UPGRADING WORKFORCE SKILLS IN SMALL BUSINESSES:

INTERNATIONAL REVIEW OF POLICY AND EXPERIENCE

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1. ISSUES

1.1 Small firms and training

The workplace is where most adults learn and with businesses of 25 or fewer workers typically accounting for over 95% of all employers (and perhaps two-thirds of employment), the extent and quality of training undertaken by small firms is thus an important determinant of training levels in the economy overall (EIM/SEOR, 2005). Indeed, in smaller countries, where few organizations are above the medium size, this is even more the case. From the economy's point of view, the issue is of considerable importance. Smaller firms been a much more dynamic element than larger ones in most economies over recent decades and those that train their workers are significantly more likely to grow (and less likely to close) than those that do not (Collier *et al*., 2007). The increasing pace of technological change makes skills become obsolete more quickly, while older workers have to remain in the labour market longer for reasons to do with demographic change and pensions requirements. At the same time, in advanced economies, the role taken by large firms in training has changed, and their traditional contribution to the pool of trained labour within local areas and sectors has diminished, leading to even greater emphasis upon all firms to train their workers. The context for government involvement in influencing employer investment in workforce training has been affected by public financial stringency arising out of the financial crisis. This has led, in most countries, to increased focus upon the costs, efficiency and effectiveness of interventions.

Against background, it is a policy concern that, on various measures, the smaller the firm the less likely it is to be engaged in training, and that a sizeable proportion of small firms undertake no training at all. The recent LEED programme studies, conducted in regions of Belgium, Canada, Poland, New Zealand, UK and Turkey, found that around a third of firms have not participated in training in the past year – a figure that largely reflects lack of engagement by small firms. The message is similar throughout the OECD: training activities are 50% lower in SMEs than larger firms, and small firms have the lowest participation in vocational education and training (VET) across all countries. Although the level varies hugely between, for example, Greece, Poland and Italy on the one hand, with below 30% engagement in any type of training, to higher performers (the Scandinavian countries and UK) all above 70% (Hoeckel, 2008), participation is consistently lower among small firms. Just one-third of Australian small firms provide structured training for employees compared with 70% and 98% respectively for medium and large enterprises (ABS, 2003). Canadian establishments with over 500 employees have a participation rate (formal training) of 37%, which is double that of firms with fewer than 20 workers (CCL, 2007).

In a similar vein, a 2005 EU study concluded that continuing vocational training (CVT) was the 'weakest link' in the lifelong learning chain: enterprises with 10-19 employees investing only 1.5% of labour costs, against an average of 2.3%. In Belgium, firms with 50 or fewer staff spend less than one-sixth the proportion of their total personnel costs on VET, compared to large employers (250+) (de Vos, 2011). Smaller employers reveal a preference for informal training provided in-house, primarily because it can be tailored to their needs and conducted at suitable times. However, while including both on- and off-the-job training narrows the gap somewhat, a difference still remains: UK employers with 100+ workers are still nearly twice as likely to train compared to those with fewer than five employees (Johnson, 2002).

The situation is somewhat more pronounced with respect to education as opposed to vocational training. For example, the LEED East Flanders report found that just 10% of firms with up to 50 employees participated in formal education, compared to 50% for those with 250 and above (de Vos, 2011). In a similar vein, and confirming small employers' preference for informal training, training for certificated qualifications is given low importance, typically offering little benefit to the employer (e.g. Dawe & Nguyen, 2007).

Small firms often disregard the role of skills in the overall business planning process. Kitching and Blackburn (2002) found that only 30% of small employers – mainly the more innovative ones - measure the effects of training, including its contribution to financial performance, or view qualifications favourably. Fully one-half of small firms perceive no need for further training of their workforce. Both the formality of training, and proportion of education vis-à-vis vocational training, rises with business size, as does the likelihood that the firm has undertaken both formal and informal training. Smaller firms are less likely to have a training plan or budget, and HR strategy is typically not linked to the overall business strategy. They also tend to train a smaller proportion of the workforce, such that, in Canada for example, the likelihood of an employee participating in employer-sponsored formal training (with probabilities adjusted for sector, occupation, age, ownership etc.) is twice as high in a firm employing over 100 people, than one employing fewer (Lin & Tremblay, 2003). The concentration of training that is undertaken by such employers upon the better educated/skilled workers adds a social dimension to the problem.

Of course, training engagement is not solely about size. Linked in part to sectoral influences, Canadian research shows that small businesses that pursue innovation and growth strategy are closer in their training behaviour to medium/large firms than to other small firms (Rabemananjara & Parsley, 2005). This finding underscores the importance of issues to do with firm ambition, in terms of innovation and high value added strategies, which is observed to be dependent upon investments in skills (see section 1.4).

1.2 Objectives of report

The central objectives of this study are as follows:

- To draw together and summarise research regarding the barriers to expanding small employer investment in skills in the workplace
- To review the range and nature of national and local policies that seek to encourage employer engagement in training, and the extent to which they effectively address the training challenges facing smaller firms
- To identify approaches and intervention mechanisms that are effective in relation to smaller firms, and thus of potential interest to policy-makers

Extant research on engaging employers in training is concerned with the general situation, rather than specifically smaller employers. Several studies address the issue from the perspective of *SMEs* (e.g. Pukkinen *et al*., 2001; SEM/SOER, 2005), but this size category includes employers that can mobilise considerable resources to support their training activity and whose position is often effectively little different from that of larger firms. Most reviews note the SME or small firm dimension with respect to specific provisions in policy, differential participation rates by size, etc. (e.g. Müller & Behringer, 2012). This report focuses specifically upon firms in the lower SME size brackets, given: (1) the widely observed pattern whereby training investment is inversely related to firm size; (2) the tendency for small firms in different countries to share particular characteristics with respect to training capacity etc; and (3) the potential economic benefits of finding ways of engaging such firms more fully in the process. The study develops the author's recent work reviewing and assessing international experience (Stone & Braidford, 2008; Stanfield *et al.*, 2009; Stone 2011). It draws upon and complements various other previous reviews of policy that incorporate findings and observations relating to small firms (e.g. EIM/SOER, 2005; Johanson, 2009; Müller & Behringer, 2012).

The study identifies the main barriers to training faced by small firms with respect to employer-provided training, identifying policy approaches used in different countries to influence the level of training activity, and their relevance and impact with particular reference to small firms. While focusing particularly upon the demand-side aspects of the problem – what holds back small employers from investing training their employees – it also recognises the importance within policy solutions of addressing particular supply-side aspects.

The focus in the report is upon policies addressing *continuing* rather than *initial* vocational training; and the training of employees, rather than unemployed (or unemployment threatened) individuals. Management training for owners is specifically dealt with elsewhere in the workshop, and thus, while it is identified as a problem in the 'barriers' section - because it impacts upon firms' decisions on training – policy relating to this is not discussed here.

The report is concerned with firms that have fewer than 100 employees, and especially those with below 50 employees (a broad proxy threshold size for firms with little or any specialised in-house HR capacity), including micro firms (with fewer than 10 employees). It does not aim to be comprehensive in its coverage of policy tools. Instead, it identifies the main types of approaches as they relate to small firms in (mainly) OECD countries, and makes observations regarding the way they operate and their potential usefulness. Key examples are drawn from different countries. It should be noted that some of the policy tools described were time limited in that they were introduced as pilots, or have subsequently been dropped for whatever reason; others will have been subject to modification over time. It should not be assumed, therefore, that the tools discussed are still in operation as described.

Detail and analysis is presented relating to a whole spectrum of interventions that have been designed to incentivise employers to engage in training of their workers, and applied within different national policy frameworks, institutional systems and business cultural contexts. A broad characterisation of 'systems' is given in Table 1:

Table 1. Broad national systems relating to training

(1) *Laissez-faire or liberal system*	No legal obligation for employers to train employees; qualification standards set down, but no compulsion	e.g. UK, USA, Canada, Sweden
(2) *High employer commitment*	Employers voluntarily commit themselves to skills development and training	e.g. Germany, Switzerland, Japan
(3) *Bi-partite or neo-cooperative model*	Actions taken under collective agreements, usually on a sectoral basis; state role limited to putting legal stamp on consensus	e.g. Denmark, Belgium, The Netherlands
(4) *Regulation or interventionist model*	Government is a leading actor and assumes a role in system design; imposing conditions, including compulsory levy	e.g. France, South Korea, Ireland

Source: From typologies in Smith & Billett, 2005; Hoeckel, 2008; Müller & Behringer, 2012

Of course, this classification has its limitations; a more subtle appreciation of national systems would recognise that, while there is no legal obligation on employers to train their workers in the Netherlands (system 1), its operational system corresponds to the collective model (system 3); similarly, in Denmark, there is compulsory financing of training by employers, alongside funding via voluntary collective agreements (Smith & Billett, 2005). The important point to make is that certain measures, or combinations of measures, used in one type of national system, may not be encountered (or even considered) in a country operating a different regime.

