

## **The role and interaction of Frameworks and Networks in the UK's Learning and Skills Ecosystem:**

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### **Abstract**

The UK government seeks to ensure that individuals and organisations are equipped with the skills and knowledge to participate and succeed in a society characterised by rapid, often disruptive change. Policy and strategy has focussed increasingly on the needs of employers and learners as end users of the UK's education learning and skills ecosystem. The report of an independent review "Prosperity for All in the Global Economy: World Class Skills" calls for a 'demand led' and integrated system, generating 'economically valuable skills' to support social and economic goals. This is to be realised through rationalisation of qualifications, reform of public funding mechanisms and increased investment by employers and individuals. The analysis was accepted by the UK government and many of its recommendations will be implemented in England. In the Devolved Administrations of Scotland, Wales and Northern Ireland the report has been considered in the context of post-devolutionary strategies and the culture and infrastructures in each nation. This post-devolutionary environment is increasingly dependent on agreements, systems and mechanisms for sharing and interpreting information across boundaries. The interaction of key stakeholders in the UK ecosystem and their role in its geographical and historical development is also crucial to the realisation of the UK's world class skills ambitions. The paper proposes that the balance of cultural and structural change will continue to be vital to the development of the system and understanding and investment by its users. National Qualification Frameworks are a significant mechanism developing understanding and are considered their role in the context of the 'demand led' agenda and the aspiration to support social and labour market mobility. The final part of the paper suggests the potential for other ways of looking at generating demand, stimulating achievement and enhancing skills. This considers some of the changes in production, consumption and distribution in the wider economy and the possible impact of Web 2.0 on how learning and qualifications may be developed, delivered and distributed. This sets out potential areas for further inquiry into networks, communities of practice, peering and interrogating demand.

## **Introduction**

This paper is written in a time of transition. The UK is 10 years into a post-devolutionary era, in which Scotland, Wales and Northern Ireland have increasing influence over policy and strategy direction. Although there are differences in policy emphasis and development of strategy, UK nations share the aspiration that learning provision should be responsive to the needs of employers and individuals and to the pace of socio-economic change. There is increased emphasis on learning as a critical resource, a driver of productivity, competitiveness and innovation and a bulwark against social exclusion and welfare dependency.

At UK level, the past decade has been characterised by government commitments to reform and modernise public services. In the latest phase of this rolling programme my organisation, the Sector Skills Development Agency (SSDA) will shortly merge into a new UK Commission for Employment and Skills (UKCES). As part of the Skills for Business Network, SSDA has focussed on raising workforce skills levels and employer engagement. The broader remit of UKCES includes the welfare system and the role of learning in supporting the aspiration for full employment in the adult working age population. This will include recommendations to government on developing an employment and skills system that supports the interdependent aspirations of a competitive, productive economy and a cohesive, inclusive society.

A recurrent concern for policy makers is a perception that the current system is complex, which acts as a barrier to understanding and increased usage of learning and skills services by employers and individuals. Stakeholders express concerns that the system is cluttered by a profusion of intermediary bodies and a proliferation of provision. Recent debate and policy development calls for a 'demand led system' with emphasis placed on quality of the products (qualifications), flexibility of the services (programmes, advice and guidance) and speed of response to identified demand and opportunities.

This paper considers this aspiration for an integrated, yet simple, system capable of meeting demand and responding to change. The dimensions of State (UK), national, regional, local and sectoral provide different systems and structures that have a status and meaning for users. The current landscape is integrally linked to the historical development of the UK's learning infrastructure. Many current communities of interest have a deep rooted involvement with the evolution of provision and qualifications and how they have related to employment needs. A plurality of systems is likely to remain due to different, jurisdictions, demarcations, histories and cultures. However, if they are connected and interoperable, I contend that this represents an ecosystem that can generate the growth that the UK needs to thrive in the global economy.

Connectedness is a driver of economic and social change. Through the impact of Web 2.0, interoperability is profoundly influencing business and social interaction and relationships between production and consumption; demand and supply. In developing a demand driven culture of learning and qualifications, the desire for simplification and rationalisation will need to be balanced against lessons and trends emerging from the Web 2.0 economy. This suggests that productivity and growth can be stimulated by encouraging and enabling effective and collaborative use of the infrastructure. The impact of Web 2.0 has been realised through the combination of a technological framework, within which many networks of users interact and communicate in ways that minimise the effect of physical borders and boundaries and lead to user generated innovation.

The paper considers ways in which the role and interaction of qualification frameworks and practitioner networks might achieve greater impact in the UK's skills ecosystem<sup>1</sup>. The latter part of the paper looks at advances in the Web 2.0 economy which could be adopted to assist the development of a dynamic, networked infrastructure capable of tracking demand, responding to need and driving innovation.

As the paper is written at a time when my organisation is moving from the geography to the history of the UK ecosystem, it should be read as a personal perspective.

### **The Context for Employment and Skills Policy in the UK**

Current UK government policy seeks to ensure that individuals and organisations are equipped with the skills and knowledge to enable them to participate, succeed and negotiate rapid, often disruptive changes in the labour market and society. Having endured the social and economic impact of moving from industrial manufacturing to a service based economy, globalisation is driving further restructuring. The UK must develop a knowledge based economy, where production, assimilation and application of ideas ensure that the core manufacturing and extensive service economy remains competitive through high value products and services. Production and distribution of new ideas will become increasingly central to economic activity and social wellbeing.

This will require action to address a situation of low skills equilibrium in which abilities are underdeveloped or underemployed and development and improvement of products and services is constrained by skills gaps and shortages in the adult workforce. Policy makers are attempting to strike the right balance between forging ahead into high value added activity, requiring highly skilled, mobile and creative workers and addressing the low levels of basic and employability skills and social inclusion and cohesion issues in communities hit hardest by restructuring. Policy has focussed on balancing the needs of learners with those of employers. Both are characterised as the end users of a system which needs to embrace the personalisation required to support individual learning and specialisation required to support skilled employment in the knowledge economy. Consideration must also be given to increasing the supply of higher level, learning and skills across the post-compulsory system.

### **Economically Valuable Skills and Demand Leadership**

“Prosperity for All in the Global Economy: World Class Skills”, published in December 2006 provided impetus to policy development and debate<sup>2</sup>. This was the final report of a review commissioned by HM Treasury. The “Leitch Report” analysed the skills needed to meet the UK's economic challenges in 2020. It recommended urgent attention to:

“focus on economically valuable skills. Skill developments must provide real returns for individuals, for employers and for society at large. Where possible, skills should be portable to deliver mobility in the labour market for individuals and employers”<sup>3</sup>

The report also warned that failure to capitalise on learning jeopardises the UK's economic position and ability to invest in improving social cohesion. A decisive shift to a ‘demand led’ system was proposed:

“The Review's analysis shows that previous approaches to delivering skills have been too ‘supply driven’, based on the Government planning supply to meet ineffectively articulated employer demand. This approach has a poor track record – it has not proved possible for employers and individuals to collectively articulate

their needs or for provision to be effectively planned to meet them. Employers are confused by the plethora of advisory, strategic and planning bodies they are asked to input to. Under a planned system, the incentives are for providers to continue doing what they have done in the past so long as that meets the requirements of planning, rather than responding flexibly as demand changes... Building a demand-led system is the only way in which to increase employer and individual investment in skills and ensure that increased investment delivers economically valuable skills.”

