UKCES

UK COMMISSION FOR EMPLOYMENT AND SKILLS

Understanding Employer Networks

Evidence Report 66
February 2013

Intelligence > Investment > Impact

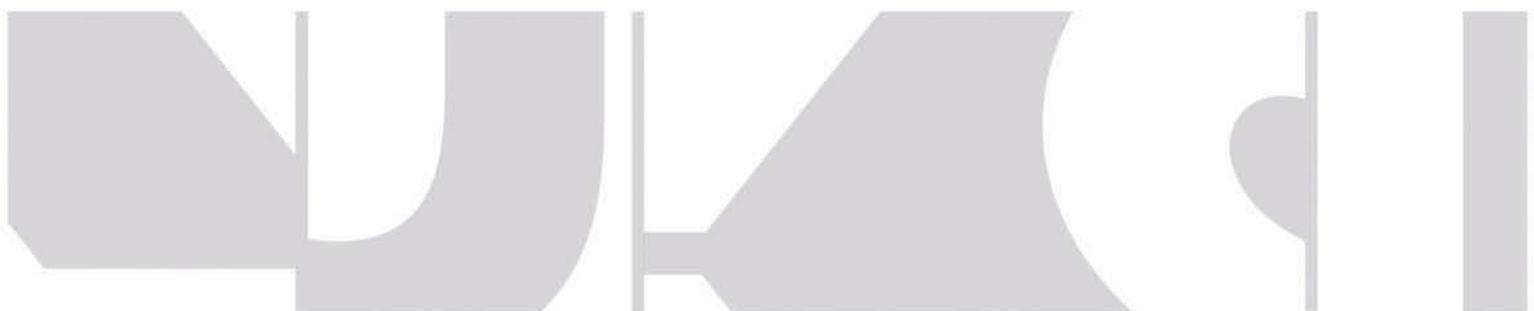# Understanding Employer Networks Evidence Report 66

Annette Cox, Tom Higgins, Rachel Marangozov

Institute for Employment Studies

Zoey Breuer and Richard Garrett

UK Commission for Employment and Skills

February 2013

Foreword

The UK Commission for Employment and Skills is a social partnership, led by Commissioners from large and small employers, trade unions and the voluntary sector. Our ambition is to transform the UK's approach to investing in the skills of people as an intrinsic part of securing jobs and growth. Our strategic objectives are to:

- Maximise the impact of employment and skills policies and employer behaviour to support jobs and growth and secure an internationally competitive skills base;

- Work with businesses to develop the best market solutions which leverage greater investment in skills;

- Provide outstanding labour market intelligence which helps businesses and people make the best choices for them.

The third objective, relating to intelligence, reflects an increasing outward focus to the UK Commission's research activities, as it seeks to facilitate a better informed labour market, in which decisions about careers and skills are based on sound and accessible evidence. Relatedly, impartial research evidence is used to underpin compelling messages that promote a call to action to increase employers' investment in the skills of their people.

Intelligence is also integral to the two other strategic objectives. In seeking to lever greater investment in skills, the intelligence function serves to identify opportunities where our investments can bring the greatest leverage and economic return. The UK Commission's third strategic objective, to maximise the impact of policy and employer behaviour to achieve an internationally competitive skills base, is supported by the development of an evidence base on best practice: "what works?" in a policy context.

Our research programme provides a robust evidence base for our insights and actions, drawing on good practice and the most innovative thinking. The research programme is underpinned by a number of core principles including the importance of: ensuring '**relevance**' to our most pressing strategic priorities; '**salience**' and effectively translating and sharing the key insights we find; **international benchmarking** and drawing insights from good practice abroad; **high quality** analysis which is leading edge, robust and action orientated; being **responsive** to immediate needs as well as taking a longer term perspective. We also work with key partners to ensure a **co-ordinated** approach to research.

Understanding Employer Networks

This research, which was undertaken by the Institute for Employment Studies, seeks to develop a greater understanding of the design, implementation and impact on skills of employer networks in the UK to inform the delivery of investment projects. Previous research has shown that there is considerable potential to make use of employer networks as a policy lever to increase skill levels and innovation in UK workplaces. This study explores networks with a skills and / or innovation focus in the UK and draws insight from eight case studies of diverse network types: illustrating how they function and operate; the drivers, and nature, of employer engagement; and the type of impact they have on employers. We believe that the study provides some valuable insights and implications for stakeholders who are engaged in investing in, leading and establishing networks to address skills gaps and innovative capacity.

Sharing the findings of our research and engaging with our audience is important to further develop the evidence on which we base our work. Evidence Reports are our chief means of reporting our detailed analytical work. All of our outputs can be accessed on the UK Commission's website at www.ukces.org.uk

But these outputs are only the beginning of the process and we are engaged in other mechanisms to share our findings, debate the issues they raise and extend their reach and impact. These mechanisms include our *Changing Behaviour in Skills Investment* seminar series and the use of a range of online media to communicate key research results.

We hope you find this report useful and informative. If you would like to provide any feedback or comments, or have any queries please e-mail info@ukces.org.uk, quoting the report title or series number.

Lesley Giles

Deputy Director, UK Commission for Employment and Skills

Table of Contents

ANNEXE 1   CASE STUDIES

Table of Graphs and Charts

Acknowledgements

Executive Summary

Introduction

Employer networks represent an important potential lever for harnessing and increasing employer investment in skills through overcoming common barriers such as lack of awareness of skills needs, difficulty in accessing learning provision and problems related to costs of training staff. They have the potential to bring together organisations with and without previous histories of collaboration to solve common problems, and offer mutual support and informal knowledge exchange and insights, and can integrate solutions to skills-related and non-skills-related management issues. We know that there is considerable diversity in the size, scale and types of employer networks that exist in the UK. However, the mechanics of how networks are established, operate, how they engage employers and what potential they might have to support employer demand for skills have not been explored in the existing literature on the subject.

This research aims to develop a greater understanding of the design, implementation and impact on skills of employer networks in the UK to inform the delivery of investment projects. It seeks to understand how networks are organised and why, the kinds of activities delivered for employers and the outcomes and impacts which they achieved on employer growth and investment in skills. The study draws on a literature review, online mapping exercise, small scale online and telephone survey and a series of eight case studies investigating the role of employer networks in contributing to skills development and innovation in the UK. The objectives of the research were to:

- gain a clearer understanding of the employer networks that exist around the UK, with a particular focus on those with a skills or growth dimension;

- identify what the characteristics are of different networks and whether there are any patterns or prevalence of certain types;

- obtain a deeper picture of what employer network members feel they gain from participation in such networks.

Understanding Employer Networks

Network type and visibility

The research identified a number of different network types including:

- Group Training Associations

- Industrial Training Boards

- Geographically-based networks and clusters

- Higher Education/industry collaborations and business incubators

- Trade associations / sectoral employer associations

- Supply chain networks, vertical or horizontal in nature

- Employer networks supported by publicly regulated bodies e.g. SSCs

- Informal networks without an established mode of organisation or central co-ordination e.g. in some online or virtual networks.

The visibility of these networks was highly variable and dependant on the degree to which a network publicly advertised their existence. In particular, relatively few supply chain networks were found to document their activities online. Anecdotal evidence from experts consulted during this project also suggests that many more informal networks exist but are not captured through publicly available information.

Network purpose and objectives

Most networks in the mapping and online survey phase of the project identified skills development as a primary or secondary objective of the overall work of the network, which included supporting commercial/ business development activities and informing the content and planning of qualifications and skills accreditation. Networks creatively used single or combined skills-related products and services to address multiple drivers or objectives. Six of the eight case studies had a primary focus on skills, while the remaining two focussed on innovation and product improvement. Most of these networks were established to solve a common, shared problem in a practical and pragmatic way, usually focussed on providing skills development activities to which employers would otherwise not have access.

The high degree of diversity in network purpose, approach, leadership structure, context, employer engagement methods, employer participation levels/methods and activities means there is no single blueprint or common approach to adopt in making them successful. Common success factors can be identified but these may be put into practice in different ways. Success factors in establishing networks include drawing on pre-existing relationships between potential network partners to make the most of existing rapport; access to valued resources to attract employers; presence of a common interest to generate motivation for action and reduce any reluctance to co-operate among competitors; presence of leading employers to attract other participants. Challenges in developing networks include building up an unknown brand; time commitments for SMEs to participate in network governance; developing training content quickly to meet employer needs. Some investment in marketing of networks in industries without significant history of employer collaboration is likely to be important. Offering multiple engagement methods for SMEs should help secure their input. Choice of a suitable learning provider partner with suitable capability and expertise, especially for larger networks, is critical. Alternatively, starting networks on a small scale to iron out any teething problems without damaging network credibility among target employers could be helpful.

Discussions with the case study networks revealed that the major drivers for employers to join a network are perceptions that the network will solve an existing need or problem and efforts by networks to promote their benefits to potential participant firms. The level of effort required to market to and engage members, especially by new networks and for SMEs, can be considerable and need adequate resources to support it.

How are networks structured, governed and funded?

Most of the case study networks did not require formal membership status and positioned themselves as offering a service on the open market to any employer for which it was relevant. However, across the wider mapping of networks, there was a predominance of network types that operate formal membership schemes. Networks were highly diverse in size of employer membership/engagements and costs, with larger networks tending to have lower fees. Membership numbers were also determined by size of the potential population. The number of employers engaged varied greatly and this largely depended on the type of network. However, it was notable that across the case studies the reach of the network was considerably larger than the optimal size of 25 proposed in some of the literature.

Understanding Employer Networks

Most membership-based networks identified through the mapping and online survey work operated from a central administrative hub with a distinct legal identity and status. Within the case studies, employer-led networks tended to operate from within major organisations without a defined administrative structure (Microsoft, Tallent), while a number of those focussed on qualifications delivery were hosted by the learning provider (Teesside, Training 2000). Most case study networks were governed through a board structure (e.g. AMRC, WCCF, AXRC, OPITO), except those led by major employers. This structure was preferred as a means of making networks cost-effective for employers by avoiding bureaucracy and layers of management and administration. One network adopted a not-for-profit focus for branding purposes, to reassure potential participants of its commercial focus through establishing a private company with not-for-profit status rather than a registered charity.

Case study networks were sustained by four main sources of funding: public funding, membership fees, payments for specific services and non-financial contributions from employers. In most cases networks received a mix of these types of funding. Public funding was used to encourage membership of networks in industries without a history of collaboration and overcome market failures where costs of training or challenges in co-ordination of provision exist. In order to achieve maximum effect in from initial funding to establish the network and grow the membership, it is advisable to have a clear focus and target spend and activity to ensure added value.

Setting the right level of membership fees involves considering a trade-off between exclusivity of membership versus potential reach and require considerable judgement, about the perceived value of the network and its product or service. Higher fees may be associated with higher expectations of the network members and a keenness to see the benefits; however, higher fees might detract from the attractiveness of the network for some employers. Relying on payments for specific services ensures network focus meets employer needs but the case studies showed that this may create a commercial transactional model rather than establish a sense of identity or membership of a network. Non-financial contributions from employers include time in contributing to qualifications and standards development, and participation in network leadership, though the latter is more difficult for SMEs. Providing options for different types of participation and minimum requirements for key roles such as board membership was helpful for some networks in gaining employer involvement.

The type of staff roles needed to run networks were typically divided into three types: leadership and administration, usually through a small management team; initial or ongoing employer engagement e.g. account managers and delivering network activities e.g. trainers. Choice between in-house and outsourced training provision seems to depend on regularity/frequency of activities, volumes of participants and degree of flexibility required in location and scheduling of delivery.

Generally speaking, the communication options used by the case studies for reaching network participants included: individual face-to-face contact between employers and network staff; meetings and forums attended by groups of employers; one-way electronic communications including email and newsletters.

Network activities and participation

Network activities were highly diverse, reflecting the varying needs of employers. Primary activities included the provision of apprenticeships for SMEs in the IT industry (Microsoft Partners Apprenticeship programme); a flexible leadership and management qualification across all sectors in one geographical region (Teesside); provision of a hybrid IT/management degree (ITMB/e-skills); a sectoral network offering multiple forms of customised training for the call centre industry (Welsh Contact Centre Forum); a research and development network for the advanced manufacturing sector (AXRC); a supply chain network for the automotive component sector (Tallent); a group training association offering multiple qualifications in a number of sectors (Training 2000); and a sectoral specialist provider of technical training for the oil and gas industry (OPITO). Subsidiary activities in some of the networks included some outreach work in careers information, advice and guidance to attract new recruits to the sector as well as additional business support services.

Levels of engagement between employers and the network hub varied enormously, and for a proportion contact was infrequent, reflecting the nature of training services being purchased rather than buying into membership of a club with a 'networking' dimension. Providing IT-based solutions to enable employer contact in networks with wide geographical coverage and giving consideration to how far employers expecting a specific service can be encouraged to engage in network activities to develop social capital is necessary.

Major factors influencing levels of participation in a network included: the perceived level of benefits, the size of firm (with SMEs particularly valuing access to resources they cannot gain through individual effort) and value for money, related to perceptions of cost. This was especially the case where employers saw themselves as buying a specific short-term skills solution, rather than buying into a longer-term exchange of knowledge or collaboration. The focus of network activity may evolve over time and networks need to be sufficiently adaptable to meet emerging employer priorities. Key success factors for the services commonly provided were ongoing contact and communication with employers, often involving individual and face-to-face contact and flexibility in training provision.

The level of interaction between employers in the case study networks was lower than we might have anticipated based on the emphasis in the literature on the value of social capital generated in networks. Membership of a network does not necessarily equate to substantial participation in activities which foster a sense of 'belonging' and any obligation to sustain and develop network activities, as opposed to simply being a consumer of network services. Typically employer participation in activities was found to be quite passive with only a minority of eligible employers taking part. Developing shared or common interests may be an important precursor to activity to identify and address skills issues which is more collaborative and built on knowledge exchange.

Impact of networks, employer perceptions and success factors

Whilst benefits can be cascaded, who benefits from a network is naturally related to who actively engages with it and to what extent. Engagement varied substantially between networks and participating organisations, there was generally a core group of active employers in a network and some with more peripheral or transitory contact. Within an organisation participation was generally concentrated among a small number of people. Exceptions to this being where large numbers of staff and employer beneficiaries accessed training or services from networks with a transactional model of membership based on paying for service provision.

Understanding Employer Networks

Case study employers reported that the most common benefits of network activities were: access to suitable training provision; reduced transaction costs of organising training and negotiating course content with training providers and economies of scale through design of industry-standard qualifications. Provision of customised, flexible training was identified by employers as a key benefit of network services. In addition, networks were able to overcome employer barriers to skills development such as short-term decision-making and access to imperfect information by proving the benefits of training through relevant examples from similar organisations.

Employers generally assessed networks in terms of the immediate, tangible outcomes they produced, rather than the value of participating in a network in itself. This suggests that access to imperfect information may have led to employers underestimating the full benefits of training. Networks generally did not take a systematic approach to monitoring or assessing value for money; continuing employer engagement was seen to be sufficient to evidence success. Impact measures used by the networks themselves typically included training quality, volumes of participants and qualifications they achieved. Where success, and progress towards it, was reviewed the common measures of success cited were the continuation of employer engagement and longevity. Any monitoring mechanisms required of networks may therefore need to be relatively simple and also make it possible to capture unanticipated benefits which emerge later in a network's lifespan, while networks seeking to become self-sustaining need to provide evidence of their value to employers for recruitment and retention purposes.

Some case study networks had helped firms to recognise skills shortages and expand employment in ways which would not otherwise have taken place, especially in small firms. Many of the case study networks providing training leading to a qualification appeared to be contributing to increases in skill levels and some appeared to be influencing training provision across the sector. There is a potentially important co-ordinating role for intermediary organisations working at regional/local levels in identifying common gaps in skills development provision which pose barriers to growth for employers in the area.

Business benefits appeared most directly for case study networks with supply chain type characteristics, in which skills development formed a subsidiary focus. The focus of these networks was often more directly related to business operations and the development of products and service (quality).

The barriers to achieving network benefits included limited network penetration among target employer communities for networks with an open participation policy; limited employer participation where employers engage in only one activity of a range offered; provision of single activities by networks where there may be latent demand among employers for a wider range of services. The research concludes that overcoming these barriers is likely to require investment in face-to-face marketing; greater promotion of network activities by more engaged employers and assessment of market demand for further services. In establishing networks led by learning providers, it may be useful to consider how the initial design of the network and model of engagement might allow scope for broadening the range of activities offered, even if at a later stage of the network's development. In addition, considering how best to position and market the purpose of a network to employers is important, so they initially perceive it as more than simply offering training provision, even if they do not choose to engage in additional activities until a later stage.

The time periods over which benefits were accrued by case study networks varied considerably. This implies that the evaluation of any public, pump priming funding needs to be of a relatively long duration. In these times where the need for movement towards self-sustainability is a given, there is ever-more need for transparency of the benefits of engagement to maintain and nurture employer engagement in a network as there is to attract employer interest.

Research gaps

The full span of employer networks in the UK is extremely difficult to document as the existence of many informal networks may not be publicly recorded and it is likely that many networks operate 'under the radar' of public policy. Some attention could be given to understanding the activities of informal networks and possibilities for supporting, accelerating and extending mutual learning among participants.

The literature on employer networks stresses the value of mutual learning between firms through network activity. However, further work to understand how best to monitor and establish the benefits which accrue to firms from peer-to-peer learning is required, given that this study focussed on relationships between networks and employers rather than relationships between employers within networks. This could be undertaken through a form of individual network analysis applied to key decision-makers within an organisation and how social capital shapes this.

Understanding Employer Networks

This project developed a greater understanding of the diversity of skills-related networks in operation. In order to gain a clear understanding of the merits and risks of different approaches to network structures, governance and funding, and to understand 'what works' and why, it would be helpful to make a comparative assessment of networks which are broadly similar in their objectives and types of service which are being provided to employers.

The research design involved gaining access to participating employers via network organisers or administrators. This is likely to have resulted in some selection effects because organisations with limited or no participation in network activities are unlikely to have much contact with network administrators and are unlikely to self-select for research participation. Understanding the characteristics of relatively inactive employers within networks and identifying segments which could be targeted for greater participation may be helpful. This could be achieved through research with employers whom networks have tried to engage unsuccessfully or through research with the potential target population of a network.

There is much policy interest in the potential of employer networks to act as a lever to increase enterprise, jobs and growth. There is the opportunity to develop and enhance stakeholder understanding, particularly policy audiences, of the scale of engagement in, and activities of, employer networks. Further application of the findings from this study could help to inform policy interventions designed to support knowledge exchange, skills investment and business expansion by employers.

Understanding Employer Networks

1   Introduction

1.1   Recent policy context

The research aims to develop a greater understanding of the design, implementation and impact on skills of employer networks in the UK to inform the delivery of investment projects. The project was commissioned as part of a series of work to inform a better understanding of levers to stimulate employer investment in skills and included other projects on understanding levies, and occupational regulation. This programme of research will inform ongoing policy development for the future delivery of investment initiatives, as well as providing evidence for the HM Treasury and Department for Business, Innovation and Skills (BIS) Growth Review.

The UK Commission's business plan for 2012/13 highlights the four priorities which have evolved into four outcomes that it seeks to influence. These are:

- More employers investing in the skills of their people

- More career opportunities for young people

- More collective action by employers through stronger sectors and local networks

- More employers stepping up and taking ownership of skills.

The latter two focus on encouraging organisations to improve workforce skills and include the potential for employer-led interventions, such as employer networks. There is potential for employer networks to build their capability to do this through investment funds, such as:

- the **Employer Investment Fund (EIF)** which is UK wide and designed to drive employer-led action that leads to increased ambition and stimulates employer investment in skills

- the **Growth and Innovation Fund (GIF)** which covers England and supports new initiatives to increase the contribution skills make to enterprise, jobs and growth

- the **Employer Ownership pilots,** which offers all employers, or groups of employers, in England direct access to public investment in order to design and deliver their own training solutions.

Understanding Employer Networks

The UK Commission's aspirations are ambitious within the current economic climate. The UK Commission's Employer Skills Survey (Davies et al, 2012) found that majority of employers (59 per cent) do invest in the skills and development of their workforce. However, whilst expenditure on training seems high (49 billion) how it is distributed was notably uneven across occupations, sectors and nations. Demand for skills amongst employers was found to be polarised: with nearly half (48 per cent) of the employers who already undertake training saying they would have liked to have provided more training but two-thirds of establishments that don't train reporting the reason for this as no need for training.

A potential policy lever to stimulate employer investment in skills is inter-employer networks. These were investigated in the Collective Measures project (summarised in Stansfield et al., 2009), incorporating a series of wide-ranging reports which embraced a number of potential interventions to encourage employer investment in skills and considered them from theoretical, empirical and policy perspectives.

This research identified that training networks are relatively common internationally. The Collective Measures Policy Review (Cox *et al*., 2009) illustrated how such activity covers various stages of training from setting of standards, training delivery, monitoring of progress, to assessment and certification, and identified evidence suggesting that networks enable employers to undertake training they did not previously carry out, or would find it difficult to do so without network support, especially in small firms. The final evidence report concluded that employer networks have the potential to address skills shortages by overcoming some of the barriers faced by individual employers acting in isolation. These include networking to identify business problems which lead to identification of skills needs as part of the solution, making training more affordable through economies of scale in sourcing learning provision, educating managers about benefits of training, improving access to training providers and information on quality standards, and potentially reducing poaching through developing closer social bonds between employers and raising volumes of generic transferable skills (Stanfield et al., 2009).

Some considerations for establishing employer networks were also identified. The evidence showed that employer networks are demanding in the support required for their operation and require considerable commitment from employers. Reluctance to co-operate among competitors is a risk requiring careful selection of network participants, and it can take time to build up sufficient trust between organisations to generate optimum benefits from networks. Generating interest in networks from an appropriately diverse group of employers may require significant marketing effort including face-to-face contact to persuade small employers to participate and time and effort from larger employers to exert influence through supply chains or among their local employer community. The role of a highly skilled and credible network facilitator to enable employers to work together is also pivotal (Stanfield et al., 2009).

