REVIEW OF SCOTLAND'S COLLEGES

Developing Capability:

How our Colleges can Respond to Future Challenges

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SCOTTISH EXECUTIVE

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Executive summary and list of recommendations

The key messages from this report are about positioning and role, leadership, collaboration and partnership, responsiveness, and modernising learning and teaching.

One thing is certain, none of the scenarios we have described in this report will actually come about exactly as we predict. However, imagining our colleges in very different future environments helps us:

- to think through what is needed so that colleges can excel in any of a likely range of futures;
- to test out the possible impact of policies over a longer timescale than is usual in day-to-day strategy development; and
- to recognise that broad social, economic and environmental factors will shape the colleges of the future far more than small changes to procedures, funding mechanisms, or the problems of today.

Colleges will never be monopoly suppliers so they will need to earn their position as providers of choice. This is our aspiration. Colleges' greatest strength is their ability to respond rapidly and effectively to the needs of their communities. This needs to be maintained and strengthened. But colleges do need a clear environment to work within, and clear roles for themselves and for their partners - learners, employers, local agencies, national bodies - in this endeavour. The Scottish Executive should work to develop and clarify these roles and relationships.

We hope people find this report of use in developing their own thinking about the future.

*On **positioning and role**, it is recommended that:*

- *Scotland's colleges, the Scottish Executive and Scottish Funding Council should aspire to make colleges vocational education and training providers of choice for learners and employers.*
- *The key roles for Scotland's colleges should be to:*
  - *provide vocational education and training related to employment in response to national, regional and local needs;*
  - *provide positive and clear routes for learners into employment or into higher education institutions; and*
  - *support learners to develop their knowledge and skills so that they can feel confident in their work and in their lives.*
- *The Scottish Executive should work with stakeholders to more clearly define the roles and responsibilities of all stakeholders in the publicly funded tertiary education system. Funding and regulatory systems should then be aligned with these roles to enable colleges and other players to deliver.*

*On **leadership**, it is recommended that:*

- *Colleges should lead by example, in their communities, by demonstrating clear strategic leadership.*
- *Colleges, the Scottish Executive and Scottish Funding Council should promote and support the ongoing development of adaptive leadership capacity in the tertiary sector.*
- *Colleges should continue to work together to develop a cohort of potential future leaders.*
- *Colleges, the Scottish Executive, Scottish Funding Council and other stakeholders should ensure that strategic, funding and regulatory regimes best support the development of adaptive leadership capacity in the tertiary sector.*

*On **collaboration and partnership**, it is recommended that:*

- *Colleges should be regarded as key strategic partners in their communities alongside other local stakeholders.*
- *The Scottish Executive should develop appropriate new models of partnership, adapt systems to support these new models, and clarify its expectations of those involved in partnerships.*
- *Colleges and other stakeholders should strengthen their capacity to work in partnership and should continue to develop networks and work together to deliver their individual and collective aims and objectives. Organisations that support Scotland's colleges should promote this at a national level.*
- *Colleges and other relevant stakeholders should consider further opportunities to share data and infrastructure.*

*On **responsiveness to learners and employers**, it is recommended that:*

- *Colleges should be aware of and respond to demand for learning from learners and employers and different segments of these markets, consistent with colleges' aims and objectives.*
- *Further work should be undertaken to consider how best to improve the effectiveness and timeliness of market intelligence, including better local interpretation of national and regional data, to ensure more informed decisions by colleges and learners.*

*On **modernising learning and teaching**, it is recommended that:*

- *Colleges should, within the resources available to them, provide attractive modern learning environments and ensure that the location, timing and method of learning meet the changing needs of future learners and employers.*
- *Colleges, supported by the Scottish Funding Council, should develop and evaluate their practices by capitalising on the ongoing development of research into the human mind and its implications for learning and teaching.*
- *Colleges should continue to exploit the opportunities presented by information and communication technology to support a blended approach to learning and teaching.*

*On **next steps**, it is recommended that:*

- *The Scottish Executive should initiate early work to: clarify the positioning and key roles of colleges and other stakeholders with an interest in the tertiary sector; develop regulatory and funding regimes to support this; and strengthen adaptive leadership capacity.*
- *The Scottish Executive, colleges and key agencies should continue to use futures work as a strategic development tool.*

1. Introduction

1.1 The Review of Scotland's Colleges (RoSCo) represented the most fundamental and wide ranging review of the college sector in Scotland since incorporation in 1993. Its purpose was to provide Scottish Ministers with a robust evidence base and, where appropriate, informed recommendations for change, upon which sound decisions could be taken on how to fund and equip Scotland's colleges to meet future challenges and demands.

1.2 The review covered four workstreams:

- the contribution which the sector makes to learners and to Scotland's economy and wider society;
- accountability and governance;
- staffing, learners and learning environments; and
- colleges' strategic future over the next 10-15 years.

1.3 The remit of the last of these four workstreams was to consider the colleges' strategic future over the next 10-15 years, taking account of changing demographics and expectations.

1.4 A working group representing a wide range of stakeholders led the futures work. Within this working group, a steering group had responsibility for the development and consideration of scenarios facilitated by an independent consultant. A small scenario development team contributed to drafting of the detailed narratives for each of the four scenarios. Members of the core group, working group and scenario development team are listed in Annex A.

1.5 The Leitch Review, *Prosperity for All in the Global Economy – World Class Skills*, was published as we started to draft this report. The Scottish Executive will be responding to this report separately, so we have not referred explicitly to its recommendations here.

2. How we approached this work

2.1 All Principals of Scotland's colleges were given the opportunity over the Spring and Summer of 2006 to engage in discussions about the key challenges facing the sector. Scottish Executive officials also met staff and student representatives and a range of other key stakeholders from the education, business, community learning and development and voluntary sectors. Two Open Space events - with an agenda determined by participants - and a discussion with the Chairs of Scotland's colleges were also held to gather a wide range of views.

2.2 A number of major challenges which are expected to have an impact on Scotland's colleges but are largely outwith their direct control were identified during this process. These included: demographic change; terrorism, globalisation, internationalism and the expansion of the EU; climate change and environmental constraints; technological advances; government fiscal and policy approaches; and development of city regions and rural peripherality.

2.3 We asked Malcolm Hutchinson of the consultancy *Viable Futures* to build on this work and to facilitate the process of developing, and considering the implications of, future possible scenarios which Scotland's colleges might face in 2021. His report describing how we did this is set out in Annex B.

2.4 The four scenarios we developed were based on major change drivers which are highly uncertain, but could have the greatest impact on Scotland's colleges. The scenarios were intended to be plausible, realistic but challenging. They were not intended to predict the future, but to provide different strategic contexts within which the colleges may have to respond. A narrative painting a picture of each of the four scenarios is set out as part of Annex B, but the summaries of each are included here for convenience:

Content, Smart and Enlightened

Scotland in 2021 is fairly similar to Scotland in 2006. In particular there is a similar feel to civic society and the learning market but the effects of 'certainties' such as demographic change and further environmental decay have now made considerable impacts. This is a Scotland which, whilst not amongst the richest nations of the world, has chosen not to continue to chase growth, has a highly educated population and is recognised as one of the most enlightened small countries in the world.

Stewardship Society

Scotland's progress has been central to European success and in particular the growth of the EU's small country economies. Through the path to 2021, Scotland has been very successful in attracting private sector investment, and has developed an internationally renowned and thriving social economy optimising the input of a strong voluntary sector. Successive government policies and partnerships with key national economic stakeholders have continued to provide a sustainable, genuinely mixed economy with well rewarded private, public and voluntary career opportunities.

Planning to Survive

Scotland has never quite connected economically despite early promise and puts its faith in planning and directive policies of government to stabilise the economy and elements of societal breakdown. For some, it is a comfort zone country with high dependency on the state; for others, a country with restrictions and barriers to creativity and individualism. Scotland in 2021 has major government intervention and regulation in the economy, society and the learning system. It is a safe and secure but risk averse and protectively traditionalist nation.

MacTiger

The Scottish economy of 2021 is more successful than in 2006 and society is significantly more consumerist in its nature. It enjoys a strong education system focused primarily on the demands of individual learners. Challenges for Scottish 2021 society include dealing with labour shortages in key areas of the public sector, pockets of high social deprivation, a breakdown in earlier traditional community values, rural depopulation and environmental degradation. Scotland has become a less tolerant nation. Given the opportunities that are available to individuals, the nation is generally less inclined to support those “not pulling their weight”.