Contextual differences raise methodological issues with regard to policy learning form practical experience of individual and joint intervention tools applied in the context of different national systems. The present study distils experience for the benefit of policy makers, but it is beyond its scope to do more than draw attention to the need to address the specifically national system aspects of policy-making in this area. As in other areas of policy, learning from overseas experience requires creative adaptation, and the following analysis of options has been undertaken with the aim of informing the policy debates on the best way forward in different national, regional and sectoral contexts.

1.3 Barriers to training

Having described the broad picture with regard to training engagement, this section brings together findings on the processes contributing to this situation. It is widely accepted that many SMEs, and small firms in general, face special challenges in relation to training, as confirmed by various studies of both a theoretical and empirical nature (e.g. Kitching & Blackburn, 2002; Observatory of European SMEs, 2003; Lin & Tremblay, 2003; Ipsos/MORI, 2006; CCL, 2007, Stone & Braidford, 2008; Bosworth & Stanfield, 2009; Stanfield *et al*., 2009). In empirical surveys, small businesses consistently identify more barriers to training than larger firms (Shury *et al*., 2008). This suggests that the obstacles are amplified with regard to small firms – as summed up by Johnson & Devins (2008): such firms have 'less time to devote to training, limited resources to provide it, and much less understanding of what the formal VET system might deliver to their workplace needs'.

The main categories of obstacle to small firm training to emerge from such work are summarised below. These reflect various aspects of market failure - dimensions of the labour market's operation that can cause it to produce a sub-optimal outcome. Most seriously, from both employers' and national economic perspectives, these processes result in an under-supply of skills needed to produce higher quality goods and/or achieve higher competitiveness and productivity.

Information deficiencies. Small employers commonly lack of information on what training is available to them, as well as evidence of the benefits of training to set against perceived and real barriers to training activity. Such firms are especially prone to report that they do not know what is available to them (Shury *et al*., 2008). In some countries, especially, this reflects a supply side issue – the sheer complexity of the VET system. Smaller firms without special HR expertise are more affected by this problem (e.g. Colly, 2005). It is also the case that assessing the business benefits is often not straightforward, given the role of complementary factors, different costs, wage effects etc. Although evidence shows that benefits can be expected, they vary between firms – and there is uncertainty also with regard to the relevance and value of particular qualifications, especially at lower level (Hogarth *et al*., 2009).

Short-termism and risk aversion. Small firms tend to be more oriented to immediate goals, notably survival, and operate to shorter horizons than larger ones; thus higher (notional) discount rates can be expected to apply in any calculation of the benefits of training investment. Opportunity costs are higher for formal training and informal methods allow firms to meet immediate business imperatives.

Training supply. Small firms often report difficulty in accessing training tailored to their needs in terms of type and quality, scheduling, location etc. Providers can be reluctant to supply to small businesses, given costs of organising and customising the training, the small numbers of trainees, and employer reticence with respect to paying the full cost. Training is thus often more costly to small compared with larger employers. Lack of access to economies of scale in training raise training costs for smaller employers, who, compared to large firms, pay in the UK typically three times more per member of staff undergoing formal training (based on National Employer Skills Survey data). There is a further aspect to cost, affecting small firms especially: even where they perceive training to be of value, releasing employees for (especially formal) training is more difficult for smaller employers. Lost working time is an especially important constraint with respect to owner-manager training.

Management capability. From surveys, a principal reason for small firms not providing training is the managers' belief that the workforce is already proficient (e.g. IFF, 2007). This raises issues to do with management capability to identify skill requirements - not only in relation to internal training gaps (proficiency of staff to perform their functions), but 'latent' skills gaps (proficiency of staff with respect to good or best business operational practice in the sector). Commonly, owner-managers consider that undergoing training themselves will not enhance their ability to operate the firm, although fear of exposing deficiencies in their knowledge is sometimes behind their reluctance to participate. A further dimension to management failure, arising out of inadequate skills/qualifications, is the limitation this places upon an employer's ability to develop higher value-added strategies based on staff skill formation; firms with lower value-added strategies typically fail to recognise the importance of a skills or HR plan to support the current and projected product market position (Hogarth *et al.*, 2009).

Externalities. Benefits to workforce skilling are not confined to the small employer investing in training because of 'spillovers'; part of the gains can go to individual employees (higher wages), the state (taxation) and other employers ('free riders' who 'poach' workers from other firms by offering higher wages, rather than train their own). Such concerns reduce the employer's incentive to train and induce patterns of training designed to minimise such losses. Larger firms often pay higher wage rates, so formal qualifications are perceived by many small employers as more valuable to *employees* than the business itself. Thus, it is frequently argued, many provide only in-house firm-specific training, which produces skills that are less transferable in the open market, and thus makes it more likely that the recipient of training can be retained.

Capital market imperfections. The relatively high financial costs of training for small firms are exacerbated by the fact that the direct collateral to secure borrowing to invest in training – the individual employee – is mobile between firms. A further related problem is lack of information available to financial markets themselves about the costs and benefits of training. This can be taken further in recognising the failure of current accounting rules to allow proper measurement of firm investment in training, leading to such expenditures being widely regarded as a 'cost' i.e. something that reduces rather than enhances cash flow (Bosworth, 2009).

1.4 Broader dynamic processes

Supressed demand for training among small employers also arises because of a further 'system' failure – commonly referred to as the ***'low skilled equilibrium'***, and occurring more readily in some national and regional contexts than others. This ultimately derives from product market strategies emphasising low specification products or services, produced by low skilled workers. Market demand, production strategies and skill levels become locked into a path dependent, self-reinforcing cycle. Limited employer demand for skills lowers uptake of learning opportunities; the impact upon skills supply, in turn, discourages employers from choosing production methods that emphasise skills. Surveys show that the weakest training performances tend to occur among small employers in such contexts, and where such firms are dominant, this can translate to sub-optimal performance of whole sectors (Stanfield *et al*., 2009).

Institutional frameworks vary substantially among nations; evidence suggests that those systems in place in countries like Scandinavia, the Netherlands, Germany and Denmark establish a relatively ***'high skill equilibrium'***, where firm's product market strategies, labour bargaining arrangements and a strong VET infrastructure together create a virtuous circle (Hogarth *et al*., 2009; Stone, 2011). Small employers with more expansive strategies – based on innovation, ambition for growth and higher value production - engage more intensively in training, in spite of the constraints. Providing the incentives and conditions that encourage firms on this path can be expected to raise the optimum level of demand for skills among employers so as to meet the needs of more sophisticated systems of production. There is dispute over direction of causation, between the 'universalist' approach (e.g. Huselid *et al*., 1997) where investment in training gives rise to better organisational performance, and the 'contingency' view (Youndt *et al*., 1996; Drummond & Stone, 2007), which holds that HR strategies are likely to be more successful in the context of a relatively high value-added strategy. Certainly, there is clear evidence that staff development/training is an integral element within High Performance Working practices (Hogarth *et al*., 2009; Stone, 2011).

Such approaches depart from narrow and static approaches focused upon individual firms, rational individualism etc., in favour of understanding training decisions in their wider context: e.g. Bishop (2006), who views learning is a social construction and stresses the role of networks; Keep (2007), who favours public support for collective approaches (rather than for individual employers), and building capacity, rather than focusing upon shorter-term 'training throughput' goals; Evans *et al.* (2006), who stress the value of workplaces that offer 'rich or expansive learning environments'; and Kearns (2002), arguing (in an Australian context) the need for an integrated and holistic approach to learning, skills and enterprise in small business that brings together business-specific training, life-long learning and personal development in order to foster innovation, enterprise and continuous improvement in small businesses. Stone's (2011) international review of high performance working type practices describes the different characteristics (and terminology) of approaches in a selection of countries, where deliberate attempts are made to develop workplaces, to which employee training is integral.

