Department for the Economy
An Roinn Geilleagair
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Life and Health Sciences
Sectoral Action Plan



JUNE 2024

Minister's Priorities

In February 2024 Minister Conor Murphy set out his vision for the economy with focus on four key objectives - **increasing the number of good jobs**, **promoting regional balance**, **raising productivity** and **reducing carbon emissions**.

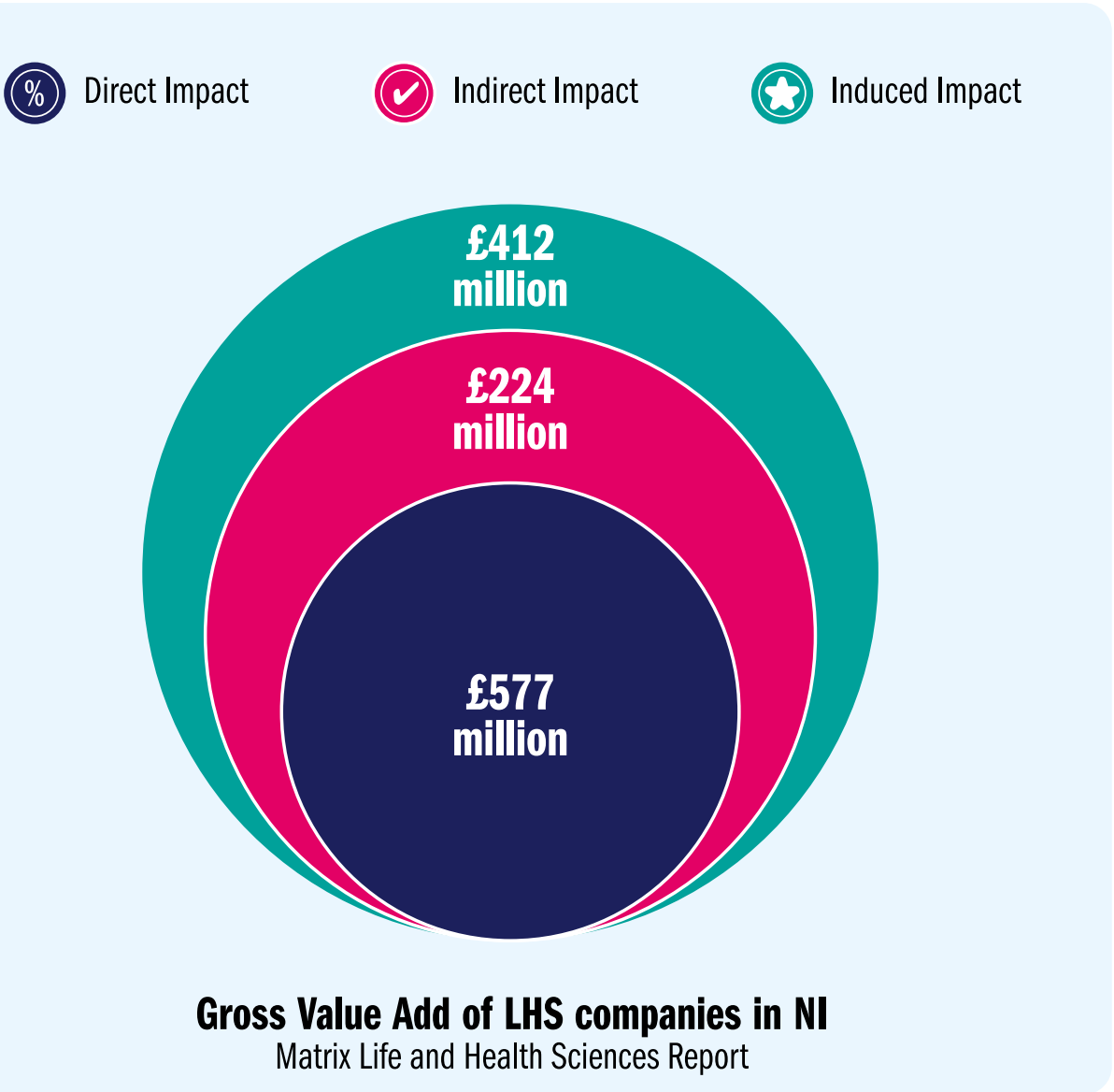
This Life and Health Sciences Sectoral Action Plan has been developed in line with the Minister's priorities and DfE's Departmental Business Plan for 2024/2025. This Action Plan sets out a number of key activities to be taken forward by the Department and its key delivery partners that will help grow the Life and Health Sciences Sector and deliver the Minister's vision for the economy.

