Delivery, governance and accountability



# Resourcing our Action Plan

We will need to work together to resource the delivery of our Action Plan.

In delivering this Action Plan, the private sector will play a key role – including with regard to resourcing. Fundamentally, it will be private sector investment and leverage that fuels the growth of both the Life Sciences Sector and the Cell and Gene Therapy Cluster in Hertfordshire.

Public sector resource will be needed to address some market failures, principally on the supply side (linking in the main to land and property, and workforce skills). These in turn will unlock a growth process that ought to deliver substantial economic impacts in Hertfordshire and beyond; and improved health outcomes around the world.

In committing to the delivery of our Action Plan, we recognise that we will need to work creatively across a range of resourcing solutions.

We hope to create a *de facto* funding pot. This will draw on and/or complement a range of funding sources, including:

- UK Shared Prosperity Fund – working closely with the local authority districts and boroughs in Hertfordshire, and focusing particularly elements linked to skills, innovation and business support
- The publication in March of UKRI’s “Strategy for 2022 to 2027: Transforming

tomorrow together” specifically recognises the importance of investing in places and strengthening local clusters and partnerships. This may create opportunities to secure investment in world class clusters like Hertfordshire’s Life Sciences cluster, but it will require LEPs and partners to be receptive to funding calls as and when they occur.

Locally, we expect Hertfordshire County Deal will contribute to the delivery process. We will also commit to investing LEP Programme budgets, where the business case is a strong one.

In addition, given the criticality of the Cell and Gene Therapy Cluster in particular to UK science – and the delivery of the wider Life Sciences Vision – we will work with the Cell and Gene Therapy Catapult, Innovate UK and UKRI to ensure that the national significance of our Action Plan is fully realised.

Government is committed to publishing its own delivery plan for taking forward the Life Sciences Vision, and our expectation is that through this, the full potential of the Hertfordshire’s Life Sciences Sector – and particularly its Cell and Gene Therapy Cluster – will be recognised fully.





# Annex A: Detailed Action Plan

Various Actions have been identified across the Life Sciences Sector and/or Cell and Gene Therapy Cluster. These will build on the interventions that are already well underway. They are set out in outline below and organised according to the Action Plan outcome to which they will principally contribute.

Action	Rationale	Deliverables	Priority (HML)	Lead organisation	Resources	Outcomes & Timescales
<b>Outcome 1: A reliable supply of talent</b>						
<b>1.1 Explore whether there is a case to establish a major training facility linked to advanced cell and gene therapy skills; this would be recognised as a national investment which would address national requirements across a highly specialist field</b>	The Cell and Gene Therapy Cluster has scope for rapid growth, but this is unlikely to be realised without a greater flow of talent. The Aseptic Manufacturing of Advanced Therapies courses (delivered by the University of Hertfordshire and CGT Catapult) and national ATAC and ATSTN initiatives have made (and continue to make) a positive contribution in assisting companies with their growth strategies and transition to manufacture. There is an urgent need to expand these skills programmes further and to offer clear and visible routes to attract, train and retain highly skilled talent.	<ul style="list-style-type: none"> <li>• Initiatives to centralise cell and gene therapy skills and training, improving harmonisation and access</li> <li>• Establishment of industry quality trademark to know 'good' programmes</li> <li>• Development of a major training facility if the need is demonstrated</li> <li>• Schemes to attract graduates into the industry, and develop specialist skills</li> <li>• Recognition of the need to work as a community to share talent, with the option to use pooled resource to work across companies</li> </ul>	High	Cell and Gene Therapy Catapult Manufacturing Centre, SBC, UoH		<p>Initial feasibility work to be undertaken during 2022</p> <p>Links to be strengthened with key industry players to advance the agenda (including relevant universities and industry associations beyond Hertfordshire)</p>