Some characteristics of networks that deserve attention in establishing new networks included:

- employer involvement in network leadership, ideally through senior managers

- having a core group of 15-20 members, with potential for a wider group of beneficiaries (e.g. to reduce unit costs of training) particularly targeting SMEs

- public subsidy of up to 75% which may be needed for up to 3 years to pump prime new networks, recognising the length of time they require to become sustainable.

The Collective Measures project has informed the development of the Best Market Solutions concept as a set of initiatives to support employer investment in skills to secure future competitive advantage, funded through the Growth Investment Fund. Employers are free to choose the most suitable solution to meet their sector's skills challenges which may inspire employers to collaborate collectively to solve barriers to investment. The types of barriers overcome through these initiatives might include transaction costs and difficulties in benefiting from suitable economies of scale in learning provision. Figure 1.1 illustrates the position of employer networks as one of the potential Best Market Solutions to help build capacity and capability among employers to support skills investment.

Figure 1.1   Potential Best Market Solutions
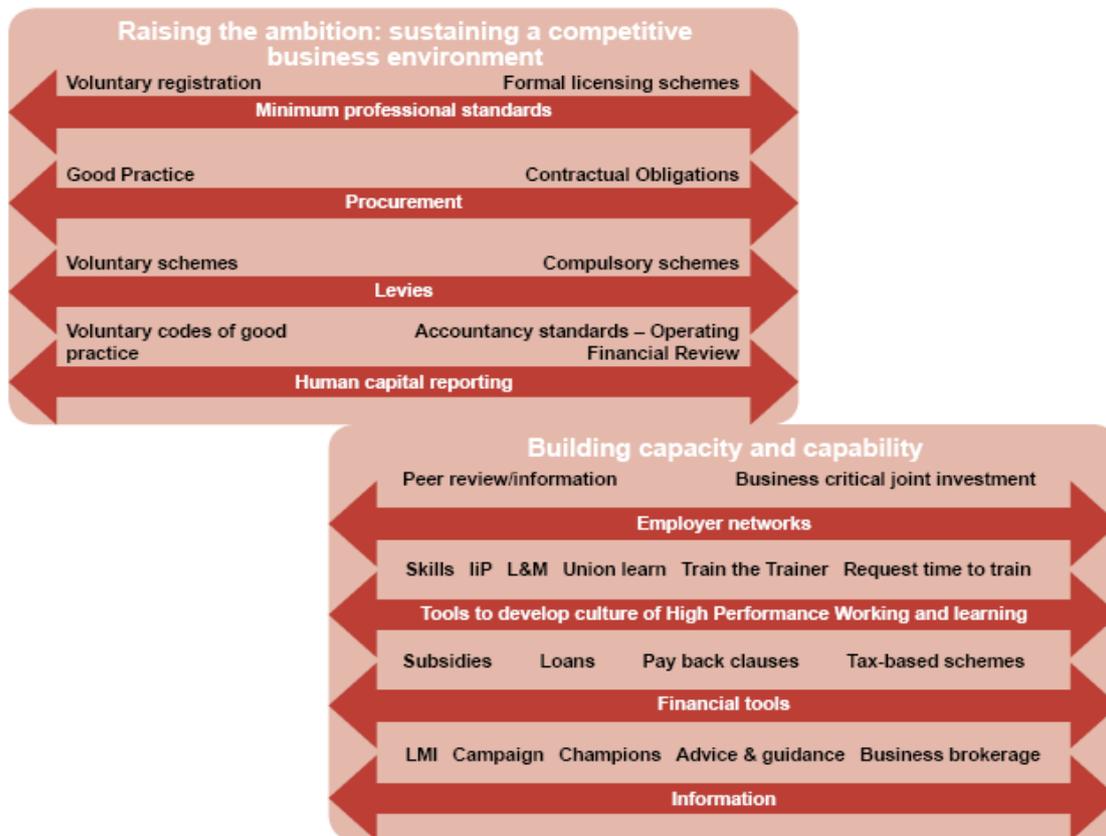
However, information on the operational features of employer networks was limited, in part because the literature reviewed was often confined to descriptions of particular projects initiated by networks. Developing a better understanding of inter-employer networks and how they impact on investment in skills is the focus of this research.

1.2   Relevance to policy/ UK Commission and key research questions

The project is located in the context of recent development in skills policy reflected in *Skills for Sustainable Growth*. This focuses on the transfer of much greater responsibility for skills development from publicly funded, supply-led learning provision to an aspiration that employers and individuals will assume a greater share of the costs of learning. This is also reflected in the employer ownership strategy and pilots developed by the UK Commission which seeks to encourage the design and delivery of training solutions by employers. Against the backdrop of fiscal austerity, government intervention has necessarily taken a sharper focus to support skills development which is linked to key priorities of economic growth and job creation. Thus support is concentrated on helping business start-ups, apprenticeships, the low carbon economy and through interventions

aimed at supporting business districts to grow e.g. via Local Enterprise Partnerships. It is important for effective policy delivery to be able to understand how employer networks operate and whether there are any particularly beneficial features which could contribute to the success of networks being established with public funds.

Indeed, industry partnerships were highlighted in a speech about the future of British Industry where the Business Minister set out the vision for an Industrial Strategy. This outlined key actions, including:

- New Government backed institution to help companies invest

- Government and industry partnerships with strategies for specific sectors by 2013

- £165 million boost for the skills that businesses need

- New Innovation and Knowledge centre to boost commercialisation of research

- Reforming government procurement to make sure that businesses have confidence to take long-term investment decisions.

Fundamental to this approach is the intention to build collaborative but challenging sector strategies. The idea is that this will include building, and building on, strategic partnerships with industries.

While employer networks can be important levers in providing Best Market Solutions, there remain important questions as to how they can best contribute to skills and growth. As such the objectives of this research are:

- to gain a clearer understanding of the employer networks that exist around the UK, with a particular focus on those with a skills or growth dimension;

- to identify what the characteristics are of different networks and whether there are any patterns or prevalence of certain types;

- to obtain a deeper picture of what employer network members feel they gain from participation in such networks.

Specific research questions include the following:

Who creates employer networks? This question is important to our understanding of how future networks could be established, what kind of individuals or organisations are likely to be most interested in developing employer networks and the potential roles of employers, intermediary organisations and government.

What are the characteristics of employer networks? How are they funded and administered? These questions help understand some of the key drivers of employer networks and how they develop and shape network activities. These are particularly interesting issues in the light of the current policy view that past networks have been excessively directive and have crowded out employer-led activities. It is important to understand what potential there is for leveraging sustainable employer investment in networks, how they can be organised efficiently and effectively, what support might be required from government in the form of pump-priming and how it can be best directed to overcome market failures.

What are the functions and activities of employer networks? How do they engage with wider business support services? This information provides an insight into the reach of employer networks and their aims and objectives. It also helps illuminate how networks successfully engage employers in skills and training activities, what kind of activities appeal to employers and any potential for building business capabilities through enabling employers to access other support services or to draw employers into network activity from support services.

How are networks perceived by employers? Employer perceptions of the role and impact of networks, the added value they offer and how they are branded may have useful insights to shape interventions by the UK Commission and other government agencies in these networks.

What are the impacts of networks on employer investment in skills and on growth? Any evidence on the impact of networks on skills, growth and innovation will help the UK Commission understand whether employer networks have the potential to encourage employers to invest in skills. It will also help identify good practice and critical success factors for Best Market Solutions.

1.3   Overview of the research methodology

This section outlines the main components to the research methodology and how they informed the development of the project overall, and the selection of the case studies. The table below outlines the different data sources and elements of the research activity which are outlined below.

Figure 1.2   Data sources used in the project
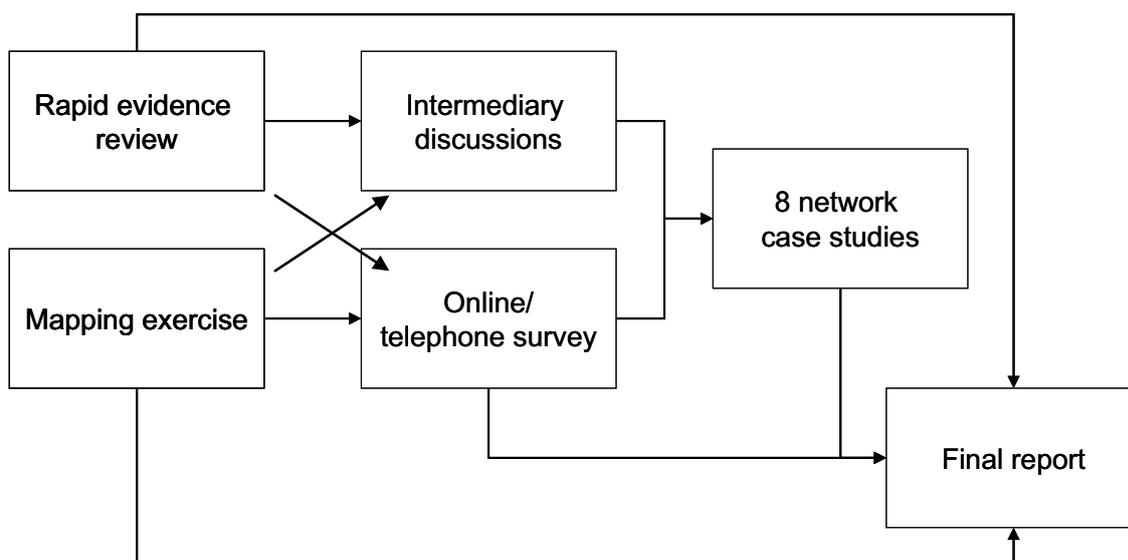
Literature review: The aim of the literature review was to scope and review the existing literature about employer networks to inform a working definition of 'employer network' and establish a typology of networks; to provide a greater understanding of the key issues and evidence gaps; and to inform the selection criteria for the case study research. The literature does not provide great detail on how employer networks function but it provides some helpful indicators on points of principle which may constitute success factors for network activities. The literature is used within the report to highlight any points of comparison between evidence from the case studies and wider research findings.

Mapping of employer networks: The mapping of employer networks was undertaken through online web searches of publicly available data to provide an idea of the number and location of employer networks in each typology. It needs to be recognised that the mapping exercise is unlikely to produce information on informal networks or those operating without publicly available information. The mapping also, to some extent, helped inform the criteria for selecting case studies and the questions for the online survey. The mapping is drawn on in Chapter Three to discuss the scope and prevalence of different types of network.

Discussions with intermediaries and relevant stakeholders: Given the very large number of networks identified in the mapping exercise, discussions with intermediaries and relevant stakeholders have aimed to mine their knowledge of networks in their respective areas in order to narrow down our focus in selecting potential case studies. These discussions with eight individuals also provided the research team with a sense of the prevalence of networks which may not have a web presence.

Online and telephone survey tool: A link to a short online survey was emailed to all network contacts identified in our mapping exercise. The aim of the survey was to collect key pieces of information on the functions, funding, aims, operations and activities of the network to plug some of the evidence gaps identified in the literature review and mapping exercise and help inform the selection of case studies. However, as this only yielded a small number of responses, the research team also conducted 30 telephone interviews using the same survey to gain basic information on the operation of networks of different types. Where there are substantial differences between the focus and activities of networks responding to the survey and telephone interviews and the case studies, this is noted in the relevant sections of the report.

Case study research: Interviews with the funders, administrators and employers associated with eight networks enabled an in-depth examination of how the employer networks developed and functioned, and how they were viewed by employers. The case study research also provided more detail on network operations, functions and activities. This involved approximately five to seven interviews per network, including network leads/representatives, funders, learning providers and employers taking part in network activity.

1.4   Definitions and types of employer networks

A working definition of an 'employer network' was agreed for the purpose of this study and is set out below:

> A network through which employers and businesses can offer and receive support, information, advice and business opportunities. Employer networks can be sector-focused, geographically-based, and either address sector-specific skills needs or have a wider business and management remit.

The definition was developed by examining classifications of networks used within existing literature and early results from the mapping exercise and functioned as a tool to filter literature and potential case studies during the project. It was intended to reflect the full scope of networks that were of interest, therefore including networks operating on the basis of sector or geography, and including those with a remit focussed on skills or broader objectives, and a mixture of services and activities. The advantage of this definition is the breadth of scope of types of networks eligible for inclusion in the study which was of particular interest to the UK Commission in obtaining a spread of different network types, which may be needed to achieve diverse goals, objectives and meet the needs of different types of businesses. The disadvantage is that the greater the diversity of network types, the more difficult it is to isolate common success factors and barriers.

Through the mapping of employer networks and the literature review, a large number and variety of networks were identified. A brief overview of each type is now provided.

Group Training Associations (GTAs) – membership organisations focused on training predominantly in traditional manufacturing industries to enable employers to share access to and costs of expensive capital equipment and train staff in a safe but realistic environment outside production (Cooney and Gospel, 2008).

Industrial Training Boards (ITBs) – training organisations with statutory powers to charge a training levy on employers in their industry. Following widespread deregulation of training provision in the 1980s few ITBs continued, though there are some notable exceptions where employers have identified a continuing need for collective investment in skills to prevent market failure in industries characterised by high levels of fragmentation and large numbers of small employers e.g. Construction Industry Training Board (CITB), Engineering Construction Industry Training Board (ECITB).

Geographically-based – these consist of concentrations of firms in a particular industry or supply chain around a particular location and can help generate collective capability through sharing staff expertise through informal and formal labour markets as well as collaborative skills development activities. They can help provide economies of scale through shared competitive advantage and have been widely researched through the literature (e.g. Huggins, 2008). Examples include groups of technology companies in 'Silicon Fen' around Cambridge, similar clusters around Oxford and Reading and digital media companies in Brighton, Bristol and Manchester.

Understanding Employer Networks

Higher education - industry collaborations and business incubators: HEI/industry collaborations take a range of forms from local business clubs and networks run by universities involving regular meetings, lectures and informal social networking events to collaborations between HEIs and firms to provide specific training which may or may not lead to an accredited qualification. Business incubators develop entrepreneurial companies and bring innovations to market through providing a network of contacts to help increases the chance of creating business connections and organisational capability including skills and knowledge (Hughes et al., 2007). They often provide office space and proximity to resources such as HEI equipment.

Trade associations / sectoral employers' organisations – these represent all businesses within a particular sector, although industries vary in their degree of homogeneity and less cohesive industries are likely to have multiple trade associations (Robson and Bennett, 2009). The focus of trade association activities is usually on business development for members combined with representation of their interests to policy makers. Where training and skills development activities are offered, they are sometimes a subsidiary area of activity.

Supply chain networks – can be vertical or horizontal in nature. Vertical supply chain networks centre on firms contributing different elements of the same product or service e.g. automotive components to make a vehicle (Gospel and Foreman, 2006). They are often driven by the company at the top of the supply chain as the lead customer and focus on increasing innovation, quality, cost effectiveness or other performance dimension of the supply chain, with varying degrees of focus on skill development to achieve this. Horizontal supply chain networks involve firms who may be competitors within a supply chain but recognise the benefits of co-operation to solve common problems (e.g. Herrara-Bernal et al., 2002). They are less likely to involve a distinct separate organisation in running the network than other types e.g. GTAs.

Employer networks led by other agencies closely associated with the state, such as the central departments, the former Regional Development Agencies or the Sector Skills Councils. These may involve employers with sectoral or local interests participating in a variety of networking events, joint projects to develop new products/services or marketing/business development activities, site visits and identifying and sourcing support to meet learning needs and share mutual learning on an informal or formal basis.

Networks spontaneously formed by private sector employers, sometimes through a newly-formed limited company or community interest company which manages the network. Their activities, organisation and administration can be highly diverse.

Networks formed by employers and trade unions. These may be formed around a workforce issue or challenge of mutual interest such as working conditions and equality of access to learning.

Online or virtual networks. These may be highly informal with or without face-to-face contact and are most commonly developed among sectors making relatively sophisticated use of IT in the digital and creative economies.

1.5   Choice of case studies

Taking into account the timescales of the research, discussions with the UK Commission, and the main network typologies which emerged from the literature review and mapping exercise, case studies were selected to try to ensure representation of:

- networks with a focus on skills and innovation

- supply chain networks

- more than one GTA type network to explore different types/forms of GTA and understand where initial engagement in the network is driven by reduction in costs or where it is driven by access to quality of learning, range of experiences, location or other factors

- a mix in the size of networks, measured by number of employers participating in any form

- a mix of sectors, which resulted in inclusion of priority sectors including advanced manufacturing/engineering, digital and creative industries and health and social care

- a mix of networks which have different levels of employer participation and activities

- a mix of network structures, leadership and operational models and approaches

- a majority of networks which have a core focus on skills or training

- networks where participation is targeted at the firm, not to the individual

- a focus on networks which cater for UK firms, although participation could be open to internationally-owned organisations.

Understanding Employer Networks

Informal networks were considered for the study, as the wider research literature shows that they can exert considerable influence over employer decision-making. However, by definition, informal networks are undocumented, not easily amenable to mapping as they do not require a formal purpose or set of objectives and do not have a formal organisational structure or status. Therefore this makes the channels of communication and points of contact unclear and raises some policy challenges in working through them to raise employer investment in skills. Some informal networks were considered as potential case studies for the research but their activities and focus were not sufficiently well articulated to justify their inclusion.

Understanding Employer Networks

Table 1.1   Overview of selected case studies

Network name	Network objective	Supply/demand led	Geographical location	Size	Network type	Sector	Levels of employer participation	Leadership
Teesside University and Chambers of Commerce	Skills Development of leadership and management Foundation Degree	Demand	North East England	80	HEI/business collaboration Geographical focus	Multiple	High levels of employer input into curriculum development	Mixed. Initially lead by Chamber of Commerce and now driven by university.
e-skills/ITMB	Skills Development of hybrid management/IT degree	Demand	England	60	HEI/SSC/business collaboration	IT	Mixed – high levels of employer input to curriculum design for core group, varying levels of participation among wider group	Led by e-skills
Opito	Skills development through development of occupational standards and training provision	Demand	England, Scotland	30-40 companies involved in training standards development	Sector/supply chain	Energy	High	Employer and trade-union led, not for profit, third sector.
Tallent	Quality improvement in supply chain through performance monitoring and skills development	Demand	England	97	Supply chain	Engineering	High	Employer

30

Understanding Employer Networks

Network name	Network objective	Supply/demand led	Geographical location	Size	Network type	Sector	Levels of employer participation	Leadership
Welsh Contract Centre Forum	Skills development and business improvement through variety of products/services	Mixed, initially set up by Welsh government but now managed by employers and demand-led	Wales	198 members and 40 associates	Sector/supply chain Geographical focus	Multiple	High	Employer-led by not-for-profit private company
Rolls Royce Advanced Manufacturing Research Centres	R&D innovation through shared access to capital equipment and expertise	Demand	England/Scotland	150+	Supply chain	Advanced manufacturing	High	Employer-initiated, collaboratively led with HEIs
Microsoft Apprenticeship Partners	Skills development through creation of new apprenticeship for IT developers, sales and support technicians	Demand	England, mainly South East	300	Employer-led adopting GTA type model	IT	Transactional model of participation, but employers heavily engaged through participation in existing Microsoft Supply Chain activities	Employer – with training suppliers and NAS funding
Training 2000	Skills development through provision of apprenticeship, pre-employment and management training	Mixed – supply led for social care due to regulation	England	58	GTA	Mixed, but predominant focus on engineering and social care	Transactional model of participation as GTA functions as commercial training provider	Training provider -led

Table 1.1 illustrates the spread of case studies achieved and their key characteristics. A majority are demand-led and have a focus on skills development. Around half the case studies focussed their activities on the IT and advanced manufacturing sectors, and most were based in England with some network activities covering Wales and Scotland. Half had a sectoral or supply chain focus while the rest provided generalist services. Three networks had formed a distinct organisational entity (OPITO, WCCF, Training 2000) while the rest were hosted or administered by an existing organisation. Most networks were initially driven by employers.

1.6   Advantages and disadvantages of research approach

The advantages of this research approach lies in the potential to capture both breadth of types of networks and range of activity they are engaged in through the mapping exercise and the careful selection of case studies. The definitions and outline of different network types above illustrates the diversity of network forms.

The disadvantages of the need to cover a broad set of different types of network is that generalisable conclusions about 'what works' either for particular types of employer network or for networks in general may be difficult to draw where only one or two case studies represent each type. Making comparisons between networks which seek to achieve different objectives, through very different structures and activities is challenging. Where making direct comparisons is inadvisable, this report seeks to raise questions about the implications that the findings about any one particular network may raise. In addition, access to employers was gained through network leads, so it is likely that employers represent the more engaged firms, and therefore the research provides limited information on likely barriers to further participation among low or non-participant employers.

1.7   Summary of each network case study

This report is presented thematically around the research questions set for the project. Prior to discussing each theme in detail, a short summary is provided of each network case study for readers who would like to gain a brief overview of the purpose, organisation, activities and outcomes of each network.

1.7.1 Welsh Contact Centre Forum (WCCF)

The Welsh Contact Centre Forum is a membership organisation for contact centre employers and suppliers to the contact centre industry such as IT, recruitment and office supplies firms with at least one site in Wales. The broad aim of the network is to support and strengthen the contact centre industry in Wales, through encouraging co-operation and information sharing within the industry. It began as a forum set up by the then Welsh Assembly Government to identify policy levers that would help encourage inward investment in Wales. Since 2004 it has been an independent not-for-profit limited company. Membership is open to all contact centres in Wales along with a smaller, select group of suppliers to the industry.

Network funding and governance

The WCCF is led by a Managing Director and an employer board, responsible for determining the overall strategy for the network and the services offered to members. In addition to the managing director three staff are employed directly along with eight freelance consultants employed on an ad-hoc basis. The employer board aims to be broadly representative of the industry as a whole and new board members are selected by the existing board. Input from non-board members is also collected on a regular basis. Membership for "core" contact centres is free but suppliers pay a fee according to their size.

Aside from membership fees, the WCCF also receives public sector funding equivalent to 30% of its annual turnover, and income from charging for certain events, sponsorship of events, provision of member services and occasionally from research commissioned by third parties.