2. POLICIES

2.1 Key areas for action

Extant research, notably including Dawe & Nguyen's (2007) distillation of a large body of research relating to small firm needs in relation to training, allow key areas for action to be identified. While the summary points in Table 2 relate largely to demand aspects of the problem, some call for adjustments on the supply side. In section 3.1, following the review of policy interventions, an attempt is made systematically to show how different measures impact upon these key areas.

Table 2. Small firm training - key action areas

1. Influence… *perceptions/culture/ambition*

Present the 'business case' to small firms, as part of process of changing the prevailing perceptions/culture, including the desirability of skills-intensive production and workplace development strategies (e.g. high performance work systems, workplace innovation systems etc.)

[***Business case***]

2. Address… *outreach/information/employer enactment capacity*

Organise effective sectoral/local outreach mechanisms for directly dealing with small business owner-managers, providing them with information and support (including HR services) and identifying on-going training appropriate to their *evolving* business needs.

[***Information/support***]

3. Achieve… *supply accommodation*

Ensure there is flexible provision where training information, content *and* delivery are matched more closely to the needs of the small business (including management training); appropriately linked to recognised to wider standards and frameworks.

[***Flexibility***]

4. Integrate… *different forms of training (formal and informal/OJT)*

Integrate formal training and learning with informal learning processes in the workplace, accommodating training around work demands and minimising staff time spent off-site.

[***integrated***]

5. Refocus… *the supply-demand relationship*

Ensure that facilitators and trainers have the appropriate networks, motivation and experience to enable them to be trusted and respected by all business participants.

[***Trusted***]

6. Address… *cost/affordability issues (tax breaks, subsidies)*

Provide financial incentives for training, especially by measures that reduce training costs e.g. via public subsidies and tax concessions, targeted on small firms and existing employees.

[***Affordability***]

7. Develop… *collaboration and resource pooling*

Collaboration between small businesses through pooling resources and networking (also providing opportunities for small businesses to share skills, knowledge and experience with other business people)

[***Resource pooling***]

8. Build…*training partnerships, including with large firms*

Develop training partnerships between larger firms and small businesses, utilising large firm resources (e.g. training facilities) and mutual cluster advantages.

[***Training partnerships***]

2.2. International review of intervention measures

This section updates and develops the international review of measures undertaken in Stone and Braidford (2008). In particular, it takes account of empirical reviews conducted as part of a recent UKCES research programme (Cox *et al*., 2009; Hogarth *et al*., 2009). It should be stressed at the outset that evaluation of initiatives is generally lacking, and rigorous evaluation very rare. Importantly, also, the measures described and analysed below have been deployed in different institutional, economic and cultural contexts. As noted above, countries differ substantially in the amount, focus (e.g. initial or continuing training) and form (e.g. direct/indirect) of public resources deployed in support of vocational and educational training activity.

2.2.1. Changing employer outlook

Making 'the business case for training' – based on empirical evidence linking skills and business performance **-** is widely recognised as a potential means of developing interest in skills formation among small firms. There are numerous possibilities for preparing and publicising such information, through public and stakeholder organizations, in ways that target small firms. Initiatives of this kind include competitions and award systems that focus upon enterprises representing good practice, and giving them suitable publicity within the business community. An example is a scheme in Manitoba, **Canada,** organised around the award of *Employer of Choice* certificates. Oriented exclusively towards small employers, those selected for the programme must open their enterprise to scrutiny and (potentially) radical reform of HR structures, processes and strategies, and implement (with funded specialist guidance) a culture of learning (Brisbois & Saunders, 2005). Outlook change is claimed by the *Minho Industrial Association of Braga*, **Portugal**, whose attempts to embed specialist management functions in enterprises through indirectly communicating actions to the owner-manager have been identified by the OECD, (2003). A supervisor attending a training event is regarded as a potential change agent and supported to instigate change - including by persuading the owner to invest in skills. In **England** and **Wales**, Skills 'pledges', designed to exert moral pressure upon employers to train lower skilled employees, have been tried in recent years. With small firms very much in mind, the tripartite initiative Workplace Productivity Agenda in **New Zealand** has developed a website to deliver information that embodies the business case for training (Stone, 2011).

At a more ambitious level, various countries, notably including those in **Scandinavia**, have piloted approaches that encourage training as part of a broader attempt to improve competitiveness through strengthening workplaces and improving work experience. They seek to change the outlook of small firms generally towards a more holistic appreciation of the performance advantages of organisational development, and the integral place of training within this process. The approaches to training combine a solid business case (such as raising productivity) with elements of promoting a better work-life balance for employees, as part of an attempt to motivate and develop human capital (Stone & Braidford, 2008). The *New Workplace Development Programme* provides SMEs in **Finland** with funding for workplace analysis, project planning, learning networks, and dissemination of lessons. Training is integral to this, but is placed in its organisational context, and both the quality and equality of access to learning opportunities are emphasised. The NWDP sits alongside other programmes that help integrate skills acquisition and improvements in workforce wellbeing and productivity. At a yet broader scale, the activities are framed by Finland's national innovation strategy, which has a particular emphasis upon SMEs (Alasoini, 2003; Arnkil, 2004; Hytti *et al.,* 2004; Stone & Braidford, 2008).

Similar policy approaches oriented towards SMEs, both with respect to workplace development and innovation, are embodied in **Norway**'s *Competence Reform* (Payne & Keep, 2003; Payne, 2005). This seeks to move beyond simply increasing the supply of skills, towards *deploying* them for purposes of innovation and value creation. Hence, there is much interest in linking human capital/knowledge assets to future earnings prospects and business value, and in approaching the quality of working life as a *driver* of training. As in Finland, there is emphasis upon quality of workplace training and more equal access to it.

Another aspect of organisational improvement, especially prominent within the Scandinavian countries, is the involvement of the workforce in decisions. This exposes employers to wider workplace perspectives, and is thus a potentially important influence over decisions on training. In **Finland**, statutory measures have long required firms to prepare an annual training plan and submit it to the joint enterprise committee (although this tends to exclude firms with fewer than 30 employees, which do not have to set up a works council) (Stone & Braidford, 2008). The training plan is central to the system in **France**; employers are required to identify training measures and consult with works councils or, for the smallest firms, employee representatives (Jallade *et al*., 2004). In these (and other) countries, widening the range of stakeholders involved in the process of decision taking on training is found to be an important device for engaging employers. The final decision on training action is often left effectively with the employer, rather than the employee, but that situation is likely to operate in favour of the former's engagement in training (Stone & Braidford, 2008).

2.2.2. Information and guidance

Lack of capacity for human resource development within smaller firms inhibits their engagement in training through the restricting their knowledge on the availability, eligibility and suitability of training relative to their situation. Most countries have given attention to the quality and mode of delivery of information about education and training opportunities. While the workplace is generally an appropriate target for delivering guidance to workers pertaining to training opportunities, this especially applies in relation to the employees of small firms, who tend to be less routinely exposed to such information compared with counterparts in larger companies. In the **United Kingdom**, for example, the work done by Union Learning Reps naturally tends to apply more readily to larger workplaces than small ones.

This issue can be addressed through regular interactions with agents or brokers, or by actually establishing/buying-in HR management capacity. **The Netherlands** has operated a scheme systematically to plan training routes for individuals, via 'personal development plans' (OECD 2005), while **New Zealand** has a sector-based system of this kind, working through Industry Training Officers (TEC, 2005). The 1% national training levy in **South Africa**, which embraces many micro firms, operates to encourage the development of such capacity. Part of the levy can only be re-claimed by enterprises if they have appointed a Skills Development Facilitator - either an externally-appointed consultant, or someone assigned the duty internally - to help enterprises develop an annual skills plan and to inform employers of developments relating to accreditation, available courses etc. (Sung *et al*., 2006).