The report calls for action to address this complexity in the areas of planning, funding, advice and guidance, design and delivery of qualifications and apprenticeships and employer engagement and involvement. Employer leadership, through the actions of the licensed Sector Skills Councils is given prominent emphasis. Other prescriptions include the rationalisation of the number and range of qualifications, prioritisation of funding and increases in private investment by employers and individuals. The recommendations echo a previous report, the Foster Review of Further Education<sup>4</sup> which called for simplification of inspection, funding, institutional performance management and promotion of the benefits and successes of post-compulsory learning to users and stakeholders.

### **Monitoring Evidence of Demand**

The UK has a track record of generating evidence based policy. Independent reviews commissioned by the government, are supplemented by Departmental reports on issues such as the impact of qualifications and analyses of returns to qualification levels. Parliamentary Committees monitor the impact of public programmes<sup>5</sup>. Evidence of the impact of learning and qualifications on the labour market is drawn from the quarterly Labour Force Survey undertaken through interviews with a sample of adults of working age. This provides information such as the level of highest qualification held and impact of the (Modern) Apprenticeships compared with traditional apprenticeships held by older workers. Employers’ perspectives are surveyed and presented in a variety of ways. The biennial National Employer Skills Survey captures qualitative and quantitative information. Future Skills Wales and Future Skills Scotland present information in a national context and policy in Northern Ireland places a strong emphasis on authoritative labour market intelligence. Membership Organisations such as the Confederation of British Industry, Institute of Directors and British Chambers of Commerce produce surveys and reports reflecting their perspectives and organisations representing industries, trades and professions present information focussed on areas of influence and interest. SSDA has contributed a range of reports, including the ‘Working Futures’ series. Views on the system’s effectiveness in meeting employer demand are presented from other platforms including conferences, events and the media, where the case for simplifying the landscape is often made<sup>6</sup>. Contributions from wide range of stakeholders, can add to the complexity of the task faced by those analysing and developing the ecosystem. However, the principle of effectively articulated demand based on continuous interaction with employers by Sector Skills Councils represents an agreed way forward across the UK as it is underpinned by key principles and outputs.

All SSC activity stems from a core remit to generate evidence of employers’ skills needs and perspectives and to articulate this to inform policy and strategy. SSCs produce Labour Market Intelligence for their ‘footprints’ This informs the development of Sector Skills Agreements, produced through a five stage process: assessment of current and future skill needs; assessment of current provision; analysis of gaps and weaknesses in current workforce development; assessment of the scope for collaborative action; development of a costed action plan with key delivery partners. Actions that can be met through qualifications are set

out in a Sector Qualification Strategy. Sector Skills Agreements for all 25 SSCs will have been completed by 2008. Sector Qualification Strategies with appended Action Plans will be produced by 2009 as part of the UK Vocational Qualifications Reform Programme<sup>7</sup>.

This focus on gaps and shortages is important in addressing areas of market failure, identifying emergent skills needs and new or more effective solutions. Production of the full suite of SSAs and SQSs should provide a map of the terrain and identify disconnections across sectors. The policy aim for an integrated employment and skills ecosystem will need to be factored into plans for using and refreshing these resources.

### **Evaluating Performance**

Success measures are clearer for some aspects of reform than for others. Impact on the labour market will be measured against the aspiration that the proportion of adults of working age in employment should grow from 74% to 80%. Although percentage growth of participation in the labour market seems a straightforward measure, there is a strong emphasis on sustainable employment and ending the recurrent problem of movement between employment and welfare in short cycles, with little long term impact of training and, consequently, low skills equilibrium. To assess growth in skilled employment, qualification achievements are widely used as a proxy for skills stocks and levels. Success in England is measured against a series of Public Service Agreement Targets that relate to levels of qualification and ‘first’ achievements at those levels<sup>8</sup>. Other measures relate to the performance of organisations in the system. This can also contribute to the perception of a complex landscape as there are overlaps in remit between organisations and performance measures that are some times in tension. A pertinent example in terms of the forward agenda is that an individual on a training programme who gains employment is a success if performance is measured by ‘job outcome’; however where the success measure is completion of training or gaining a qualification, leaving to start work is regarded as a failure. Analysis of system performance for England will also be part of the UKCES remit to:

“provide a vigorous, expert, and external challenge to the employment and skills system at all levels, to ensure that it is delivering the services that employers and individuals need ... and whether further institutional change is required to deliver a better integrated employment and skills service”<sup>9</sup>

A key consideration will be whether structural change to reduce complexity in the short term will be of longer term benefit in making the system responsive to new and changing needs and demands. A different map of learning provision may emerge to meet the needs of the knowledge based economy, for example higher level skills may need to be generated across HE, VET and workplace contexts. This may require different connections and interactions and ways of facilitating these. Other routes, such as career paths may become more complex as organisations restructure, relocate or revise their core competencies. A key consideration moving forward may be what can be achieved through cultural change, to grow the understanding of the wider range of users who will need to access learning and employment services. This may also require a commitment to embrace complexity in the system in return for more responsive, higher quality advice and guidance. In considering how to make the infrastructure and the culture of the UK ecosystem more understandable to users, full account must be taken of the geopolitical landscape of the UK in the 21<sup>st</sup> Century and the extent to which it is informed by culture and history.

### **The Post Devolutionary Context**

In Scotland, Wales and Northern Ireland the Leitch report was considered in the context of existing strategies, culture and infrastructure. In England its reception focussed on change, elsewhere on continuity. In Scotland the “Learning through Life, Life through Learning” strategy underlines the strong reputation of the Scottish system in areas such as qualification framework development. Since parliamentary elections in 2007, which resulted in the first Scottish Nationalist administration, a Skills Strategy for Scotland has been issued. This emphasises making the impact of learning and education in the economy more visible, however there remains a strong commitment to continuity and harmony with the culture of lifelong learning, inclusiveness and cohesion. In Wales, similar themes of national need, social purpose and recognition for all forms of learning are reinforced in key strategic documents such as “The Learning Country” and the just published “Skills that Work for Wales”. Northern Ireland’s experience has been more complex. Key policy statements such as the “Northern Ireland Skills Strategy” and “FE Means Business” focus on supporting productivity and competitiveness in an economy with high employment rates. However, Northern Ireland is also focussed on more profound social reconstruction and reconciliation, with devolution integrally bound up with the peace process. Education and learning systems are also informed by other influences such as the American community college model and reforms that have contributed to the economic success of the Republic of Ireland.