Network activities

The WCCF's core activities focus on facilitating opportunities for mutual knowledge exchange, learning and industry networking. This includes directors' dinners, executive roundtables, task & finish groups, team leader training forums, quality groups and best practice visits. WCCF provides information directly through consultancy service and intelligence reports on issues such as funding opportunities and labour market conditions. The network also promotes the image of the industry, for example through its annual awards ceremony. Training offered through the network consists mostly of bespoke short courses aimed at SMEs which lack the capacity to provide their own training. The forum has also worked with external training providers to develop relevant courses, assisted the Welsh Government in targeting training funding and assisted JCP in providing pre-employment training.

Network impact and outcomes

A key achievement of the WCCF has been to break down barriers to co-operation between organisations in the contact centre industry and to help the industry to grow within Wales by attracting new investment. Members reported that the WCCF had helped overcome some of the longstanding problems within the industry such as the recruitment and retention of skilled staff. Finally, the networking activities helped generate commercial opportunities for many members.

1.7.2 Advanced Manufacturing Research Centre/Advanced Forging Research Centre (AXRC)

AMRC and AFRC are research centres within the wider AxRC network of research centres. The objective of both networks is to improve research and development capacity in high value manufacturing and both are industry-higher education collaborations. The AMRC was set up as a unit of the University of Sheffield in 2001, with Technicut, a small cutting tools manufacturer who had previously collaborated with the University, playing an important role in the founding of the centre. The AFRC was set up in 2009 as part of a collaboration between Strathclyde University, Rolls Royce and Scottish Enterprise.

Network funding and governance

AMRC and AFRC both receive income from a combination of membership fees (along other one off contributions from members) and public funding. In both cases contributions from members make up roughly a third of total income, though the exact split can vary from year to year. There are two levels of membership fees. Tier 1 membership costs £200,000 a year while Tier 2 membership costs £30,000.

The centres are both run through their respective Universities and each is governed through a main board and a technical board. The main board has a role in determining the overall strategy of the each centre while the technical board looks more specifically at the kind of research and development activities undertaken. Organisations holding Tier 1 membership have an individual representative on each board while Tier 2 members are represented collectively by an individual board member. Main board members tend to be more senior managers while technical board members are generally technical staff. There have been some issues with the representation of the interests of Tier 2 members at AMRC due to their growing numbers; this has led to the set up of additional forums in which Tier 2 members can offer input into the running of the centre.

The AMRC employs 180 staff while the AFRC employs 35, the bulk of these are research staff. In the case of AMRC 150 employees are involved in research activity while 30 are support staff.

Network activities

The key focus of the centres is on research and development activity, carried out within the centres themselves. Most of the research activity is carried out by staff employed by the centres but members also have the opportunity to make use of the building and facilities themselves. Research findings are disseminated through a number of channels including reports and presentations. Both centres also make some contribution to academic training, for example the Engineering Doctoral Training Centre at Strathclyde is part funded by the AFRC.

The AMRC has a larger role in broader skills development, running an apprenticeship scheme for staff in partnership with Sheffield College while the centre also plans to open an Advanced manufacturing Institute Training Centre in 2013. AMRC has also been involved in promoting careers in engineering to school and college students. Both centres encourage collaboration and information sharing between members. This can be through meetings organised at the centres but has also involved members organising events and best practice visits themselves.

Network impact and outcomes

Members reported a number of benefits to participating in the network by helping them to respond to the needs of their customers and stay up to date with technological developments. Several technological developments which have come through the centres have helped members secure contracts or improve efficiency. Both centres also appear to have had an impact on regional development, the availability of the centre's facilities and their contribution to skills development make the area an attractive place for manufacturing companies to locate. A final indicator of their success is that the AMRC model has been adopted by a number of other similar research centres across the globe.

1.7.3 Microsoft Partner Apprenticeships (MPA)

The Microsoft Partner Apprenticeships scheme was set up in 2009 with the aim of supporting Microsoft partner companies to offer apprenticeships. The scheme forms part of the wider Microsoft Partner Network which offers supply chain development activities. Microsoft's motivations for setting up the apprenticeship scheme were threefold. Firstly there were anticipated commercial benefits from having more skilled staff in the Partner Network and by strengthening ties between Microsoft and their partners through the scheme. Secondly the scheme contributed to Microsoft's Corporate Social Responsibility goal of reducing unemployment in the UK. Finally it was hoped the apprenticeship scheme would tackle some of the skills gaps and recruitment issues in the IT industry, including a heavy reliance on university graduates and a lack of work relevant skills amongst new entrants to the industry. Microsoft felt that although there was significant employer demand for apprenticeships in the industry, there were a number of administrative barriers which prevented many employers, particularly small to medium sized firms, from taking on apprentices. The key purpose of the scheme is for Microsoft to handle the administrative aspects of apprenticeships on behalf of employers.

Network funding and governance

Financial support from the scheme mainly comes from the National Apprenticeship Service which has contributed nearly £12 million since the start of the scheme and meets the costs of training provision. Other costs are borne by employers, Microsoft and training providers. Employers take on the costs associated with employing the apprentice, specifically their wages and the costs of managing apprentices. Microsoft handles most of the administrative costs of running the apprenticeship scheme including sourcing funding and making initial approaches to training providers. Both training providers and Microsoft invest considerable resources into initial employer engagement and recruiting potential apprentices. At Microsoft, around six staff are involved to some extent in running the apprenticeship scheme while one training provider has 23-4 staff working variously on initial employer engagement and recruitment of apprentices. Training providers and some employers were involved early on in the designing the apprenticeship scheme and ongoing feedback from employers continues to play an important role in shaping the apprenticeship scheme. There is no formal membership system for the Apprenticeships scheme, although participating employers are all members of the Microsoft Partner Network. Currently around 300 employers participate in the scheme out of 300,000 in the Microsoft Partner Network.

Employer participation

Participation centres on the organisation of the apprenticeship placement and development of the apprentice. Feedback from employers is collected on a day-to-day basis through the engagement teams at both Microsoft and the training providers and occasionally through more ad-hoc events run by Microsoft. This more informal model was felt to be a virtue of the scheme, as one of the central purposes of the scheme is to reduce the amount of time employers have to commit to apprenticeship administration.

Network activities

Three types of apprenticeship are offered through the scheme for different IT roles. The apprenticeships last 9-12 months and training is delivered by private training providers. There is an e-learning option available, which caters for geographically isolated employers whose apprentices would struggle to attend classroom sessions. One of the key aspects of the provision has been delivering useful skills "upfront" so that employers see a return from the apprenticeship as early in the process as possible. In addition to the training provision itself both Microsoft and the providers offer a number of other services to employers, notably assisting in the recruitment of apprentices and helping with arrangements for apprentices attending off the job learning.

Network impacts and outcomes

The Microsoft Partner Apprenticeship scheme appears to have had a number of successes in increasing the supply of skilled entrants to the IT industry. The scheme has high completion and retention rates, 85% of apprentices complete and 80% go into newly created jobs with their employer. Employers were highly enthusiastic about the scheme they felt the main benefits were getting access to new, motivated recruits with highly job relevant skills at very little cost. More broadly the scheme appears to have helped raise the profile and increased the prestige of apprenticeships within the IT industry.

1.7.4 Teesside Business School Foundation Degree in Leadership and Management (Teesside)

This network is based on a collaboration between Teesside University Business School and the North East Chambers of Commerce (NECC) to create and run a leadership and management foundation degree. The course aims to provide participants with line management level leadership and management skills that are practically focussed and relevant to their organisation. In addition to the main foundation degree several additional "pathways" have been developed with individual employers providing sector- or employer-specific content.

The partnership began after the NECC identified leadership and management as a major skills gap in the region and the approached Teesside to discuss developing a qualification to meet employer needs. Initial funding from government and a "business friendly" approach of the University enabled the creation of a flexible, practically focussed programme in four months. Eighty employers have enrolled employees on the course since 2006.

Network governance and funding

The foundation degree is funded by both employers and the university, which covered some initial set-up costs of staff time. Additional funding for the development of the programme came from Foundation Degree Forward and participant costs received some funding from Business Link. Employers pay a fee for each participating employee, while tuition fees will be paid for by participants once government funding ceases in 2012. The degree is open to all employers in the area who wish to develop staff leadership and management skills and there is no formal membership status required.

The NECC drove the initial development programme which is now led by the university with NECC's main role being one of recruiting participants. A key feature of the programme has been employer involvement in designing both the basic degree and additional tailored pathways. In some cases employers are directly involved in teaching, for example board members from one participating employer attend the last day of every module to provide relevant, work-based examples to illustrate programme content.

Network activities

Degree participants take twelve modules over two stages, with each module worth 20 credits towards the final degree. There are eight additional pathways aimed at providing tailored content for more specific areas. The provision is designed to be extremely flexible to allow participants to balance their studying with other commitments. Delivery is based on a "step on, step off" approach so that participants can miss modules and take them at a later date. Online and blended learning support face-to-face tuition.

Network impact and outcomes

Numbers of participants on the programme have risen since the network's inception. Completion rates are above the national average for similar courses and participant surveys reveal a high level of satisfaction with the course. The success of the foundation degree has boosted Teesside's credentials as a business friendly university and the programme has created a model of employer-HEI collaboration which can be reproduced elsewhere. Employers have seen substantial business benefits including improved business practices and greater confidence among staff.

1.7.5   Oil and Petroleum Industry Training Organisation (OPITO)

OPITO aims to deliver skills and workforce development initiatives to the oil and gas industry, primarily by matching employer demand with skills supply from training providers. OPITO does not provide training directly but instead approves a network of training providers, accredited to deliver training to OPITO-developed industry standards. OPITO was founded in response to the need to create common industry standards, particularly in relation to safety. OPITO originated in the Petroleum Industry Training Board which operated on an employer levy. OPITO has evolved considerably since then and is owned by equal industry partners Oil and Gas UK, the International Association of Drilling Contractors (IADC) and the Inter Union Offshore Oil Committee (IUOOC).

Network funding and governance

OPITO's two major sources of income are annual contributions from the industry and registration fees (currently £25 per person) for each individual employee accessing OPITO training. OPITO is run by a Board of Directors which includes representatives from both employers and Trade Unions, reflecting the tripartite ownership of the organisation. The Board is responsible for determining the strategic direction of OPITO as well as the "nuts and bolts" of OPITO's business such as budgets and performance. In addition to the board, the OPITO organisation consists of 65 paid employees responsible for managing and running the organisation's activities.

Network activities

OPITO's main skills role involves approving training centres to deliver training and assessment to OPITO standards. There are 35 OPITO-approved training centres providing training in emergency response, hazardous activity and occupational competence. OPITO also manages the Upstream Oil and Gas Industry Technician Training Scheme (UOGITTS) which is the main apprenticeship scheme for the industry. OPITO is also involved in developing good practice standards for the industry in conjunction with employers, employees and other interested parties. Finally, OPITO undertakes activities in schools, colleges and universities to encourage students to study science and engineering subjects and to consider the oil and gas industry as a career choice. Employers within the industry can participate in OPITO's activities in three main ways: representation on the Board of Directors; participation in technical forums and workshops to develop standards (30-40 employers participate in these); and feeding back the practical impacts of standards in the workplace.

Network impacts and outcomes

OPITO has achieved a number of successes. Through partnerships with universities, colleges and schools, it has helped match skills supply to skills demand by embedding industry needs into the curriculum. The UOGITTS has become a leading apprenticeship scheme in the UK, recruiting roughly 120 apprentices a year with a completion rate above 90%. OPITO standards have been adopted across the industry internationally as well as in the UK reflecting their relevance and quality. Finally OPITO has an ongoing influence on the policy agenda relating to industry skills, future investment and occupational standards.

1.7.6 Information and Technology Management for Business (ITMB)

The network began in 2005 as a collaboration between universities, employers in the IT industry and e-skills, the Sector Skills Council for business and information technology. The network's primary activity is design and delivery of a new degree in Information Technology Management for Business which aims to provide graduates with a mix of skills not available in existing IT degrees. Evidence from e-skills employer board members had identified a number of skills gaps among new IT graduates, in particular a blend of business skills such as inter-personal skills and commercial acumen to supplement technical IT skills.

Network governance and funding

Initial funding for the network came from the HEFCE Strategic Development Fund and the Department for Education and Skills. Prior to 2008 all universities delivering the course received a grant to cover the set up costs of the degree. Following the ending of external funding, the network is now mainly funded through indirect public subsidy of degree programmes and a fee paid by universities to e-skills of £250 per student. Employers also make in-kind contributions to a number of the network's activities, through giving up time to provide work placements and course input.

There is no formal membership status or joining criteria for employers, but universities are selectively invited to participate based on their capacity to deliver a business relevant programme, and there are now 14 university partners. E-skills do not wish to upscale the programme too fast, as each new university offering the programme needs some support so growing university partners is a gradual process. The network is led by e-skills which facilitates regular meetings and forums. There is a regular Employer Strategy Forum which meets monthly and smaller steering groups made up of employers. Course directors from different universities meet on a quarterly basis.

Network activities

The core activity of the network is the design and delivery of the degree programme. Individual degree programmes are designed according to a blueprint developed by the employer steering group. All courses must also be assessed by an independent academic and ratified by the Employer Strategy Forum. There are around twenty five different ways in which firms may participate including participation in employer strategy forums, providing direct advice to universities on course content, mentoring or lecturing students, attending networking events and helping students find jobs.

Network outcomes and impact

The main outcome from the network is an increasing supply of graduates with a balanced set of industry relevant skills. The number of graduates has increased from eight in 2008 to 195 in 2011, with a total of 355 graduates since the programme started. Events and activities run through the network, for example work placements and networking events, help match graduates with suitable employers. The programme is improving workforce diversity as 35% of ITMB students are female compared with 15% on similar programmes. Employers also feel there are benefits from involvement even if they do not directly recruit ITMB graduates. These include having their brand name associated with the degree and having the opportunity to share knowledge with others in the industry. Finally, universities delivering the ITMB feel their involvement helps improve their credibility and prestige with employers.

1.7.7 Training 2000

Training 2000 is a Group Training Association (GTA) established in 1967 and based in the North West. Its core aim is to deliver specialised training across a number of sectors and it has diversified beyond its original training provision for engineering firms. This diversification included establishing GTA Social Care as a wholly owned subsidiary of Training 2000.

Network funding and governance

Training 2000 receives income from members in the form of membership and course fees as well as public funding for apprenticeships and pre-employment training from the Skills Funding Agency, the Young People's Learning Agency and the European Social Fund. There is greater appetite for staff training among engineering firms than in social care. Social care organisations are currently operating in a difficult financial environment due to local authority cuts and there is a lack of a strong training culture across the sector and regulatory requirements related to training have been reduced. Training 2000 currently has 58 members but also provides some services to non-members.

Training 2000 is led by an employer board composed of GTA members. All members are eligible for board membership and the GTA selectively approaches individuals to take on these roles. It has proved somewhat difficult to secure SME representation so Training 2000 has introduced other ways to ensure employer views are represented such as individual representatives who engage with a range of stakeholders and employer forums.

Network activities

Training 2000 offers a range of training activities from short courses lasting less than a day to Level 4 Diplomas with a particular focus of apprenticeships. All training is delivered directly by Training 2000 with a strong emphasis on tailoring provision to meet the needs of particular employers. In addition to the core training activities, Training 2000 offers a number of other services to members including business advice, credit facilities and networking opportunities.

Network impact and outcomes

Members have benefited from being able to access good quality tailored learning provision, and employers reported that Training 2000 offers something different from "normal" training providers. A survey of apprenticeship employers in 2010 found that the vast majority of employers believed the learning acquired had a positive impact on their business while Training 2000 also scored highly in relation to their understanding of employers' training needs and the tailoring of provision. More broadly the size of Training 2000 has enabled it to represent employer views on groups that influence training standards and sectoral policies, particularly in relation to engineering but also in other areas such as social care.

1.7.8 Tallent Engineering supply chain network

Tallent Automotive Ltd is a manufacturer of vehicle chassis. The purpose of its supply chain network is to ensure that Tallent's suppliers provide parts of sufficient quality on time and at a reasonable price which in turn will enable Tallent to satisfy its own customers which are major car manufacturing companies. Currently there are 97 companies in the supply chain.

Network governance and funding

The network is managed through individual contracts with each of Tallent's suppliers, which specify the quality standards that each supplier must meet. Relationships with suppliers are managed by two Quality Managers at Tallent who have responsibility for monitoring supplier performance. Suppliers themselves use Quality Managers responsible for ensuring they meet the standards required by Tallent.

The network does not receive any external funding, as the costs of meeting quality standards are borne by suppliers while Tallent itself takes on the costs of monitoring supplier performance and providing information, advice and guidance on meeting supply chain standards. Tallent estimates that it costs less than 1 per cent of annual turnover to manage the supply chain, while supply chain members estimate their costs at around £3,500 per year.

Network activities

To help suppliers achieve quality standards, Tallent provides support, for example by reviewing the supplier's control plan and assisting in risk management which can lead to suppliers investing in additional training for staff. Suppliers may also visit Tallent to learn about new technologies and processes and Tallent regularly visits suppliers to monitor and advise them on performance improvement. Where concerns about the work of suppliers are raised, Tallent conducts a formal audit. In general, Tallent prefers to interact with suppliers on an individual rather than a group basis.

Network outcomes and impact

For Tallent, the key benefits of the supply chain network are that it helps ensure the companies own ability to provide its customers with a timely supply of products which meet their needs and expectations. Suppliers within the network noted that being part of the supply chain had helped them improve their processes and develop their skills base. Furthermore this process of improvement had in some cases increased their ability to move into higher value work areas and a higher tier of the supply chain. Suppliers also noted there were reputational benefits to being part of the Tallent supply chain. In an industry where components are not usually branded, being part of a supply chain with a reputation for quality helps the members of that supply chain gain recognition and, by extension, further work from other potential customers.

2 Formation and Purpose of Employer Networks

2.1 Network objectives – skills versus other priorities

By design, most of the employer networks examined as part of this study focussed on skills development as a primary focus or secondary focus, while one focussed on quality improvement and one focussed on innovation. From the online and telephone survey, almost all of these employer networks listed skills development as either a primary or secondary objective of the overall work of the network, which included supporting commercial/ business development activities and informing the content and planning of qualifications and skills accreditation. Of those networks which reported that skills development formed a secondary objective, many of these were engaged in other activities such as representing the views of employers to policymakers, regulating aspects of their industries / sectors (some of which was skills related), and supporting innovation among participating employers (again, some of which was directly skills and training related). This reflects the common multiple and overlapping purposes which employer networks serve.

Of the case study networks, all but two had a strong skills-related focus. The exceptions were Tallent, which was focussed on achieving quality standards and AXRC which was primarily focussed on the creation of new products and services through joint research and development activities. Even here, the mechanisms of the network involved skills development through funding of student research, mentoring and transfer of learning between individual members of staff. Among the other networks, motivations for skills development commonly centred on the need to meet existing skills shortages or skills gaps which were already inhibiting current organisational strategy and performance, rather than investment to meet future, as yet unrealised, challenges. This reflects a practical and consumerist perspective of employers who were involved in establishing the networks on solving current problems and is commonly identified in the motivations of employers for initial engagement in network activity (Cox et al., 2009).

2.1.1 Who determines network objectives and how?

Network objectives varied in how formally they were defined and which parties were involved in articulating them. Some networks expressed objectives in terms of **outcomes**; for example, supply of a competent workforce (OPITO, ITMB, Teesside), creating jobs and qualified individuals for the IT sector (Microsoft), optimise supply chain performance (Tallent), addressing common sectoral problems such as staff recruitment/retention (WCCF), establish position as a commercial but not-for-profit training provider (Training 2000). In the networks which were primarily supply-led by training providers, these objectives were typically translated into measurements of outcomes for individuals, rather than measurement of collective outcomes for the network as a whole or for beneficiary employers (see Chapter Five for further discussion).

Other networks more commonly articulated their objectives in terms of **activities**; for example, the AFX/RC network expressed its intentions through a 'vision' statement committing itself to developing shared manufacturing capability, spin off technology and training students. This reflects a network where research and development outcomes are by definition, unknown, and likely to be realised over a long timescale.

Those organisations who were typically involved in establishing network objectives ranged from the lead customer at Tallent, to combinations of organisations in the other networks. OPITO and WCCF originally had their objectives heavily influenced by government, but as this has reduced, employer views and needs have assumed more importance, articulated primarily but not solely through employers represented at board level. The objectives for AM/FRC, Training 2000, ITMB, Teesside and Microsoft's apprenticeship partnership network are influenced partly by employer needs but are also shaped by funding flows. These do not change the focus of the network, but may mean that objectives are expressed in terms of numbers and outcomes for individuals achieving particular qualifications.

Understanding Employer Networks

The type of employer network created tends to reflect the kind of problem or issue that it is trying to address (discussed in more detail in Chapter Three). Science parks and business incubators tend to focus more on supporting innovation and business development among participating employers. Demand-led employer networks which focus on skills do so as a means of overcoming a number of barriers to training and skills, including: identifying problems with particular skills gaps; information asymmetry on training benefits; difficulties in finding appropriate learning facilities; and fear of poaching (Stanfield et al., 2009; Beer and Meethan, 2007). Employer networks have also been identified by as a useful way to develop the leadership and management skills within employers. In particular, recent work has noted that:

- networks facilitate peer-to-peer learning, and high quality knowledge transfers which can facilitate innovation and increased productivity

- networks offer a flexible system of support and an enhanced collective capacity (UK Commission, 2010a).

Supply-led networks are often depicted in the literature as being less effective at responding to employers' skills and training needs (Burge et al. 2002a; Cooney and Gospel 2008). Supply-led networks can be less effective at providing relevant training and development, although government strategies to increase employer engagement can play a valuable role in improving the effectiveness of these networks. For example, a recent evaluation of National Skills Academies (NSAs) found that having an employer-led board had a positive impact on the strategy and operation of each NSA. The evaluation also found examples where NSAs had developed new provision in partnership with providers and employers, and in direct response to employer needs. This training had also been delivered in more flexible settings (Johnson et al. 2011).

However, the case study networks investigated as part of this research in which a supplier of learning assumed a prominent role were all established in response to particular employer skills shortages and gaps. Thus, while they were supplier-organised, they could be described as employer-driven and provide evidence to illustrate that supplier-led networks can be responsive to employer needs.

