Studies in Great Britain have focused on the rapidly changing economy of the 21st century and the skills that workers will need to contribute to it. The studies have found that the new century will be characterized by the knowledge-driven economy, changes driven by global markets, the rapid movement of finance, and developments in information and communications technology that will have an impact on the way people live and work. Although accurate forecasts of the detailed knowledge and skills requirements of the workforce for the next 20 years cannot be made, it is likely that all sections of the workforce will need to be more adaptable, self-reliant, and highly motivated. Some currently low-paid jobs, such as caregivers for the sick and elderly, may become better paid as demand exceeds supply. The Skills Agenda in Great Britain has been developed to enable people from all backgrounds to make a contribution to the country's economic success; therefore, distinctions between initiatives aimed at widening participation and combating social exclusion and initiatives associated with skills development and high standards of achievement are not helpful.

Continuous skill development and updating is important for all. However, although the link between education and training and the economy is critical, it is currently weak. More involvement by the Further Education (FE) sector is needed; education providers need to understand and support skill development for all and provide means that are accessible for more people to develop and improve their skills. In addition, greater public awareness and greater public funding of such efforts are needed. (KC)
The Skills Agenda: issues for post-16 providers

Maria Hughes and Caroline Mager
Summary

- While views differ about the extent to which the new century will be characterised by the knowledge-driven economy, changes driven by global markets, the rapid movement of finance and developments in information and communications technology (ICT) will impact on the way people live and work. This will require a radical rethink of the knowledge and skills needed to sustain individual and national economic success.

- Accurate forecasts of the detailed knowledge and skills requirements of the workforce for the next 20 years cannot be made. However, it is highly likely that all sections of the workforce will need to be more adaptable, self-reliant and highly motivated. The workforce will also need enhanced basic skills including high levels of competence in ICT. Know-how, skills in enterprise and creativity will be highly valued.

- Some currently low-paid, low-status jobs, especially those in the care sector, could proliferate to cope with the change in the UK's age profile. The currency for these jobs may increase as demand for such workers exceeds supply.

- Strategic and coordinated action to overcome social, educational and economic disadvantage will be essential to secure an inclusive and healthy society. This is one means of mitigating the potential divide between those who are economically active and those who are not.

- An important aspect of the Skills Agenda is to enable people from all backgrounds to make a contribution to the country's economic success. Therefore, stark distinctions between initiatives aimed at widening participation and combating social exclusion and those associated with skills development and high standards of achievement are unhelpful. In reality these issues are closely connected.
Continuous updating and development is important for all and will require a flexible and modernised delivery system to secure appropriate learning opportunities and engage a wider range of learners. The challenge for education and training planners and providers is to stimulate the demand for learning, and to develop a responsive delivery system that lays down the broad foundations of learning and also secures rapid and efficient updating to meet new demands.

The link between education and training and the economy is therefore critical. But it is currently weak and it is difficult to see how the proposed changes will provide a framework from which it may develop. The Learning and Skills Council (LSC) aims to be responsive to the needs of employers, but an effective national and local framework for skills development must be informed by a wider analysis of the needs of the economy. Decisions about what interventions are required demand greater clarity regarding the relationship between education and the economy as a whole, with due reference to sectoral interests.

The debate on the Skills Agenda is of crucial interest to the FE sector, but the new FE sector's potential role in skills development to support economic competitiveness is largely unexplored. In the context of the enhanced learning and skills sector, greater emphasis must be placed on the FE sector's contribution to skills development at 16–19 and workforce development for adults.

**Learning to succeed** and the National Skills Task Force reports emphasise the failure of the education system to provide the skills needed to support economic success. The central challenge for the FE sector is to secure a robust fit between skills development and the needs of the economy to ensure that provision is relevant.

The post-16 curriculum needs to both respond to and anticipate the challenges of the new century. It must develop individuals’ ability to acquire, evaluate, re-order and add value to knowledge. Education and training planners and providers need to constantly evaluate whether currently assessed and accredited skills and knowledge are appropriate to support economic competitiveness.

The key players involved in skills development need to be aware of, articulate and understand new skills demands. Clearer definitions of skills are required which are shared with and understood by individuals and employers. Definitions should be forward looking and be subject to regular review and updating.

Providers need to be able to develop new learning programmes rapidly to meet needs. Regulatory and quality monitoring frameworks should support rapid product development.

Regular and systematic updating of the pedagogic and specialist skills of teachers and trainers is required to ensure that they are able to deliver effectively the knowledge and skills needed to support economic competitiveness.

Customers, whether individual learners, employers or communities, should be influential in shaping the education and training supported by public funds.

Greater public awareness is required of the need to develop new skills. Their currency in terms of securing access to higher education, employment and financial reward also needs to be promoted.
Introduction
1. A number of major reports and initiatives have drawn attention to the relationship between skills development and economic competitiveness. The Department of Trade and Industry (DTI) White Paper, Our competitive future – building the knowledge-driven economy,1 heralds the need to prepare for a knowledge-driven economy. Think tanks and their associates highlight challenges for the future workforce and the way organisations are structured as a result of global markets and technological change. The Government has high expectations of new technology and its impact on business, notably e-commerce. The National Skills Task Force (NSTF) reports2 and the Department for Education and Employment (DfEE) White Paper, Learning to succeed,3 all emphasise the importance of creating a post-16 system of education and training which is responsive to the needs of the economy.

2. Three key drivers emerge from these reports:
   - The impact of the rapid transfer of knowledge, through information and communications technology (ICT), on life and work
   - The importance of the capacity to continue to learn and apply new knowledge to respond to unpredicted demands
   - The need for a better match between education and training provision, derived from a range of disciplines, and the skills and knowledge to sustain economic competitiveness.

3. While views differ about the extent to which the new century will be characterised by the knowledge-driven economy, changes driven by global markets, the rapid movement of finance and developments in ICT will impact on the way people live and work. This will require a radical rethink of the knowledge and skills needed to sustain individual and national economic success.

4. The debate on the Skills Agenda is of crucial interest to the FE sector, but the new FE sector’s potential role in skills development to support economic competitiveness is largely unexplored. This paper takes stock of current thinking in this debate in order to ensure that vocational education and training (VET) keep pace with ever-changing demands. The paper:
   - Analyses a range of current thinking about learning and skills needs, and the economy
   - Identifies emerging themes
   - Suggests implications for the development of an education and training system that truly supports economic success.