Despite some cultural, strategic and operational differences, there is a shared aspiration to ensure that learning and qualifications meet the needs of employers and individuals and deliver a return on investment. Areas of the ‘post-devolutionary’ phase of reform which could be characterised as common across the UK include work to develop outcomes based National Qualifications Frameworks, to raise levels of achievement in Literacy, Numeracy and ICT<sup>10</sup>, to raise workforce skills levels and employer commitment to training and development and to widen participation in higher education. Some of these developments involve joint programmes for England, Wales and Northern Ireland; others continue to be described as ‘UK wide’. It can also be argued that the intricacies of delineation and articulation within the UK provide a developmental model for work on education and lifelong learning in the European context, where a diverse range of cultures, systems and mechanisms are coming together under the Lisbon agenda to build a knowledge driven economy across the EU.

### **Regional and Local Dimension**

Reform must also take account of the regional and sub-regional dimension in policy development and the cultural importance of local structures and systems. In England Regional Development Agencies have established structures, activity, relationships and expectations across the 9 administrative regions<sup>11</sup>. The RDAs have developed Regional Economic Strategies and Regional Skills Partnerships with stakeholders. The role of regional government tends to fluctuate according to national policy, however sub-regional and local area structures are deeply embedded into the system. The role of local democracy has endured, despite tensions between centralisation and distributed decision making. Recent developments have given a measure of control and influence over post-compulsory education for young people back to local authorities. This is intended to harmonise with a long established role in compulsory education.

There are also cross-border areas through which people and their skills have traditionally moved for economic and social benefit, e.g. the North West of England and North Wales, South West and South Wales, North of England and Scottish Borders, Northern Ireland and the west of Scotland. Meeting these spatial needs could be said to add to complexity, on the other hand these areas and their networks are meaningful environments for those who live

and work within them. The aspiration for an integrated Employment and Skills system will also require consideration of the range of organisations operating at national, regional, sub-regional and local level within the two dimensions of welfare-to-work and learning services. There have been increasing interactions across these boundaries; however issues of culture, practice, process and purpose will need to be worked through to optimise the broader system.

Cultural and historical developments are important in considering the role of other representative communities of interest within the learning ecosystem.

### **The Historical Dimension**

These groups include providers and awarding bodies, trade, professional and sector bodies who operate across national, regional, local and sectoral domains. Attempting to summarise centuries of development in a few paragraphs risks selectivity and Anglo-centricity, however it is important to consider the development of these communities of interest and practice as this illuminates how they have influenced the ecosystem. Although labels such as 'supply side' and 'demand side' are often used, running through this history is another binary relationship, between stakeholder activism and state action.

The prominent role of awarding bodies as suppliers of products (qualifications, other awards and materials) and services (for quality assurance and practitioner development) is a distinctive feature of the UK's qualifications landscape. Many have their origins in other bodies that have, at various times, had different roles in the ecosystem. Such roots are recalled by the inclusion in the current range of regulated awarding bodies of 12 Chartered Institutes, 5 with the prefix "Royal" and 2 "Worshipful Companies". The Craft Guilds Livery Companies founded in the craft era endured through industrialisation into the information age. The Guilds oversaw terms, conditions and organisation of training and inaugurated the Apprenticeship system which remains strongly identified with training, occupational status and skill. By the 1870s they had evolved into the City and Guilds London Institute, a powerful influence on the development of 'vocational' education, formalised within institutions, validated through examinations and latterly qualifications. This influence also extended into links with universities, stimulating progression to higher education.

Employer involvement in the organised delivery of training for adults in the workforce also came through individual philanthropists such as Owen and Wedgwood. A greater degree of formalisation came through The Mechanics Institutes and the role played by Birkbeck, bringing advanced ideas from the Scottish system. A combination of state, local and religious influences in Scotland developed a more structured system of schooling with an enduring focus on scientific and technical education. Learning and training developments in England at this stage were driven more by trade and professional interests. Independent professional bodies, serving the interests of their members and professions were influential in articulating professional development with established higher education. The relationship of these bodies with learning and development endures and embraces vocational and occupational learning, though much of this activity is not routed through national structures such as accredited qualifications and national frameworks. The same can also be said for communities of interest such as Chambers of Commerce. The relationship between regulatory requirements and developmental activity is a key concern for these stakeholders and consideration of this issue will be critical to aims for growth of adult workforce skills and increasing the range of learning recognised through national qualification systems.

Government involvement in England responded to rising concern regarding quality and continuity of training, and gaps and shortages in technical and functional skills in the workforce compared with competitors, issues that remain live in the current reform agenda<sup>12</sup>. Government introduced an entitlement to an elementary education and a more structured national adult education system primarily routed through Local Education Authorities. Changes in the balance of local and central influences are also mirrored by fluctuations in the relationship of voluntary and employer influenced approaches and state intervention. The 19<sup>th</sup> Century focus on adult literacy and technical skills broadened into Adult Education, promoting self determination and expression and community involvement through learning. The role of the Third sector and growth of organisations such as the Workers' Educational Association consolidated earlier efforts to provide a broader offer for adults. From the middle decades of the 20<sup>th</sup> Century this provision came within local authority influence alongside the development of technical education in colleges. This developed into the multi-dimensional 'Further Education' sector. Provision offered in FE articulates with compulsory education, higher education and the welfare system. The sector has also provided many opportunities for learners with difficulties and disabilities and other disadvantaged groups and individuals to access structured and supportive learning. Specialisms, such as land based provision continue to be part of a diverse portfolio that was acknowledged in the Foster review:

"FE colleges are striking in their heterogeneity. They deliver in a wide variety of settings and the range of learning opportunities they present is extraordinary."<sup>13</sup>

However, the review also called for a new mission, or rather a return to earlier influences:

"Although the diversity of the FE offer is often celebrated, it became clear during the review that many stakeholders believe the unique core focus of FE should be in skill building for the economy. This is the tradition from which much of FE developed, but it is a tradition that has been diluted in recent years. We therefore propose that skills, an economic mission, is the route for FE, but interpreted in line with values of opportunity and inclusion which matter so much to those who work in FE. A focus on vocational skills building is not a residual choice but a vital building block in the UK's platform for future prosperity. It gives FE colleges an unequivocal mission and the basis of a renewed and powerful brand image."<sup>14</sup>

The response of FE sector has been proactive, promoting the social and economic value of its diversity and ability to contribute to the skills agenda and employer need. This cultural shift has also been accompanied by structural change, with the development of partnerships, networks and mergers to respond to the need to harmonise delivery of provision to meet national, local and sector-specialised needs. The sector also seeks to develop ownership of its work through increasing self regulation and autonomy.