3. Preparing the sector for the future

3.1 The remainder of this report reflects the working group's deliberations on how we can ensure that Scotland's colleges are well placed in the context of any of the four possible scenarios. Our consideration of the future for colleges in these four scenarios highlighted five key areas for strategic action:

- Positioning and role
- Leadership
- Collaboration and partnership
- Responsiveness to learners and employers
- Modernising learning and teaching

3.2 In looking to 2021, we have taken account of the variety of key players currently involved in the tertiary sector, although we cannot assume that this group will be unchanged in 15 years time in any of the four scenarios (this is not an exhaustive list):

- Learners
- Colleges and their staff
- Trades unions
- Association of Scotland's Colleges
- Universities and other higher education institutions
- Private training providers
- Employers
- Government – UK, Scottish and local
- Scottish Funding Council
- Enterprise networks
- Scottish Qualifications Authority
- learndirect scotland
- Careers Scotland
- Sector Skills Councils
- Futureskills Scotland
- Learning Connections

3.3 Each of these players will have to adapt and change in response to the different environments described in the scenarios. How they respond will, in turn, influence other players. While this report focuses on the colleges, we have to be aware of how all these players may interact with one another.

Positioning and role

What did our futures work tell us?

3.4 The four scenarios represent plausible futures in 2021 that describe different contexts within which the college sector may have to be ready to adapt in order to thrive and excel. The four scenarios suggest different roles, ways of interacting with other players, and characteristics for colleges, although most of the scenarios envisage increasing opportunities in healthcare and sustainable energy technologies.

How should we respond?

3.5 We feel that colleges and their partners need greater clarity about their positioning and key roles so that colleges can be confident in facing the future, and other players can support this. This clarification is a critical requirement in the context of all scenarios. The articulation of colleges' positioning and their key roles provide clarity for staff, learners and other stakeholders. It provides a context for dialogue with stakeholders about how best to achieve this. It also provides a sound basis for action under the other four themes identified as part of our futures work described below.

3.6 Scotland's colleges currently undertake a wide range of activities which contribute to the social, economic and cultural life of Scotland and its people. The *Accountability and Governance* workstream has identified a number of areas of good practice which will be disseminated across the sector. The *Difference Colleges Make* workstream of RoSCo has identified a number of outcomes to which Scotland's colleges could make a significant contribution in the short and medium term, building on existing activity and expertise.

3.7 Education and learning is central to the future success of Scotland. Colleges should continue to contribute to government policies on growing the economy, social inclusion and sustainable development by meeting the training and skills needs of local communities, Scotland and the wider world. The focus of future activities is uncertain, but healthcare needs and sustainable energy technologies are expected to provide growing opportunities for colleges. There may also be opportunities for colleges in respect of enterprise, both entrepreneurial and social.

3.8 Some of the different scenarios suggest that in future there may be more private training providers in competition with the colleges. We also expect that adult education will continue to take place in a variety of contexts and for a variety of reasons. This will include community-based learning which, for many, provides a first step back into learning. Colleges will need to work effectively with all these partners.

3.9 However, we consider that Scotland's colleges, the Executive and Funding Council should aspire for our colleges to become providers of choice for adult education, training and skills in Scotland. (For the purposes of this report, we define "adult" as those aged 16 and above.) Colleges and higher education institutions should complement, not compete with, one another. This requires a much clearer articulation of differentiated roles in a stratified tertiary education system. Clearer differentiation of expectations of colleges and other providers in the tertiary sector would provide a sound basis for ensuring coherent provision of learning and effective partnerships, and for regulatory and funding systems.

3.10 Colleges should, first and foremost, be local service providers, with a strategic leadership role at the heart of their communities, respected and trusted by local people. They should be respected as key partners on an equal basis with other agencies in their local community. Some colleges should deliver specialist subjects to meet wider regional or national economic needs, such as land management or nautical studies. Scotland's colleges should also continue to contribute to national, regional and local policies, collectively and individually.

3.11 The key roles of colleges should be clearly defined in this context. They should cover: meeting vocational education and training needs for employment; providing routes into employment and into higher education institutions; and supporting learners to develop their knowledge and skills so that they can feel confident in their work and in their lives. As part of this, colleges should help people develop the core skills to help them participate fully in society. For a very small number of people with severe learning disabilities for whom paid employment is not an option, colleges should provide learning to enhance educational, personal and social development. Colleges should be adequately funded to meet these needs, collectively and individually, and be expected to respond in return.

*On **positioning and role**, it is recommended that:*

- *Scotland's colleges, the Scottish Executive and Scottish Funding Council should aspire to make colleges vocational education and training providers of choice for learners and employers.*
- *The key roles for Scotland's colleges should be to:*
  - *provide vocational education and training related to employment in response to national, regional and local needs;*
  - *provide positive and clear routes for learners into employment or into higher education institutions; and*
  - *support learners to develop their knowledge and skills so that they can feel confident in their work and in their lives.*
- *The Scottish Executive should work with stakeholders to more clearly define the roles and responsibilities of all stakeholders in the publicly funded tertiary education system. Funding and regulatory systems should then be aligned with these roles to enable colleges and other players to deliver.*

Leadership

What did our futures work tell us?

3.12 The four scenario narratives paint very different pictures of what the future might look like, but colleges in 2021 will clearly have to reflect the strategic and business contexts within which they operate. Organisational and structural forms may be very different from today as a necessary response to any of the possible scenarios. What is clear is that the future is highly uncertain, that the pace of change is likely to quicken, and that we will be facing increasingly complex challenges with unknown or untested solutions.

How should we respond?

3.13 Colleges will be expected to lead by example in their communities by demonstrating strategic leadership and by promoting a culture of continuous improvement. A key leadership challenge will be for each college to develop and articulate its vision, earning their place as strategic partners at the top table in their local communities. This leadership approach represents a radical shift from the period pre-1993 when colleges were an integral part of local authorities and leadership opportunities were more limited.

3.14 Adaptive leadership is not a new approach, but it will become increasingly important in future, particularly for individual colleges. Mobilising people and resources – staff, facilities, technology and learners themselves – to adapt to different futures will be critical. The development of adaptive leadership capacity to respond to future challenges will be important, not only for colleges themselves, but also for others involved in the tertiary sector.

3.15 The Scottish Executive and the Scottish Funding Council should support this by developing an environment in which proactive, creative and agile leadership can flourish. Scenarios might be used as catalysts to stimulate further thinking about the kinds of strategic, funding and regulatory regimes that are most likely to support the development of adaptive leadership capacity. A useful exercise might be to explore the opposite – what policies and approaches might undermine this capacity and how can this be avoided?

3.16 Colleges will need to consider collectively how best to develop leadership capacity, working together to develop a cohort of future leaders with the skills and experience needed to face any of these futures. Further work should complement the SCoPE[1] programme that has been developed by the Scottish Further Education Unit. As centres of learning, colleges will be well placed to face up to the challenge of developing leadership capacity, both individually and collectively.

1. SCoPE – Scotland's Colleges Professional Enhancement www.speu.ac.uk/scope

*On **leadership**, it is recommended that:*

- *Colleges should lead by example, in their communities, by demonstrating clear strategic leadership.*
- *Colleges, the Scottish Executive and Scottish Funding Council should promote and support the ongoing development of adaptive leadership capacity in the tertiary sector.*
- *Colleges should continue to work together to develop a cohort of potential future leaders.*
- *Colleges, the Scottish Executive, Scottish Funding Council and other stakeholders should ensure that strategic, funding and regulatory regimes best support the development of adaptive leadership capacity in the tertiary sector.*

Collaboration and partnership

What did our futures work tell us?

3.17 In all our scenarios, colleges will have to respond to a more complex set of demands. If colleges are to become providers of choice, they will need to develop effective partnerships, networks and working arrangements with a large number of players. Colleges will need to be nimble and adaptable given the fluidity of partnerships and networks. Collaboration will be an ongoing requirement of leadership in the tertiary sector. The significance and relevance of different partners will vary depending on the scenario. In *Stewardship Society*, for example, there would be a drive for colleges to work with a stronger voluntary sector.

How should we respond?

3.18 The positioning and articulation of Scotland's colleges described earlier provides a sound basis for collaboration and may even drive the development of new structures in the tertiary sector. We also expect collaboration and partnership to become increasingly important elements of a strategy based on adaptive leadership where colleges are not in a position to impose solutions on other stakeholders.

