



The Scottish Life Sciences COVID-19 Strategic Response Plan

The Life Sciences Scotland Industry Leadership Group
November 2020

Ambition for Growth

The 2017 Life Sciences strategy set out the ambition to grow the Life Sciences sector in Scotland by 6% year on year, delivering a £8bn sector by 2025. Four key themes were identified to deliver this strategy: Innovation Commercialisation, Sustainable Production, Internationalisation and Improve the Business Environment, coupled with improved connectivity and stakeholder engagement.

In response to the COVID-19 pandemic, the Life Sciences Scotland ILG has taken the decision to develop a Strategic Response Plan to outline the key recovery actions for the sector. The unique strengths of the Scottish life sciences sector have been fully mobilised to tackle COVID-19 and, by providing clear focus on a number of priority activities, there is a significant growth opportunity for the sector.

Industry Priorities

This strategic response plan will deliver significant benefits to patients and will help the Scottish economy recover post COVID-19.

There are two clear, complimentary priorities on which the ILG is focussed:

- To ensure that patients and consumers in Scotland have access to both existing and new, innovative treatments, products and services
- That we continue to work together to grow the Life Sciences sector to ensure we reach or exceed our growth target of £8bn by 2025.

Overarching Industry Themes

Digital and Data - The ILG will work with colleagues from the enterprise agencies, Scottish Government economics and health departments, NHS Scotland and innovation centres to prioritise the digital health and science connectivity opportunities for Scotland

Skills - Scotland has a strong track record for producing talent and it is important that the current Life and Chemical Sciences Skills Investment Plan [SIP] is upgraded to respond to the COVID-19 crisis and scientific response

Infrastructure - The ILG will partner with the Scottish Government and the enterprise agencies to establish a COVID-19 infrastructure response plan that builds the right landscape to allow the Life Science sector to continue to grow at 6% year on year.

Sector Themes

We have identified a number of response themes which are specific to the following sectors:

- Pharmaceutical Supply Chain
- Health Technologies
- Animal, Agriculture Technology and Aquaculture (AAA)

These are summarised on the following pages and will be led by the ILG sector-focussed sub-groups. We will do this in partnership; industry with government, the NHS and the Scottish people and we invite you to join us.



Pharmaceutical Supply Chain

Pharmaceutical Supply Chain

The innovative Pharmaceutical industry in Scotland is made up of small, medium and large sized companies, which serve the drug discovery supply chain and provide medicines and other services to patients across the country. In order to respond to the Coronavirus pandemic, the pharmaceutical industry believes that there are three broad themes to consider in order to improve patient outcomes, drive economic growth and provide value for the NHS:

1. The improved use of Healthcare Data
2. Collaboration between Industry, NHS and Government
3. A Vaccines and Advanced Therapies Strategy

Healthcare Data

The improved use of healthcare data to drive efficiencies, deliver better patient outcomes and attract pharmaceutical R+D investment to Scotland. We recommend that;

- The NHS evaluate changes introduced during the pandemic, including the increased use of virtual consultations, homecare and remote monitoring, with a view to “locking-in” those deemed successful
- The five recommendations from the Data Scoping Taskforce Review are implemented in full
- We explore how we can use large accessible datasets to attract clinical research and deliver faster and more effective clinical insights. For example, this could include combining clinical research with real world evidence.

Collaboration

The need to enshrine the collaboration between industry, NHS and Government so well demonstrated during the response to COVID-19 as a cornerstone of future working. We recommend that;

- The NHS and industry must continue to work together to ensure patients receive the right treatment at the right time, including the use of innovative medicine to reduce the burden on individual clinicians
- We work together to ensure non COVID clinical research can restart with clear processes in place to mitigate any future pandemic
- Scotland needs to be positioned as a priority market for the launch of innovation, with broader measures of value needed to reflect the changing nature of medicine

Collaboration

- Flexible commercial arrangements are supported to accelerate the deployment of new and existing treatments to ensure Scottish patients can benefit from the latest technology
- Scotland maintains its position as an attractive launch market and manufacturing base for new medicines thanks to a future-proofed Health Technology Assessment (HTA) system
- A sustained prevention strategy for conditions such as diabetes and heart disease is pursued given the impact of comorbidities on patient outcomes during the pandemic

Vaccines and Advanced Therapies

A Vaccines and Advanced Therapies Strategy will bring specific advantages to Scotland and the timing is imperative to capture the present opportunity. We recommend that:

- Scotland grows its capability in developing a pipeline of new ATMP/vaccine therapeutics, expanding its specialist manufacturing capacity and its supporting supply chain to the extent where a strong industry and academic cluster is making a significant impact on the UK and international ATMP & vaccine markets.
- A coordinated and agile ATMP/vaccine community in Scotland will be able to compete better for significant funding opportunities, attract increased inward investment and, as recent events have demanded, respond to national and international medical need by leading or supporting the rapid development of innovative therapies.

