

## Scotland's Regional Action Plan

<b>Project:</b>	ACSELL
<b>Partner organisation:</b>	Scottish Government
<b>Country:</b>	Scotland, UK
<b>NUTS2 region:</b>	United Kingdom
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- The Action Plan aims to impact:
- Investment for Growth and Jobs programme
  - European Territorial Cooperation programme
  - Other regional development policy instrument

### Policy instrument to be addressed

Scotland's original policy instrument included in the ACSELL funding application was the Scottish Government's Operational Programme (2014-2020), focusing on Thematic Objective 01 – strengthening research, technological development and innovation.

In this framework, the priorities for investment and specific objectives were:

- to promote business investment in R&I by developing links and synergies between enterprises, research and development centres and the higher education sector, in particular the development of products and services, technology transfer, social innovation, public service applications to support demand-driven innovation, networks, clusters and open innovation;
- to support technological and applied research, pilot activities, early product validation and advanced manufacturing capabilities, particularly in key enabling technologies;
- to increase business innovation activities.

The priority was to strengthen the capabilities and capacities of citizens, services and businesses in using digital solutions for health and wellbeing, learning, culture and service delivery.

Improvements of the policy aimed to have more businesses investing in innovation to maintain and increase their global competitiveness. It also aimed to improve the interaction of key parts of the innovation ecosystem – public authorities, SMEs, researchers, ICT networks – facilitated through

living labs will seek to improve investment in products, service development and enabling technologies.

### **Scotland's new policy instrument**

As a result of the UK's departure from the EU in 2020, the policy instrument was no longer valid as the UK was no longer able to access ERDF policy. In identifying a new policy instrument, it was decided that Scotland's Digital Strategy was the policy instrument that was most closely aligned to the ACSELL project's focus on demand driven innovation through a living lab approach in digital health and care.

### **Digital Strategy Scotland (2021): A changing nation: how Scotland will thrive in a digital world<sup>1</sup>**

The Strategy commits to creating the conditions which encourage continuous innovation and improvement in Scotland's public services. One of the Strategy's priority actions under its Priority Themes: A Strong Digital Economy and Public Services Working for Us All. The specific actions relevant for ACSELL are:

1. work with bodies in the tech sector to attract national and international investment in testing, developing and commercialising new products, processes and services;
2. work with the tech sector to create a programme of data-driven innovation;
3. ensure equal opportunities for all in the tech sector and work to increase diversity in the workforce
4. embed the Scottish Approach to Service Design across the public sector and design services around the needs of the user.

These actions are well aligned with the original policy instrument and with the objectives of the ACSELL project.

### **Scotland's Vision for Innovation**

Elaborating on the innovation context of the new policy instrument, the Scottish Government's vision is for Scotland to be a place where innovation is an intrinsic part of our culture, our society and our economy. Where businesses across the country are ambitious and open to collaborations and partnerships with one another, with colleges and universities and with other organisations within and beyond Scotland; are open to new ways of working and improving their work practices; and have high levels of innovation and growth as a result. Innovation is a driver of productivity and growth. It encompasses the development and application of new processes, products, services, workforce configurations and business models. More innovative economies can respond better to changing economic circumstances and compete in international markets. We are therefore committed to spreading innovation more widely across the business base in all places and sectors, to building on recent improvements in our innovation performance, such as the increase in the percentage of innovation-active businesses in Scotland, and to reducing the gap in Gross Expenditure on Research and Development (GERD) between Scotland and the EU, with a specific focus on improving our Business Enterprise Research and Development (BERD) performance year on year. Scotland has one of the largest life science clusters in Europe with over 200 medical technologies companies, 150 pharma services companies<sup>1</sup> and 750 organisations overall employing 40,000 people.<sup>2</sup>

<sup>1</sup> <https://www.gov.scot/publications/a-changing-nation-how-scotland-will-thrive-in-a-digital-world/>

<sup>2</sup> Scottish Government (2021) Growth sector statistics database

Health innovation is primed to play an important role in our future economy. At the same time as the health innovation life science cluster is developing, there are also other clusters emerging: across life sciences more broadly, in the digital economy, and in the technology and infrastructure needed to decarbonise. Scotland has a small but highly diverse economy with world-leading innovation and a skilled workforce. Mature clusters across a range of technologies, and cutting across sectors, allow for cross-fertilisation of ideas. And a system-wide lens allows us to present to capital markets a series of investment propositions with aligned infrastructure, business growth and real estate opportunities, representing the best of Scottish innovation across sectors, supply chains and technologies. Health innovation supply chains pivoted at pace to tackle the Covid-19 pandemic.