Background
5. The Government’s priorities for post-16 education and training – raising standards and achievement, widening participation, and addressing the skill needs of the economy – have dominated recent debate on the education and training policy. The first two of these priorities have been the focus of a range of initiatives that have had a major impact on all providers. Arguably, the priority to develop a skilled and educated workforce able to respond to changing economic demands is the most important factor in securing economic competitiveness. This priority has been least clearly articulated through specific initiatives aimed at education and training providers.

6. The Skills Agenda has been the subject of significant attention from a wide range of think tanks, task groups and government departments. The imminent creation of the Learning and Skills Council (LSC) indicates, by its very title, the Government’s commitment to meeting skills needs. There is a fair degree of consensus on the link between a skilled and intelligent workforce able to learn new skills quickly, and the nation’s capacity to meet the challenge of rapidly changing economic and social needs. There is less agreement on the strategies required to improve the country’s skill base. The past has been characterised by piecemeal reactions to skills development, (explored in reports from the National Skills Task Force) and it is against this unpromising backdrop that the new arrangements for post-16 education and training will need to operate.

7. The lack of a clear focus to the Skills Agenda may, in part, be due to lack of clarity about terms. The term ‘skills’ is used in a variety of ways, sometimes linked to ‘knowledge’, ‘attitudes’ or ‘attributes’, sometimes as a proxy for these. In this paper, FEDA explores skills in its broadest sense to identify the capabilities and application of knowledge required in contemporary and developing economic and social contexts. Thus, skills may be specifically vocational, key or generic – a person may be a skilled doctor or plumber, or a skilled communicator.

8. The Skills Agenda, therefore, refers to the imperative to identify and deliver the generic and specific skills that underpin economic competitiveness. It implies a prioritisation of the skills and knowledge developed in the current and emerging workforce, and consideration of the infrastructure required to support their delivery.
9. A number of think tanks, government departments and task groups have variously proposed scenarios for the UK's future economic and social environment. The economy of the new century is envisaged, particularly by the DTI and other government departments, as the knowledge-driven economy, characterised by more reliance on high-level skills supported by new technologies, and less reliance on raw materials and conventional commodities. The media and other agencies also frequently use the term 'new economy' to refer to electronic and web-based trading.

10. Although it appears to be generally accepted that high-level skills will in future be essential to competitiveness, there are different views about whether this constitutes a knowledge-driven economy and the likely scale of its impact on skills needs overall. Alternative views suggest that the volume of highly skilled jobs resulting from the knowledge-driven economy may not be as great as some claim. However, it is certain that some degree of change in all jobs is inevitable: new, low-paid jobs will emerge and most jobs will require better basic skills, especially in IT applications.

11. Education and training planners and providers should consider carefully the implications of these changes on the content and delivery of education and training, and the inter-relatedness of different disciplines. A selection of the major reports that are shaping thinking on the changing economic context is examined in this paper.

12. The concept of the knowledge-driven economy was articulated by Charles Leadbeater in *Living on thin air*. His ideas were influential in the DTI's White Paper, *Our competitive future - building the knowledge-driven economy*. *Living on thin air* gives an account of a world in which we increasingly make our living from our ideas and our knowledge: 'We produce nothing that can be weighed, touched or easily measured.'

13. Leadbeater proposes that there are three forces driving modern economies: finance, knowledge and social capital. Traditional assets still matter, but only as vehicles for ideas and intelligence which give them a market value. The real assets of the modern economy come from ideas, knowledge, skills, talent and creativity. Massive advances in technology have taken away some of the drudgery of working life and even that which remains will be alleviated by smart machines. The knowledge-driven economy requires a mind shift in business; greater receptiveness to knowhow and the ability to see its commercial potential; eagerness to keep on learning at all levels in business; and flair in spotting new customer needs and business opportunities.

14. The capacity of the State to shape society is questioned by Leadbeater. He argues for a shift towards building social capital, helping people prevent and solve their own problems and enabling individuals to take responsibility for shaping their own lives. Particularly relevant to the skills debate is the concept of social enterprise which relies upon innovation, risk-taking and creativity to build social capital and develop new approaches to local solutions, frequently involving partnership and mutual working. The vision is of devolved approaches to local solutions with the State operating as an enabler, rather than a central planner. Integrated and holistic solutions to solve complex problems, such as youth crime, are emphasised, as is the need for education to work alongside other services.

15. Leadbeater describes a world of contrasts: between stunning scientific and technological capacities on the one hand and acute social inequalities on the other - the wealth of those who can thrive in the global economy and those who lack the skills to engage at all. His book implies that the skills required for the knowledge-driven economy will emphasise innovation, self-reliance and creativity.
Building the knowledge-driven economy

16. The White Paper, Our competitive future – building the knowledge-driven economy\(^1\) sets out the DTI's view of the knowledge-driven economy. The DTI identifies four factors that drive economic change:

- Information and communication technologies - new ways of working
- Increased speed of scientific and technological advance - new products and shorter product lifecycles
- Increased global competition
- Changing demands - shifting from mass production to mass customisation and an economy in which products and services are increasingly highly valued.

17. The DTI's White Paper argues that people's skills must be continually upgraded or the country's competitiveness will decline. While the UK has a high level of graduates compared to other countries, there are too many people with low skills and there is a labour market shortage of people with intermediate level qualifications. It suggests that it will take a generation, through better initial education, to raise the quality of the workforce as a whole. Therefore, there is an urgent need to develop the skills of those now in work and continue development throughout their working lives. Businesses should offer learning opportunities to the whole workforce, not just the better qualified staff, and should invest in research and development. The White Paper therefore proposes a business case for investment in corporate lifelong learning.