This Action Plan will also support and contribute to other Departmental strategies and action plans that are helping to deliver against the Minister's priorities.

Background

As a significant provider of highly productive, good jobs across the region, the Life and Health Sciences sector strongly aligns with the Department's economic vision. Life and Health Sciences is the fastest growing sector in our economy. It accounts for more than 25% of our economic output and generates a Gross Value Add (GVA) of approximately £1.2 billion per annum. We are currently competitively positioned to take advantage of global opportunities and the development of new technologies to drive further growth in the sector.

The following Action Plan sets out a range of activities that the Department and our delivery partners can undertake to further develop growth in the Life and Health Sciences Sector.



Gross Value Add of LHS companies in NI
Matrix Life and Health Sciences Report

Life and Health Sciences Ecosystem

The Life and Health Sciences ecosystem stretches across the private sector, public sector and local universities and further education colleges.

The private sector is a significant employer in the Life and Health Sciences ecosystem and an important driver for the regional economy. It is generally a more innovative, research and development intensive and productive sector than the general economy. There are approximately 250 businesses working in Life and Health Sciences in the region, employing around 19,500 people. There is a healthy culture of indigenous businesses, alongside a small number of multinational companies. Businesses in the sector are predominantly Small and Medium Enterprises, with a number of notable larger indigenous companies. The sector is predominantly export focused, generating close to £1 billion in exports per annum. Its main strengths lie in diagnostics, med-tech and biotech, and precision medicine. Pharmaceuticals and digital health, aligned with clinical trials, are growing areas of strength.

The public sector employs a significant number of people in the Life and Health Sciences ecosystem, with approximately 66,000 people working in local health and social care organisations. The sector is a significant driver of research and new technology, in line with both local strategies such as the *HSC R&D Strategy 2016 – 2025* and UK-wide strategies such as the *UK Life Sciences Vision* and the *UK Science & Technology Framework*. The sector's integrated health and social care system, recent digitisation of patient records and existing research and development strategies offer significant opportunities for the future development of Life and Health Sciences.

The university sector is integral to the Life and Health Sciences ecosystem in the region. Queen's University Belfast and Ulster University are international leaders in Life and Health Sciences research, producing highly qualified graduates and developing innovative spinouts. Both universities have the combined research impact of the University of Oxford. Both are individually ranked in the UK top 10 for life science related activity. Furthermore, QUB is also the UK's most entrepreneurial university, with 75% of its spinouts in life sciences. Areas of speciality include cancer research, cardiovascular disease, public health, psychology and translational medicine. A broad range of centres of excellence and strategic alliances have been also established, each of which contributes towards the region's strengths. Local further education colleges also produce highly skilled graduates with the necessary skills to develop the sector. As such there are multiple pathways for young people wishing to move from statutory education into work, study or apprenticeships/ traineeships within Life and Health Sciences.