2.2   Key drivers, initiators and funders in forming networks

The literature characterises the rationales for networks as common, shared problems or interests which therefore present a motivation for collaboration (Cox et al., 2009; Gospel and Foreman, 2006; Paton and Wilson, 2002; Dennis, 2000; Herrera Bernal et al., 2002), and typically stress the importance of employer involvement in establishing networks to ensure they fulfil a useful function (CBI, 2005). This is reflected to some extent in the case studies where employers came together driven by pragmatic and practical reasons for collaboration, usually involving delivering activities involving skills development to which they would otherwise not have access.

Skills shortages or needs were a contributory factor which drove the establishment of almost all of the employer networks, spotted either by individual employers or bodies representing employer concerns. Meeting skills needs was the primary drivers for the initiators of the ITMB and Teesside degree programmes - e-skills and the Chamber of Commerce - who were articulating employer concerns about graduate skills shortages and management skills gaps which needed addressing. Training 2000 and OPITO grew out of pre-existing employer organisations in the form of a GTA and an ITB, formed by employers to address industry skill needs within the engineering and petroleum/gas supply sectors respectively.

For other networks, plugging skills needs was a feature of network activity but it was not necessarily the primary or original focus. Instead it featured less directly, as a second order or downstream concern. Creating AMRC was driven by an organisation in the supply chain seeking to improve its innovation capacity through access to resources and expertise. Tallent and Microsoft took the lead in establishing their supplier network as the primary customer, and are driven by a desire to improve their own business performance, by supporting improvement among suppliers, including skills development activities. Only WCCF was established by the Welsh Assembly Government, originally as an employer forum to voice the needs of employers interested in establishing contact centres in Wales. Once it became independent, it began to focus more heavily on helping employers address recruitment and retention issues. The availability of funding for apprenticeships is also likely to have contributed to the establishment of the Microsoft scheme and expanded the work of Training 2000, while funding from HEFCE supported the Teesside programme and funding from BIS and the TSB is likely to have helped the expansion of the AMRC.

Although the research design explicitly sought networks with a focus on skills needs, it is evident that the drivers for forming networks were often multi-faceted, so the function and purpose of networks should not be oversimplified. The mapping exercise illustrated that the most numerically widespread type of employer network across the UK is trade associations, which are primarily focussed on commercial and business development activities. Within this broad remit, however, there are major variations in the types of services provided by different trade associations. Moreover, as more information on running a business, communicating with government, reaching customers and opportunities for knowledge exchange has become publicly and freely available through internet resources, such organisations are likely to have to adapt and revise their activities to retain the support of employers. Building in the possibility for some flexibility and capacity to adapt in establishing employer networks and avoiding an overly prescriptive approach to how they should function would therefore seem to be advisable when establishing them.

2.2.1 Success factors in establishing networks

A number of factors helped to facilitate the establishment of the case study networks. Based on analysis of the network histories, this report concludes that p**re-existing relationships** were important in determining the organisations that participated in establishing the network. Key employers from the Tallent, Teesside, AMRC and ITMB networks were instrumental in identifying the learning providers which firms approached as likely collaborators, usually on the basis of previous relationships with them. This illustrates the important role that trust plays in helping networks to take root. Trust is identified as a dominant theme in the literature on employer networks because network success is argued to be dependent on information-sharing. This requires individuals to trust others with whom they share knowledge about common business problems and solutions, both not to exploit competitive vulnerabilities and not to exclude partners from benefiting from solutions (Sako, 1992). Trust is most likely to be developed through 'insider' networks made up of familiar, credible contacts such as former business partners, industry contacts, customers, accountants, friends, family and colleagues (Bishop, 2011).

Access to resources was particularly helpful in establishing the Microsoft, WCCF and Teesside networks, and may have influenced the scale of development in the AMRC and ITMB networks. This is supported by previous evaluations of learning networks which identified resource access as both a unique selling point for networks to employers and as a necessary prerequisite for delivering network services effectively (Rhodes and Graver, 2002).

The **presence of leading employers** including Rolls Royce, Tallent and Microsoft was instrumental in attracting their suppliers into networks led by these large firms. This is consistent with the literature which draws attention to the role of commercial power in vertical business to business relationships (Marchington and Vincent, 2004; Street and Cameron, 2007).

Within the supply chain networks of Microsoft, Tallent, OPITO, AMRC and for ITMB where employers were potentially competing with each other for course graduates, the **presence of common interests** in securing the skills pipeline which transcended competitive pressures were helpful in persuading employers of the benefits of participation. This factor has also been identified as important in the wider literature (Gospel and Foreman, 2003). The organisations within these networks commonly came from different parts of the supply chain, which helped reduce competitive tensions between them. A key feature of some of the networks is that the number of employers among which close collaboration is required may not be particularly high, and this typically involved agreement of course content to be delivered by a learning provider.

2.2.2 Challenges in establishing networks

Typical challenges facing new employer networks centre on the resources and skills needed from a credible expert administrator, gaining support and considerable commitment from employers and reluctance to co-operate among competitors. This demands investment of time to build up adequate trust between a sufficiently diverse group of organisations to generate benefits networks, and this may require significant marketing effort including face-to-face contact to persuade small employers to participate (Stanfield et al., 2009). Challenges of developing trust were low in a number of the case studies, either because the networks were well-established or because the partners already knew each other, and may also reflect some self-selection bias in the achieved case studies, where those which were more confident about their success were more likely to participate.

However, engaging employers posed challenges in various ways for three of the networks. For Training 2000, having an **unknown brand** in the social care sector or beyond its original geographical market established made it necessary to invest some money in marketing its services to potential new members. Similarly, Microsoft found that it hard to work hard to promote the apprenticeship programme to its partners in SMEs. At WCCF, the **time commitment** required of board members to attend and prepare for meetings five times a year was challenging as all the individuals were employed in other roles, but the requirement to attend a minimum of three meetings helped to ensure attendance. The challenge of gaining employer commitment was partly solved by some networks through offering multiple options for employer participation, ranging from intensive representation at board level to help run the network, through to provision of recruitment opportunities or placements for individuals participating in network learning activities. This recognises that firms of different types are likely to be looking for different services from networks and their needs require accommodating.

Developing training content quickly and gaining standards approval in a tight time frame was a particular challenge for Teesside where the higher education partner achieved this in four months, which is considerably faster than usual in the sector. Most of the educational partners involved in the networks had an established track record of working with businesses either on an individual basis or on similar projects, and were therefore well equipped to handle the needs of the network. In the case of Microsoft, problems with the training provider initially selected led to its swift replacement. This highlights how choosing suitable expert partners can be important in making networks successful.

2.3   Network development over time

The focus of some of the older networks had changed over time, reflecting the development of new aims and ideals. The motivations for changes in the focus of networks typically reflected a combination of employer demand/need and, in some cases, supply of funding. OPITO had extended the focus of its training from an initial focus exclusively on safety to broader quality standards.

More recently established networks were also adapting to employer needs. The WCCF was originally set up as an employer forum to help attract inward investment in contact centres in Wales, while Teesside had developed pathways within its degree programme to reflect sectoral context for employers, including public sector, contact centres, hair and beauty therapy and building services. Training 2000 had extended the occupational coverage of its development programmes to include roles outside its original focus on engineering in response to employer demand. It had focussed particularly on social care in response to regulation in the early 2000s requiring a proportion of care assistants to hold relevant NVQs.

A number of the case study networks had recently expanded their activities into provision of information, advice and guidance to prospective recruits to the industry they represented and undertaken outreach and engagement work with schools. This reflects emerging concerns about adequacy of the labour supply pipeline for some of the industries represented by the networks. Adaptation and evolution could be regarded as characteristics of successful networks to secure sustainability and longevity and therefore it is unsurprising to find their aims changing over time.

For other networks, continuity and stability was more important, reflecting business priorities. The Tallent network has changed little, because the components made do not tend to change much over time, vary little between customers, it is more efficient to manage a smaller rather than larger number of suppliers and top tier customers usually have targets to reduce and stabilise the numbers of organisations in their supply chain.

2.4   Summary

Networks commonly have a variety of purposes and motivations with skills-based networks usually focussing on developing learning provision to meet existing skills shortages or skills gaps. This reflects a practical and consumerist focus of employers who are involved in establishing the networks on solving current problems. Identifying and positioning networks to provide a rapid benefit to employers is likely to be important for securing initial engagement.

Understanding Employer Networks

The type of employer network created tends to reflect the kind of problem or issue that it is trying to address. Science parks and business incubators tend to focus more on supporting innovation and business development among employers. Demand-led employer networks which focus on skills do so as a means of overcoming a number of barriers to training and skills including identifying skills needs, understanding benefits of learning and providing access to it. However, supply-led networks were seen to be able to overcome some of the barriers to providing relevant training by having an employer-led board and when developed in direct response to a specific employer skill shortage or gap (see Table 1.1).

Most of the networks consulted were heavily driven by employer needs, including those which are supply-led, which are also responsive to government funding flows. Some flexibility when setting out the purpose and focus of networks is helpful in adapting to changes in employer needs and to capitalise on synergies with shifting national skills priorities. A number of networks had expanded their activity into information, advice and guidance at secondary school levels to help secure the future talent pipeline for their sector.

Across the case studies, network objectives were commonly expressed as either activities or outcomes. Defining outcomes is more difficult for networks where the product/service impact has a long lead-time, so flexibility is needed in assessing validity of network aims when making funding decisions. Networks which are primarily supply-led by training providers typically translate outcomes into measurements of achievement for individuals. Implications for assessing network performance and measuring impact are considered in Chapter Five.

Success factors in establishing networks include drawing on pre-existing relationships between potential network partners to make the most of existing rapport; access to valued resources to attract employers; presence of a common interest to generate motivation for action and reduce any reluctance to co-operate among competitors; presence of leading employers to attract other participants.

Understanding Employer Networks

Challenges in developing networks include building up an unknown brand; time commitments for SMEs to participate in network governance; developing training content quickly to meet employer needs. Some investment in marketing of networks in industries without significant history of employer collaboration is likely to be important. Offering multiple engagement methods for SMEs can help secure their input. The choice of a suitable learning provider partner with suitable capability and expertise, especially for larger networks, is critical. Alternatively, starting networks on a small scale, to iron out any teething problems without damaging network credibility among target employers, could be helpful.

Networks can take some time to build up credibility and sustain momentum in their operations depending on the speed of return required in their activities. Some caution may be needed to temper expectations about how much new networks can deliver in a short period of time, unless their focus is on a highly transactional service.

3 Key Characteristics of Employer Networks

3.1 Scope and visibility of different types of networks

The literature review distinguished between demand-led networks established in response to needs voiced by employers and supply-led networks driven by funding for learning provision and other support for the talent pipeline as a result of policy initiatives which may or may not be linked to articulated employer need. It additionally identified a number of different types of network, some of which are supply-led, some of which are demand-led and some of which have mixed characteristics. These include local chamber of commerce, employers' organisations or trade associations, Group Training Associations, supply chain networks and business clusters including HE led incubators. The literature review did not yield data on prevalence of different kinds of networks.

An online search (mapping exercise) for employer networks using a range of specific and general search terms, supplemented by an online/telephone survey to generate supplementary information on common employer networks which adopted a similar model in different locations (e.g. Chambers of Commerce). This produced some indicative evidence on the type of networks and their distribution across the UK shown in Table 3.1. It should be noted that the results are confined to networks which publicly advertise their existence and should not be regarded as a comprehensive or definitive set of results; networks which operate without a formal administrative structure may not be located through this type of search. Supply chain networks that were identified in the mapping exercise are excluded from this table as relatively few document their activities online and therefore we are likely to underestimate the numbers involved. Anecdotal evidence from experts consulted during this project suggests that many more informal networks also exist but are not captured through publicly available information.

Table 3.1   Visibility of different types of networks across the UK

Type of network	Indicative visibility
Trade associations – demand led	At least 650
Science parks/incubators – mix of demand and supply	Around 80
Chambers of Commerce – demand led	Around 78, of which 55 accredited by the British Chambers of Commerce
Group Training Associations – demand led	Around 30
Networks led by a government body – mixed, historically supply led but with increasing employer involvement	At least 100

Trade associations are the largest and most diverse group. Indicative evidence suggests that they range from inclusive, generalist bodies which cover multiple sectors, to those with a tight product/service-based and/or geographical focus e.g. hotel and catering firms in one town or city. Most are UK wide but over 35 were located which are specific to Scotland, around 15 specific to Northern Ireland and around 10 in Wales. They also vary enormously in the degree of focus they place on skills development activities. Most position themselves as providing generalist business support in marketing and representing the interests of their members as their primary aim, with skills development a subsidiary goal or one which forms part of consultancy services.

Chambers of Commerce are relatively evenly distributed across England with around 4-8 per region, with one in Northern Ireland, two in Wales and relatively heavy representation of over 20 in Scotland. These organisations run on a not-for-profit basis and aim to help their members grow by providing general business advice, access to expertise and knowledge through networking opportunities and specific services including access to legal and HR advice and training.

Government licensed bodies include Sector Skills Councils, National Skills Academies and other Standard Setting Bodies with a primary focus on involving employers in skills development activities. There is some ambiguity here as bodies with a regulatory function in governing professional competence and industry standards may also display features of employer networks where they involve employer representation and skills development, but those with a primary function as a regulator were excluded from this research.

Clusters were usually linked to business innovation and incubation activities with a site linked to a Higher Education Institution. At least eight of these are located in Scotland and three in Wales, with over 20 found in North West England. Their focus is usually science-based, with activities focussed on technical innovation and skills development commonly a subsidiary activity. The location of clusters usually reflects the distribution of Higher Education institutions, giving rise to concentrations around major cities and regions such as the so called 'Golden Triangle' of research-intensive universities between Oxford, Cambridge and London areas.

A relatively small number of **GTAs** were located. This reflects a decline in numbers over recent years but is broadly comparable with the figure of 40 provided in recent research (ALP, 2009). GTAs are primarily concentrated in engineering, manufacturing and construction related industries and their distribution reflects the geographical concentration of these sectors.

3.1.1 How are employer networks funded?

The mapping exercise showed that networks mostly used multiple sources of funding with a mix of membership fees, charges for specific activities or services and government funding being most common. The funding arrangements for the case study networks are summarised in Table 3.2.

Table 3.2   Funding sources for employer networks

Name of network	Funding sources
Teesside	Around £5 million in government funding for Foundation Degrees and via BusinessLink, some funding in kind from Teesside Business School for set up
	Non-membership, employers pay a fee of £1,225 for each employee undertaking a degree
AMRC/AFRC	Funding split from 3 sources: membership fees, Technology Strategy Board, and direct industry or government sponsorship of research e.g. £9.2 million from BIS Regional Growth Fund for apprenticeship centre combined with £11.3 million from companies and other sources, AFRC had funding from Scottish Enterprise
	Membership costs £200,000 for top tier with seat on main board or £30,000 per year second tier
	TSB has replaced RDA funding

Understanding Employer Networks

Name of network	Funding sources
ITMB	DfE and HEFCE provided some set up costs with additional investment via staff time from universities. Eskills provided some funding and grant up front to help universities with set up costs, which is recouped through universities paying e-skills £250 per year per student. Employers contribute around £600,000 pa in kind (e.g. delivering lectures, sponsoring prizes) and £100 per placement they offer to students.
Tallent	Running costs supported solely by employers and not formally monitored
OPITO	Income of over £9 million per year from UK employers, of which £0.5 million surplus reinvested in products/services, compulsory registration fee of £25 per person (105,000 registrations in 2011)
Training 2000	SFA, YPLA and ESF, plus some membership and course fees from employers – membership costs £100 per year excl VAT
	Running costs around £12.3 million in 2011, of which £7.5 million covers staff costs and £2.5 million overheads. Net loss of around £800,000 due to changes in public funding of skills provision for adult learners
Welsh Contact Centre Forum	Initial funding from Welsh Assembly Government, now reduced to 30% of costs, with remainder from membership and consultancy/training services. 40 associate members in contact centre supply chain pay annual fees ranging from £199 plus VAT for organisations with four or fewer employees, to £450 plus VAT for a business with five to ten employees and £800 plus VAT for firms with eleven or more employees. Membership is free to contact centre employers.
Microsoft Partner Apprenticeships Programme	£12 million from NAS since 2010 to training providers, employers pay for individual apprentices, Microsoft covers liaison between NAS and training providers over course development, engaging its suppliers to take on apprentices

Evidence from the case studies showed that networks mostly relied on more than one form of funding which came from four main sources:

- public funding

- membership fees

- payments by employers for specific services or activities

- non-financial contributions from organisations involved in the network.

Public funding was either direct, e.g. from the National Apprenticeship Service for MPA/Welsh Government funding for the WCCF, or indirect. Indirect public funding was channelled through public bodies, typically HEIs, which played a major role in running the network or delivering activities (Teesside, ITMB). Public funding had generally been used by the networks throughout their lifespan and only WCCF had increased its income from other sources. Only two networks (Tallent and OPITO) did not receive public funding. OPITO benefited from a group of large employers paying fees for certification of staff competence and had considerable power in encouraging active participation through acting as custodian of regulatory standards, while Tallent's services were more focussed in scope and therefore experienced limited overheads associated with running the network.

Public funding clearly has some advantages in its potential to help employers access finance to overcome market failures in skills development that they are unable to address alone. However, reliance public funding has a number of potential disadvantages. WCCF noted that high levels of public funding could lead to 'bloating' in network administration and lose focus on needs of members, and OPITO noted risks of networks becoming 'talking shops' if they expanded without a clear focus on employer needs. Relying on member contributions to generate income could therefore encourage network discipline in spending and focus on employer needs. Furthermore reliance on public funding may be scrutinised in terms of value for money that networks provide and networks may need to consider how best to balance public policy priorities and employer needs to attain long term sustainability.

Membership fees were charged by three networks (Training 2000, AXRC and WCCF), in the latter case only for supply chain partners of core target members. Differential rates were offered to organisations of different sizes, reflecting abilities to pay. Fee levels varied significantly and some networks pointed out that high fees guaranteed member commitment to the activities of the network (AMRC), while others noted that fees contributed to multiple sources of funding and helped aid sustainability.

The main potential disadvantage of membership fees is as a deterrent to potential members, especially smaller firms. This suggests the importance of judgement and research in setting fees at an appropriate level, balancing what organisations are willing to pay with minimum running cost needs. It may be particularly difficult for new networks to charge fees as they are likely to find it more difficult to prove benefits of network involvement to potential members, so public funding is likely to be especially important at this point. Making any transition from free services to charging core members for services is likely to be difficult and none of the case study networks had attempted this. The WCCF model is interesting as it had successfully expanded its membership to contact centre supplier companies, which had an interest in building relationships with new customers, and, critically, had no previous experience expectations of receiving free services.

Payments for specific activities included fees for employers wishing to take on a work placement student in the ITMB network, student fees for the Teesside degree and charges for training and consultancy services at Training 2000 and WCCF. In order to win employers' custom, a high degree of tailoring was provided. Employers and network organisers noted that employers did not usually regard any activities as entirely without advance investment costs, since even those with no fee require some investment of staff or managerial time. This suggests that in establishing networks, even activities which incur no charge for participation need to be clearly marketed to employers to convince them of the benefits of taking part. While no employers are likely to participate in activities without clear benefits, firms appear to seek higher value from activities which involve a financial cost.

The main advantage of charging for services is the potential this offers networks to be self-sustaining, and from a broader perspective, through creation of an efficient market in which employers will pay for services they value. A disadvantage for network administration of relying on members paying for services is that it may be less stable and predictable than membership fees (Training 2000 and WCCF). Additionally there may be limits to employer willingness to pay for additional services, particularly where they have already paid a membership fee. Some networks reported that employers require a network benefit that is not available from a standard commercial training provider. This might necessitate providing services at a lower cost (WCCF), with unique or tailored content (Training 2000, WCCF, Teesside) or with some additional free service provision for network members (Training 2000).

Non-financial contributions typically included staff time provided either by employers or the organisations running the network in designing qualifications (ITMB, Teesside and MPA) and contributing to running the network (AxRC, WCCF, Training 2000, MPA, Tallent and ITMB). Employers also made other kinds of non-financial contributions such as allowing their facilities to be used for network events and activities, and visits between firms. Some employers readily gave up some time to network activities; helping to shape training and learning activities appeared to be relatively common and popular with employers because of the direct visible benefit they received in the form of tailored training. It may be worth considering quantifying the benefits and time costs of employer contributions in kind and considering how access to the expertise of large employers could be promoted as a benefit to prospective participants, particularly small employers.

Network activities which relied on time commitments from senior staff were more vulnerable to lack of participation e.g. attendance at board meetings (WCCF) and board membership for small employers (AXRC). Minimum attendance requirements were set to overcome this. It may be necessary or networks to make some investment in accessing SME views through alternative means and the MPA reported considerable effort in engaging small companies.

From the broader classifications of networks explored through the online and telephone survey, it suggests that networks such as incubators, science parks and clusters linked to HE institutions benefit from public funding, while trade associations and Chambers of Commerce rely primarily on employer funding. The latter have a less direct focus on skills than the former, which raises the question of under what circumstances these kinds of organisation might perceive any value in extending the scope of their activity and under what circumstances employers would be prepared to pay for skills-related services offered by these organisations.

3.2 Characteristics of participating employers: sector, supply chain and geographic spread

Literature evidence and data from the mapping exercise indicates that network participation is more often found within sectors that have a stronger history of collaboration such as manufacturing and health care where industry associations are relatively common. The mapping exercise revealed a relatively even representation of businesses of different size bands taking part in network activities but the small scale of the survey means it is not likely to be representative, as wider literature notes that SMEs are less likely to participate. Among the case study networks there were examples of networks with participating groups of employers based on geography, sector and supply chains.

Network aims often shaped the formation of networks around sectors or supply chains. There was often some overlap between supply chain and sector based networks, for example MPA functions both as a supply chain network based around Microsoft as lead customer and a sector based network across IT firms. However, sector-based networks can also include organisations that cater for a sectoral market but come from diverse industries; for example, WCCF included companies providing products and services such as office supplies, IT and recruitment support as well as core contact centre members.

