

**CENTRE ON SKILLS, KNOWLEDGE  
AND ORGANISATIONAL  
PERFORMANCE**

**Improving Skills Utilisation in the UK – Some Reflections on What, Who and  
How?**

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## **Editor's Foreword**

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## **INTRODUCTION AND BACKGROUND**

An earlier version of this paper was commissioned in 2014 by one of the UK governments as a 'think piece' to reflect on the importance of skills utilisation for policy development, and what more might be done to pilot new ways of addressing this issue. This version has been prepared for wider circulation. It is not intended to provide a comprehensive literature review on the topic. Those seeking such a review are directed to the report prepared by CFE for the Scottish Government (2008) and a report prepared for the OECD by Buchanan and colleagues (2010).

The four national governments within the UK all face broadly similar economic and social problems, though the depth and scale of these problems varies within and between each nation. Among these policy challenges are a range of issues that relate to productivity, investment and the shape and 'balance' of the economy, as well as with the quantity and quality of employment, the structure of the labour market and the nature and management of the relationship between employer and employee (Keep, 2013; Keep and Mayhew, 2014). As will be suggested below, many of these policy problems are inter-related.

One strand of interest in this broad field has been renewed attention on what happens inside the workplace and the employment relationship. Signs of this were manifest before the last general election in the shape of attempts at policy development by the Labour Party at Westminster on a new package of measures on wages, workplace employment relations, labour law and the role of collective bargaining; the Smith Institute's work on these issues (see Coats, 2010 & 2013), and also Unions 21 and their Fair Work Commission (Whittle, 2013).

In Scotland, in the run-up to the referendum on independence the government established a Working Together Review to explore the scope to fashion and introduce progressive workplace policies and the review's report proposed what were, by UK standards, radical developments in promoting better workplace employment relations in Scotland along broadly Northern European social partnership lines (see Commander et al, 2014; and Working Together Review, 2014). The Working Together Review was then followed by Scottish Government's establishment of a Fair Work Convention, which, following extensive public consultations, produced a Fair Work Framework in 2016. This covered topics such as effective employee voice, opportunity, job security, fulfilment (including the chance to use skills), and respect. The Scottish Government's pursuit of this new agenda will represent the first time within the UK for many decades that a coherent and comprehensive policy on employment relations and job quality (broadly defined) has been attempted. How this plays out will be interesting and have important lessons for the rest of the UK.

It is within this broader environment that reflection is taking place on the adequacy of traditional skills policies. The established model, which dominated thinking about how national education and training (E&T) systems should be managed across the whole of the UK for many years, focused almost exclusively on the issue of skills supply. It was believed that the central objective of public policy needed to be to boost the supply of educated and trained workers, both through increases in the quantity and quality of initial E&T, but also through upgrading the skills and knowledge of the existing adult workforce. Rising levels of demand for skill were assumed to exist, based in part on optimistic readings of future projections of occupational change, but also on a belief that if enough skills could be supplied to employers, there would eventually be reached a tipping point whereupon enhanced stocks of human capital (and the capabilities that came with it) would encourage employers to shift their product market strategies upwards, produce higher quality goods and services, and, as a result, then need an even more skilled workforce to sustain these strategies. This was dubbed the 'supply-push effect' (H M Treasury, 2002) – in effect a form of Say's Law, whereby supply creates its own demand.

The first part of the UK to break away from this consensus view of skills policy was Scotland. In 2007 the newly-elected SNP government produced economic and skills strategies (2007a & b) that concluded that Scotland's problems with education and training covered not only their supply, but also inadequate underlying levels of demand for skill, and poor usage of skills once created. The reasons underlying this radical re-appraisal of policy was that after many years of spending more (per student) on education than England, and achieving at a general level a more highly qualified workforce than England, in the mid to late nineties Scottish policy makers became increasingly concerned about the lack of any substantive economic payoff to this large investment. On average, productivity remained lower than in England and this lack of a large and visible productivity boost arising from a massive and sustained public investment led policy makers to posit that a significant proportion of the skills that had been created at public expense were not being used to productive effect within many workplaces. Thus, having pushed supply even harder than England, and thereby tested the 'supply push' model even closer to destruction, Scottish policy makers arrived at the conclusion that high volume, high quality skills supply was a necessary and important but on its own insufficient lever to produce the economic change that they desired. Other, complementary forms of intervention were also required.

In 2007 the Scottish Government produced a Skills Strategy that explicitly demanded that attention be focused on the supply of, demand for and utilisation of skills, rather than on supply alone. The skills agenda was also directly linked to a broader economic strategy that set Scotland a series of very

ambitious goals around economic growth, reducing income inequality and improving environmental sustainability (Scottish Government, 2007a).

This model was subsequently adopted, with varying degrees of conviction, by the UK government, the UK Commission for Employment and Skills (UKCES), by other UK national governments and their agencies, and also by the OECD in their skills strategy document *Better skills, better jobs, better lives: a strategic approach to skills policies* (OECD, 2012). For a flavour of what this fundamental change entails, the following quote from precursor to the OECD's 2012 skills strategy is both illustrative and illuminating:

*The focus of skills policy is often on the supply side – on increasing the stock of available skills through education and training, migration and activation. However, more skills are not necessarily better skills, and the mere existence of skills does not automatically lead to improved economic performance. Making optimal use of existing skills, preventing waste and attrition of skills due to mismatch or lack of use, and encouraging employers to demand higher levels of skill in stagnating regions or sectors are equally important elements of skills policies.*

OECD. 2011: 19.

The answers to insufficient or patchy levels of demand for skill lie outside the remit of this paper, but it worth noting that there are two, potentially complementary, schools of thought about how this issue might be addressed. The first focuses on greater labour market regulation, particularly around occupational licencing and licence-to-practice (LTP) requirements across a wider range of sectors and occupations than is currently the case in the UK.

The second is concerned with the need for a closer integration of skills issues within broader economic development and business improvement and support strategies. If, as the UK Government's Cabinet Office Performance and Innovation Unit's report on workplace skills argued (PIU, 2002), demand for skills is derived from business need, then the key to improving demand is to find levers and incentives that can help shift firms' competitive strategies upmarket in order to engineer an increase in their need for skilled workers (see Keep, Mayhew and Payne, 2006; and Ashton and Sung, 2011a & b; Sung and Ashton, 2015). This is important because, as we will see below, skills utilisation is probably best tackled in concert with attempts to increase demand for skill via industrial policies and business development. Overall, the implications of this fundamental re-conceptualisation of the nature of skills policy is that the problem to be addressing is now framed in such a way that policy makers have to start to, "wrestle with the often messy way that economic, business, workforce development and industrial agendas intersect" (Alcorso and Windsor, 2008: 30).

## **Improving skills utilisation, some challenges**

This remainder of this paper is concerned with the second unresolved problem for skills policy, how to improve the ways in which skills, once created, are then effectively used in the economy and within individual organisations and workplaces. Understanding that there are problems with the utilisation of skill represents a considerable step forwards in the conceptualisation of policy, but the challenges that attended this new understanding have centred on the relative absence of established models of policy development to tackle these issues (Keep, Mayhew and Payne, 2006; Findlay and Warhurst, 2012; Keep, 2013; Keep and Mayhew, 2014). This is because within the UK such policy interventions focusing on the workplace as have taken place, as well as the vast bulk of research on the workplace and the models derived from this that are meant to inform policy and practice, have not been focused explicitly on skills utilisation per se. Both research and policy have been concerned with a set of issues which include:

- Organisational performance and performance management
- Attracting scarce human talent
- Low wages,
- Job quality and 'bad jobs'
- Models of 'good' human resource management/industrial relations/employee relations
- Staff motivation and retention
- Job/ work control, employee discretion, employee involvement and work-related stress
- Discrimination in the workplace (on the grounds of gender, race, sexual identity, religion, etc)

The overwhelming majority UK research and policy initiatives that occurred over the last quarter of a century on workplace and employment have sought to explore and/or address the above listed issues rather than skills utilisation as such, and although some of them plainly might potentially have a relationship with or an impact on skills utilisation, that has not been their prime focus and they have neither been designed for, nor evaluated against, this particular outcome. Partly as a result of this situation, very few human resource management (HRM) or employee relations textbooks originating in the UK (and USA, where broadly similar considerations pertain) make explicit mention of the issue of skills utilisation, though aspects of the topic may be touched upon in chapters on recruitment and selection, performance management, and high performance work systems (for further details of which, see below).

This matters for at least two reasons. First, because it means that there is relatively little research on, or few home-grown models of, what best practice around skills utilisation might look like upon which policy makers can draw. Indeed this situation has been an issue in constructing this paper, in

terms of which policies and programmes to include and review, and which to leave out. Given the paucity of UK-based examples, and the tendency for overseas administrations to frame their policies in terms broader than simply skills utilisation (for example, around workplace innovation), the net has been cast relatively widely. The second consequence is that in some instances, UK policy makers confronted with the unfamiliar concept of skills utilisation, and feeling themselves lacking ready off-the-shelf models to tackle it, have chosen to re-frame the policy challenge within pre-existing models of thinking and intervention design – a point which we will return to when we explore the potential basis for High Performance Work Organisation (HPWO) to support policy development in this field.

In essence, the challenge facing many UK policy makers is that knowing a problem exists is very different from knowing how best to address it, and a 30-year plus period in which there has been a more or less exclusive focus for skills policy on boosting supply has left a major gap in terms of the institutional capacity, programmatic designs and expertise that might be deployed to address the improvement of skills utilisation. In large measure skills utilisation policy across the UK is relatively uncharted territory and policy makers are embarking on a journey of exploration and discovery. What follows aims to provide some pointers as to where the journey might start and in what direction(s) it might head.

## **WHAT IS SKILLS UTILISATION?**

### **One academic approach**

Findlay and Warhurst (2012: 10) advance the view that there are two types of employer demand for skills:

- Type 1, those skills and qualifications needed to obtain the job
- Type 2, Those needed to actually do the job

One way of thinking about poor skills utilisation is to consider the proposition that due to an increasing supply of educated and qualified young workers entering the labour market, not least because of the mass expansion of further and higher education, employers have inflated their Type 1 demand (i.e. credentialism has occurred), while the underlying change in Type 2 demand has risen more slowly. As a result, people often have more skills and qualifications than those needed to do the job they are in.

Findlay and Warhurst go on to argue that these two types of demand for skills need to be borne in mind when contemplating policy interventions. Policy may either need to address skills usage that is focused on doing an existing job better, and/or a better use of skills “focused on doing a better – that is, higher skilled – job” (2012: 16). For full details of the implications that they suggest this has for policy see (2012: 16-20).

### **The Scottish policy approach**

As the UK national government that has taken the lead on identifying and starting to address issues around skills utilisation, Scotland’s administration was the first to be confronted with the need to define what skills utilisation was from a policy perspective, and what their interventions concerning it were aiming to achieve. The literature review on skills utilisation commissioned early on in their deliberations by the Scottish Government (CFE, 2008) offered the following definition of the topic:

*Skills utilisation is about ensuring the most effective application of skills in the workplace to maximise performance through the interplay of a number of key agents (e.g. employers, employees, learning providers and the state) and the use of a range of HR, management and working practices. Effective skills utilisation seeks to match the use of skills to business demands/needs.*

(CFE, 2008: 2)

However, this definition was not adopted by the government in their subsequent work on the issue. In part, this may have been because although it is perfectly serviceable, it could be read as lacking



ambition in that the matching of skill demand to supply might be taken to imply a downward shift in skills supply to meet limited organisational aspirations (Findlay and Warhurst, 2012). Instead, the Scottish Government invested considerable time and energy in evolving a concise, clear and relatively ambitious definition of skill utilisation, which was:

Effective skills utilisation is about: confident, motivated and relevantly skilled individuals who are aware of the skills they possess and know how to best use them in the workplace.

Working in: workplaces that provide meaningful and appropriate encouragement, opportunity and support for employees to use their skills effectively.