Action	Rationale	Deliverables	Priority (HML)	Lead organisation	Resources	Outcomes & Timescales
<p><b>1.2 Through the development of a cell and gene therapy workforce development plan, put in place measures to ensure that cell and gene therapy businesses are able to find advanced manufacturing skills (including GMP) locally.</b></p>	<p>These skills sets are likely to be critically important as businesses move from clinical trials into larger scale production. They are specialist and will require some investment, but there ought to be a good match with the character of Hertfordshire's labour market and the emerging opportunity to build on the Cell and Gene Therapy Integration Laboratory being established at Sycamore House in early 2022.</p> <p>Companies are keen to access various skills development programme options, such as apprenticeships, graduate, industrial placements, continuous professional development, and upskilling/transferable skills programmes and/or platforms, to both upskill their existing workforce as well as attract and recruit new talent, from outside of the sector.</p>	<ul style="list-style-type: none"> <li>• The use of apprenticeships and vocational T Level qualifications;</li> <li>• Progress in working through national ventures such as the Advanced Therapies Apprenticeship Community (ATAC); and the development of local initiatives led by the University of Hertfordshire and other partners.</li> <li>• Identifying and recognising transferable skills</li> <li>• Continued focus towards attracting people with potential, attracting people to work in Manufacturing and Quality roles and in GMP environments. Option of creating an industry guidance board to assist outreach</li> <li>• Grants to support Equality, Diversion &amp; Inclusion in terms of social mobility</li> <li>• Engagement of the Hertfordshire Skills Advisory Panel, including, potentially, a task force focused on cell and gene therapy.</li> <li>• Use of HOP and other channels to ensure good levels</li> </ul>	High	CGT Catapult's C&GT integration Laboratory; UoH; North Herts College; Skills Advisory Panel		<p>Cell and Gene Therapy Catapult's integration laboratory begins delivering training courses from Sycamore House by mid-summer 2022.</p> <p>Workforce Development Plan launched early 2023</p> <p>Coordinated by the Skills Advisory Panel (and with links to SITEC) from early 2023, current levels of skills provision and options to shorten the length of time to train people, are suitably evaluated and provide the base on which to influence the future direction of local skills provision</p>



Action	Rationale	Deliverables	Priority (HML)	Lead organisation	Resources	Outcomes & Timescales
		of awareness of appropriate opportunities locally				
<b>Outcome 2: Sources of early stage business support and finance</b>						
<b>2.1 Deepen local business support programmes accelerate the growth of early stage Life Sciences businesses</b>	<p>Access to finance and business support programmes are important tools to address market failures in the translation of IP into product development and manufacture. The Catapult currently runs an ERDF funded Commercial Readiness Advice Clinics. If justified by evaluation could be further expanded utilising replacement programmes.</p> <p>This could cover the use of Capital Grants to fund expansion programmes and promote scale up; Training grants/vouchers to overcome potential recruitment barriers and de-risk the hiring process, Mentoring to accelerate speed to market.)</p>	<p>Develop a tailored modular business support package to support early stage businesses considering the move into manufacture: Modules could include:</p> <ul style="list-style-type: none"> <li>• Training Grants</li> <li>• Collaborative R&amp;D</li> <li>• Knowledge Transfer (building on learning from Hertfordshire Science Partnerships programme)</li> <li>• Strategic Advice and Guidance (mentoring)</li> <li>• Commercial Readiness Advice Clinics</li> <li>• Access to finance programmes Debt finance; Mezzanine Finance; Venture Capital; Angel Seed Funds; R&amp;D Tax credits</li> </ul> <p>Promoting awareness and uptake of the national Life Sciences Innovative Manufacturing Fund</p>	Medium	Hertfordshire LEP; British Business Bank; Innovate UK; Angel networks	£5m	<ul style="list-style-type: none"> <li>• Outcomes from the Catapult's Commercial Readiness Advice clinics are evaluated late 2022 and establish the business case for the development of a replacement programme</li> <li>• Funding secured from Shared Prosperity Fund by end 2022/23, supporting a launch in 2023 of a tailored business support programme enabling firms to obtain Access-2-Finance; Access-2-Skills; Access-2-Markets support.</li> </ul>