One of the main advantages of a supply chain network over a looser sector-based network is that companies within supply chains generally have pre-existing relationships on which more developed networks can be built and a degree of influence over each other which can help encourage participation. This is particularly the case where a key supply chain partner is involved in leading the network, which was very clearly important in the MPA scheme and also a factor for Tallent. However, the risks of a supply chain focus include reluctance to co-operate between potential participants who are market competitors, a potentially overly narrow focus in the content of skills development and the risk of dominance of a major partner and lack of influence among firms lower down the supply chain.

Understanding Employer Networks

Geographically-based networks were largely the product of the involvement of an organisation with a location-specific focus in setting up the network, the presence of specific issue common across employers in different sectors in a geographic area, practicalities or chance. The main example of a common need across sectors in a geographic area was Teesside where a lack of management skills was identified in a specific local area. There are also practical reasons for having a geographically-based target population. Where there is a network "hub" such as a key training provider, targeting local employers can enable ease of access to network activities. This is likely to be particularly important where employees from several companies need to gather in one place for training. For example, Teesside University was conveniently located for employers in the North East. The AxRC networks had some large multinational members but smaller members were based in the local area, reflecting geographical clustering at sectoral levels, and possible lack of awareness of networks' existence and scarcity of resources to participate among SMEs beyond the local area. This is also reflected in the predominance of Scottish organisations among OPITO employers reflecting the geographical location of oil and gas production. By contrast, MPA illustrates some of the difficulties of attempting to run a network providing training to employers on a national basis, where a considerable amount of administrative effort went into finding locations where apprentices from geographically dispersed employers could undertake classroom based training.

Some of the case study networks, including Teesside, MPA, ITMB, OPITO and Tallent, and other common networks such as SSCs do not have formal membership status. Some networks were not seeking to establish a common bond or sense of identity among employers as members of a 'club', but positioned themselves as providing a service on the open market, available to any employer interested e.g. Teesside/MPA. Secondly networks may vary in how far they are pushed to derive income from membership fees. For example, Teesside, MPA and ITMB all benefit from public funding, OPITO receives intensive investment from employers due to industry regulatory requirements for training, while Tallent is able to self-finance its activities. Thirdly, requiring employers to sign up for membership of a network may deter participation among those who wish to access services on an occasional basis. Not requiring membership may expand the number of employers a network can reach.

3.3 Network size and reasons for any recent/prospective change

The number of employers engaged in skills development activities varies significantly depending on the type of network. The small scale survey data obtained indicated that employer networks commonly included several hundred employers, but with a wide range of variation from some which contained only a dozen to others with several hundred thousand. Trade associations and trade bodies appear to have larger numbers of employer members, while networks with a tighter focus on skills, typically within supply chains or training focussed networks usually had smaller numbers.

The indicative size of each network is shown in Table 3.3 below.

Table 3.3   Size of case study networks

Name of network	Number of participating employers and type of interaction
Teesside	80 employers have funded staff through the degree.
	Interaction primarily through course design.
AXRC	68 members of AMRC, 17 members of AFRC, mix of small/large, all private sector. Interaction mainly through project activities and exchange of students/staff.
	Acct mgrs for most engaged 10-12 members, ad hoc meetings between employers to develop projects of interest, mutual visits.
ITMB	60 companies participating in development and delivery of degree (mostly large firms).
	Employer participation includes providing guest lectures, work placements, careers and recruitment advice, informal regional workshops for students
Tallent	97 suppliers in network
OPITO	No formal membership structure but around 30-40 companies contribute to standards development work via a committee
Training 2000	58 members
	Training officers, account mgrs, AGM, employer forums main forms of interaction
WCCF	198 members (contact centres), 40 associate members.
Microsoft Partners Apprenticeship Network	300 companies in Microsoft supply chain (mostly SMEs) offering apprentice places.
	Engagement and ongoing contact takes place mainly through existing partner network events, more contact reported with training provider than Microsoft for some firms.

The size of networks ranged from 58 to 300 employers. These figures were often considerably larger than the optimal size of 25 proposed by some of the literature (Stanfield et al., 2009). However, these figures include both employers who were actively involved in contributing to the design of network activities as well as those who were beneficiaries or end consumers of activities. Where there is definitive evidence on the numbers of employers who were contributing to network development, this is shown in Table 3.3. The largest networks are commonly those with no formal membership fees and where most employers constitute beneficiaries of network activities.

Membership fees appear to have an important role in determining the size of networks. It is notable that the two largest case study networks, WCCF and MPA, also have entirely, or predominantly, free membership. WCCF interviewees felt that without free membership the network might be smaller and less diverse. Similarly MPA employers were extremely pleased they did not have to contribute directly to the training costs of their apprentices. However there is no simple relationship between fees and size. For example Training 2000 had lower membership fees than AMRC but a slightly smaller membership.

Benefits from economies of scale in accessing learning provision from participating in a network may influence the number of members. For example, the AMRC offered highly valued facilities and information which smaller members would not be able to afford, so a large number of employers were prepared to pay the membership fee. This illustrates the need to identify unique resources, information and expertise to attract employers as network members.

Network ability to engage and recruit employers is also important. This capability is likely to depend on both the network having staff capacity to undertake marketing activities, as well as the amount of influence that networks have over potential participating employers. Effective initial engagement can help networks overcome employer doubts about the benefits of taking part. MPA is a clear example where apprenticeships are an unfamiliar qualification for some firms in the IT industry but the considerable influence of Microsoft within the IT sector and its existing relationships with potential recruiters of apprentices built willingness to participate. The activities of substantial employer engagement teams at both Microsoft and training providers have enabled the MPA scheme to grow.

The **pool of potential members** determined by geographical and sectoral coverage of the network also determines network size. For example the pool of potential apprentice recruiters among Microsoft suppliers was 30,000 while the AxRC centres have a more limited target population of advanced manufacturing companies. The WCCF had almost complete coverage of contact centres in Wales but would need to replicate the model for other industries or in other sectors to be able to expand.

Large numbers of participating employers may help to make networks more efficient to run, for example, where there are sufficient numbers of employers to make it viable to provide training in a number of locations and increase the scale of network impact. Larger networks may also be more diverse and representative of sectors which can help networks get a better understanding of employer needs and be particularly important for networks seeking to facilitate information sharing between employers. However, not all networks may seek to expand despite the advantages of size, because growth can bring some disadvantages. The first is that a larger network can be more difficult to organise and makes the representation of employer viewpoints more complex. This was a factor at AMRC where a growing number of Tier 2 members, represented by a single board member, required the adoption of new mechanisms to ensure the views of these members are taken on board. On a related point, growth can put administrative resources under strain. For example, while growing the MPA remained an aspiration, training providers noted that each new employer participating is likely to add to the workload for employer engagement staff. Finally excessive growth can lead to lower service quality and AMRC were considering a future cap on membership to prevent this. Additionally ITMB were cautious about the growth of universities offering the ITMB degree. ITMB felt it was preferable for the network to grow slowly and ensure that universities had the necessary support and advice to offer a quality degree.

3.4   Network legal status and governance

From the wider network typology, Chambers of Commerce are not-for-profit organisations, as are some GTAs. Each employer on a science park or within a cluster usually has a distinct identity but incubators may or may not be legally part of a higher education institution. Those which are independent have a variety of forms as CLGs, LLPs or other private sector status. Among case study networks ITMB, MPA, Teesside, Tallent & AxRC were run as part of existing organisations and so had no distinct legal status, while those networks operating as distinct legal entity were often a form of not-for-profit Company (OPITO, WCCF) or charitable company (Training 2000). WCCF's rationale for choosing to adopt a not-for-profit private company model over charitable status was a belief this would demonstrate greater commercial orientation, while preserving commitment to reinvest surplus income to improve member services. The key factor in determining whether a network has a legal status appeared to be whether a separate organisational structure, independent of any of the organisations involved, was required to run the network.

A number of different options were adopted by case study networks in terms of the formality of their leadership structure. Networks with most formalised arrangements such as OPITO, WCCF and Training 2000 opted for an employer or stakeholder board structure while others, such as MPA, had very informal leadership arrangements with a considerable amount of overlap between those leading the network and those responsible for its day to day running.

The key advantage of more formal arrangements is that they present a clear structure for determining how the network is run. This is likely to be important where the network is operated by a distinct organisation and where participating employers are contributing financial resources to a collective network fund rather than paying for individual services. In these circumstances members are likely to expect some influence over how the organisation is run and resource allocation. AxRC is not run by an independent organisation but the scale of employer contributions from membership fees created a need for clear structures to determine how that money is spent.

Understanding Employer Networks

Networks without formal leadership structures which offer regular employer involvement in decision making may need to develop alternative avenues to gain employer input which may be quite resource intensive. Most networks undertook some form of employer engagement activity, but it is notable that one of the most elaborate was the MPA where engagement teams at Microsoft and training providers appeared to have particularly intensive contact with employers.

The potential disadvantages of formal arrangements are greater time commitment for those involved in attending regular meetings and events. A number of networks with formal leadership arrangements noted problems with members being unable to attend including WCCF and Training 2000. MPA specifically opted for no formal leadership structure to avoid placing additional burdens on employers. However there may be a trade off in which network organisers take on more burdens in informal leadership models, while formal arrangements may be more resource intensive at least for some employers. More formal arrangements may be less flexible and can be difficult to adapt to changes in the nature of the network. An example of this was the AMRC's need to develop new mechanisms for representing the views of the growing number of Tier 2 members beyond the single board member.

There are other factors which also appear to be important in determining the level of formality in leadership arrangements. Where a network is led primarily by a single organisation, its own governance structures influence the level of formality adopted. An example of this is the difference between the formality of ITMB with the informality of MPA. One possible explanation for this is the different standing of e-skills and Microsoft in relation to prospective employer participants. Microsoft, as a major firm within the IT industry, has a great deal of influence and given the firm's existing relationships with MPA participants, a considerable amount of trust.

There were no formal review mechanisms adopted for employer engagement by the case study networks, but the organisations had evolved mechanisms organically to ensure adequate representation of members' views. For example AFRC noted that it had become difficult for the single Tier 2 board member to represent the views of the growing number of Tier 2 members. To compensate for this, AFRC set up a monthly research workshop for Tier 2 members to ensure their involvement. Similar issues have emerged at Training 2000, particularly due to difficulties in persuading smaller companies to participate. As a result 'business leaders' tasked with engaging a range of relevant stakeholders have been introduced along with more practically focussed employer forums.

The final question to consider in relation to leadership is the type of personnel involved. Most of those involved in leading networks were senior managers with responsibilities for the kind of strategic issues dealt with by networks. However, exceptions included AxRC, which had a second technical board made up of technical staff, and OPITO, which included trade union representatives on its board. This composition reflected the focus of AXRC on R&D activities and the origins of OPITO as a tripartite organisation focussed on health and safety issues of concern to trade unions. The advantages of multiple representation layers include access to a wider range of views and specialist expertise and devolution of network responsibilities across a wider range of staff. The possible disadvantages of drawing representatives from a diverse group of individuals include differences of focus and priorities among representatives which may make it more challenging to develop a consensus on strategy and direction.

3.5   Network staffing

Network staff performed three broad sets of roles:

- **leadership and administration**, usually through a small management team

- **initial employer engagement** e.g. account managers at MPA training providers

- **delivering network activities** e.g. trainers at Training 2000 and technical staff at AMRC.

There were no clear patterns of staffing levels across case study networks and where networks were hosted in existing organisations, the amount of staff time and resource devoted to network activities was often not quantified and costed. However, the type of activities offered appeared to influence staffing levels. Networks delivering substantial amounts of training directly typically had higher staffing levels, which accounted for the large staff numbers employed at Training 2000. Networks seeking to provide ongoing, one to one support for employers also required quite high staffing levels e.g. at Training 2000 and MPA. One key choice concerns the employment of staff who deliver network activities: these can be employed by the learning provider partner in the network (e.g. Teesside), directly employed by the main network organisation (Training 2000) or sourced as associate or freelance staff (WCCF). The choice between these models is likely to depend on regularity/frequency of activities, volumes of participants and degree of flexibility required in location and scheduling of delivery.

3.6   Network communications with employers

Communications with participating employers can be organised along a 'hub and spoke' model where communication takes place primarily between the network centre and its participating employers or a 'web' model where multiple lines of communication are formed between employers as well as the network co-ordinating function (Casson and Della Giusta, 2007). Previous research has identified that communication and contact mechanisms are commonly experienced by employers as infrequent and non-intensive but can include:

- interaction via training activities (e.g. Beer and Meethan, 2007)

- organisation of one-off seminars, training sessions and workshops (Huggins, 2001, found that 28 per cent of his respondents used networks in this way)

- online communications (Harris and Rae, 2009)

- secondments (e.g. in Gospel and Foreman, 2006)

- self-initiated meetings (31 per cent of respondents in Huggins, 2001)

- forums and conferences (28 per cent of respondents in Huggins, 2001)

- written contact (25 per cent of respondents in Huggins, 2001)

- social and recreational pursuits (14 per cent in Huggins, 2001).

The case studies showed that networks employed a mixture of methods for employer communications depending on the purpose of the network and the purpose of the communication. Compared to the literature review, there was more evidence in the case studies of effort to communicate face-to-face with employers through dedicated 'engagement' staff and less evidence of spontaneous, employer-initiated contact between each other and attendance at network meetings. This may reflect the business models and purpose of networks which tended towards transactional models of interaction and a business climate in which employers spend less time in overt networking activity.

Understanding Employer Networks

The main methods of network communication in the case studies included:

- individual face-to-face contact between participating employers and network staff

- meetings and forums attended by groups of employers

- one-way electronic communications including email and newsletters.

Direct contact with employers by network staff or representatives took place in a number of networks which employed staff specifically for initial and sometimes ongoing engagement purposes (Training 2000, MPA and AMRC). The benefit of the informal nature of this process is in enabling employer control of the timing, volume and relevance of information exchanged but direct engagement is a very resource intensive activity for those co-ordinating the network.

Meetings and forums were commonly used by ITMB, AxRC and Training 2000 and to some extent at WCCF. Advantages included the ability for employers to communicate bilaterally as well to discuss issues collectively. The major disadvantage was that employers have to devote time to attend the meeting, meaning the system is less flexible than direct communication with individual employers. ITMB conducted some meetings via conference call to reduce the burden on management time while Training 2000 attempted to encourage participation by ensuring forums stay practically focussed and therefore relevant to employers.

A number of case studies also used 'one way' forms of communication such as newsletters and e-mails (WCCF, Training 2000 and AXRC). There were some disadvantages to this approach, notably there were concerns that blanket e-mails might be of little interest to some employers and be somewhat ineffective. WCCF was considering investing in a Customer Relationship Management system to target communications more effectively for members.

3.7   Summary

Trade associations are likely to be the largest and most diverse group of employer networks together with Chambers of Commerce. Both have a primary focus on offering generalist business support in marketing and representing the interests of their members as their primary aim, with skills development a subsidiary goal or one which forms part of consultancy services. Information on supply chain networks and informal networks is incomplete as it is generally not in the public domain.

Understanding Employer Networks

Networks were sustained by four main sources of funding: public funding, membership fees, payments for specific services and non-financial contributions from employers. In most cases networks received a mix of one or more of these types of funding. Public funding can encourage membership of networks in industries without a history of collaboration but needs a clear focus and targeting to ensure value added.

Membership fees involve considering a trade-off between exclusivity of membership versus potential reach and require considerable judgement in setting the right level which is dependent upon the perceived value of the network and its product or service. Relying on payments for specific services ensures network focus meets employer needs but may create a commercial transactional model rather than establish a sense of identity or membership of a network and therefore limit contact between employers. Non-financial contributions from employers include time in contributing to qualifications and standards development, and participation in network leadership, though the latter is more difficult for SMEs. Providing options for different types of participation and minimum requirements for key roles such as board membership can be helpful.

Where networks had distinct memberships, these were based on supply chains, sectors and geography. Supply chain networks had some advantages in that they could build on existing relationships between employers and dominant customers could exert influence on smaller organisations to join, but the scope of activities could be dominated by the lead customer's interests. A geographic focus was helpful where network activities required participants to attend regular face-to-face training sessions.

Network size varied greatly and determinants included the costs of joining, network ability to engage employers members and the size of the pool of potential participants. Not all networks were seeking to grow. Some felt restrictions on size could be beneficial, for example to ensure the level of service to employers was maintained.

Networks hosted by an organisation were less likely to have a distinct legal status than those which were independent of any of the participating employers. One network found that adopting a not-for-profit focus as a private company rather than a registered charity was helpful for network branding to reassure potential participants of a network's commercial focus. Networks relying heavily on general membership subscriptions rather than payment for specific services or public funding may need to ensure adequate representation of members through board structures to provide influence on how funds are used. It is important to ensure that any SME members have adequate influence as pressures on time may limit their inclination to take up representation in governance structures.

Understanding Employer Networks

Network staffing can require three types of role: leadership and administration, usually through a small management team; initial or ongoing employer-engagement e.g. account managers and delivering network activities e.g. trainers. Choice between in-house and outsourced training provision is likely to depend on regularity/frequency of activities, volumes of participants and degree of flexibility required in location and scheduling of delivery.

Communication options for reaching network participants include: individual face-to-face contact between employers and network staff; meetings and forums attended by groups of employers; one-way electronic communications including email and newsletters. Face-to-face meetings enable greater tailoring of information and employer control of the timing, volume and relevance of information exchange but are relatively costly to provide. Meetings must be perceived as valuable by employers to ensure attendance and tailoring of electronic communication is important to ensure employers engage with it.

4 Network Activities

4.1 Focus and type of network activities

Activities commonly offered to employers according to the literature review and mapping exercise which account for most employer participation include seminars/training session/workshops, forums/conferences and self-initiated meetings (Huggins, 2001). One off-seminars, joint training and workshops were the most common activities identified through the survey. Table 4.1 illustrates the degree to which each case study network focuses on skills development and the types of activity provided for employers.

Table 4.1   Focus and activities for each case study network

Network	Skills focus	Details of main activity	Other activities (non skills-related activity italicised)	Provision
ITMB	Sole focus	Shaping ITMB qualification. Providing direct industrial mentoring to individual courses	Employment and career advice to students Work placements for students Networking for lecturers and students Employers providing guest lectures Direct provision of internal training materials	Course delivered by selected HEIs Employers involved directly in some aspects of provision e.g. mentoring, lecturing and offering work placements and careers advice
Teesside	Sole focus	Design and delivery of Leadership & Management Foundation Degree pathways	None	All activities run directly by Teesside Original degree and further pathways developed in collaboration with employers and NECC
Training 2000	Main focus	Providing a range of training, particularly apprenticeships, and also including pre-employment training for unemployed	*Networking opportunities and other events, business advice, help with health and safety* Assistance for members with training needs analysis and help accessing funding	Training 2000 provides all training directly. Training tailored to employer needs, employers can contribute to design of training

Understanding Employer Networks

Network	Skills focus	Details of main activity	Other activities (non skills-related activity italicised)	Provision
AxRC	Subsidiary focus	Undertaking and disseminating research and development activity	*Information sharing encouraged through meetings organised by the centres and more ad-hoc activities such as best practice visits between members* Promoting engineering careers to school and college students (AMRC only) Funding Engineering Doctoral training Centre. Supporting EngD students. Apprenticeship scheme (AMRC only) Plans to open Advanced Manufacturing Institute	R & D activity carried out primarily at the centres AMRC apprenticeships run through Sheffield College AMRC converted and uses HGV trailer for careers presentations to school and college pupils
OPITO	Sole focus	Direct training provided through OPITO-approved training centres.	Developing industry standards Promoting STEM subjects and careers in the industry, primarily to school pupils Manage industry apprenticeship scheme	Training carried out by external providers approved by OPITO Industry standards developed by employer forums
Tallent	Subsidiary focus	Activities to ensure quality in the supply chain including advice and guidance on processes, audits and opportunities for best practice visits Supply chain partners may be advised or required to invest in training to meet standards set down by Tallent	Working with schools to promote careers in supply chain	Advice, guidance, audits and best practice activities carried out by Tallent. Employers have responsibility for implementing changes and recommendations

Understanding Employer Networks

Network	Skills focus	Details of main activity	Other activities (non skills-related activity italicised)	Provision
Microsoft	Main focus (although part of wider Microsoft Partner Network)	Developing apprenticeship scheme and supporting employers to provide those schemes	Part of broader Microsoft Partner Network which offers a range of services to employers	Training provided by external providers who also have a role in employer engagement Apprenticeship programme developed in collaboration with employers
WCCF	Main focus	Facilitates co-operation and information sharing primarily through employer forums but also via best practice visits between members	Provides training to members, mainly short courses with specific, employer determined focus. Provides pre-employment training Best practice sharing through forums *Provides a broad range of business services including consultancy and intelligence on various issues including labour market conditions.*	Training and consultancy delivered by freelance associates Training courses primarily bespoke, designed in collaboration between trainer and employer Pre-employment training delivered in partnership with Jobcentre Plus

The employer network case studies can be categorised as having a sole, main or subsidiary focus on skills. ITMB and Teesside were solely focussed on skills development activities. All others except Tallent and AXRC took skills development as the main focus but offered additional benefits or services unrelated to skills (e.g. business advice at Training 2000). Additional activities related to attracting new entrants to careers in the relevant sector supplemented and supported the core skills focus. For example beneficiary employers in the ITMB network offered employment and careers assistance to students to help the transition of course participants into the labour market and OPITO was encouraging more young people to study STEM subjects and consider careers in the oil and gas industry through promotional activities in schools.

Network decisions to focus on skills were usually taken at the outset and were typically indistinguishable from the decision to establish a network. Where skills development constituted a subsidiary focus, it contributed to achieving the network's overall aim e.g. AMRC's support to increase supply of research staff and WCCF's training provision to improve recruitment and retention and make the industry more attractive to workers.

Broadly speaking there were six categories of skills-related activity undertaken by networks, though these overlap considerably in some networks:

- Developing industry-relevant qualifications or standards (Microsoft, ITMB, Teesside, OPITO, WCCF, AMRC, Training 2000)

- Assisting employers in organising and funding training from external providers (WCCF, Training 2000)

- Providing training either directly or through approved training providers (Microsoft, OPITO, Teesside, ITMB, WCCF, Training 2000)

- Sharing good practice (Tallent, WCCF)

- Directly supporting students (AxRC, ITMB)

- Promoting careers in the sector (WCCF, OPITO, ITMB).

