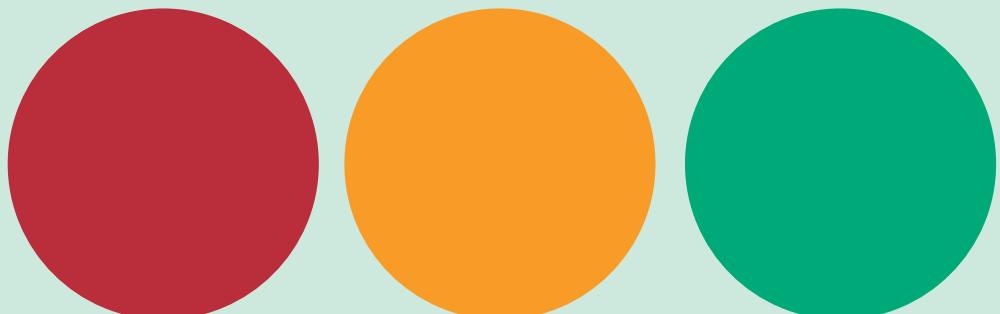




**By 2025, Scotland will be
regarded as a world-leading
learning nation:**

**Horizon Scanning Report:
One year on**



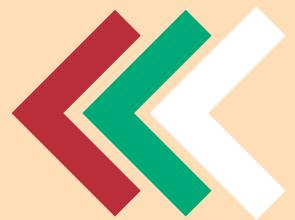
There are accompanying publications to this paper which can be found at <http://www.ggis.org.uk> or <http://www.scotlandfutureforum.org>.

We suggest that you approach the four papers in the order listed below:

- 1 *By 2025, Scotland will be regarded as a world-leading learning nation: Key questions and provocations***
- 2 *By 2025, Scotland will be regarded as a world-leading learning nation: Toolkit – Using these scenarios within your organisation***
- 3 *By 2025, Scotland will be regarded as a world-leading learning nation: Scenarios for the future***
- 4 *By 2025, Scotland will be regarded as a world-leading learning nation: Data workbook***

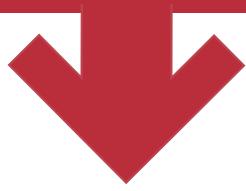
A compilation report of project events and individual event papers are also available on the websites.





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Foreword

Twelve months ago in the Scottish Parliament, the Goodison Group in Scotland (GGiS) and Scotland's Futures Forum launched the findings of their joint scenario project exploring the proposition ***By 2025, Scotland will be regarded as a world-leading learning nation.***

The Project sought to challenge policy-makers, and those in business, learning and teaching and wider society to think differently about 2025 and reflect critically about current assumptions, including approaches to education, training and the role of employers in a rapidly changing world.

The suite of project materials which emerged was also intended to be used beyond the life of the project, becoming a useful resource for individuals, organisations and communities in helping them to reassess their own approach to learning in all its forms.

This short report revisits twelve months on the project findings and reviews signals as to which of the four scenarios Scotland could be said to be heading towards. It also charts how successful the project has been in helping people bring about meaningful change, and describes experiences of using the scenarios and case studies.

We both commend the continuing and active use of the resource material of the Project and of this further contribution towards 2025 and beyond. We consider that this work should help us all to lift our attention to a fairly distant horizon and escape the consuming discourse of today.

**The Rt Hon Tricia Marwick MSP, Chair, Scotland's Futures Forum
Sir Andrew Cubie, CBE, Chair, The Goodison Group in Scotland**

Executive Summary

Feedback from those who took part in the scenario project overwhelmingly indicates that Scotland is on a trajectory towards the Global Learning scenario for 2025 and beyond. A year on from our launch last February 2013, there are visible signals to support this ambition. But, as might be expected, there are a great number of issues the 'horizon scan' identified as requiring further action, further research, close monitoring, and better understanding to carry us towards 2025.

Key findings which need to be considered if Scotland is to continue on the trajectory towards becoming regarded as a world-leading learning nation appear to be as follows:



Action

- 1** Action is required to address the issue of 'parity of esteem' between different qualifications and modes of study, alongside further work to support students from more deprived backgrounds.
- 2** Action is required to help students from deprived backgrounds feel more confident about being actively involved in education.
- 3** Action is required to develop IT skills for Scots to enable them to benefit in 'Digital Scotland'.
- 4** Action is required to protect and promote adult learning, especially for those who have felt marginalised from education in the past.
- 5** Action is required to increase the number of international education partnerships to allow Scottish students to share lessons (in schools) and lectures (in higher education) and to promote the exchange of ideas through the use of technology.
- 6** Action is required to design and promote international mobility among Scottish students.
- 7** Action is required to ensure teaching staff have the flexibility to teach in different institutions, building their capacity to engage with a world of increasing diversity and complexity, and taking into account the need for expertise beyond that which institutions can provide on their own.
- 8** Action is required to support the growing number of people currently in work and expected to remain in the workforce past 65 years old. This may involve more training, careers advice, financial advice, and more flexible working patterns.
- 9** Action is required to reduce the number of isolated, elderly and disabled people excluded from 'Digital Scotland'.
- 10** Action is required to build local democracy and make local decision-making valued. Adult learning provision could play a pivotal role in this.



It has never been part of this Project to make recommendations. It was for that reason that the conclusion of the initial work in February 2013 only contained key questions and provocations to third parties. We could have added to that list further now, but have concluded that doing so would add much less to informed debate than the identification of the above Action Points.

We are re-enforced in this view by the interim findings of the Commission on School Reform, chaired by Keir Bloomer, and the Commission for Developing Scotland's Young Workforce, chaired by Sir Ian Wood, both of which contain some compatible signals to this work.

We would, therefore, simply encourage the Cabinet Secretary for Education, after the Referendum in September of this year, to convene a wholly inclusive National Forum to carry forward debate and discussion about the outcomes from the work of this Project to focus on 2025 and beyond.

The reference to 'wholly inclusive' is not only to engage all political opinion, but also to secure engagement with the many contributors to this Project and the work of the other two Commissions.

The one-year-on scan also threw up areas requiring further research

Further Research

- Further research is required to establish, post-Christie, evidence of a new emerging culture in public sector delivery, one that may free up resources and promote diversity.
- Further research is required to establish the best uses of online learning, including MOOCs, and what support learners and teachers need in order to make good use of a range of online approaches. Research is also required to give a better understanding of how educational institutions could support learning as a 'flow' of 'micro-learning' experiences.
- Further research is required to establish the extent to which, if at all, extending and diversifying those who provide learning will lead to a broadening of learning opportunities, and greater individual satisfaction in learning.

The one-year-on scan threw up numerous issues, themes and developments that require ongoing monitoring.

Monitoring

- The development and effectiveness of local learning services, including Networks Learning.
- The changing nature of work and the extent to which those changes may impact on the flexibility, capabilities and resilience of learners.
- The effects of increased globalisation on Scotland's learning and research.
- The impact of moving onto Curriculum for Excellence.
- The pressures on public sector finance are acute, and innovation, partnership working, different approaches and new ideas are arguably driving public sector reform. The impact of these changes should be closely monitored and shared on an ongoing basis. At present, there is nothing to suggest a return to the levels of public money available in 2008, which would be required to support the Global Learning Scenario.
- The levels of export of Scottish education and the wider impact this has in terms of Scotland's place in the world should be monitored on an ongoing basis.
- The extent to which the adoption of technology is unstructured and atomistic.
- The effectiveness of wider social policy initiatives in helping to mitigate the effect of increasing social inequalities.
- The roll-out of broadband infrastructure in rural areas and its subsequent impact.
- The level of acceptance or otherwise of high levels of inequalities and increased taxation.
- The extent to which citizens feel confident to navigate the complexities of 21st Century living, particularly to assess whether there are groups of people who feel increasingly isolated.
- The expected increase in costs associated with 50 per cent of Scotland's population being over 50 years old by 2025.

There are two important context issues to highlight going forward. As the impact of these issues becomes clear, further monitoring, research and action will inevitably be required.

Context

In September 2014, Scotland will vote on the Referendum for Scottish Independence. Regardless of the result, constitutional affairs will impact on Scotland's ambition of becoming a world-leading learning nation for many years to come.

It will also be important to understand, over coming years, the potential impact on Scotland from global food and fuel security issues.

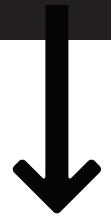
How successful have the scenarios been in helping organisations think creatively about the future and critically about their own assumptions and working practices?

Key points of interest

- The project prezi tool, describing the four scenarios and how to engage with them, has received over 20,500 hits.
- The project materials are successfully being used by a range of organisations to reappraise assumptions on the future of learning and education.
- Plans are being developed to support local learning groups to encourage new thinking, innovation and transformative change, using the scenario materials and other futures learning tools.
- The scenario materials are being used to encourage student teachers to consider innovative curricula for the future.
- Education Scotland intends to adapt the scenario materials to encourage more creative thinking on the future of learning within local communities.



Part I Horizon Scanning



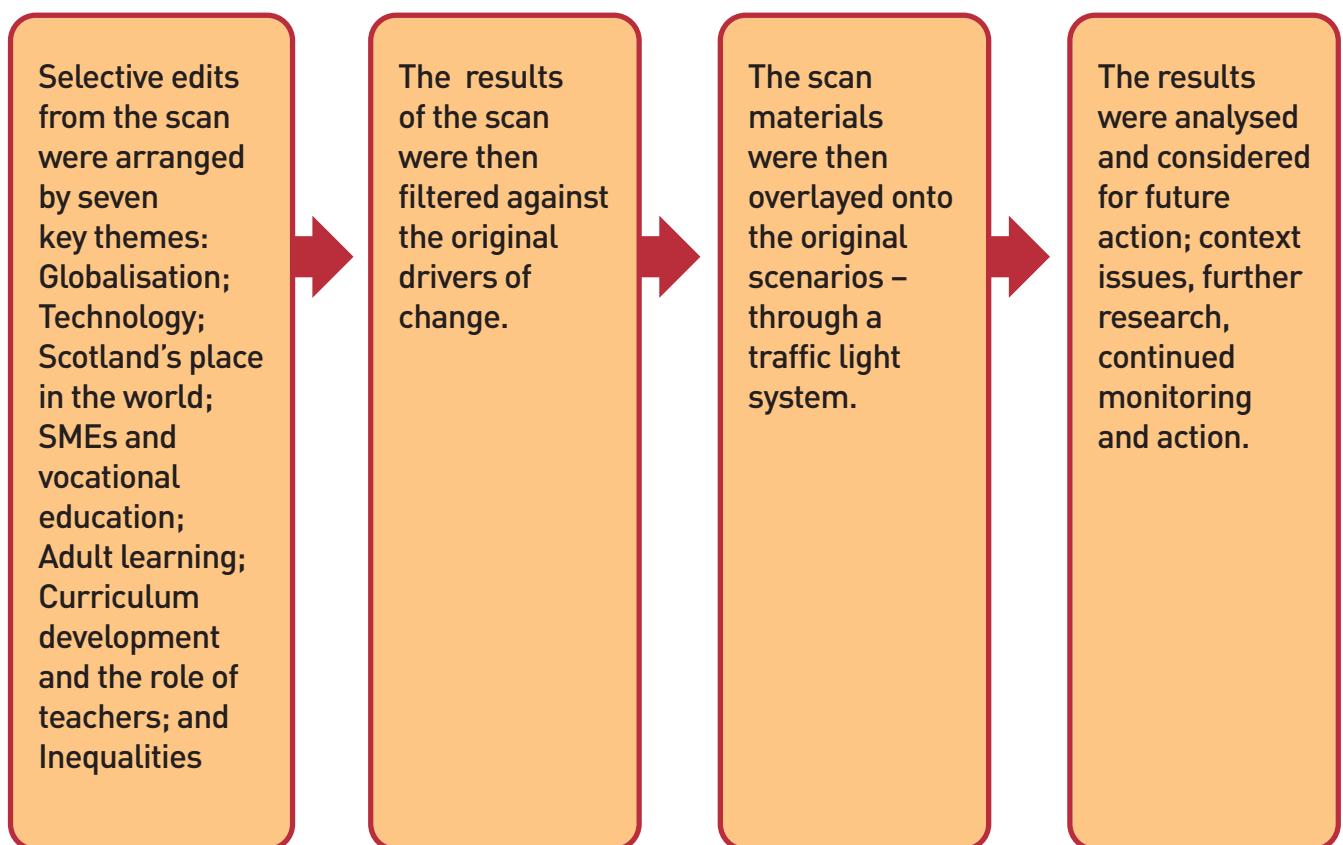
Horizon scanning is effectively an organisation's antenna. While we cannot predict the future, it is possible to 'scan' for signals of change. Those signals give clues to how the original drivers-of-change are starting to play out. Scanning also allows us to reappraise our original thinking from the scenario planning phase of the project, enabling us to suggest action to ensure we remain flexible, innovative and headed towards the desired destination of Scotland becoming a world-leading learning nation by 2025.