Investment and Opportunities in the Life and Health Sciences Ecosystem

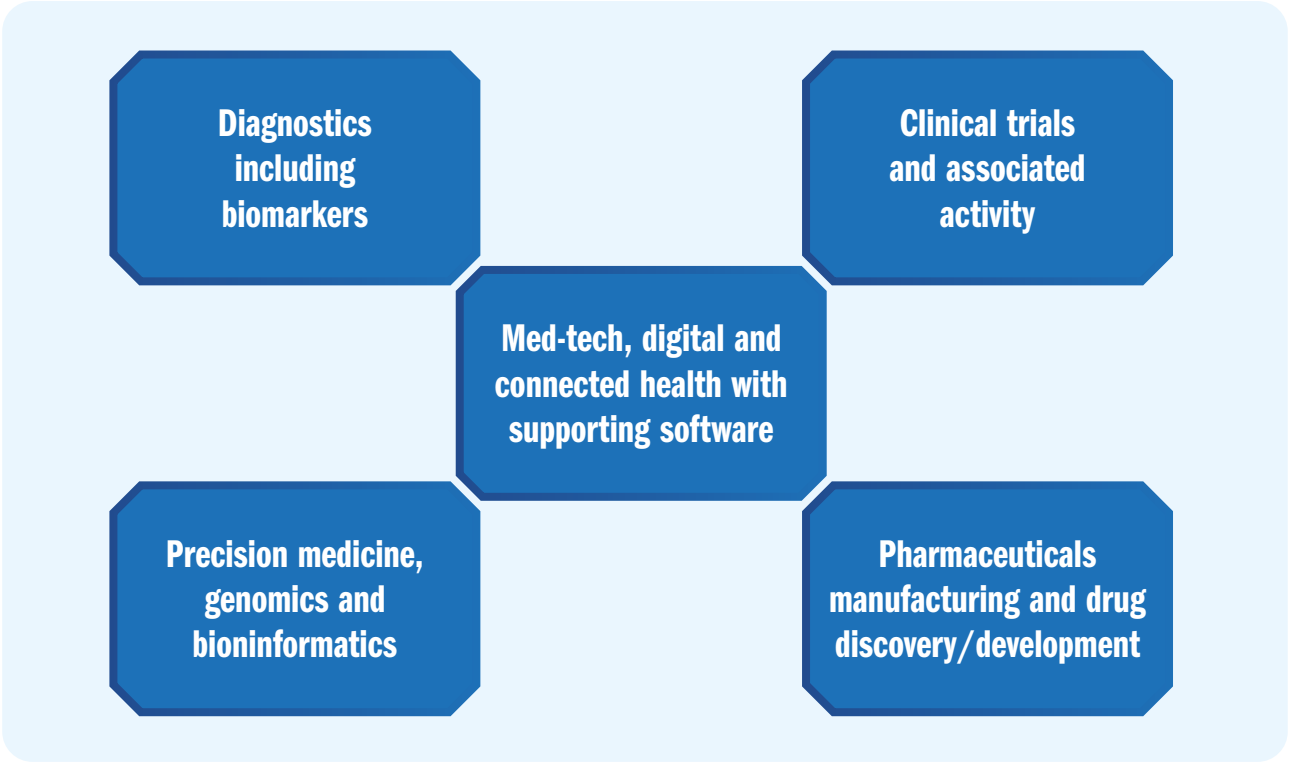
Significant resources have been allocated to develop the Life and Health Sciences sector in the short to medium term. The Northern Ireland Executive and the UK Government have committed £1.2bn in capital funding over the next 15 years through City & Growth Deals. Approximately 25% of this City & Growth Deal funding is allocated for the development of the Life and Health Sciences Sector throughout the region. This funding will see the development of Life and Health Science Centres of Excellence across the region, such as the Institute for Research Excellence in Advanced Clinical Health Care (iREACH), Momentum One Zero, the Centre for Food & Drug Discovery and the Cognitive Analytics & Digital Robotics Innovation Centre (CADRIC) among others.

Further to this investment, there are a wealth of opportunities to build upon our existing strengths and further develop the Life and Health Sciences ecosystem to provide high quality, high productivity jobs throughout the region. The sector's unique access to both GB and EU markets has the potential to drive exports and attract foreign direct investment. Additionally, there are further opportunities to increase alignment with and funding from Irish, UK and EU Life and Health Science schemes and innovation supports. The region's integrated health and social care system, recent introduction of digitised patient records and relatively small population size offer significant potential in the clinical trials space. The development of enabling technologies such as Artificial Intelligence, Big Data and Genomics have the potential to revolutionise the sector, and in particular the region's existing strengths in diagnostics, pharmaceuticals and precision medicine.

Departmental Action Plan for the Life and Health Sciences sector

Following extensive research and stakeholder engagement, including a public consultation on the wider approach to technologies and clusters, the Department has developed the following Action Plan to develop the Life and Health Sciences sector in the next three years.