3.19 There will be a wealth of opportunities for colleges to work in partnership in order to achieve their – and their partners' – objectives. Partnerships should include working with other colleges to ensure coherent provision across Scotland, and with schools and higher education institutions to ensure complementary stratified provision. It will also include working with other public services and the voluntary sector, in particular through community planning structures such as community learning and development, and adult literacies partnerships, to respond to the challenge of local concentrations of people who are not in education, employment or training as a result of their lack of skills.

3.20 Collaboration and partnership works two ways, of course, and other stakeholders will be expected to play their part. The Scottish Executive, through its influence on all players, should provide the right environment to build effective networks. In particular, the Executive should make clear that colleges are key strategic partners on an equal basis with other local stakeholders in their local communities, particularly with local education authorities and local enterprise agencies. There are some existing barriers to effective partnership working, such as separate financial contributions from different partners, and tensions between different performance management and target-based regimes at the expense of wider partnership objectives. The Scottish Executive should overcome these barriers by developing new models for partnership working.

3.21 There are other ways of working together to ensure that the provision of learning is effective and has positive benefits for learners. These include better sharing of data between tertiary sector stakeholders and other partners, as well as greater sharing of infrastructure, such as learning spaces and recreational facilities for students.

*On **collaboration and partnership**, it is recommended that:*

- *Colleges should be regarded as key strategic partners in their communities alongside other local stakeholders.*
- *The Scottish Executive should develop appropriate new models of partnership, adapt systems to support these new models, and clarify its expectations of those involved in partnerships.*
- *Colleges and other stakeholders should strengthen their capacity to work in partnership and should continue to develop networks and work together to deliver their individual and collective aims and objectives. Organisations that support Scotland's colleges should promote this at a national level.*
- *Colleges and other relevant stakeholders should consider further opportunities to share data and infrastructure.*

Responsiveness to learners and employers

What did our futures work tell us?

3.22 Our futures work has increased our awareness of the impact of unexpected and unpredictable changes in the world environment, public mood, fashions and competition. It has also highlighted the need to be not only responsive, but also proactive in relation to demands by learners and by employers. Consumer expectations are expected to increase in future, especially in the *Content, Smart and Enlightened* and *MacTiger* scenarios. The source of demands and the speed of response required will vary depending on the scenario. As the pace of change quickens and learners' expectations increase, intelligence on demand will become even more critical.

How should we respond?

3.23 Colleges' key roles and their position within a stratified tertiary sector not only need to be clarified; they also need to be communicated to learners, potential learners, schools, employers, and other stakeholders. This provides the basis for a dialogue on how best to take this forward. We also need to ensure that learners, potential learners and employers are aware of the routes into college and the routes (back) into employment.

3.24 Responsiveness is a key element of adaptive leadership. Colleges should strive to excel at this to earn their place as providers of choice. There will be a need to get even smarter in analysing and responding to segments of the market for learning. Colleges should be explicit about the framework for determining how they respond to the balance of competing demands from learners, employers and other stakeholders.

3.25 The effectiveness of responses to demand by learners and employers will require continuing refinements in the timeliness and relevance of intelligence, although we recognise the risks in over-reliance on projected demand. Effective intelligence will continue to be critical to effective curriculum planning. Futureskills Scotland, which provides intelligence at a national level, has a concordant with the Sector Skills Development Agency on behalf of the Sector Skills Councils in Scotland setting out their respective roles and responsibilities in providing labour market intelligence for stakeholders. The future positioning of Careers Scotland is being considered by Scottish Ministers.

On ***responsiveness to learners and employers****, it is recommended that:*

- *Colleges should be aware of and respond to demand for learning from learners and employers and different segments of these markets, consistent with colleges' aims and objectives.*
- *Further work should be undertaken to consider how best to improve the effectiveness and timeliness of market intelligence, including better local interpretation of national and regional data, to ensure more informed decisions by colleges and learners.*

Modernising learning and teaching

What did our futures work tell us?

3.26 Our conversations with stakeholders and scenario workshops identified a number of key trends – such as increasing global competition, an accelerating pace of change and demographic change – which are expected to drive demand for learning throughout life. Increasing demand for personalisation is also expected to require more tailored provision of learning, particularly in the *Content, Smart and Enlightened* and *MacTiger* scenarios. Consideration of future possible scenarios has also highlighted the importance of focusing on learners needs to ensure a positive student experience and to widen access.

How should we respond?

3.27 The drive to modernise learning and teaching raises major challenges for colleges. In particular, the location, timing and method of provision will need to be increasingly flexible to meet learners' and employers' needs and expectations. We anticipate, for example, that demand will increase for delivery of learning in workplaces, at different times of day and throughout the year, often by 'virtual' means. This will also have a major impact on college staff. The *staffing, learners and learning environments* workstream of RoSCo considered some of these issues in more depth, but we recognise that more research is needed in this key area.

3.28 There is still much to discover about how we learn and the connections between teaching and learning. Research is ongoing into cognitive aspects of learning, such as memory. What we do know is that individuals have different characteristics in the way they learn – some of us are happy to study in isolation, while others learn better with other people through challenge and discussion. Expectations will increase that learning should be flexible enough to be delivered in an individualised and personalised way.

3.29 The use of information and communication technology (ICT) continues to expand as a tool to support learning and teaching. It is particularly helpful in providing learning materials remotely and in facilitating communication between tutors and learners, and between learners. It can also help respond to the demand for tailored learning solutions. However, ICT is unlikely to be a substitute for developing practical hands-on or interpersonal skills, such as self-confidence and working with other people.

*On **modernising learning and teaching**, it is recommended that:*

- *Colleges should, within the resources available to them, provide attractive modern learning environments and ensure that the location, timing and method of learning meet the changing needs of future learners and employers.*
- *Colleges, supported by the Scottish Funding Council, should develop and evaluate their practices by capitalising on the ongoing development of research into the human mind and its implications for learning and teaching.*
- *Colleges should continue to exploit the opportunities presented by information and communication technology to support a blended approach to learning and teaching.*

4. Conclusions and next steps

4.1 There are some priorities for early action which would have a major influence on the long-term outcomes and provide a sound basis for driving other actions. Clarification of the positioning and roles of colleges and other stakeholders with an interest in the tertiary sector, developing regulatory and funding regimes to support this, and the strengthening of adaptive leadership capacity should be the top three priorities for early work. The Scottish Executive should initiate further dialogue with stakeholders to determine how best to take forward these strategic recommendations as priorities.

4.2 The use of scenarios as a strategic tool has been invaluable in raising some important issues about the future challenges that colleges are expected to face. Consideration of the implications of scenarios has allowed us to think beyond current problems and to consider what strategies we will need to adopt to respond to future challenges. Our experience is that simply reading the scenarios is not sufficient; we have to engage in the scenarios in an active way to "internalise" them so that we can think "outside the box" to identify how we can be better equipped to meet future challenges. We suggest that this futures work should be continued by:

- the Scottish Executive supporting an ongoing programme of futures work involving all the players to build capacity for concerted action in future; and
- the college sector integrating futures work into their professional development programme for both current and future leaders.

4.3 The scenarios might be used to test the recommendations of the other three workstreams. They could be used to consider policy options in the future. They could also be used as a strategic tool by individual Principals to test the robustness of their individual corporate strategies to ensure that they are adaptable and robust in the face of future challenges.

On **next steps**, it is recommended that:

- The Scottish Executive should initiate early work to: clarify the positioning and key roles of colleges and other stakeholders with an interest in the tertiary sector; develop regulatory and funding regimes to support this; and strengthen adaptive leadership capacity.
- The Scottish Executive, colleges and key agencies should continue to use futures work as a strategic development tool.