In order to: increase performance and productivity, improve job satisfaction and employee well-being, and stimulate investment, enterprise and innovation.

This formulation is helpful because it links tackling skills utilisation to a range of wider public policy debates, and sets goals for the education and training system (relating to the first element of the definition), as well as for employers and government.

However, there are two qualifications to make. First, experience of its use in Scotland suggests that the government's definition is generally understood and accepted by educational and policy stakeholders, but the term 'skills utilisation' has yet to permeate the mainstream language of business, and may not be the best 'headline' or title under which to try and sell policy initiatives to business. In its evaluation of its skill utilisation projects, the Scottish Funding Council noted that, "all projects referred to employers' understanding of the terminology of "skills utilisation" as problematic, and in most cases project managers used terminology such as "an effective use of skills", "effective HR" and "getting the best out of staff"" (SFC, 2012: 9).

Second, as Buchanan et al (2010: 16-17) demonstrate, using work by Livingstone and colleagues (2009), the under-utilisation of skill has a number of different dimensions – it is not a single, simple concept. Buchanan et al suggest that there are potentially at least four dimensions of under-utilisation:

1. Job entry credential matching. This looks at the degree to which job entry requirements for qualifications reflect either rising skill requirements, or the use of credentials to screen applicants through requirements in excess of those needed to perform the job that the employer is seeking to fill.

2. Performance matching. “Refers to the performance capability of workers versus the performance level actually required to do the job” (Buchanan et al, 2010: 16)
3. Field of studies matching. Explores the ‘fit’ between qualification subjects (e.g. a degree in English literature, or a STEM degree) versus job requirements – in other words mis-matches bound up with skills’ relevance rather than skill levels per se. For one example of an attempt to explore the match between career aspirations and fields of study in Britain, see Mann et al, 2013).
4. Subjective matching. “Refers to workers’ personal evaluation of job requirements against their capabilities” (Buchanan et al, 2010: 16).

Plainly, these various facets of the problem may require different measurement and policy responses. For example, on field of study matching, the National Careers Council in England has advocated a concerted drive by careers advisors to assist young people to make educational subject choices that better accord with patterns of demand in the labour market (NCC, 2013; see also Mann et al, 2013) as a means of seeking to reduce mis-match.

These caveats aside, given a general acceptance of the Scottish Government’s definition, what broad approaches might we expect skills utilisation policies to encompass? The following could be suggested:

1. Efforts to ensure better and closer matching between the skills being developed within the education and training system, and those required by employers; and attempts to ensure that employers recruit staff with skill levels that are appropriate to their job roles (current and future).
2. Efforts to help and incentivise firms to move towards higher value added, higher skills competitive and product market strategies that require higher levels of skill from across the workforce (see Ashton and Sung, 2011a & b). In other words, an indirect approach through economic development and business improvement.
3. Efforts to encourage and support organisations to adopt workplace policies and practices (for example, work re-organisation and job re-design) aimed at creating more and better opportunities for employees to use a wider range of their skills (Jameson, 2012).
4. Efforts to support the take-up of policies and practices that can help motivate workers to deploy their skills more effectively (Findlay and Warhurst, 2012: 11-12; Jameson, 2012)

Having established what skill utilisation is, it is important to have some idea what the scale of the problem, as perceived by policy makers, might be. It is to this that we now turn.

## **HOW BEST TO MEASURE THE PROBLEM?**

This is a simple question to pose, but quite a hard one to answer with any great accuracy or detail. There are a number of reasons for this. First, if Buchanan et al (2010) are correct in identifying four dimensions to the skill utilisation problem, each of which will require measurement before any overall picture can be distilled, this poses a significant challenge as many of the data sources used in the UK to explore skills utilisation do not allow this level of unpacking of the concept.

Second, much, though by no means all, of the extant UK research uses qualifications as the chief means of gauging levels of under-utilisation. As Payne (2010) notes, this approach fails to take account of skills acquired through informal or on-the-job routes (see Wright and Sissons, 2012: 21 on the problems that qualifications-based metrics pose in the hospitality sector).

A third caveat is that the data we have is patchy and offers a fairly broad-brush analysis that cannot always be meaningfully broken down into finely-differentiated units at sectoral or occupational levels. Moreover, most of the data focuses on individuals' perceptions of being over-qualified and/or over-skilled for the job they currently hold. A much smaller set of results relates to employers' perceptions of whether their employees are over-skilled or over-qualified. In the area of graduate skills, attempts have been made (see below) to support research results based on individual's perceptions of mis-match between their qualifications and skills and the requirements of their jobs, through analyses of skill requirements for particular occupational categories (for further details, see below).

What is lacking is any systematic attempt to marry up these different perspectives or to explore the scale, nature, causes or consequences of under-utilisation at the level of the individual organisation or workplace (Findlay and Warhurst, 2012). Interestingly, other than attempts to establish the wage costs to over-qualification for individuals, there has been no attempt (to the best of the author's knowledge) to calculate what the costs of poor skill utilisation are – to firms, or to the wider economy. This gap in the research is one that could and should be addressed. One starting point for analysis could be via organisational skills audits (see Watson, 2004).

### **Individuals' perceptions.**

In terms of the extant research, the bulk of data relates to individuals' perceptions that their skills are being under-utilised. The main UK time series of data on this comes from what was called the Skills Survey (see Felstead et al, 2007), but has more recently been re-named the Skills and Employment Survey (SES) (see Felstead et al, 2013). The latest SES, run in 2012, suggests that after a long period of rising trends between 1986 and 2006, there has been a fall (by two percentage points) in overall

levels of over-qualification in the UK workforce since the 2006 survey, but the level (at slightly more than 36 per cent of the workforce) is still higher than it was in 2001. SES also indicates that some sectors and occupations have much worse problems with under-utilisation than others, with low paid work having the highest levels (Wright and Sissons, 2012). SES's findings are broadly corroborated by those from a survey mounted by the Work Foundation (Brinkley et al, 2009) which found that between 35 per cent and 45 per cent of workers believed that their skills were not being fully used.

The OECD's 2013 Adult Skills Survey, which covered 22 countries in its first sweep and which combined testing adult workers as well as asking them for their perceptions of how their skills were used and about the skill requirements of the jobs they held, provides a means of comparing both skills supply, but also skills usage, across nations. The OECD's work utilised a broadly similar technique to the SES to explore skills utilisation. The results, in terms of where the UK stands internationally, were bleak, though it is worth noting that the survey actually only covered England and Northern Ireland.

Out of 22 countries, the UK appeared to have the second-highest (after Japan) levels of mis-match among workers between the qualifications required to get their job today and the qualifications which these individuals held. Extrapolating from the survey data, 30 per cent of UK workers are liable to be over-qualified for their current job (OECD, 2013: 171). At the same time, and going some way towards explaining these dire results, the UK was revealed as having the second lowest demand (after Spain) for workers educated beyond compulsory schooling (OECD, 2013: 168). Whereas countries such as Austria, Canada, the USA, Denmark and Cyprus had between 5 and 10 per cent of job openings at this low level of education, and the Czech and Slovak Republics, Japan, Sweden, Estonia and Germany had less than 5 per cent, in the UK the figure was 22 per cent of all jobs.

The OECD's survey re-confirms SES findings about there being a surfeit of jobs at the lower end of the UK labour market that appear to require no (or very low) qualifications, the numbers of which now far exceed the stock of workers who possess no qualifications. The 2012 SES indicated that 23 per cent of jobs appeared to require no qualification (down from 28 per cent in 2006), but by 2010 the proportion of the workforce with no qualifications stood at 10 per cent. If anything, this problem looks likely to increase, as successive cohorts of young, better-qualified workers enter the labour market, and the scale of low skill requirement employment fails to diminish at anything like a similar rate (Clifton, Thompson and Thorley, 2014)

*The position of graduates.* Given the massive expansion of higher education over the last two decades or more, there has been considerable interest about the utilisation of graduate skills. For a concise overview of this research, see Holmes and Mayhew, 2015. Some of the latest British figures

(Green and Henseke, 2014) suggest that despite the rise in the number of graduates in the workforce, the level of mis-match between a graduates qualification and the skill requirements of the job they do (Green and Henseke use the term 'over-education') has remained stable at about 30 per cent. They note however that when comparing two time periods – 1997/2001 and 2006/2012 – the wage penalty paid by graduates who find themselves in jobs where they are over-qualified has risen, from 47 per cent to 67 per cent. For another approach to calculating the percentage of mismatch between graduates and the skill requirements of the jobs they are working in, see Elias and Purcell (2013). Interesting, the SES suggested that across the UK between 2006 and 2012 levels of graduate mis-match appeared to have fallen at a faster rate than at other qualification levels (see Felstead et al, 2013).

In comparative terms, the UK does not appear to be doing well. Holmes and Mayhew calculate that out of the EU 27, only Croatia, Greece, Latvia, Romania and Slovenia have higher levels of graduates whose skills appear mis-matched to the jobs they are doing (Holmes and Mayhew, 2015)

### **Employers' perceptions**

Until recently, the data we had on over-qualification was almost exclusively based on the perceptions of individual workers. However, the UKCES have incorporated (since 2011) questions in their Employer Skill Survey that seek to elicit employers' views on whether segments of their workforce are over-skilled or over-qualified for their current job roles. For example, the 2013 survey indicated that in Wales:

*Inefficiencies are apparent in the workforce – half (50%) of establishments say they have at least one member of staff who has skills and qualifications that exceed those required for the job role, equating to one fifth (21%) of the workforce in Wales*

(UKCES, 2014: 61).

In 2013, the overall UK figure was that 16 per cent of the workforce had under-utilised skills (Winterbotham et al, 2014: 49), and the UKCES suggests that the scale of under-utilisation of skills potentially represents a large-scale policy problem (Giles and Kik, 2014: 4).

### **Spatial dimensions**

Finally, it is worth stressing that poor skill utilisation is almost certainly not a uniform phenomenon and that it is likely to vary by occupation, sector and also across the four UK nations and localities within them. On this latter dimension, Clayton, Williams and Howell (2014: 25-26) offer an

interesting breakdown, based on UKCES data, of the variations in skill under-utilisation across different UK cities.

Given the figures outlined above it might be assumed that skills utilisation would be viewed as a source of serious concern by a wide range of stakeholders. The section that follows explores to whom skills utilisation actually matters.

## **WHY AND TO WHOM DOES SKILLS UTILISATION MATTER?**

Until relatively recently, skills utilisation has been a hidden problem, largely because as previously noted policy makers tended to hold to the belief that demand would adjust upward in response to increasing supplies of educated and trained labour, and because technological change and competitive pressures would drive all organisations to adopt more ambitious competitive and product market strategies that would require more and better skills. As it has become more and more apparent that this assumption was, at best, only partially correct (it applied to some firms and sectors, but not to many others) some policy makers have started to worry about scale of return to the huge 'sunk' public investment of public money and political capital in raising the skills/qualifications of the workforce over the last quarter of a century or so. The case for making this investment has largely been that it will lead to significant gains in national economic performance. If these were smaller than anticipated, because many of the skills were either only partially being used, or were not being deployed at all, then growth in GDP and productivity was liable to fall short of the level to which they aspired. Poor skills utilisation also suggested that demand for any further expansion of the education system would produce sub-optimal results because underlying demand within the economy and labour market would be lacking. As noted above, in the UK these concerns first became manifest in Scotland, but have spread across the developed world (see OECD, 2012).

The surveys outlined above seek to establish the scale of the problem. They do not do much to probe its implications for workers. From the perspective of the individual student or worker, weak opportunities to deploy skills and knowledge are acknowledged to have a range of negative impacts:

- Over-qualification generally carries a wage penalty, which can be long-lasting (Lindley and McIntosh, 2010; Green and Zhou, 2010). For an overview of the literature on this topic, see Hartog, 2000.
- Work that is repetitive, has short job-cycle times and where employee discretion is limited is often dull and does not engage the worker in what they are doing. Employees are unable to realise their full potential (see Green, 2009).
- Work that allows limited discretion and room for decision making and creativity is more stressful and can pose serious physical and mental health risks (see Coats and Max, 2005; and Chandola, 2010 for excellent overviews of this issue).