Implications for work

18. These ideas are further developed by the DTI in Work in the knowledge-driven economy,\(^5\) which sets out models for how work is likely to be organised in the knowledge-driven economy. Two contrasting scenarios for 2015 are proposed:

- Wired world - where networks of workers or businesses are formed through ICT on a project-by-project basis, held together by a web of contracts. Self-employment and portfolio working are common and small, innovative and responsive businesses the dominant forces in the economy. Wired world is founded on:
  - Trust-based networks underpinned by strong personal and business networks
  - Individuals and small enterprises able to build or by-pass brand identity on the Internet in order to compete with large companies
  - A culture and an economy in which individuals are willing and able to prosper outside the comfort zone of a stable company
  - Intermediaries who are able to provide the labour market and social 'glue', previously provided by large companies or Government
  - Demand-led systems of learning that support individuals and their need for a complex mix of adaptable skills and competences
  - A secure system of intellectual property rights which motivates individuals to develop ideas and products in a relatively open environment.

- Built to last - based on the premise that if knowledge is the principal source of competitive advantage, then it will be in the interest of business to capture and internalise that knowledge by retaining individuals who hold it: for example, by offering comprehensive remuneration packages. In this scenario, stable and often large companies and extended families of companies with little self-employment or temporary contract work dominate the economy. Built to last is founded on:
  - Comprehensive incentive packages to retain individuals within the company structure (i.e. education, share ownership, pension, healthcare and social benefits)
  - The growing importance of brand in a truly global marketplace, forming a significant barrier to entry
  - Utilisation of networking technologies and a culture of networking within companies and between stable groups of strategic partners to achieve competitive advantage.

The report sets out competences\(^6\) that will be appropriate for a wired world:

- Literacy, numeracy and IT capability to high levels
- Understanding of ethics, values and how society, Government and business work
- Scientific method and the concept of proof
- Ability to learn new skills and knowledge, evaluate and appreciate information, and take charge of your own learning
- Dealing well with other people, communicating effectively with others and working well in teams
Coping with change, making things change, managing risk and uncertainty

- Being assertive enough to get concerns addressed, manage financial affairs, personal and emotional relationships and making the best of creative talents.

**Challenges to traditional learning**

19. The knowledge-driven economy challenges traditional ways of learning, the content of what is learned and the knowledge-value system. Leadbeater points out that where information is cheap and plentiful, what matters most is the capacity to make sense of it quickly, turning it into understanding and judgement. The most successful companies make the best use of the least information. A significant change from the way knowledge was ordered and formalised in the past is in the acknowledgement that tacit knowledge or ‘know-how’ held by individuals is durable, distinctive and hard to copy. As such, it is a value-adding asset and can provide a market edge.

**Developing creativity**

20. Demos, The think tank, echoes some of these predictions about the future economy in *The creative age*. The report argues that four trends are driving the demand for more and different skills:

- The weightless economy – intangible resources, such as information, organisational networks and human capital, are the primary sources of productivity and competitiveness
- Weightless work – the rise in part-time, fixed-term, self-employment, leading to the need for better self-management
- The networked economy – digital technology, organisational restructuring and higher volumes of information mean that networks are becoming a basic organisational form as opposed to hierarchies
- Knowledge and skill exclusion – a premium on new skills marginalises those without them.

21. Demos proposes that creativity is required in order to prosper in the knowledge-driven economy:

*The emergence of a knowledge-based economy is dramatically changing the way we live, work and learn. More than anything, it calls for the capacity to adapt in the face of uncertainty and flux. Economic and social value is created not just by what we know but by whether we apply our knowledge creatively.*

22. The report suggests that creativity can be learned, and identifies ways in which this can best be achieved. It calls for a radical rethink of the National Curriculum and for more applied and contextualised learning than is currently typical. *The creative age* suggests clusters of skills are prerequisite to the development of creativity, these being:

- Information management
- Self-organisation
- Interdisciplinary skills
- Personal and interpersonal skills
- Reflection and evaluation
- Managing risk, which requires skills in futures thinking, decision making, stress management and learning from failure.

23. Creativity is described as ‘the application of knowledge and skills in new ways to achieve a valued goal’. Learners need four key qualities:

- The ability to formulate new problems (progressive problem solving)
- The ability to transfer across different contexts (near and far transfer)
- Recognition that learning is incremental, and that repeated attempts will lead to success
- The capacity to focus attention in pursuit of a goal.

There is thus considerable consistency with the skills and attributes proposed in *The creative age* and *Work in the knowledge-driven economy*.

24. Much of what Demos describes suggests abstract outcomes, which presents a major challenge to the approaches to teaching and assessment that are commonly used both in schools and in post-compulsory education. While the implicit development of the skills described by Demos is often embodied in good practice in teaching and learning, the implication is that they now need to be explicitly articulated in the formal structures of teaching and learning. Substantial modification may be required to curriculum content and delivery, assessment and qualifications, and inspection criteria and quality measures to develop these skills explicitly. It would also require a value shift in what many consider to be relevant knowledge and skills.
Current employment trends

25. Features of Leadbeater's and the DTI's visions of the knowledge-driven economy are already apparent in employment trends. A recent article in The Economist identifies both the 'war for talent', i.e. skills shortages, and the lack of security already evident in the US labour market. The article reflects on the switch of jobs from big manufacturing companies to small, service firms, making the model of a career in which an employee works up the ladder in a single company much rarer. Even large companies contract out their non-core activities to specialist companies, or use more temporary workers than in the past. 'About one in ten American workers, or 12.5 million people, are either independent contractors or on some sort of temporary contract.'

26. Although these are references to the USA, it is assumed that the UK labour market will follow a similar pattern. Indeed, this trend is already apparent outside of the public sector. Increased insecurity appears to be the clearest trend in the job market and upgrading of skills is seen to be the best defence against unemployment, leading The Economist to conclude:

*The lesson is stark: educate yourself, and then re-educate yourself. In the 1950s, when three out of five American workers were 'unskilled', education was considered a bonus; now the one in five workers who is unskilled is at a big disadvantage. The need for continual re-education extends even into the later stages of most working lives. Few can any longer afford to rest on their laurels, or to rely on experience which rapidly becomes obsolete because of technological change.*

Levels of skills

29. The extent to which jobs requiring higher level skills will displace jobs at lower levels is difficult to gauge. Peter Robinson reports that in 1997 level 2 qualifications were sufficient to access 63% of jobs in the economy and notes that, at current rates of change, this will not fall below 60% for another 20 years, or below 50% for 90 years. The past may be a poor predictor of the future, but such statistics are important in tempering visions of the future.