Annex A
Members of Strategic Futures Working Group, Steering Group and Scenario Development Team

Laurence Howells, Scottish Funding Council (Chair)*
Raaj Bhatti, Further and Adult Education, Scottish Executive (Secretariat)
Col Baird, Reviews Team: Scotland's Colleges*
David Caldwell, Universities Scotland
Euan Carmichael, Scottish Funding Council
Diane Duncan, Highlands and Islands Enterprise
Julie Gilstrap, Association of Scotland's' Colleges*
Ray Harris, Edinburgh's Telford College and ASC
Marian Healy, Scottish Trades Union Congress
Jacqui Hepburn, Sector Skills Development Agency*
Julie Hepburn, Federation of Small Businesses Scotland
Stuart King, Futureskills Scotland
Matthew Lancashire, NUS Scotland
Ali Laiquat, Scottish Trades Union Congress
John-Paul Liddle, Scottish Executive
Jill Little, NUS Scotland
Iain MacRobert, HMIE
Hugh McAloon, Higher Education & Learner Support, Scottish Executive
Brian McKechnie, Senior Studies Institute, Strathclyde University
Iain Ovens, Dundee College and ASC
Daniel Sellers, Communities Scotland
Grahame Smith, Scottish Trades Union Congress
Margaret Sutor, Further and Adult Education, Scottish Executive
Craig Thomson, Adam Smith College and ASC
Bill Wardle, James Watt College and ASC
Gareth Williams, Scottish Council for Development and industry
Joe Wilson, Scottish Qualifications Authority
Claire Woodward-Nutt, Higher Education & Learner Support, Scottish Executive*

Those in **bold** were also members of the steering group.

*Those marked * were also members of the scenario development team which developed the narratives for each of the four scenarios. The scenario development group also included:*

Victoria Beattie, Further and Adult Education, Scottish Executive

Annex B
Scenario development project
Malcolm Hutchinson, Viable Futures

An introduction to the process and the intentions for the scenarios

The structure of the report

B.1 This report synthesises activities that have culminated in the creation of a set of four scenarios describing Scotland in 2021 in four different ways for use in current and future discussions on the strategic contribution to be made by and challenges facing Scotland's colleges. Three formal workshops were held with the working group, one meeting with the steering group, a number of semi-structured interviews with nominated stakeholders, and a number of smaller workshops and meetings of the cross-stakeholder scenario development team. The report:

- describes the role for the scenarios;
- outlines the scenario matrix used to create the basic template from which the scenario narratives were written;
- provides further background detail of underlying differences in the scenarios;
- sets out the four scenario narratives; and
- provides methodological and further background information (Appendices B1 and B2).

Scenarios and their role in the Review of Scotland's Colleges

B.2 One of the four workstreams of the Review of Scotland's Colleges (RoSCo), the Strategic Futures workstream, has the remit to consider the strategic implications that may present themselves for Scotland's colleges in the future. To assist in their task, it was decided to engage in aspects of scenario thinking. This report incorporates four possible scenarios for 2021 that have been constructed for that purpose. These are plausible futures that describe different Scotlands in 15 years time. The scenarios have been developed as a collaborative effort with various representative groups of the stakeholders in Scotland's learning system and tribute is paid to the steering group, the working group and in particular to considerable efforts of the small scenario development team formed from membership of the working group.

B.3 The four scenarios are descriptions of different strategic contexts within which the colleges' stakeholders and leadership may have to respond. The scenarios deliberately do not describe the numbers, structures, roles or outputs and outcomes for and of the colleges. There are also no judgements made as to whether these scenarios represent 'good' or 'bad' outcomes for Scotland. Their principal purpose is to ask the question *"is the college sector prepared for a number of equally possible futures and, if not, what should be done about that?".*

B.4 Scenarios are not predictions or forecasts of the future. They are simply thinking tools to encourage debate around the possibilities that the future may hold given a number of current trends, change drivers and uncertainties. The scenarios do however represent the shared views of a number of important stakeholders that have been part of the developmental process and have agreed that each of the elements within and each of the scenarios as a whole are plausible. It is possible that elements within each of the four scenarios presented here may occur in or before 2021. It is also important to bear in mind that no one scenario has been constructed as a preferred option for a future Scotland. They contain aspects that should be of concern to those leading the policy, strategy and operational readiness of the colleges towards the next 5 to 15 years who have the responsibility to ensure Scotland's colleges remain excellent, thrive in a viable and in a sustainable manner and from which to be held to account. The key to the process is to use the scenarios to address some critical strategic challenges.

B.5 The scenario process recognised that the tertiary education system operates within a political framework but the scenarios themselves are not concerned with the party political nature of any future government in Scotland. They are deliberately politically neutral. They assume no particular political administration, single party control or forms of coalition.

B.6 Some early discussions based on these scenarios during the implications workshop that were focused on what might be required to achieve favourable outcomes surfaced some preliminary thoughts for the college sector and its engagement within the learning system and with other critical players. Outline feedback from these discussions is available as unedited workshop feedback. Much more extensive use of the scenarios as prompts for strategic conversations between stakeholders is however required to optimise the benefit from having created them.

Outline summaries of the scenarios

Content, Smart and Enlightened

B.7 *Scotland in 2021 is fairly similar to Scotland in 2006. In particular there is a similar feel to civic society and the learning market but the effects of 'certainties' such as demographic change and further environmental decay have now made considerable impacts. This is a Scotland which, whilst not amongst the richest nations of the world, has chosen not to continue to chase growth, has a highly educated population and is recognised as one of the most enlightened small countries in the world.*

Stewardship Society

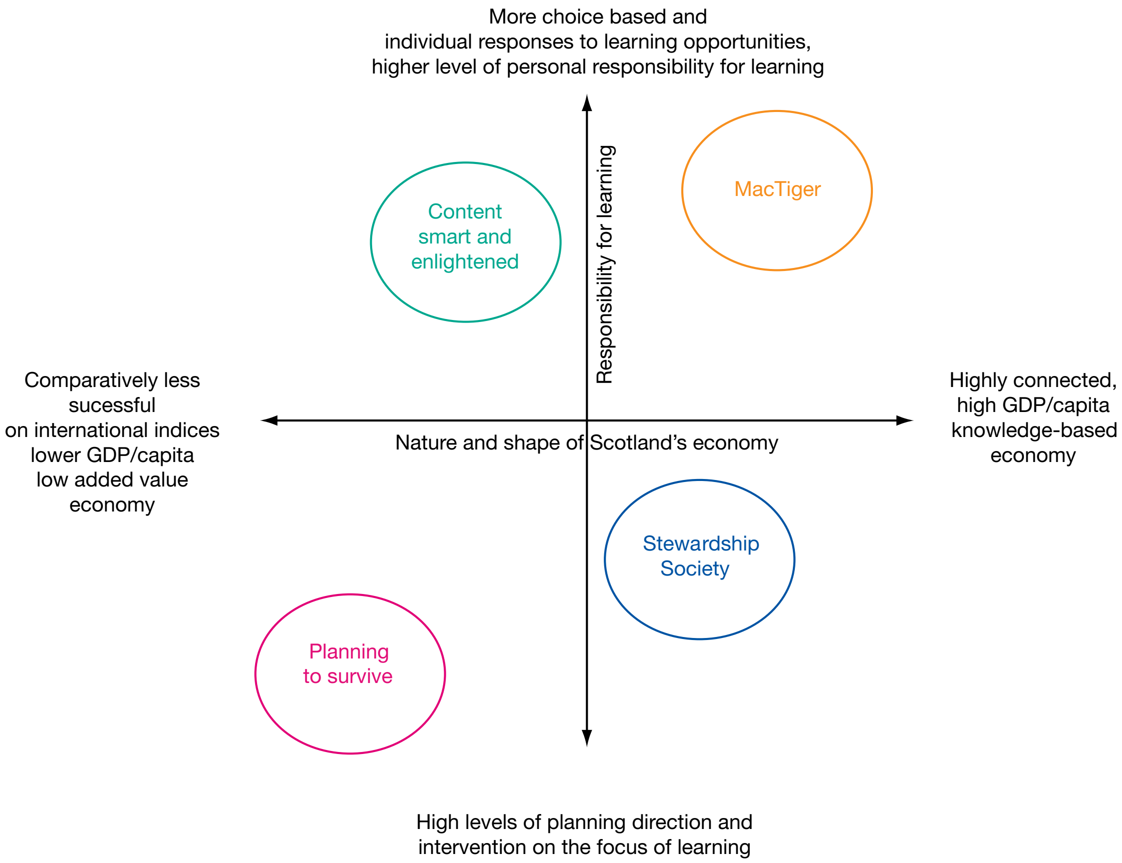
B.8 *Scotland's progress has been central to European success and in particular the growth of the EU's small country economies. Through the path to 2021 Scotland has been very successful in attracting private sector investment, has developed an internationally renowned and thriving social economy optimising the input of a strong voluntary sector. Successive government policies and partnerships with key national economic stakeholders have continued to provide a sustainable, genuinely mixed economy with well rewarded private, public and voluntary career opportunities.*