Vaccines and Advanced Therapies

- In order to capitalise on these opportunities, NHS Scotland must engage with companies as early as possible to ensure rapid access and uptake. A mechanism to discuss the complexities of these therapies, their delivery in clinic and their approval through the Scottish Medicines Consortium (SMC) must exist. The current experience with CAR-T provides a good platform from which to build.
- Expanding on existing assets and expertise to create a high-value ATMP/vaccine manufacturing cluster in Scotland is strategically well-aligned with Scottish Government's emerging "Making Scotland's Future" strategy.



Health Technology

Health Technologies

Scotland is home to a large and vibrant Medical Technologies industry encompassing more than 250 companies and with over 9,000 people employed within the sector. MedTech has enjoyed a growth rate of 8% per annum over the last decade – clear evidence of the ambition of this thriving and connected community. Success stems from a globally recognised research community, an outstanding reputation for innovation, a collaborative clinical base and a highly skilled and flexible workforce.

The three key themes to consider when looking to the recovery post- COVID-19 are:

- Data Enhancement
- Streamlining the Innovation Landscape
- Internationalisation Growth

Data Enhancement

We recommend:

- A national, integrated approach to data, bringing together NHS data as well as data generated by wearable and implanted devices or apps, health data held by private companies including HealthTech companies and environmental data. For this, policymakers need to formulate a view on how to construct a mixed ecosystem of consumer, public and private actors
- A focus on the use of high quality, well curated, real-world data utilising existing structures to create a trusted governance environment that streamlines access while maintaining citizen control over sharing of their data;

Data Enhancement


- Implementation support for data led projects, including a standard process for contracting with private sector for use of health data, provision of data analytics support and appropriate incentives (through adaptation of reimbursement / funding mechanisms) for novel care pathways enabled by digital health technologies; and
- Appropriate incentives (through adaptation of reimbursement / funding mechanisms) for novel care pathways enabled by digital health technologies

Innovation Landscape

We recommend that the innovation landscape in Scotland is streamlined and that stronger mechanisms for measuring adoption of technologies are created

Internationalisation

We recommend a focus on internationalisation growth through working with industry to promote Scotland internationally by continuing to support Scotland's inward investment plan, showcasing Scottish excellence globally, and to build a growing export base within the vibrant community of small and medium sized enterprises (SMEs), through the work and development of an industry lead Export Plan for the sector.



Animal, Agriculture Technology and Aquaculture (AAA)

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The AAA sectors represent three out of the seven life sciences sub sectors. AAA has the ideal opportunity to be at the heart of the green and circular economies for growth and recovery in Scotland, making better use and impact of land, whilst being front and centre in the 'forensics of food' and leading in the discoveries of vaccines and therapeutics.

Two key themes to consider when looking to the recovery roadmap post COVID-19 are:

- The Future of Food
- One Health

Future of Food

On the Future of Food we recommend that businesses should be looking at how innovation can help through:

- Increasing robotics and automation solutions in order to overcome labour challenges.
- Increasing production systems which allow for greater domestic production of some foods which are often imported e.g. vegetables via vertical growing systems.
- Scotland's first Venture Studio for AAA, FAST. Three new Opportunity Areas including Regenerative Aquaculture, Pollinator Reinforcement and Controlled Environment Agriculture have been established to attract talent to Scotland and to support scale-up activity.
- The logistics of food supply chains and how they can be improved and de-risked to deliver fairer shared value across the whole food chain.

One Health

On One Health we recommend that industry should be focused on technology in the context of One Health with:

- A big focus on skills, training and deployment of digital/data. e.g. aquaculture is 'bloated' with data
- The development of IoT and AI technologies development aimed particularly at the biological data around agri-tech, disease and life science biology.
- Increased R&D given 60% of existing human diseases are zoonotic, including not least COVID-19, making Scotland an even better placed to respond to the next pandemic.



Next Steps

Next Steps

The ILG will now focus on leading and coordinating the key resources required to implement these recommendations. We will do this through working with all government agencies to align support and by ensuring the appropriate collaborations between industry, NHS and academia to realise the continued growth of the Life Sciences sector.

Never has there been a more important time to work together as an industry to help Scotland's people, NHS and economy.

We invite you to join us.

Find out more at lifesciencesscotland.com

Join us...

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