30. It is therefore dangerous to assume that the knowledge-driven economy will necessarily result in large numbers of high-skilled jobs at the expense of low-paid work. There appears to be potential for a growing divide between knowledge workers commanding very high salaries and those delivering services who may be relatively poorly paid and low skilled. Jobs with a significant customer interaction will require personal and interpersonal skills (high touch skills) as well as better basic skills to meet consumers' higher expectations of services. This scenario points to jobs requiring level 2 skills remaining the growth area rather than jobs at level 3 and above. It also illustrates that a range of new skills at this level may become important.

31. There is also growing evidence that increasingly better qualified workers are employed in low-skilled jobs due to a mismatch between employment opportunities requiring higher level skills and the supply of graduates. It also appears that better skills are required to gain even low-skilled, low-paid jobs. Richard Layard points to this trend:

*The stark reality is that the demand for low-skilled labour is falling rapidly. Muscle-power has become largely useless; it is brain-power which is needed.*
Layar nonetheless points to the need for expansion of skills at level 2, arguing that this should be the priority:

*The basic minimum for all should be set at level 2, and should include the key skills of numeracy, literacy and information technology. Every young person should regard this level as a minimum condition for proper citizenship.*

32. This phenomenon poses a dilemma for the economy, employers and education and training planners as the gap between opportunities for the skilled and the unskilled grows.

33. Evidence that hi-tech developments do not in practice necessarily lead to more highly skilled jobs can be found in examples of e-commerce. Of the large supermarket chains, Tesco is the most successful web grocer, with nearly 300,000 registered customers and sales of more than £2.5m a week. Orders received electronically are sent to local stores for delivery. In this example, the bulk of the work involves ‘picking’ – taking goods off the shelves to make up orders, and the delivery of orders to peoples’ homes. E-commerce and shopping on the Internet may simply increase low-status jobs – selecting, packing and transporting goods from distribution centres to homes or offices.

**Common themes**

34. A fair degree of consistency is evident in the differing perspectives discussed so far. Common themes which appear to be emerging for the future economic context include:

- Less stable employment contexts
- Greater demands in most occupations for a wider range of new skills
- Rapid technological change
- Greater reliance on individual responsibility, initiative and enterprise.

35. As with most predictions, the scenarios presented are likely to be only partially accurate. However, the impact of some of these changes is already apparent and the implications for education and training should be considered. There is a marked absence of any certainty about the specific skills that will be required. Similarly, VET planners and providers may well be aware of changing demands, but are unlikely to be able to predict the specialist skills which should be developed.

**The National Skills Task Force**

36. A similar debate on skills for the future has been led by the National Skills Task Force (NSTF), charged by Government to undertake an analysis of the skills shortages and gaps that currently affect the economy, and suggest strategies for improvement. The NSTF has presented three major reports to date, with a final report due in summer 2000. Specifically, its brief was to provide advice on:

- Skills needs and shortages and how these can be monitored
- Practical measures to ease skills and recruitment difficulties, and raise levels of sustainable employment
- Likely changes in longer term skills needs of the economy
- How best to ensure that the education and training system responds effectively to needs identified.

37. In its first report, the NSTF addressed the issues of skills shortages and skills gaps in the labour market. It set out the issues involved in more closely matching the supply of skills with the needs of the economy and the issue of meeting longer-term skills needs through planning and improving the working of the market and the labour market information base. The report concluded, however, that:

*There must be a stronger focus on meeting skill needs in planning education and training. But detailed forecasting of future skill needs is impractical. Planning should be indicative, rather than directive and supported by regular benchmarking to monitor progress.* (p8)

38. The report suggests key principles to secure a better match between the supply of skills and the needs of the economy:

- Better information about the labour market and education and training opportunities for individuals, employers and education and training providers
- Incentives for individuals and employers to motivate them to take up education and training opportunities
- Responsive education and training providers – able and willing to meet the demands of individuals and employers for opportunities to acquire skills
- High-quality learning in the workplace, combined with a flexible and responsive mix of formal education and off-the-job training.
39. The second report looked at skills for young people, employability and key skills. It addressed three major issues:

- **The lack of a sufficiently attractive route into intermediate and higher level skills for young people not inclined towards higher academic study.** The report recommends a high-quality mixed economy system of vocational education and training at levels 2, 3 and 4, which uses the resources and opportunities in occupationally focused training and taps into the technical instruction which can be provided in colleges and universities.

- **Low attainment of the generic and key skills of the existing adult workforce, as well as new recruits.** The report stresses employers' views that higher levels of formally assessed knowledge must be complemented by the skills needed to apply that knowledge productively in the workplace. Key skills are also highlighted for their role in sustaining employability throughout working life. A longer-term strategy of bringing the delivery of skills into the National Curriculum and compulsory education is proposed.

- **The lack of coordination of the provision of labour market information (LMI) for individuals as well as training providers and guidance agencies of all kinds.** The report reiterates the conclusions of the first report: that detailed manpower planning is not the best way to match people to learning opportunities and employment, because of the lack of accuracy and ability to disaggregate in any known systems so far developed. Instead it recommends a more systematic basis for the production and distribution of labour market information, targeted at learners to inform career choices.

40. The NSTF's third report looks particularly at issues affecting adults, as follows:

- **Enabling low-qualified adults to upgrade their general skills and education.** The report recommends:
  - An entitlement for adults to training at public expense, up to a level 2 qualification
  - A new system of income contingent loans, supported by high-quality advice and guidance services, to support adult learners pursuing recognised qualifications
  - Increased promotion and encouragement of lifelong learning, building on programmes like the Campaign for Learning, University for Industry (Ufi) and the Union Learning Fund, particularly targeted at individuals who are reluctant to become involved.

- **Ensuring that supervisors and owner managers in small firms have both the resources and skills to manage and deliver learning in the workplace.** The report recommends that:
  - National Training Organisations (NTOs) and the LSC should actively promote the use of informal learning approaches in firms, particularly small and medium employers (SMEs), and develop, promote and fund accreditation of prior learning to help adults attain formal qualifications, building upon their prior work experience.
  - New learning networks for SMEs should be developed, built around group training arrangements and Ufi learning centres, to help pool learning resources, strengthen links between industry and learning, and support adult learners in smaller firms.
  - The new small business service should encourage and promote best practice in management and the organisation of work to small firms, through the facilitation of peer group networks, the involvement of business schools and the training of key managers/workers in relevant management techniques and learning methods.