Action	Rationale	Deliverables	Priority (HML)	Lead organisation	Resources	Outcomes & Timescales
<b>2.2 Support the further expansion of the Cell and Gene Therapy Catapult Manufacturing Centre in Stevenage</b>	The first phase of the current facility was completed in 2017 and a further floor has been added subsequently. It is already at capacity and there is a strong case for an <i>in situ</i> expansion.	Establish the business case to support an expansion of the manufacturing capacity of the Catapult by 50% and provide additional collaborator and QC facilities and additional office and lab space for collaborating companies.	Medium	Hertfordshire LEP		<ul style="list-style-type: none"> <li>By Sept 2022, Funding package to launch phase 2 expansion of Manufacturing Centre assembled</li> <li>Construction begins January 2023 of an additional 50,000 sq. ft. catapult extension on an estimated 2.5 acres land</li> <li>Additional Catapult capacity completed in 2024</li> </ul>
<b>Outcome 3: International profile and visibility</b>						
<b>3.1 Building on the High Performance Opportunity Zone designation, ensure that the cell and gene therapy cluster is appropriately marketed on an international stage; and support the identification of appropriate sites of different forms across Hertfordshire</b>	Cell and gene therapy is clearly global and it will need to continue to compete globally – for equity investment and for talent as well as for potential in-moving firms. The profile of the emerging cluster needs to be high and it must also be actively promoted.	<ul style="list-style-type: none"> <li>Launch of HPO</li> <li>Presentation to Commercial Officers in overseas DIT posts</li> <li>Identification of target markets and follow up with DIT posts to identify key investment targets</li> <li>Refresh of HPO collateral and Life Sciences and Cell and Gene sector value propositions</li> <li>Benchmark current levels of investment and monitor on an annual basis; and develop appropriate marketing collateral</li> </ul>	Medium	Hertfordshire LEP; CGT Catapult; Stevenage Bioscience Catalyst; Local Authorities; PING (Pharmaceutical Industry Network Group); One Nucleus; MedCity		<p>Higher levels of private equity investment (by value and volume).</p> <p>Performance management process established by start of 2022 to monitor progress</p> <p>Higher levels of foreign direct investment into Hertfordshire</p>



Action	Rationale	Deliverables	Priority (HML)	Lead organisation	Resources	Outcomes & Timescales
		<ul style="list-style-type: none"> <li>Deepening links with MedCity and One Nucleus to help promote the wider cluster</li> </ul>				
<b>Outcome 4: Strong levels of networking</b>						
<b>4.1 Animate and develop the links between the cell and gene therapy cluster and wider networks – such as One Nucleus, MedCity, Cambridge Network and appropriate investor networks – and support businesses in engaging with those networks</b>	<p>The cluster needs to be well networked in order to de-risk key elements of the growth process. Hertfordshire has historically been quite challenging in networking terms (in large part because it lacks a natural centre). But it must engage fully and actively with the key sector networks, including those focused largely on both Cambridge and London.</p> <p>Within this, the need for appropriate investor/business angel networks is perhaps especially important. Despite some recent progress, Hertfordshire still lacks 'brand visibility' in these terms.</p>	<ul style="list-style-type: none"> <li>Hertfordshire recognised for the strength of its Cell and Gene Cluster by the wider biotech sector</li> <li>Cell and Gene related networking events held at Stevenage</li> <li>Seed funded R&amp;D based firms in Stevenage gain access to angel investor networks operating out of London and Cambridge</li> </ul>	Medium	LEP/One Nucleus/MedCity/Cambridge Network		Increased interactions within the cluster leading to the increasing volumes of strategic collaborations between the component parts of the golden triangle.
<b>4.2 Build a stronger dialogue with the wider cell and gene therapy community, particularly in London and Cambridge,</b>	<p>In many respects, the growth of the cell and gene cluster cannot be understood apart from the science and investment community in London (and to a lesser extent Cambridge). There are administrative boundaries, but</p>	<ul style="list-style-type: none"> <li>Establish activities and mechanisms to establish effective relationships between the Manufacturing and Research bases in the London, Cambridge and Stevenage flank of the Golden Triangle.</li> </ul>	Medium	Cell and Gene Catapult; Stevenage Bioscience Catapult; UoH; UCL; Imperial; Cambridge Universities.		Dynamic and effective relationships established between academia and industry within the wider cluster, which leads to higher numbers of collaborative R&D and knowledge transfer.