The choice of skill related activity tends to be driven by the networks' analysis of the skills-related problems facing their participating employers. To an extent it is possible to divide these into "inward" and "outward" facing skills measures. Inward measures are those which focus on the participating employers themselves and related to reducing employer barriers to investing in training. "Outward" facing activities are aimed at young people or individuals in the labour market with the overall objective of increasing the supply of individuals with the necessary skills.

Assisting employers with organising and funding training, providing training directly and sharing best practice are the main forms of inward skills activity. These map onto the barriers to training identified in the literature illustrated in Table 4.2 below.

Table 4.2   Types of network activities and barriers to employer investment in skills addressed

Type of activity	Barrier
Developing industry relevant qualification	Lack of access to suitable provision, transaction costs
Assisting employers in finding, organising and funding training from external providers	Transaction costs, capital market imperfections
Directly supporting students	Staff willingness to train
Providing training either directly or through approved training providers	Lack of access to suitable provision, transaction costs, capital market imperfections
Sharing good practice	Short-term decision-making, management education

Understanding Employer Networks

Providing direct support to students and promoting careers within the industry are the main forms of outward facing activity. A number of approaches were taken, often including careers seminars for school pupils (AMRC, OPITO, ITMB and Tallent). Additionally WCCF developed a pre-employment training scheme with Jobcentre Plus to encourage unemployed individuals to consider working in the contact centre industry.

Developing industry relevant qualifications was the most common skills related activity in the case study networks. Their function was to help employers deal with skills gaps among their existing workforce (Teesside, Training 2000, AMRC and OPITO) or to improve the skills of sector entrants (MPA, ITMB). WCCF developed training programmes both for current employees and prospective call centre staff.

Activities focussed on existing staff usually offered employers more immediate and direct gains. Initiatives with a broader focus had a more diffuse impact, as benefits may not be shared evenly between individuals and employers and may only be realised over a longer time period. Employers were generally supportive of network activities to help address long-term labour supply issues but these were offered as supplementary to meeting immediate skills needs, and it is not clear how much investment employers would willingly provide for e.g. careers advice activities in isolation. It is likely to be dependent upon the volume and quality of labour supply and the willingness of employers to take a long-term perspective.

Networks with "outward" facing activity may therefore need to develop some mechanisms for helping employers to capture the benefits of the network activity. This could include forums, advertising and work placements to assist future recruitment (ITMB). Similarly, WCCF members offered guaranteed interviews to participants in the network's pre-employment training programme.

Network activities varied in frequency from those taking place on a regular fixed basis, including meetings, workshops and forums (e.g. WCCF and AMRC), while training provision was more fluid in its timing ranging from an annual cycle for recruitment (ITMB) to monthly (MPA) or adhoc as needed (Training 2000, WCCF, Teesside, Tallent).

4.2   Employer participation in network activities

Across the case studies it was common for networks to report varying degrees of employer participation, typically with a core group of more active employers which participated in activities such as designing training content. In some case study networks including Teesside, OPITO and ITMB, employers divided into those who were involved in the development of learning content and those who primarily acted as consumers or beneficiaries of network products and services. At Microsoft, Tallent, WCCF and Training 2000, more employers tended to fit the beneficiary model. Levels of participation are in some cases linked to levels of investment, with some members of the more expensive AMRC and the industry standard custodian OPITO more active than employers in other networks. In the former network, employers were buying access to expensive resources and equipment for long-term projects and in the latter, they were purchasing verification of staff competence which is a safety requirement for the industry. For most employers taking part in the activities of Training 2000, Microsoft Apprenticeship Partners and OPITO, participation was primarily through individual staff as consumers of and participants in training.

The literature review and mapping exercise indicated that employer participation in network activities may not be particularly intensive. Survey respondents indicated that on average, around 5% of members were active participants who made use of network products and services, though this varied considerably between different types of network. Factors which influence employer decisions to join networks and participate in activities are shown in Table 4.3.

Table 4.3   Factors influencing employers to join and participate in network activity

Network	Reasons to join	Factors in active participation	Initial engagement
ITMB	Universities- get to offer an approved course with high levels of employability, good for attracting students Employers – value chance to improve supply of graduates and get brand associated with degree	Employers recruiting greater numbers of graduates tend to get involved in a greater number of activities according to network leads.	University membership by invitation only Employers are free to choose activities which would be of most benefit
Teesside	Employers - Need to improve management and leadership skills in organisation Design and content of course relevant and flexible a key motivation for employers Funding previously available	Employers - opportunity to exert influence to develop more specialised degree pathways	Promotion and recruitment by NECC
Training 2000	Employers - access to good quality training provision reflecting employer needs	Employer and network lead - access to additional services by becoming a member and opportunity to develop more tailored provision	Direct marketing by Training 2000
AxRC	Employers - access to knowledge and facilities not otherwise accessible to individual companies	Network leads report fees encourage members to participate in additional activities to get full value	Membership implicitly focussed on those in relevant supply chains
OPITO	Employers - access relevant training at a reduced price	Opportunity to shape qualifications/provision	
Tallent	Employers - meeting implicit and explicit contractual expectations of customers	Contractual obligations and desire to improve products and services, move up the value chain a key motivation from employers	Direct contact by lead customer
Microsoft	Employers - low-cost way of getting apprentice Employer - strengthen relationships with Microsoft	n/a	Microsoft and training provider actively seek to engage new employers
WCCF	*Core members* Free membership, access to services and networking opportunities (according to employers and network leads) *Associate members* Employers - commercial opportunities through networking	Training predominantly for organisations who do not have internal training capacity (according to employers and network leads)	

Understanding Employer Networks

Two factors appear to particularly important in employers choosing to join case study networks. Firstly it is important that the network meets a common need for employers that they cannot address individually and provides a distinct and valued benefit.

> The reason that we're engaged with ITMB is that we are a company doing IT management in the UK IT sector. ITMB is a degree programme that is looking to build and develop graduates passionate about a degree in the IT sector.

> *Employer, ITMB*

> I do it because it benefits my business.

> *Employer, Microsoft Partner Apprenticeships*

Secondly networks themselves provide an important role in approaching potential participants and persuading them to join. Even where the network "offer" appears to be generous, employers may still need persuasion to join, particularly where the network offers something new and unfamiliar to employers e.g. MPA. Use of specialist employer engagement teams by a leading employer and training provider using the 'hook' of the major customer's brand name to attract new participants appears critical.

> Having the Microsoft stamp on it enormously enhances its [the apprenticeship's] reputation.

> *Employer, Microsoft Partner Apprenticeships*

The literature review noted that marketing efforts to develop a network is an important success factor (Rhodes and Graver, 2002).

The diversity of purpose and activity in the small sample of networks, combined with the offer of a single activity in some networks makes it difficult to generalise about the types of activity in which employers are more likely to engage. Network staff did not systematically monitor employer participation but were clear that activities which did not appeal to employers would be discontinued. Few networks could point to an activity that was particularly popular across all types of employers, with the exception of the Welsh Contact Centre Awards, which was popular because it took place outside work hours and helped to counter the previously poor image of contact firms in Wales. This suggests that activities which coalesce around a common purpose such as industry-wide promotion may be appealing to attract employers to networks in sectors without a history of collaboration.

Understanding Employer Networks

Broad factors which appear to affect participation in case study networks include:

- level of benefit employers receive

- employer size

- costs of joining the network.

Employers commonly took a consumerist and relatively short-term approach to participation and took part primarily where they felt they would see the most immediate direct benefits. Participation is cumulative in that network organisers believed that employers which engaged in one activity were more likely to engage in others. This illustrates the value of networks making intensive efforts to secure initial participation. It appears important for networks to canvass employer opinion regularly (e.g. WCCF, MPA), and this may need to use multi-channel methods of communication (e.g. face to face, email, phone) to ensure representative responses. This may be effective in stimulating greater employer investment in skills where the main barriers to training are external, practical issues such as a lack of appropriate provision. However where barriers to training are internal to the firm and based on beliefs or problems of short-termist decision-making, then asking employers to recommend activities may be less effective. Networks therefore also need to think about how they "sell" activities that are new to employers. Providing multiple 'taster' sessions with low cost, low commitment activities first may provide a helpful gateway to activities which demand higher levels of commitment from employers.

Secondly the size of company had some impact on participation. Some smaller companies were more likely to participate in activities where they lacked capacity or resources to provide them internally (e.g. MPA, WCCF, Training 2000, AXRC). On the other hand smaller firms were less inclined to participate in activities which have less immediate impact, for example sitting on network boards (Training 2000). This needs to be taken into account in designing activities and in deciding which organisations to target with particular activities. Networks need to consider how smaller employers can be represented e.g. via a dedicated representative through individual consultation.

Thirdly cost of membership influenced participation, but there is no clear pattern of principles in fee setting. With notable exceptions, most fees charged were low or non-existent and in most case study networks, employers appeared to be paying a fee for services rather than membership of a network. This may have influenced levels of engagement in some cases, but where additional services were valued by employers, they appeared willing to pay costs. This illustrates that when establishing networks, a detailed understanding of the appropriate pricing for membership and additional services for each particular market context is required as there are no rules of thumb. At AMRC, the network organisers believed that the size of membership fees encouraged members to participate in order to recoup investment made.

> [Members are] extremely active… if they weren't getting value for money then they would pretty soon walk away from us.

> *Network lead, AMRC*

In contrast, WCCF achieved a high level of involvement with free membership for most participating organisations. This suggests the need for care in setting fees. Having low or no membership fees might allow the network to grow very quickly but may lead to low levels of participation. Alternatively high membership fees may be associated with higher ambitions and greater expectations for network activities but may deter employers from joining and may not be necessary to secure participation.

The question of who participates among network employers varies by activity. Senior managers are typically most involved in more strategic activity for example shaping qualifications and networking events. The grade of staff participating in training activity depends on the nature of the training and in most cases training was aimed at junior or operational staff. There was evidence of both senior managers and more junior or operational staff being involved in knowledge transfer activities and best practice sharing. For example while more senior staff participated in most WCCF events, the network also runs a specific Team Leaders forum for supervisors due to a perceived lack of opportunities for staff at this level. Members of the AMRC sent technical staff to work at other employers and in the centre on secondment. These approaches enable a wide range of staff to benefit directly from network activity rather than relying on a cascade effect if participation is confined more narrowly to key individuals.

4.2.1 Interaction opportunities between employers

Case study networks offered diverse levels of opportunities for employers to interact with each other and these are illustrated in Table 4.4 below.

Table 4.4   Level of employer interaction within networks

Network	Employer interaction	What facilitates?
ITMB	Yes	Meetings and networking events
Teesside	Limited to specific activities	Primarily in the early design of the Foundation Degree
Training 2000	Yes	Networking events, gala dinner
AXRC	Yes	Meetings facilitated within the centre but also some organised between partners
OPITO	Limited to specific activities	Board and technical forums developing standards
Tallent	Limited to specific activities	Project meetings convened by Tallent
Microsoft	Limited to specific activities	Designing qualifications, using existing members as examples
WCCF	Yes	Most activities run by the WCCF are interactive
		Social activities e.g. annual dinner seen as important

Overall the level of interaction between individual employers in the case study networks is lower than might be expected from the depiction of employer network functions in the literature where much of the theoretical focus is placed on how relationships are shaped through dynamics of trust and power in a business-to-business context. Some positive examples were found in networking events for ITMB employers from which interviewees reported learning useful information about each other's graduate recruitment processes and business areas and WCCF's annual awards dinner which was very popular among interviewees, who felt it helped strengthen links between members and led to an increased willingness to collaborate in other settings. In contrast Training 2000 reported more difficulty in persuading members to attend events. These varying attitudes may reflect sectoral shared interests which are present for WCCF and ITMB, but not for Training 2000 which may influence employer desires for contact with each other. Establishing commonality of interests may therefore be important in promoting social events for participating employers within networks.

Low levels of employer interaction in broader network activities took place for a number of reasons including:

- lack of need for interaction to meet network objectives

- difficulty in persuading employers to participate in interactive activities unconnected with core purpose of the network

- wide geographical span of the network hindering mutual face-to-face contact.

For several networks interaction between employers is not necessary to accomplish the main objectives of the network or is only required for specific tasks (e.g. course design at Teesside, ITMB, MPA) and networks therefore do not seek to encourage interaction between employers. Secondly the purpose of the network may have an effect on the appetite for interaction among employers. Employers participating in networks to obtain a specific service (e.g. training for individual staff) may not perceive significant benefits in taking time to interact with other employers. In some cases, substitutes for networking were already in place e.g. through the existing supply chain network associated with Microsoft for MPA employers. However, Training 2000 reported general difficulties in persuading employers to participate in some events aimed at interaction. Networks where the objectives were more oriented towards general collaboration and information sharing, such as AMRC and WCCF, had a much higher level of interaction through mutual member best practice visits, because employers joined these networks with the expectation of interacting with other members. This raises questions about whether it is reasonable to expect those networks which focus on transactional service provision to offer a 'networking' function.

There may, therefore, be a trade off consideration for networks intending to raise skill levels through formal learning interventions. The networks which were most focussed on skill related activity through qualifications provision tended to have less scope for interaction, while those focussed on mutual business to business interaction offered less focus, at least initially, on skills development provision. Focussing specifically on solving skills problems when establishing a network may risk limiting activity to obvious problems with obvious solutions. The lack of interaction may reduce the extent to which networks can assist in overcoming barriers such as short-term decision-making and concerns regarding poaching which require interaction. This suggests a more oblique, less direct approach to identifying and tackling skills issues may be beneficial in new networks, focussing on building connections rather than simply providing skills related activity, as the development of specific skills related activity in more interactive networks appears to happen more slowly (e.g. AMRC) and may be a smaller part of network activities (WCCF). This highlights the need to find a credible hook with some short-term benefits to build connections between employers in order to ensure initial participation.

Geography also appears to be a barrier as networks with substantial interaction had some degree of geographical concentration (WCCF in Wales and around Sheffield for AMRC). Large multinational companies found this less of a problem as they had more sites and higher levels of resources. This suggests that networks seeking to foster frequent interaction between employers need to consider creative means to enable contact such as IT solutions (e.g. Skype, online meeting software, video/teleconferencing) which were common means of communication identified in the online survey, or to consider drawing geographical boundaries for eligibility to participate. One option for structuring membership could be a national network underpinned by smaller local or regional networks but care is needed to maintain low overhead costs.

4.2.2 Changes to network activity

Most networks had not changed radically and dramatically but the focus and activities of older networks evolved over time and services were modified in response to employer feedback (see section 2.3). In most cases network members expected that this would continue to be the case.

> There will be evolution, rather than revolution. There will be gradual change, gradual improvement.

Employer, Microsoft Partner Apprenticeships

Changes were generally driven by employers for alterations to services or additional activities. Examples of this include a change of training provider at MPA and the development of a team leader's forum at WCCF based on feedback from employers. These changes highlight the importance of ongoing contact with employers to ensure the activities offered by the network remain useful and relevant to them. The key challenge in developing employer services is in identifying and meeting needs which might not be recognised or articulated by employers themselves.

One explanation for the evolutionary nature of change among network case study organisations is the potential costs involved in expanding activity. Where networks are operating on tight margins, it may not be possible to justify a large scale expansion of activity without guaranteed additional income. Additionally it may be hard to persuade employers to commit additional resources to support changes if benefits are not known at the outset. Large expansions in network activity, such as the AXRC centres, relied heavily on public funding, which indicates a valuable role in expanding networks as well as establishing new ones. A further role for public funding of networks could lie in helping existing networks without a skills focus offer more skill related activity, if latent demand from employers can be identified.

4.2.3 Success factors, challenges and barriers in learning provision

The most common model for provision was to deliver training through external training providers – either universities, colleges or commercial training providers, with the exceptions of Training 2000 and Teesside which provided training directly. External training providers were used primarily for efficiency by taking advantage of existing learning providers with suitable expertise and to avoid directly employing staff who have such expertise. Testing out provision before embarking on a large scale project appears important. Microsoft originally intended to use colleges as apprenticeship providers but found it too complex to organise a national programme with multiple local providers and instead opted for national commercial training providers.

Two key success factors for effective provision were noted across a number of case study networks:

- the importance of continual engagement and communication with employers from the perspective of network organisers, and

- flexibility of provision from the perspective of employers accessing the training.

Continual contact and communication with employers was particularly important where employers were releasing employees to attend training, although this was less intensive where training was provided before employment, for example ITMB. This was necessary to monitor the progress of course participants and to address any problems in a timely fashion. Flexibility of provision was important in ensuring that both employers and participants were able to balance learning and other commitments (e.g. Teesside, MPA).

Achieving these conditions presented considerable challenges to networks and their providers and increased the cost of provision. Training providers sometimes commented that developing flexible learning programmes and employer communication and initial engagement was more resource-intensive than they had anticipated and, in particular, tutors have had to take on a greater role in communicating with employers. These issues therefore need realistic appraisal by partners when establishing networks to ensure expectations are met and provider costs are adequately covered.

It is important to note that these success factors emerge from the case study findings in relation to the self-defined purpose and objectives of these networks. The literature evidence more broadly suggests that the main benefits of effective employer networks lie in development of trust and social capital, which were not central to the functions of most of the case study networks. For networks which seek to foster greater mutual learning between employers, the networking skills of individual senior managers (Macpherson and Holt, 2007), face-to-face contact (Erickson and Jacoby, 2003), development of strong links through repeated contact, multiple contacts between partners, a future orientation and openness to learning are important success factors (Inkpen and Tsang, 2005).

4.3 Key differences and similarities between network activities

The single biggest similarity across case studies was the type of skill-related activity provided. Almost all networks appeared to have identified problems with the nature of or access to provision as the key issue deterring employers from making greater investment in training; provision was either too expensive or too complicated to access or the content of available provision did not meet employer requirements. Essentially there was an assumption of a latent demand for training amongst employers which could be tapped by making alterations to provision. While improving the quality of provision and the ability of employers to access provision have been identified as potential benefits of employer networks, they do not exhaust the possibilities for employer network activities. In particular the literature on networks suggests that networks can help with issues such as short-termist decision-making by exposing organisations to the practices of others. There

was some evidence of this kind of activity across case study networks in best practice sharing at WCCF, Tallent and AMRC. However, there was very little evidence of other more formal activities which might be associated with raising employer demand for training, for example helping or encouraging employers to adopt working practices which might support greater skills utilisation with the exception of WCCF and Tallent.

Networks which took a broader focus on issues beyond immediate skills needs were more likely to be involved in helping employers to recognise and address such challenges. It is arguable that networks seeking to raise employer investment in skills may benefit from thinking more broadly about how this can be done, although part of the problem may be that it is difficult to "engineer" the kinds of interactions that are envisaged in the employer network literature. Some government support seeks to encourage employers to take the lead on developing collaborative networks to address skills issues[1].

The types of activity on offer varied more according to network aims than their types, though there are some commonalities. AXRC and Tallent were both supply chain networks and focussed on joint working on mutual projects of interest but there is more bilateral contact between members in AXRC than Tallent because there are greater interdependencies between partners in AXRC, which requires greater mutual collaboration to achieve results. Tallent is more similar to MPA, although the "offer" of these two networks is very different, with MPA focussing on skills development rather than the quality of production in the supply chain.

The three broadly sectoral networks, Training 2000, WCCF and OPITO had very little in common. While both Training 2000 and OPITO are superficially similar in that they have a main focus on skills, there are differences in how they go about organising themselves and the activities they provide. In particular, OPITO is wholly industry owned while Training 2000 is an independent training provider outside the industry. There is no clear evidence that either approach yields better results, particularly due to the presence of confounding factors when making comparisons between the two such as the different characteristics of the sectors they operate in. WCCF has more in common with the supply chain oriented AXRC network.

---

[1] The Employer Ownership pilot offers all employers in England direct access to up to £250 million of public investment over the next two years to design and deliver their own training solutions: http://www.ukces.org.uk/ourwork/employer-ownership

ITMB and Teesside were both HE-Industry collaborations developing an industry relevant qualification. However the operations of these networks vary substantially. In Teesside the university leads and there are few additional opportunities for employer participation. At ITMB employers play a more direct role in determining strategy and universities function more as partners. There is no obvious difference in the performance of either network. This perhaps points to the fact that there is no single 'model' of how to operate a particular type of network. It seems probable that the difference between the two may be related to the organisations leading them transplanting their broader model for employer engagement into the network. The implications are that diversity in network activities and functions is to be expected, so assessing how well networks perform against their individual aims and objectives is perhaps the most meaningful way of gauging success.

4.4 Summary

Most case study networks in this research were selected for a core focus on skills and innovation, although evidence from the mapping exercise and survey indicates that the most numerous types of employer networks are focussed on business and commercial development activity, with skills as a subsidiary concern.

There were a number of main types of skills-related activities undertaken by networks including qualifications development; helping employers to organise and fund training through external providers; provision of training either directly or through third parties; sharing good practice through workshops or visits between employers; supporting students and promoting careers in the sector. Inward-facing activities concentrated on providing services to participating employers while outward-facing activities focussed on promoting the sector more widely.

Typically employer participation in activities is often quite passive with only a minority of eligible employers taking part. A wide range of employers typically consume network products and services, but far fewer are actively involved in network organisation or the design and delivery of products and services. Most employers are best positioned as customers, with fewer acting as influencers or consultees. Membership of a network does not necessarily equate to substantial participation in activities which foster a sense of 'belonging' and any obligation to sustain and develop network activities, as opposed to simply being a consumer of network services.

The major factors influencing employers to join a network are perceptions that the network will solve an existing need or problem and the scale of recruitment effort by networks to promote their benefits to potential participant firms.

Understanding Employer Networks

Major factors influencing levels of participation in a network are: the perceived level of benefits, the size of firm (with SMEs particularly valuing access to resources they cannot gain through individual effort) and value for money related to perceptions of cost. Employers viewed participation in network activities as a means-to-an end in the short-term. Raising awareness of latent or unrecognised challenges, for which skills development may be part of the solution, is likely to require intensive engagement with employers. This is especially the case where employers see themselves as buying a specific short-term skills solution, rather than buying into a longer-term advisory or networking relationship with the network lead(s) and other employers.