In addition, one non-academic survey that tried to explore what poor skill utilisation means for people's everyday experience of work comes from Microsoft. In 2013 Microsoft commissioned YouGov to undertake a survey exploring the working lives of a sample of 2,000 UK office workers. The results suggested that:

- The average office worker will spend across a working lifetime 90,000 hours at work.
- Process driven tasks dominate many workers' lives. 71 per cent thought 'a productive day in the office' meant clearing their e-mails.
- 51 per cent of 18-25 year olds believe that attending internal meetings signifies 'productivity'.
- When asked, 'when was the last time you felt you made a major contribution to your organisation?', 23 per cent responded that they believed they had never managed this. Only 8 per cent thought they had made a major contribution in the last year.
- 54 per cent of office workers admitted to working at the weekends.
- This amounted to about 2 billion hours a year of unpaid overtime.
- Only 1 in 7 felt inspired by their job. 22 per cent agreed that 'I typically am not excited by my work – it is just something that I do'.
- 45 per cent said they had less than 30 minutes day to think without distractions
- 41 per cent did not feel empowered to think differently
- 42 per cent did not think they had the opportunity to make a difference at work
- 38 per cent said, 'the business is very process-driven and spends little time on doing things differently or being innovative'.

(Microsoft/YouGov, 2013)

These findings suggest major problems with the way that office work is organised and jobs designed, in that they are likely to reduce the capacity of many workers to deploy the full range of their skills to productive effect, or to engage in forms of workplace innovation (see below for further details). They also have implications for how motivated and engaged many office workers are likely to be.

Poor skills utilisation is thus a problem for the state and for the individual, but at present, it is arguably the case that poor skills utilisation is not perceived as a major business problem by the bulk of employers. As Findlay and Warhurst argue, "If more effective skills utilisation is now the policy priority, its firm-level practice is weak. The reason, we argue, is that many employers perceive it as a policy solution to a problem that does not exist" (2012: 5). The workforce's untapped or latent potential may be invisible to managers, either because they are unaware of it, or not interested



because they have devised models of work organisation and job design that leave little room for skills and knowledge to be deployed creatively. Research in two low pay sectors (hospitality and retail) suggested that:

*Employers may simply be unaware of the practical benefits of better skills utilisation (to themselves, their employees and the wider economy), see skills utilisation as irrelevant to them, and/or see job design as a cost (in terms of training or higher wages). Interviewees generally agreed that the skills utilisation agenda must be employer-led; providing employers with the evidence of the practical benefits is therefore a priority*

(Wright and Sissons, 2012: 24).

Where there is an awareness that workers hold qualifications or skills substantially above those required to undertake their current role, it may not be seen as having major costs to the business, unlike genuine skill shortages. In part, this is because many of the workers' qualifications will have been gained within the education system at cost to the taxpayer and/or the student rather than the employer.

One visible way in which under-utilisation and qualifications mis-match may impact on businesses is through higher labour turnover, but in many sectors where turnover is high there is an acceptance by employers that this is part of the natural order of things, and they have learned to live with it. Some, for example in the call centre industry, see employee 'burnout' as inevitable. The argument is sometimes made that high levels of turnover are costly to employers, but with internet-based and informal recruitment methods (for example, word of mouth recommendations by existing employees), these costs may be smaller than are sometimes imagined (Keep and James, 2010)

The foregoing suggests that a central challenge for policy makers who want to address deficient skills utilisation, "is to take the argument about better skills use increasing competitiveness which tends to have traction at the national level, and transferring that to the day-to-day running of firms" (Wright and Sissons, 2012: 28). However, this may be a significantly larger task than it might at first appear. As the author and others have been suggesting for many years (Keep and Mayhew, 1996; Wilson and Hogarth, 2003; Keep, Mayhew and Payne, 2006; Keep and Mayhew, 2010), the supply of, demand for, and usage of skills within an organisation are often determined by prior, higher order decisions concerning:

1. The organisations competitive and product market strategies
2. The organisational design to deliver these

3. The HRM/employment relations, work organisation and job design that fits with the above choices
4. Training and development

In order to change skills usage, it will probably be necessary to later 1 and 2 in order to shift the context for the design of 3. This will not always be the case (see Ashton and Sung, 2011a & b; and Sung and Ashton, 2015). In some knowledge intensive sectors and firms the skills and knowledge of the workforce will be the starting point for the competitive strategy (e.g. parts of the creative sector, high end business services and consulting). However, in many sectors and businesses that are mainly concerned with delivering mass services and products that are relatively standardised, this hierarchical model and the place of skills within it will apply. It is important to recognise that this relatively 'low road' competitive model can work perfectly well from the firm's perspective, can deliver reasonable profits, but carries with it the danger of elements of path dependency, as over time it may become the only model that the organisation and its management have the ability to envisage and deliver (Keep and Mayhew, 1996; Wilson and Hogarth, 2003). In these circumstances, change represents a risk. If the current set up works, it offers the comfort of the familiar, whereas significant re-thinking of employment relations, work organisation and job design offers the threat of the unfamiliar, and demands management skills and capabilities that may not be available.

This has implications for any policy initiative aimed at tackling skills utilisation. It suggests that on its own, exhortation by policy makers is unlikely to have much impact on businesses. There are two reasons. First, as Findlay and Warhurst argue, "exhorting employers is only likely to be successful if it appeals to their interests" (2012: 13) and as has been suggested above, making a credible business case around improved skills utilisation may not be easy, as the data to base it on is largely absent, because the costs of poor utilisation may either be invisible or latent from an employer's perspective, and because change to address the problem may itself be seen as costly or risky. Moreover, research by Guest et al (2001) demonstrated that even with relatively strong evidence to support the case for business change (in this case the adoption of High Performance Work Organisation), most senior managers proved deeply sceptical about its value and meaning, particularly as it related to the circumstances of their organisation. General lessons, they argued, did not necessarily apply to what happened in their firm.

As a result, the 'sales pitch' to those sectors and business where interventions are to be piloted needs to be carefully honed in order to make the issue of skills under-utilisation one that strikes a chord with employers. It would be dangerous to assume that they will necessarily automatically recognise this. It may well be that any intervention needs to be wrapped up in a wider business

improvement offer, and backed up by the provision of external help and advice, as without external facilitation and support, many organisations will be either unwilling or incapable of embarking on the kinds of changes that are required. For an example of how one industry (construction) has attempted to think about these issues and identify ways forward, see IFF Research, 2013.

Having explored what the concept of skills utilisation encompasses and why and to whom it matters, we now turn to review the range of potential existing policy models that might be adopted to address these issues.

## **IS HIGH PERFORMANCE WORK ORGANISATION (HPWO) THE/AN ANSWER?**

HPWO, sometimes also referred to as High Performance Working (HPW), High Involvement Management (HIW), High Performance Work Systems (HPWS), or High Performance Work Practices (HPWP), has been the chief policy concept of choice adopted by the UK Commission for Employment and Skills (UKCES) to be deployed in addressing the issue of skills utilisation. UKCES has suggested in the past that approaches to skill utilisation across the UK should be brigaded under a HPWO banner (UKCES, 2010: 76) because the HPWO model offers “the most holistic approach” to the issue. Given its prominence to date, how might we assess HPWO’s potential to contribute towards delivering the required results in terms of improving skills utilisation? Is it the/an answer? The short response is ‘probably not’. The longer response goes as follows.

There are a number of problems with HPWO, both as a concept or model, and in terms of its likely efficacy as a focus for policy interventions. To begin with, the academic literature on HPWO is a contested terrain, with researchers across the OECD engaged in endless definitional debates about both what to call the concept (Lloyd and Payne, 2005), but also more importantly precisely which sets of managerial practices it encompasses, and how many are required in order to allow an external observer to say that any given organisation is using HPWO. The idea of a threshold level of adoption is extremely important because many academics have argued that there is some kind of ‘bundling’ or critical mass effect, whereby the use of isolated elements of the HPWO model do not produce the same scale of effect as the ‘whole’ package (Pil and MacDuffie, 1996).

Interestingly, because traditional definitions of HPWO have had little (often nothing) directly to say about skill or skill usage, the Sector Skills Development Agency (SSDA) and its successor UKCES developed and adopted a definition that encompasses some elements that are not to be found in other models of HPWO (Wood et al, 2013), but which do allow the concept as they specify it to try to address issues around work organisation and how jobs are designed (particularly in terms of levels of discretion), and hence skill utilisation (see Tamkin, Cowling and Hunt, 2008). The weakness is that when competing claims are made about the take-up and efficacy of HPWO, it is hard to make sense of them as often they are referring to very different sets of managerial practices.

There are also problems around the fact that an organisation claiming to have various HPWO measures ‘in place’ does not mean that everyday practice within that organisation actually delivers real HPWO – in other words, the organisation can tick the box on a survey about managerial practices and indicate that it has the form of HPWO, but without the actual substance of its implementation. For instance, it can go through the motions of consulting its staff and say that it has mechanisms to involve them, but these may not actually work or have any impact on decision making. Partly as a

result of this problem, and coupled with the definitional divides discussed above, different academics, using different thresholds for the existence of HPWO, have, drawing on data (sometimes from the same survey instruments), reached dramatically different interpretations about the uptake of HPWO (see Lloyd and Payne, 2005; and Findlay and Warhurst, 2012 for concise overviews of this problem).

There is an even bigger, and possibly even less illuminating literature about the scale of the impact that HPWO may or may not have on performance. Given the name High Performance Work Organisation, the logical assumption might be that HPWO must lead to high performance, presumably higher than organisations that do not have HPWO practices in place, but the evidence to support this assumption is mixed (see Wall and Wood, 2005 ; Godard, 2004; Edwards and Sengupta, 2010; and Wood and de Menezes, 2008). Much seems to depend on how you define HPWO, what measure of performance you choose to adopt (productivity, profitability, earnings per share, share price, etc), what your sample of companies is, and over what time frame you are measuring.

Another difficulty is that HPWO is just one managerial tool/package/diagnostic in what is a very crowded field. Other rivals are TQM, Six Sigma, lean production; and all are jostling for attention and credibility. Moreover, HPWO is an approach based within the managerial domain of human resources/personnel management, and has been championed by a sub-section of HR academics, practitioners and HR practitioner professional bodies, not least as a means of trying to advance the strategic importance of HR relative to other management disciplines and functions – e.g. finance, accountancy, marketing and strategic management (Guest et al, 2001). This is a problem, because in many organisations the status and clout of the HR function is limited (van Wanrooy et al, 2013; Sisson and Purcell, 2010). If the internal organisational salesforce/missionaries for a public policy push around HPWO are the HR function, it has to be a possibility that senior management will not be enticed to buy into the concept.

It is also the case that the HPWO concept is not easy to sell because by its very nature it is a relatively complex package of mutually supportive measures and processes which requires a reasonably sophisticated management team to deliver. It requires skills and knowledge to design and implement within any given organisation's strategy, culture and circumstances. Implementation implies a risk in terms of disrupting existing practices, and many organisations may conclude that the effort and risk exceeds the likely benefits.