### **Higher Education**

Expansion of the Higher Education sector was also a feature of the 20<sup>th</sup> Century. This saw the progressive consolidation of colleges, tertiary education institutions, 'redbrick' and 'plate glass' universities and Polytechnics into Higher Education Institutions. Polytechnics, established in the 1960s, following the Robbins Report<sup>15</sup> were intended to strengthen the development of technical and scientific skills at higher levels and extend the opportunities for a higher level education to individuals from a broader range of social groups. Again, there are echoes in this mission of current policy aspirations for growth in higher level skills for employment and economic benefit. This binary divide ended when the Polytechnics became 'new Universities' in 1992.

Alongside their research activity HEIs have developed an autonomous, institutional approach to offering higher level, professional and vocational programmes and qualifications and also had input and influence on the compulsory curriculum. Although institutional autonomy and performance remains highly valued, universities are seen as key players in regions and, increasingly in employment sectors. At regional and sub-regional level many initiatives and partnerships are pursuing innovative development of a mixed economy of intermediate and higher level skills and knowledge. This has the potential to change the focus from an interface between the FE and HE sectors and an emphasis on participation and progression into HE, to a new area of the ecosystem, interacting with employers and employees to develop higher level skills and innovation for a competitive UK knowledge economy.

### **Development of Industrial and Sectoral Structures for Learning and Training**

Post war economic difficulties and restructuring led to increasing government intervention in workforce development. In the broader context of industrial relations there was increasing dialogue with Employer representative bodies and Trades Unions. Although changes in the 1980s impacted on the dynamic of social partnership, renewed focus on workplace learning has consolidated the role of Unions in raising awareness of changing needs in workplaces and negotiating and delivering workforce skills through learning programmes. A significant development from the 1960s has been government sanctioned representative bodies for workforce learning in employment sectors. Industry Training Boards were established by the Industrial Training Act, 1964, to focus on standards, commitment to training and addressing decline in the Apprenticeship system. ITBs raised levies to fund training, a sometimes uneasy compromise between state mechanisms and employer contribution to workforce skills. However levies remain an option for consideration and more recently the Film Industry has voluntarily re-introduced a levy to support the changes in a decentralised industry and high levels of self employment. Although the ITBs were wound down in 1980s sector bodies remained key actors in the system<sup>16</sup>. The most significant development of the sector bodies came in 2002 with the reformation of 75 National Training Organisations into the current network of 25 Sector Skills Councils. Other Standard Setting bodies remained independent; although several niche sector bodies have become part of SSC footprints as Skills for Business Network coverage extended to nearly 90% of the economy.

As lead bodies, these organisations acted as stewards of National Occupational Standards, established in the mid 1980s, initially as a result of the Review of Vocational Qualifications<sup>17</sup>. This introduced National Vocational Qualifications (and Scottish Vocational Qualifications) developed from NOS statements of competence that validate the holder's skills, knowledge and understanding in an occupational role or function. In their aims, content and assessment characteristics they have continued to embody the idea of a framework of occupational qualifications. Cross-sectoral application and competence in areas such as Customer Service, Administration, Health and Safety, Management and Leadership is critical to workforce development. Many of these standards and qualifications are developed and stewarded by Standard Setting Bodies. Development of N/SVQs and standards has been influenced by changes in employment and employer need. The relationship of standards with cross cutting competences has developed in different ways. Attitudinal and behavioural competences are embedded and contextualised in some NOS, other curricula have been developed at a national level in literacy, numeracy and ICT and wider key (soft) skills. Within broader frameworks such as the relaunched Modern Apprenticeships, N/SVQs are linked with these skills and Technical Certificates focussing on underpinning knowledge. Other developments have sought to integrate occupational and soft

skills within stand alone qualifications. The Employability and Soft Skills agenda will be a key area of focus for new provision as employers continue to signal the importance of cross cutting and contextual skills for 21<sup>st</sup> Century working life.

The 1985 review also initiated the development of a UK wide framework of vocational qualifications and a pre-cursor of today's regulatory infrastructure.

### **Accreditation and Regulatory Bodies and National Vocational Qualifications**

The UK's qualifications regulatory and accrediting authorities have responsibility for oversight and maintenance of quality assurance processes and standards in learning and assessment. They are the stewards of national Qualification Frameworks. Development of the original framework of VQs was undertaken by the National Council for Vocational Qualifications (NCVQ) with counterpart organisations in Wales, Northern Ireland and Scotland. NCVQ's successor, the Qualifications and Curriculum Authority (QCA), established in 1997 has a joint regulatory role with organisations in Wales (DCELLS) and Northern Ireland (CCEA). The Scottish Qualifications Authority (SQA), established as result of the Education (Scotland) Act, 1996, has distinct functions as an awarding body and an accrediting body. In relation to N/SVQs, arrangements have continued on a four country basis. Statutory regulation of Qualifications through joint arrangements has operated since 1999 with further revisions in 2004. New Regulatory Criteria have been developed for reform of NQF. These will change the emphasis of regulatory scrutiny and are currently in consultation with stakeholders.

### **Recognised Awarding Bodies**

The NQF required Awarding Bodies to gain recognised status through compliance with the Regulatory Criteria. Requirements focus on quality assurance arrangements, governance and expertise in the development and delivery of qualifications. The number of Awarding bodies who meet the criteria at the time of writing is 117. The status of awarding bodies in the qualifications system and the learning and skills landscape was given further impetus by the formation of the Federation of Awarding Bodies. Initially FAB was formed by the four largest developers of Vocational Qualifications: City and Guilds, LCCIEB, OCR and Edexcel, however the federation has expanded to in excess of 85 organisations. The Joint Council for Qualifications (JCQ) also has a representative role for a range of awarding bodies across the UK and the full spectrum of qualifications including General Education<sup>18</sup>

As with other development of the ecosystem, there are different emphases in these relationships between employment sector bodies, developing and awarding bodies and regulatory and accreditation bodies in UK nations and the balance of influence has changed over time. Their interaction is a critical relationship within the qualification system as further progress is made in developing the UK's qualification frameworks.

### **The Developing Role of the UK's Qualification Frameworks**

In enabling the categorisation, classification and codification of knowledge and skills Qualification Frameworks are as tools to support mutual understanding and recognition of achievement. This section considers their development and potential for interoperability.

There are four distinct qualification frameworks in the UK, each of which has a 'national' status in the overall ecosystem. There is not, however, a single comprehensive national framework in each nation. The range of coverage and mix of qualification types reflects the different policy approaches, historical developments and perspectives on regulated systems

discussed in the previous sections. This also accounts for the existence of catalogues of non-accredited qualifications and local credit frameworks in use outside the regulated system. Current developments in reform are focussing on enabling more of the well regarded provision currently outside the frameworks to gain national status.

The Scottish Credit and Qualifications Framework is an enabling and descriptive framework comprehensively covering learning activity in Scotland. The framework includes qualifications and enables programmes of learning to be credit rated and levelled subject to their meeting requirements established by the SCQF partners<sup>19</sup>. The SCQF continues to develop incrementally, evolving and extending its influence and impact within Scotland and internationally, including developing articulation with the European Qualifications Framework. The partner organisations, who established the SCQF, have also formed a limited company, placing this framework on a distinctively different footing to its counterparts. SQA through its Accreditation function has an active role in some aspects of the UK Vocational Qualifications Reform Programme and observer status in other areas.