The level of interaction between employers in the case study networks was lower than we might anticipate based on the emphasis placed on the value of networks in creating social capital suggested in the literature. This was due to the type of network which dominated in the case study sample, which were commonly based on transactional service models of participation in network activities rather than the obligations and sense of identity created by membership of a 'club'. Providing IT-based solutions to enable employer contact in networks with wide geographical coverage and giving consideration to how far employers expecting a specific service can be encouraged to engage in network activities to develop social capital is necessary. Developing shared or common interests may be an important precursor to collaborative activity to identify and address skills issues.

The focus of network activity may evolve over time and networks need to be sufficiently adaptable to meet emerging employer priorities. Key success factors for the services commonly provided were continual contact and communication with employers, often involving individual and face-to-face contact and flexibility in training provision.

5 Impact of Employer Networks on Skills and Growth

5.1 Employer participation in skills activities

The number of employers engaged in skills development activities varies significantly depending on the type of network. The literature review suggested that smaller employers were less likely to be members of formal networks and consistent with the small scale survey evidence, illustrated that networks are most predominant in traditional manufacturing industries. Across the case studies it was common for networks to report varying degrees of employer participation.

The level of penetration in terms of numbers of staff taking part in network activities from each employer varied substantially between networks, but was usually concentrated in a small number of people. In the WCCF was training provision targeted at groups where several employees from the same firm were more likely to participate e.g. at team leader level. For ITMB, WCCF and Teesside, employer participation appeared slightly stronger through greater explicit participation in the design of programme content and this reflects the relative youth of these networks where the core of initial or founding employers have driven the development of the network's training activities.

5.2 Case study network outcomes and impact

5.2.1 Perceived and actual benefits for employers

The literature reviewed showed that while some employers gained significant benefits from networks through developing close collaborative relationships with other firms over a long period of time, it was common for large proportions of employers to report benefits of network membership as being few in a number and limited in the depth/scale of their commercial impact (Huggins, 2001). This is typically related to the type of network, evidence from the literature review shows that power and influence exerted through supply chain networks generally results in more holistic effects on business performance and networks with weaker obligations between members have more dilute effects. Employers participating in the case study networks were often able to identify tangible impacts of network participation on skills-related problems rather than wider, more profound effects on organisational performance..

Many of the benefits reported by employers taking part in network activities were consistent with those identified by evidence in the literature review including economies of scale, acquisition of generic skills, solving skills shortages/gaps and enhancing performance within supply chains (CBI, 2005).These benefits were largely also corroborated by network leads. Employers generally assessed networks in terms of the value of the outcomes they provided through their products and services and in most cases, attributed less significance to being members of a network *per se*. This reflects a difference between the type of networks which predominated within the research design and the conception of networks in the literature review. Employers in the case study networks mostly had a short-term consumerist perspective purchasing a specific product or service to solve an immediate need. In the literature, networks are depicted as comprising long-term employer relationships which derive value from social capital and affiliations made between managers, as much as the tangible value from physical or intellectual assets acquired through them such as access to specialist equipment or knowledge. For networks which provided a distinctive qualification, employers assessed their value in terms of whether the skills needs or gaps identified prior to participation were addressed as a result. Table 5.1 illustrates the main benefits identified by employers participating in networks, against the major barriers to employer investment in training identified through the Collective Measures review (Stanfield et al., 2009), as discussed in Chapter One.

Table 5.1 **Benefits from participation in network activities identified by employers**

Network	Skills related benefits	Other benefits
ITMB	Suitable training provision, overcoming transaction costs	
Teesside	Suitable training provision, releasing staff to train, overcoming transaction costs	
Training 2000	Suitable training provision, overcoming short-term employer decision-making and transaction costs	
AxRC	Suitable training provision	Access to information and facilities not otherwise available
OPITO	Suitable training provision, overcoming short-term decision-making overcoming transaction costs	
Tallent	Organisational learning from more sophisticated firm	Securing contracts
Microsoft	Suitable training provision, overcoming short-term decision-making, releasing staff to train, overcoming transaction costs and capital market imperfections	
WCCF	Suitable training provision, releasing staff to train, overcoming short-term decision-making through illustrating benefits in similar firms, and overcoming transaction costs	Access to information not otherwise available Commercial opportunities from networking

Most employers had not undertaken a formal cost-benefit analysis and instead judged the networks on whether the type of activities and outcomes were of a satisfactory quality, focussing closely on whether it was tailored to their particular needs (Training 2000, Teesside, ITMB).

> I think what I particularly like about e-skills UK is that they listen to the employer group that turn up at each event and look and listen for what we are able to offer, and then look to match that up with their specific needs which I find is an interesting way of focussing on the results. They get the results but they work to us rather than asking us to work to them.

Employer, ITMB

> I did come with a degree of trepidation, but that was really moot from the moment I met with [The University]. They were very responsive in terms of listening for what we were looking for, and then identifying the appropriate programmes which they felt would suit our needs.

Employer, Teesside

Employers reported that they valued access to a supply of suitably skilled staff, in some cases pointing out that they would otherwise have to find a way of instilling these skills themselves (ITMB, Teesside) or that the main value of the scheme was in reducing or removing training costs (WCCF) which in some cases would otherwise act as a complete deterrent to training and/or hiring staff. The research design did not include generation of data on the financial circumstances of individual employers so it is difficult to assess the balance between those firms which are unable to pay for training and those which are unwilling to pay for training. In the case of Teesside and ITMB, learning provision appears to be simply fulfilling a need which was not being provided elsewhere. In the case of WCCF, the network had a prior function of making employers aware of training needs and thus stimulating demand for training, while in the case of Microsoft, interviews with employers suggested that SMEs would have been unable to handle the transaction costs of organising apprenticeships as well as struggling to find the resources to pay for training.

These perspectives suggest that the most common training related benefit employers receive is **access to suitable training provision**. All the networks which have some form of skills focus help design courses or qualifications that are relevant to employers. In addition to making training relevant, the role of networks in designing training can help **reduce transaction costs** of organising training and negotiating course content with training providers. They can also help build **economies of scale** through collectively designing industry relevant qualifications, which may help reduce the unit cost of provision. More explicit efforts to reduce the transactions costs of training are taken by some networks. Notably Microsoft takes on the role of organising training on behalf of employers taking part in the Partner Apprenticeships scheme while OPITO deal with training providers on behalf of members.

Some employers discussed benefits in terms of the design of network activities which made participation attractive and feasible, rather than final outcomes. For employers of Teesside's programme, the limited time spent out of the workplace by staff, provision of virtual learning methods and local tuition made it appealing. Similarly, the offer of customised training appealed to members of the WCCF and the possibility of delivering apprenticeships through online formats and in accessible locations was valued by the SMEs who recruited apprentices under Microsoft's scheme. This helps employers overcome barriers to training associated with **releasing staff to train**, while the design of MPA provision to ensure apprentices develop usable skills early on in their training can be considered a way of **overcoming problems with short-termism**.

Engagement, promotion and interaction activities undertaken by networks were all beneficial through overcoming barriers to skills development such as **short-termist decision-making by employers** and **access to imperfect information** which may have led to employers underestimating the full benefits of training. By engaging with employers who might be uncertain about the value of training, networks can help deal with doubts about the benefits of training. One aspect of this is sharing examples across the network. For example, Microsoft use existing apprenticeship employers as case studies to illustrate to others the advantages of traineeships. At WCCF, interactions between members include best practice visits where members can see the benefits of management practices including training at other companies. Consultancy services provided by WCCF often led to members signing up for training. Similarly Training 2000 provided training needs analysis as part of their services to members.

In some cases, employers reported gaining unanticipated benefits from network participation. For example, employers found contact with other employers of similar workers beneficial, as it stimulated them to reflect on how to make their organisation more attractive to recruits (AMRC, ITMB).

> So there's a lot of learning there on what we want to stand for in terms of how we position ourselves for students looking for these types of jobs. Why should they pick us versus one of the other big or small employers who are all asking for skills to do exactly the same kind of work.

Employer, ITMB

This suggests that in addition to assessing the impact of networks against their aims and objectives, it is important to make provision for capturing both adverse and/or positive unintended consequences.

Business benefits appeared most directly for networks with supply chain type relationships, although these did not necessarily have the most direct focus on skills among the case study networks. Employer members of the AMRC network reported being able to respond to requests from customers to develop new products and influencing their short- and medium-term technology strategies. Suppliers in the Tallent network were obligated to take part in quality assurance and staff training to comply with contractual requirements on which their income depended. They perceived that the process of acquiring tacit and explicit understanding of work processes used by a more sophisticated organisation would enable them to move up the manufacturing value chain with the prospect of higher productivity and more profit. In the WCCF, links between contact centres and suppliers of services to them through the associate membership structure had created business for the suppliers. Employers also pointed out that the forum had helped them to reduce recruitment and retention problems across the industry.

Employers also noted the benefits to individual staff from participating in training. Teesside graduates reported greater confidence and motivation among those who took part in the leadership and management programme which led to new ideas being implemented including a quality assurance system and improved communications structures.

> [Participants] are now actually coming up with suggestions and ideas and even in the forms of presentations and stuff, which was obviously unheard of, to actually get their points across, with supporting evidence and data, rather than just coming with a concept and getting it shut down, they were coming with a rational argument, because of the confidence that had been built up through the programme that they'd actually been involved in.
>
> *Employer, Teesside*

In some skills focussed networks there were also benefits to training providers. Notably universities providing the ITMB degree benefited from attracting students with a qualification that is particularly relevant to the industry and offers graduates excellent career prospects. Additionally, Teesside University and MPA training providers became able to understand employer needs better and experiment with new forms of provision as a result of their engagement with these networks. In the Teesside case, for example, University staff felt that the learning model developed through the network could be used in other similar collaborations.

5.2.2 Network self-assessment and evaluation of outcomes

The main methods used by networks for assessing outcomes for employers were through direct consultation between network staff and employers or through surveys. Networks had conducted surveys of employers (Training 2000 and Teesside) and student satisfaction (Teesside), all with highly positive results. Training 2000's results showed that over 95 per cent of employers believed the training had positive business benefits, over two thirds thought it had improved staff performance over five per cent believed that it had increased sales. Not all the networks had undertaken such formal assessments; AMRC reported that gathering evidence of impact from members could be challenging where outcomes were commercially confidential. Tallent had not undertaken a formal evaluation and Microsoft was so far focussing its effort on monitoring intake and completion rates among apprentices, indicating over 80 per cent were going into newly created job and 85 per cent were completing the course.

There was less evidence of assessment of network activities from a perspective of assessing overall network effectiveness. Interviewees involved in running networks pointed to continuity of existence and, in some cases, longevity as evidence that they were meeting a need.

> At the end of the day, we are still involved in the e-skills forum every month…. We're voting with our feet. We are getting what we want and we are continuing to proactively support the programme as well.

Employer, ITMB

Several asserted that employers would quickly provide feedback if services did not meet expectations and continued funding from employers was evidence of their value. Others focussed heavily on judging the outcomes for participants in learning activities, drawing attention to employment statistics. For example, the AMRC network claimed to have an impact on securing 500 jobs and contributing to generating £50 million of sales in Yorkshire and Humberside.

Networks with a focus on developing new qualifications for young people pointed to the wider benefits of promoting and raising awareness of these qualifications within the sector. Internal evaluation of Training 2000 for social care suggested it had increase in take-up of apprenticeships, higher awareness of GTA in social care workforce development and increased profile in the NSA for Social Care. Similarly Microsoft believed that its programme had increased awareness of the existence and potential of apprenticeship training as an entry route across the IT sector and employers reported promoting apprenticeships within their own supply chain.

> We're saying "We're living proof that this [MPA] is good and you're our customers and you should hire apprentices if you haven't already".

Employer Microsoft Partner Apprenticeships

Building relationships with the secondary education sector to attract young people into sectors with skill shortages emerged as a key theme across the case studies. OPITO's online resources had been used by over a million secondary school pupils, and over 3,500 pupils had attended careers related events.

Some networks had expanded their activities and created spin-offs. Teesside's model has expanded to include several pathways within the overall degree in response to employer demand. It has generated interest from other parts of the country and around six Chambers of Commerce who have sought to establish similar programmes in their areas. AMRC established an employer forum for non-members with a low cost membership model of £50 per year to attend briefing events. The WCCF's activities stimulated interest among members with sites in the South West of England and as a result a similar network has been set up, primarily made up of larger employers in the region with a fee paying basis for membership.

5.2.3 Perceived network impact on skills, growth and innovation

The most direct impact of networks on business outcomes is found among the supply chain networks, which have close and direct contact between employer and client on joint product development activities. There is some evidence that networks stimulated recognition of skills shortages and employment expansion which would not otherwise have taken place, especially in small firms (AMRC, Microsoft, WCCF). In the Microsoft network, participating employers reported taking on new staff as apprentices who would not otherwise have been recruited.

> I probably employ more people than I would normally.. I've got two apprentices that I would have never employed had the scheme not happened.

> *Microsoft Partner Apprenticeships Employer*

WCCF was assisting firms in overcoming recruitment problems, while AMRC's focus on product development may indirectly lead to firm expansion.

Many of the networks providing any training leading to a qualification appear to be having an impact on raising skill levels (MPA, OPITO, AXRC, Teesside, ITMB, Training 2000). Three networks appear to have had an impact on improving training provision across the sector. Within WCCF, interviewees believed the development of customised training packages had improved the overall quality and quantity of training delivered in the sector. The standards developed by OPITO over the years also appear to have raised the quality of training and work performance undertaken in the sector. Training 2000's work has developed staff skills within the care sector in particular, though it should be noted this was driven particularly by government legislation.

Those networks with a focus on product development appear to be contributing to innovation, most clearly in the case of AXRC. This network was helping firms to increase their technological efficiency, innovation and directly enabling members to secure contracts and demonstrate their ability to develop new products specifically for customer requirements.

> This is an opportunity to develop methods and technologies which give us a competitive advantage.

Employer, AMRC

Other benefits are less tangible and more long-term in nature. Employers in the Tallent network believed that exposure to the more sophisticated working practices of their customer would enable them to move up the hierarchy of the supply chain, potentially innovating and developing higher value added products and services. In this sense, the added value of the network comes from organisational learning about products and work processes rather than acquisition of skills by individuals and has the potential to support business expansion. Both Tallent network and AMRC network members pointed to the reputational boost they gained by association with larger firms which they believed help raise their profile in their sectors, with possible marketing benefits. It is less clear that innovation was taking place in some of the other networks but where management education was provided in the Teesside case, there is some evidence of organisational innovation by individual participants, though not necessarily related to product/service innovation.

This diversity of impacts reflects the differing purposes of the networks and also emphasises the role of skills development having a supporting function within networks with a direct focus on innovation and service quality. When establishing networks, it is necessary to recognise that they may need to fulfil multiple and complementary purposes to maximise their potential value.

5.2.4 Network awards, reputation and influence

Evidence of the broader impact of the activities of employer networks is available through indicators of their profile and standing.

There is some evidence of the activities of two networks having influence at national and international levels. OPITO has been commended by The Scottish Government for its work in preparing young people to meet employer needs in their sector. Its training standards for safety in the field have also been adopted by overseas governments. AFRC has inspired a similar network in Denmark.

Several networks represented employer views to government and bodies responsible for development of qualifications; for example, OPITO represents the Scottish energy industry on government consultation bodies, Training 2000 advises a committee on social care qualifications and the engineering division of the GTA undertook work to represent members' views to policy makers. WCCF has had a role in informing the Welsh government of the sector's needs to stimulate inward investment in the sector. In Scotland, AFRC may have been helpful in attracting funding to the nation, as a government interviewee pointed out that the expansion of doctoral studentships was making the centre attractive to investors.

Several networks had won awards for their work, illustrating the esteem attached to their work by wider bodies. Training 2000 gained the Training Quality Standard (TQS) award (now being phased out) and Beacon status for quality from the Learning and Skills Improvement Service. Teesside won the Times Higher Education Outstanding Employer Engagement Initiative Award. Industry recognition for innovation was given to the AMRC through awards from Boeing, BAE Systems and Rolls Royce.

5.2.5 Barriers to achieving network benefits

While most firms and networks reported widespread satisfaction with network activity, it is possible that for some networks, even greater benefits could be achieved. Firstly, the degree of penetration among the target employer communities could be extended for some networks with an open participation policy. Secondly, depth of employer participation might be sub-optimal where employers engage in only one activity of a range offered. Third, it may be possible for networks to extend the range of their activities to inspire enhanced employer investment in learning.

Understanding Employer Networks

For networks to extend their penetration among target employers, it appears likely that greater investment would be required in scoping out and undertaking face-to-face marketing, particularly where the target market is composed primarily of SMEs or is unfamiliar with the brand. This would require a greater level of resources among network co-ordinators, and the returns on investment can be relatively low due to the likely conversion ratio of initial contacts to active participation.

Because employers interviewed were accessed through network leads and likely to be more engaged, it is difficult to be definitive about barriers to further participation among low or non-participant employers. Limits to participation in these circumstances may be connected to employer assessment of value for money, lack of knowledge of benefits or difficulties in committing further time to network activities. Sharing and promoting the benefits of higher levels of participation effectively would be needed to yield greater employer participation and using employers as network ambassadors is likely to be critical here. Creating higher levels and/or more intensive participation could involve creating a greater sense of obligation to participate through fostering greater identity as an elite 'member' of a network with accompanying rights and responsibilities. However, positioning network membership as requiring more intensive participation may risk deterring potential members from joining.

Some of the networks which adopted pay-per-service business models could consider extending the nature of their services to draw employers into more contact with other network beneficiaries and also explore the possibility of offering additional services to identify and cater for unmet skills needs, triggering further employer investment in learning. This would require careful scoping to ensure adequate demand from employers and the identification of latent skills needs or gaps to persuade employers of the need for more investment. Free diagnostic support can be one tool here, though employers can be sceptical of such services, interpreting them as a sales tool. Models of learning support which involve (facilitated) peer learning between employers in the same network may be more attractive.

5.2.6 Did network outcomes meet initial ambitions?

Comparing outcomes against expectations can be conducted more easily for the newer networks, since long-established groups find it more difficult, and sometimes, impossible to track current performance against experience before network formation and noted that it was not a particularly fruitful activity because the function and purpose of the network had changed over time (OPITO, WCCF, Training 2000). Several of the networks providing qualifications including Teesside and ITMB started with relatively small intakes of learners and the relatively rapid expansion of the programmes could be regarded as indicative of success, while the original scale of work in AXRC has also expanded successfully. To some extent then, success could be equated with network growth, but in most cases networks did not have hard measurement criteria available against which performance against objectives could be measured. The evolutionary nature of the networks' development though reflects a need for some degree of flexibility in assessing their performance, in addition to the provision of data against which use of any public funds can be assessed.

5.3   Summary

The number of employers engaged in skills development activities varies significantly depending on the type of network. Network penetration among possible target populations of employers varies according to the type of network. Consistent with the small scale survey evidence, the literature review illustrated that networks are most predominant in traditional manufacturing industries.

The time periods over which benefits were accrued by case study networks varied considerably. The most common benefits of network activities identified by employers were: access to suitable training provision; reduced transaction costs of organising training and negotiating course content with training providers and economies of scale through design of industry-standard qualifications. Provision of customised, flexible training was identified by employers as a key benefit of network services. In addition, networks were able to overcome employer barriers to skills development such as short-termist decision-making and access to imperfect information by proving the benefits of training through relevant examples from similar organisations.

Understanding Employer Networks

Business benefits appeared most directly for case study networks with supply chain type characteristics, in which skills development formed a subsidiary focus. The focus of these networks was often more directly related to business operations and the development of products and service (quality).

Numbers of staff from each employer engaged in network activities varied substantially between networks, but is usually concentrated in a small number of people. In addition, levels of participation among employers usually divided between a core, active group of employers and a wider, possibly more peripheral group of beneficiaries. Large numbers of staff and employer beneficiaries were more common in networks with a transactional model of membership based on paying for service provision, and networks which were feeling the effects of reduced public funding such as Training 2000 and Teesside were accentuating this approach. The advantages of this approach derive from reduced reliance on one source of income e.g. from the public sector, but the transactional model may inhibit closer development of relationships between employers and creation of social capital from which some of the major benefits of networks originate.

Employers we consulted assessed networks in terms of the value of the outcomes they provided through their products and services and in most cases, attributed less significance to being members of a network *per se*. This may reflect the sample of employers interviewed for this research, rather than the broader population.

Networks generally did not systematically monitor or assess the value for money or efficiency of different forms of service provision, as sustained employer funding and network viability over time provided sufficient indication of network value and targets for measuring achievement of objectives were not commonly set among older networks. Networks commonly assessed outcomes of training provision in terms of feedback on training quality and volumes of participants to determine impact.

A number of networks had expanded, indicating existence of demand for similar services beyond their original location. Some networks had stimulated recognition of skills shortages and employment expansion which would not otherwise have taken place, especially in small firms. Many of the networks providing any training leading to a qualification appear to be having an impact on raising skill levels and some appear to have had an impact on improving training provision across the sector. Some of the supply chain networks were stable in numbers of participating employers, reflecting lack of desire to expand.

Understanding Employer Networks

Barriers to achieving network benefits include limited penetration among target employer communities for networks with an open participation policy; sub-optimal depth of employer participation where employers engage in only one activity of a range offered; provision of single activities by networks where there may be latent demand among employers for a wider range of services. Overcoming these barriers would require investment in face-to-face marketing; greater promotion of network activities by more engaged employers and assessment of market demand for further services.

6   Conclusions

Employer networks represent an important potential lever for harnessing and increasing employer investment in skills through overcoming common barriers such as lack of awareness of skills needs, difficulty in accessing learning provision and problems related to costs of training staff. They have the potential to bring together organisations with and without previous histories of collaboration to solve common problems, and offer mutual support and informal knowledge exchange and insights, and can integrate solutions to skills-related and non-skills-related management issues. This report has drawn on a literature review, small scale online/telephone survey, scoping interviews with funders, a mapping exercise and eight case studies to understand the nature and impact of employer network activity linked to skills development. The conclusions now summarise the findings and implications in the light of the original research questions set for the project.