This brings us to the next, and rather crucial, problem – that the mainstream HR literature and research on HPWO is about **performance**. It is not about skill utilisation per se. Some HPWO organisations may have excellent skill utilisation, others may not. If an organisation puts in place a

bundle of practices that enable it to recruit and select appropriately, to manage performance, motivate people and even involve them within clearly defined limits, have some form of gainsharing system or performance reward system, appraise them and have a development system (and so on), then it is likely it will be judged to have HPWO (albeit depending on which academic is defining HPWO), even if makes use of only a small fraction of the skills of its staff. An organisation that was using HPWO could, for example, achieve high performance without tapping into employee's existing skills very well because of other characteristics (for example, the organisation has market dominance that allows it to secure monopoly rents), or because it motivates employees to great effort while not needing to use many of their skills. Supermarkets and fast food firms are examples of organisations that may have HPWO systems in place, but actually use a tiny proportion of their employees overall skills, intelligence and creativity. They are still often very successful. HPWO, as traditionally defined by HR specialists and researchers, therefore of itself, and certainly on its own, may not be all that useful a tool to tackle poor skill utilisation or worker over-qualification. This is a fundamental problem if the aim is to try and organise skill utilisation policies under an HPWO banner. What it suggests is that before changes in HR practice can be delivered, it may be necessary to change the way the organisation views itself and its competitive strategies (Keep, Mayhew and Payne, 2006).

Finally, there are big questions about how public policy chooses to promote HPWO. The evidence from large-scale surveys (for example the Workplace Employment Relations Study [WERS] (van Wanrooy et al, 2013), and the UKCES's UK Employer Skills Survey [UKESS]) is fairly unequivocal – take-up of HPWO practices (on whatever definition) has at best stalled at a fairly low level, and may actually be declining. Taking the UKCES figures, which are probably the most useful in this context as the UKCES model of High Performance Working was explicitly designed to capture and lay stress on the skills elements of the HPWO concept, the picture is pretty depressing. A comparison of the 2007 and 2011 Employer Skills Survey results commissioned by UKCES (Wood et al, 2013) indicated that, across the UK, “there has been a decline of almost all (HPW) practices between 2007 and 2011 in the UK” (Wood et al, 2013: 46). Moreover, on the UKCES's measure of what constitutes high performance working only 19 per cent of UK organisations appeared to have adopted the model by 2011 (Wood et al, 2013), and the 2013 Employer Skills Survey showed that this had fallen to just 12 per cent (Giles and Kik, 2014: 4).

It could be argued that those organisations with whose strategies and managerial capabilities HPWO offers a reasonably good fit have already adopted the model, leaving the task of persuading other firms to use it as something of an uphill task. What is instructive is that those organisations who have chosen to see HPWO as the policy solution to skills utilisation (mainly UKCES) failed to formulate or operationalise any comprehensive strategy for securing greater employer buy-in to the

concept. This may have reflected the fact that UKCES's resources were fairly severely constrained and that it had been given responsibility for delivering many other policy objectives (not least that of employer ownership of the skills agenda – see Keep, 2015), but it might also reflect the fact that selling HPWO is likely to be a very hard and potentially unrewarding task. With the impending demise of the UKCES, it is very hard to see what body within the English policy landscape will have the capacity, remit or desire to promote HPWO.

It is also illuminating that other countries have not made HPWO the fulcrum of their efforts for developing policies aimed at tackling skill utilisation, although in some instances HPWO figures as part of a wider approach. One example would be Scotland, where the definition of skill utilisation policy and the measures being adopted have gone much wider than HPWO, although it figures in a supporting role. Elsewhere in the OECD the main thrust of public policy interventions that impact on the skill utilisation area have tended to focus on workplace innovation (technological and process), productivity and a range of what might broadly be termed quality of working life issues – all of which have been deployed to (more or less directly) drive up skill utilisation. As Stone's (2011) review of international practice demonstrates (see also Ramstad, 2009a & b), neither HPWO nor skill utilisation per se have been deployed as the over-arching organising concept for policy, instead broad-based models of innovation have been to the fore. Better skill formation and utilisation have often been components and/or by-products of such initiatives. This is not to argue that skill utilisation is not a useful starting point in terms of policy analysis, but it often needs to be tackled in a broader way and as part of wider objectives – boosting productivity, increasing the number of 'good' jobs in an economy, or stimulating innovation to increase competitiveness (or all three).

What the foregoing suggests is the need to soft peddle on the HPWO 'brand' as a/the vehicle for selling better skill utilisation. It is possible that HPWO (or at least some variants of the model of the type advocated by UKCES) has a role to play in supporting improvements in skills utilisation, but on its own it is probably too narrow a concept to represent the centrepiece of a viable strategy.

## **WHAT CAN WE LEARN FROM RESEARCH AND EXPERIENCE ELSEWHERE?**

The section that follows explores a variety of different policy approaches to changing organisational strategies and workplace practices in ways that might enhance how the skills of the workforce are mobilised to productive effect. In the case of the non-British examples, all the usual warnings about the problems of policy transfer across international borders apply. What works in one political, historical, economic and cultural context may not work in another.

### **Trade union lead utilisation work in England and Scotland**

Both the TUC and Scottish TUC's Unionlearn organisations have been involved in pilot projects to test out the role of trade unions and Union Learning Representatives (ULRs) in helping to initiate and deliver workplace change to bring about enhanced skills utilisation. For details of the English Unionlearn work, see Jameson, 2012, for those in Scotland, see Findlay, Warhurst and Commander, 2011). These experiments suggest that in unionised workplaces there may be opportunities for trade unions to act as a catalyst for change, and that unions have a legitimate role to play in pursuing policy goals around skills utilisation.

Looking overseas, Findlay and Warhurst (2012) report on one initiative (the Better Not Cheaper campaign, centred around product market enhancement leading to new methods of working) which was led by a large German trade union (I G Metal). The problem, from a UK perspective, is that this campaign was heavily reliant on workplace co-determination structures that we do not possess.

### **General attempts to improve job/work quality/employment relations**

There is substantial array of work under this heading. The examples that follow have been selected because they have stronger linkages to skill utilisation than is generally the case.

We start with European attempts to experiment with improving working conditions in low-wage industries. In the UK, the recently published UK Equality and Human Rights Commission (EHRC) (2014) report on the cleaning industry (*The Invisible Workforce: Outsourcing and Employment in the Cleaning Sector*) identifies and illustrates some of the problems of low pay, bullying, stress, work intensification, and lack of employee 'voice' and involvement that exist in many workplaces. These problems bring with them significant and lasting social and economic costs. Although the EHRC report does not explicitly address skills utilisation, this is likely to generally be poor given the way that work is structured and employees managed in this industry.

Elsewhere in Europe similar issues of job quality in cleaning are being tackled in ways that UK public policy has generally yet to copy on any widespread scale. For example, the Walqing Project, funded



by the EU's 7<sup>th</sup> Framework Programme provides an interesting overview of developments across several European Countries. In respect to the cleaning industry, as FORBA, 2012; and Torvatn, 2011) illustrate, what by UK standards are relatively radical initiatives are under way elsewhere. Some of these address skill acquisition and deployment. For example:

*Cleaning is becoming increasingly professionalised in Norway. The term **professionalised** describes a process of transforming the work of a cleaner from something that can be done by 'anybody' to something that is recognised as requiring a necessary set of skills and training. This can lead to increases in wage levels, skills, and visibility as well as productivity....The introduction of new standards, new work methods, new technologies, new divisions of labour between client and cleaner and new relationships (i.e. contractual) between cleaner and client have all contributed to a situation where cleaners' skills are being upgraded in Norway.*

(Torvatn and Kirov, 2012: 11, emphasis as in the original)

More generally, the Walqing research flags up the concept of developing broader institutional and policy 'quality anchors' to improve and safeguard job quality (see Jaehrling and Lehndorff, 2012).

*Acas employee engagement projects.* This was an intervention that was firmly located within a fairly traditional UK employee engagement/employee involvement mould, and was primarily concerned with assisting businesses to adopt improved approaches to employee relations, to upgrade their employee involvement and consultation, and to use these to support a business development process. Ten organisations were offered in-depth support to help them change working practices and employee engagement in order to increase business performance. Most of the projects encompassed an element of what might be broadly defined as workplace innovation. The pilot projects were paid for by the now-defunct East Midlands RDA, delivered by Acas and the UK Work Organisation Network (UKWON), and evaluated by Nottingham Trent Business School (see Harris et al, 2011).

In general terms, the projects appeared to succeed in their objectives, and to deliver gains that were valued both by management and workers. The evaluation attempted to put a monetary value on the gains generated, and suggested that these ran at about £4 for every £1 of public support (Harris et al, 2011). Although the projects were not explicitly focused on improving skills utilisation, in a number of cases this was in fact an outcome of their wider attempts to help the firms to adopt and develop more advanced employee relations policies and practices. One of the other main lessons to emerge from the exercise was weakness of internal management capabilities within the organisations that

were being helped, and the level of support from external sources (in terms of facilitation and training) that was required to make these tailor-made projects function (Harris et al, 2011).

### **Scotland the brave.....**

As noted above, in 2007 Scotland embarked upon the development of a skills policy that incorporated radical new elements, particularly in relation to seeking to address the ineffective utilisation of skills. Given this new strategic approach, policy makers started to explore how they might begin to pilot practical interventions to tackle skills utilisation in the workplace. Having examined the Australian experiment with ecosystems and also looked at workplace innovation support in Finland, the Scottish Government decided to task the Scottish Funding Council (SFC) with establishing a series of pilot projects around skills utilisation, whereby colleges and universities could deploy their expertise with selected employers to help facilitate better usage of skill.

The result was the funding in 2009 of 12 action research projects, selected by the SFC through a competitive tendering process. The call for bids was formulated to be as open as possible in the sense that the funding council held no predetermined model of what a skills utilisation project might look like, and there was an expectation that as these were experimental 'proof of concept' tests, some projects might not develop as planned, or deliver the intended outcomes. The programme was genuinely exploratory in nature, and from the outset the skill utilisation projects were seen as a means of learning what worked (and what might not) through action research. £2.9 million pounds of funding was allocated to the projects from the SFC's core grant.

The projects are extremely varied in nature, ranging from some that follow a fairly traditional model of seeking to better match educational offerings in terms of course content and skills developed to what employers need (an employability plus agenda), to a business development and knowledge transfer focus, while others aimed to help employers re-think production processes and re-design work organisation and jobs (see SFC, 2012 for details). Some are managed by a single college or HEI, others involve consortia of HEIs, colleges, or HEIs and colleges.

Payne (2011a) provides a description and evaluation of four of the projects. A brief 'thumbnail sketch' of two is provided here.

*Glasgow School of Art (GSA)* ran a project (subsequently extended into a second phase) that aimed to help business leaders to use the creativity of their workforce to solve business problems and to generate process and product innovation (for a detailed account, see Glasgow School of Art, 2012). Using a philosophy of 'co-design' (which assumes that the whole workforce has knowledge, skills and ideas to bring to creating innovation) GSA aimed to tap into the collective skills residing within a

workforce via working with a vertical slice of the organisation to help create a creative thinking process. In collaboration with the Institute of Directors, GSA identified business that could benefit from the approach, and undertook intensive project work with three organisations – a manufacturer, a service retailer and a ski resort.

*The Open University in Scotland* contributed a project that sought to enhance skill utilisation by public and private social care providers. This project took as its starting point the delivery of a management level qualification for supervisory staff (required by the government as a licence to practice) in the social care sector and tried to help the organisations within which the students worked to re-think and broaden the role of the students' jobs so that they could fully use their newly acquired skills. This directly addressed what is one of the most common complaints that students/trainees who are in employment often have about education and training courses – namely that they have changed through learning, but the job that they go back into has not and as a result there is not 'room' within the job as currently designed for them to productively deploy what they have learned. The OU project therefore centred on role re-design, delegation and re-thinking what supervisory staff were there to do.

Among the issues raised by Payne's (2011a) evaluation of the projects were:

- The sustainability of projects after core funding was exhausted
- The problems of assessing impact. The evaluation of the projects (Payne, 2011a), and of wider efforts around skills utilisation (Payne, 2011b) was not easy.
- The need to find mechanisms to diffuse the lessons generated by the projects.
- The need to think where they fitted within wider economic development and business support offerings.
- The need, if this approach was to be scaled up, of developing expertise in helping organisations to re-think work organisation, job design and their approaches to innovation. In countries where this approach is common (see Ramstad 2009a & b) there has been significant long-term investment in establishing a cadre of experts in both public and private institutions that can help support workplace change.

