

SCOTTISH PARLIAMENT EDUCATION AND SKILLS COMMITTEE SKILLS PANEL

September 2016

SCDI is an independent membership network that strengthens Scotland's economy by influencing Government policies to encourage sustainable economic prosperity. SCDI's membership includes businesses, trades unions, local authorities, educational institutions, and the voluntary sector.

For more information on this response please contact the SCDI policy team.

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1. SCDI is an independent membership network representing a cross-section of the private, public and social economy sectors in Scotland. Our purpose is to influence the agenda for Scotland's long-term economic and social prosperity.
2. SCDI runs a Scotland-wide network of Young Engineers and Science Clubs (YESC) in schools which aim to inspire the next generation of engineers and scientists in Scotland. Through engagement with our many public and private sector partners we identify key economic growth sectors and skills gaps, and then develop a series of resources for use at a club and/ or within the curriculum, events and competitions to excite young people about STEM subjects and the range of career opportunities available. We also deliver teacher training courses, workshops and events all over Scotland.
3. There are currently 1400 schools in the network, with 87% of secondaries and 50% of primaries engaged, and over 30,000 pupils. We estimate that there is a 50/50 split of girls and boys participating in primaries, while in secondaries we estimate 40% are girls and 60% are boys. We believe that 273 schools are in the most deprived 25% of the areas in the Scottish Index of Multiple Deprivation (47% of the schools in those areas), while 405 schools are graded as Accessible Rural or Remote Rural in Urban/ Rural Classification (42% of the schools in those areas).
4. The 2015 Tomorrow's Engineers evaluation report benchmarked YESC and other STEM providers. It found that:
 - 99% of pupils found the activity enjoyable
 - 90% stated that the activity had given them a positive view of science
 - 63% stated that the activity had motivated them to choose physics as an option when they had the choice
 - 71% stated that a career in science was desirable
5. SCDI, with the support of our private and public sectors partners, is aiming to involve every school in Scotland in our YESC network, with 100% of secondaries by 2018 and 100% of primaries by 2022, demonstrate their positive influence on subject and career choices and attainment, and continue to increase the diversity of the young people who participate in them.
6. SCDI is a member of STEMEC, the Scottish Government's Independent Advisory Group. The group was formed to take forward the Science and Engineering Education Advisory Group report¹ to the Scottish Government which made over sixty recommendations to bring about systemic change in STEM education. STEMEC members have identified key areas in need of further examination and action, such as interdisciplinary learning. STEMEC has submitted its report to the Scottish Government which will inform the forthcoming STEM strategy.
7. SCDI published *From Fragile to Agile: A Blueprint from Growth and Prosperity*² at the end of last year, which was the basis for our recent submission³ to the Scottish Government's ongoing Review of Enterprise and Skills services.

¹ <http://www.gov.scot/resource/0038/00388616.pdf>

² <http://www.scdi.org.uk/publications/reports-and-analysis/591-blueprint-2015-from-fragile-to-agile>

³ <http://www.scdi.org.uk/images/document/PDFs-2016/SCDI-Submission-ScotGov-Enterprise-And-Skills-Review-Aug16.pdf>

8. In our submission, we highlighted that the skills landscape is regularly described by our members as cluttered with many bodies involved. Many of them are doing very good work, but there is some duplication and confusion among users, and some interventions lack scale. Skills Development Scotland services on which members report very positively include the delivery and development of the apprenticeship programme, support for digital skills and the My World of Work online careers service. The Scottish Funding Council (SFC) has far fewer interactions with the majority of SCDI members. SCDI believes that there continues to be a strong need for a non-departmental public body to fund higher education. This should maintain the link between the funding of teaching and research because graduates who have a strong knowledge of research have skills which will be critical in the emerging economy and are better able to help increase the absorptive capacity of their employers for innovations.
9. Given the timescale for the review, SCDI's response highlights outcomes for, and issues which should be addressed by, the review rather than final views on structures. The most relevant points for the Skills Panel discussion are listed below.
10. How can Scotland urgently address the opportunities and challenges of digitalisation, and meet the ambition to become a world class digital nation by 2020? At a national level, there is a need to focus on initiatives of scale in key areas such as digital and STEM skills. There are particularly critical needs to supply graduate level skills into the digital sector and to work with all businesses to improve their digital maturity. This will involve equipping young people with digital skills through education, skills and training programmes, and, as importantly, enhancing the digital skills of people at all levels and in all sectors of employment and their ability to utilise them effectively. There are particular challenges in rural areas, including key sectors such as tourism. Could pools of digital apprentices be created to work with clusters of businesses and improve their digital maturity?
11. How can Scotland develop a world-class approach to people management, everyday leadership, intrapreneurialism, and the changing nature of work? The new Labour Market Strategy should, building on the Fair Work Convention, launch a national conversation focused on increasing productivity and innovation and addressing key opportunities and challenges, such as demographics and digitalisation/ automation of a large percentage of roles. This will necessitate improved services to help upskill the existing workforce.
12. How can the relationships between higher and further educational institutions and regional and local economic strategies be further strengthened? The development of city region and regional deals has helped to improve these links and the alignment of investment programmes which is a key feature of the deals will enhance their certainty, pace and impact. Building on this progress, there is a need to further strengthen relationships to draw on their capacity to help deliver regional economic, skills and education priorities.
13. How can Scotland maximise the potential benefits of its educational institutions to help internationalise the economy? These are global talent magnets and they have international networks and partnerships. In our *Blueprint*, SCDI recommended, for example, that a plan should be developed to maximise the benefits of international students across the Scottish economy, by scaling-up programmes to link them with Scottish businesses on a project/ internship basis and school/ undergraduate students for cross-cultural exchange, attracting their friends and families to visit, and developing stronger alumni links with them as ambassadors for Scotland and its

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products. SCDI is a member of the cross-party Post Study Work Steering Group which has made recommendations for a new post study work visa in Scotland⁴.

14. Clearly, the UK vote to leave the European Union will have substantial implications for the Scottish labour market and access to skills across a range of sectors. In the short-term, there is a need to provide certainty for all EU citizens currently living and working in Scotland about their leave to remain. The ability to access and attract talented and skilled people from the EU and around the world to grow the Scottish economy should be a high priority in discussions about future relationships and immigration systems. There is also a need to improve the 'global skills' of young Scots and the 'know-how' of more of our businesses about doing business in a wider range of export markets.

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⁴ <http://www.gov.scot/Publications/2016/03/5056/1>