Sector Councils in **Canada** recognise the need for outreach activities to small employers, to deliver HR-related information and advice to small businesses. Training advisors bring 'training conversations' to workplaces in small firm dominated sectors, as part of an extensive programme of visits to learn about employers' business and skills requirements, establish on-going relationships, and communicate how to access web-based and other services. An average of 6-7 visits are found to be needed, making this a resource-intensive approach (Stone & Braidford, 2008).

2.2.3. Training design

Training needs of small firms differ from those of larger firms, making supply side adjustment – the design of training and qualifications - an important factor in their engagement. Such employers tend view more positively training that is targeted on their skill needs and specific working environments. Flexibility in delivery systems is important -

specifically the need for unit-based, 'bite-sized' qualifications compatible with the workplace. This, in turn, has implications for qualification and credit frameworks, in terms of accommodating packaged 'chunks' of learning (NSF, 2007). Understandably, success is harder to achieve where training is supply driven and lacking in appropriate complementary supportive measures (Müller & Behringer, 2012).

In Belgium, Flanders and Wallonia regional governments operate similar training vouchers schemes, targeted upon small (and especially micro) firms, which accommodates these needs – the criteria for use being permissive rather than restrictive. Employers purchase online €30 vouchers (one hour's training) for €15 (matched by public funds up to a maximum per individual and firm) which they can use to purchase training from accredited providers (Müller & Behringer, 2012). While in Flanders, the annual maximum of 200 vouchers has tended to focus the scheme upon SMEs, in Wallonia eligibility was targeted upon the self-employed and firms with fewer than 50 employees. Both company-specific and general training are eligible, encouraging a wide range of training. The scheme has encouraged providers to design courses specifically for small businesses. Firms with under 10 employees have been the main users (OECD, 2004), testimony to its non-bureaucratic and simple to use features. Administrative costs are low and the accreditation system has ensured good quality courses. Predictably, perhaps, the resulting training has tended to be job/company-specific rather than general in nature, and also focused on white-collar staff rather than the less skilled (Guridi & Amondarain, 2003; EIM/SEOR, 2005; Stone & Braidford, 2008).

The *Lifelong Learning Project*, a pilot in Gronsjö, **Sweden**, integrated SME workforce skills-upgrading within a continuous learning framework. This was held to appeal, especially, to smaller employers because of its primary focus upon meeting their skill development needs rather than achieving formal qualifications (Fricke & Totterdil, 2004). The qualifications framework in **New Zealand** appears successfully to facilitate the bespoke design of qualifications, allowing mixing and matching of course units tailored towards small businesses or sector-specific knowledge. Industry qualifications can consist of both generic and specific units – e.g. the commercial road transport certificate includes maintaining personal presentation and communication skills alongside credits for knowledge of traffic law and executing vehicle manoeuvres. Small firms have welcomed the framework for flexibility of content, emphasis on small units of assessment, and relevance to different sectors (Stone & Braidford, 2008).

2.2.4. Tax incentives

The use of this particular instrument has recently been explored in detail by Müller & Behringer (2012). They point out that most OECD countries routinely permit firms to offset 100% of training costs against annual profits in their tax returns, and that the interesting systems are those that allow deductions greater than the costs incurred, and which can be targeted upon smaller firms. Attractions of such schemes are that they are easy to apply, inexpensive to administer, allow employers to decide who will be trained (and how), and tend to address under-investment in training by shifting the incentive balance towards training rather than recruiting skills externally.

The Netherlands experimented with an extra deduction from taxable profits on training expenditures (totalling 120%), plus an *additional* deduction (20%) for firms spending less than a specified amount. In targeting firms with low absolute levels of training expenditure, the incentive both automatically targeted small firms and minimised deadweight losses (Leuven & Oosterbeck, 2004; EIM/SOER 2005). **Malta** developed arguably the most elaborate and highly targeted tax-related scheme, where eligibility for deduction focused on training of full-time employees in particular sectors. The rate of reimbursement is higher for small than large enterprises, and respectively higher still if the training is generic rather than workplace-specific (Stone & Braidford, 2008). **France**, too, has long operated a training tax credit for those SMEs that, year after year, invest in vocational training beyond the statutory obligation, with a higher credit for firms with fewer than 50 employees. Through being related to the previous year's training, the device is an incentive for both *increasing* training expenditure *and* restricting deadweight expenditure (OECD, 2005; Stone & Braidford, 2008).

The *Vlamivorm* project[1] in **Belgium** (Flanders region) offered a reduction of property tax equivalent to spending on worker training. It achieved good results without undue deadweight cost through targeting sectors with a poor training record, and firms that had previously been expanding their training. It achieved a very high participation of micro firms (73% with fewer than 10 employees, and a further 11% with 10-100 employees) although a disproportionate share of the *budget* went to larger firms. However, the resulting average number of training hours (43) was 40% higher for the smaller firms, who made more use of internally organised informal training that was eligible for the reduction (EIM/SEOR, 2005; Müller & Behringer, 2012). The scheme was terminated because of administrative problems, which in no way invalidates the instructive value of an innovative scheme with effectively engaged small and micro firms (Stone & Braidford, 2008).

Although targeting (e.g. via differential rates based on firm size) and allowing for previous training performance can lower deadweight expenditure, it usually also implies higher administration costs for tax authorities and employers. The burden of 'form-filling', together with various other barriers, may explain why substantial fiscal incentives might be needed to activate small employers. Indeed, this is suggested by **South Korea**'s experience in the mid-1990s, where training investment was little affected by tax incentives, even though re-imbursement levels were *three times* the actual outlay on training fees (and three times higher than for larger firms) (Lee, 2006). Larger firms were more responsive than small ones, and benefited more from the scheme, causing a change in policy orientation towards network-based solutions examined below (Ra, 2005).

Through careful design, tax arrangements can specifically incentivise small employers to invest in training *and* reduce the level of deadweight costs (Stone & Braidford, 2008). However, examining policy experience has led some observers (e.g. Leuven & Oosterbeek, 2004; Sung *et al.*, 2006) to argue that such tools have relatively weak effects in their own, and that training investment increases in, e.g. **the Netherlands**, were also influenced by the overall system of mutually reinforcing policies - including, importantly, the accreditation of in-house training, and involvement in the Dutch competency framework. Müller & Behringer (2012) argue that schemes targeted upon SMEs can often favour the larger of firms eligible to participate. Furthermore, it has also been suggested that tax incentives designed to raise incremental investments can work to the disadvantage of steady investors over time, even if deadweight effects are minimised (Baghana & Mohnen, 2009). Other observations regarding tax schemes aimed at smaller firms are: (1) concessions typically apply to externally-provided formal training expenditure, rather than internal informal training costs that is often important to small firms; (2) complex systems with different rates for different target employers can be administratively expensive and confusing for smaller employers. If the discouraging effects of uncertainty over how the tax authorities are likely to treat the case of an individual employer are to be avoided, transparency and clarity is needed (Müller & Behringer, 2012).

2.2.5. Training subsidies

Smaller employers are also frequently targeted with respect to direct training subsidy schemes. The voucher scheme in **Belgium** (discussed in 2.2.3) is one example; **France** offers another in its *Engagement de développement de la formation,* which provides a subsidy of up to 70% of training costs (with a further 10% for special groups of employees). Some 90% of recipients have fewer than 50 employees, and evidence suggests that the incidence in

[1] Introduced in 1999, the name of the scheme is an abbreviation of 'more investment in human capital is needed'.

training rose significantly in those small enterprises assisted - with respect to both qualified and unqualified workers (Pukkinen *et al*., 2001; Jallade et al., 2004).

The Training Support Scheme in **Ireland** (1990-2003) was established to promote skills in SMEs, providing funding for training linked to an approved business plan (EIM/SEOR, 2005; Stone & Braidford, 2008; Müller & Behringer, 2012). The subsidy offered was linked to firm size, providing 65% of the direct costs (not trainee wages) for enterprises with fewer than 50 employees (rising to 50% for those with 51-100, and 25% for those in the 101-250 range), and priority skill areas were identified. Evaluation showed the scheme to be suitable to smaller employers, who liked the fact they were free to choose the training provider (O'Donnell & Lyons, 1995). It resulted in increased training activity, although only of four days duration on average, and limited deadweight (55% of small firms would have engaged in less or no training without it – compared to 27% for the larger firms). It was also relatively expensive to administer. Although well regarded as an intervention, it was unexpectedly terminated in 2003. While typically, subsidy support schemes are related only weakly to business performance, the TSS was notable for purposely directing subsidies to training activities explicitly linked to business strategy.