Work is already underway to build on the success of the new PPE supply chain created in Scotland in response to unprecedented demands from Covid-19, and to continue to develop Scottish supply chains through improved capacity and capability. It's not only our economy that stands to benefit. Much of the innovation in this sector directly responds to our population's health and care needs, enabling adoption to improve outcomes. This means better disease prevention, greater personalisation of service delivery, enhanced productivity, and a more resilient and higher skilled workforce. Health innovation life sciences could also play a crucial role in responding to demographic challenges with an ageing population living with increasing co-morbidities. Innovation in diagnostics, therapeutics and integrated healthcare approaches in particular will be pivotal to help manage future demand for health and social care services.

### **Scotland's Innovation Ecosystem**

With regard to the innovation ecosystem within which the policy instrument applies, the Scottish Technology Ecosystem Review (STER) (2020) identified 34 wide-ranging recommendations for developing a world-class tech ecosystem in Scotland. The recommendations cover three core themes: people, infrastructure, and investment. The Scottish Government accepted all of the recommendations and actions to deliver are underway. The scope of STER includes healthtech, and the sector stands to benefit from the system-wide approach of the Review.

Some of the recommendations, while focused on the tech ecosystem, have wider relevance within our economy. For example, the review's focus on supporting companies to scale will help to develop the enabling conditions for a range of health innovation businesses to flourish in Scotland. However, the nature of health innovation life sciences and health tech, including longer pre-revenue stages and higher earlier stage capital-raising requirements, means that investment (and particularly availability of patient capital) should be considered based on the bespoke needs of health innovation companies. The same is true for public sector support. For potentially disruptive new technologies being developed (and especially those that have the potential to address health and care priorities), support at pre-revenue stage may warrant special consideration to the support offered to other parts of the economy.

### **Setting priorities for improving Scotland's Policy Instrument**

Scotland's Regional Stakeholder Group played a key role in specifying the improvements to be made in Scotland's policy instrument. The Regional Stakeholder Group members were specially selected to ensure a cross-representation of sectors in the quadruple helix – see table below.

## Scotland's Regional Stakeholder Group

Representative stakeholder groups	Representative organisations
<b>Government</b> - Managing authority of OP ERDF / Design and implementation of policy instrument.	TEC and Digital Healthcare Innovation Division, Scottish Government Chief Scientist Office, Directorate for Chief Medical Officer
<b>Innovation Centres</b> - Capacity and expertise in digital technologies and embedding innovations.	Digital Health and Care Institute The Data Lab
<b>Expertise in new ways of working</b> with academia, industry and health, care and social partners.	Edinburgh Living Lab The Alliance
<b>Public sector</b> - Capacity and expertise in provision of technology enabled services. Expertise in building partnerships to improve service quality and efficiency.	NHS NSS Scottish Health Technology Group, Health Improvement Scotland
<b>SMEs</b> working in digital health sector - Scottish SMEs that have already developed digital health solutions (products and services) for health and social care which address the AAL topic of the policy instrument.	Scottish Development International StormID (SME) Mydex (SME)

To assess the maturity of demand driven innovation in Scotland's healthcare ecosystem, the members of Scotland's Regional Stakeholder Group all completed the OSAT self-assessment tool in the context of the ACSELL project in 2019. The self-assessment and consensus building process identified 3 key areas that RSG wanted to focus on during the twinning activities – namely, these were:

- Readiness to Change (leadership and co-ordination of innovation in health and care);
- Finance & Funding (for large-scale deployment of innovations); and
- Removal of Inhibitors (funding; organisational & cultural barriers).