The NQF has national status in England, Northern Ireland and Wales. Although evolving from the framework of NVQs it includes other types such as Vocationally Related Qualifications, which are not necessarily derived from occupational standards. Qualifications developed by awarding bodies which are used within the UK and internationally have been migrated into the framework. Initially the NQF was founded on a limited range of technical features, including Level, unitisation, classification by type and titling conventions and a sector/subject classification system to which qualifications are aligned. Analysis by sector and subject reveals an uneven pattern of growth with a large range of qualifications in some areas and thin coverage in others. Responses to the NQF, including take up, have been mixed. This can to some extent been related to perceived inflexibilities in relation to partial achievement (of units), methods of assessment and approaches to quality assurance in a regulated system. This led to proposals for the NQF's replacement by a framework that is unit based and underpinned by a credit accumulation and transfer system to enable assessment and achievement at unit level to support incremental progress towards qualifications. This new framework, the Qualifications and Credit Framework, is currently in a phase of testing and trialling. If endorsed by Ministers the QCF will be operational in 2008 and there will be a phased closedown of the NQF enabling valued qualifications to be translated to meet the new technical specifications and learners to complete NQF qualifications.

In Wales the NQF/QCF is only a part of a larger Credit and Qualifications Framework for Wales. The CQFW incorporates transnational regulated qualifications into a structure that also includes HE and recognised programmes that have developed from non-formal and informal learning contexts. It was always intended that CQFW would articulate recognised learning in Wales with the three country regulated framework and with wider developments such as the EQF.

The fourth framework with national status is the Framework for Higher Education Qualifications (FHEQ). This is also a product of the last decade and has evolved from the distinctive system of higher education awards and programmes and institutionally based systems for development and quality assurance. The FHEQ, administered by the Quality Assurance Agency for Higher Education provides an organising structure with a focus on maintenance of academic standards and quality assurance. Validation and decision making relating to particular awards and disciplines makes use of the networked expertise of

practitioners within the system and relationships between institutions professional bodies, societies and associations. Development of the FHEQ in England has pursued an incremental and institutional direction. However there is an increasing appetite for commonality and mobility within the system through exploration of common approaches to the use of credit. The European Higher Education agenda is also important to UK universities many of whom operate in a global market and network for research and teaching and learning.

### **Other Provision**

The history of development of Higher, Further, Workbased, Adult, Community and Voluntary learning means that the system has other 'catalogues' that must be considered when stock taking in relation to the potential to recognise learning and validate achievement of learning outcomes. HEIs have developed or validated provision which operates at a local, regional or institutional level outside formalised frameworks. Awarding bodies have developed 'non-accredited' qualifications to meet specific needs of employers and other organisations, which have not been submitted to the regulated NQF. The Open College Network, although more recently operating as an awarding body through a national hub developed a broad range of 'locally accredited' programmes, based on credit bearing units and the principle of accumulation and transfer.

There are historical links between the development of this provision and 'Access to Higher Education' programmes which can enable admission to HEIs, on the basis of appropriate content and credit achievement. The University and College Admissions Service (UCAS) supports the HE admissions process and has developed a points based national tariff system for qualifications. This does not, however, articulate with the credit system. More recent developments in England introduced Foundation Degrees at Levels 4 and 5, designed to provide progression to undergraduate degrees and to support careers requiring higher level skills. They have to some extent supplanted the previous Higher National Certificates and Diplomas in the English system. Higher National qualifications continue to be highly valued in Scotland. This area of intermediate to higher level progression is critical to the growth of higher level skills, however at the present time it is distributed across different framework structures.

It can be argued that there are advantages in having distinctive and different models for organising and classifying qualifications and the relevant national agencies are working on the concept and the practicalities of Articulation between frameworks. Until agreements are in place, the system may appear technically complex particularly from the perspective of end users. Inter-operability between the major frameworks in the UK and some of the provision outside those frameworks is possible through the common language of level and credit.

### **Credit Systems and Approaches**

The HE sector has used Credit Accumulation and Transfer arrangements for many years, operating and within and between institutions in England and becoming formally part of the Scottish and Welsh frameworks. Many of the core principles for the use of credit accumulation and transfer were refined and honed by influential work done in Northern Ireland in the NICATS project<sup>20</sup>. Within Higher Education in England, the work of the Burgess Group for Measuring and Recording Student Achievement has opened up possibilities for a common approach to the use of credit and increased opportunities for transfer. The Joint Forum for Higher Levels also has a remit to explore the development of a common approach to credit and related operational criteria that could be used by institutions

and stakeholders. This remit is primarily focussed on stimulating progression between institutions and from FE into Higher Education. However the operational testing and trialling of the principles and guidance is being pursued through sub-regional Lifelong Learning Networks and is therefore connecting the sub-regional and sectoral developments for raising achievement and developing progression routes into high skilled employment.

The technical ideas and propositions regarding the potential of credit and a unit based (where qualifications are built up from units), rather than unitised (where qualifications are broken down) approach drew upon previous proposals, dating back many years, produced by the FEU, FEDA, LSDA and others<sup>21</sup>. Open College Network systems are a significant influence on the technical development of the framework. This has meant that despite the commonality of credit and an outcomes based approach the QCF has a distinctive and different technical specification to the NQF, SCQF and the FHEQ

### **QCF Technical Specification and Emergent Issues**

The QCF specification has introduced new technical features to support credit accumulation and transfer. Information about the demand of individual qualifications in the NQF is signalled through 'guided learning hours' required to enable any learner to successfully complete the whole qualification. Unitisation in the NQF gives indications of the glh for every unit, however these relate to the total glh for the whole. In the QCF a credit value is assigned to every unit on the basis of the anticipated notional learning time required to meet the learning outcomes and satisfy the assessment criteria. In addition to moving from a delivery input based measure to an outcomes measure, the value of whole qualifications is aggregated from the sum of the credit values of all units in its rule of combination. The concept of rules of combination is not new, however emphasis is placed on the combination of numerical credit values for units, in addition to the content focussed combination of unit titles. This enables qualifications to be aligned with the three categories of QCF qualification: Award (0-12), Certificate (13-36) and Diploma (37+) credits. Classification by size has been favoured over the NQF categorization by Qualification Type. During testing and trialling, use of types such as NVQ and VRQ has been suspended. Advantages in this approach include varied uses of smaller sized Awards and Certificates, i.e. to recognise shorter courses or episodes, CPD and upskilling of people who are already qualified. There are also possibilities for bridging qualifications to underpin progression to further and higher learning. However, this way of representing qualifications in terms of volume has tended to obscure the question of purpose, with some concerns that confirmation of occupational competence, currently achieved through completion of an NVQ is less clearly signalled.