The original scenarios were:

- **Market-driven learning society**
- **Local learning society**
- **Divided learning society**
- **Global learning society**

The Goodison Group Horizon Scan, adapted from scanning techniques used by Scottish Enterprise, focussed on key social policy reports, published research, and government announcements alongside a basic social media scan, and should therefore be considered a partial scan. While necessarily selective, it has proved interesting to consider, one year on, the range of changes being signaled with varying degrees of strength. Those signals have been used to reappraise the original four scenarios.

The scanned materials have been arranged through the following stages:



The Scan should be read and considered with the original scenario planning materials.

Selective Edits from the Scan by theme



Globalisation:

International research, knowledge exchange and learning

The University of Edinburgh is sharing lectures with Delhi University, which has moved to a four-year degree structure from session 2013-14. They are initially sharing lectures in maths, robotics and computer science. Steve Hillier, Edinburgh's vice-principal international, said: 'Both universities have much to learn from each other through the lecture sharing series. The novelty of the initiative is that students in Delhi and Edinburgh will be linked in real-time, exchanging ideas and learning concepts in the context of two different environmental set-ups.'¹

Scottish institutions have this year signed three agreements to provide education and training to China, worth up to £2 million over three years. These are a joint engineering programme between Glasgow University and the University of Electronic Science & Technology China (USETC); TEFL Scotland working with China's largest online training provider; and Scotland's Rural College (SRUC) Elmwood Golf International launching a new training programme for 15 Chinese universities. Elmwood has already trained more than 700 Chinese lecturers and golf professionals to support China's rapidly expanding golf industry.

International students

Universities Scotland launched <http://studyinscotland.org/>, a website promoting Scottish universities to prospective overseas students, whose contribution it says is not only economic, but also cultural and social. The latest UCAS figures show a 6.9% increase in overseas applicants – there is increased demand for Scottish higher education nationally and internationally, with the number of Scottish applicants rising by 2.1%, the rest of UK applications by 16.6%, and EU applicants by 5.1%.²

International students are worth around £337 million annually in fees, and some £441 million in wider expenditure. Universities Scotland's 'Richer For It' report says home students benefit from studying alongside students from elsewhere, since this gives them an international outlook crucial for business. International graduates also create a vast global network of alumni with strong links to Scotland.³

Professor Sir Ian Diamond, Chair of Universities Scotland's International Committee and Principal and Vice-Chancellor of Aberdeen University, said: 'Scottish universities have the world-leading teaching and research credentials needed to compete successfully in a fiercely competitive and truly global recruitment environment.'

Global citizenship

Scotland has six Global Education Centres, sharing over £600,000 over two years to continue teaching pupils about the importance of global citizenship. They provide teaching resources, CPD and conferences to show teachers how to integrate global citizenship into their work, and say it is an ideal vehicle for interdisciplinary and cross-curricular work, as promoted by Curriculum for Excellence (CfE). Dr Tanya Wisely of the International Development Education Association of Scotland (IDEAS), which runs the centres, said: 'Whether we are aware of it or not, we are all increasingly interdependent with people and places across the world socially, culturally, environmentally, economically and politically.'⁴

Scottish Universities' international rankings

There is a strong preoccupation with globalisation. There was widespread rejoicing at the Times Higher Education World University Rankings 2013/14 which underlined the strength of Scotland's higher education sector: five Scottish institutions are ranked in the world's top 200, more per head of population than any other nation.⁵

But the National Union of Students Scotland says institutions should not simply focus on attracting international students, but should also promote international mobility among home students, enhancing their employability. NUS Scotland led the government-funded Developing Scotland's Global Citizens project, identifying barriers as lack of short-term opportunities, few opportunities in key subject areas, institutions' and students' lack of knowledge of available options, and a decline in language learning. Fewer than 1% of students in Scotland undertake Erasmus study, and a significant proportion of these are not Scottish. NUS Scotland calls for centralised data on international opportunities, and a national mobility agency promoting good practice.⁶

Collaborative research

Edinburgh and the Institute of Stem Cell Biology and Regenerative Medicine (InStem) in Bangalore have launched a new Centre for Brain Development and Repair to study disabilities arising from alterations in brain development. Supported by India's department of biotechnology, the collaboration will research autism spectrum disorders and degenerative disorders such as dementia.⁷

Scotland's place in the world

India is a priority country for the Scottish Government, along with China, the USA and Canada: developments in recent months mirror Scenario 3's forging of stronger links. Two hundred Saltire Scholarships, each worth £2,000, are awarded annually to students from the priority countries, for courses in the creative industries, life sciences, technology, financial services and renewable and clean energy. Fifty scholarships are earmarked for Indian students.⁸

Speaking in Delhi, external affairs and international development minister Humza Yousaf urged almost 70 of India's most prominent alumni of Scottish institutions to become advocates for Scotland and its higher education system. He highlighted the British Council Scotland commissioned report 'A Strategic Analysis of the Scottish Higher Education Sector's Distinctive Assets,' the first of its kind to examine the distinctiveness of Scotland's higher education sector as a whole. It shows that the Scottish system rates highly against not only the rest of the UK, but the rest of the world, and includes the finding that the overall learning satisfaction of international students in Scotland is unmatched.⁹

Further Scottish-Indian links have been forged through Coatbridge College and Kuravackal Educational and Charitable Trust forming a partnership on dental nursing standards, supported by Scottish Development International and the British Council.¹⁰

The Edinburgh-based Power of Youth entrepreneurship organisation held its fourth global summit in Delhi in October, bringing together 30 of the world's most prominent young business people. This aims to connect young Scottish entrepreneurs with a global network.¹¹

Holyrood's External Relations committee has recommended the more widespread teaching of Mandarin or Cantonese at all stages of education.¹²

While Chinese may be at an early stage, there is overt support for Gaelic, with an additional £4m over the next two years to increase the number of places available in Gaelic Medium Education, in response to rising demand. Education Scotland has published its first draft Gaelic Language Plan, confirming its commitment to working with partners to secure and strengthen the use of Gaelic in Scotland.¹³

The value of education, universally, in the 21st Century

Unesco has launched an initiative to rethink the fundamental principles on which approaches to education and learning are based in the context of globalisation. This aims to build on the 1996 Delors Report with its four pillars of learning ‘to be, to know, to do, and to live together’, with a report planned for April 2014. Unesco warns that while the economic impact of education is important, there is a need to go beyond a utilitarian view.

‘We need to recall the role of education as a means of cultural and social development. This highlights the importance of values in education. Education is not simply about knowledge and skills, but also about values of respect for human dignity and diversity required for achieving harmony in a diverse world,’ it says. There is a need to ‘rediscover’, and rethink, the humanistic dimensions of education for the 21st century. Education is a basic human right, it says, and a broad vision of education is needed, encompassing lifelong learning, formal and informal learning, and linking these with a range of informal learning spaces.¹⁴

Local knowledge systems

It warns that due respect must be given to local knowledge systems which are losing out in a global economy based on the dominant industrialised model of knowledge. And it also asks how the broader social outcomes of education can be assessed, focusing beyond literacy, academic knowledge and transferable skills.

Technology:

Addressing the digital divide

Social drivers such as increasing student numbers and changing employment patterns, combined with technological developments, means that both the processes and structures of higher education are likely to change. The Observatory on Borderless Education suggests that academics are likely to be employed part-time by several universities, often working remotely via the internet, rather than working for a single institution. Its report, *Horizon Scanning: What will higher education look like in 2020*, says junior lecturers may gradually be replaced by mentors scattered around the world, while more senior staff might have multiple contracts with several universities.¹⁵

It highlights the partnership between Warwick University and Australia's Monash University as a potential guide: an undergraduate module is taught to students at both institutions through video conferencing.

Sir Drummond Bone, former president of Universities UK and chair of the OBE's advisory board, says: ‘The vertically integrated, homogeneous, self-standing institution is under considerable challenge.’

Using a British Council analysis, the report predicts that the numbers of international students coming to the UK will continue to increase, but at a lower rate. Instead, we will see the growth of transnational education, such as providing distance learning courses and studying at international branch campuses.

The European Commission believes that rising student numbers mean universities need to adapt traditional teaching methods and offer a mix of face-to-face and online options such as MOOCs, but says many universities are not ready for this change.

Readiness for digital education is also an issue for schools. The Commission has unveiled an action plan, ‘Opening Up Education,’ warning that more than 60% of nine year olds in the EU are in schools which are not digitally equipped. It says digital problems are hampering educational institutions from delivering high quality education and the digital skills which 90% of jobs will require by 2020.

Between 50% and 80% of students in EU countries never use digital textbooks, exercise software, broadcasts, podcasts, simulations or learning games. Most teachers at primary and secondary level do not consider themselves as 'digitally confident' or able to teach digital skills effectively, and 70% would like more training.¹⁶

Scotland is to have a £264 million investment in high speed broadband, in a project delivered by BT and led by the Scottish Government along with local authorities. It will ensure that 85 per cent of Scottish properties have access to fibre broadband by the end of 2015 and around 95 per cent by the end of 2017.¹⁷

But some practitioners warn that we are still far from embedding the Unesco ICT Competency Framework for Teachers, published in 2011. It covers three stages: Technology Literacy, enabling students to use ICT in order to learn more efficiently; Knowledge Deepening, enabling students to acquire in-depth knowledge of their school subjects and apply it to complex, real-world problems; and Knowledge Creation, enabling students, citizens and the workforce they become, to create the new knowledge needed for more equitable and prosperous societies.¹⁸

Scotland has particular strengths in the information society, with high levels of broadband and internet access. It is also well placed in educational attainment and participation. But it is below the EU average in socio-economic terms and the direction of change in education performance is also largely below average. The project argues that there needs to be a strong focus on improving skills and lifelong learning, and connecting learning with entry or re-entry to the labour market, especially for young people.¹⁹

Addressing the digital divide

The topic of globalisation leads on to technology and the digital divide, issues raised in Scenarios 1 and 4. Governments are supporting technology for economic growth: Edinburgh is one of 10 cities in a £100 million UK-wide scheme allowing small businesses to apply for grants for high-speed broadband. The scheme is being extended to 12 more cities in 2014.