- **Promoting learning in the workplace across all firms and to employees who currently have little access to such learning.** The report recommends that:
  - A tax credit should be introduced for smaller firms that demonstrate a significant commitment to developing the skills of their workforces and effective business planning through the achievement of Investors in People. The Government should review the tax position of other employer activities which support workplace learning.
  - Ufi and NTOs should work together to create a new integrated learning information service for industry, which brings together the information services offered by Ufi with the advisory work of NTOs.
  - The roles and responsibilities of the LSC in workforce development should be recognised in a statutory framework.
  - The roles and responsibilities of employers and individuals in the promotion, delivery and monitoring of workplace learning, should be recognised in a statement of workforce development principles between employer representative bodies and trade unions.
An annual workplace training audit should be organised by the DfEE, building on and extending existing data from the labour force survey and NTOs to provide an authoritative method of monitoring progress in raising the skills of the adult workforce over time.

41. These proposals spell out the different levels at which action is required, from financing the individual learner, increasing the range and flexibility of the provider infrastructure and enhancing the roles and responsibilities of employers. The final report is due to address the respective roles of agencies and how best to avoid duplication and promote effective, rational working between those agencies involved at regional and local level.

42. The NSTF's proposals for workforce development (in its third report) are less developed than proposals in earlier reports. This may reflect the need for further development of the ideas and for more examples of workforce development and learning programmes that are largely initiated and supported by employers themselves. However, important issues related to the nature and the financing of learning for and in the workforce were raised, which has engaged debate from other agencies such as the NTO National Council and the CBI, among others.

43. There is some overlap between the NSTF's proposals and the ideas discussed earlier in this paper, notably the rejection of manpower planning and the emphasis on the roles of the individual and employer as well as the State. The need for a broader range of generic skills to support employability is in accord with the Demos proposals. At the time of writing, the Government is still considering its response to the NSTF's proposals, although many of the recommendations from the earlier reports were taken up in the Learning and skills White Paper.

44. The reports emphasise the need for changes to the way training is delivered and for greater responsiveness on the part of providers. However, there is little acknowledgement of the potential role of FE colleges in skills development. In the context of the enhanced learning and skills sector, greater emphasis must be placed on the FE sector's contribution to skills development at 16–19 and workforce development for adults.

45. The proposals emerging from the NTOs and their representative body, the NTO National Council, provide a view from the demand side. The newly emerging NTOs are charged with significant responsibilities: determining the occupational standards required in their sector, ensuring that qualifications reflect these needs and developing sector LMI and workforce development plans.

46. An NTO National Council discussion paper, Towards a new investment framework for skills – rights and responsibilities in a new learning age, takes the proposals for learning and skills as the opportunity to consider how the Government's aims to increase employer and individual investment in education can be achieved. It identifies a number of issues that have an impact on skills levels in the UK, many of which echo the NSTF recommendations, these being:

- Culture – too many people have a poor experience of education; managers may have comparatively poor qualifications and may not be the best at inspiring others to learn
- Productivity – there is a gap of 20–30% between UK companies and those in Germany, France and The Netherlands
- Craft and technical skills – 21 million adults in the UK lack an NVQ level 3 or equivalent qualification and 7 million have no formal qualifications at all
- Employer investment – SMEs (where one in two people now work) fail to invest in training. One third of employees have never been offered training and management training is unsystematic
- Relevance – too little training addresses the employers' business needs
- Providers and delivery mechanisms – ensuring that providers are demand-led and customer focused.

47. The paper sets out options for improvement with advantages and disadvantages for discussion, but the weight of the argument is in favour of shifting the training debate away from generalities and the marshalling of outdated statistical evidence on skills needs towards innovative ways of boosting skills. The paper proposed that four key principles should guide the approach:

- NTOs, employers and sectors must have the flexibility in how they raise the skill levels – a 'one size fits all' training policy will not increase investment in learning
Investment in lifelong learning must be underpinned by investment in foundation learning, and a strong entry-level apprenticeship system based on parity of esteem with the vocational route.

The incentive structure under which our training system operates must enable both individuals and employers to make contributions.

The new LSC must be demand focused, by implementing the main recommendations of Skills Foresight and Sector Workforce Development Plans.

48. The NTOs are firmly embedded in the Learning and Skills proposals, and it is therefore likely that the approach advocated by the NTO National Council will be considered within the LSC and local LSCs. However, their influence on employers is still at an early stage of development in some sectors. Therefore, the extent of their impact on skills and workforce development may not yet be comprehensive.

**Skills and social cohesion**

49. An important aspect of the Skills Agenda is to enable people from all backgrounds to make a contribution to the country's economic success. Therefore, stark distinctions between initiatives aimed at widening participation and combating social exclusion and those associated with skills development and high standards of achievement are unhelpful. In reality these issues are closely connected.

50. The Skills Agenda focuses attention not just on the needs of established business and enterprise, but on the challenge of addressing the skills needs of those who are unemployed and outside the formal economy. A number of the reports already discussed, particularly *Living on thin air*, raise issues concerned with building social capacity. The proposals for a new LSC also identify community capacity building as an explicit objective alongside economic regeneration.

**Basic skills and the economy**

51. The report of Sir Claus Moser's working group on post-school basic skills, *A fresh start: improving literacy and numeracy*, raises fundamental concerns about skills that must be addressed as the basis for economic engagement. The report describes a large-scale problem with literacy and numeracy:

Something like one adult in five in this country is not functionally literate and far more people have problems with numeracy. This is a shocking situation and a sad reflection on past decades of schooling. It is one of the reasons for relatively low productivity in our economy, and it cramps the lives of millions of people.

52. The striking gap between those who have the skills to operate in the knowledge-driven economy and those lacking basic functional literacy has led to a wide range of proposals for change. The recommendations in the report are far-reaching and are now changing the entire landscape of basic skills teaching, including proposals on new curricula and standards, training programmes for teachers, new national literacy and numeracy tests, increased employer and community-based provision and promotional strategies to raise demand. Related employability problems only add to this picture: those needing help with English as a second language and those with learning difficulties and disabilities.