The QCF also requires a standard unit format, presenting learning outcomes and assessment criteria. This raises issues for the translation of a more detailed specification of competences in National Occupational Standards into this format. Since the reforms of the 1980s NOS have been regarded as the building blocks of vocational qualifications and continuation of design model has been confirmed in the new framework. However, the learning outcomes model will require adjustments to the process, with developing bodies working through the translation process and consideration of the interoperability of the database of occupational standards (which are used for a wider range of purposes in workforce development) and the database of units and qualifications. This includes the updating of these resources with new and revised content. A further consideration is the relationship between credit value expressed as a notional learning time that would be required by a typical learner and the philosophical underpinning of the NVQ system, in which competences for a job or role can be demonstrated in the workplace at a differential pace according to the experience and

expertise of each individual. Evaluating this issue will require a longer period of reflection on practice, using evidence from a range of contexts. Issues may also emerge in the relationship of UK wide occupational qualifications with distinctive frameworks underpinned by different technical specifications.

Progress in developing articulation agreements between the four frameworks, to enable achievements to be recognised across borders should enable differences in technical specification to be ignored. Clarification of purpose of different types of qualification may be necessary, however, to ensure that important stakeholder groups such as advice and guidance professionals are able to translate the key messages to end users.

The benefits of qualification frameworks in supporting mobility and progression in life, learning and the labour market are as yet largely unproven, given their relatively short history. At this stage it is also difficult to gauge whether there will be widespread transfer of credit across different contexts. Progress on articulation and inclusion of more varied and valued provision in the next phase of development may generate evidence for these broader claims regarding mobility and progression. This will be a practical, operational phase with a change of focus from designing architecture, content and formats to embracing the diversity of practice and user perspectives in learning contexts. For qualification frameworks to fulfil their potential to contribute to economic and social development, they must be recognised as useful and user friendly tools in the networked world of information. If frameworks and systems are able to develop to accommodate user generated activity, including unexpected, negotiated and personalised outcomes that are a result of learning then they may become even more useful resources for the knowledge economy. Work in the area of non formal and informal learning will provide some useful developmental activity.

The final part of this paper discusses some of the issues, implications and possibilities of Web 2.0 changes for the relationship between learning, skills and employment and productivity, competitiveness and innovation.

### **Potential for an enhanced role for Networks and Networking**

In the post-dot.com period global usage of the web has opened up the system to individuals, communities and emerging economies. Open Source software and the Linux operating system has provided a platform for user communities to interact, innovate and influence the infrastructure. As Web 2.0 has enabled an increasing range of human activity to take place on-line, the relationship between producers and users has begun to change, with the demands and ideas of the latter increasingly visible and influential on the practices of the former.

Although many of the more visible Web 2.0 developments appear to relate primarily to media products and services and social networking, My Space, You Tube and Second Life are influencing thinking about people and information. Development of terminology derived from these products is testament to their impact, 'to Google' has become a proxy for desk research. Debate in traditional media often focuses on negative impacts, e.g. time spent in virtual rather than 'real' communication, anti-social behaviour, unauthorized or unaccredited use of material and general concerns about authenticity and quality of information. Advocates focus on other impacts such as use of Facebook, not only to supplement information in recruitment processes but also to enable organisations to strengthen induction and corporate identity, providing space for staff and teams to connect, interact and develop. The You Tube model has been adopted and adapted, with rich media supplanting other forms of communication about strategies, products and services. Cisco uses 'C-Vision' to enable

internal discussion to be conducted in this interactive way. These practices suggest more than just the replacement of the memo with the podcast; they indicate how organisations are acknowledging the expectations of their workforces, customers and wider audience. These expectations embrace not only an increased need to know but also a desire to comment and contribute. User comments, votes and ratings are also part of the process, with ranking and categorising used to analyse patterns of response. Although risks noise rather than light, there is an expectation that informed opinion can be extracted to improve products or services.

This also signals a realisation that among the millions of users, there are not only communities of interest but also communities of practice whose expertise, opinion and labours can be engaged to provide more than feedback or comment. InnoCentive is predicated on connecting the infrastructure and its users to solve business problems. Whereas other resources, such as the Human Genome Project have recruited commitment and ideas on voluntary basis, InnoCentive has fostered communities of professionals working primarily on-line. InnoCentive offers 'seekers' in the business community the opportunity to offer problems that they do not have the capacity, resource or time to solve, either in-house or in their own networks, to a community of approximately 135,000 'solvers'. The 'solvers' network covers 175 countries and 40 'industry disciplines'. Problems are presented as 'Challenges', successful resolution is rewarded with 'prizes'. Although by its nature a prize based form of payment implies that there will be losers whose efforts and investment go unrewarded, the InnoCentive model takes traditional methods of motivating people to solve problems into a new, expanding marketplace. What may be distinctively '2.0' about the approach lies in providing a large network from which many smaller networks can be formed and disbanded, the scope of coverage and the speed at which this can happen. Its distinctiveness for working practices is that seekers have access to a much broader R&D capability which does not need to be directly managed, permanently resourced or periodically re-organised. Corporations who are able to employ and manage expert networks have also begun to change their practices. Proctor and Gamble's "Connect and Develop" strategy is predicated on moving from a "not invented here" to a "proudly found elsewhere" approach which exists alongside a corporate R&D function.

Tapscott and Williams<sup>22</sup> regard InnoCentive as an Ideagora, a marketplace for innovation. This concept is central to their Wikinomics thesis, which posits that the combination of infrastructure development, open source philosophy of collaboration and the inherent value of ideas are driving the knowledge economy. They cite the impact of Wikipedia as an open on-line knowledge resource developed by peer production, with a distributed network of editors replacing centralised, editorial control. This is contrasted with published encyclopaedias, developed using a network of experts in particular fields and edited and published in hard copy by a central source. The advantages promoted by Wikipedia's advocates focus on the scale of its coverage, speed with which entries are updated and errors corrected. They point to coverage of areas of specialised knowledge beyond the scope of encyclopaedias. Detractors point to potential failings in the distributed editorial system, the possibility for error and subjectivity and the overall implications for knowledge management. Problems have been experienced, however advocates cite comparative studies of Wikipedia and the Encyclopaedia Britannica noting that though the statistical probability and the scale of error in the former is more likely, the incidence of errors found in the latter is comparable and correction takes far longer to address<sup>23</sup>.

For Tapscott and Williams Wikipedia is a symbol of open and peer based production, through collaborative user communities, with InnoCentive exemplifying a more focussed, business

driven approach to networked production. Peer production and user innovation has also extended to the production of physical goods. Lego has harnessed the skills and knowledge of customers to combat a downturn in sales of its robotic products, enlisting them to improve product design and functionality and develop new features. Tapscott regards these volunteers as “Pro-sumers” rewarded by recognition of their contribution, satisfaction in having improved the product and further supply for their own use. Lego retains the intellectual property rights and the profits. However, it also retains ownership of the risk involved in working in this way, while ceding some ownership of its reputation. The networked, peering model also makes new demands on management skills, i.e. managing and supporting workers whom you don’t employ, negotiating new ways of working with an in-house workforce.