The identification of these areas for improvement guided the focus of twinning activities and selection of Good Practices (GPs) that were most of potential value to Scotland when developing and informing its Regional Action Plan.

### Lessons learned from ACSELL twinning and GPs

Throughout the Phase 1 twinning activities, and sharing of Good Practices, Scotland's Regional Stakeholders were inspired by ACSELL's partners' contributions which all provided inspiration for further learning and knowledge exchange in response to our three areas for improvement. These Good Practices will continue to be helpful in informing and supporting Scotland's health and care innovation agenda going forward.

In prioritising our interests, for the purposes of developing our Regional Action Plan, Scotland's RSG members found the ACSELL partners' living lab models to be particularly relevant, given the proposed new Living Lab developments in the Moray area of Scotland as part of the Moray Growth Deal (MGD).

In particular, the model used by ACSELL's advisory partner from Flanders, Belgium – **LiCalab** – stood out as a potential model and approach that could be used to inform the development of the MGD Living Labs.

LiCalab supports companies and other organisations in the health, care and social care sector by involving end-users in the innovation process from the idea phase to market launch, using methodology focused on user experience and user-centred service design. Their emphasis is on: care technology, including prevention and health care, active and healthy aging, rehabilitation and mental health, new models of cooperation in care and between care and business, and international cooperation. LiCalab offers independent and easily accessible access to the healthcare innovation ecosystem and has its own user platform involving patients, citizens, businesses and healthcare professionals. The activities they support are mainly user research and market research: (international) market analysis, end-user surveys, testing with end-users in their living or working environment, and business modelling.

### **Moray Growth Deal**

Linked to the delivery of the 4 key actions of our policy instrument, a Digital Strategy for Scotland:

1. work with bodies in the tech sector to attract national and international investment in testing, developing and commercialising new products, processes and services;
2. work with the tech sector to create a programme of data-driven innovation;
3. ensure equal opportunities for all in the tech sector and work to increase diversity in the workforce
4. embed the Scottish Approach to Service Design across the public sector and design services around the needs of the user.

Scotland's National Digital Health & Care Innovation Centre (DHI) will deliver a new Rural Centre of Excellence for Digital Health and Care Innovation as the first project to commence as part of what is known as the Moray Growth Deal (MGD, with £5 million capital investment from the UK and Scottish Governments).

DHI has worked closely with the Moray community and partners since 2018 to identify and refine the key challenges and opportunities digital health and care innovation could bring to the local region and takes into consideration experiences over the last 18 months in response to the COVID-19 pandemic.

The funding programme aims to support the remobilisation of health and care services and the economic recovery of the Moray region, by investing in research and innovation activities aligned to the digital health and care agenda.

The programme will include the creation of a state-of-the-art, anchored, demonstration and simulation environment (DSE) and an enabling cloud infrastructure along with a spread of five co-designed Living Lab testbeds across the Moray region.

The Living Labs will focus on remobilisation and recovery of care services from COVID-19. The Living Labs will be open to all and focus on co-managed wellness, home first, mental health, smart housing and communities, and unscheduled care, reflecting the priorities identified through stakeholder engagement.

All research and development projects will be co-designed with person-centred needs at the heart of programmed activity and will deliver real-world evidence that will enable the innovations to be embedded in local services and potentially scaled to other parts of Scotland, the rest of the UK and globally.

The digital health investment will help support Moray to create a dynamic and creative digital health and care cluster enhancing recovery from the COVID-19 pandemic and secure the provision of sustainable public services whilst creating inclusive growth through the creation of new jobs, develop future skills and equitable access, and also contribute to the Net Zero ambitions of the UK.

The multi-million pound investment for the Moray Growth Deal – a contribution of £32.5 million each from the UK and Scottish Governments – is set to be bolstered with further funding from regional partners, contributing to Moray’s economic growth.

The MGD funded Rural Centre of Excellence for Digital Health and Care Innovation intends to develop and host a state-of-the-art Demonstration Simulation Environment (DSE) - a physical immersive facility, leading to a range of demand-led ‘Living Labs’ with participation from the Moray community across the region. The cutting-edge participatory techniques used by DHI to drive innovation ensure that citizen needs are considered within the innovation development process and, importantly, lead to co-designed solutions.