**Engaging the long-term unemployed**

53. The Government's intention to include the majority of people in employment is illustrated by the comprehensive nature of the New Deal programme. New Deal for 18–25 year olds was set up to:

- Get young, long-term unemployed people into jobs and help them stay and progress into employment
- Increase the long-term employability of these people by improving their self-respect, skills, experience and motivation to find work.

54. New Deal has now been extended to include a wider range of groups: over 25 year olds, lone parents, the disabled and the over 50s. In the early months of the Labour Government, it was estimated that five million people of working age were not in employment and that of this figure one million had not worked since leaving school. Unemployment was highest within the 18–24 cohort, with rates nearing 26%, with an estimated 250,000 in this category in January 1997. Half of this age group did not have qualifications equivalent to NVQ level 2 or above. Reducing long-term employment was therefore seen as a priority and New Deal was introduced to tackle this problem.
55. Since that time, the economy has become more buoyant and unemployment has fallen. Many of the original cohort have found jobs unaided by New Deal. New Deal is thus only now actively engaging a higher percentage of clients with profound problems in terms of poor motivation, lack of previous work experience, and other social disadvantages. Because of this, valuable lessons may emerge from the programme that will provide insight into raising the skills levels of the 'hard to help' and the respective roles of employers, providers, Government and individuals.

**Neighbourhood renewal**

56. A major programme to examine how coordinated policies can address structural deprivation through neighbourhood renewal was launched by the Government through the Social Exclusion Unit (SEU). This investigation linked economic activity with social inclusion and highlighted the need for education to support employability as a route out of social exclusion.

57. Following the publication of the SEU’s report on neighbourhood renewal, 18 Policy Action Teams were established to address factors that have a bearing on neighbourhood renewal. These reports present powerful evidence and detailed strategies for systematically addressing the needs of poor communities.

58. Of particular significance to this debate, is the Policy Action Team on Skills, which was charged to examine:

- The key skills gaps that need to be addressed in poor neighbourhoods
- How well institutions such as TECs, FE colleges, adult education services, schools and libraries meet these needs
- How well alternative methods (e.g. informal learning, outreach units, IT and distance learning) work to motivate adults to re-engage in education and training.

59. The Policy Action Team on Skills' report recognises the need for a portfolio of skills for employability covering four main categories:

- Basic skills
-Occupationally specific skills
- Generic work-related skills (key skills) and
- Deployment skills (self-presentation, navigating the labour market effectively, self-confidence, basic work habits, etc.).

60. In addition, the report recognises the need for a variety of other coping and interpersonal skills to deal with the pressures of everyday life. It suggests that action to improve skills in disadvantaged areas needs to come from a range of sources:

- The formal education and training system
- Employers investing in their workforce
- Area regeneration programmes
- Local community and voluntary organisations
- Local public sector organisations in non-educational sectors (particularly culture and health)
- Individuals themselves.

61. It also recommends a new approach, through the creation of neighbourhood learning centres, to bring about a 'step-change' in the level of first-rung provision available. Centres could take a variety of forms, including FE premises, Ufi Learning Centres and local community centres.

62. Other Policy Action Team reports reinforce this message, highlighting:

- The importance of social enterprises in helping to develop the skills of local people by providing training and work experience
- The need to ensure that poor neighbourhoods have access to new technology
- The need for professionals working in disadvantaged areas to be properly trained for such work
- The importance of using local champions as role models.

**A new Learning and Skills sector**

63. The theme of failing systems features in the White Paper, *Learning to succeed*, which sets out proposals for a new framework for provision of post-16 education and training. The Government’s major rationale for change is that the system to date has failed to deliver the skills that the economy requires to be successful. Employers are to be given a substantial stake in shaping post-16 education and training, and systems must be learner driven and responsive to the needs of individuals, businesses and the economy.

Key objectives in relation to skills, set out in the *Learning and skills prospectus*, are to create a new system which will:

- Be responsive to the needs of individuals and employers
- Promote employability for individuals by equipping them with the skills in demand by the labour market
- Help employers develop individuals, employees and their whole workforce to achieve world-class business performance.
64. The LSC will provide a locally based planning infrastructure, although the precise mode of operation of the local LSCs is still unclear. However, they will have a lead role in planning provision to meet assessed needs, acting as intermediaries in the marketplace between the customers and the suppliers, securing comprehensive provision, developing the provider infrastructure and supporting quality improvement.

65. Therefore, the proposals in the Learning and Skills Bill bring centre-stage concerns about the role of education in relation to the economy, both locally and nationally.

66. While the detailed operation of the Learning and Skills proposals is still emerging, there is some concern about the extent to which it will assist providers to meet the skill needs of the economy more effectively. Learning to succeed and the resulting Learning and skills prospectus described a highly structured planning model for the whole of post-16 education and training. More recent proposals appear to be moderating this stance, perhaps reflecting the realisation that detailed workforce planning does not have a successful history. A rigid planning-based model for VET is unlikely to assist the LSC to achieve its key aims of securing a more responsive and effective delivery system. It also appears to be at odds with the Government's stated intention to establish greater individual responsibility for ongoing development of skills and lifelong learning.

**Emerging themes**

67. The debate on skills is stimulating a wealth of ideas and proposals from widely different interest groups. While the extent of impact of the knowledge-driven economy is contested, the view that the skills needs of the future are unpredictable is generally agreed. A number of key themes emerge which should be explored in relation to education and training and economic competitiveness.

**The central challenge**

68. This analysis of the future indicates that profound changes in the skills base required to support economic competitiveness are likely. Learning to succeed and the NSTF reports emphasise the failure of the education system to provide the skills needed to support economic success. The central challenge for the FE sector is to secure a robust fit between skills development and the needs of the economy to ensure that provision is relevant.

69. The LSC proposals place great faith in enhanced LMI – through sector and regionally based analysis and through the engagement of employers as the dominant interest on both the national and local LSCs. They are seen as the key to an improved system of post-16 education and training. However, this approach runs counter to the view expressed by the NSTF and others explored in this paper – that accurate skills predictions are not achievable. Broad changes in generic skills may be identified, but the specific skills that will be needed in the new economy cannot be predicted with confidence.