The Scottish government's second annual digital strategy report sets out the aim of Scotland being a world leading digital nation by 2020, and undertakes to invest more than £240m in extending next-generation broadband access to 95% of premises in Scotland by 2017/18.²⁰ The Scottish government's Rural Development Programme includes a proposal for £9 billion extra support for broadband infrastructure in rural areas by 2020.²¹

In December, the Royal Society of Edinburgh's interim report, *Spreading the Benefit of Digital Participation in Scotland*, warned that over a million Scots, and most small businesses, lacked the necessary access and skills to share in the benefits of a Digital Scotland.²²

Professor Michael Fourman of the University of Edinburgh's School of Informatics, who chaired the inquiry, said: 'Being online opens the door to opportunities in learning, healthcare, employment and business.'

According to the report, most of Scotland's small and micro-businesses are either not online or not yet making the most of digital tools. It says people excluded from the online world are increasingly excluded from opportunities for employment, education and social interaction. Many hard-pressed families cannot afford to go online, it says. Even in Scotland's most affluent neighbourhoods, one in every seven homes is not connected. Many isolated, elderly or disabled people are excluded from the digital society, and digital exclusion exacerbates existing social divides.

Chris Yiu, Director of Digital Participation at the Scottish Council for Voluntary Organisations (SCVO), said 'Everybody deserves a chance to benefit from the opportunities the internet brings. Digital participation is not an end in itself; it is about empowering people and communities to pursue the things that matter most to them. This is a vital ingredient in building a more inclusive society.'

MOOCs

The Observatory on Borderless Education co-authored a review of the MOOC (Massive Open Online Course) phenomenon for the UK Department for Business, Innovation and Skills, saying that conflicting perspectives divide education communities. Formal analyses of MOOCs mostly conclude that they are disruptive and possibly threatening to current models of higher education, while MOOC learner experiences are reported as positive. The report believes the MOOC is maturing, and engaging with business and accreditation issues.²³

In 2013, the University of Edinburgh became the first UK institution to launch large-scale MOOCs with a major MOOC platform provider. Its first six free courses, which attracted 300,000 students, were delivered via the Coursera partnership, a network of leading international universities providing short undergraduate-level online courses. Jeff Haywood, Edinburgh's chief information officer and librarian, said: 'They offer interesting opportunities to explore new educational spaces in which the scale goes way beyond large on-campus classes, and where assessment has to be thought about differently.' Along with the University of Edinburgh, the University of Strathclyde and the University of Glasgow are part of the UK-based Futurelearn partnership, and are also beginning to offer MOOCs.

David Kernohan, programme manager at the Joint Information Systems Committee, warns of significant 'hype' around MOOCs. Claims that MOOCs will become an alternative to higher education for people from disadvantaged backgrounds and the developing world sits uncomfortably with estimates placing MOOC drop-out rates at 90%. In addition, available evidence from early MOOCs indicates that 'The majority of people who take them have had higher education experience, are in full time employment and just fancy doing something else to keep their minds active. They usually pick a subject linked to their job or career or want to obtain a new skill.' MOOCs may therefore have an important role to play in lifelong learning, even while they require further work in areas such as inclusion and widening participation.

Furthermore, the Co-Exist Futurist Forum, which presents innovative developments, says claims that MOOCs are the best of way of using the Internet to open up education are 'thinking too small'. It claims that technology can turn our entire lives into learning experiences. To discuss how MOOCs are likely to disrupt classroom-based teaching, particularly in colleges and universities, is missing the bigger picture. Today's 'obsession' with MOOCs is trying to fit new technologies into existing social structures in ways that have become familiar to us, it says.

It predicts the rise of 'socialstructured learning,' with learners using a broad range of innovative media to aggregate 'microlearning experiences' which may last a few minutes, hours or days. It says we are moving away from a model of learning organised around stable institutions to learning being best conceived as a flow, with learners able to dip in and out autonomously.

'Instead of worrying about how to distribute scarce educational resources, the challenge we need to start grappling with in the era of socialstructured learning is how to attract people to dip into the rapidly growing flow of learning resources and how to do this equitably, in order to create more opportunities for a better life for more people,' it says.²⁴



Learning and employment

Youth employment and vocational education and training (VET) are also key concerns. The European Centre for the Development of Vocational Training, Cedefop, says vocational education and training is missing from many national innovation strategies and more needs to be invested in the skills of vocational education teachers and trainers. Incentives for learners to remain in or re-enter VET and for businesses to provide training places or employment are widespread, it says, but incentives for VET institutions to prevent drop-outs seem less frequent.²⁵

The Commission for Developing Scotland's Young Workforce, chaired by industrialist Sir Ian Wood, has said Scotland needs to focus on high quality vocational education to help boost economic growth. It focuses on significantly enhancing Scotland's vocational education to achieve the same acclaimed status as that enjoyed by Scotland's higher education sector. Scotland has an 'ill-informed' view of vocational education as inferior to higher education, it says.

The Wood Commission's interim report says business and industry working with schools and colleges is a key factor in ensuring that young people are more prepared for work and understand career choices. The commission, which will make its final report in 2014, is looking at how employers can be encouraged to commit to more apprenticeships, develop a comprehensive Invest in Youth policy and provide more employment opportunities for young people leaving education.²⁶

Professional chefs and cooks are being linked to schools where they will run workshops that cover food provenance and the importance of a healthy diet, as well as discussing career opportunities in the food, drink and hospitality industry. The £100,000 Chefs@School scheme, designed around the CfE principles, will be managed by the Federation of Chefs Scotland and aims to work with at least 15,000 pupils.²⁷

SMEs: career destinations

The Scottish Chambers of Commerce, the Federation of Small Businesses Scotland, educational institutions, student organisations and others have joined together to promote SMEs as a positive career destination to graduates, as well highlighting to SMEs the added value that graduates can bring. This is in response to the government's call for an 'all Scotland' approach to youth unemployment and follows a year-long programme of engagement with businesses, students and others.²⁸

At present, almost £90 million is being invested in helping Scotland's young people into work and supporting small business growth, with funding from the Scottish Government, local authorities, COSLA, the European Commission and employers. Up to 10,000 young people Scotland-wide are expected to be supported into work, particularly in small businesses. And more than 1,000 graduates will be helped to find the right job for their skills through almost £4.6 million funding for youth employment. There is £1.2 million funding for the Graduate Recruitment Incentive and Adopt an Intern schemes to place unemployed or underemployed graduates in permanent posts or internships in SMEs over the next year. The £3.4 million ScotGrad scheme, funded through the SME Growth Programme, aims to help businesses grow and create graduate job opportunities.

The Scottish Government has also teamed up with Young Enterprise Scotland and City of Glasgow College to launch 'Bridge 2 Business,' which over the coming year will promote enterprise as an option for students, ensuring they are networked with businesses.²⁹

Employment patterns

Despite difficult economic times, graduates are continuing to find work, according to HESA statistics. Three and a half years after leaving university, 94.9% of UK graduates from Scottish universities were in a job or further study, the highest proportion of all UK countries.

Graduates from Scottish universities also have the highest median earnings of £26,000.³⁰

And the rate of young people staying in employment, training or education after leaving school is the highest on record. According to the latest Scottish Government statistics, the proportion of leavers still in positive destinations nine months after finishing school has risen to 89.5 per cent from 87.2 per cent the previous year. The number of leavers with a qualification at Higher or above also rose, while the rate of those leaving with no qualifications at SCQF level 3 or above fell.³¹

Access to opportunities

A survey of literacy states the majority of pupils performed well or very well at the relevant CfE level. But pupils from the most deprived areas performed less well than those from the least deprived areas at all stages.³²

Widening access is a central focus for universities' outcome agreements for the current academic year. They are working to fill more than 700 extra places ring-fenced for entrants from Scotland's most deprived areas.

A joint report from NUS Scotland and the Higher Education Academy Scotland, 'Learning Journeys: Student Experiences in Further and Higher Education in Scotland,' found that the majority of students had positive educational experiences, but their choices could be affected by negative perceptions. It also identified barriers to direct-entry students and those from deprived backgrounds.

Students from more 'deprived' backgrounds felt less confident about playing an active role in their education, and were less likely to feel they were achieving their full potential.

Parity of esteem

The majority of further education college students had not considered university, and the majority of university students had not considered college, the 'Learning Journeys' report says. Their background was a factor in these considerations, with students from more deprived communities less likely to have considered university.

Students' perceptions of the different options were clearly also a factor, with college students saying they felt university would be more impersonal, more difficult, and more intimidating, and university students saying they saw college more as a 'back-up' plan, or somewhere students would go if they didn't get the grades for university. Both college and university students felt that university was seen as the 'normal' option or a superior option to college.

Students on direct entry routes to university, entering in the second year of a degree or later, were most likely to find settling into university study challenging, and reported issues fitting in with other students, and difficulty adjusting to different ways of learning and teaching.

The 'Learning Journeys' report recommends action to address the issue of parity of esteem between different qualifications and modes of study, and further work to support students from more deprived backgrounds.³³



Adult Learning

Youth employment and vocational education and training (VET) are also key concerns. October 2013 saw the publication of the OECD Survey of Adult Skills (PIAAC) for England and Northern Ireland – Scotland and Wales were not part of the international study. It found that contrary to international patterns, the oldest age group in England (55 plus) had higher average literacy scores than those aged 16 – 18, with particularly poor performance amongst England's youngest adults compared with other participating countries. Higher literacy skills are linked to educational attainment and employment status. England's performance in numeracy was significantly below the OECD average. 'The comparison with other countries in terms of age groups suggests that other countries are improving the literacy and numeracy skills of younger people at a faster rate than in England,' the report says.³⁴

The National Institute of Adult Continuing Education (NIACE) has said lifelong learning could make a far bigger contribution to improving social mobility. It says it offers the possibility of transformation and change for people of any age. Family learning is vital for breaking intergenerational cycles of poverty, raising aspirations and developing the skills of adults as well as children.³⁵

Education Scotland launched its Corporate Plan 2013-16, 'Transforming Lives Through Learning'. Its aim is to improve educational outcomes for all learners and eradicate inequity in education in Scotland, turning the system from 'good' to 'great'. Partnership is a cornerstone of the plan, along with looking at high-performing systems across the world.³⁶

In 2013, Education Secretary Michael Russell announced the creation of an Adult Learning Strategy Group to review how best to promote and protect adult learning in Scotland. The Group is to publish a Statement of Ambition and ongoing work-plan in 2014.

June 2013 saw the creation of the Cross Party Group on Adult Learning under the convenership of Jean Urquhart MSP. The group was created to provide a platform for adult learners to engage directly with MSPs and to consider together how best to promote, protect and celebrate adult learning.

Partnership working within Scotland

Collaboration has been a hallmark of the Scottish educational scene, even though it has largely been driven by funding rather than altruism. Innovative partnerships continue to spring up. Schools in Angus, South Ayrshire, Renfrewshire and West Dunbartonshire are taking part in a partnership programme which aims to raise attainment, and already operates successfully in Ontario. The links will help staff and pupils in similar schools in disadvantaged areas learn from each other's strengths.³⁷

Four regional Scottish colleges have been created through the merger of 12 colleges, which John Henderson, Chief Executive of Colleges Scotland, said opened up opportunities to be even more responsive to students, local communities, and strategic partnerships.³⁸



The concept of education hubs, which appears in Scenario 2, is a new initiative from College Development Network, which supports the sector to deliver best practice and share innovations. It has funds to help college regions to establish Creative Learning Networks, increasing awareness of creativity, its practical application as a high order thinking skill and a cross-cutting theme of CfE. The aim is to develop long-term strategic partnerships between the education community and cultural and business sectors locally, regionally and nationally. It says the new college networks will act as hubs for creativity, with learners, staff and the local community having a shared understanding of creativity, enterprise and innovation.³⁹

Enhancing the school education system: the Commission on School Reform

In March 2013, the Commission on School Reform published its report 'By Diverse Means: Improving Scottish Education'. The Commission, set up by the think tanks Reform Scotland and the Centre for Scottish Public Policy and chaired by former Director of Education Keir Bloomer, argues that the underlying problem with the school system is that it is too uniform and lacks the diversity required to excel. This has led to a very consistent level of education across the board, but not to an exceptional level and has almost certainly levelled-down the overall achievement.