These issues notwithstanding, the Scottish Government pressed on with some limited efforts to raise the profile of skills utilisation issues, not least within the public sector via inspection, objective setting and performance review systems, and the SFC continues to explore how best it might help colleges and HEIs to 'mainstream' the lessons gleaned from the skill utilisation pilot projects, not least through the gradual extension of an expectation of activity on this front within the outcome agreements that institutions (both colleges and HEIs) need to agree with the SFC before their block

grant funding is released to them (SFC, 2012). To a certain extent the debate on Scottish independence triggered by the referendum served to distract attention from skills utilisation policy development and to reduce the momentum of policy development. However, in the longer term, the advent of the Fair Work Framework, coupled with the fact that Scotland's productivity problems have not diminished, means that the issue is unlikely to vanish and will sooner or later have to be addressed more vigorously.

### **Skill Ecosystems**

For those with an interest in the evolution of the concept of skill ecosystems, and of ecosystems thinking more broadly conceived, Hodgson and Spours (2016) provide an excellent overview of the topic. What follows here is a very brief outline of the concept as it relates to skills and their usage within work.

The concept of a high skills ecosystem (HSE) was first coined by David Finegold in a 1999 article in the *Oxford Review of Economic Policy*. His research built on the work of Porter and others on industrial districts and clusters, basically by focusing on the education, training and research elements of successful clusters. The HSEs discussed by Finegold were not, on the whole, the result of conscious, pre-conceived strategies on the part of government, higher education institutions or other policy actors, but rather the serendipitous results of high levels of state-funded R&D (see Mazzucato, 2011), spins-off business start ups, high levels of localised expertise, supply chain linkages and the availability of a ready supply of government and venture capital interacting together at a particular moment in time within a given geographical space. Silicon Valley did not emerge as the product of a planned policy, it just happened.

The problem that Finegold set himself (and policy makers) was how one could replicate these mutually reinforcing sets of factors through conscious design and via policy interventions within a different economic, policy and societal context. The key metaphor being used was biological, and centred on the inter-connectedness of a set of positive and mutually re-enforcing factors that can create a virtuous spiral of economic development. Finegold (1999) argued that there were four key features to successful HSEs:

1. a catalyst,
2. nourishment,
3. a supportive host environment,
4. a high level of mutual interdependence,

and that these needed to be considered both individually, but also as a mutually re-enforcing matrix. For further details of the concept, see Finegold, (1999).

*The Australian Experience.* Policy makers around the world reacted to Finegold's work in different ways. One country where it struck a deep chord, and provoked radical experimentation was Australia. Both researchers (Buchanan, et al, 2008) and policy makers at state and federal government levels (Alcorso, 2008; Alcorso and Windsor, 2008; Eddington, 2008; Eddington and Toner, 2012) took the basic concept of skill ecosystems and explored how it might be applied across the economy as a means of breaking away from the problems that seemed to dog traditional skill supply policies. These included the fact that employers were often passive consumers of the E&T system rather than an active and integral part of it, and were quick to complain in the hope that the state would task the further education system (TAFE) with meeting whatever demands were presented by firms at public expense - what Buchanan termed the 'employers whinge, the state reacts' syndrome. There were also indications that many of what were being labelled as 'skill shortages' in particular local and occupational labour markets could not be solved by simply increasing skills supply via TAFE or higher education, but instead were symptoms of wider problems with the attractiveness of the employer and/or occupation. It was also the case that within the workplace, production systems often appeared to be deploying labour so intensively that it left no space to expand upon or even replicate existing skill levels (Buchanan et al, 2009). Over-qualification and mis-match between supply and demand was also a problem whose salience was growing, not least because of work by the National Centre for Vocational Research (NCVER).

The resulting projects, principally based in New South Wales and Queensland (but with some project work in Southern Australia), were used to trial how a broad ecosystems approach could be used to break down barriers between education, firms and other stakeholders, and to start to address skills issues in a much more integrated fashion. The aim was to move from a supplier/customer model of skills to one where the inter-dependencies and inter-relationships between the various parties became more obvious, better understood and potentially a source of strength and mutual gain.

Each of the ecosystem projects, which were funded via competitive bidding by employer groups to state government, had to have two over-arching characteristics (Alcorso and Windsor, 2008: 9):

1. They had to address both the supply and demand side of the skills equation (i.e. they had to focus on the availability or development of skills, and also how they were being utilised in the workplace and occupational/local labour market).
2. They had to seek to achieve both improved business performance and positive outcomes for individual employees.

The objective was to make a clean break with traditional skills supply initiatives and to put the ball into the employers' court in terms of getting to grips with problems whose causation resided outside the education and training (E&T) system.

Eddington (2008) describes the ecosystems in Queensland in the following terms:

*Skill ecosystems are collaborative networks (which may include industry, supply chains, unions, labour hire firms, industry organisations, education and training agencies, research organisations, etc) at an industry, region or community level which are motivated to analyse, strategise and plan for sustainable skills and labour. They are the construct in which the integration of work and skills policy is being explored, and, in Queensland, they are linked to industry development and sustainability (people, profit and planet) in an increasing number of industry sectors....*

*Skill ecosystems build industry capacity to manage and develop sustainable skills through workforce practices that balance the development and deployment of labour. A healthy skill ecosystem has balance between skill development (formal and informal) and skill deployment (use of labour), and it has a focus on decent and meaningful work....*

*Skill ecosystems attempt to support industry to apply systems thinking to skills and labour issues. Debate is re-focused from the skill 'wants' of industry and unreliable predictions of skill needs, to an analysis and understanding of business settings (e.g. product and capital markets), business models, systems and processes (e.g. few large enterprises using multiple contractors), management culture (e.g. inclusiveness, work-life balance), innovation (e.g. fostering creativity), institutional and policy frameworks, the predominant modes of engaging labour (e.g. casual, part time), the structure of jobs including job design and work organisation, and the level and type of skill formation (e.g. apprenticeships).*

(Eddington, 2008: 6-7).

Although the projects were extremely varied in terms of scale, and the sectors and localities they covered (luxury yacht building, the dairy industry, horse racing, forestry, civil engineering and construction, water supply and treatment, social care, and a coastal town in Queensland dependent on tourism and the sugar/rum industry), they all shared a set of common design features (Alcorso and Windsor, 2008: 8). These were:

1. They addressed the labour market and workplace issues that affected how skills were acquired, retained, deployed, and sustained; as well as considering E&T responses.

2. Each project was required to gather and work through the evidence on the problem(s) to be addressed, and to show how and why labour supply strategies can make a difference. The aim was to avoid projects producing generic, off-the-shelf, one-size-fits all solutions.
3. Stakeholders had to be committed to the projects addressing a broad agenda. This meant balancing the diverse and sometimes conflicting interests and large, medium and small employers, employees, job-seekers and local communities.
4. Interventions had to be designed to have an impact at industry or region level, not simply at an individual firm level.
5. There was an emphasis on building up a collective employer capacity to more systematically plan and manage skill development in ways that could be sustained.

From the experience of running the projects it became clear that this kind of approach raises a number of issues around design and support. These included:

- Some projects found it hard to move beyond the traditional approach of enhancing skills supply.
- New institutional arrangements took time to establish and to bed in (Alcorso, 2008; Eddington and Toner, 2012). Policy makers often expected demonstrable results and ‘early-wins’, as well as a capacity on the part of the ecosystems’ institutions to become self-sustaining, within timescales that were unrealistically short.
- One of the reasons that ecosystems approaches were often relatively slow to mature was because they required the establishment of common or shared visions or objectives, and also the building up of significant levels of trust between the different actors (Eddington, 2011). Unlike simple skills supply initiatives, where government pays contractors (public and private) to deliver more training, ecosystems are about the different actors sharing problems and issues and working collaboratively to tackle them, sometimes along lines that may be challenging to some of the partners.
- These issues suggest that developing expertise in and experience of networked forms of governance is important in making an ecosystems approach work. If skills supply is to be linked to economic development and business improvement, re-configuration of labour markets and changes in employment relations, work organisation and how firms are choosing to compete, then policy coordination and networked forms of governance become critical to success (see Eddington, 2011; Eddington and Toner, 2012). Expertise in facilitating and coordinating the networks and alliances is therefore critical and this requires new ways of working and thinking (see Keast et al, 2004).

The ecosystems projects in Australia demonstrated that it is possible to move away from a simple skills supply model of policy, and that through the process of this change of direction a wider range of actors and stakeholders can be brought together to tackle problems. The ecosystems also made it clear that in many instances problems that were initially labelled as being about skills supply in fact turned out to centre on the structure of labour markets, the attractiveness of certain kinds of work, patterns of recruitment and selection, and poor deployment of labour.

That said, the ecosystems projects were mainly focused on addressing issues other than skills utilisation, though it emerged as a theme in some of the projects. One area where it became central to a project's work was in the Queensland health and aged care sector, where a significant element of the ecosystem's efforts were devoted to thinking through and piloting new career pathways and forms of work redesign in order to increase staff retention, workforce mobility and skill acquisition and usage.

It is also the case that the ecosystem approach, although an important experiment, ultimately failed to bring about a fundamental re-orientation in the way the Australian skills system defined its role and delivered its responsibilities (Buchanan, Anderson and Power, forthcoming). In part due to changes in government at both state and federal levels, but also because many policy makers proved resistant to the underlying approach and favoured more traditional ways of framing the 'skills problem'. As a result, policy focused back onto concerns about establishing and maintaining a training marketplace, and the E&T system's ability to meet the needs of employers. In other words, policy reverted to the comfort zone of familiar supply side issues. The ecosystems projects' main impact was probably to make issues about demand for skill (and what might underlie demand) more visible, but it did not lead to a sustained and widespread policy focus on areas such as skills utilisation (Buchanan, Anderson and Power, forthcoming).

It could be argued that some of the UKCES projects being funded under the Growth and Innovation Fund (GIF) and the Employer Ownership pilots mirror some of the characteristics of the Australian ecosystems work, and evaluations to date suggest that similar problems and issues have been encountered (Keep, 2015). In two important respects however the UKCES's model is different from the Australian ecosystem experiments. First, it is still very largely focused on skills supply, albeit by trying to get employers to do more for themselves. Unlike some of the ecosystems projects, very few if any of the UKCES pilots as yet seems to have moved on to address how the skills they are creating are put to best use. Second, the efforts are led by employers and the involvement of any wider constituency of stakeholders (trade unions, colleges, HEIs, employer bodies other than SSCs,



and researchers) is much less central than it was in the ecosystems projects (see Findlay and Warhurst, 2012).

### **Workplace innovation**

Another way of framing the problem (and its potential solutions) is to consider skills utilisation in relation to concepts of innovation policy. Such an approach is common in many other countries, but has not been here (Stone, 2011; Warhurst and Wright, 2014). The chief reason for this is that the model of innovation that generally pertains across the UK policy community has been a very top-down, science-driven model. In essence, government and its advisors have conceived of innovation as being led by university science departments, technological advances, patents, intellectual capital, and technology and knowledge transfer systems and processes (Warhurst and Wright, 2014). As a result, the key driving force behind innovation is seen as being the higher education sector and public investment in scientific research therein (see, in relation to English policy, Wilson Review, 2012; Witty Review, 2013a & b).

