GM LOCAL ENTERPRISE PARTNERSHIP BOARD

SUBJECT: Investment in the Translation and Industrialisation of Diagnostic Biomarkers in Manchester

DATE: 16 July 2018

FROM: Manchester City Council

PURPOSE OF REPORT

This report sets out the requirement to support research in biomedical and health science, providing a strong platform for the development of an innovation cluster within the region’s growing knowledge economy. It supports key growth sectors within one of the GM LEPs priority economic assets located in the regional core of the LEP economy. It fully aligns with and supports the ambitions and business plans of a wide range of local partners, and will significantly accelerate the pace of economic activity within this priority area for investment, for the benefit of the LEP economy as a whole.

RECOMMENDATIONS

The GM LEP is requested to approve Enterprise Zone funding of up to £23.4m to facilitate the development of health science and research, as a major driver of key growth sectors in the GM economy.

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1.0 Background

1.1 The North of England plays a key role in the development of the UK’s Life Sciences sector, with 1,000 businesses contributing more than £10.8 billion to the UK economy each year\(^1\). Approximately 97 per cent of these organisations are small and medium-sized enterprises (SMEs), providing a strong supply chain for new investors to the region. The North of England’s Life Sciences sector employs 570,000 people and is forecasted to grow by 44.6 per cent by 2030. It exports over £8.1 billion of medicinal and pharmaceutical products each year and is an important growth sector for the Northern economy in terms of GVA growth\(^2\).

1.2 Alongside these national and pan-regional impacts, Manchester and Greater Manchester have a strong asset base in health and science research upon which the City-region can build to maximise its growth. However, Manchester’s single greatest strength in this capacity is the culture of collaboration which brings agencies and disciplines together in pursuit of shared objectives and goals. The City has a long track record of successful partnerships in most economic spheres, and has for some years had a shared focus on science and technology as key growth sectors for the regional economy.

1.3 The creation of HInM, which is an academic health science system comprising the region’s four universities, NHS and social care bodies, research institutions, the Manchester Academic Health Science Centre (MAHSC), the Academic Health Science Network (AHSN), and industry is dedicated to strengthening this collaboration, while taking health devolution forward. In this context, and on behalf of Manchester partners, HInM has been the lead organisation in developing the thinking around the case for increased diagnostic biomarker capability and capacity in Manchester.

1.3 The proposition in the Part B report on this agenda, will set out how the Council can support HInM and its partners to address key market failures in genomic biomarker translation (from discovery to clinical practice) through the delivery of a programme of diagnostic biomarker translation and industrialisation, and subsequent Biomarker/Diagnostic Platforms Accelerator. The proposition will make a substantive contribution to: improving health outcomes for Manchester residents; developing personalised precision medicine for residents and patients; providing a range of high quality employment opportunities; and addressing the intents of the Industrial Strategy and Life Science.

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\(^1\) UKTI, Northern Powerhouse: Opportunities in Life Science, 2015

\(^2\) ibid
2.0 Market Failure

2.1 The Government’s recent Industrial Strategy for the UK, highlights the strategic national need to develop and grow the UK’s genomics capacity and capability. This sector of the UK economy has huge potential for growth driven by our combination of the NHS, academia and Life Science businesses. However, while there is no shortage of academic activity and a significant body of research to support it, the highly speculative nature of the relevant research involved means that private investors are unwilling to invest in such activity until there is a track record of delivery, since financial return is realised only after substantial costs are incurred. The work to assess this proposition shows that a major reason for this is industry - the practical platforms for delivery are not always engaged early enough in the process, and as a result is unable to influence product definition in the most efficient manner.

2.2 This broad assessment has given rise to the emergence of a new approach which is specifically designed to respond to these market failures. The proposal in response is to provide investment to underpin existing, and develop new capacity for existing business by establishing the essential platform for collaboration between academia and industry.

2.3 The proposal in this report, and attached at Part B of this agenda includes investment which will be dedicated to the translation and industrialisation of diagnostic biomarkers, which addresses global market failure, and which will function at the heart of the Oxford Road Corridor Life Sciences Enterprise Zone, and the knowledge assets of the city’s universities and hospital trust. It will strengthen the existing Corridor Manchester offer and will be extremely valuable in the promotion of the region as a leading global centre for the life science industries. It will also deliver high value employment opportunities in a priority growth sector where average GVA per worker far exceeds national sector averages.