Tapscott and Williams also explore the growing influence of networked production in more traditional industry. In South East Asia the Lifan corporation oversees development of “Open Source” motorcycles built by a transnational network of component suppliers that is now extending into Eastern Europe. Although building on successful Japanese designs and ‘just-in-time’ production techniques, this manufacturing community has developed from basic repair shops into high end production, using a distributed mode of production. Crucial to its development is extensive use of the internet to collectively refine and improve design blueprints and embed these into modular manufacture. The Chinese motorcycle manufacturing industry has taken market leadership and is predicted to move into car production through the same combination of techniques learned from JIT manufacturing and ‘bit’ production.

These developments recall ideas outlined by Piore and Sable in the 1980s<sup>24</sup>. This envisaged an evolution from vertical integrated organisations, through extended supply chains, to a networked infrastructure for production and distribution of goods and ideas, with a return to pre-Fordist production and post-Taylorist management philosophies. Flexible Specialisation and its Web 2.0 successors may struggle to achieve significant penetration into the working practices of some sectors where vertical integration or centralised management of outsourcing and offshoring remain the preferred model of dominant corporations. However, where changes begin to impact and inform working practice, systems for training, learning and qualifications will need to respond.

Sharing of material, good practice and new ideas among practitioner networks has long been a distinctive feature of many areas of the teaching and learning profession and the research community. Developments in e-learning and assessment have further stimulated collaboration with work often done in addition to the day job, harnessing practitioner enthusiasm for the possibilities of technology. Networked Learning Communities in the UK is a notable, centrally sponsored example targeted at the schools sector. In relation to post-compulsory learning, voluntarism has again been a driver of new development.

Keeping pace with developments in the economy also requires a shift from viewing this as centred on e-learning. Rather it is using the potential of networked connectivity to harness creativity and innovation. There are new possibilities to harness the technical infrastructure, the ‘always on’ networks that minimise issues of physical distance, timetabling etc with the networking that is implicit in Wenger’s Communities of Practice model, embraced by many in learning and education<sup>25</sup>. Models of qualification, curriculum and standards development frequently rely on centralised design models, document led approaches and contracting work to consultants. Peering and reference groups are part of the method; however the process can often resemble an end to end production line. The model for qualification development in

UKVQ Reform reaffirms this end to end production line. However testing and trialling of the QCF is raising issues for this approach. Sharing of expertise and problem solving across the network of practitioners is occurring, however, due to the conditions of production and the management model, generating solutions to some of the technical issues remains more of a by-product of a process designed to generate a high volume of 'reformed' qualifications. In addition practitioners involved in facilitating learning are often peripheral to design work. This may change when providers begin to offer their own programmes for translation into a QCF Qualification, however in not bringing together designers, deliverers and assessors into an extended collaborative network, opportunities for developing capacity and capability may have been lost or deferred. Plans to bring employer training into the system also offer opportunities to engage new thinking and forms of collaboration, harnessing contributions from end users with direct experience of workplace contexts and cohorts. This may also stimulate thinking about delivering on demand.

Tracking and anticipating demand is another key challenge. The mechanisms currently in use for a demand led system will generate a comprehensive suite of documentary information. The next phase of development will require a different approach, identifying new developments, changes, trends and responses from stakeholders and users in the employment and skills ecosystem to the strategies and solutions presented. Web 2.0 may also provide useful food for thought for this next phase. Chris Anderson's influential research into the 'long tail' of demand for media products is another source of information about the impact of the new economy, moving from digital to real world impact<sup>26</sup>. Anderson contends that technological advances in information management and tracking of user behaviour has replaced a culture of mass produced, homogeneous products, 'hits' designed for mass consumption, with a culture of heterogeneity, niche products reflecting the diverse preferences of actively engaged and technically enabled users.

There is growing interest in the application of "the long tail" to learning for the new economy<sup>27</sup>. This tends to focus on capacity to use Web 2.0 as a tool, employing the abundance of resources to meet a multiplicity of needs. There is an emergent sense that self directed learning can supplement the 'hits' of a standard curriculum, developing users' ability to find, interrogate and present information. Similar themes are explored by Tapscott and by Howard Rheingold, focusing in particular on the capacity of younger learners to become scrutinizers and inquirers, through their access to information and ability to filter and track their way through the on-line world. This suggests a way forward for the development of soft skills, including new skills and literacies, mixing collaborative skills and peer production with knowledge management and analysis and interpretation of information.

For stakeholders in the UK there is an intriguing parallel in the development of thinking about harnessing the long tail. Anderson has also spoken of the development of niche value in terms of the ability to 'calibrate success' and 'de-stigmatize modest success'. In effect technology has revised the idea of commercial failure by being able to recognise and build on partial success. The aggregation of many failings has become a basis for collective success. What is intriguing about this idea is the way that the phrase 'long tail' has been used in other ways in connection with learning, employment and skills in the UK:

"We need to cut off the long tail of underachievement, rethink vocational qualifications and look again at methods of assessment"<sup>28</sup>

"a long tail of under-achievement and failure, concentrated in our poorest communities, weakening our society and economy and undermining the life chances of millions of young people."<sup>29</sup>

This use of the phrase to describe the failure of young people to achieve an expected threshold of skills in compulsory education regards the 'long tail' as a burden on the body (politic, social and economic). To compare this use of the term with Anderson's ideas is not to deny the reality of the problem of underachievement and unpreparedness for a productive working life. However this is also product of the way skills and abilities continue to be measured almost entirely by the 'hits' of the skills ecosystem, i.e. formal qualifications. The use of threshold measures of attainment that represent a breadth and depth of learning gained in compulsory education is central to policy making in England and informs the development of targets and measures used for international comparison. A satisfactory attainment which is regarded as a platform for employability is generally agreed to be 5 "good" GCSE's including English and Maths. A good GCSE is one in which the candidate achieves grades in the range of A\*-C. The combined result of 5 such grades is then said to represent a "full" Level 2 achievement. GCSE Results at D-G are classified as Level 1. This clear distinction, however, represents spiky profiles of results, for example 1 B grade, 3 Cs and 1 Ds, as a simple failure to reach Level 2, even though technically four of the five results may be 'at' this level. All such partial achievements are thus failures, leading to the impression that all who lack the 5 good GCSEs are part of the long tail of 'low or no qualifications'. This may of course be true for many; however it is not true for all. As in Anderson's thesis, there is value in the long tail and the aggregation of modest success could demonstrate that the UK's skills stocks are less depleted than might appear. The technological developments that have enabled the failures of the media economy to be reinterpreted could perhaps be used to interrogate the extent to which those who have failed in compulsory education may have achieved partial success that can be developed in post-compulsory learning and work for the benefit of themselves, employers and society.