This approach to framing innovation policy, which has operated across the four UK nations, has two sets of implications. First, it means that this model of innovation policy is targeted at only a relatively narrow sub-section of the total economy. It works extremely well for high tech segments of manufacturing, but it is much less clear that that it necessarily engages very directly with large sections of mass services (i.e. those parts of the economy where significant swathes of employment are located). While hi-tech industries may deliver large amounts of wealth, gross value added (GVA), and exports, they usually only directly employ a relatively small number of workers (Crouch, Finegold and Sako, 1999; Finegold, 1999). Some academic commentators (Bowman et al, 2012; Bentham et al, 2013) have suggested that the industrial and innovation strategies needs to impact on a wider swathe of economic activity and to target more traditional industries and areas of economic activity (what Bowman et al, 2012 call the 'foundational economy'). They are not alone. Lord Heseltine, in his *No Stone Unturned* report on local economic development (2012) argued that:

*It is tempting to focus on a few select, top-end sectors and on high growth companies. The fashion changes, but at the moment it is high tech and exports to new markets that are paraded as the easy solutions. They are important, but ultimately they are not enough to ensure a broad-based competitive economy. We cannot ignore the performance and growth potential of the mass of businesses across all sectors, including construction, logistics, retail, hospitality and health and social care, which have traditionally provided a high proportion of the employment opportunities in this country".*

(Heseltine, 2012: Para 5.15)

Given current challenges for both the UK as a whole on levels of productivity per hour worked relative to our overseas competitors, and for Wales and some of the English regions relative to London and the South East, there is a need for policy to address performance improvement across the entire economy. As Thompson et al, (2016) argue, low wage industries such as wholesale and retail, and accommodation and food services, account for a very significant element of our productivity gap with other developed countries, and that unless we can tackle this our chances of closing the productivity gap with our continental rivals are slender. As a result, they counsel the adoption of a broader-based approach to innovation that went beyond science and knowledge transfer for high tech sectors and the development of something akin to Finland's innovation support system (see below). Given these arguments, it would be an interesting exercise to try to estimate what proportion of English/UK national GVA, GDP, employment and exports are being directly impacted by the traditional science-based innovation strategy as it currently stands.

The second negative consequence of the narrow, traditional model of innovation is that it ignores any real potential for bottom-up, incremental workplace innovation that can enhance products, services and the means by which they are delivered (Hoyrup et al, 2012). In other words, innovation policy as traditionally framed is concerned with the skills and knowledge of only a relatively small, elite segment of the workforce – research scientists, R&D staff, knowledge transfer experts, and senior organisational and production managers in the companies adopting the technological advance that the innovation process has developed. It is not directly very interested in the skills and capabilities of the bulk of the workforce, and sees little or no active role for them in being part of the innovation process itself. At best, they are the grateful recipients of advances made by others.

If more higher waged employment across broader swathes of the economy and mobilising the skills of a large proportion of the workforce are desired outcomes for policy, then Scandinavian approaches to innovation become important, since much of the Nordic economies' success lies in making what, by our standards, are high-waged but medium-tech (and sometimes quite low-tech) sectors operate at advanced levels of quality, innovation and productivity (for example, forestry, agricultural machinery, fish farming, fertiliser and fish food manufacturing, specialist ship building, furniture design and so on – see Maskell et al, 1998; Lundvall, 2001). As Lundvall et al, (2002) observe, drawing on findings from the large-scale DISKO study of innovation in Denmark (Lundvall, 2001):

*One of the interesting aspects of the Danish system is that its relative wealth has been built in spite of a specialisation in low technology sectors. Supporting innovation in low technology areas will*

*remain an important priority for industrial policy. In the light of the 'new economy' discourse there might be a risk to forget about the renewal of competence in traditional sectors, including service sectors*

(Lundvall et al, 2002: 219).

This is an important lesson for other countries that have large swathes of relatively low-tech industry. Innovation does not simply have to be concerned with a small minority of leading edge firms. As will be discussed below, in the Nordic countries wider models of innovation system and a strong stress on workplace change and organisational and employee-driven process and product innovation are important (see Lundvall, Rasmussen and Lorenz, 2008; Ramstad, 2009a & b).

In much the same way, in the Netherlands a skills and innovation system that encompasses institutions we would think of as FE colleges and HEIs, training providers, research institutes and employers and trade unions has helped the Dutch to remain the second largest agricultural exporter in the world (after the USA), despite being a relatively small and quite highly urbanised country (Wals, Lans and Kupper, 2012). Some of the product areas that the Netherlands leads on are not what we would normally think of as particularly high tech – e.g. cut flowers – but the research and skills needed to deliver competitive advantage in the area may be. The key point is that within this set up the 'innovation system' extends into the workplace and down onto the 'shopfloor', and that these sites of learning/innovation create both ideas and skills that are fed back into the wider system. It is not simply a case of knowledge being defused outward and downwards from universities and company R&D departments.

Plainly the traditional, top-down science-based model forms a core element of any viable national innovation strategy and plays directly to strengths within the university system across the UK. However, there may be lessons to be gleaned from the broader models of what innovation activity and policy might cover that pertain elsewhere (OECD, 2010a & b).

*Scandinavian and Northern European approaches to workplace innovation.* As noted above, policies and activity that might improve skills utilisation are relatively rarely conceived of and labelled from this perspective. They are usually billed as being about something else. In Scandinavia and some other Northern European countries, issues centring on the quality of working life and workplace innovation have been to the fore (Stone, 2011; Warhurst and Wright, 2014), and it is to these that we now turn.

What started out in the 1960s and 70s as a Nordic concern about the quality of working life, not least a lack of worker autonomy within what were perceived as being increasingly Taylorised, mass

production work environments, has gradually morphed into a policy focus on work organisation, job design, and workplace and organisational development as components within a broadly-conceived model of innovation policy (Payne, 2006). This takes as its starting point the belief that there are two modes of innovation, which in essence reflect the two approaches to framing the scope of innovation policy that have been outlined above. One is the science, technological and innovation mode (STI), which centres on the production and application of codified scientific knowledge and technologies. The other is innovation that takes place through doing, using and interacting (the DUI model), and this relies upon informal learning and know-how gained through experience (Jensen et al, 2007; Warhurst and Wright, 2014). Thus:

*The concept of innovation and policy activities is not limited to industrial, scientific and technical innovations; the innovations can also be social or organisational. If new technologies are to be adopted successfully, changes will also be required in working, organisational and management systems. Because the various organisational components (technology, strategy, organisation, management) need to be mutually supportive, a balanced emphasis on technological and social innovations is required.*

(Ramstad, 2009b: 2)

The mix between these two forms of innovation will vary within and between organisations over time.

Research shows that a great deal of innovation within organisations in all sectors (public and private) occurs at or very close to the productive process itself. It is concerned with 'shop floor' or front-line staff being able (i.e. empowered and sufficiently skilled) and willing to make incremental adjustments in the quality, specification, design and/or utility of the good or service that is being delivered, or within the productive process through which the good or service is delivered, in order to improve productivity or quality. For many firms working in non-high tech sectors, workplace or bottom-up innovation is often critical to their performance and survival. For example, OECD work on local economic development in Canada observed:

*Local stakeholders in Niagara, Canada, for example, emphasize that in many of the industries important in their local region (tourism, hospitality, food processing, farming and light manufacturing) adding more value to products involved incremental innovation in processes as opposed to giant leaps driven by high technology".*

(Froy, 2013: 252)

Plainly this bottom-up model of innovation can be deployed to complement more traditional top-down models of science and technology-driven innovation. The two are not in any way exclusive, and research indicates that organisations that are able to combine both modes are more likely to produce new products or services than those that rely exclusively on either the STI or DUI models alone (Jensen et al, 2007).

Scandinavian innovation policies afford considerable importance to the DUI model of innovation, and the Nordic countries have developed a substantial, publicly-supported infrastructure to provide organisations with the expert help needed to reconfigure work organisation, job design and production processes and technologies to enhance their capacity to engage in workplace innovation (Ramstad, 2009a & b; OECD, 2010b). A prime example would be the Finland's Tekes programme, but there are many others (see Ramstad, 2009a and b, UKWON, 2010). In some instances, HEIs and other educational institutions have been encouraged and supported to develop the capacity to provide expert help and advice to firms to support organisational and workplace re-design via publicly-subsidised consultancy services.

Public policy aspirations concerning workplace innovation and the quality of working life are conceptualised at a very different level from that which generally pertains across the UK. For example, in Finland, the Ministry of Employment and the Economy has created a National Working Life Development Strategy that aims to see Finland having the best quality of working life by 2020. This kind of public policy objective has not hitherto been part of the UK policy agenda or discourse, but has now surfaced in Scotland via the Fair Work Framework.

Finland's ambitious objective is backed by a well-established public infrastructure (for both policy formation and delivery). Tekes is the public agency that funds 'hard' R&D (the STI model) and seeks to link firms with research institutes and university researchers, but is also responsible for delivering organisational and workplace development to support and enable employee-driven innovation (the DUI model). Its latest organisational development (OD) initiative is the Liideri programme. This has three themes, described in the following terms in the programme's promotional brochure:

**Employee participation in renewal of products, services and their production.** How effectively does your company utilise the ideas and expertise of the personnel?

**New forms of working.** How does your company share responsibility and leadership? Does your company use individually tailored solutions? In what ways does your company utilise networks and information technology?

**Management processes and practices.** Does management in your company consider the promotion of employee involvement as a competitive weapon?

Is human resource management of supportive to achieving strategic goals? Do you dare to challenge yourselves and your organisation?

(Tekes, 2012 - emphasis as in the original)

Tekes's OD offer to companies is relatively generous, but stresses co-investment. Funding up to 50 per cent of the project costs is available, up to a maximum of 100,000 Euros. In order to be funded, projects are required to:

- Significantly improve productivity and the quality of working life
- Create new, innovative ways to operate
- Support know-how and innovation
- Be implemented in cooperation by the management and staff

The projects also have to produce results that are more widely generalisable and which can help other organisations.

This model is supported by an infrastructure and pool of capabilities represented by a national association of working life researchers, consultants, trainers, company developers, and government and agency officials. Organisational development programmes like Liideri are delivered through government funding to external experts, some of whom work in specialist consultancies (in the private sector, but also attached to HEIs). This national organisational development resource is the result of sustained public investment over decades (Payne, 2004 & 2006).

A key, but oft neglected point, is that this broader model of innovation does not take place in a vacuum. It exists within a labour and product market environment where routes to low cost, low skill, low wage competition have largely been closed off by the presence of strong trade unions, high wages and associated social provision costs, and economic and cultural expectations that mean that most firms have little option but to take the high road to competitive advantage. Given the general need to compete as much on quality and product/service specification as on price, there is a strong incentive for firms to deploy workers' skills to maximum productive effect, and to pursue innovation as a means of survival. This also occurs within the context of relatively high levels of company investment in R&D, and well-developed national innovation support systems (see Rae and Westlake, 2014), and, as will be discussed below, the relatively widespread adoption of forms of work organisation that support learning and innovation.

*The links between workplace innovation, learning and skills utilisation.* If workplace innovation matters to organisational and wider economic performance, what creates and sustains it? One of the key lessons to emerge from international research on organisational performance and competitiveness over the last decade or so has been the demonstration of the critical relationship between workplace innovation and workplace learning. They are essentially two sides of the same coin. From the perspective of skill utilisation, the good news is that workplaces that possess the characteristics that allow high levels of learning and innovation are likely to be ones in which skill utilisation will also be higher.

This is because there are close links between the different facets of organisational design, workplace practice and management that can either facilitate or militate against the creation of workplace environments that offer rich opportunities for learning, innovation and the effective utilisation of skills (see Lundvall, Rasmussen and Lorenz, 2008; Ramstad, 2009a & b; OECD, 2010b; Keep, 2010; Keep, 2013; Warhurst and Wright, 2014). Workplaces that provide rich learning environments through the manner in which they structure tasks and processes, and manage staff, also tend to be better at bottom-up forms of process and employee-driven innovation. It is partly because this style of workplace organisation and management allows the space for bottom-up innovation (Lundvall, Rasmussen and Lorenz, 2008; OECD, 2010b), but also because the way work is structured and employees managed produces a more skilled workforce that is better versed in problem solving (Hoyrup et al, 2012). Thus,

*employee learning in the workplace – in terms of new knowledge, expertise and problem solving skills – constitutes the raw material for employee-driven innovation. Basically, employee initiatives and autonomy, on the one side, and the structure and conditions of work, on the other side, are important for innovation....innovation....is not conceptualised as separate units, but as embedded in daily work activities and job enactment and social processes in the organisation*

Hoyrup, 2012.