The report argues that variety and diversity can be promoted by increasing the autonomy of individual schools and loosening the grip of central authorities. Decisions which can competently be taken at a school level should be taken without interference from elsewhere. This will allow Scotland to harness the creativity that exists in its schools, and embed a culture of excellence from the ground up.

The report says this will crucially ensure that pupils in the most disadvantaged areas will have an opportunity to experience personal and social development that is all too difficult to achieve in the current system.⁴⁰

It wants to see talented staff encouraged to teach and stay in schools in the most disadvantaged areas. These schools should be resourced to make them attractive places in which to work and develop a career.

The Commission says little about the details of the curriculum but suggests that *Curriculum for Excellence* offers a suitable framework for the foreseeable future. But it does urge more emphasis on developing employability skills, with the importance of vocational education recognised as a greater priority in curriculum planning.

Curriculum development and the role of teachers

As a direct result of the GGiS/SFF scenario project, the Royal Society's Vision Committee commissioned its own scenarios, looking at how the UK can develop an inspiring and high quality science and maths education system over the next 20 years. This requires an excellent teaching profession, it says, with specialist science and maths teachers in schools and colleges, backed by a professional development programme.⁴¹

The Curriculum for Excellence is setting a challenging agenda with clear expectations about breadth and depth for all young people as part of a broad general education. It is also based on the development of capacities elaborated through experiences and outcomes. Under CfE, there is an emphasis on continuing assessment as well as formal exams, an issue raised in Scenario 2. The latest reforms have no exams in the first three years of secondary school. And schools are to have a new benchmarking system which, rather than judging them on the proportion of students passing exams, will focus on a range of new measures including how well they tackle inequality, and what happens to school leavers. But the reforms remain controversial, with teachers warning that the scheme is too vague and they are not adequately prepared.⁴²

Educational leadership

Scotland now has an online resource to support the implementation of its new framework for educational leadership. The framework aims to develop a new generation of high-performing leaders able to head improvements in the education system during challenging and rapidly changing times. This begins from the outset of a teacher's career, and the online resource helps individual teachers apply the framework to their own development.⁴³

Masters-level teachers

Scenario 3 envisaged teaching established as a masters level profession, backed by CPD. This is another live topic. Local authorities and universities are bidding for a share of £1.7m for masters level learning for teachers. This follows £1.3m last year to support teachers who had already embarked on masters programmes. Education Secretary Michael Russell says evidence suggests that education systems with teachers educated to masters level produces better results for the young people they teach, and that all teachers should have the chance to study at masters level.⁴⁴

The Donaldson report of 2010 underlined the importance of encouraging teachers to constantly refresh and update their skills, and described CPD as one of the biggest challenges for teacher education. A decade ago, the McCrone review laid down the requirement of 35 hours of CPD a year to lead to continuous improvement of teachers' skills, but Donaldson said implementation has been 'patchy'.

Anthony Finn, chief executive of GTC Scotland, has re-stated Donaldson's assertion that teachers should have appropriate skills before they start and then develop these skills throughout their careers. The better prepared they were, he said, the better the quality of teaching.

He warned that at a time of budget cuts, employers might seek to cut professional corners, with suggestions that teaching could be delivered electronically, and some specialist components of the curriculum could be 'taught' by unqualified visitors. The key question for GTC Scotland was whether flexibility would help pupil learning or merely address an organisational dilemma. The GTC already had policies on effective links between secondary schools and FE colleges, and on primary teachers contributing to literacy and numeracy in early secondary, but it would not reduce or dilute standards in pursuit of flexibility which was not built on professionalism.

Mr Finn said the new Fitness to Teach powers were progressing well, with the GTC both regulating and promoting high standards. The most important difference with the new professional standards was that they were applicable to teachers throughout their career.⁴⁵

'The Standard for Career-Long Professional Learning will give teachers opportunities to recognise the progress they have made. I think that that is important,' he said. 'In the past lots of very good teachers went through their career and achieved well beyond the standard that they had reached at the start of their career, but no one had a process to recognise that progress.'

Mr Finn said there was currently huge international interest in Scotland, with people elsewhere recognising that we had a highly skilled teaching profession. He hoped this would also lead to an improved respect for teachers and teaching from within Scotland.

International perspectives on teachers.

This may be an area to benefit from collaboration with China. An international study by a Sussex University professor has found that teachers in China have the highest levels of respect, with the UK placed 10th out of 21 countries. Teachers in China were compared with doctors, while in the UK they were more likely to be bracketed with nurses and social workers. Finland, often seen as a model for recruiting high-quality, high-status teachers, was even lower, in 13th place, while Germany (16th) and Japan (17th) were among the lowest.⁴⁶

Reaction to the scenarios from the United States stressed the importance of looking at other countries' experience. It cited the view of Professor Henry Levin of Teachers College, Columbia University: 'Careful comparative work raises new possibilities for any country to think about, and also allows us to see our own taken-for-granted practices with new eyes. It tells us that there are other ways to get to a goal and broadens our thinking about what these might be."

Finland sees many similarities between the scenarios and its own debates, and suggests that the options may be closer than 2025. It is radically reforming the school curriculum to meet future challenges. This will include flexible working patterns and using ICT to combine formal and informal learning.

Inequality

More division

Research headed by Professor David Bell of Stirling University signals moves towards a divided and inequitable society. In the past decade, Scotland's top one per cent of earners – about 25,000 people – have increased their income at a greater rate than the rest of the nation's workers, and can expect to earn 20 times more than someone in the bottom one per cent, the report says. But the levels of inequality remain relatively stable, because the UK tax and benefits system transfers more from higher to lower income households than the average developed country. The richest one per cent of earners contribute a fifth of income tax raised in Scotland.⁴⁷

The team found that, despite income redistribution, inequality is high in Scotland and the UK as a whole, relative to other developed countries, and especially to the Nordic countries. But since the late 1990s, net income inequality (after taxes and benefits have been taken into account) has tended to increase somewhat faster in the Nordic countries than it has in Scotland.



Reducing income inequality through existing powers

And the team suggested that intervention at the local level, as in Scenario 2, could be one of the most effective ways to reduce income inequality, using Scotland's existing powers to set its own council tax. According to their findings, the ability to increase the gap between council tax bands would reduce inequality.

Welfare reform in 2013 included the controversial 'bedroom tax', cutting the amount of housing benefit that people in the social rented sector can get if they are considered to have a spare bedroom. According to the Government's impact assessment, those affected lose an average £14 a week, while the National Housing Federation says Housing Association tenants lose an average £16 a week.⁴⁸

In October, COSLA launched a Commission on Strengthening Local Democracy, bringing together senior councillors, wider civic society, and a range of experts to investigate why local services and local accountability matter. COSLA President Councillor David O'Neill said: 'Effective local democracy is fundamental to the kind of country we want to live in. The opportunities and challenges that we face in different parts of the country are different, and require local choices and local accountability. In fact vibrant local democracy means vibrant local communities'.⁴⁹

Councillor O'Neill said there had been a shift away from the local in recent decades. 'More and more services are being run by distant bureaucracies, and often those services are being done to people rather than delivered with them. Yet across Europe, the opposite is often true. That trend simply won't see us through for much longer, because it is no coincidence that our European neighbours are often more successful at improving outcomes.'

COSLA has also published 'Local Matters: a vision for stronger local democracy'. It argues: 'Improving lives in Scotland means developing a democracy where local people have more say, where different needs are met with different solutions, and where new ideas can flourish.'

Digital Inequality

Evidence of the digitally excluded came in the February 2013 report of Citizens Advice Scotland, *Offline and Left Behind*. This responded to the UK Governmental Digital Strategy setting out how the government would transform the way it delivered services, including moving them online. Citizens Advice Scotland warned that a 'digital by default' approach to welfare benefits could exclude some of the most vulnerable and marginalised members of society from accessing the very services they rely upon. It details evidence of people already having difficulties because they cannot access or use the Internet. This has implications for greater educational reliance on technology if a key aim is to widen access: it cannot be assumed that individuals have access to relevant equipment.⁵⁰

An ageing population

The Joseph Rowntree Foundation's major five-year programme, 'A Better Life', aimed to explore what 'quality of life' means for older people with high support needs. It said the individual and collective voices of older people with high support needs should be heard and given power, and there must be a much wider range of approaches to enable this to happen. It said there was a need to use the assets, resources and strengths of older people with high support needs through recognising and creating opportunities for them to both give and receive support. It was important to be open to radical and innovative approaches but also to consider the way that often simple changes can improve lives within existing models.

The report says it is important to take into account the diversity of older people as a demographic group. There is a need for positive images and balanced narratives to challenge ageist assumptions, recognising that old age is not about 'them' but about all of us. It calls for a considerable shift in cultures and attitudes, judging systems, practices and policies precisely on the basis of whether or not they are promoting good lives for older people.⁵¹

Around 800,000 people a year reach the current state pension age, with numbers continuing to rise. In the 2013 autumn budget, Chancellor George Osborne announced the pension age would go up to 68 by the mid-2030s, about a decade earlier than planned. Delaying the state pension age by a year saves the Government some £13 billion.

Revisiting the drivers of change and traffic lights



The overarching drivers of change used in designing the scenario architecture are listed below. During the scenario project itself, the team looked at the **relationships** between hundreds of different drivers of change during the research phase. It was that exercise that led to the production and richness of the scenario narratives.

From the scanned materials, through a traffic light approach, the strength of each signal can be considered in relation to the potential outcomes and impacts identified in the original scenario exercise. This of course is only illustrative as a snapshot but it does provide a general picture and patterns of change in relation to the four original scenarios.

Green indicates a strong signal of change (specific changes)

Amber indicates mid-strength signals of change (for example, intended change, widespread call for change, identified actions possibly leading to change)

Red indicates a weak signal (for example, an isolated call for change)

White indicates nothing detected from the scan

	Potential driver outcome	Signals in relation to scenarios	Strength of signal
	<i>Technology changes (the rules of) the game</i>		
1	Individualist/divisive use	<ul style="list-style-type: none">➢ Rising student numbers mean universities need to adapt traditional teaching methods and offer a mix of face-to-face and online options such as MOOCs, but many universities are not ready for this change.➢ Digital problems are hampering schools and higher education from delivering high quality education and the digital skills which 90% of jobs will require by 2020.➢ Between 50% and 80% of students in EU countries never use digital textbooks, exercise software, broadcasts, podcasts, simulations or learning games.➢ Most teachers at primary and secondary level do not consider themselves as 'digitally confident' or able to teach digital skills effectively, and 70% would like more training.➢ A 'digital by default' approach to welfare benefits could exclude some of the most vulnerable and marginalised members of society from accessing the very services they rely upon.➢ A million Scots, and most small businesses, lack the necessary access and skills to share in the benefits of a Digital Scotland.➢ Some practitioners warn that we are still far from embedding the Unesco ICT Competency Framework for Teachers, published in 2011.	