70. ICT will have a huge impact on knowledge and learning over the next 10–20 years, but it is difficult to predict how and when this will happen. Technologies take their effect through commercial, social or institutional change. Education should be more aware and analytical of the changes and develop timely learning opportunities to develop or upgrade skills.

71. The future of individual economies depends on their ability to transform advances in knowledge into innovations that generate new businesses and new jobs. While analysis of available information on skills needs is useful, it is also important to recognise the limitations of such an approach, particularly in the context of the fast-moving technological and economic context described in many reports. Often the needs articulated must be met immediately rather than fed into planning cycles.

**The link between education and training and the economy**

72. The link between education and training and the economy is therefore critical. But it is currently weak and it is difficult to see how the proposed changes will provide a framework from which it may develop. The LSC aims to be responsive to the needs of employers and will have a high proportion of employers on its Board, but this is not necessarily the same as being responsive to the needs of the economy. The availability of people with the right skills to secure competitiveness is of critical importance to individual employers. An effective national and local framework for skills development must be informed by a wider analysis of the needs of the economy. Decisions about what interventions are required demand greater clarity regarding the relationship between education and the economy as a whole, with due reference to sectoral interests.
73. The NSTF reports are largely critical of the track record of FE colleges’ responsiveness to the needs of employers and the appropriateness of the skills developed through college provision. Some of this criticism relates to the funding methodology and qualifications systems, which are largely outside the colleges’ control, and their perceived negative effect on responsive provision and skills development. Shortcomings in the skills available in the workforce are indeed apparent, but responsibility for improving this situation must be shared by providers, employers, Government and individuals. Despite being the major public provider of skills training, FE representation on the NSTF was limited and the opportunity for constructive debate between key players was missed.

74. An important implication for the development of the post-16 system is that education and training providers should collaborate with other public, private and voluntary sector organisations in areas where they have a common interest. The Skills Agenda identifies the need for education to be firmly located within an economic and social context. The implications of the social exclusion agenda strongly reinforce this view. Regular and sustained dialogue between VET providers, employers and the commercial research community is vital to ensure that education is firmly linked to the bigger picture of skills training and the economy.

A new core curriculum debate

75. It is important not to be seduced by the rhetoric of the knowledge-driven economy: to believe that all jobs in the new century will require high level skills or that the need for vocational and occupationally specific skills will disappear. However, new skills and aptitudes will be needed, and the mix of skills and the capacity to continue to develop new skills will be the mark of a successful workforce.

76. A consensus is emerging that a new set of generic vocational skills is required in addition to changes in specialist vocational skills to support the development of the future economy. Enhanced capacity to take initiative and risks and to apply knowledge creatively, the capacity to work effectively in teams, and to cope with uncertainty and change are all referred to in the reports analysed in this paper. The emphasis on the importance of know-how, the capacity to turn ideas into action and information into understanding and judgement, suggest a complex mix of adaptable skills and competences.

77. The proposals for neighbourhood renewal reinforce the importance of basic skills as a pre-requisite for engagement in education and training, and also emphasise the need for the wider key skills and employability and deployment skills. Employers may seek these skills alongside the existing key skills of communication, number and IT.

78. The strength of the ‘nimble’ companies, referred to in a number of reports, lies in their capacity to bring together a range of expertise and foster creative interdisciplinary working. An implication, therefore, is that education and training should move towards greater interdisciplinary work. This could be associated with a move to introduce systematically greater ‘real world’, applied and practical contexts into the delivery of education and training.

New delivery models

79. The development of some of these new skills will challenge conventional approaches to learning and assessment. Many are more appropriately delivered and assessed in more practical and work-based contexts and will require new methods of teaching and learning.

80. The role of ICT in supporting learning in the workplace, the community or at home is potentially enormous. The establishment of the Ufi, announced in The learning age, illustrates attempts to use new technology to connect with those who want to learn. Ufi is described as having a key role in improving a nation’s competitiveness by raising skill levels and employability. Its primary strategic objective is to stimulate demand for lifelong learning among adults and SMEs by promoting the availability of, and improving access to, relevant high-quality learning through the use of ICT.

81. Ufi is promoting the potential of ICT as a learning medium. Its role is to act as a catalyst to transform the relationship between learners and education and training providers. However, the appropriate mix of learning media and technology-based systems for particular skills and learners is still at an early stage of development, as is the relationship between this and existing provision.
Bringing learning to learners

82. A particular issue in relation to both disadvantaged learners and low-paid workers is the need to bring provision into local communities and the workplace. There is a clear need for ‘first-rung’ provision, designed to build self-confidence through positive and motivating experiences. This is frequently a first stage towards formal engagement and needs to be more highly valued. The contribution of trade unions in stimulating the demand for learning in the workplace could also be considerable as the first two rounds of Union Learning Fund projects show. Partnership arrangements with further education and training providers could extend this learning and secure easily accessible progression routes.

83. The potential tension between the focus on confidence-building and generating demand for learning and on standards and achievement of measurable outcomes could limit the development of this provision. Education, as one player in community capacity building, must ensure that the right balance is struck between the need to build individual confidence in learning and the benefits to the individual of achieving formal qualifications.

Stimulating demand

84. There is an urgent need to stimulate the demand for learning. While there is clearly recognition of the crucial role of an educated and skilled workforce by the Government and those associated with the development and delivery of learning, the impact on the community at large and on some employers is minimal. Lifelong learning and workforce development are still ideals to be aimed for, rather than part of the national psyche. Initiatives such as Adult Learners’ Week, the Campaign for Learning and the marketing associated with Ufi are helpful. However, the culture change that is needed requires consistent and sustained effort and positive reinforcement, in terms of the rewards of better jobs and higher pay for those taking part in learning. Stimulating the right kind of demand is an issue for some of the commentators on the Skills Agenda. While there has been an increase in the uptake of further education, there is a concern that this has not resulted in the development of appropriate skills to support economic competitiveness.

Responsibilities for skills development

85. The switch from State to individual and employer responsibility for skills development is an underlying premise in descriptions of the knowledge-driven economy. The direction of government policy also suggests that individuals should take greater responsibility for developing their own skills and employability. Self-employment and contract work is likely to rise and such work requires a particular range of skills. Self-organisation and the ability to handle change and uncertainty, and to plan and manage one’s own career will be vital. An expectation needs to develop that individual investment in training is worthwhile. In addition, education and training providers should ensure that the training available is relevant, accessible and delivered in ways that reconcile the competing demands on learners’ time.