Targeted subsidies have been used in a number of ways in the **United Kingdom**. In the early 2000s, pilots were conducted of Small Firm Development Accounts, targeted upon firms with fewer than 50 employees. This provided funding for a 'training champion' and development of a training plan in each participant firm, and 50% (falling to 33% in year 2) of external training costs (up to a maximum per employee), plus mentorship support for 6 months and membership of a training network. Evaluation showed that the scheme clearly reached micro firms (if not the 'training inactive' enterprises), and suggests that a proportion underwent behavioural change (70% intended to maintain the training champion), but the drop-out rate after year 1 was high, as was the deadweight effect (only 7% reported that the training would not have occurred without the subsidy) (Hogarth *et al*., 2009; Müller & Behringer, 2012).

The ESF-funded 'Skills in the workplace', 'Workforce development programme' (in **Wales**), and 'Train to Gain' (the **United Kingdom** more generally) have similarly incorporated diagnosis of training needs, and firm-centred training advice. T2G, which focuses upon Level 3 or below skills, is deliberately aimed at 'harder-to-reach' employers, including small firms. Evaluations (CRG, 2008; IFF, 2008) suggest that additionality was achieved from these schemes, but that they tended not to reach the smallest firms. Successful engagement of small employers was a feature, however, of the UK Employer Training Pilots in the early 2000s. This initiative offered free or subsidized training at Level 2, provided information and support and - crucial to its success – compensated employers for the indirect costs (e.g. employee time taken off for training) (EIM/SEOR, 2005). Reviewing UK evidence regarding subsidies for various forms of training, Hogarth *et al*. (2009) concluded that there was mixed evidence on the degree of additionality arising from training subsidies, but it was clear that they encouraged a proportion of employers to do some or more training, and that there was particular value for SMEs in having both a subsidy and specialist advice/guidance.

Overall, evidence tends to support the view that small firms are more inclined to invest in training if a subsidy is available (see LEED programme e.g. Kubisz, 2010; also CPC, 2008). Müller & Behringer (2012), conclude that direct subsidies are more effective in this respect than tax incentives and may also better facilitate targeting of particular enterprises, which can also reduce the extent of deadweight. Experience in a number of countries suggests that, without a clear small firm focus, larger firms benefit disproportionately from such schemes. Moreover, targeting efforts that rely upon complicated application procedures can also favour larger firms, which typically have more administrative capacity than small firms (Müller & Behringer, 2012).

Others (e.g. EIM/SEOR, 2005) have argued that subsidies (and fiscal incentives) need to be *substantial* in order to engage small as opposed to large firms. This is necessary to compensate them adequately for both the paid-out and indirect costs (e.g. lost working time) –

and especially if the objective is to get small employers to engage (more) in formal/certified forms of training rather than on-the-job learning. To Müller & Behringer (2012) this is a general problem: reducing the costs of training investment through the subsidies (or indeed the tax system) addresses only some of the set of barriers faced by small firms. Larger firms are more willing and able to respond to such measures, and it is necessary to complement such intervention with other forms of support to achieve greater effect among small firms.

2.2.6. Training levies

Levy systems can result in higher levels of employer-based training, while addressing the issue of 'poaching' through requiring all firms to contribute to training expenditures. Such schemes are common – a recent EU review found that they account for one in ten demand-oriented instruments for fostering workforce training (SEM/SEOR, 2005). Müller & Behringer (2012), in reviewing experience with levies, show that the schemes vary greatly design and focus, making it difficult to generalise with respect to their effects. A common typology distinguishes (1) 'train-or-pay' systems, requiring employers to invest a particular amount (typically by share of payroll) on training, or pay a tax based on the shortfall, from (2) systems where the employer contributes to a common fund (administered nationally or through a sector body), from which training costs are met. Fund authorities administering resources raised by levies are able to mutualise some of the funds acquired through the levy and establish priorities for their use with respect to form of training, target groups or type/size of enterprise, and even allow firms that exceed their target level to reclaim the surplus. Moreover, deadweight expenditure is reduced if those firms currently doing little training are targeted (Sung *et al.*, 2006).

Train-or-pay schemes tend to give employers more discretion in how money is spent upon training, but this individualistic system works against more collective solutions, based upon pooling of funds to address sector priorities. **France** and **Canada** (Québec) operate such statutory schemes. The complex French scheme offers rate concessions to small firms, and Quebec's exempts many such firms. But both systems relate only weakly to smaller-sized businesses – among other things, they involve detailed paperwork. Thus, in practice, such firms are primarily addressed through separate training instruments (see sections 2.2.4, 5 and 7) (Stone & Braidford, 2008). They are perceived as having so few benefits for small employers that the latter often regard it simply as a tax (EIM/SEOR, 2005; Stone & Braidford, 2008). It has also been argued that they encourage inefficient and inappropriate training (e.g. 'superficial compliance') and may even cause firms to reduce their investment towards the minimal level (Johanson, 2009).

Expansion of training among small firms appears to be more effectively tackled through linking the levy with collective agreements at sector level. In **Denmark,** sector levy funds are used less for funding training itself than for the important task of developing and testing training programmes (Müller & Behringer, 2012). **The Netherlands** operates over 100 levy schemes, set at an average of 0.67% of gross wages, with the resulting funds supplemented by ESF resources etc., but usually also requiring co-funding from employers (of 50% or more). Based firmly on consultation, which promotes employer commitment, these thoughtfully designed systems incorporate infrastructure support (such as qualifications design), administration of public funds for training, and facilitate longer-term perspectives on sectoral training. The Dutch system finances collective training for employers, on-the-job training, advisors to help formulate training needs etc. The system reportedly has had a positive influence upon training culture, improved the quality of training supply and achieved employer 'buy-in' (helped by pre-existing local and sectoral bi- and tri-partite relationships) (Müller & Behringer, 2012). However, the schemes do not to target small firms in particular, and research shows that small firms have benefited less than larger ones (Gasskov, 2001).

In their review, Cox *et al*. (2009) conclude that impacts are often uneven across firm size bands, with the larger firms making greater use of training grants funded by levies than small firms in many countries. The experimental 1990s *Training Guarantee Levy* in **Australia** increased substantially overall private sector spending on training, but noticeably less so among small employers, which were not specially catered for in the scheme's design. Recent debate regarding its possible re-introduction featured a plea for incorporating special support for small firms (Ok & Tergeist, 2003; Stone & Braidford, 2008). The levies in **Belgium**, set by bipartite agreements at 0.1-0.6% of payroll and collected by the national office of security, supports sectoral training funds that operate according to sector priorities, give special emphasis to developing training plans, and include provision for 'at risk groups', which includes small businesses (Ok & Tergeist, 2003; Müller & Behringer, 2012). The Belgian system encourages cooperation between stakeholders, and helps foster a training culture, but small firms are found to be under-represented (Cedefop, 2008).

Certainly, there is evidence that training levies can be an effective instrument in relation to small employers, provided they are appropriately designed (Sung *et al*., 2006; Stone & Braidford, 2008; Greenhalgh, 2001). In **Spain**, they have been deployed to encourage firms with fewer than 100 employees to cooperate over training. By requiring sector or territorial groups of such employers to submit *joint* plans, group-training programmes have resulted that benefit from reduced costs through economies of scale. Some bids for funds (e.g. auto-repair shops) are from groups made up of virtually all the enterprises in a sector (Ok & Tergeist, 2003). Joint funds for training plans in **Italy** offer yet another demonstration of how levies can be used to target support to small and micro businesses. Administered by the social partners, funds are earmarked for the preparation of training plans, and then the training itself (via the issue of vouchers), in firms with fewer than 15 employees (Stone & Braidford, 2008).

Experience shows that levies – appropriately designed – can positively contribute to engaging small employers in training. Where they are effectively administered by, or on behalf of, collective/sectoral bodies, levy-based funds can find a good degree of acceptance, and influence the level and type of training undertaken by small enterprises - and even the very approach to training of such organisations. They can also potentially affect the relevance/quality of available training, and can be used to address the need to train less-qualified workers in such firms. It should be stressed that realising the full effect of levies is also dependent upon broader structures of advice and support. Müller & Behringer, 2012) draw attention to the dangers of 'revenue-generating' schemes 'creating bureaucracies', and of 'incentive-generating' ones putting off small firms through onerous approval processes that tend to favour larger firms with HR administrative resources.