This also has implications for the adult workforce agenda, as the Full Level 2 benchmark is also used to determine the needs of adult learners who are 'low qualified' and influences the provision that is offered across the system to address their deficits. Qualification frameworks and credit accumulation and transfer have a role to play in describing and enabling incremental achievement towards qualifications, thresholds and benchmarks. However, more extensive use of available technology for tracking and aggregation could also promote increased ownership of formal, non-formal and informal learning outcomes by individuals. This could in turn support increased engagement and investment from individuals and could benefit employers if, rather than having to interrogate a potentially complex spiky profile of outcomes, they could evaluate the presentation of that history by individual candidates and applicants. The skills often used in social networking could be deployed to assist learners in owning and presenting their learning and achievement profile.

Evaluating the emergent thinking of Web 2.0 analysts and embracing new ideas will be a challenge not only to learners but also to stakeholders in the system. On the delivery side it would require more sophisticated initial assessment, recognition of prior learning and achievement and scrutiny of the relevance of past outcomes from formal, non-formal and informal learning. On the design side, open innovation, networked expertise and peer production approaches could be investigated to evaluate whether there is potential for adding value to the system and new user generated content to frameworks. This is a complex area, impacting on the on going development of relationships between Intellectual Property and

Innovation, employers and employees, producers and consumers, competition and collaboration and many other dynamics in the economy and society. Theorists such as Von Hippel have developed their earlier thinking in this context to embrace terms such as “Democratizing Innovation” which suggests that we are reaching a critical point, where broader economic and social needs require a change in these dynamics to enable networked and collaborative approaches to add value to more traditional approaches to production and ownership.

To embrace these possibilities would require high levels of trust in people, processes and technology. However, an integrated, demand led ecosystem that is responsive to varied and changing social and economic needs, must generate high levels of trust and an appetite to harness new ideas across its different domains, dimensions, stakeholders and users.

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I would like to thank George Brown of the Scottish Qualification Authority for his helpful advice. I hope I have not misrepresented Scotland's distinctive system, however I acknowledge a tendency for Anglocentric drift elsewhere in the paper.

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<sup>1</sup> I used term 'skills ecosystem' to replace 'metasystem' in a late draft of this paper. Having googled the term, it is in use in the Australian system, where a 'skill ecosystem' defined as "a self sustaining concentration of workforce skills and knowledge in an industry or region. This concept has been used in Australia to guide a series of national VET projects which have created more resilient ecosystems in industries such as aged care and water services." See <http://www.skillcosystem.net>. My use of the term is to encapsulate all the national, regional, sub-regional, local, sectoral systems that operate within and across the UK. I prefer ecosystem as this suggests growth and change.

<sup>2</sup> Leitch, S, *Prosperity for All in the Global Economy – World Class Skills*, London, HMSO, 2006,

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3 Leitch, p17  
4 Foster, A, Realising the Potential: A Review of the future of Further Education Colleges, Annesley, DfES Publications, 2005,  
5 e.g. 14-19 Reform, Vocational Qualification Reform and Apprenticeships  
6 CBI press release in advance of the Leitch Report, "CBI warns national skills system is dysfunctional", 20 November 2006,  
available at <http://www.personneltoday.com/articles/article.aspx?iarticleid=38257&printerfriendly=true>  
7 Although the programme is focussed on Vocational Qualifications, the SQSs will cover all relevant qualifications and other  
learning provision that can be recognised through qualification frameworks. This includes general, further (VET) and higher levels.  
8 The proxy for this is 5 "good" GCSE's including English and Maths, achieved through A\*-C Grades. Five such results are  
regarded as a "full" Level 2 qualification. GCSE Results at D-G are classified as Level 1. A "full" Level 3 achievement uses the benchmark  
of 2 A-Levels.  
9 Leitch p11. Any similar aspirations for the devolved nations will be developed in the context of existing strategies and current  
policy.  
10 These skills have had different emphases and brands across the UK Nations and over time, being variously described as Basic,  
Functional, Essential, Core and "skills for life". However there is a high degree of commonality of purpose and content behind these brands.  
11 The South West, South East, London, East of England, West Midlands, East Midlands, North West, Yorkshire & Humberside,  
North East.  
12 These concerns were aired in both the press and official reports such as the Newcastle Report (Newcastle Commission "State of  
Popular Education in England" 1861); The Clarendon Report (Report of HM Commissioners to inquire into the Resources and Management  
of certain Colleges and Schools 1864), The Devonshire Report (Report of the Royal Commission on Scientific Instruction and the  
Advancement of Science, 1872-75), The Aberdare Report (Report of the Departmental Committee on Intermediate and Higher Education in  
Wales, 1881), The Samuelson Report (Report of the Royal Commission on Technical Education, 1882-4)  
13 Foster, p8  
14 Foster, p15  
15 Robbins, W, Report of the Committee on Higher Education, 1963  
16 Two ITBs endure in the built environment sector, one became the SSC, Construction Skills. Sector bodies have been renamed at  
various points as Industrial Training Councils, Industrial Lead Bodies, Industrial Training Organisations and National Training  
Organisations.  
17 Review Of Vocational Qualifications – Final Report (DeVillie Report), 1985  
18 Development of a more structured qualification system for compulsory education in England has been undertaken in phases  
from 1917's School Certificates through GCES and CSEs in the 1950/60s to their convergence into GCSE's in 1988. The 14-19 Diploma,  
following the Tomlinson Report in 2004 marks a new phase of development, although the original proposals for an overarching  
baccalaureate style qualification to replace GCSEs and GCE Advanced (A-Levels) were not accepted and these benchmark qualifications  
remain. The new qualifications have been developed through Diploma Development Partnerships led by Sector Skills Councils, signalling  
the intention that the Diplomas should prepare young people more effectively for working life, with some coverage of sectoral  
specialisation.  
19 The SCQF was originally established through partnership between the Scottish Government, SQA, QAA Scotland, Scottish  
Universities. The Association of Scotland's Colleges joined the partnership in 2005.  
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21 Further Education Unit, Further Education Development Agency, Learning and Skills Development Agency. These were  
successive incarnations of an organisation situated to support Adult Education, primarily in Further Education, Community and Voluntary  
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28 The CBI's Response To Proposals For Reform Of 14-19 Qualifications And The Introduction Of A Diploma Framework  
[http://www.cbi.org.uk/ndbs/positiondoc.nsf/1f08ec61711f29768025672a0055f7a8/76D4CB49F74C116A80256E2E0034D55C/\\$file/1419response020204.pdf](http://www.cbi.org.uk/ndbs/positiondoc.nsf/1f08ec61711f29768025672a0055f7a8/76D4CB49F74C116A80256E2E0034D55C/$file/1419response020204.pdf)  
29 Speech by UK Prime Minister, Tony Blair to the National Association of Head Teachers, Cardiff, 3 May 2004  
<http://www.publications.parliament.uk/pa/cm200506/cmselect/cmmeduski/478/47806.htm#n44>