	Potential driver outcome	Signals in relation to scenarios	Strength of signal
	<i>Technology changes (the rules of) the game</i>		
2	Collaborative/team use, widening access	<ul style="list-style-type: none"> ➢ Students from India and Scotland sharing lectures in real-time is resulting in the exchange of ideas and learning concepts in the context of two different environmental set-ups. ➢ Edinburgh is one of 10 cities in a £100 million UK-wide scheme allowing small businesses to apply for grants for high-speed broadband. The scheme is being extended to 12 more cities in 2014. ➢ Broadband infrastructure in rural areas to be supported by an extra £9b by 2020. ➢ Being online opens the door to opportunities in learning, healthcare, employment and business. 	
3	Enriches learning experience	<ul style="list-style-type: none"> ➢ Conflicting perspectives divide education communities. Formal analyses of MOOCs mostly conclude that they are disruptive and possibly threatening to current models of higher education, while MOOC learner experiences are reported as positive. ➢ The focus on MOOCs as the best of way of using the Internet to open up education is 'thinking too small'. Technology can turn our entire lives into learning experiences, and to discuss how MOOCs are likely to disrupt classroom-based teaching, particularly in colleges and universities, is to miss the bigger picture. Today's 'obsession' with MOOCs is trying fit new technologies into existing social structures in ways that have become familiar to us. ➢ The rise of 'socialstructured learning', with learners using a broad range of innovative media to aggregate 'microlearning experiences' which may last a few minutes, hours or days. ➢ We are moving away from a model of learning organised around stable institutions to learning being best conceived as a flow, with learners able to dip in and out autonomously. 	
4	Increased isolation, lack of depth	<ul style="list-style-type: none"> ➢ Scotland's small and micro-businesses are either not online or not yet making the most of digital tools. People excluded from the online world are increasingly excluded from opportunities for employment, education and social interaction. ➢ Many hard-pressed families cannot afford to go online. Even in Scotland's most affluent neighbourhoods, one in every seven homes is not connected. ➢ Many isolated, elderly or disabled people are excluded from the digital society, and digital exclusion exacerbates existing social divides. ➢ Digital participation is not an end in itself; it is about empowering people and communities to pursue the things that matter most to them. This is a vital ingredient in building a more inclusive society. 	

	Potential driver outcome	Signals in relation to scenarios	Strength of signal
	<i>Technology changes (the rules of) the game</i>		
5	Atomistic and unstructured adoption of technologies	<ul style="list-style-type: none"> ➢ MOOC is maturing, and engaging with business and accreditation issues. ➢ We are moving away from a model of learning organised around stable institutions to learning being best conceived as a flow, with learners able to dip in and out autonomously. ➢ Instead of worrying about how to distribute scarce educational resources, the challenge we need to start grappling with in the era of socialstructured learning is how to attract people to dip into the rapidly growing flow of learning resources and how to do this equitably, in order to create more opportunities for a better life for more people. 	
	<i>Instability and insecurity of resources</i>		
6	Reliance on globalised supply of resources		
7	Self-sufficiency, enforced protectionism		
8	Public learning and public interest ensuring best use of resources		
9	Laissez-faire attitude (free-for-all-access) to resources		
10	Core learning around problem-solving and solution producing skills	<ul style="list-style-type: none"> ➢ Curriculum for Excellence aims to achieve a transformation in education in Scotland by providing a coherent, more flexible and enriched curriculum from 3 to 18. It emerged from the 2002 'National Debate on Education', which resulted in identifying education's key purposes as fostering 'successful learners, confident individuals, responsible citizens and effective contributors'. It was launched in schools in 2010–11, with the implementation programme continuing until 2016. It states that 'Every child and young person is entitled to develop skills for learning, skills for life and skills for work, with a continuous focus on literacy and numeracy and health and wellbeing.' 	
11	Do nothing (inaction)		
12	Increased military conflict over resources		

	Potential driver outcome	Signals in relation to scenarios	Strength of signal
	<i>Greater social inequalities</i>		
13	Low educational attainment	<ul style="list-style-type: none"> ➢ A majority of college HE students had not considered university, and a majority of university students had not considered college. Their background was a factor in these considerations, with students from more deprived communities less likely to have considered university. ➢ Students' perceptions of the different options were clearly also a factor, with college students saying they felt university would be more impersonal, more difficult, and more intimidating, and university students saying they saw college more as a 'back-up' plan, or somewhere students would go if they didn't get the grades for university. Both college and university students felt that university was seen as the 'normal' option or a superior option to college. ➢ Action required to address the issue of 'parity of esteem' between different qualifications and modes of study, and further work to support students from more deprived backgrounds. 	
14	Higher learning outcomes	<ul style="list-style-type: none"> ➢ The proportion of leavers still in positive destinations nine months after finishing school has risen to 89.5 per cent from 87.2 per cent the previous year. The number of leavers with a qualification at Higher or above also rose, while the rate of those leaving with no qualifications at SCQF level 3 or above fell. ➢ The Times Higher Education World University Rankings 2013/14 underlined the strength of Scotland's higher education sector: five Scottish institutions are ranked in the world's top 200, more per head of population than any other nation. ➢ Education Scotland's current Corporate Plan aims to improve educational outcomes for all learners and eradicate inequity in education in Scotland, turning the system from 'good' to 'great'. Partnership is a cornerstone of the plan, along with looking at high-performing systems across the world. 	
15	Increased use of social cohesion measures	<ul style="list-style-type: none"> ➢ Scotland is to have a £264 million investment in high speed broadband, in a project delivered by BT and led by the Scottish Government along with local authorities. It will ensure that 85 per cent of Scottish properties have access to fibre broadband by the end of 2015 and around 95 per cent by the end of 2017. ➢ Four regional Scottish colleges have been created through the merger of 10 colleges, opening up opportunities to be even more responsive to students, local communities, and strategic partnerships. ➢ Intervention at the local level could be one of the most effective ways to reduce income inequality, using Scotland's existing powers to set its own council tax. According to their findings, the ability to increase the gap between council tax bands would reduce inequality. 	

	Potential driver outcome	Signals in relation to scenarios	Strength of signal
	<i>Greater social inequalities</i>		
16	Accepting of greater competition and civil unrest	<ul style="list-style-type: none"> ➢ Scotland's top one per cent of earners – about 25,000 people – have increased their income at a greater rate than the rest of the nation's workers, and can expect to earn 20 times more than someone in the bottom one per cent. ➢ The levels of inequality remain relatively stable, because the UK tax and benefits system transfers more from higher to lower income households than the average developed country. The richest one per cent of earners contribute a fifth of income tax raised in Scotland. ➢ Inequality is high in Scotland and the UK as a whole, relative to other developed countries, and especially to the Nordic countries. But since the late 1990s, net income inequality (after taxes and benefits have been taken into account) has tended to increase somewhat faster in the Nordic countries than it has in Scotland. ➢ A majority of college students had not considered university, and a majority of university students had not considered college. Their background was a factor in these considerations, with students from more deprived communities less likely to have considered university. 	
17	<i>Increasing Globalisation</i>		
	Open and confident	<ul style="list-style-type: none"> ➢ Scotland has six Global Education Centres, sharing over £600,000 over two years to continue teaching pupils about the importance of global citizenship. ➢ Edinburgh University and the Institute of Stem Cell Biology and Regenerative Medicine (InStem) in Bangalore have launched a new Centre for Brain Development and Repair to study disabilities arising from alterations in brain development. Supported by India's department of biotechnology, the collaboration will research autism spectrum disorders and degenerative disorders such as dementia. ➢ Universities Scotland promotes Scottish universities through a new website to prospective overseas students, whose contribution is not only economic, but also cultural and social. ➢ 6.9% increase in overseas applicants – there is increased demand for Scottish higher education nationally and internationally, with the number of Scottish applicants rising by 2.1%, the rest of UK applications by 16.6%, and EU applicants by 5.1%. ➢ International students are worth around £337 million annually in fees, and some £441 million in wider expenditure. ➢ Home students benefit from studying alongside students from elsewhere, since this gives them an international outlook crucial for business. International graduates also create a vast global network of alumni with strong links to Scotland. 	

	Potential driver outcome	Signals in relation to scenarios	Strength of signal
	<i>Increasing Globalisation</i>		
17	Open and confident	<ul style="list-style-type: none"> ➢ Scottish universities have the world-leading teaching and research credentials needed to compete successfully in a fiercely competitive and truly global recruitment environment. ➢ Whether we are aware of it or not, we are all increasingly interdependent with people and places across the world socially, culturally, environmentally, economically and politically. ➢ Two hundred Saltire Scholarships, each worth £2,000, are awarded annually to students from priority countries, for courses in the creative industries, life sciences, technology, financial services and renewable and clean energy. Fifty scholarships are earmarked for Indian students. 	
18	Insular and defensive	<ul style="list-style-type: none"> ➢ Institutions should not simply focus on attracting international students, but should also promote international mobility among home students, enhancing their employability. Lack of short-term opportunities, few opportunities in key subject areas, institutions' and students' lack of knowledge of available options, and a decline in language learning are key barriers. ➢ Fewer than 1% of students in Scotland undertake Erasmus study, and a significant proportion of these are not Scottish. 	
19	Export what we are good at in learning	<ul style="list-style-type: none"> ➢ Scottish institutions have this year signed three agreements to provide education and training to China, worth up to £2 million over three years. These are a joint engineering programme between Glasgow University and the University of Electronic Science & Technology China (UESTC); TEFL Scotland working with China's largest online training provider; and Scotland's Rural College (SRUC) Elmwood Golf International launching a new training programme for 15 Chinese universities. Elmwood has already trained more than 700 Chinese lecturers and golf professionals to support China's rapidly expanding golf industry. ➢ The Scottish [higher education] system rates highly against not only the rest of the UK, but the rest of the world, and includes the finding that the overall learning satisfaction of international students in Scotland is unmatched. ➢ Scottish-Indian links have been forged through Coatbridge College and Kuravackal Educational and Charitable Trust forming a partnership on dental nursing standards, supported by Scottish Development International and the British Council. 	

	Potential driver outcome	Signals in relation to scenarios	Strength of signal
	<i>Increasing Globalisation</i>		
20	Local learning services for local communities by local people	<ul style="list-style-type: none"> ➢ The concept of education hubs is a new initiative from College Development Network, which supports the sector to deliver best practice and share innovations. ➢ It has funds to help college regions to establish Creative Learning Networks, increasing awareness of creativity, its practical application as a high order thinking skill and a cross-cutting theme of CfE. The aim is to develop long-term strategic partnerships between the education community and cultural and business sectors locally, regionally and nationally. ➢ The new college networks will act as hubs for creativity, with learners, staff and the local community having a shared understanding of creativity, enterprise and innovation. ➢ Community Learning and Development (CLD) Scottish Statutory Instrument, which came into effect in September 2013, saw a regulatory underpinning to CLD and a requirement on local authorities to provide adult learning. 	
	<i>Continuing pressure on Government finance</i>		
21	Embrace change in culture to free up resources and promote diversity		
22	Central control of what and how we spend	<ul style="list-style-type: none"> ➢ The opportunities and challenges that we face in different parts of the country are different, and require local choices and local accountability. In fact vibrant local democracy means vibrant local communities. ➢ There has been a shift away from the local in recent decades. More and more services are being run by distant bureaucracies, and often those services are being done to people rather than delivered with them. Yet across Europe, the opposite is often true. That trend simply won't see us through for much longer, because it is no coincidence that our European neighbours are often more successful at improving outcomes. ➢ Improving lives in Scotland means developing a democracy where local people have more say, where different needs are met with different solutions, and where new ideas can flourish. 	