The new Living Labs offer a valuable opportunity for transfer of good practice from ACSELL partners to Scotland as a key action within Scotland’s Regional Action Plan (Action 1 below) – specifically, the transfer of LiCalab’s approach to citizen recruitment. This can be classed as a Type 1 policy action (implementation of new projects) as the Living Labs are funded by the Scottish Government, owner of the Digital Strategy for Scotland.

The knowledge Scotland gained from the exchange of experience and knowledge during Phase 1 of the ACSELL project is regarded as invaluable and we would like to see this exchange being facilitated during Phase 2 and, indeed, beyond the lifespan of the project. Our plan includes one joint action (Action 2 below) that propose activities that will develop a network of living labs that will facilitate ongoing collaboration between Scotland’s MGD Living Labs and ACSELL partners’ Living Labs in a sustainable way. This Type 2 action will lead to a change in the management of our policy instrument because it will inform how we can improve the way that we work with bodies in the tech sector to attract national and international investment in testing, developing and commercialising new products, processes and services.

### Part III – Details of the actions envisaged

Action Description / Link to Policy Instrument	Key activities	Timeframe	Stakeholders	Costs / funding sources
<p><b><u>ACTION 1</u></b></p> <p>Scotland will work with LiCalab to support Scotland’s Digital Health and Care Innovation Centre to design, implement and embed citizen recruitment methodology from LiCalab into MGD Rural Centre of Excellence’s new Living Labs, will include creating a standardised process for building a panel/database of LL participants.</p> <p><b><u>This is a Type 1 action</u></b> Implementation of new projects</p> <p>Specifically:</p> <ol style="list-style-type: none"> <li>1. Implementing and embedding new citizen recruitment methodology from LiCalab into new Moray Growth Deal Living Labs (MGD LL) by July 2023.</li> <li>2. Building a standardised process on building a panel/database of LL participants (which could potentially link to action 2 in building into the network of living labs the ability to reach into databases and undertake</li> </ol>	<ol style="list-style-type: none"> <li>1. Organise co-design workshops on how to apply the LiCalab approach into Moray’s Living Labs design and operational methodologies.</li> <li>2. Implement the new model and methodologies within MGD LL.</li> <li>3. Undertake an evaluation of this new way of working within MGD LL, including analysis of lessons learned, benefits and suggestions for improvement.</li> <li>4. Refine model further and share outcomes</li> </ol>	<p>Sept 2022</p> <p>Dec 2022</p> <p>May 2023</p> <p>July 2023</p>	<ul style="list-style-type: none"> <li>• <a href="#">LiCalab, Flanders</a> (will work with DHI to design approach to citizen recruitment)</li> <li>• <a href="#">Digital Health and Care Innovation Centre</a> (will organise asset sharing activities to inform its planning)</li> <li>• <a href="#">Moray Health and Social Care Partnership</a> (will support citizen recruitment process)</li> <li>• <a href="#">Scottish Regional Stakeholder Group</a> members (will act advisors re. policy improvements)</li> <li>• <a href="#">Scottish Government</a> (will review policy instrument in light of outcomes)</li> </ul>	<p>€5000</p> <p>Costs for co-design activities with LiCalab will be funded by the Scottish Government (policy instrument owner).</p>

