

Response to the Scottish Government's Call for Evidence on Scotland's Innovation Strategy



About the David Hume Institute

The [David Hume Institute](#) (DHI) is a think tank, established in 1985 to increase diversity of thought on the economy and society in Scotland. DHI's work seeks progress towards a Scotland that is prosperous, sustainable, inclusive and fair.

Central to our work are the people of Scotland, including those who are seldom heard; from different ethnic and cultural backgrounds; different genders, ages and abilities.

We apply the critical thinking which has long defined DHI to encourage action to address the contemporary issues of our time.

DHI welcomes the opportunity to respond to the Scottish Government's call for evidence on Scotland's Innovation Strategy. Our response draws on one to one interviews and a roundtable conducted in line with the Chatham House Rule. Participants were from different backgrounds and areas of expertise. The response also draws on previous research conversations from the Action Project, see appendix 1.

Overall

Whilst research participants understood the desire to define innovation, there was consensus that the paper feels overly prescriptive.

Conversations highlighted that, historically, periods of big innovation come at moments of extreme stress, such as world wars. But, recognising we don't want to have a war in order to increase innovation, what are the conditions that will increase innovation in a peaceful country like Scotland?

Diversity of thought and participation play a key role in innovation. People need to be open to knowledge and understanding different from their own, and to be able to understand different playbooks.

Key recommendations

1. Think long term and be brave

The strategy should not sacrifice long term objectives for short term policy announcements, and it should avoid trying to do everything.

“Government should focus on creating the conditions for innovation with minimalist intervention, as it cannot seed everything.”

It is unlikely everyone will agree with or get on board with any strategy, so be clear about what is in the government’s power and what is not. Being clear will help honest conversations and progress.

For instance, if Scotland is to become the best place to start and grow innovative companies, the Scottish Government’s critical role is to ensure education creates the best human capital so that innovation thrives. This doesn’t just mean school or university education - the mindset of lifelong learning needs to become part of Scotland’s brand and in its DNA. Housing, fair work and quality of life also play a part in innovation, as the best human capital is mobile and can choose to move elsewhere.

2. Have clarity of purpose

Key questions from members of the roundtable were: what is the innovation strategy trying to achieve? How can Scotland be part of more world class innovation?

“Learning from the best countries from around the world, like Estonia, means it’s critical to be clearer about the focus of Scottish Government’s ambition. “

Clarity of purpose in a long term innovation strategy will help ensure there is a firm grounding to resist future lobbying and short-term distractions.

A key question from roundtable participants: Where does the government need to take direct action and where does it stand back?

Some of the interviewees felt the Scottish Government could consider choosing one to two critical industries to support ecosystem growth such as health tech or nature based innovation. This would mean other sectors can still thrive in Scotland but the government’s limited money is focussed to achieve best impact. However, others participants felt this was limiting and being a brilliant place to start and grow companies in any sector enabled more innovation.

3. Lead by example

Ensure the Scottish Government is innovating internally. For the Scottish Government to lead by example, business as usual is not an option. A 10 year strategy needs to acknowledge the world will look very different in 10 years time and Scotland’s demographics will have changed significantly with many fewer people of working age. This necessitates faster refocusing of the role of government as an enabler and in providing stable conditions for innovation to thrive.

Research participants wanted actions to speak louder than words - and this included an immediate rationalisation of advisory groups and boards - they felt that hours of meetings restricts civil servants and external participants' time to deliver.

Participants called for procurement to support innovation - ensuring any procurement complies with conditions that support innovation such as fair work and diverse boards. However procurement processes should be streamlined to ensure they are quicker and utilise the latest technology. Research participants talked of procurement managers stifling innovation by defaulting to familiar "old world" approaches because it is harder to understand and articulate the nascent technologies.

"Both public and private sector procurement is in the dark ages. Requirements such as 3 years worth of accounts are simply not possible or even relevant for the most innovative companies. Procurement managers work to different timescales than the budget holders and this can really delay projects... Some companies have gone bust while waiting for procurement processes to complete... Procurement systems and processes have not adapted to new developments like open banking."

The principles of open data and transparency need to be fully embraced and acted upon by national and local governments as this enables innovation. Data should be open by default so that innovation is not limited by what the data holders currently think the data might be used for. Open data¹ is a key factor in countries with high levels of innovation and new forms of democratic participation.

4. Ensure data and facts underpin decision making

On page 1 of the call for evidence discussion document there is an unreferenced assertion about the effectiveness of R&D tax credits. From the data we have seen, including from the IFS, R&D tax credits have not proven an effective policy lever to stimulate innovation.^{2 3 4}

5. Play to our strengths but there is more than one game

Page 20 figure 9 (extracted below) of the Call for Evidence discussion document quotes from the European Commission's Innovation Scoreboard. This provides much food for thought. The

¹ [What is Open Data and why does it Matter?](#) 2022 David Hume Institute Briefing paper