Planning to Survive

B.9 *Scotland has never quite connected economically despite early promise and puts its faith in planning and directive policies of government to stabilise the economy and elements of societal breakdown. For some, it is a comfort zone country with high dependency on the state; for others a country with restrictions and barriers to creativity and individualism. Scotland in 2021 has major government intervention and regulation in the economy, society and the learning system. It is a safe and secure but risk averse and protectively traditionalist nation.*

MacTiger

B.10 *The Scottish economy of 2021 is more successful than in 2006 and society is significantly more consumerist in its nature. It enjoys a strong education system focused primarily on the demands of individual learners. Challenges for Scottish 2021 society include dealing with labour shortages in key areas of the public sector, pockets of high social deprivation, a breakdown in earlier traditional community values, rural depopulation and environmental degradation. Scotland has become a less tolerant nation. Given the opportunities that are available to individuals, the nation is generally less inclined to support those "not pulling their weight".*



The scenario matrix

B.11 The four scenarios have been developed from a standard two axes or 2x2 matrix (see table). The two axes represent what emerged after considerable discussion by the working group participants, members of the steering group, the scenario development team and other contributors. The two most significant change drivers that were perceived to carry the highest levels of both uncertainty and impact on the future of Scotland's colleges are reflected on the two axes.

B.12 The 'x', or *horizontal axis*, reflects "the nature and shape of Scotland's economy". To the left extreme of this axis is a picture of a Scotland that may have a poorer economic position, strength and potential than in 2006, for example, in terms of GDP per capita. It may also be significantly more sluggish than, for example, many other comparable international competitors. It reflects an economy that never quite embraced the challenges and opportunities from a more globalised and knowledge-based trading and economic environment. To the right extreme, the economy tends to a significantly successful international 'small country' economy with relatively high GDP per capita and significant levels of connectivity to knowledge-based markets. The least successful economic position is reflected in *Planning to Survive* while the most successful position is of *MacTiger*. No inference is made to the relative worth of current economic policies as these different economic outcomes will have been due mostly to global and international events, some of which Scotland would have little control over.

B.13 The '*y*', or *vertical axis*, represents a construct developed by the scenario team which has been termed 'responsibility for learning'. This was required as the workstream's working and steering groups did not feel that any one of three significant uncertainties reflected in isolation the way the future might play out. The axis therefore reflects a convergence of three principal factors:

- the levels of individual choice available to learners inherent in the learning system;
- the range of provision in the learning system; and
- the desire, requirement or capacity, particularly of government and to an extent the business sector, to plan and direct the learning system.

B.14 At the upper extreme of the 'y' axis there is a situation of almost complete laissez-faire and consumer/user driven learning with a significantly wide range of learning provision and modes of delivery on offer, essentially a consumer-driven learning system with minimal intervention by government. At the other extreme, the learning system is highly planned and to an extent shaped by government and possibly business interests to 'plan and provide' outputs and outcomes believed to be more attuned to intended economic development objectives.

B.15 The scenarios are formed from the interplay of these two key uncertainties populated with a range of other change drivers and trends derived from primary data (workshop and interview material) and secondary research data from other futures work elsewhere. None of the scenarios however operate at the extremes. A list of the most important drivers and uncertainties surfaced during the development of these scenarios and the manner in which they play through each scenario is included at Appendix B2.

B.16 Mapping the zones where the different scenarios play out on the matrix is also important to consider when reading the diagram. It intends to highlight visually the fact that each scenario sits on a different position on both the axes than its counterpart scenarios. That means that no scenario exists in the same set of economic conditions or the learning system's approach to responsibility to learning.

Primary drivers and core factors differentiated in each scenario

B.17 The previous section describes the two primary drivers used to construct the basic scenario template. From this a number of other key change drivers and uncertainties are introduced into the scenario development. The following table and the text which follows illustrate how each of these change forces, uncertainties and factors of particular interest to the colleges sector have been played into each scenario. This should be used to add a deeper insight into, for example, what kind of operational context is being suggested in each different 2021. The table below outlines how some other assumptions about a number of issues of direct relevance to the college sector are intended to play through each of the four scenarios.

	MacTiger	**Stewardship Society**	**Planning to survive**	**Enlightened smart and content**
1. Funding (i) Overall amount of funding available to learning system	Highest	Second of the four	Lowest	Third of the four
1. Funding (ii) % of public sector within overall amount	Lowest % of the four	Second highest of four	Highest% of four	Third highest of the four
1. Funding (iii) Individualised or Institutionalised direction of funding esp. public funding	Funding goes almost entirely to leaners to select their learning	Highest level of instituitional directed funding	More institutionally directed than individual learner directed	More individualised than institutionally directed
2. Participation rate in learning system	Highest	Lowest	High end	High end
3. Commitment or support in £'s to learners to maximise attainment	High (to first degree equivalent)	Low	Low and very directed	Higest possibly to highest levels levels of educational awards
4. Demographics (i) Aging population engagement with learning	Engaged	Engaged but pockets of resistance and non-engagement	Not engaged in meaningful way	Actively engaged
4. Demographics (ii) Levels of in-migration	High	Planned, specific and lower in-migration	Minimal in-migration	Transient in-migration
5. Modernisation of delivery	High pace: high excep-tance	High Pace: Lower acceptance	Highest pace: resistance	High potential pace: Low acceptance

The four scenario narratives

B.18 The following four narratives are copies of articles from editions of political and economic commentary magazines in 2021. They describe four different contexts from which Scotland's colleges and the sector's stakeholders in 2021 will have to operate.

Content, Smart and Enlightened

Overview

B.19 *Scotland in 2021 is fairly similar to Scotland in 2006. In particular there is a similar feel to civic society and the learning market but the effects of 'certainties' such as demographic change and further environmental decay have now made considerable impacts. This is a Scotland which, whilst not amongst the richest nations of the world, has chosen not to continue to chase growth, has a highly educated population and is recognised as one of the most enlightened small countries in the world.*

Narrative

B.20 Scotland's economy in 2021 is as "*productive and successful as we need it to be, given our first priority on maximising the overall well-being and happiness of the whole population*" in a recent Scottish Government document. One of the defining moments came in 2017 when Scotland was first in the Global Sustainability Index UN award. Ageing downshifters to an extent saved the country's economic crisis by engaging in the wide diversity of opportunities in re-skilling and career re-entry, government funded programmes of the 2010s. They now form a high proportion of the self-learning communities of practice evidenced across Scotland underpinning a renaissance of Scotland's less densely populated areas and middle and small sized towns. Technological and communications investment and innovations in the late 2000s paid off with little talk now of a digital divide. Despite the potential to modernise learning delivery, helped by earlier investments in technology and communications, learners and learning providers in Scotland have been quite slow to fully embrace the modernisation potential. In comparison to other countries, Scotland feels secure, safe, and tolerant. As a result of this and a wide choice of learning opportunities, Scotland has become increasingly more attractive to international students.

B.21 A higher level of active citizenship is prevalent throughout 2021 Scotland. This is also manifested in a more sophisticated politics and political engagement in society. The climate and environmental catastrophes that impacted on Scotland's west coast eight years ago shocked the country into a realism on individual environmental responsibility and awareness. These triggers provide continuing opportunities and motivation for awareness raising and learning. The strong encouragement across society for all to participate in learning and participation is not necessarily from the desire to obtain employment or career advancement. There is a broad acceptance of the desire to learn for 'learning's sake' and for the inherent social, health and welfare benefits that accrue as a result. Participation rates in learning are very high in comparison to comparator countries. Whilst Scotland's population is now one of the oldest amongst the smaller nations, the strengths and contributions from the population have been embraced through a positive attitude to genuine lifelong learning and its very real contribution to the development of a sustainable society.

B.22 Green issues have become increasingly mainstream. Scotland to 2021 opted, with a number of the world's smaller nations, not to chase economic growth but maintain focus on developing and maximising its inherent societal and environmental opportunities. In doing so, it lost out on many purely economic benefits from increased globalisation of services in the early 2000s but avoided a number of negative impacts, particularly the loss of social cohesion and social capital generation. To an extent it is also relatively more peripheral to Europe than in 2006.