	Potential driver outcome	Signals in relation to scenarios	Strength of signal
	<i>Continuing pressure on Government finance</i>		
23	Innovating public services	<ul style="list-style-type: none"> ➢ £90 million is being invested in helping Scotland's young people into work and supporting small business growth, with funding from the Scottish Government, local authorities, COSLA, the European Commission and employers. ➢ Up to 10,000 young people Scotland-wide are expected to be supported into work, particularly in small businesses. And more than 1,000 graduates will be helped to find the right job for their skills through almost £4.6 million funding for youth employment. ➢ There is £1.2 million funding for the Graduate Recruitment Incentive and Adopt an Intern schemes to place unemployed or underemployed graduates in permanent posts or internships in SMEs over the next year. ➢ The £3.4 million ScotGrad scheme, funded through the SME Growth Programme, aims to help businesses grow and create graduate job opportunities. 	
24	Increasing taxes	<ul style="list-style-type: none"> ➢ Welfare reform in 2013 included the controversial 'bedroom tax', cutting the amount of housing benefit that people in the social rented sector can get if they are considered to have a spare bedroom. According to the Government's impact assessment, those affected lose an average £14 a week, while the National Housing Federation says Housing Association tenants lose an average £16 a week. 	
	<i>People living longer</i>		
25	Burdensome and inability to engage	<ul style="list-style-type: none"> ➢ The Joseph Rowntree Foundation's major five-year programme, <i>A Better Life</i>, aimed to explore what 'quality of life' means for older people with high support needs. It said the individual and collective voices of older people with high support needs should be heard and given power, and there must be a much wider range of approaches to enable this to happen. It said there was a need to use the assets, resources and strengths of older people with high support needs through recognising and creating opportunities for them to both give and receive support. It was important to be open to radical and innovative approaches but also to consider the way that often simple changes can improve lives within existing models. 	
26	Cost unsustainable, inequalities and uncertainty	<ul style="list-style-type: none"> ➢ Around 800,000 people a year reach the current state pension age, with numbers continuing to rise. In the 2013 autumn budget, Chancellor George Osborne announced the pension age would go up to 68 by the mid-2030s, about a decade earlier than planned. Delaying the state pension age by a year saves the Government some £13 billion. 	

	Potential driver outcome	Signals in relation to scenarios	Strength of signal
	<i>People living longer</i>		
27	Healthy enjoyable lives	<ul style="list-style-type: none"> ➢ The Joseph Rowntree Foundation says it is important to take into account the diversity of older people as a demographic group. There is a need for positive images and balanced narratives to challenge ageist assumptions, recognising that old age is not about 'them' but about all of us. It calls for a considerable shift in cultures and attitudes, judging systems, practices and policies precisely on the basis of whether or not they are promoting good lives for older people. 	
	<i>Changing nature of work</i>		
28	Live to work		
29	Work to live		
30	Closed minds, de-skilled, dehumanised		
31	Flexible, capable, adaptive ready to learn population	<ul style="list-style-type: none"> ➢ Widespread teaching of Mandarin or Cantonese at all stages of education is recommended. While Chinese may be at an early stage, there is overt support for Gaelic, with an additional £4m over the next two years to increase the number of places available in Gaelic Medium Education, in response to rising demand. ➢ Vocational education and training (VET) is missing from many national innovation strategies and more needs to be invested in the skills of vocational education teachers and trainers. ➢ Incentives for learners to remain in or re-enter VET and for business enterprises to provide training places or employment are widespread, but incentives for VET institutions to prevent drop-outs seem less frequent. ➢ Scotland needs to focus on high quality vocational education to help boost economic growth. Business and industry working with schools and colleges is a key factor in ensuring that young people are more prepared for work and understand career choices. ➢ Scotland has an 'ill-informed' view of vocational education as inferior to higher education. ➢ The Scottish Chambers of Commerce, the Federation of Small Businesses Scotland, educational institutions, student organisations and others have joined together to promote SMEs as a positive career destination to graduates as well as highlighting to SMEs the added value that graduates can bring. 	

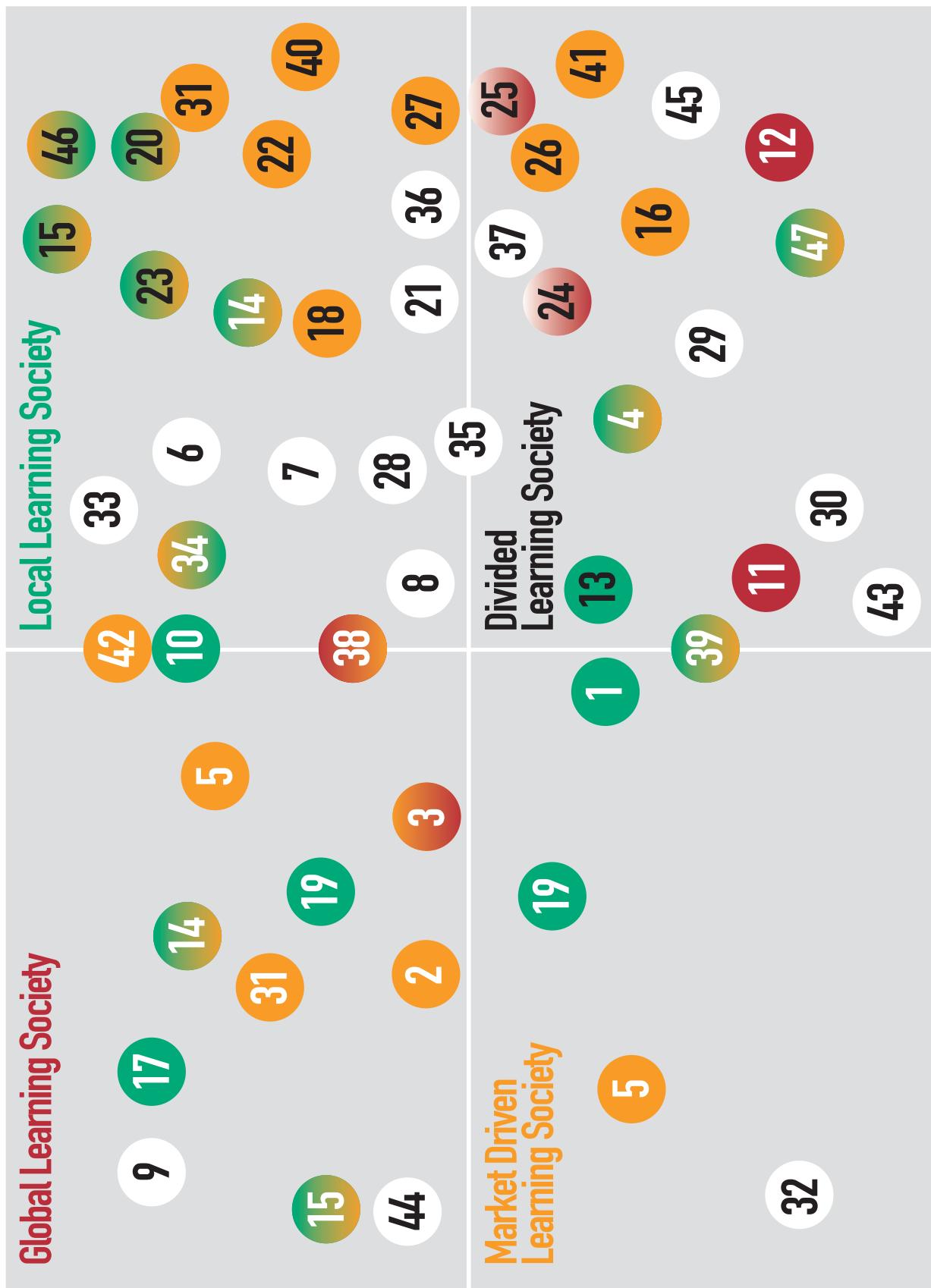
	Potential driver outcome	Signals in relation to scenarios	Strength of signal
	<i>Changing nature of work</i>		
32	Individualistic, flexible and resilient working life		
33	Working within organisations and networks		
	<i>Providers of learning more diffuse and diverse</i>		
34	Greater variety of options and routes for learning	<ul style="list-style-type: none"> ➢ Local authorities and universities are bidding for a share of £1.7m for masters level learning for teachers. This follows £1.3m last year to support teachers who had already embarked on masters programmes. ➢ Evidence suggests that education systems with teachers educated to masters level produces better results for the young people they teach, and that all teachers should have the chance to study at masters level. ➢ A decade ago, the McCrone review laid down the requirement of 35 hours of CPD a year to lead to continuous improvement of teachers' skills, but Donaldson said implementation has been 'patchy'. ➢ At a time of budget cuts, employers might seek to cut professional corners, with suggestions that teaching could be delivered electronically, and some specialist components of the curriculum could be 'taught' by unqualified visitors. ➢ The Standard for Career-Long Professional Learning will give teachers opportunities to recognise the progress they have made. ➢ In the past, many very good teachers achieved well beyond the standard that they had reached at the start of their career, but no one had a process to recognise that progress. ➢ [By 2020...] Academics are likely to be employed part-time by several universities, often working remotely via the internet, rather than working for a single institution. Junior lecturers may gradually be replaced by mentors scattered around the world, while more senior staff might have multiple contracts with several universities. ➢ The vertically integrated, homogeneous, self-standing [higher educational] institution is under considerable challenge. ➢ We will see the growth of transnational education, such as providing distance learning courses and studying at international branch campuses. 	

	Potential driver outcome	Signals in relation to scenarios	Strength of signal
	<i>Providers of learning more diffuse and diverse</i>		
34	Greater variety of options and routes for learning	<ul style="list-style-type: none"> ➢ Professional chefs and cooks are being linked to schools where they will run workshops that cover food provenance and the importance of a healthy diet, as well as discussing career opportunities in the food, drink and hospitality industry. The £100,000 Chefs@School scheme, designed around the CfE principles, will be managed by the Federation of Chefs Scotland and aims to work with at least 15,000 pupils. 	
35	Narrow learning opportunities available		
36	Greater individual satisfaction in learning		
37	Greater complexity and bad choices by learners		
	<i>Constitutional change</i>		
38	Greater influence over destiny		
39	Less influence over destiny		
40	Increase in powers – providing opportunities for change	<ul style="list-style-type: none"> ➢ A key plank of the Scottish Government's referendum white paper is a 'revolution' in social policy, with a strong focus on childcare. In advance of the September 2014 referendum on Scottish independence, the white paper pledges thirty hours of childcare per week in term time for all three and four-year-olds, as well as for vulnerable two-year-olds, which it says would match the best in Europe. It says the government's approach to education would be integrated with wider social policies such as taxation and benefits to help address child poverty. It argues that control over the tax and welfare system and influence over the labour market would pave the way for the education system to have a central role in lifting people out of poverty and helping them into employment. 	
41	Increase in powers – with less opportunities for change		

	Potential driver outcome	Signals in relation to scenarios	Strength of signal
	<i>Increasing ethical awareness</i>		
42	Libertarian society	<ul style="list-style-type: none"> ➤ Lifelong learning could make a far bigger contribution to improving social mobility. It offers the possibility of transformation and change for people of any age. Family learning is vital for breaking intergenerational cycles of poverty, raising aspirations and developing the skills of adults as well as children. 	
43	More tensions and divisions in society		
	<i>21st century Life</i>		
44	Dynamic, creative and confident		
45	Society of inertia/paralysis/isolation		
46	Social and policy efforts focused on nurturing 21st century core skills for all	<ul style="list-style-type: none"> ➤ Despite difficult economic times, graduates are continuing to find work, according to HESA statistics. Three and a half years after leaving university, 94.9% of UK graduates from Scottish universities were in a job or further study, the highest proportion of all UK countries. Graduates from Scottish universities also have the highest median earnings of £26,000. ➤ The rate of young people staying in employment, training or education after leaving school is the highest on record. ➤ The proportion of leavers still in positive destinations nine months after finishing school has risen to 89.5 per cent from 87.2 per cent the previous year. The number of leavers with a qualification at Higher or above also rose, while the rate of those leaving with no qualifications at SCQF level 3 or above fell. ➤ The Scottish Government has teamed up with Young Enterprise Scotland and City of Glasgow College to launch 'Bridge 2 Business,' which over the coming year will promote enterprise as an option for students, ensuring they are networked with businesses. ➤ Widening access is a central focus for universities' outcome agreements for the current academic year. They are working to fill more than 700 extra places ring-fenced for entrants from Scotland's most deprived areas. ➤ The Scottish Government is consulting on its Community Empowerment Bill which says communities should be supported to do things for themselves. It argues that this would boost local democratic participation, lead to increased confidence and skills among local people, with higher numbers of people volunteering in their communities, and greater satisfaction with quality of life in a local neighbourhood. 	