86. A culture shift is also essential to encourage businesses to recognise the value and importance of workforce development. The need for employers to invest in workforce development is emphasised in government reports, but there is no clear strategy to secure this. The third report of the NSTF rehearsed the debate about whether a levy system should be introduced, but there appears to be such resistance to a statutory framework that the Government will rely on incentives, influence and exhortation.

87. Experience suggests that while employers may invest in specific skills for their employees, they are unlikely to invest in accreditation of these as national qualifications. Rapid technological changes have a significant impact on both productivity and employment opportunities.
Upskilling and re-training for those currently in work is essential for both the employer and the individual. Who pays for this learning is up for debate. FEDA has argued in a recent publication that a split of responsibilities should be developed along the following lines:

- Employers pay for training of staff in job-specific skills
- Public funding pays for key transferable skills and subsidises according to social or future skills priorities
- Individuals contribute where their longer term career prospects are enhanced.

**Informed customers**

88. The extent to which the education and training system actively encourages individuals to take control of their learning or to be influential customers is relatively limited. The State still largely determines what should be learnt by prescribing qualifications and determining what can be funded at public expense.

89. Employers' ambivalence towards new vocational qualifications is well documented and there are signs that high-level skills for the new economy in terms of web design, Internet and IT skills are being provided by private suppliers outside the public sector. In a very fast-moving economy, the pace of innovation of curriculum and qualifications will also be rapid. If publicly funded qualifications do not keep pace with demands for new skills, there is a danger that it will become irrelevant for both 16–19 foundation training and continuing professional development. Without a unitised qualifications system, it is unlikely that qualifications can be rapidly updated. A further gap could develop between those people (or companies) who can afford training programmes leading to highly valued proprietary qualifications and those who need to rely on State-funded provision. The intention stated in *Learning to succeed* to create a ‘fair and competitive market’ needs to extend, not just to competition between providers, but should encourage consumers to be influential in determining what is available, and encourage providers to be innovative in meeting demand. Consideration must be given to creating more devolved approaches with greater powers residing in customer-supplier interaction.

**A reformed post-16 system**

90. The successful education and training providers of the future are likely to mirror the successful companies of the new economy – devising new products quickly, developing creative partnership solutions to new challenges and able to bring together diverse skills, supported by sensible regulatory frameworks. The LSC should support this flexibility.

91. The Government's role should be more strategic than tactical, setting the framework for others to provide the detail. A key challenge is to achieve and maintain equilibrium across the elements of the framework. Currently, some parts of the framework are stronger than others, e.g. a clear policy on quality, less clear on entitlement. Other parts are vulnerable to sudden shifts. The supply side is currently moving from a weak framework, with institutional autonomy for colleges and private companies (TECs) finding local solutions to training needs, to a strong framework which places all providers in a local planning system.

92. The new LSC provides an opportunity to improve and modernise the supply side, freeing up resources to concentrate on the real issue – generating effective demand. Modern systems of delivering skills and knowledge are required in locations that reflect the vast range of learning contexts, at the right time, in smaller amounts and in the right place – on campus, in new retail locations, at the workplace or in the home. Providers whose core business is learning should devise learning solutions for businesses facing intense and shifting pressures.

93. VET providers should be more actively involved in the planning and decision-making process, particularly at local level, and at the level of specific transaction with individuals and employers. Informed providers that have an intelligent analysis of their own labour markets, skills development and economic trends in their area would perhaps be more responsive and more effective and remove the necessity for layers of planning and intermediaries. Like successful enterprises, their understanding of their customers' needs and their capacity to anticipate these will provide added value. The view that the State should be the enabler rather than the detailed planner should also apply to the world of education and training.
A modern delivery system

94. Defining skills needs and securing effective responses to them will clearly require a modern delivery system. Securing such a system may result in greater dividends than attempts to further improve LMI. This is not to decry the usefulness of information about skills trends and greater certainty in planning to match supply with demand. However, a looser take on what planning can provide, combined with greater confidence in the ability of providers and employers to solve emerging skills problems rapidly and in partnership, may result in more effective learning solutions.

95. The view of the future needs, therefore, to be more calculated and to consider what arrangement for skills development will best support the economic prosperity of the UK in the early 21st century. More specialist and more expert providers would allow for the development of the informed supplier, who would be proactive in developing new products and services not yet demanded by customers (learners or individual employers) and anticipating the labour market needs and local economy trends. Education providers must be recognised as informed suppliers with a key role in the identification of needs and development of learning opportunities, rather than as passive instruments of delivery.

Capacity to respond

96. The capacity of the post-16 learning and skills sector to respond to the challenges outlined in this paper needs to be developed. In particular, there are several key areas that development should focus on to establish a learning and skills system fit to meet the needs of the economy:

- The key players involved in skills development need to be aware of, articulate and understand new skills demands. Clearer definitions of skills are required which are shared with and understood by individuals and employers. Definitions should be forward looking and be subject to regular review and updating.
- Providers need to be able to develop rapidly new learning programmes to meet needs. Regulatory and quality monitoring frameworks should support rapid product development.
- Regular and systematic updating of the pedagogic and specialist skills of teachers and trainers is required to ensure that they are able to deliver effectively the knowledge and skills needed to support economic competitiveness.
- Customers, whether individual learners, employers or communities, should be influential in shaping the education and training supported by public funds.
- Greater public awareness is required of the need to develop new skills. Their currency in terms of securing access to higher education, employment and financial reward also needs to be promoted.


19. Some of the issues are explored in the following FEDA papers: *The learning and skills sector: the emerging agenda and Learning to succeed: post-16 funding and allocations*. (FEDA’s response to the first technical consultation document). These papers are available from the FEDA website (www.feda.ac.uk).


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The debate on the Skills Agenda is of crucial interest to the FE sector, but the new FE sector's potential role in skills development to support economic competitiveness is largely unexplored. This paper takes stock of current thinking in this debate in order ensure that vocational education and training (VET) keep pace with ever-changing demands.