B.23 There is a better understanding of the important correlation between levels of national (and to an extent individual) happiness and overall health and well being. Since 2015, Scotland has remained in the top three of small nations NHI (National Happiness Index published by OECD). Despite this, many younger people over the last 10 to 15 years felt that Scotland was not a dynamic place to further high earning potential careers and a higher proportion of Scotland's younger population left after achieving vocational and professional accreditation. The economy did not match their income aspirations. Those that remain however are amongst the most successful entrepreneurs of their international peer group. Many of the younger people in more successful EU countries have now achieved such income levels within their own countries and no longer come to Scotland in search of work. Scotland continues to have some transient immigration, with young people coming from the new accession countries of Serbia and Albania.

B.24 Public investment in education and learning over the early 2000s remained substantial, the legacy remaining in terms of a reasonable learning system capital estate and infrastructure, but now starting to deteriorate. A diversity of learning delivery opportunities co-exist with a variety of funding models enjoying significantly more localised approaches to allocation and accountability. Given the comparative lack of strength in the economy, there is a moderately low and declining level of public funding available for the learning system, however, public funding for learning, as a % of total funding from public sources, remains significant. Other, and in some cases, increasing reliance on, funding comes from international organisations, public educational and corporates, prepared to pay a premium to have their users learn in a less frenetic and environmentally healthier country. Older people who are willing to pay to combine foreign travel whilst undertaking leisure courses in retirement are an important market.

B.25 Funding is more individualised and focused on learner choices, however, decisions must be made in partnership with provider organisations and some funding remains as direct provision to some learning institutions. Learners are entitled to study to what was once known as Honours level with some funding available for those able to proceed to the highest level of academic awards. Due to the low level of direct public funding available, funding for learners has become more means tested from SCQF level 9 onwards. A growing number of young people choose not to continue with tertiary education as they see no economic benefit for doing so, however, as lifelong learning is highly regarded in this society, more people are being encouraged to learn as a hobby. A significant level of learning, teaching and education is also provided on a voluntary basis.

B.26 Core public services challenges in 2021 remain to assist an ageing population to continue to work actively for longer whilst still addressing some of the chronic health conditions inherited from the early 2000s. Serious concerns remain about the capacity and viability of core public services, in particular chronic healthcare and later-life housing provision given a smaller and aging population. There is increasing demand for people to undertake care responsibilities for families and older relatives. Given fewer young people and smaller school rolls, colleges, universities and businesses are now competing for the youth market. This has led to tug-of-war for public resources, for example, health and care system or a modernised public learning system. The two years of obligatory community or public service provision all younger, indigenous learners (late school, college and university) have to provide if their learning is supported by public funding was resisted at first, but is now seen as a world leader.

B.27 Opportunities and labour shortages continue to prevail in a highly competitive jobs market. Earlier in-migration that addressed the labour gaps in Scotland in the 2000s have however become a deeper societal problem. Whilst many in-migrants remain in Scotland, more leave to follow work globally. The evolving skills and knowledge transfer potential from alternative fuels and renewable energy have proved a significant windfall for Scotland, not only economically, but also in the education and training opportunities for indigenous training and education providers. Home-based and international students and businesses in these disciplines form a significant part of the learning provision available.

Stewardship Society

Overview

B.28 *Scotland's progress has been central to European success and in particular the growth of the EU's small country economies. Through the path to 2021, Scotland has been very successful in attracting private sector investment, and has developed an internationally renowned and thriving social economy optimising the input of a strong voluntary sector. Successive government policies and partnerships with key national economic stakeholders have continued to provide a sustainable, genuinely mixed economy with well rewarded private, public and voluntary career opportunities.*

Narrative

B.29 Scotland 2021 is a relatively successful economically in regional and international rankings but has had to continuously compete in a extremely competitive world economy. The world economies are only just recovering from the aftermath of a number of 'trade and resource' wars between China and the USA. Scotland has enjoyed many benefits from the emerging alliances of small countries of the EU that resulted from the disenchantment of the widening EU and creeping fragmentation of the concept after Turkey and Israel joined in 2019. The permanent home of the EU Regional Economies Bank is based in Dundee, which in one respect reflects Scotland's growing place in Europe. Its economy is to an extent also held back by having a less highly educated and skilled workforce at most professional and vocational levels due to significant underinvestment and some young population decline in the 2010s. It enjoys a lesser GDP per capita than was promised by the Tiger party before their collapse in 2017, however, the attitude to work-life balance and nurturing of talent across all ages has to an extent moderated any societal fall out.

B.30 Scotland enjoys high quality and accessible public services that have innovated well around effective integration and innovations in service planning and delivery. Government policy has been to intervene in a number of core services, particularly education and personal care services, to address the traumatic experiences of the late 2010s. Government at a local level takes a more active role following the success of voting reforms in the 2007 elections, with local community planning partnerships having a significant role in local governance feeding into regional and national policy debates. Despite early forecasts of 'statism', the three different layers of governance have been seen to work well and there is much higher engagement in the political process. The linkage between government, business and the voluntary sectors, without the need for national partnerships evidenced in Ireland, was positive and supported by the successive coalition administrations.

B.31 There is, as a result of some of the corporate failures in the late 2010s, a stronger legislative and regulatory framework in the workplace, for example, manifesting in more certification and the rigour of licences to practice for a wide range of jobs. Social entrepreneurialism is a significant economic activity supported by vibrant education and training provision in this sector. A number of strategic alliances with what were once known as ‘developing countries’ proved successful and the knowledge transfer from planning and delivering high quality public services formed another high added value economic contribution.

B.32 Relatively stable economic success matched to positive sustainable development policies is considered by most people as the sensible way for Scotland in 2021, suiting its developing, but only just emerging, cosmopolitan and internationally diverse workforce. There remains the underlying concern, particularly within the business sector, that Scotland’s economy continues to be highly sensitive to economic shocks from global conditions. Very few global reach or international businesses have relocated or remain headquartered here due to a higher corporate and personal tax regime than some of Scotland’s direct competitors.

B.33 A relatively high level of public investment prevails as part of a significant overall expenditure on learning comparative to the earlier years of the 21st century. The trade-off for more government and business planning in education and training is a better funded learning system. This has emerged primarily from higher levels of corporate investment in learning and training coupled to lifelong learning partnership agreements being refreshed between the individual learner and funding organisations throughout life’s ages and stages.

B.34 While participation in lifelong learning remains high in 2021, there has not been any substantial change from the early 21st century. With the focus on skills and learning to satisfy economic demands, personal attainment by individual learners is not the highest priority for public investment. Many learners now choose to invest their own resources in attaining higher qualifications. With an ageing population, the focus of the lifelong learning system has shifted from preparing young people for work, to retraining opportunities and building flexibility and capacity in the adult population. Though this means that much of the adult population is engaged in learning, some less willingly than others, there remain pockets of non-engagement where learners cannot or do not take up publicly-funded learning, but lack the resources to pay for their own preferred learning options. The greater degree of choice (which often translates to self-fund learning) is available only to those from high-income backgrounds or the international learning tourists. Students from low-income backgrounds are likely to be limited to state or employer funded provision.

B.35 Private sector employer and union bodies have had an increasing role in deciding on provision required to meet their needs, including control of some learner funding in vocational and professional training. Both public and private sector require high-skilled workers and funding is targeted to deliver targets in these areas. Public funding is particularly focused on developing core ‘employability’ skills for all generic to most jobs and providing a common basis for the 2020s economy, implying continuous re-skilling. The re-skilling of existing workers is the primary market for traditional learning providers, those that did not fully embrace the modernisation opportunities and they cater for a predominantly older and the less willing learner groups.

B.36 A national review of learning institutions adopted in 2015 delivered a smaller but wholly integrated number of learning institutions and organisations. Individuals' funding is on the basis of economic or societal requirements. Technological and media advances directed at the learning sector supported this transition, though the public funding and planning mechanisms in place mean that provision cannot always keep pace with the rate of technological progress. A further development has been the removal from the learning lexicon of the 'academic year'; learning provision takes place where and when required.