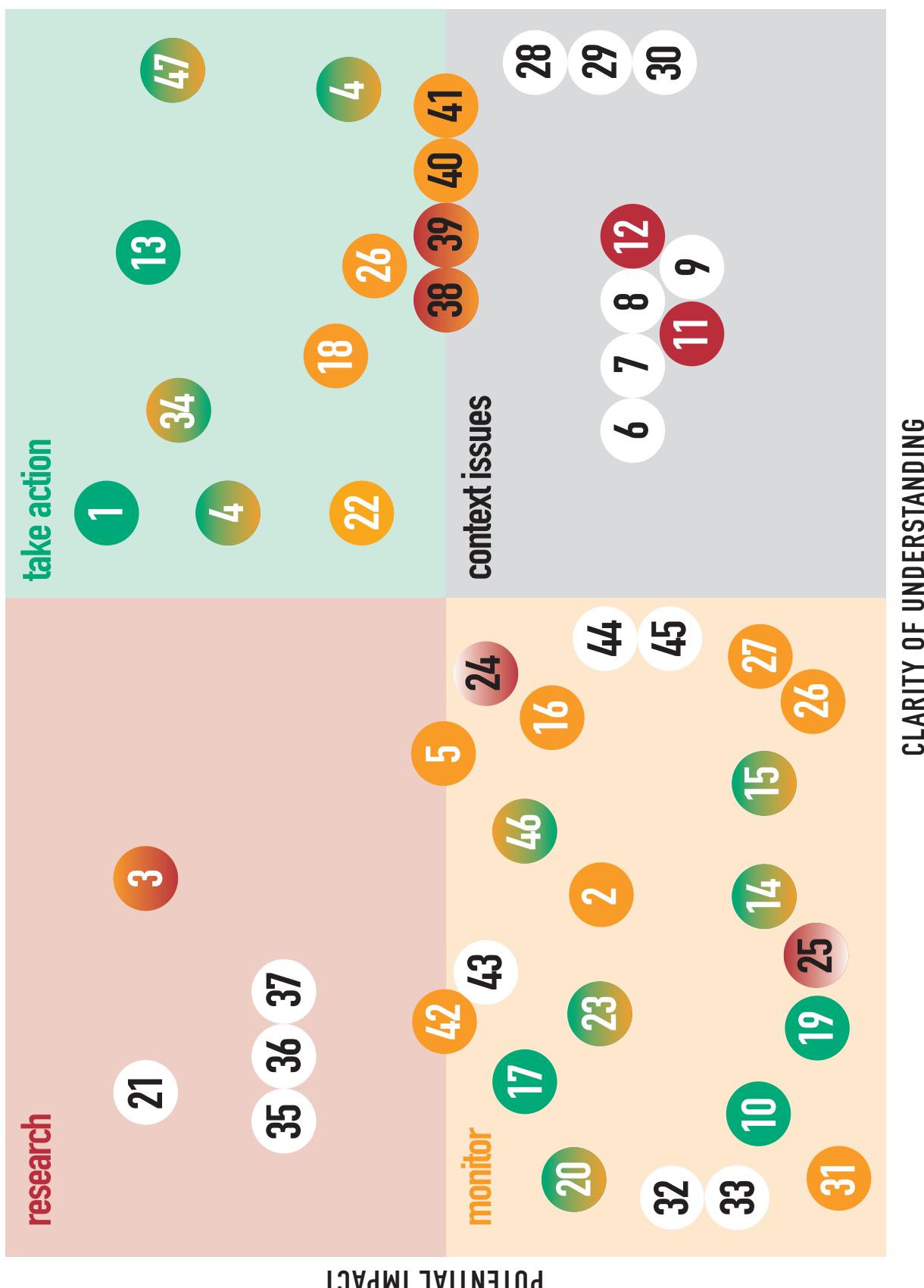
	Potential driver outcome	Signals in relation to scenarios	Strength of signal
	21st century Life		
47	<p>Two-tier society (those who can navigate and those who cannot)</p>	<ul style="list-style-type: none"> ➤ There was a lot of 'hype' about how MOOCs would become an alternative to higher education for people from disadvantaged backgrounds and the developing world. The majority of people who take them have had higher education experience, are in full time employment and just fancy doing something else to keep their minds active. They usually pick a subject linked to their job or career or want to obtain a new skill. ➤ Between 50% and 80% of students in EU countries never use digital textbooks, exercise software, broadcasts, podcasts, simulations or learning games. Most teachers at primary and secondary level do not consider themselves as 'digitally confident' or able to teach digital skills effectively, and 70% would like more training. ➤ A 'digital by default' approach to welfare benefits could exclude some of the most vulnerable and marginalised members of society from accessing the very services they rely upon. ➤ [Scotland is] below the EU average in socio-economic terms and the direction of change in education performance is also largely below average. ...there needs to be a strong focus on improving skills and lifelong learning, and connecting learning with entry or re-entry to the labour market, especially for young people. ➤ While the majority of pupils performed well or very well at the relevant CfE level, pupils from the most deprived areas performed less well than those from the least deprived areas at all stages. ➤ The majority of students had positive educational experiences, but their choices could be affected by negative perceptions. Barriers to direct-entry students and those from deprived backgrounds have been identified. ➤ Students from more 'deprived' backgrounds felt less confident to play an active role in their education, and were less likely to feel they were achieving their full potential. ➤ Over the last two years, there has been a dramatic reduction in the number of providers of adult learning. ➤ Scottish Government have announced plans to introduce an adult learning policy. 	

This graph plots the results of the scan against the four original scenarios and we can start to see where, after twelve months, key activities are occurring.



Emerging priority areas for action, monitoring and research

It is clear that, while this scan is limited in scope and timespan, a pattern is emerging that suggests an overall emphasis of movement towards the global learning society and the local learning society. However, there are a number of signals that require further understanding, research and action. There are also a number of context and upcoming issues which we should be aware of.



Action

- 13** Action is required to address the issue of 'parity of esteem' between different qualifications and modes of study, alongside further work to support students from more deprived backgrounds.
- 47** Action is required to help students from deprived backgrounds feel more confident about being actively involved in education.
- 1** Action is required to develop IT skills for Scots to enable them to benefit in 'Digital Scotland'.
- 42, 47** Action is required to protect and promote adult learning, especially for those who have felt marginalised from education in the past.
- 1** Action is required to increase the number of international education partnerships to allow Scottish students to share lessons (in schools) and lectures (in higher education) and to promote the exchange of ideas through the use of technology.
- 18** Action is required to design and promote international mobility among Scottish students.
- 34** Action is required to ensure teaching staff have the flexibility to teach in different institutions, building their capacity to engage with a world of increasing diversity and complexity, and taking into account the need for expertise beyond that which institutions can provide on their own.
- 25** Action is required to support the growing number of people currently in work and expected to remain in the workforce past 65 years old. This may involve more training, careers advice, financial advice, and more flexible working patterns.
- 4** Action is required to reduce the number of isolated, elderly and disabled people excluded from 'Digital Scotland'.
- 22** Action is required to build local democracy and make local decision-making valued. Adult learning provision could play a pivotal role in this.

Further Research

- 21, 46** Further research is required to establish, post-Christie, evidence of a new emerging culture in public sector delivery, one that may free up resources and promote diversity.
- 3** Further research is required to establish the best uses of online learning, including MOOCs, and what support learners and teachers need in order to make good use of a range of online approaches. Research is also required to give a better understanding of how educational institutions could support learning as a 'flow' of 'micro-learning' experiences.
- 35, 36, 37** Further research is required to establish the extent to which, if at all, extending and diversifying those who provide learning will lead to a broadening of learning opportunities, and greater individual satisfaction in learning.

Monitoring

- 20** The development and effectiveness of local learning services, including Networks Learning.
- 31, 32, 33** The changing nature of work and the extent to which those changes may impact on the flexibility, capabilities and resilience of learners.
- 17** The effects of increased globalisation on Scotland's learning and research.
- 10, 14** The impact of moving onto Curriculum for Excellence.
- 23** The pressures on public sector finance are acute, and innovation, partnership working, different approaches and new ideas are arguably driving public sector reform. The impact of these changes should be closely monitored and shared on an ongoing basis. At present, there is nothing to suggest a return to the levels of public money available in 2008, which would be required to support the Global Learning Scenario.
- 19** The levels of export of Scottish education and the wider impact this has in terms of Scotland's place in the world should be monitored on an ongoing basis.
- 5** The extent to which the adoption of technology is unstructured and atomistic.
- 15, 46** The effectiveness of wider social policy initiatives in helping to mitigate the effect of increasing social inequalities.
- 2** The roll-out of broadband infrastructure in rural areas and its subsequent impact.
- 16** The level of acceptance or otherwise of high levels of inequalities and increased taxation.
- 44, 45** The extent to which citizens feel confident to navigate the complexities of 21st Century living, particularly to assess whether there are groups of people who feel increasingly isolated.
- 26, 27** The expected increase in costs associated with 50 per cent of Scotland's population being over 50 years old by 2025.

Context issues

- 38, 39, 40, 41** In September 2014, Scotland will vote on the Referendum for Scottish Independence. Regardless of the result, constitutional affairs will impact on Scotland's ambition of becoming a world-leading learning nation for many years to come.
- 2, 6, 7, 8, 9, 11** It will also be important to understand, over coming years, the potential impact on Scotland from global food and fuel security issues.



Part II

How are people using the scenarios and what difference are they making?

In October 2013, the project community was surveyed to establish how they had used the project materials since their publication. 93 per cent said they had found the published materials very useful or useful.

In particular, respondents said they found the project toolkit the most useful. That corresponds with the project prezi tool having had over 20,500 hits since publication.

Interestingly, 72 per cent of respondents felt that Scotland was heading in the general direction of a global learning nation, while 18 per cent felt Scotland was heading for a local learning nation.

We have also had feedback from people who have used the materials in specific ways. Some of these are set out below:

Education Scotland

In 2013, GGiS ran a two-day scenario planning workshop for key staff within Education Scotland. The Goodison Group in Scotland and Education Scotland are now working together to develop new scenario resources suitable for use in local communities by learners, parents, practitioners and partners.