Action	Rationale	Deliverables	Priority (HML)	Lead organisation	Resources	Outcomes & Timescales
<b>involving civic and business leaders in the process</b>	<p>it is functionally one wider cluster. This has worked both ways for Hertfordshire. Growth in Stevenage is the upside – and it presents many more opportunities.</p> <p>The downside, arguably, is the loss of certain Life Sciences players to either London or Cambridge – most notably, MSD’s decision to relocate from Hoddesdon to London’s Knowledge Quarter. The wider cluster ought to function as one and these synergies ought to be recognised, nurtured, and managed - in order to maximise the national impact overall.</p>					
<b>Outcome 5: Effective Commercial Property Solutions</b>						
<b>5.1 Develop a comprehensive Hertfordshire sites and premises strategy for the cell and gene therapy cluster, noting the particular role of Stevenage but also recognising the scope for other districts/boroughs to support the growth</b>	<p>There are major constraints in relation to the growth of the cluster that are linked to land and property issues. These need to be addressed urgently. If they are not addressed, existing businesses will relocate, recognising that many are internationally mobile.</p> <p>Conversely, if these issues are addressed, further cell and gene therapy businesses could well be attracted into the area</p>	<ul style="list-style-type: none"> <li>• additional provision for very early stage businesses;</li> <li>• a ‘property ladder’ for core cell and gene therapy businesses as they move towards manufacturing (noting its particular requirements); and</li> <li>• a range of provision for wider supply chain partners, including those whose principal focus is distribution and logistics</li> </ul>	Medium	Hertfordshire Growth Board/ Stevenage Borough Council		<p>Local Planning Authorities adopt the sites and premises strategy as an evidence base to support local planning policy which facilitates and encourages the development of a cell and gene industrial cluster in and around Stevenage.</p> <p>Stevenage Sites Strategy completed by June 2022</p>





Action	Rationale	Deliverables	Priority (HML)	Lead organisation	Resources	Outcomes & Timescales
<b>of the wider supply chain.</b>	<p>in order to take advantage of being part of a growing cluster. The requirement is especially for manufacturing space and some provision linked to specialist distribution. There is likely to be a particular opportunity over the next period associated with the GSK site.</p> <p>This needs to be advanced alongside a broader approach to development on Gunnels Wood Road and within central Stevenage and further to other strategic sites within the county (e.g. Herts IQ; Park Plaza, North).</p>					Build and maintain major new sites property register
<b>5.2 Develop appropriate intervention mechanisms to deliver the sites and premises strategy, and ensure that these are adequately resourced (C&amp;G)</b>	<p>Delivery of the sites and premises strategy may not be straightforward through normal channels and more interventionist approaches may well be necessary.</p>	<ul style="list-style-type: none"> <li>• Consider options for supporting the establishment to establish a local delivery vehicle and/or public/private partnership/special purpose vehicle to ensure that land and property solutions are taken forward</li> <li>• Consider a range of market interventions involving land assembly, evergreen funding models, etc.</li> </ul>	High	Hertfordshire Growth Board; Local Authority Stakeholders supported by the LEP		<p>Revenue and capital resources secured to establish fully functioning direct delivery body</p> <p>Independent SPV launched in 2023</p> <p>2.5 million sq. ft. of new additional commercial space dedicated to Life Sciences achieves planning consent before April 2024</p> <p>Dilapidated sites are brought back in to use and made available for supply chain companies</p>