B.37 Since 2015, there has been a considerable growth in, and strong competition from, private and voluntary sector training providers as well as increasingly higher levels of medium and longer term corporate or 'in-house' training by public and private sector organisations. One impact of this is that non-vocational learning is becoming marginalised, particularly that funded by government or the corporate sector. The voluntary and social entrepreneurship players, however, recognise this aspect in the learning market as a fruitful area. Scotland is maintaining its place as an international centre of excellence for health sector training and learning and has become a world leader in care skills and qualifications with these areas now developed into a growing export market. Whilst Scotland remains an attractive destination for economic migrants, the tight grip on planning for the economy means that entry requirements are strict, and depend on immigrants possessing, or intending to generate, skills that are transferable or are in particular economic or societal demand in Scotland. This implies a continuing reliance on the indigenous population, with the economic and educational contribution from in-migrants being transient and less integrated than hoped.

Planning to Survive

Overview

B.38 *Scotland has never quite connected economically despite early promise and puts its faith in planning and directive policies of government to stabilise the economy and elements of societal breakdown. For some, it is a comfort zone country with high dependency on the state; for others a country with restrictions and barriers to creativity and individualism. Scotland in 2021 has major government intervention and regulation in the economy, society and the learning system. It is a safe and secure but risk averse and protectively traditionalist nation.*

Narrative

B.39 Scotland 2021 is to a large extent quite uncomfortable with itself, yet it retains the capacity to care for most of its more vulnerable communities. Racism and heightened intolerance of incomers is becoming an unhappy feature, requiring in some areas vigorous response by public order services. Scotland has a drawbridge mentality, “let’s keep what we’ve got”, focusing on retaining remaining traditional sectors through state involvement, tax incentives, training levies, regulation, etc, rather than adopting a riskier strategy of developing or attracting new sectors – with the almost sole exception of renewable energy technologies. The public sector has expanded in recent years, partly as a response to a shrinking productive business sector increasingly reliant on public sector contracts, as rising personal taxation supports the public sector. The long term financial picture looks precarious and it is generally understood that Scotland cannot sustain this position.

B.40 The economy is only slightly improved from 2006 as Scotland missed out on most of the opportunities of the knowledge-based economic growth opportunities of the late 2000s. Scotland is predominantly paternalistic and protectionist, risk is not encouraged particularly in publicly funded initiatives, and many professional bodies embrace the litigious society. Government regulation is very strong, couched in terms of protecting the public, with ‘licences to practice’ and evidence of substantial continuing training required for all public service jobs and much of the private and voluntary sectors’ activities. As a result, there are low levels of enterprise, innovation, entrepreneurship and creativity, and new business start-ups are at an all-time low. State support has continued to ensure that no citizen falls through the poverty floor which has resulted in a more equal but, given the economic situation, a poorer and more dependent society. ‘Grey power’ has resulted in local parochial issues being seen as more important, leading to some tensions between national and local government. There are correspondingly low levels of civic participation at national level, but Scotland in 2021 is still reasonably socially cohesive; pockets of disengagement and civil unrest are emerging though.

B.41 The need for a self-contained energy policy, given continuing international and regional energy and resource imbalances and crises, has resulted in low level but growing investment in sustainable fuel technologies. This has meant over-ruling some local community and business objections. Some economic hope, however, exists in Scotland's European lead in the use of renewables and alternative energies. These sectors are being seen as possibly contributing a higher proportion of tax revenue in future years. This is anticipated to support what is still perceived as reasonable public service provision, especially in nursing care for the elderly and early learning and returning learners sectors.

B.42 Government has, however, had to become significantly more involved in direct intervention, not only in the learning system, with more limited funding than had been anticipated even in the tight budget periods of 2007 to 2014. The principal focus is on national and regional economic development, social and diversity inclusion and affordable housing provision. Government's contribution to supporting learning is therefore very low and focused on key economic priorities. The transport and digital infrastructures laid down in the late 2000s did however assist in a more sustainable settlement for some of the crunch points of Scotland's urban population. Rural Scotland, especially the fringes between the remote and accessible areas, survived earlier threats to it becoming the 'playground' of the urban areas. Despite being initially perceived as the 'green lungs' of city-metro regions in earlier planning, and given a continuing international concern on environmental issues, rural Scotland provides real potential for economic growth from energy resources and the exporting of sustainable development practices. Middle Scotland 'market towns' have developed, going through a period of sustained renaissance, however, this has been at the expense of significant population losses in remote areas, due principally to the difficulty in providing personal public services in these areas.

B.43 Unfortunately, Scotland is becoming a less attractive place to visit, whether for business, education or tourism, with a sense of a backward-looking small country, narrow-minded and even a little mean spirited, often evidenced in the jobs market and education allocation system. Emigration is high, and there is minimal in-migration given a relatively uncomfortable approach to any 'outsiders'. The loss of much of the international training and education markets, both visiting and distance-learning students, to Indian and Australian organisations has added to this creeping parochialism. Many young people after qualifying have left and continue to leave as they are not prepared to pay the higher tax rates to fund high levels of public service provision for an increasingly ageing population. Given the demographics of the working population, jobs exist for most young people. An average retirement age of 72 has only recently been very reluctantly accepted during a vote of confidence in the Scottish Parliament, the issue devolved in 2020. However, a significant resistance remains to continuing in work or returning in the older population.

B.44 Scotland's population accepted some years ago that it will not be one of the promised big economic players. There has however been a gradual return to a deeper sense of civic pride amongst the older population in recognising that volunteerism offers a way out of loneliness and poor mental health. There is paradoxically a greater sense of community and increased contribution of the extended family, as long however as "*you are one of us*". Out of economic necessity, extended families have returned and are emerging as a central hub of society, making a recognised and valued contribution to caring, health and well-being.

B.45 The expanding element of the ageing population is not engaged in learning in a meaningful way, in spite of considerable funds being currently sought and international partners being cultivated to investigate re-skilling the over-65 age group. This group are now showing signs of better health as prevention and cheaper pharmaceuticals came on stream as a result of governments and NGOs taking on the large pharmaceuticals in the trade rounds in the late 2010s. Sub-Saharan Africa's widespread AIDS pandemic and the global 'flu outbreaks in 2009 and 2018 forced these issues to resolution.

B.46 In spite of the low level of funding for learning and minimal private support, participation in learning is relatively high, especially in skills for identified economic priorities. Modernisation of delivery of learning has continued at an accelerating pace, although opportunities have been missed as learners and teachers failed to embrace it fully and the funding simply does not exist in sufficient volume to invest and take advantage of new technologies. Learning reflects the predicted needs of the economy and is highly influenced by businesses through compulsory levies. Less funded places are available for learners and competition is fierce for popular courses. Some learners are encouraged to take courses that they may not necessarily wish to do because of government's focus on selected industries, resulting in low motivation to learning for some. Fewer international students study in Scotland, but more Scottish students study and work abroad after finishing their courses.

MacTiger

Overview

B.47 *The Scottish economy of 2021 is more successful than in 2006 and society is significantly more consumerist in its nature. It enjoys a strong education system focused primarily on the demands of individual learners. Challenges for Scottish 2021 society include dealing with labour shortages in key areas of the public sector, pockets of high social deprivation, a breakdown in earlier traditional community values, rural depopulation and environmental degradation. Scotland has become a less tolerant nation. Given the opportunities that are available to individuals, the nation is generally less inclined to support those "not pulling their weight".*

Narrative

B.48 Scotland in 2021 has both embraced the knowledge and communications economy and connected well with globalisation opportunities, particularly in high added-value service sectors and knowledge transfer markets. Generally speaking, learning of whatever sort is encouraged across Scotland as it is recognised that education is in itself inherently worthwhile.

B.49 A vibrant, enterprise culture exists with Scotland playing an important part in Europe whilst well connected with strong international links to the rest of the world too. Many jobs in Scotland are well paid and employment levels are high. There is significant pressure to succeed and wealth accumulation and disposable income are seen as important indicators of success. Scotland has strong niche sectors that compete well in a fast changing world market. The technology sector, including video game design, is a particular strength. Other key sectors for the economy include renewable energy, biotechnology and the creative industries, particularly those nurturing the various developing Scottish cultural media. Many of these sectors attract, and have come to rely on, significant levels of inward investment. Corporate social responsibility remains merely an interesting theoretical concept.

B.50 Whilst being amongst the top tier of small countries in the expanded EU and elsewhere, the societal and environmental impacts of *MacTiger* are not wholly beneficial. A febrile, and to an extent risky, economic trajectory has led to a level of financial and societal uncertainty not felt since the 1980s. Improved economic performance has generally led to Scots becoming more healthier and living longer, productive lives. But some would say that something of Scotland has been lost, particularly in the lessening of a direct focus on working to achieve equality and in reducing the remaining but quite deep pockets of deprivation, particularly in the seven main cities and throughout remote rural Scotland. Scotland's cities and accessible rural areas have attracted an international elite who recognise the high, but potentially eroding, amenity-value of living and working here, but seem to have less interest in contributing to more than the economic values of the country through taxes, particularly property-based and indirect taxation.

