

## A business strategy for Scotland

A meeting jointly organised with The Royal Society of Edinburgh

Date:	6th November, 2017
Location:	The Royal Society of Edinburgh, Edinburgh
Chair:	The Earl of Selborne GBE FRS Chair, The Foundation for Science and Technology
Speakers:	Professor Iain Gray CBE FEng FRSE Vice-President, The Royal Society of Edinburgh and Director of Aerospace, Cranfield University  Nora Senior CBE Chair, Scottish Government's Strategic Board for Enterprise and Skills  Lady Susan Rice CBE FRSE Chair, Scottish Water  Paul Wheelhouse MSP Minister for Business, Innovation and Energy and Member for South Scotland, The Scottish Parliament
Speaker Audio Files:	<a href="http://www.foundation.org.uk">www.foundation.org.uk</a>
Hash tag	#fststrategyforscotland

**PROFESSOR IAIN GRAY** referred to Scotland's international reputation for excellence in science and research. This was underpinned by its universities, particularly those which scored highly in international rankings and in the last Research Excellence Framework. At the same time, business expenditure on R&D was significantly below that of the UK. The need for improvement was clear.

The UK's emerging Industrial Strategy had to reflect the needs of Scotland. The Royal Society of Edinburgh (RSE) had expressed concern on this score. The UK and Scottish Governments together had to consider the future of the Scottish economy in a UK and global context. For its part the Scottish Government's Economic Strategy for Scotland set out as its priorities the need to invest in people and

infrastructure, to foster innovation, to promote inclusive growth and to promote Scotland internationally. The RSE is contributing to thinking on each of these areas. Studies were being commissioned on three topics: commercialisation, productivity and skills.

The record in translating excellent research in Scotland into economic benefit for Scotland is poor and the First Minister has included an aim of increasing business R&D in Scotland in the Programme for Government. The Scottish Government had already introduced important initiatives, particularly through the Innovation Centres, which are seeking to bring universities and businesses closer together. The RSE's Enterprise Fellowship Scheme was also supporting talented scientists and engineers to develop business and entrepreneurial skills. Some exciting companies were emerging but there is a funding problem regarding access to growth capital for

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developing companies. The Scottish Government's consultation on a Scottish National Investment Bank was to be welcomed but further detail was needed.

Scottish universities and businesses needed to engage effectively with the newly established UK Research and Innovation organisation (UKRI) with the support of the Scottish Government working closely with the UK Government. The Scottish research community also needed to be a major contributor to scientific and economic progress in Europe. To this end a positive outcome to the Brexit negotiations, which maintained relations with the European research community, was required.

As part of any inclusive growth strategy skills had a key place. These skills were not simply about scientific or technical knowledge. It is critical to seek to incorporate business and entrepreneurial thinking into all levels of education. Inclusive growth also meant involving all geographical areas of Scotland, with digital communication playing a key role.

**NORA SENIOR** highlighted the Scottish business performance gaps, notable poor productivity where major improvement was needed. Very significant investment would be needed to bring Scotland into the top quartile in terms of worldwide productivity performance tables. While some progress was being made in introducing technological and other innovations in Scottish firms, businesses needed to be more effective in exploiting new technologies. Progress in some sectors was slow. For small companies especially investment in technology and innovation was high risk and Government incentives to promote R&D in business were needed.

There were also important skill shortages to be recognised not only in technical areas but more generally: 12% of 16 to 24 year olds had no skills and the situation was worse in areas of deprivation. Companies needed to invest more in training and upskilling in the use of technology and in this context the quality of management was key. Business management training to encourage more professional approaches in business practices, including skills development, was crucial. The Strategic Board for Enterprise and Skills with a widely based membership had an important role in helping to find solutions to Scotland's identified business weaknesses by coordinating efforts in the promotion of technology, innovation, enterprise and skills development. Better data on the Scottish business asset base and on companies' aspirations were needed to better focus support initiatives.

**LADY SUSAN RICE** stressed the need to take full account of world developments in reflecting about a business strategy. Companies needed to respond to growing regulatory and consumer pressures, the effects of climate change and moves towards a low carbon, sustainable economy.

Education was most important because we needed a skilled workforce and against a background of rapid change that was a never ending activity. We needed an educated workforce with good literacy and numeracy and who knew how to communicate, how to tackle problems and how to question.

We also needed a diverse workforce from different backgrounds, different countries, different demographics and different career routes. A strategy for business needed to keep doors open. Science for example, was best where scientists can cross borders, without artificial constraints.

Companies which could adapt to change could thrive and there were, for example, companies in Scotland which had grown on the back of a developing low carbon economy. Similarly there were companies which had benefited from developing responses to growing concerns for the environment. Businesses like these needed good transport and communication links and could benefit from organisations, such as Innovation Centres. Such companies benefited too from the proximity of large companies who could become demanding customers prompting innovation and change.

Business strategy should also emphasise the value of links between our universities and industry. Research led to spin offs and the quality of research, besides supporting Scottish firms, might also attract businesses from elsewhere. Linkages generally were very important in developing a strategy. There could be real value in linking digital, energy and possible transport strategies so that, together with a business strategy, there was greater impact on the Scottish economy.

**PAUL WHEELHOUSE MSP** began by confirming that the Scottish Government was engaging with the UK Government on Industrial Strategy and in the context of the UKRI was making sure that Scotland's strengths were recognised

He stressed that the Scottish economy had significant strengths. Employment was close to a record, unemployment and youth unemployment had improved and we had an improved export performance. Growth was forecast to continue, although a hard Brexit was a threat to Scottish business.

He fully recognised however the need for improve-

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ment. A cultural change was required in Scottish business where there was a huge tail of firms who were not facing up to changes in the world, especially technological change. Innovation was important to enable companies to grow and flourish. Companies had been slow to take up the benefits of the digital economy though he recognised from experience in other countries that achieving improvement took time and involved hard work.