Within these broader models of innovation there is an explicit linkage between skill acquisition (learning) and skill deployment and utilisation. This is because it is assumed that the manner in which work is organised, how jobs are designed and structured, how work processes are configured and people managed in performing them, will all have a profound impact on the volume, depth, breadth and overall quality of informal workplace learning (i.e. learning that is embedded in the inherent challenge encoded in the productive process) (Evans et al, 2006; Felstead et al, 2009, Eraut and Hirsh, 2007), and how those skills are then used to productive effect. In other words, job quality is inextricably linked to innovation, and vice versa (Warhurst and Wright, 2014). The OECD's (2013)

report on their Survey of Adult Skills stresses the close relationship between how work is organised and how people acquire and maintain skill:

*beyond instruction, the opportunity to engage in relevant practices is important both for developing proficiency and preventing its loss. Within the workplace, for example, redesigning work tasks to maximise engagements in activities that require the use of literacy, numeracy and ICT skills should be considered in conjunction with providing training.*

(OECD, 2013: 36).

In addition, the factors that support better innovation and learning in turn also have a material impact on levels of productivity (Sommerlad and Stern, 1998; Fuller et al, 2003).

Unfortunately, from a UK policy perspective, what the European Survey of Working Conditions (Lorenz and Valeyre, 2006) demonstrates very clearly is that the incidence of the kinds of workplace configuration and management style (labelled 'discretionary learning' in their typology) that are supportive of higher levels of innovation, skill acquisition and usage, are very unequally distributed across the EU. The UK scores better (about 35 per cent of employees in workplaces with these characteristics) than some Southern European countries, on the whole it finds itself lagging a long way behind the Northern European leaders - the Netherlands (64 per cent), Denmark (60 per cent), and Sweden (52.6 per cent). By contrast, the UK has the highest proportion of employees of any EU country in workplaces characterised by some form of 'lean production' (40.6 per cent) – a model that carries with it far lower levels of opportunity for learning and for innovation (OECD, 2010b).

Moreover, calculations by Lundvall (2012) suggest that opportunities for organisational learning are very unequally distributed across the UK workforce in terms of differences between managers and workers. The UK scored third from bottom out of the EU 15 (behind Portugal and Italy) on levels of learning equality (calculated by dividing the share of workers engaged in discretionary learning by the share of managers in that category, and subtracting the resulting percentage from 100). The three best performing countries on this measure were (in order) Denmark, Finland and the Netherlands (Lundvall, 2012). Given these figures, the UK's relatively weak performance within the OECD's Adult Skills Survey (OECD, 2013) and other international skills benchmarking exercises is perhaps unsurprising. It also underlines the scale of the challenge that UK policy makers now face in trying to configure workplaces and working practices in ways that can match those found in some of our high innovation, high productivity international competitor countries.



## **Overview**

Two over-arching lessons emerge from the examples reviewed above. First, with the exception of the Unionlearn pilots and the SFC's skill utilisation projects, none of the other interventions or programmes has made skills utilisation their central focus or marketing point. Improved skills utilisation has been the outcome of interventions aimed at securing broader objectives. Second, the majority of these initiatives included elements of external expert support to help enable firms to identify the need for change, design suitable strategies and implement them.

## **WHAT AND WHERE NEXT FOR POLICY?**

This final section discusses some potential directions in which policy across the UK might develop in the light of what research can tell about developments in thinking about skills utilisation and experience of trying to deliver interventions that can enhance how organisations deploy the skills and knowledge of their employees. This is not an easy task to undertake, as to those outside the policy process it is far from clear exactly what level of policy ambition and resources (political capital and public money) are likely to be available in the short, medium and longer term

### **The future – questions and issues**

In more general terms, what lessons can be distilled from experiences elsewhere, and what should be the priorities for UK national governments in thinking through what to do next? It is to these considerations that we now turn.

*Integration of policy issues.* A good place to start is to ask where skills utilisation policy development and delivery might sit within the overall machinery of government. At present, different policies concerning economic development, skills, and innovation policies tend to exist in separate policy ‘boxes’, with limited coordination between them. This means that for each policy area there are separate policy teams; funding systems; objectives, and targets and performance management systems. This produces approaches to policy design that often militate against the setting of objectives that flow across policy silos, and which incentivise models of policy delivery that rely upon a form of ‘tunnel vision’. For example, when UKCES was developing its ‘employer collective measures’ work, one of the concerns voiced in consultations by practitioners from within the publicly-funded skills system around the use of employer networks and an ecosystems approach was that it ran the ‘danger’ of diverting attention and effort towards wider business improvement and innovation issues and away from hitting targets around skills supply (UKCES, 2009).

Skills utilisation is an example of policy problem that is best addressed ‘in the round’. If weak skills utilisation is a symptom of a deeper malaise that relates to product market strategies, low-wage/low-cost models of competitive advantage, poor HR practices and forms of work organisation and job design that minimise discretion and maximise the ease with which workers can be replaced without initial training costs, then measures to address these causes are required before change at any fundamental level will result (Wright and Sissons, 2012: 28). In other words, it is best tackled as part of a wider drive around economic development and business improvement and support (CFE, 2008). As Ashton and Sung (2011a & b) demonstrate, even within the current devolution settlement in the UK, there is considerable latitude for governments to deploy a range of policy and regulatory

interventions that could start to address the fundamental underlying weakness in demand for skills in many sectors of the economy. In overall terms, this means joining up different agendas (for example, science and innovation, economic development and business support, tackling low pay, and improving the overall quality of employment relations) to create a mutually re-enforcing suite of policies that can over time help propel a larger proportion of organisations onto high road competitive strategies that would provide a demand ‘pull’ for more skills, better people management, more expansive forms of job design and greater workplace innovation.

It also means that skills policies themselves need to broaden out and to place far greater stress on the wider development of the workplace (Keep, 2013). As Campbell observes, “investing in the workforce needs to be paralleled by investing in the workplace, in order to fully utilise the skills of the workforce and to turn the potential of skills into real improvement in performance” (2012: 34). The adoption of such an approach would also align public policy with the kind of integrated approach that the OECD (2010a and 2012) have suggested is the way forward for both innovation policies and skills strategies worldwide.

As the OECD has further noted:

*These challenges suggest that skills policies have to be developed systematically, integrating a range of policy fields to cope with the complexity of the task. They cannot be thought of independently from other areas of social and economic policy such as labour market policies, regional development or technology and innovation.*

(OECD, 2011: 11)

This kind of integration is not something that has yet been fully developed anywhere in the UK.

*Developing a suite of pilot projects.* If we accept the issue of how policy should be framed, the first practical consideration to be faced, given the general lack of experience across the UK of attempting to directly address skills utilisation issues, is how new policy models can be piloted in ways that allow government and other stakeholders to identify what works in generating change. Pilots, particularly if properly evaluated, can:

- offer a ‘proof of concept’ test concerning skills utilisation interventions as a focus for public policy
- help test out and identify which methods and types of intervention are most effective in given sets of circumstances

- help develop the expert knowledge and institutional capacity that will be vital to supporting policy interventions in this area. At present, capacity is very limited indeed.

Such a programme would need to operate with a substantial element of built in evaluation (formative as well as summative – see below). The adoption, as was the case with the SFC projects, of an expectation that not all projects will necessarily work as intended, and that failure can be useful for learning what does not work (and why), would be helpful.

Once an initial round of pilots have taken place, and been evaluated, it will be far easier to see what the scale of potential for larger and more widespread interventions might be, and along which lines these might best be modelled. What works in one sector or with one size of firm may work less well in a different environment.

As this work is going to be experimental, it needs to test the different forms of policy intervention against a range of challenges, but it also needs to deliver some ‘early wins’ and success stories in order to build political momentum and build a coalition for action around such activity. This means working with employers who see a problem (or at least are willing to be persuaded that there is a problem) and who are open to trying something new.

There might also be scope to explore skill usage within the public sector. In areas like schools, colleges, universities, local government, the police and fire services and the NHS, there may be pockets of lower level staff whose skills are not being used as well as they might be. The Scottish Government’s approach to skills utilisation has included attempts to build a requirement for skills utilisation planning into public sector funding settlements, and also into inspection regimes.

The SFC skills utilisation projects could be replicated by HEFQW and by the new UK Research and Innovation (UKRI) body. Further Education institutions could also be offered the chance to take part in a linked and parallel exercise. Scottish experience suggests that given the potentially quite large store of expertise around various forms of innovation and organisational development that reside within the FE and HE sectors, an attempt to tap into this and harness it around skills utilisation would be valuable (Lowe and Gayle, 2011, Payne, 2011a, Glasgow School of Art, 2012).

Some experiments explicitly focused on the broader concept of workplace innovation would also be possible. The results that will be emerging from the new Workplace Innovation Consortium in Scotland may provide some early pointers to how such activity could be configured. It would also be sensible to support the expansion of the skill utilisation pilots that the English and Scottish Unionlearn organisations have already trialled.

Assuming that the pilots indicate a positive ‘proof of concept’ outcome, and given finite public resources, there will then be a set of decisions to be made about which:

- Sectors and sub-sectors
- Sizes of firm
- Regions and localities
- Occupations

should be prioritised as targets for a larger programme of work.

For example, does policy concentrate the bulk of its attention at new and rising, higher skills sectors (such as advanced manufacturing, ICT, and life sciences) which are potentially important to the economy in terms of GVA and exports, but which may never employ more than a relatively small percentage of the national workforce (Crouch, Finegold and Sako, 1999); or should it focus chiefly on sectors that have lower skill demands and larger skill utilisation problems, but which are often central to the employment prospects of a large proportion of the population (such as social care, retail, hospitality, catering, tourism and leisure, food manufacturing, and transport – see Thomson et al, 2016)? At this stage it is hard to offer a definitive answer to where the priorities should lie. The policy pilots ought to provide indications of where the best returns are to be had, but one guiding principle is likely to be that employers need to be willing to cooperate and to invest time, energy and some resources of their own if they are to receive government help.

One upside is that policies in England on ‘employer ownership of skill’ and their requirement for greater employer contribution towards the costs of some sorts of training, and the Welsh Government’s plans for a skills policy that stresses co-investment may help put pressure on employers to think more carefully about their skill requirements and to deploy skills more creatively than hitherto. When much of the skills supply has been provided more or less free of (direct) charge to employers via publicly-funded programmes, student loan financed provision, or high levels of subsidy for some forms of employer-provided training, poor skills utilisation carried a limited cost. When a larger part of the investment in the skills that are not being utilised has come from the worker’s employer, weak usage of these skills may become a more visible and pressing issue for the organisation’s management.

*Devolved structures.* An important consequences of adopting this kind of approach, as many of the initiatives reviewed in this paper demonstrate, is that neither new approaches around stimulating demand for skills or seeking to improve skills usage in the workplace are amenable to the traditional centrally-designed, top-down, one-size-fits-all model of policy (Alcorso, 2008) that has hitherto

characterised much of skills policy across the UK. Policy design and delivery has to be devolved to local/cluster or sectoral/sub-sectoral level, or to external facilitators working with individual firms, in order to engage with the needs of employers and other stakeholders. This suggests that the key actors in developing workable solutions need to be networks of colleges, private training providers, public and private OD/workplace innovation consultancy services, HEIs and economic development/business improvement agencies and employers.