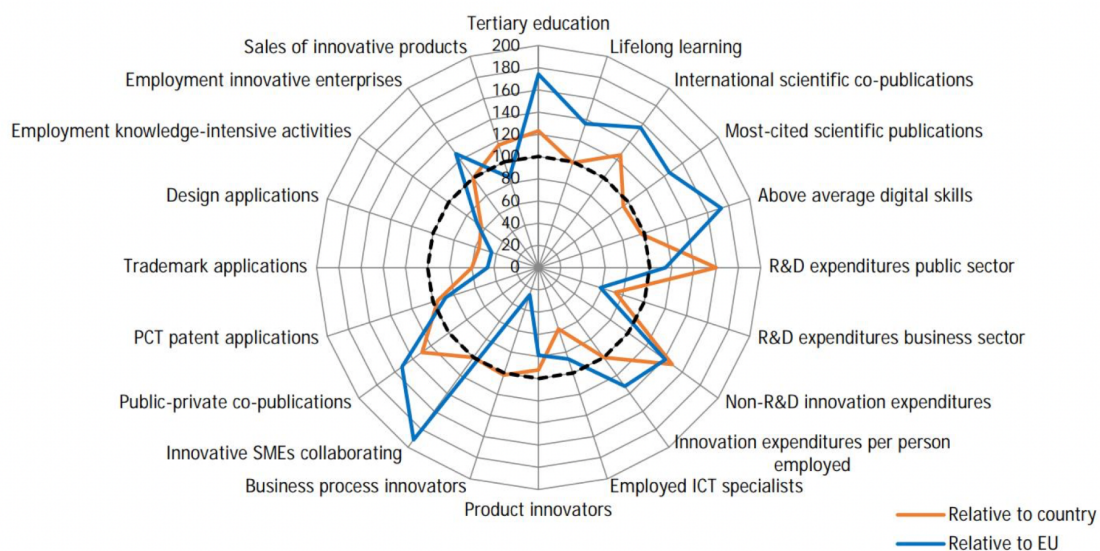
² [Tax system discourages employment, investment and risk-taking. It needs reform.](#) 2021 Institute of Fiscal Studies

³ [Low rates of capital gains tax on business income lead to large tax savings but do not boost investment,](#) 2019, Institute of Fiscal Studies

⁴ [Super deductor' tax break fails to boost UK business investment,](#) 2022, Financial Times

strong tertiary education sector is not translating into R&D spend in business, business innovation or employment in knowledge intensive activities.

Figure 9: Relative Scottish strengths compared to the UK and the EU³⁴



Source: European Commission’s Regional Innovation Scoreboard 2021

However, looking at this analysis further, the scoreboard doesn’t mention start-ups. From the definition, innovative SME’s might include start-ups but they should be considered distinct. The nature of innovative start-ups means they are the most likely place for fast innovation, with a scale or die approach. Our participants provided strong feedback that by combining this category the scoreboard was overestimating Scotland’s strength at present. Participants observed that, although innovative SMEs do spin out from Universities, rarely do they have a start-up mindset that scales fast.

Research participants highlighted lack of business understanding and inflexibility from universities. They cited rigidity and bureaucracy of university systems as a key barrier to increasing innovation. Venture capital (VC) funding fuels innovation by backing start-ups but universities fixing equity percentages in spin out companies can make VC investment unachievable. This can result in business failure rather than the university owning a smaller proportion of a much bigger company. The ‘spin-out’ vs ‘sneak-out’ concept has led to a very different approach from MIT, where they take no equity share in businesses formed by their students or academics.

Participants agreed it is essential for innovation to be happening across sectors. Although they were keen to recognise the strength of Scotland’s Universities, participants also cited

weaknesses that require new thinking. There is a need for Universities to engage with communities better to drive innovation.

Thinking beyond universities as a source of innovation will help ensure human capital is strengthened throughout Scotland and this will help the whole ecosystem thrive.

The world is changing quickly and it would be easy for Scotland to be left behind - people and organisations will need to continually innovate how they innovate.

Appendix 1: Illustrations of The Action Project David Hume Institute research conversations, 2020

In addition to the individual interviews and roundtable specifically undertaken to support the David Hume Institute's response to the Call for Evidence on Scotland's Innovation Strategy, innovation was a recurring theme in DHI's Action Project research. The following illustrations provide insight into this research.



the ACTION PROJECT

ECONOMIC UMBRELLA
IN PARTNERSHIP WITH FRASER OF ALLANDER INSTITUTE
17th NOVEMBER 2020

2 BUSINESS INNOVATION

"CREATING NEW PRODUCTS OR SERVICES / BEING MORE EFFICIENT / RESEARCH + DEVELOPMENT -> INTO MARKET"

Actions THAT WILL LEAD TO A BETTER SCOTLAND

GATHERING the VIEWS of EXPERTS

1 BUSINESS INVESTMENT

DESIRE for FASTER INCOME GROWTH...

"Opportunity to Flourish"

3 MANAGEMENT PRACTICES + QUALITY

"IMPORTANT HOW YOU DETERMINE SUCCESS / GOOD LEADERSHIP..."

"PROVE it WORKS"

IMPORTANCE OF EVIDENCE = EDUCATION ON HOW TO TAKE IDEAS...