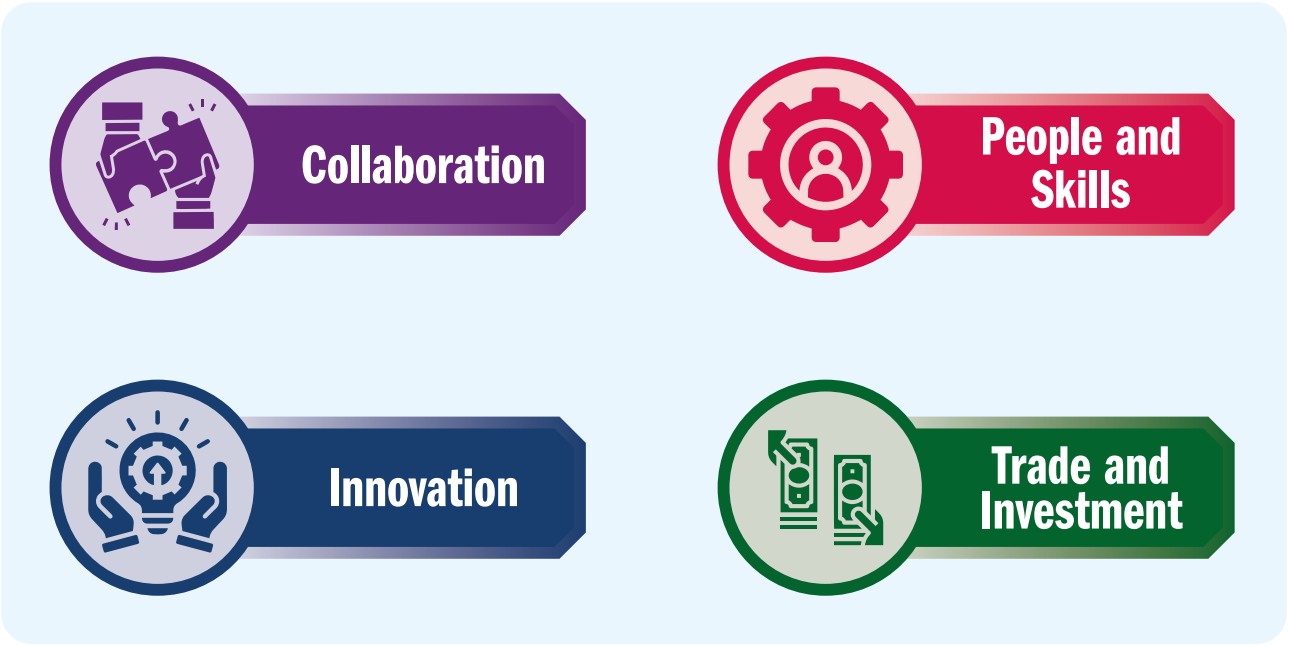
The public consultation held in late 2023 on the Approach to Technologies and Clusters identified five technologies and USP's within the Life and Health Science sector:



Although the consultation shortlisted these five technologies and USP's for the sector, it is important to note that this is not a definitive list. This Action Plan will look to support these in addition to other technologies and USP's across the sector.

As well as the work undertaken within the Department, a range of other external research was used in the development of this Action Plan. The recent Matrix Life and Health Sciences Report: Foresight study to assess how the City and Growth Deals can provide opportunities for Northern Ireland's Life and Health Sciences Sector, launched on 30th April 2024, made recommendations that the Department will be taking forward within this Action Plan.

This Action Plan sets out a range of activities that aim to support the growth of the sector to provide high quality, high productivity jobs across the region. These can be classified under the following four broad themes:



Delivery Partners

As well as a range of teams across the Department for the Economy we have determined other key delivery partners who will support the Department in delivering these actions. While this Action Plan sets out a range of delivery partners, further stakeholders may be identified to support the delivery of actions through the Department's engagement. Consequently, our delivery partners may be amended as required.

We would like to acknowledge all those who we have engaged with throughout the development of the LHS Action Plan. Your input, feedback and support have been invaluable and we thank you for your contributions.

What's Next?

The Department and its delivery partners will take forward these actions over the next three years. As a rapidly changing sector, this will include continued horizon scanning of the Life and Health Sciences sector and reviewing and updating the Action Plan on an ongoing basis. This may include adding new actions or removing actions in response to the needs of the sector. Updated versions of this Action Plan may be published as required over the next three years.

A key Ministerial priority is the need for a more regionally balanced economy. To deliver this, the Department will publish a Sub-Regional Economic Action Plan in Autumn 2024 that will set out interventions to address strategic priorities for each region complementing existing Council-led plans. Value propositions will be co-designed with Councils, the private sector, local enterprise agencies, community partners and Invest NI. Within the Action Plan, actions and targets will be included for key sectors at sub-regional level.