2.2.7. Rights to training leave

Whether by means of a statutory right for employees (as in France) or collective agreements between employers and employees that are common throughout Europe, training leave is a direct means of encouraging CVT. While such instruments can be focused upon small businesses, most study leave schemes do not discriminate by firm size, prioritising instead disadvantaged *employees* (e.g. those at risk of becoming unemployed in **Sweden**, or less educated/qualified in **Denmark** and **Belgium**) (OECD, 2005). Some countries (such as **Spain** and **South Korea**) fund such leave through employer (and employee) contributions to a special training fund. By contrast, in **Portugal**, employers are expected to bear the cost of the compulsory training leave (20 hours per year) (OECD, 2003). The inherent tension in giving an individual both entitlement and choice of training can be expected to intensify as the outlay expected of the employer rises.

In no country is take-up of training leave high; less than 2% is a typical proportion. The agreement of the employer is, of course, central to the process. In **South Korea**, for example, this is reportedly granted only in exceptional circumstances, and very few workers actually receive the leave (Stone & Braidford, 2008). The stumbling block, especially for small employers, is how the leave costs – training fees, wages of the absent employee, and costs of replacement staff – are to be met. **Scandinavia** achieves comparatively somewhat higher rates of leave take-up among smaller firms, not because of targeting by firm size, but because of their more generous financial support for training overall, plus supportive institutions and social norms that encourage employers to grant such leave. For example, **Denmark**'s system includes both education and vocational training, with no time limitation to the latter (as opposed to one year full-time in 5 years for general education). Employers contribute towards the vocational element (through the levy); education costs are covered by the state budget, while local government supports training cover/wage costs of replacement staff (see 'job rotation', 2.2.8) (Stone & Braidford, 2008).

France is notable for its integrated system granting a general right to training with special provision for small firms to receive support to replace a worker on approved training leave. The statutory right to training leave for individuals (*congé individuel de formation*) is embodied in enterprise training plans, and funding of the costs is substantially facilitated through joint training funds. For firms with fewer than 50 workers, assistance is provided to replace a worker absent for approved training (*aide au remplacement d'un salarié en formation*). Cox *et al*. (2009) report Cereq findings on impact of the *droit individuel* scheme, which was based upon an inter-sectoral agreement for training per employee of 20 hours/year with one year's service. They quote recent figures indicating that just 5% of the workforce (20% of organizations) have used it, but note that it does appear to have successfully reached the smallest firms (and lower skilled workers). This has been interpreted as reflecting use of the complementary levy system and external sources of advice and information, which have played an important role in enabling smaller firms to support employee's training requests.

2.2.8. Job-rotation schemes

Job-rotation potentially offers a solution to the problem of worker absence for purposes of training. Originating in **Denmark**, such schemes now operate in a several countries. Job-rotation supports CVT through addressing the dual problem of filling the skills gap resulting from a worker's absence and meeting the costs of the replacement. Such schemes are often seen as having the virtue of both meeting the training needs of firms and aiding unemployed persons, and in the 1990s, accounted for around 1.3% of the workforce (Kruhoffer, 2002; Stone & Braidford, 2008).

Experience shows, however, that these schemes are not necessarily helpful to small firms, and in Denmark itself they are found to be relevant mainly to larger SMEs (Kruhoffer, 2002). However, similar projects in **Germany** have been designed so as to play a significant role with respect to smaller enterprises, including micro-firms. Up to two-thirds of employers participating in job rotation have fewer than 50 employees, and in North Rhine Westphalia a quarter of participants are micro-firms (Siebert, 2002). These projects appear to be well funded, and thus some localities have been able to develop, in particular sectors, a substantial support infrastructure purposely orientated to the needs of small firms, where replacement workers are carefully prepared in advance of taking up a position. The scheme is used mostly for replacement of skilled workers and managers rather than the unskilled; thus, not all unemployed people are suitable for such programmes.

2.2.9. Employer networks

Pooling of resources is commonly used to address various obstacles to training confronting individual small firms. This may involve local or sectoral cooperation among SMEs themselves, or between larger firms and their supply chain partners, including small firms, in forms such as group training associations, chambers of commerce, sector skills councils and business clubs. The use of collective funds (e.g. from levies) is one example of pooling resources - as in **Spain** (see 2.2.6), where small firms submit joint bids for levy funding to cover costs of common training programmes. There is evidence that embedding firms in wider networks can positively affect the number of training days undertaken by SMEs; with even higher training inputs for those firms involved in multiple networks (Cox *et al*., 2009).

Conceptually, developing networks can not only strengthen engagement of small employers in training (through educating managers about the value of training; 'institutional isomorphism' – diffusing management practices and behaviour; enhancing the flow and credibility of information – e.g. on training provider quality; and discouraging poaching), while also giving rise to further dynamic benefits based on opportunities for knowledge exchange, collaborative R&D, etc. (Bosworth, 2009).

Group training associations, which are often principally focused upon apprentice-type training, but can also offer non-accredited learning (and NVQs) at a local scale, offer to members various benefits related to economies of scale, specialist training expertise, and reduced transactions costs in handling administration (including in applying for public subsidies). The pooling of trainees can reduce unit costs, and also facilitate the tailoring of courses to employer requirements, as well as trainee sharing arrangements, and represent to some small employers an outsourced training function (Cox *et al*., 2009).

Culpepper's research (1999) documents, through a study of group training mechanisms in **France** (built around centralised regional facilities), the way in which group training can operate to help small firms engage in more generalised skills training. SMEs that were not in a position to design their own customised programme had previously to accept standardised apprentices. Collaboration among smaller firms led to the design, through a manufacturing trade association, of a more suitable qualification. The facilitation of wider access to national subsidies for the training, and high quality equipment at the local training centre, were further reasons why the small firms became more engaged in this training – and the potential advantages similarly apply to CVT.

Supply chain relationships, often built around a major employer, are also a means of driving skill formation, both in terms of motivation and the practical aspects such as the cost and quality of training. Nissan's supply chain training organisation in the **United Kingdom**, as described by Gospel & Foreman (2006), consists of over 50 member companies, each paying a basic membership fee plus an amount trainee. The Training Organisation coordinates and delivers training, largely indirectly, and positively attracts SME members, whose training activities are found to involve more transferable elements than would normally occur, and is more focused upon key skills. **Austria**'s Graz-based automobile manufacturer *Magna Steyr*, organises training for its supplier network, partly motivated to do so because of quality and other production gains (OECD, 2005). Small firm engagement is encouraged by prospects of access to the supply chain as a reward for achieving the requisite accreditations. Evaluation found sustained benefits in terms of both business performance and network building. In **South Korea**, as a result of collaboration between government, chambers of commerce and the private sector, companies like Sanyo operate (with funding from a payroll tax) joint training centres for their suppliers, including many small firms (Ra, 2005). Alongside these networks, training consortia of perhaps 50 SMEs appoint training managers to liaise with local providers to deliver members' training needs[2]. Evaluation shows that the approach results in training that is more relevant, of improved quality, and available at lower cost (and for which levy support is available). Training consortia have helped smaller firms to shift from reliance upon pre-service to in-service training, and from supply oriented public institution training to more cost-effective demand oriented in-plant and on-the-job training (Lee, 2006).

The enterprise-led *Skillnets Training Networks Programme (STNP)* in **Ireland** is another successful variant on the network model, with 55 sector or area-based networks in operation - all focused upon small firms. Designed to mobilise and support groups of enterprises strategically to address their joint training requirements, the scheme (1) mobilises enterprises

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[2] Ministry of Labour figures indicate that there were 60 such consortia operating in 2006, training 90,000 workers. Lee (2006) also points out that the number of Training Consortia enterprises receiving training increased sharply relative to national training rates.

through networking techniques; (2) provides funding to networks (50-75% of the costs); and (3) promotes an enterprise-led outlook with respect to how to develop, recognise and certify learning and qualifications. Companies have decision-making power and can customise training to their specific needs. Skillnets does not specify the type or scope of training; its role is to support the networks with resources and expertise. Launched in 1999 the STNP was supplemented in 2005 by *Accelerating in-Company Skills (ACCEL)*, which identifies those enterprises most in need of vocational advancement and supports them with grants of up to 75% of costs (Stone & Braidford, 2008).