LONGER VIEWS... FOCUS ON SECTOR ADVANTAGES

"Make them Grow"

BEING READY TO FAIL - NO FEAR OF RISK

CONFIDENCE + SUPPORT + SKILLS

"SHIFTING THE DIAL..."

MOVING THE BOULDERS...

POTENTIAL INSTITUTIONAL OBSTACLES

CONSTITUTIONAL SETTLEMENTS MAY HAVE STOPPED PROGRESS...

APPRENTICESHIPS ARE JUST AS GOOD AS UNIVERSITY ROUTE

GAINING SKILLS

EXPERIENCE -> PATHWAY TO CAREERS

COMPANIES NEED TO EMBRACE THIS...

CULTURAL & MINDSET SHIFTS...

Work Ethic

STRENGTHS OF SCOTLAND
EDUCATION
SMALL BUSINESS

"BUSINESS INVESTMENTS (OR LACK OF) HOLDING BACK THE POTENTIALS OF SCOTLAND..."

TAKING ADVANTAGE OF DIGITAL BUSINESS...

BEHAVIOURAL DRIVERS OF LEADERSHIP... + GOV ROLE WITHIN THIS?

Looking at GLOBAL APPROACHES

Create BETTER ASSETS than WE HAVE TODAY...

"EVERYTHING IS 'SHORT-TERM'"
LONGER TERM THINKING

"THE ELECTION CYCLE"
AAA HOW IT AFFECTS MINDSET

"NOT HAVING 'THE PEOPLE'"
BUILDING OUR TALENT POOLS
"IDENTIFYING OUR ADVANTAGES..."

WHAT DOES EACH AREA NEED?
HOW DO WE GROW SKILLS?

SMES
LONG TERM
RESILIENCE

"PLACE FOCUSED & INCLUSIVE SOLUTIONS"

HOW DO WE DEMONSTRATE THE LINK BETWEEN 'INPUTS' & 'ACHIEVEMENTS'?

"RISK ADVERSE"

"LOW IN CONFIDENCE..."

STICKING TOGETHER AS LOCALISED COMMUNITIES, & UNLOCKING the MONEY WE HAVE IN OUR LOCAL AREAS / NETWORKS

"Investment in PHYSICAL ASSETS... NOT INNOVATION / PEOPLE"

the ACTION PROJECT

SUSTAINABILITY ROUNDTABLE
2nd December 2020

Sustainable GOALS

BUSINESS Innovation IDEAS

"BRINGING TOGETHER the 'DO-ERS' to CREATE MORE ACTION"

SUSTAINABLE
INCLUSIVE
FAIR

"MEASURING IMPACT"
BEYOND FINANCE, IMPACT + INVOLVEMENT (it's not easy!)

"AUTOMATIC MECHANISMS"
eg. ANGELS + GOV 50% EACH (CO-INVESTMENT)

IMPACT FUNDS are NOW OUTPERFORMING (keep the MOMENTUM)

FINDING the LINKS for the RIGHT INVESTORS for the RIGHT BUSINESSES

EXPERIENCES as business owners

"INNOVATION FOR GOOD"

"TOOLS" for BUSINESSES for EFFECTIVELY COMMUNICATE their 'GOOD'

"EDUCATING" INVESTMENT COMMUNITIES (beyond 'LOCAL MAXIMUMS')

"IMPACT COMPANY" JUST MEANS 'MODERN COMPANY'
IT'S JUST A PART of the DNA

YOU HAVE to GET INSIDE the MIND of our CUSTOMER 'KNOWING your EXITS'

CROWDFUNDING + more ANGELS (but it's still a RISK ADVERSE area)

ACCELERATOR FUNDING for HELP MOVE TALENT ALONG

"BEYOND FINANCIAL" PROPOSALS that WILL MAKE a REAL DIFFERENCE for PEOPLE'S LIVES

"y2z" FOR GOOD a STRUCTURE for WORK with

"DISCONNECT" between INVESTORS & BUSINESS NEEDS, INTENTIONS, NETWORKS

MEASUREMENT of IMPACT
BETTER UNIVERSITY + INVESTOR EDUCATION

BETTER CONTACT with INVESTORS DIRECTLY

ATTITUDE to FAILURE
BASEBALL ANALOGY
"WORLD CLASS PLAYERS ONLY HIT 3 out of 10"

MORE INFORMATION NEEDS to be AVAILABLE
"WHERE do the PRIVATE INVESTORS HIDE?"

"UNLOCKING" TOP TALENT + HIGH ASPIRATIONS of BUSINESSES

"GET EXCITED" TAKE on 'RISKY' INVESTMENTS that INTEREST or EXCITE YOU

"CONFIDENCE" to CREATE NEW PARADIGMS to OPEN up OPPORTUNITIES (eg. BANKING)

"STOP TICK-BOX FUNDING"
NOT JUST one ROUTE to FUNDING

HAVING TIME to WORK on PRODUCT/SERVICE RATHER than "WHERE'S the NEXT BIG CHEQUE?"

DESIGNING NEW FUNDING STRUCTURES RATHER than 'FITTING' FUNDING to CURRENT STANDARDS & PARADIGMS