Theme 1: Collaboration

Objective: To tackle fragmentation within the LHS sector and enhance strategic alignment and points of influence to maximise NI's LHS capabilities and create a higher productivity sector.

Action No.	Delivery against Minister priorities	Detail	Delivery partners	Timescale
1	• High Productivity • Good Jobs • Regional Balance	**Future Medicines Institute** - We will assist in the initial development of the FMI and ensure that appropriate governance structures and management of funding are in place including identifying and developing and sustaining the skilled workforce to successfully deliver FMI.	DfE, DoH InvestNI, Academia, UKG, UK Research and Innovation (UKRI) City & Growth Deals	Action commenced
2	• High Productivity • Regional Balance	**NI Life and Health Science Advisory Panel** - We will provide support to help convene a multi-disciplinary advisory panel as per the recommendations in the recently published Matrix Life and Health Sciences Report: Foresight study to assess how the City and Growth Deals can provide opportunities for Northern Ireland's Life and Health Sciences Sector.	DfE, DoH, InvestNI, HIRANI, HSCNI, Academia, Industry, City & Growth Deals	Commencing 2024
3	• High productivity • Good jobs • Regional balance	**Clustering support** - We will work with key delivery partners to consider the benefit of a dedicated cluster policy in driving forward growth in the LHS sector, harnessing the opportunities flowing from the City & Growth Deal LHS innovation centres across NI. The leadership and business skills gleaned from this can be incorporated into entrepreneurial support across other economic sectors.	DfE, DoH, InvestNI, HIRANI, InterTradeIreland, Catalyst	Commencing 2024

Theme 1: Collaboration (continued)

Action No.	Delivery against Minister priorities	Detail	Delivery partners	Timescale
4	• High productivity • Good jobs	**UK Government support** - We will seek to deepen collaboration with relevant UK Government partners, and other Devolved Administrations, engaged in life and health science technology related activity.	DfE, UK Government, Devolved Administrations	Action commenced
5	• High productivity • Good jobs	**Irish Government engagement** - We will work to map touch points and deepen collaboration with the Irish Government, ensuring relevant representation of NI's LHS sector in the design, delivery and draw down of various cross-border initiatives and funds where these align with the needs and capabilities of the sector.	DfE, Irish Government, InterTradeIreland, Invest NI	Action commenced
6	• High productivity • Good jobs	**EU influence and access** - We will seek to establish more targeted engagement with European partners to improve awareness of, and access to, NI's LHS sector.	DfE, Office of the Northern Ireland Executive in Brussels (ONIEB), UK Mission to the EU (UKMis Brussels)	Action commenced
7	• High productivity • Good jobs	**Economy-Health collaboration** - We will build on the recently established working groups (DfE-DoH Innovation Working Group and Medical Devices Regulatory Working Group) to improve official-level collaboration between the two Departments and our delivery partners.	DfE, DoH, HSCNI, InvestNI (as DfE/DOH Innovation Working Group)	Action commenced

Theme 2: People and Skills

Objective: To ensure a future facing and inclusive skills pipeline to nurture talented people with the right skills to support the Life and Health Science sector at all levels, helping to create a higher number of good jobs and raising productivity across the sector.

Action No.	Delivery against Minister priorities	Detail	Delivery partners	Timescale
8	• High productivity • Good jobs	**Improving pathways and career awareness in the LHS sector** - We will work across government, industry and academia to develop pathways which support access to the LHS sector and upskilling of the existing workforce in line with emerging skills need. This will emphasise education at all levels with a view to boosting productivity across the sector, enhancing the quality of work and progression opportunities for individuals across NI.	DfE, Academia, Industry, City & Growth Deals	Commencing 2024
9	• High productivity • Good jobs • Regional Balance	**Identifying future skills pipeline aligned to LHS needs** - We will build on the recently published Matrix report - (Future Skills: Scenarios for the Northern Ireland Economy) through working with key delivery partners to identify the future skills needs of NI's LHS sector and how these can be targeted via various skills programmes including those projects with the City & Growth Deals.	DfE, Academia, Industry, City & Growth Deals	Commencing 2024
10	• High productivity • Good jobs	**Transferrable skills - i.e. data analytics, AI and wraparound business and entrepreneurship skills for LHS students** - We will explore how best to ensure Universities, FE colleges and other key delivery partners can best partner with industry to ensure LHS students have access to a range of 'wraparound' and transferrable skills. This includes areas in real demand in NI LHS including business & project management, data analytics, AI, behavioural science, regulatory science, quality management, ethics, innovation and entrepreneurship skills.	DfE, Academia, Industry, City & Growth Deals	Commencing 2025