The Skillnets approach has been found particularly appropriate for smaller firms, which frequently lack the time, expertise and money to develop training customised to their specific needs and directly relevant to their size and industry sector. Although it does not exclude larger firms (those with over 250 employees can receive up to 50% of training costs), ACCEL targets mainly smaller firms. Around 85% of participants in 2005 employed fewer than 50 people, and two-fifths had fewer than 10 employees.

Government currently provides two-thirds of funding in grants to networks, with the rest mainly from participant firms, among which, evaluators report, a significant development of interest in training has occurred, with many intending to invest more in human resources in the future. Nearly four-fifths of the courses developed through the Skillnets initiative are customised to meet Network member requirements. The experience suggests that training networks require strong facilitated support (both internal and external), but once they are fully engaged, small enterprises are able to both determine and satisfy their own training needs (Nuzum, n.d.).

In **Canada**, joint action on skills development by business associations, colleges and groups of enterprises, has in recent years been facilitated through the *Workplace Skills Initiative*. WSI funds partnerships to explore innovative ideas for building SME workplace skills through forming new local or sectoral networks of training providers and enterprises, including larger firms. Support is available through a competitive fund. Successful bids typically require matched resources and plans for future sustainability (Stone, 2009b).

The evidence indicates that networks can alleviate some of the market failures by providing training which individual employers, and especially smaller firms, find hard to organise. They can extend training beyond immediate areas and engage high quality training providers. Many, however, tend to rely upon state subsidy, and focus on areas (such as apprenticeships) which more readily attract such funding, and (as the experience of the **United Kingdom**'s Employer Learning Networks suggests), many have problems in continuing after network funding expires. The quality of network facilitation is crucial in terms of influencing employer engagement, as is their ability to accommodate the demand for tailored ('bite-sized') elements, and to incorporate the training into qualification frameworks (Cox *et al*., 2009).

'Employer Collective Measures' policy options for raising investment in training, including 'harder to reach' employers, were recently reviewed in a large research and consultation exercise by the UK Commission for Training & Skills (Stanfield *et a.*, 2009). From a wide-ranging review of options, expanding the number and quality of inter-employer networks was selected as the most appropriate feasible approach in the UK context. Recommendations along these lines led to the launch of a substantial two-year pilot scheme, the *Growth and Innovation Fund (GIF*), which is at the heart of the government's new approach to skills policy, based on encouraging employer leadership. This initiative, which incorporates key features of the Canadian WSI, seeks to encourage joint training action by groups of firms, especially including SMEs, in collaboration with Sector Skills bodies, training organizations etc. Collaborators bid for (matched) funding to establish a network and deliver training benefits, based upon member needs, including small employers.

2.2.10. Accounting standards

Modifying accounting standards theoretically makes investment in training less risky from an accountancy perspective. Conventional methods tend to treat training as a cost, and thus discourage employer investment in skills. Moreover, few firms, especially smaller SMEs, make use of cost-benefit assessments of training options. Bosworth (2009) draws attention to the potential value of evaluating training benefits on an on-going or real time basis, as an alternative to making long-term predictions about the future value of training investments. Cox *et al*. (2009) point out that the novelty of the idea and lack of empirical evidence as to how it might be applied, are a barrier to its use – especially among (often small) employers with a less sophisticated grasp of accounting processes.

2.2.11. Pay-back contracts

Contract arrangements are sometimes made to permit employers to recover at least part of their investment in training staff members in the event that they leave voluntarily soon afterwards. Through reducing the risks involved, this encourages employers to support training. While such arrangements are in rare cases enshrined in law, they are relatively common in individual contracts and collective agreements. In **Germany**, they are found to operate in perhaps 15% of firms – and proportionately more in **Switzerland** - but no example is found of the mechanism targeted on small firms specifically or specifically adapted to their needs, and it is likely that enforcement is regarded as a bigger problem by small as compared with larger employers (Stone & Braidford, 2008).

2.2.12. Occupational licensing

Recent interest has been shown in **the United Kingdom** in using this device to raise levels of training. Occupational licensing requires practitioners to demonstrate competency (through accreditation) in order to be allowed to practice, and it is a statutory means of driving up skills investment and levelling up training received by particular groups. Occupational licensing mainly relates to professional workers, but includes a range of other skills, especially where health and safety (e.g. gas engineers) or financial risk is involved, and would automatically affect small firms involved in particular product or service areas. Cox *et al.* (2009) undertook a review of practice and evidence and concluded that extension of existing licensing was likely to be of value in only a relatively limited number of occupations, and that significant issues arise with respect to paying for the costs of administration and training connected with the scheme – particularly for smaller firms.

3. FUTURE DEVELOPMENTS

3.1 Policy considerations and challenges

Policymakers seeking to raise demand for training among smaller employers should not only address the barriers affecting such firms (mainly demand-side factors, together with certain aspects of training supply), but also seek to influence the wider business development context in which they operate.

Employer investment in training is curtailed for reasons that are partly to do with various market failures and partly related to dynamic or cumulative processes (i.e. those connected to low aspirations regarding production strategies). Both influences operate more influentially with regard to small than large firms. The policy challenge is to help such firms overcome specific barriers and, where possible, help them aspire to, and access, a more dynamic operating context that both requires and encourages higher skills investment.

To develop demand-led training, policymakers should not only publicise the ‘bottom line’ value of training, to achieve a more efficient investment level in a static sense, but seek to go beyond that and encourage skill enhancement as a dimension of innovation and product/service quality enhancement. Strategies to raise productivity and competitiveness through organisational development and more ambitious production objectives - within which skills investment is integral - are found to be relevant to certain types of small firms, especially those in higher skill and technology areas. A key challenge is how to extend generally the interest in such approaches to firms with less skilled workers and more routine processes. It was noticeable that, while there are interventions that embody explicitly performance concerns (e.g. TSS in Ireland), there is often little evidence of creative linking of training support measures to innovation and growth strategies of businesses.

Policy experience from a range of countries indicates that specific targeting of small firms is both feasible and desirable in most situations. 'One-size-fits-all' approaches generally do not work effectively in relation to such firms, and more focused and strategic approaches to targeting are likely to prove more effective.

The study shows that 'one-size-fits-all' approaches (Keep, 2007), while often raising the level of training investment overall, are often less effective with respect to small as opposed to larger firms. Although this situation is less pronounced in countries with high general levels of public funding for training, it is clear that most small firms are at a disadvantage in responding to, and benefiting from, training support and that special arrangements for them are likely to be justified. Many schemes make no specific provision for such harder-to-reach firms, and even where SMEs are targeted, the large range of firm sizes contained within this overall category produces substantial unevenness of access to, and benefit from, training support. The study shows that there are numerous ways of providing specific support to counteract the effects of small employers' lack of resources etc., but they need to be designed with reference to their specific context and the barriers faced. In providing support, policy-makers need to be mindful of the widespread experience that targeting of small firms via onerous administration procedures, can reduce deadweight, but will often also restrict take-up by the small relative to larger firms (even within the SME hierarchy).

Some types of small business are more responsive to policy measures than others, offering potentially higher net returns to public expenditure - especially if support can successfully be linked to business performance improvement. An important policy issue is how to ensure support is available for those firms with ambitious production strategies. However, relatively little emerged from the review of practice that helps with respect to addressing how to target *within* the small firm category - practical policy (and, where it exists, evaluation) is generally focused upon efficiency or equity concerns rather than more strategic issues. Small employers with less ambitious production ambitions may be more appropriately supported in a less direct way e.g. through targeting types of employees (e.g. the less skilled), which would produce broader social benefits. An encompassing approach to policymaking is needed to determine the balance between skills objectives relating to small businesses *per se*, and individual/group skills objectives affecting social justice and wider labour market efficiency. From a small firm perspective, support measures or requirements that focus upon particular groups of employees are not necessarily helpful in their specific business context. Given that multiple policy objectives can undermine attempts to address the training needs of hard-to-reach *firms*, achieving some clarity regarding now the different objectives relate to each other is clearly a policy challenge.