Action	Rationale	Deliverables	Priority (HML)	Lead organisation	Resources	Outcomes & Timescales
						Two GSK campus “graduates” decide to locate manufacturing operations in the Stevenage cluster by 2025
<b>5.3 Development of an additional Life Sciences Campus at Ware (Life Sciences Sector)</b>	Part of GSK’s Respiratory Manufacturing facility at Ware is currently being marketed for development. The 28 acres site is available for vacant possession from December 2022. The site provides an opportunity to create a new Life Sciences Campus of up to 340,000 sq. ft. over seven buildings, with a sports area and car park. The existing buildings could attract a broad range of occupational interest from start-ups to large multi-national businesses in the Life Sciences sector.	<ul style="list-style-type: none"> <li>• New Life Sciences Campus to consolidate Hertfordshire’s position as a Life science powerhouse within the wider Golden Research Triangle.</li> <li>• Enabling works to address barriers to the development of a life science’s campus.</li> </ul>	Medium	Growth Board, Hertfordshire LEP and East Herts District Council		Employment land which could be lost for residential development is safeguarded for commercial use in the Life Sciences sector and brought forward for development in 2024.
<b>5.4 Take steps to accelerate the delivery of the Stevenage Town Investment Plan</b>	<p>Many elements of the Stevenage Town Investment Plan are concerned directly or indirectly with the cell and gene therapy cluster – most obviously proposals linked to Marshgate car park. These will need to be advanced.</p> <p>For the cell and gene therapy cluster to thrive, Stevenage will need itself to function as an international hub where internationally mobile people</p>	<ul style="list-style-type: none"> <li>• X Housing units delivered</li> <li>• Rebuilt train station</li> </ul>	Medium	Stevenage Development Board and Stevenage Borough Council	£1bn	Indicative outcomes to developed in consultation with Stevenage Development Board



Action	Rationale	Deliverables	Priority (HML)	Lead organisation	Resources	Outcomes & Timescales
	<p>choose to work. Delivering the Station Gateway will have a bearing on perceptions of the place, and this is likely to be very important.</p> <p>Equally, it will be important that young, internationally mobile, and highly qualified workers are able to secure housing that meets their aspirations. The importance of the housing dimensions of the cluster should not be overlooked. In this context, the thinking around innovation districts (which are mixed use in character) is potentially important.</p>					
<b>5.5 Provide additional Incubation and Digital Skills facilities</b>	<p>Requirement to provide innovation space to accommodate companies with a focus on data analytics and advanced therapeutics. This builds on the SBC accelerator programme and has synergies with the digital hotdesking space being provided in Stevenage town centre. The existing incubator is at full occupancy and further space is required to address the issue of unmet demand.</p> <p>It also supports the interests of GSK, LifeArc and the Catapult</p>	Expansion of existing SBC incubator through the provision of 30,000 sq. ft. on 2 acres of land at the GSK site	High	Stevenage Bioscience Catalyst		Intensification of the Life Sciences cluster at the GSK/SBC open Innovation campus measured by site employment and additional m <sup>2</sup> of Non Domestic Rateable business floorspace.



Action	Rationale	Deliverables	Priority (HML)	Lead organisation	Resources	Outcomes & Timescales
	all of which are developing their activities in this space.					
<b>Outcome 6: Effective digital infrastructures</b>						
<b>6.1: Ensure that Hertfordshire's digital strategy is advanced with the needs of the Life Sciences Sector firmly in view</b>	There is evidence that Hertfordshire's digital infrastructure is struggling to keep up with the pace of growth. The more general issues are considered in the Digital Strategy which has been developed by Hertfordshire Growth Board. The actions within it need to be developed and delivered.		High			



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