Theme 2: People and Skills (continued)

Action No.	Delivery against Minister priorities	Detail	Delivery partners	Timescale
11	• High productivity • Good jobs	**LHS talent retention and harnessing international diaspora to mentor and connect NI startups to international markets** - We will continue to support key delivery partners in their ongoing work to encourage longer term LHS talent retention in NI, attract talent back to NI with skills and experience in the sector, and harness diaspora "in-market" to mentor NI businesses, establish connections and drive collaboration i.e. through encouraging NI-international partnership, investment and market access support.	DfE, InvestNI	Action commenced
12	• High productivity • Good jobs	**Tackling barriers to inclusion** - We will identify how best to ensure LHS skills provision and employment are realistically aligned, so that staff are employed at the correct skill level for their role and, working to consider the inclusiveness of LHS careers to ensure that any access barriers to people with disabilities, women (including via WI-STEM) or people from deprived socioeconomic backgrounds are tackled.	DfE, Industry, Academia	Commencing 2025

Theme 3: Innovation

Objective: To support R&D, entrepreneurs, start-ups and scale ups by better integrating and aligning innovation support while promoting net zero and the ambition for lower carbon emissions across the sector.

Action No.	Delivery against Minister priorities	Detail	Delivery partners	Timescale
13	• High productivity • Good jobs	**Improved use of health data and alignment with City & Growth Deal investments** - We will explore how DfE can work with DoH to support enhanced secondary use of health data building on the NI Trusted Research Environment and Honest Broker Service.	DfE, DoH, HSCNI, InvestNI (as DfE/DOH Innovation Working Group)	Action commenced
14	• High productivity • Good jobs • Promoting regional balance	**LHS innovation infrastructure** - We will explore whether the Department can support investment in, and alignment across, LHS innovation infrastructure position to improve NI's proposition as a testbed site.	DfE, DoH, HSCNI, InvestNI (as DfE/DOH Innovation Working Group), City and Growth Deals	Commencing 2025
15	• High productivity • Good jobs • Promoting regional balance	**Building entrepreneurship in Health and Social Care system** - We will investigate the feasibility of creating an early-stage NI entrepreneurship/innovation programme for the HSC, similar to but at earlier stage to the Clinical Entrepreneurship Programme, to encourage innovation, entrepreneurship and adoption in the Health and Social Care system.	DfE, DoH, HSCNI, InvestNI (as DfE/DOH Innovation Working Group)	Commencing 2025
16	• High productivity • Good jobs • Reduce carbon emissions	**LHS sector alignment with decarbonisation** - We will work with key delivery partners to ensure financial support is conditionalized to meet the Department's objective of reduced carbon emissions.	DfE, InvestNI	Commencing 2024

Theme 4: Trade and investment

Objective: To support indigenous businesses to grow through access to finance, export support and to, in a targeted manner, improve NI's investment potential for LHS while promoting regional balance and increased productivity by ensuring all areas of the country have the support needed to grow.

Action No.	Delivery against Minister priorities	Detail	Delivery partners	Timescale
17	• High productivity • Good jobs	**Regulatory support for dual market access** - We will seek to build on the established DfE/DoH Medical Devices Regulatory Working Group (MDRWG) to gather and articulate live regulatory issues and opportunities for the med-tech sector under NI's unique trading arrangements and dual market access position.	DfE, DoH, HSCNI, HIRANI, InvestNI (as Medical Devices Regulatory Working Group)	Action commenced
18	• High productivity • Good jobs	**Identifying and maximising the opportunities of dual market access** - We will look what opportunities dual market access will bring to NI's LHS sector and how home-grown businesses can avail of these opportunities to grow through exports and how these opportunities can be used to attract international companies to set up in NI.	DfE, InvestNI	Commencing 2024
19	• High Productivity • Good jobs • Regional Balance	**Develop local businesses and attract foreign direct investment** - We will explore the opportunities provided by current developments in the sector such as the Future Medicines Institute and City & Growth Deal investments to grow local businesses and attract foreign and direct investment.	DfE, DoH, InvestNI, City & Growth Deals, Universities	Commencing 2024