3.0 Employment and Wider benefits

3.1 The proposal will provide an immense boost to the Life Sciences sector in the UK, and increase its global competitive positioning and image. For the North, the decision to locate leading-edge activity in the region will add to the already growing confidence of Northern partners, and give further stimulus to the Northern Powerhouse. It will consolidate the role of the Life Sciences sector in the sub-regional economy, and make a significant contribution to the goals of the Northern Powerhouse. Partners will extend the benefits right across the North, working through established and mature initiatives such as Connected Health Cities and the Northern Health Science Alliance (NHSA).

3.2 The impact of this proposal, and that of the wider innovation cluster which it will facilitate, will be local, national, and international in reach. The wider Corridor Manchester Enterprise Zone which this proposition will be a key part of, could create over the long term around 1,500 highly-skilled jobs, and change the landscape around health innovation on a global scale.
In summary this proposal will deliver:

- A business model of global interest to address the market failures currently hampering the translation and industrialisation of diagnostic biomarkers;

- A major contribution to biomedical research and diagnostic medicine in the UK, and North of England, delivering a fundamental component of the Government’s Life Sciences Industrial Strategy;

- Proposals to underpin existing and develop new capacity for business working in partnership with Manchester’s devolved and integrated Health and Care system, to bring benefits to residents and patients;

- The safeguarding of 215 jobs, and over a 10-year period the creation directly of around 250 new jobs. Added to this, up to a further 1,000 jobs are expected to be created indirectly in Corridor Manchester over the next decade, as a consequence of the direct employment effects that the investment will trigger. This agglomeration of applied innovation activity will help attract and retain the best science talent in Manchester, including new graduates from the universities.

- A GVA impact of about £30m in Year 1 with a total cumulative GVA impact of about £140 million over a ten-year period.

3.4 As part of this initiative, further opportunities will be explored to develop apprenticeship programmes, participation in University training programmes to source in new talent, outreach and school-based learning, and to grow and strengthen the health science sector.

4.0 The Health Ecosystem and Health Outcomes

4.1 Manchester is one of the UK’s top three biopharmaceutical clusters, and the city is home to pioneering health and Life Sciences innovation and research ecosystem. Health devolution gives Greater Manchester the ability and flexibility to direct funding towards investments that are a priority for the Health & Social Care sector across the sub-region, and develop its own strategy. As such, GM is in prime position to enable it to explore new delivery models for providing and personalising health services. HlnM, is driving work to accelerate the joining up of this data, which will also include providing a secure environment for clinicians and innovators to derive insights which will drive new care pathways and innovative treatments for patients, and help to maintain and improve resident health.

4.2 Aligned to the above is the changing landscape around health and health outcomes. The UK population, with others across the industrialised world, is
now ageing markedly. Individuals are living longer, birth rates are at historically low levels, and a large cohort of individuals are now reaching retirement. Coupled with this, Greater Manchester has significant health inequalities in relation to the UK averages and across and between local authorities in Greater Manchester. Life expectancy is below the UK average, due to a higher incidence of disease caused by several risk factors.

4.3 In view of this, Manchester is the chosen location to develop this proposition because of: its internationally-recognised research and clinical assets in Cancer, Inflammatory Diseases, Genomic Medicine, and Biomarker Discovery; the City’s devolved health and care economy; an innovation ecosystem which enables accelerated development and deployment into the Health and Care markets; and opportunities to translate this research and development to significantly improve the health outcomes of its residents.

5.0 Commercial and Contractual Arrangements

5.1 The detailed commercial and contractual arrangements are set out in the Part B report attached to this agenda. It is proposed that Corridor Manchester Life Sciences Enterprise Zone business rates income of up to £23.4m will support this project.

5.2 These arrangements will ensure the investment is aligned to outcomes and milestones, as well as timely delivery. In order to provide effective governance and oversight to these arrangements, there will be a strong Executive Management Group and a strong Board with clear scientific, commercial and financial representation that has transparent accountabilities to funders.

5.3 Quarterly monitoring on the achievement of milestones and the financial position will be undertaken with the requirement for these provisions to be built into the legal agreements. The City Treasurer will ensure the Chief Executive, Leader and Executive Member for Finance are briefed and alerted to any issues.

6.0 Conclusion

6.1 Terms are being agreed to underpin the development of this proposition. The Council are confident that this development is an appropriate intervention in an established and growing market place that forms a key part of the GM Strategic Economic Plan.