*Building coalitions to design and deliver change.* Both Wright and Sissons (2012) and Findlay and Warhurst (2012) argue that an essential component of policy development in this field will be the formation of coalitions encompassing employers, trade unions, central government, universities and training providers (Wright and Sissons, 2012: 30). Findlay and Warhurst (2012), suggest that in assembling a coalition around change, it will be important to determine “who does what, when, how and why” (2012: 20). This model raises issues about the ability of employers to organise themselves collectively around skills and wider economic development issues. This is a large topic which cannot be dealt with here, but it is plainly important in an era where many of the UK-wide Sector Skills Councils (SSCs) will not have the resources to fulfil their original remits, that governments give thought to how employers views can be gathered and represented, Labour Market Intelligence (LMI) assembled and activity co-ordinated among employers at sectoral, sub-sectoral, local and cluster levels.

*Capacity building.* As previously noted, one of the lessons from many of the projects and programmes evaluated above is that many organisations lack much by way of a sophisticated HRM capacity. In SMEs, any kind of specialised capacity may be lacking, but even in larger organisations what may exist is a personnel management system that centres on trying to ensure compliance with legislative requirements around employment law, and basic administrative functions like payroll, pensions and record keeping. If organisational or workplace development is the goal, then expert external support to enable and facilitate change may be an essential component.

*Selling the policy inside government.* Within the Australian ecosystems experiments, many policy makers in government and state agencies found the ecosystems approach disruptive to their core underlying assumptions about the nature of the skills problem, and many opted to revert back to the conceptual comfort zone offered by a traditional concern with changes to skills supply, and to promoting marketisation and contestability within the E&T system. This suggests that one of the critical audiences to whom the skills utilisation agenda will need to be sold may be policy makers within government. A cross-party consensus on its importance is needed to underpin and secure action over a sufficient period of time to make a significant difference, and buy-in from policy makers

across the government (and potentially agencies such as HE funding bodies) is also important if a broad-based approach to the issue is to be adopted. If only the skills team own skills utilisation and the policies that are needed to address it, its impact may be limited. One of the reasons the Scottish Government established a Skills Utilisation Leadership Group and tried to adopt an across-government approach to thinking about policy development was precisely to address this issue.

Moreover, Australian experience of running the ecosystems pilots suggests that, even within the education and training community of policy makers and practitioners, a shift away from a simple skills supply orientation requires 're-programming' of staff and institutions within the skills system in order to help them to conceive of the problems they face more holistically and move beyond skills supply as their sole objective. This will require a significant cultural change exercise, which will take time and may require a redesign of the performance management system that incentivises and rewards the behaviours of E&T providers (Eddington and Eddington, 2010).

*The temporal dimension to policy.* Skills utilisation is likely to be a relatively 'slow burn' policy agenda, particularly in terms of its ability to generate demonstrable positive impacts that cover a significant proportion of Welsh workplaces and organisations. Modern policy making often places a heavy premium on the near-instant achievement of 'success', or at least initial results that can be represented as success. One lesson from overseas experience is that the timescales required to deliver major economic impacts from skills utilisation approaches via a skill ecosystems approach (Australia) or an ecosystems and HPWO approach (New Zealand) are far longer than those set by the electoral cycle, and in both countries changes in government (in Australia at both state and federal levels) have meant that policy priorities in this area have been sharply downgraded. Establishing realistic expectations about the pace and scale of change, particularly in its early stages, will be vital. For example, policy makers need to understand that interventions will need to be piloted and evaluated before larger scale programmes can be devised and commissioned, and that it will require time to build up any kind of critical mass. Furthermore, developing the external capacity to support firms on an organisational development 'journey' is also going to take time, as is any attempt to build up the internal capacity of employers to undertake serious organisational and workplace development activity.

## **Evaluation**

Traditional supply-led skills policies have had as one of their advantages and attractions to policy makers, the inherent ability to generate relatively easily measurable outputs that lend themselves to supporting both evaluation of the intervention or policy, and also the setting and monitoring of government targets. Thus it has been possible to follow the progress and 'success' of E&T policies

through metrics such as increases in student numbers; and the proportion of a given age cohort, section of the workforce, or the national workforce as a whole that have attained a particular qualification level.

One of the challenges confronting attempts to move skills policy towards a broader focus that embraces demand for skills and how well skills and knowledge are being utilised within the productive process, is the fact that simple, clear metrics that can easily be gathered to illustrate how policy is impacting are generally lacking (Eddington and Eddington, 2010). Working out how to measure any policies on skills utilisation is therefore not easy. Fortunately, we are not starting with a totally blank sheet of paper. The Scottish Government, as the UK pioneer in this field of policy, has done quite a lot of the heavy lifting (see Payne, 2010 & 2011b; Scottish Funding Council, 2012).

In thinking about approaches to evaluation elsewhere, there are two related, but slightly different potential objectives that may need to be addressed:

1. Evaluating the success of any pilot projects that are set up, in order to determine if the particular model(s) of skills utilisation intervention being tested deliver positive results. Such evaluation can include formative as well as summative evaluation (see below).
2. In the longer term, evaluating or measuring how the economy and labour market are doing, in terms of levels and trends, on different aspects of skills utilisation.

These two areas will require different measures and methodologies.

*Evaluating pilot skill utilisation interventions.* There are a number of fundamental choices to be made around approaches to monitoring any policy intervention pilot schemes or programmes. The first concerns what the purpose(s) of the evaluation are meant to be. Evaluation can play two roles:

Formative: it can be used to monitor progress; and via feedback loops, identify good practice and success factors, as well as problems and shortcoming and ways these can be addressed, thereby enhancing learning, reflection and quality improvement as the projects evolve.

Summative: it can tell you how well the projects have worked, how far they have met whatever objectives or targets they were set, and why this did or did not happen.

One of the lessons from many UK government evaluations of skills policy interventions is that more stress often needs to be placed on the formative side of the evaluation, since this has frequently either been downplayed or omitted altogether. One of the more important functions external evaluation can play is through acting as a 'critical friend' to those managing the intervention, and in



helping them to see what is working, what is not, and what the drivers of success and failure are in order to help the intervention to develop and evolve.

The second choice is about whether the evaluation will seek to deploy a qualitative or quantitative approach, or to utilise both. UK policy makers tend to like to stress an attempt to put 'hard numbers' on the gains that are generated, not least so that some form of cost/benefit calculation can be made that allows a 'rate of return' on public investment to be arrived at. For an example of one attempt to put 'hard numbers' on the outcomes from a set of workplace interventions, see Harris et al's (2011) evaluation of the Acas innovative workplaces projects.

In trying to quantify gains, a key issue concerns the choice of measures to use. Gauging the impact of attempts to improve skill utilisation is fraught with difficulty, not least because the traditional battery of skill and training measures is of little use in this context. The following are some of the indicators that might be used in the context of interventions at firm or sector level:

- Productivity increases
- Cost savings
- Increased turnover or sales
- Quality improvements to products or services
- Loss due to waste or need to re-work items reduced
- Higher levels of innovation
- Reduced employer and employee perceptions of skills mismatches
- Reduced staff turnover
- Enhanced employee satisfaction and motivation

Most of these will not be available on a workplace or organisational basis from large-scale survey-based sources of information, and particularly in SMEs it would be unwise to assume that the organisation itself will necessarily have the managerial capacity or information and monitoring systems in place to routinely gather such data. In other words, the project teams and/or whoever is evaluating their work may need to gather this information.

Once gathered, there are also questions about how to read this data. For example, what ought to be the relative weighting between different indicators? In addition, there is the question of how to disentangle the impact of the policy intervention from impacts being generated by other factors (for example, changes in the overall state of the economy, interest rates, exchange rates, inflation, consumer spending patterns, public investment decisions, etc). In this regard, the author recalls the arguments made by one senior HR manager in the private sector, who was keen to discourage his

fellow directors from forcing him to try to evaluate the financial gains that accrued to investment in training because the largest impacts on the firm's bottom line were dependent not upon the skills of its workforce, but on the decisions and actions of competitor organisations over which the company had no influence. The other major problem relates to time lags. The fruits of an intervention may take time to emerge, and may only impact on organisational performance at some point after the intervention has taken place.

It is worth noting that neither the SFC Skill Utilisation Projects, nor the various Scandinavian countries' workplace innovation programmes, have made any serious attempt to evaluate their effects using this kind of approach. Instead, evaluation has been qualitative, and has depended in large measure on the subjective perceptions of staff in participant organisations (managers and workers) of both the intervention process and the outcomes and benefits which they believe it to have generated (Payne, 2004 & 2006). It has also been based on small-scale surveys among participants, or case studies (see SFC, 2012; Harris et al, 2011).

Another issue is who is allowed to determine what success looks like. If some of the interventions are based on groups of firms working together, and upon cooperation between a range of stakeholders, then it is important that all those party to the endeavour are involved in goal setting and in determining what success looks like. For a more detailed exploration of these issues see Eddington and Eddington (2010).

In thinking about designing a generally qualitative, case study approach that can support both formative and summative evaluation of skill utilisation pilots, the following framework of issues and questions (which was originally developed by the author for use by the SFC in designing their evaluation model for the Scottish skill utilisation pilot projects) may be of use, at least as a very basic starting point:

1. *Questions to probe and data to gather **before** the projects get under way, in order to establish a baseline assessment of the workplaces/employers/forms of employment and work organisation prior to the start of the project and the interventions it supports:*

- What specific aspects of skills utilisation is the project aiming to target and change?
- Who defined these as a problem (employers, workers, the external change facilitator/agent)?
- How is change expected to be brought about, and how can progress be measured against these expectations?

2. *Questions to probe and data to gather **during** the projects' lifetimes to capture process and management issues:*

- Within the projects are there significant moments or decision points that mark shifts, successes or failures?
- Stakeholder perceptions of the projects in terms of the quality and effectiveness of processes and outcomes
- The effectiveness of project management structures
- Commensurability of resources with the scale and nature of the task and objectives

3. *Questions to probe and data to gather **after** the projects' completion to measure outcomes and generate lessons:*

- What are the impact/success measures and over what timescale will they need to be monitored?
- What worked, and what did not work, and why?
- How did participants (project team and subject organisations) rate their experiences of the project, and with hindsight, what would they want to do differently?
- How best can the projects be up-scaled and generalised? What kinds of capacity and resources would be required for this to happen?

*Measuring how the economy and labour market are performing on skills utilisation.* On objective two (measuring national performance and progress) the Scottish Government devoted substantial time and energy to thinking through what indicators they wished to deploy to monitor progress on utilisation, and arrived at a balanced scorecard approach (see SULG, 2011). In the short-term it is unlikely that the basic outline of a substantially better policy impact measurement model could be devised, though with two caveats. First, as Buchanan et al (2010) suggest, thought needs to be given to ensuring that in measuring skills utilisation we distinguish between the different dimensions of under-utilisation identified by Livingstone and Wilson (2009) – see above. Second, as new data sources become available (not least those derived from HMRC and other administrative data sets) additional measures may well need to be incorporated within the scorecard framework.

The final point to make on evaluation is that the reflections that have been provided above are focused upon a set of general considerations. It is far easier to develop the fine grained detail of an evaluation programme once the exact nature and scope of what is being evaluated has been settled.

## **Final thoughts**

A concluding point to make is that in the medium to longer-term skill utilisation is unlikely to be a small, bolt-on element of national skills policies. Rather, a focus on skills utilisation represents a fundamental re-alignment of what a skills strategy encompasses. As this paper has tried to argue, to make a change in day-to-day practice across a significant proportion of workplaces and organisations, and to have a positive impact on economic performance, policy interventions will need to be an integral part of wider skills policies, part of the mainstream thinking and activity of government, funding councils, sectoral bodies and economic development work, and will need to be sustained over a lengthy period of time. One-off programmes are unlikely to have much impact on a set of problems that are deeply ingrained in the structure and models of thinking of many organisations.

Given its potential importance in terms of improving the returns to existing and future public investments in education and skills, and to productivity and innovation, policy development needs to be based on sound evidence and careful and rigorous evaluation of a range of different kinds of intervention. The types of pilot projects outlined in this paper can both offer the opportunity for a proof of concept test, and also act as 'demonstrators' that can show the policy community, employers and others that change can be delivered. As such, they can lay the foundations for subsequent policy development.

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