Action Description / Link to Policy Instrument	Key activities	Timeframe	Stakeholders	Costs / funding sources
<p>cross collaborative opportunities – creating international linkages).</p> <p><b>Link to Policy Instrument actions</b></p> <ul style="list-style-type: none"> <li>embed the Scottish Approach to Service Design across the public sector and design services around the needs of the user.</li> </ul> <p><b>Link to OSAT</b> Removal of inhibitors</p>	<p>with ACSELL partners (and beyond).</p>			
<p><b>ACTION 2 (Joint Action)</b> Regions are increasingly realizing the value of effective multi-stakeholder and specifically user-centred approaches, as well as strategies to match different kinds of organization, such as SMEs with academic institutions, to expand their reach and foster their growth within open innovation ecosystems and networks. The living lab approach allows 1) a better understanding of the actual demands and needs of end users, 2) a better match of demand and supply and 3) an increase in efficiency and effectiveness of the innovation process. This approach will not only inspire policy makers to apply a similar</p>	<p>Setup of a trans-regional learning community on how to set up a living lab</p> <p><b>Activities:</b></p> <ul style="list-style-type: none"> <li>Workshop on establishing a learning community at the ENOLL OLLD and sharing pilot action experience (20-23 September 2022, Turino IT)</li> <li>2-day workshop on operationalising pilot action results paper on</li> </ul>	<p>Sept 2022 (at ENOLL OLLD, 20-23 Sept 2022, Turino, IT)</p> <p>October 2022</p> <p>April 2023</p> <p>Aug 2022 – July 2023</p>	<ul style="list-style-type: none"> <li>ACSELL partners</li> <li>The Digital Health &amp; Care Innovation Centre (DHI) (a member of Scotland’s Regional Stakeholder Group) (<a href="https://www.dhi-scotland.com">https://www.dhi-scotland.com</a>)</li> </ul> <p>DHI is part of the Scottish Funding Council’s Innovation Centre Programme, which is designed to support transformational collaboration between</p>	<p>Travel Costs of approx. 1000 Euro / person (transport &amp; hotel) / event; costs will be carried by each attending organisation.</p> <p>Workshop costs 2 x 5000 Euro (catering/room rental) covered by phase 2 lump sum</p>

Action Description / Link to Policy Instrument	Key activities	Timeframe	Stakeholders	Costs / funding sources
<p>collaborative approach in developing policy, but also help them better understand the innovation process as such. In this way, policy decision-makers will be able to provide better framework conditions inter alia to SMEs. Within the ACSELL project, several partners are considering integrating the development of a living lab in their policy instrument. With this joint action we want to support this plan. In essence, the pilot action was the perfect preparation for this joint action to where the direct knowledge gained by two partners in a smaller scale will be shared with and transferred to the other regions. For setting up a living lab or an open innovation ecosystem, it is on the one hand essential to have access to a trusted network of stakeholders, and on the other hand have a profound expertise of living lab methods and methodologies. While both requirements will be initiated through this action, the ACSELL partnership would like to see this exchange continue beyond the lifespan of the project.</p> <p><b>This is a Type 2 action:</b> Improved governance</p>	<p>how to set up a LL / each ACSELL partner will conduct landscaping &amp; next steps to set up LL will be defined. (October 2022, Edinburgh?)</p> <ul style="list-style-type: none"> <li>• Identification of additional contributors / benefactors from, e.g., NWE.CHANCE Interreg project and Vitalize project (<a href="https://vitalise-project.eu">https://vitalise-project.eu</a>) (October-December 2022)</li> <li>• (e.g., DHI will work with ACSELL partners to explore potential for adaptation of the Living Lab Innovation Hub that was developed for the NWE-CHANCE Interreg project.)</li> </ul>		<p>universities and businesses.</p> <ul style="list-style-type: none"> <li>• European Network of Living Labs (ENOLL) (<a href="https://enoll.org">https://enoll.org</a>) ENOLL facilitates knowledge exchange, joint actions and project partnerships between its <b>historically labelled +480 members in Europe and worldwide.</b></li> </ul>	<p>€2000 for adaption of the Hub.</p> <p>Scottish Government (policy instrument owner) will fund costs associated with this Action.</p>

Action Description / Link to Policy Instrument	Key activities	Timeframe	Stakeholders	Costs / funding sources
<p><b><u>Link to Local Policy Instrument actions</u></b></p> <ul style="list-style-type: none"> <li>work with bodies in the tech sector to attract national and international investment in testing, developing and commercialising new products, processes and services.</li> </ul> <p><b><u>Link to OSAT</u></b> Readiness to change Finance &amp; funding</p>	<ul style="list-style-type: none"> <li>2-day workshop: status update on implementation &amp; sharing of successes and challenges (March 2022, Aalborg?)</li> <li>1-day workshop on defining continued frame for learning, network mode of operation before the final high—profile dissemination event in Brussels (May 2022, Brussels)</li> </ul>			

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**Signature:**

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