Using the materials for the MA Primary Education with Teaching Qualification Programme, University of Glasgow

The MA Primary Education (with Teaching Qualification) is an undergraduate pre-5 and primary teacher training programme run by the University of Glasgow in the School of Interdisciplinary Studies on the Dumfries Campus. This 4-year Programme has recently been unconditionally re-accredited by the GTCS (General Teaching Council of Scotland) with a number of commendations.



One of the courses in the 3rd year of this programme is ‘Curriculum and Assessment’. This focuses on various primary curricula around the world such as Scotland, England and Wales, Australia, Sweden, Finland and China as well as the curriculum in Ontario, Canada. There is also a focus on assessment, reviewing the various forms and their effectiveness. Four sessions of the course (4 x 2 hour sessions) focus on the 2025 project, looking at possible future scenarios and linking them to a fictitious future Scottish curriculum. The 1st session focuses on Global Learning Society; the 2nd, Local Learning Society; the 3rd, Market-driven Learning Society; and the 4th, Divided Learning Society. In each session, the accompanying publications *Key Questions and Provocations*, *Toolkit*, *Scenarios for the future* and *Data Workbook* are used to stimulate and drive the discussion.

The assignment for the course relies heavily on these four scenarios and accompanying publications. The assignment is as follows:

In 1989, the Scottish Executive launched *5-14: A Curriculum Framework* – a national framework which was to ensure school children had the skills, attitudes and understanding to prepare them for the 21st Century. In 2009, Her Majesty’s Inspectorate of Education (HMIE) published *Improving Scottish Education*. HM Senior Chief Inspector Graham Donaldson stated in his commentary on the findings of the report, ‘It is clear that the future will require a population with the confidence and skills to meet the challenges posed by fast and far-reaching change.’

It could be argued that the curriculum in Scotland will undergo another shift around 2029. Based on current societal trends and current curricular publications (such as Scotland’s Futures Forum), justify what, in your professionally-informed opinion, you believe the structure of this new curriculum will be.

This course consists of 11 sessions. As over 1/3 of the time is dedicated to Scotland’s Futures Forum it is clear this publication is integral to this course; it provides a strong baseline for the students’ assignment and promotes discussion, debate and imaginative thinking during classes.

Used in Schools

In 2013, the scenario materials were used by Brechin High, Arbroath Academy, Craigie High, St Paul’s RC Academy, Braeview Academy, Baldragon Academy, Menzieshill High, Woodmill High, Beath High, Lochgelly High and Kirkland High. Coordinated by the project LIFT OFF, the schools for higher education programme, 130 pupils from these schools engaged with the scenario materials as creative process of inquiry to help them to consider learning in the future and more specifically, to help the pupils develop critical and creative learning skills.

LIFT OFF is a partnership of schools, colleges, universities, local authorities and Skills Development Scotland, funded by the Scottish Funding Council to deliver the Schools for Higher Education Programme in Fife and Tayside. Thirteen schools in the region meet the criteria of having low progression rates to higher education. These have an average progression rate of 17% and also have a significant proportion of pupils from Scotland’s most deprived areas.

The scenario materials were used to help students achieve the following learning outcomes:

- 1 Demonstrate an understanding and expanded knowledge of the role and value of HE, and how this differs from previous learning experiences;
- 2 Undertake self-reflection and set meaningful and realistic goals within the context of improving learning skills;
- 3 Develop and practise some of the higher level skills associated with learning in HE;
- 4 Plan, design and deliver a group presentation.

This module is designed to develop the following transferable skills:

- Communication skills, including presenting findings and discussion participation.
- Self management skills, including planning, study skills, organisation, working under pressure, meeting deadlines.
- Interpersonal skills, including communication through group and online work.
- Academic skills, including critical and analytical skills, problem solving, creativity, library skills, literacy and numeracy skills.
- Taking responsibility for personal learning requirements.

South Lanarkshire Futures Group

In 2013, under South Lanarkshire Council, around 20 key education figures (head teachers, council staff, CLD and youth workers, primary and secondary teachers) came together to create the South Lanarkshire Futures Group, to consider learning in the 21st century. Working with GGiS, the group have begun their own scenario planning project, using the national scenario material as a starting point. They hope to extend the group in 2014 and will use the results to test current education plans and assumptions.

Facilitation workshops

In addition, GGiS have responded to a number of requests from organisations looking for workshop facilitation using the scenario materials. These include:

- Association Directors of Education Scotland
- Queen Margaret University
- Scotland's Learning Partnership
- Scottish Council Development Industry (SCDI)
- University Secretaries Association
- Universities Scotland Secretaries Group
- Edinburgh College
- Colleges Scotland/College Development Network

International commentaries

During the original scenario project a number of international organisations took part and contributed their thoughts. Here, some of those contributors reflect on the scenarios and their value.

Ilpo Laitinen, Adjunct Professor, MBA, Director of Administration, Aidasmaantie, Helsinki, Finland

Generally the four scenarios seem to be very interesting and well defined. Seen from the Finnish perspective there are lots of similarities with the ongoing Finnish debate. Actually the main question could be, would it be possible that most of the options are just behind the corner, much closer than year 2025.

Because of the various future challenges the Finnish schooling system is undergoing a huge curriculum change. The Finnish National Board of Education is elaborating the new National Core Curriculum for the Finnish basic education (compulsory school) and it has to be finished by the end of 2014. After that, education providers (mostly municipalities) elaborate local curriculum which will be taken into force in August 2016. The aim is to strengthen the sustainability, quality and coherence of basic education by developing school culture and working methods in order to enhance pupils' active and responsible role in schools. The intent is to carry that out by developing flexible working structures and the use of ICT in learning in order to combine formal and informal learning, developing schools' welfare services and by strengthening extra-curricular activities in schools in order to improve the wellbeing of pupils and by enhancing competences needed in the future. The same drivers which lay behind the reform of the basic education may be found behind the discussions of future higher education.

One of the main drivers is the change from inter-organization between closed systems to open systems. Thus new skills and competencies are needed. Meta-cognitive skills, personal big data and networking will become essential. Participation, social skills, creativity and innovativeness belong to the new geography of the local smart cities in which the different sectors and actors collaborate towards the shared goal as a knowledge sharing and creating 'ecosystem'. New methods and technologies are constantly being introduced into production, requiring new competencies from workers. The emergence of new occupations and the rapid changes in the world of work also bring about new methodological development challenges. Learning to learn, lifelong learning, combination of formal and informal learning and work-site learning supported by edutech will become essential.

New growth areas include new service sciences, blue and green economy and new technologies. This may be defined as a target scenario i.e. as a national economy building on a high standard of competence and assuming the importance and major role of multi-actor, networked R&D activities. The target scenario envisages lots of support for innovation activities, which will be manifested in growth in public demand within research and development and education.

**Nancy Hoffman, Vice President
and Senior Advisor, Jobs for the
Future, Boston, USA**

It is with some humility that I provide education advice or lessons from the United States. The US is slowly beginning to learn from other countries rather than to consider our challenges unique. Indeed, the sentiment below from Henry Levin, William Heard Kilpatrick Professor of Economics and Education at Teachers College, Columbia University, speaks directly to a key reason for international comparison: '*Studying what other systems do is a worthwhile activity not because it gives us answers, but because it gives us questions and ideas. Careful comparative work raises new possibilities for any country to think about, and also allows us to see our own taken-for-granted practices with new eyes. It tells us that there are other ways to get to a goal and broadens our thinking about what these might be.*' These select comparative reports tailored to the challenges, strengths and aspirations of the Scottish education system serve just this purpose – they provide a new set of windows on the Scottish system today and where it will be in 2025. But what is particularly useful for anyone planning an exercise to establish goals and strategies for positive change are the tools accompanying the report which serve as templates for engagement and consensus building among citizens, education experts, and the broader policy community. I look forward to observing Scotland's pathway forward.



**Anders Olsson, Enterprise
and Innovation Manager
Region Värmland**

If a nation aspires to be a world leading learning nation, benchmarking, research or policy development in isolation are not enough. They need to be put into processes linking them together, complemented by other mechanisms that are drivers for development and innovation.

It would be novel and exciting if a nation chose to undertake the development of the school system in the same way that, in policy terms, sectoral or regional innovation is developed. Traditional ways of controlling the school system would need to be partly abandoned, the mission for the school system reformulated and new kinds of support functions established.

If such a policy approach is to be robust there needs to be widespread awareness of global trends influencing the conditions for development of the learning system as the four scenarios in the present work:

- Market-driven learning society
- Local learning society
- Global learning society
- Divided learning society

The Market-driven learning society will probably see more involvement from private firms in innovation. The Local learning society will draw more on the resources of local networks while in the Global learning society scenario, Scotland will connect more to the global flow of knowledge. The outcomes will probably differ in some but not all respects for the different scenarios.

Another concern is to secure awareness of the complexity of the mission on learning, the diversity of different kinds of knowledge, what knowledge is good for and the different conditions and capabilities different peoples have for learning.

To be a global leading nation, even if starting from a position of strength, the nation will have to draw upon a wide range of available resources, public, private and personal.

Networks are essential and research shows that rich and relevant networks are favourable to innovation. In the learning nation, the output should not only be products as study materials, serious games, new design of classrooms etc. It should also be the innovation of the learning process in itself.

Scotland will be a world-leading learning nation when you unleash the innovative potential of your teachers and students.

Connect them to the global flow of knowledge surrounding the learning process and support them with resources for researching and developing learning and learning tools... all in partnership with ICT industry, of course.

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Goodison Group in Scotland

INFLUENCING LEARNING

About the Goodison Group in Scotland

Who We Are and Why We Exist

Goodison Group in Scotland (GGiS) is a company registered in Scotland with charitable status under the name GGiS (Network) Ltd.

We exist because we believe learning throughout life is vital to Scotland thriving in the 21st Century. We bring together, on an equal basis, influential and experienced people, from Government, education and business (including the third sector), to consider and influence the thinking on policies and practices relating to learning throughout life.

We want everybody in the community to have the opportunity to learn and develop throughout their life. We believe providing this opportunity is essential to the fulfilment of every individual; it is a matter of social justice and contributes to the wealth and well-being of Scotland.

For us learning throughout life encompasses all forms of learning and education; early year's education, school/college education, adult learning, formal/informal learning as well as learning as part of a job/career.

Our Board consists of experienced people who have a great knowledge of and passion for learning and education.

GGiS Board of Directors

- Sir Andrew Cubie – Chairman
- Mark Batho
- Professor Graham Donaldson
- Donna Hamilton
- David Watt

What We Do

- We create opportunities for cross-sector interaction and collaboration on priority learning throughout life topics.
- We have quality discussion and debate on topics that will impact learning throughout life in the future; challenging the thinking of all three sectors.
- We consider what is happening with learning throughout life in the rest of the UK and beyond to see how this may influence/impact our work in Scotland.
- We aim to create a common understanding and language across the three sectors regarding learning throughout life.
- We share our collective findings and conclusions with the relevant policy makers and organisations to help influence their thinking about learning throughout life; to help change happen.
- We commission research when appropriate, for example as part of a project.



About Scotland's Futures Forum

Scotland's Futures Forum was created by the Scottish Parliament to help its Members, along with policy makers, businesses, academics, and the wider community of Scotland, look beyond immediate horizons, to some of the challenges and opportunities we will face in the future.

Looking beyond the four-year electoral cycle and away from party politics, the Forum seeks to stimulate public debate in Scotland, bringing fresh perspectives, ideas and creativity on how we might prepare for the future now.

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