The Scottish Government was fully supporting the need for fostering closer links between Business and the Universities, some of which were recognised as world class. The creation of Innovation Centres and of a Manufacturing Institute for Scotland were examples of how this cooperation could be assisted. The Colleges also had a role and the College Innovation Centre would help to tackle "the tail".

Extending digital coverage had an important role in growing the economy. Scotland was on track to have 95% of premises linked to fibre broadband. It was important that location should not be a barrier to business creation and development. An increase in the numbers of those with digital skills was a priority.

## DISCUSSION

In discussion the importance of STEM subjects and their relevance to a business strategy was recognised, together with the need to attract more women into them. Prioritisation of these subjects, however, should not ignore the arts and humanities: some STEM graduates moved on into careers in other work areas. It was argued that the main contribution universities could make to "commercialisation" was the production of good quality graduates. There was also a more general need for a skilled and well-educated workforce at all levels and in this context tackling current underachievement in Scottish education was a priority.

It was suggested that Government could give great-

er direction to universities to recognise the needs of business. It was agreed that strong university/business links were important but there were other approaches which were preferable to direction. For example, parents could be made more aware of business career opportunities at the stage when they are advising children on subject choices.

It was argued that encouraging graduates to remain in Scotland after graduation was important and that this might have implications for the Scottish Government's taxation policy. On the other hand, the availability of high quality jobs and public services together with the quality of life generally were thought to be key factors in graduate retention.

While there were excellent examples of innovation in Scotland, not all areas had benefited. Efforts to spread the benefits of the digital economy were important since they could help improve the career prospects of young people. There was also a particular challenge regarding SMEs since numerically they made up the vast majority of Scottish businesses. In such businesses innovation usually needed to be incremental and could take time. Tax credits for R&D to encourage SMEs to work with universities might be worth considering. The nurturing of medium-sized companies was important since some of them had real potential to grow and contribute to the Scottish economy.

Finally, Scotland's relatively poor business productivity record required attention. Greater investment by businesses in technology was important. Equally there was a need for managements in some sectors to communicate more effectively and work more closely with the workforce in introducing technologically driven change.

Gerald Wilson CB FRSE

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## Useful URLs

Royal Society of Edinburgh  
[www.royalsoced.org.uk](http://www.royalsoced.org.uk)

Strategic Board for Enterprise and Skills  
<https://beta.gov.scot/news/new-chair-for-strategic-board-appointed/>

## Universities

University of Aberdeen  
[www.abdn.ac.uk](http://www.abdn.ac.uk)

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University of Dundee  
[www.dundee.ac.uk](http://www.dundee.ac.uk)

University of Edinburgh  
[www.ed.ac.uk](http://www.ed.ac.uk)

University of Glasgow  
[www.gla.ac.uk](http://www.gla.ac.uk)

Robert Gordon University  
[www.rgu.ac.uk](http://www.rgu.ac.uk)

Heriot Watt University  
[www.hw.ac.uk](http://www.hw.ac.uk)

University of the Highlands and Islands  
[www.uhi.ac.uk](http://www.uhi.ac.uk)

University of Strathclyde  
[www.strath.ac.uk](http://www.strath.ac.uk)

### **Charities**

The Gannochy Trust  
[www.gannochytrust.org.uk](http://www.gannochytrust.org.uk)

The MacRobert Trust  
[www.themacroberttrust.org.uk](http://www.themacroberttrust.org.uk)

The Robertson Trust  
[www.therobertsontrust.org.uk](http://www.therobertsontrust.org.uk)

### **Companies**

Aberdeen Standard Investments  
[www.aberdeenstandard.com](http://www.aberdeenstandard.com)

BP  
[www.bp.com](http://www.bp.com)

Ineos  
[www.ineos.com](http://www.ineos.com)

Shell  
[www.shell.co.uk](http://www.shell.co.uk)

Lloyd's Bank  
[www.lloydsbank.com](http://www.lloydsbank.com)

Prudential  
[www.pru.co.uk](http://www.pru.co.uk)

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Abellio  
[www.abellio.co.uk](http://www.abellio.co.uk)

**Business Representative Bodies**

CBI (Scotland)  
[www.cbi.org.uk](http://www.cbi.org.uk)

Federation of Small Businesses  
[www.fsb.org.uk](http://www.fsb.org.uk)

Institute of Directors (Scotland)  
[www.iodscotland.com](http://www.iodscotland.com)

Scottish Chambers of Commerce  
[www.scottishchambers.org.uk](http://www.scottishchambers.org.uk)

Scottish Council Development and Industry  
[www.scdi.org.uk](http://www.scdi.org.uk)

Scottish Financial Enterprise  
[www.sfe.org.uk](http://www.sfe.org.uk)

**Public Bodies and Agencies**

Highlands and Islands Enterprise  
[www.hie.co.uk](http://www.hie.co.uk)

Scottish Enterprise  
[www.scottish-enterprise.com](http://www.scottish-enterprise.com)

Scottish Funding Council  
[www.sfc.ac.uk](http://www.sfc.ac.uk)

Scottish Government  
[www.gov.scot](http://www.gov.scot)

Skills Development Scotland  
[www.skillsdevelopmentscotland.co.uk](http://www.skillsdevelopmentscotland.co.uk)

Department for Business, Energy and Industrial Strategy  
[www.gov.uk/government/organisations/department-for-business-energy-and-industrial-strategy](http://www.gov.uk/government/organisations/department-for-business-energy-and-industrial-strategy)

Department of International Trade  
[www.gov.uk/government/organisations/department-for-international-trade](http://www.gov.uk/government/organisations/department-for-international-trade)