B.51 A highly consumerist culture prevails in the learning system, but sophisticated marketing and individualisation of services have led to informed choices being made across learning provision, including the demands of high activity in lifelong learning by a discerning, if aged, population. There is significant funding available to the learning system in Scotland 2021, with a large market for online learning for professionals. While public funding is substantial, as a percentage of the overall funding for the learning system it has become a significantly lower ratio in the overall figure. Each learner in Scotland has an individual learning account entitling them support to the equivalent level of what was once known as an Honours degree. Beyond this entitlement, individuals and employers are responsible for funding their learning. There is a vibrant and highly competitive market for learning across all ages and to satisfy a diverse range of purposes. There are many private providers offering pre-employment vocational learning as well as work-based programmes. Public funding is however available, but not guaranteed, as a pump-priming resource to all recognised providers of vocational learning. There is strong demand for skills at the historical SCQF level 9 and beyond, but there are many jobs requiring basic and intermediary levels skills too. Participation in learning is higher than at any time in Scotland's history with a high degree of continuous improvement and technological and curricular modernisation feeding this participation.

B.52 Learners are expected, as far as possible, to own their own learning. They are responsible for their choices. Learner support to enable learners to realise opportunities and to make informed choices is wholly integral to the student experience. There is a single European standard for qualifications. It is increasingly common for Scottish school-leavers to combine study with European tours, picking up units of learning in many different countries as they travel as part of the international transferability of their funding entitlement and learning accounts.

B.53 Scotland in 2021 has high levels of immigration and a highly cosmopolitan society, however, some pockets of resentment exist, particularly among those in large conurbations losing out in work opportunities to better qualified in-migrants and due to the nature of a highly flexible internationalised labour force at the top levels of incomes. The country has a large number of older workers remaining in the workforce. There are, however, labour shortages in some industries, particularly in the public sector. This is putting significant strain on the health, care and education sectors which are finding it difficult to compete with other employers. Despite the availability of jobs, there is a small, but intractable, core of Scots not in education, employment or training. Scots have generally high levels of IT skills which is fortunate as almost all government transactions are online.

B.54 Levels of addiction and substance misuse are growing, partly a function of increasing disposable incomes and stress in the workplace, and in some areas pose a threat to both personal health and productivity. A turn around in engagement in civic society is yet awaited and the only interest in voting is to reflect the variations in tax rates as practically the only distinguishing feature between political parties. Scotland has achieved 'best-in-class' status in some public services, helped by financially successful knowledge transfer and innovations. These have been spurred on by strategic alliances across some disciplines in health and allied medical educational institutions. There is however a significant private sector provision of many core public services where, for example, “health is wealth” is perceived as the reality. Public services however have consistently fought to recruit and retain highly qualified and well trained staff given significant disparities between remuneration and development opportunities in both the private and now well funded voluntary sectors.

B.55 Given a focused drive to relative affluence and individual wealth creation, car use in Scotland has increased significantly. Despite improvements in fuel efficiency, this has resulted in an increase in carbon emissions and a deterioration in air quality. Increasingly more Scots are taking more holidays abroad with a significant increase in air travel in and out of the country. Scotland’s climate is a little more chaotic, flooding occurs more often and biodiversity is declining significantly. Some of the fears of climate change have been realised but to an extent moderated by Scotland’s leadership across the UK nations and in partnership with Scandinavian countries on sustainable development and technological applications arising from renewables technologies.

Annex B1
Methodology

B1.1 The methodology used followed a standard scenario construction practice and is described later. In essence this combined *primary* data, from facilitated workshops and discussions involving a wide range of core stakeholders within the tertiary education system and the further education and colleges sector, and the consideration of secondary research material from others' futures work. The outputs from this process are a number of narratives describing four different but plausible Scotlands around 2021 that could very well provide operational contexts for Scotland's colleges at that time.

B1.2 The outputs are therefore a set of high level qualitative scenarios outlining alternative futures with accompanying explanatory material to guide the reader through each and the core differences between them. The set of scenarios, and the underlying framework and process that informed their development, can be used after this phase of activity as a foundation for deeper and more detailed scenario planning exercises, including the input of some quantitative data if useful and prudent. The process will inform the work of the review and provide a further prompt to the strategic futures facing Scotland's colleges and the college sector.

B1.3 Scenarios are pictures of *plausible* futures, best constructed from a combination of primary and secondary data, and facilitate structured thinking about uncertainty and the complex interplay of higher impact change drivers. The primary data in this project has been developed from a range of semi-structured discussions, some conducted earlier with the Scottish colleges' leadership and other key stakeholders and some more recently from workshops, one-to-one and telephone interviews, workshops and scenario development meetings. The secondary material has been generated from others' futures and scenario material broadly investigating the same timeframe for Scotland or the education and learning dynamic. This includes for example the Executive's Futures Project's Strategic Audit and Trends Analysis, the Foresight 2020 scenarios, the recently published Learning and Skills Council scenarios and studies of e-learning and educational developments internationally.

B1.4 They may require, and would benefit from, further refining as a result of additional discussions with, for example, other review workstream considerations and outputs. The scenarios are not pictures derived *externally* from the tertiary education system or colleges sector, but as a synthesis, in scenario format, of the hopes, concerns and significant uncertainties, opportunities and issues of core stakeholders.

Malcolm Hutchinson, Viable Futures
28 November 2006

Annex B2
Core change drivers and uncertainties

Introduction

B2.1 The scenario methodology used in the project is well tested and has been the basis of many successful scenario thinking outcomes over many years. Whilst attempting to work with what stakeholders have suggested are the two primary uncertainties and those felt to have the most significant impact on the tertiary education system and the colleges' sector, there were many other factors that workshops participants and other contributors felt should be captured. The next most significant set, which have been played into most or all of the four scenarios but in slightly different ways, are described below.

Overview of change drivers

B2.2 It could be argued that to an extent, the demographics may change but the overwhelming 'certainty' is that of a considerably different demographic structure in Scotland than ever before given the data from the Executive's trends and futures work. A short demographics think paper was issued to members of the working group to support their knowledge of this change driver.

B2.3 World events are, perhaps by definition, completely out of anyone's real control and certainly out of Scotland's further education sector. To an extent there are polarised views about the trajectory and therefore impacts of 'globalisation' and as a change driver offers some interesting and contrasting 'what-ifs'.

B2.4 Government's impact appears perhaps less certain, however, as international research is demonstrating there is a significant degree of convergence around governments' role, size, impact and levels of intervention. This is no less evident in the UK and Scottish context. World events and 'globalisation' may however influence these parameters.

Demographic change

B2.5 Perhaps the most 'known' about or relatively certain, given that the trends indicate an ageing population in Scotland over the time period of the potential scenario horizon of 20 years. The uncertainty dynamic in the demographics trend may however be the emerging change and scale of in migration and changes in population flows in the EU. Globalisation and perhaps some world events or 'shocks' will also have an impact on this driver.

‘Globalisation’ effects

B2.6 This does not simply imply changes in the global macro economies, business movements and capital flows, but includes such factors as the role and intervention powers of governments and the state; the shifts in societal values as ‘globalisation’ impacts are felt; the adoption or rejection of business models and values; the use and influence of technology and technological change; the environmental impact of a more ‘globalised’ economy based on for examples the developments in the BRICs countries (Brazil, Russia, India & China) and in particular the Indian and Chinese ‘industrial revolution’ phases.

World events

B2.7 What some term the ‘MacMillan effect’ from the 1960s UK Prime Minister’s comment about “*events, dear boy, events*”. Wholly unpredictable, not only as cataclysmic events. An important consideration given that no-one predicted the scale and audacity of 9/11, but the changes that this wrought in the world since then has been, some would argue, fundamental. Perhaps however given the primary focus for the work, the strategic futures of the Scottish colleges, it was felt less useful to introduce any ‘events’ formally into the scenario set. Some introduction of such world events may be used during the implications workshop.

Impact of government fiscal and policy approaches

B2.8 This includes the regulatory, funding and policy context aspects of local, national and international government and the intervention by the state in further education.

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