Both effectiveness and efficiency of interventions to encourage training investment would be enhanced through knowledge gained through instituting more – and more rigorous - evaluations of policy measures. These should be undertaken, especially, in relation to pilot initiatives, which are presumably instituted to facilitate policy learning.

The general absence of substantial evaluations of intervention tools is striking – especially given the indications of a (often) substantial deadweight element. This is especially the case in relation to interacting interventions (e.g. the combination of rights to training leave with job-rotation initiatives). The evaluations that do exist show that a scheme's *effectiveness* (i.e. firms did more training than would have been undertaken in its absence) does not necessarily imply *efficiency* with respect to public expenditure. This aspect is of particular concern in financially constrained times, and there appears considerable scope in many countries for policy-makers to target their measures more precisely, and to reduce public outlays without affecting negatively the level of training. In some circumstances, evidence shows the deadweight element to be greater among larger firms – raising the possibility of achieving both efficiency and equity improvements through targeting small firms.

Research suggests that multiple barriers operate to restrict small firm investment in training and greater effort is thus needed to overcome them. Analysis across countries shows that many policy instruments are narrow in that they address only one or two of the barriers. However, there are some tools – notably among levy schemes and employer networks - that address a range of barriers faced by small firms and have promoted real commitment to training among smaller firms.

From a policy analyst's perspective, it is instructive to observe how different intervention tools have been found to actually impact upon the 'key areas of action' for addressing barriers faced by small firms (section 2.1). As Table 3 shows, some intervention mechanisms operate in relation to just one or two of the barriers, while a small number of others are strikingly more wide-ranging in the way they work. Given that research clearly shows that small firms face multiple barriers to engaging in training, there may be particular advantage in the use of (appropriately designed) levies and/or networks.

Levies schemes vary substantially – beyond the usual distinction between statutory 'train or pay' and voluntary sectoral partnership schemes. Where they are appropriate to the sector's labour market conditions, and the majority of firms are supportive, they have been found to represent a viable approach. Appropriately designed, levy funds administered through collective or sector bodies can positively influence the level and type of training undertaken by small enterprises (as well as promoting training of less qualified workers). They can be an effective vehicle through which training is planned at employer level, and – on the supply side - play an important role in raising the standards of available training.

Another approach, collaborative employer networks, can address effectively market failures that restrict training by individual firms acting alone. There is a wide range of network formulations whereby resources can be pooled (including some linked to levies). Such networks can both strengthen small employer engagement in training *and* give rise to other benefits based on knowledge exchange – e.g. innovation and technical collaboration benefits. Links between large and small firms offer advantages in terms of both cluster development benefits and access to training facilities. Networks frequently need support in order to develop, and there exists numerous examples of initiatives designed for this purpose. In developing such schemes, emphasis needs to be placed upon properly embedding small firms into such networks, and identifying mechanisms for ensuring sustainability as external funding is scaled down.

Certainly, these approaches would appear to have more potential for influencing small employers than mechanisms that operate in a narrower manner, such as payback contracts, occupational licensing and modified accounting standards, which address fewer barriers and have limitations of application in respect to small workplaces. Evidence also suggests that small firms are unlikely to consider that their situation regarding training is fundamentally altered by a single intervention in the form of a cost-reducing tax incentive or direct subsidy - even if such concessions are quite large. Targeting can reduce the deadweight costs associated with such measures, but a range of other barriers, including the indirect costs of training, restrict the potential of such interventions. Similar arguments apply with respect to statutory rights to training leave. They convey an appropriate 'message', but depend for their success largely upon the funding resources available. While experience suggests that job-rotation schemes are potentially of value in helping even the smallest firms to train their workers, especially in some sectors and localities, they are a far from a cheap policy option.

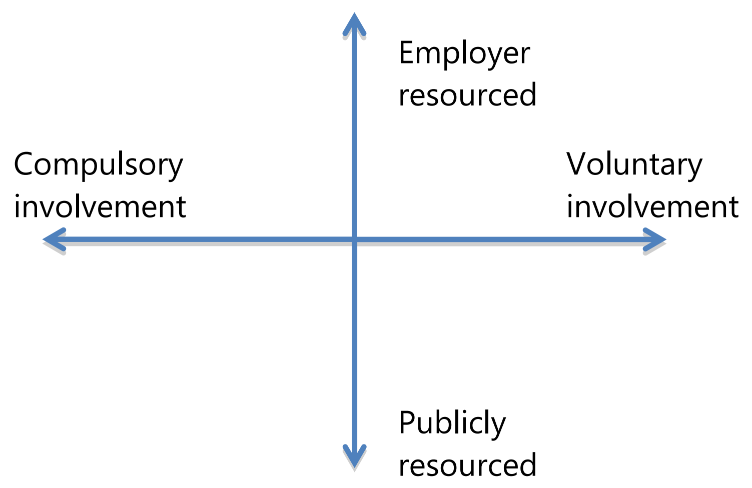
Table 3. Key Areas for Action addressed by different change measures

Key areas of impact / *Policy measure*	1. Business case	2. Information /support	3. Flexibility	I4. Integrated	5. Trusted	6. Affordability	7. Resource pooling	8. Training partnerships
Publicity campaign	✓							
Information and Guidance		✓			✓		✓	
Training design			✓	✓	✓			
Tax incentives						✓		
Training subsidies		✓				✓	✓	
Training levies (compulsory)						✓		
Training levies (voluntary/sectoral)		✓	✓		✓	✓	✓	✓
Rights to training leave	✓							
Training rights (funded)	✓					✓		
Job rotation			✓	✓		✓		
Employer networks	✓	✓	✓		✓	✓	✓	✓
Accounting standards	✓					✓		
Payback contracts						✓		
Occupational licensing	✓							

Best practice in policy to encourage small employer engagement in training is highly subjective, since both subject (type of firm) and context (cultural, sectoral) vary to such a large extent, and influence the feasibility and practicability of policy mechanisms in a particular location. Nevertheless, the range of variants of instruments in use - including broad impact mechanisms such as levies and employer networks - suggests they have the flexibility to be amenable to different national policy, institutional and cultural contexts.

While this review provides numerous examples of effective mechanisms and broader practice that can inform policy, it is plain that the national context (institutions, business culture etc.) is a hugely influential factor in determining the *feasibility* of the various intervention tools. In exploring a range of potential policy tools for encouraging training, the UK Commission for Employment & Skills deployed a useful diagrammatic device (Figure 1) (Stanfield *et al*., 2009, p.60). It shows that feasible policy options in the UK tend to cluster in the employer-resourced/voluntary involvement (north-west) quadrant. The mapping of interventions on this space is different for a country like Denmark, characterised by substantially greater state involvement terms of infrastructure and resource provision, but able to rely to a greater extent than the UK upon voluntary (collective) action on the part of businesses, or France, which is more inclined to use compulsory measures ('train-or-pay' levies and rights to training) which locate its activity more firmly in the western quadrants. For most states, greater financial stringency is likely to promote a re-configuration somewhat towards more employer-resourced training within the quandrant framework, opening up opportunities and pressures to realign and redesign (and re-target) intervention mechanisms. While the different situation of countries in relation to the preference framework means that the choice of intervention (and their deployment in combination) will be constrained in some respects, the study has shown that that many of the interventions have sufficient design flexibility to facilitate their application in different national contexts.

Figure 1. Training intervention options terrain



Source: Outline from Stanfield *et al*., 2009.

Given the importance of entrepreneurial behaviour among small firms, it might be appropriate if support agencies seeking to modify the training behaviour of such firms were themselves more entrepreneurial in approaching this task.

There would appear to be substantial scope for more innovation and subtlety in the design and delivery of policy. There is limited evidence of the use of entrepreneurial methods and approaches, or of behavioral ('nudge') techniques. There is an absence of 'entrepreneurial' (as opposed to bureaucratic) thinking being applied in relation to the design and marketing of such policies – in spite of the potentially important role of publicity and the need to engender a culture of engagement in training among many SMEs. The whole question of how to imbue the policy formation *and* delivery process with a more entrepreneurial perspectives and ways of working is a challenging one.

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