6.1   Who creates employer networks and why?

The results of the mapping exercise, literature reviews and case studies show a diverse set of actors involved in establishing networks. Key players include major employers, government departments and their agencies, sectoral bodies and learning providers. Networks considered within this research commonly have a variety of purposes and motivations with skills-based networks usually focussing on developing learning provision to meet existing skills shortages or skills gaps. This reflects a practical orientation in the focus of case study employers and organisations involved in establishing the networks on solving current problems through providing a clearly defined product or service to meet a specific need. This may reflect either the composition of the case study sample, or a wider trend in employer behaviour in a challenging economic climate, where firms may be reluctant to invest time and resources in activities outside immediate business operations.

Identifying and positioning networks to provide a rapid benefit to employers is likely to be important for securing initial engagement and the identification of common interests is also important here. Network initiators usually made contact with each other on the basis of pre-existing relationships, capitalising on existing trust between potential partners. This suggests that the previous track record and history of collaboration between partners is worth considering in the process of effective network formation.

The type of employer network created tends to reflect the kind of problem or issue that it is trying to address. Science parks and business incubators tend to focus more on supporting innovation and business development among employers. Demand-led employer networks which focus on skills do so as a means of overcoming a number of barriers to training and skills including identifying skills needs, understanding benefits of learning and providing access to it. Most networks are heavily driven by employer needs, including those which are supply-led, which are also responsive to government funding flows. Some older networks showed evidence of evolution and change in focus and direction over time, primarily to meet employer and industry needs. This suggests that some flexibility when setting out the purpose and focus of networks is helpful in adapting to changes in employer needs and to capitalise on synergies with shifting national skills priorities. This may be particular important for the sustainability of newer networks with a skills focus which have positioned themselves as providers of a single product or service. It also suggests that flexibility is needed in setting measures of network outcomes and success to be able to capture unanticipated benefits and consequences.

6.2 How are networks formed, funded and administered?

The depiction of employer networks within the literature review highlights their diversity in structure, function, purpose, governance, funding, scale and types of activities, and this was confirmed by the mapping exercise and through the process of selecting case studies. Several case studies were 'hybrid' models which shared characteristics of multiple types of networks within the classifications identified in the literature. They included a mix of sectoral and supply chain coverage, and examples which are supplier-led but demand-focussed, the latter potentially reflecting increased sensitivity on the part of learning providers to market needs.

Trade associations are the largest and most diverse group of employer networks together with Chambers of Commerce. Both have a primary focus on offering generalist business support in marketing and representing the interests of their members as their primary aim, with skills development a subsidiary goal or one which forms part of consultancy services. There is also a substantial group of government licensed bodies and HEI clusters, with smaller numbers of GTAs. Mapping supply chain and informal networks through publicly available data yields an incomplete picture as much information is generally not in the public domain.

Understanding Employer Networks

Networks were sustained by four main sources of funding: public funding, membership fees, payments for specific services and non-financial contributions from members. In most cases networks received a mix of one or more of these types of funding. Access to resources through initial public funding is important for pump priming of networks, and the case studies show that this may be drawn on for a considerable period of time, even if the proportion of employer contributions rises over time. Public funding had encouraged membership of networks in industries without a history of collaboration but needs a clear focus and targeting to ensure value added.

Setting membership fees involves considering a trade-off between exclusivity of membership versus potential reach and requires considerable judgement in setting the right level which is dependent upon the perceived value of the network and its product or service. Relying on payments for specific services ensures network focus meets employer needs but may create a commercial transactional model rather than establish a sense of identity or membership of a network and therefore limit contact between employers. That said, for networks using a transactional model of funding increased penetration within an organisation (number of employees reached) provides one way to improve the sustainability of the network, especially where public funding had tailed off. The current economic environment is challenging for employers and there is therefore a role for other funding and investment options to act as catalysts for initial employer engagement or longer-term support for employers facing particular market barriers to investment. Employers may be more conscious of their spending on training, and there is potential for networks to highlight the cost-effectiveness of participation for accessing solutions to skills needs.

Setting higher membership fees may be associated with higher ambitions and expectations and so is potentially a tool to support engagement and demand; however, there is a cautionary note, as higher fees could also deter some employers. At the other end of the spectrum, non-financial contributions from employers include time in contributing to qualifications and standards development, and participation in network leadership, though the latter is more difficult for SMEs. Providing options for different types of participation and minimum participation requirements for key roles such as board membership can be helpful in ensuring networks run smoothly while offering options for all employers to engage.

Understanding Employer Networks

Numbers of participating employers within case study networks varied greatly from a few dozen to over a hundred. These figures were often considerably larger than the optimal size of 25 proposed by some of the literature (Stanfield et al., 2009). However, the case study networks often involved a looser relationship between each employer and the network than depicted in the literature, so higher numbers of employers may be more likely to take part. Determinants of network size included the costs of joining, network ability to engage employers and the size of the pool of potential participants. While some networks were expanding, not all networks seek to grow, and some had reached saturation of their original target population. This implies that growth may be most likely by replicating and/or adapting existing networks for other groups of employers. For some networks, restrictions on size acts as a guarantee of quality to ensure the level of service to employers was maintained, and other networks may choose to remain small to preserve 'elite' status as a marketing hook for prospective participants.

Networks hosted by a leading employer were less likely to have a distinct legal status than those which were independent of any of the participants, and functioned without a formal governance structure. The perceived lack of bureaucracy associated with this model was a key attraction for those networks adopting it. Adopting a not-for-profit focus can be helpful in branding networks, while adopting the status of a private company is sometimes important to reassure prospective participants of a network's commercial focus. Networks relying heavily on general membership subscriptions rather than payment for specific services or public funding may need to ensure adequate representation of members through board structures to provide influence on how funds are used. It is important to ensure that any SME members have adequate influence. This can take the form of a dedicated representative to consult personally with SME members.

Network staffing typically required three types of role: leadership and administration, usually through a small management team; employer engagement e.g. account managers and delivering network activities e.g. trainers. Choice between in-house and outsourced training provision is likely to depend on regularity/frequency of activities, volumes of participants and degree of flexibility required in location and scheduling of delivery. Efficient and lean staffing models can ensure a tight focus on allocating staff time to activities which are valued by employers, but may pose some challenges in the amount of time staff are able to devote to outreach and marketing activities. Both the literature and empirical evidence suggest that the quality of network leadership in terms of ability of the most senior person to set a suitable strategic direction for the network and their energy and enthusiasm in promoting it are major success factors in generating employer initial engagement, effective operation and network sustainability (Casson and Della Giusta, 2007: Rhodes and Graver, 2002). Willingness to take risks and work collaboratively with employers was a major factor influencing success on the part of learning provider partners within the case studies.

6.3 What are the functions and activities of employer networks?

Based on the literature review and mapping exercise, most employer networks position themselves as offering business development support and some representation in policy formation activities, with skills development as a subsidiary activity. Among those with a focus on skills development, evidence from the case study networks showed they engaged primarily in five categories of skills-related activities including:

- developing industry-relevant qualifications or standards,

- assisting employers in organising and funding training from external providers,

- providing training either directly or through approved training providers,

- sharing good practice through visits between participating employers,

- directly supporting students and promoting careers in the sector.

Activities can also be divided into "inward" facing activities aimed at improving the skills of current employees and "outward" facing, seeking to improve the supply of individuals with relevant skills into the labour market. Inward-facing skills activities tend to offer more direct benefits to participating employers and it is uncertain how far employers would be willing to fund extensive outward-facing activities where immediate benefits are unclear. However, networks could introduce mechanisms to help ensure the benefits of outward-facing activities accrue to employers within the network by making explicit links between careers guidance offered to young people and employer recruitment. Consistent with the literature, levels of employer participation were highly variable, often characterised by an inner circle of more committed employers and a more peripheral group of beneficiaries. In addition to activities which constitute the primary service offering to employers, considerable investment was required in some networks to market the network to potential participants, especially SMEs and/or firms unfamiliar with the network's activities.

Chambers of Commerce, Sector Skills Councils and other intermediaries have acted as partners in establishing the case study networks and there is some very limited evidence of contact with JobcentrePlus where networks are involved in establishing pre-employment schemes. More common contacts are between networks and local secondary and adult education providers. Responsiveness to employer needs on the part of FE/HE and other learning providers in terms of developing relevant learning content in a short time frame appear to be the distinguishing characteristics for playing an effective role as a network partner. Learning providers may also need to be able to operate on a national scale for large networks. In the current climate, generating income direct from employers is likely to be increasingly important for learning providers so capability in working with employers is commercially advantageous. Within the HE sector, there has historically been less impetus to collaborate with employers on course design, but the case studies illustrate benefits to HEIs which are prepared to take risks and experiment with new programmes. There may be potential for Local Enterprise Partnerships to fulfil a function in establishing networks, especially in supporting their activities to ensure labour market supply is adequate for local economic development.

6.4   How are networks perceived by employers?

Literature on employer networks stresses the role of trust and power in forming relationships between firms and the role of social capital i.e. relationships between individual participants in realising network benefits, typically over a long period of time (Bishop, 2011). Employers within the case study networks investigated generally did not share this perspective as they did not view networks as 'clubs' but more instrumentally as service providers. This emphasis is likely to increase where networks become more reliant on employer rather than public funding, and creates a need to meet employer expectations rapidly through fast provision of purchased services, although the level of employer demands is likely to be proportionate to the fees charged.

The level of interaction between employers in the case study networks was lower than we might anticipate based on the emphasis placed on the value of networks in creating social capital suggested in the literature. This reflects a different type of network model adopted by the case studies from the long-term membership of a 'club' which dominates the literature. Where a single product or service is offered, there was fairly limited emphasis on creation of opportunities for employers to build long-term bilateral relationships with each other. This may initially facilitate ease of employer engagement because there are no expectations placed on them to engage in activities which provide limited immediate returns. However, this model of networks may reduce opportunities for employers to reap unanticipated benefits through development of social capital over a longer period of time.

Across the networks we consulted many conformed to a 'hub and spoke' model where communication primarily took place between employers and the network co-ordinators rather than a 'web' model, with significant direct communication between multiple employers. Where new networks are formed in industries without significant history of collaboration, networks may need to spend some initial time in defining the scope of their activity. This is a valuable phase of development to ensure that network services will meet employer needs but gaining employer participation at this point may be challenging if there are any competitive tensions between prospective participants so attention needs to be given to allaying concerns about sharing information.

Understanding Employer Networks

Given the consumerist perspective of employers towards networks, the key factors influencing employer participation are the appeal and perceived value of the network offer, the extent of engagement activity undertaken by the network co-ordinators, the size of company and costs of participation. Identifying the presence of common interests is essential and focussing on common concerns connected with securing the skills pipeline can help to transcend competitive pressures which usually inhibit collaboration. Networks coalesce around an occupation or type of work involving employers from different industries or those which are not in direct product market competition, even if they rely on the same skills. Costs of participation must be proportionate to the added value employers perceive to be gained. This implies that when establishing networks, it is important to be very clear about their unique added value and to ensure appropriate pricing of services. Employer consumerist perspectives in both joining and participating in network activities may partly reflect the business models adopted by some of the networks which centred on a pay-per-use approach, but may also reflect an economic climate in which employers may limit participation in non-operational activities.

Use of language in network formation and branding may be important in attracting firms to take part in network activities. Employers commonly perceive themselves as businesses or firms rather than employers because, for the majority, employment is not their main goal. Labelling and naming networks in a way that is meaningful and appealing to employers therefore needs some care.

A further important dimension here is the presence of leading employers from a sector, supply chain or geographical location: in part this acts as a mark of quality but could also function as an opportunity for individuals to associate with elite employers. Developing an unknown brand is one of the challenges that new networks may face and endorsement by major employers through personal recommendations is helpful in overcoming this, along with some investment in marketing activity. It may take time for networks to reach their full potential and optimal benefits for employers, particularly where high levels of employer commitment to develop a sense of network identity are needed or where there is limited history of employer collaboration in the relevant sector or geographical area. Realism in what networks can deliver is therefore important in planning and evaluating them.

6.5   What are network impacts on employer investment in skills and growth?

The most common skills-related impacts of network activities were: access to suitable, customised and flexible training provision; reduced transaction costs for employers in organising training and negotiating course content with training providers; economies of scale through design of industry-standard qualifications. In addition, networks were able to overcome employer barriers to skills development such as short-term decision-making and access to imperfect information by proving the benefits of training through relevant examples from similar organisations. This appears to be a key lever for encouraging greater network penetration. Some networks had therefore stimulated recognition of skills shortages and enabled employment expansion which would not otherwise have taken place, especially in small firms. There is a potentially important co-ordinating role for intermediary organisations working at regional/local levels in identifying common gaps in skills development provision which pose barriers to growth for employers in the area. A number of networks had expanded, indicating existence of demand for similar services beyond their original location, but also reflecting some cases of saturation among the original target employer group. Many of the networks providing any training leading to a qualification appeared to be contributing to increases in skill levels and some appeared to be influencing training provision across the sector. Other networks reported broader or less tangible impacts.

Selection of suitable learning providers which had the capability to develop learning provision quickly and with maximum flexibility was often a major factor in influencing positive employer perceptions of network activity (e.g. Teesside, ITMB, MPA). This suggests that initial establishment of networks needs either to choose learning providers with significant scale or alternatively, starting networks on a small scale to iron out any teething problems without damaging network credibility among potential participants, could be helpful. Overall, the networks led by learning providers appeared to have slightly less extensive impacts on business outcomes for employers, because they were often providing a discrete service in training particular individuals rather than a holistic offer aimed at general business development, but the scale of the case study research means that this is not necessarily generalisable.

However, it means that in establishing networks led by learning providers, it may be useful to consider how the initial design of the network and model of engagement might allow scope for broadening the range of activities offered, even if at a later stage of the network's development. In addition it may be helpful to consider how best to position and market the purpose of the network to employers so they perceive it from the start as more than simply offering training provision, even if they do not choose to engage in additional activities until a later stage.

Generating greater network impact might be attainable through encouraging greater peer-to-peer learning opportunities between employers, identified as valuable by previous research (UK CES, 2010a). This featured less frequently among the case studies than in the literature, due to the focus of some networks on transmission of learning through acquisition of qualifications by individuals rather than informal sharing of knowledge between organisational representatives.

Business benefits appeared most directly for case study networks with supply chain type characteristics, in which skills development formed a subsidiary focus. The extent of skills development activity was variable in these networks, reflecting a need to acknowledge that network activity is likely to be hybrid in nature. Those networks led by a large employer or with major employers involved, appear to have a more extensive impact, although this depends on the scope of network activity. Requiring relatively broad activities to make such networks eligible for funding may be helpful in achieving breadth in skills development covering transferable as well as firm-specific skills. In addition, the time periods over which benefits accrue to different types of networks vary considerably. Where investments in long-term R&D activity are made, the outcomes may not be evident for at least five years and often longer. This implies that both pump priming funding for networks and the time period for their evaluation need to be considered carefully in the light of network objectives.

6.6 What are the implications for stakeholders?

The research sought to develop a better understanding of inter-employer networks and how they impact on investment in skills. There is much interest in the potential of employer networks to act as a lever to increase enterprise, jobs and growth. In the current climate, networks can be attractive option for employers because they provide a way to manage costs and risks by taking collective action to address shared needs and problems.

The diversity of networks in terms of aims, governance and structure needs to be accommodated when promoting sources of support to networks, assessing the ability of networks to deliver (or the need for new networks to be created), and evaluating of their impact. Multiple routes and messaging techniques to raise awareness of support are likely to be necessary. Contrary to wider literature, case study employers tended to perceive networks as a vehicle through which to consume services in terms of skills/qualifications and access expertise rather than as membership clubs. The level of interaction between employers in a network was lower than might have been expected, based on findings in the literature. However, the number of employers in a network was higher than suggested by the literature. This is perhaps an anomaly of the case study selection; but, clearly this is what works for some networks with a skills and / or innovation focus at least. The changes in the economic climate could in part explain the need for networks to become self-sustaining and for employers to see a clear rationale and value for money when they engage with a network. The rationale for employer participation may need to be differentiated between sectors and locations based on the particular needs. Messages for engagement need to be highly customised.

Communicating to and with networks is invariably more straightforward for those that can be readily identified i.e. those with a public face, for example a web site or that promote a product or service. The case study networks examined in this project were relatively formal in nature. However, the ease of reaching formal networks with information about available support for skills development could also provide a route to reach their informal networks. This is not to undervalue the importance of direct communication with informal networks but it is clear that the challenge, time and resources to do this must not be underestimated. It may be difficult to plan and assess these mechanisms in applying for and allocating resources to support networks.

Understanding Employer Networks

Network success, and time to achieve it, may depend quite heavily on pre-existing relationships between partners which help to build up trust and/or attract new engagement with the network. Particular attention needs to be given in assessing networks for credibility and experience of network leadership. This is important when an existing network is embarking on spin-off activity but even more so for the establishment of a new network or growth in a location or coverage. The significant role of major employers in attracting other firms into network membership suggests that these are key messengers/influencers of behaviour, and are therefore worth targeting carefully in establishing networks. The role of key individuals is likely to be critical but may be difficult to assess/prove in considering the allocation of public support for networks and in considering the potential for network replicability. Where a lead partner / partners have a central role in establishing trust and engaging other employers it needs to be clear whether this influence has the potential to be extended, for example to a new / broader geographical area or sector coverage, or indeed deeper penetration.

In addition, existing networks and those with a strong lead / partners have the potential to achieve greater headway in developing and delivering spin-off activities; this advantage also needs to be recognised in the allocation of resources, and in evaluating impact. Where this advantage is absent, there is a need to be realistic when considering the resource needs, time to gather momentum and in expectations of achieving impact.

Networks with a solution to a clearly defined existing problem may be more attractive to employers in the current economic climate. Employers may be more interested in tangible rather than intangible activities in the first instance. This suggests that promoting initial engagement with immediate, short-term benefits can be advantageous as a way to kick-start a network. If the aims of the networks can be achieved through this kind of short-term engagement and delivery of tangible products and services, then a network needs to be clear how it is going to achieve this and make the benefits transparent to employers.

It is important to be aware of the lifecycle of a network as this will differ for those with quite specific and short-term aims to those which aim to gather steam and ambition over-time. Engaging employers with a more long-term objective may be more difficult and require development of a persuasive case for network activity. In the event that a network moves from a focus on short-term tangible goals to more long-term and intangible goals stakeholders should be mindful of the need for a clear approach to support transition and growth.

Longstanding networks are often skilled in drawing on multiple sources of funding e.g. from public sources, which may change over time. When assessing networks for support, stakeholders may wish to consider evidence of entrepreneurial approaches to raising and seeking funds for activities, from a variety of sources. A realistic assessment of resources required to achieve sustainability is also needed. The common reliance of formal networks on indirect or direct sources of public funding (in this research at least) suggests that progression towards sustainability as independent ventures should be judged over a long time period by stakeholders, and the impact that networks can be expected to achieve if they are entirely new should be estimated realistically.

Employer perceptions of the value of networks are likely to vary considerably depending on the levels of engagement. Equally, employers' assessment of value is likely to use different criteria over time, especially if employers start to reap unanticipated benefits at a later stage of network development. Where a network needs to nurture and develop engagement from employers (new or existing), especially if this is likely to incorporate increased contribution to the network, the ability to evidence the benefits becomes all the more important. Indeed, access to imperfect information may lead employers to underestimate the full benefits of the network. This needs to be taken into consideration in network monitoring and evaluation. However, self-evaluation by networks was relatively uncommon among those consulted. Continuation of employer engagement and longevity were more common measures of success, suggesting that mechanisms to measure impact and progress towards it may need to be relatively simple and resource light as a first step to establishing this practice more widely. Evaluation should also, ideally, incorporate assessment of spill-over effects and interaction of formal and informal networks as this will help to demonstrate the worth of the network to employers and/or investors.

6.7 Research gaps and learning from the study

This scoping study has been undertaken to attempt to understand how contemporary skills and innovation based employer networks operate. The process has revealed a number of useful learning points for future research and gaps for further investigation.

Firstly, the full span of employer networks in the UK is extremely difficult to document as the existence of many informal networks may not be publicly recorded and it is likely that many networks operate 'under the radar' of public policy. These networks are likely to be made up of 'insiders', and therefore more likely to have a greater impact on sharing of information, knowledge acquisition and skills development.

Some attention could be given to understanding the activities of informal networks and possibilities for supporting, accelerating and extending mutual learning among participants, especially in dynamic and growing parts of the economy[2]. This might require slightly more focussed and intensive analysis of the interactions between employers in a network, starting by mapping the contacts of individual senior managers and tracing the consequences of interactions and exchanges between employers.

Secondly, given that the literature stresses the value of knowledge transmission between firms through network activity, further work to understand how best to monitor and establish the benefits which accrue to firms of bridging and bonding social capital is required, given that this study focussed on relationships between networks and employers rather than relationships between employers within networks. Again this could be undertaken through a form of individual network analysis applied to key decision-makers within an organisation and how social capital shapes this.

Thirdly, this research has developed a greater understanding of the diversity of skills-related networks in operation. In order to gain a clear understanding of the merits and risks of different approaches to network structures, governance and funding to understand 'what works' and why, it would be helpful to make a comparative assessment of networks which are broadly similar in their objectives and types of service which are being provided to employers.

---

[2]   See for example the various IT and small business knowledge exchange and peer learning communities operating as 'Meet Up' groups around the UK (www.meetup.com)

Fourthly, the research design necessitated gaining access to employers participating in networks through the lead organisers or administrators. This is likely to have resulted in some selection effects because organisations with limited or no participation in network activities are unlikely to have much contact with network administrators and are unlikely to self-select for participation in the research. Understanding the characteristics of relatively inactive employers within networks and identifying segments which could be targeted for greater participation may be helpful. This could be achieved through research with employers whom networks have tried to engage unsuccessfully or through research with the potential target population of a network.

There is much policy interest in the potential of employer networks to act as a lever to increase enterprise, jobs and growth. It became evident in the process of identifying likely potential networks for case studies that there is the opportunity to develop and enhance stakeholder understanding, particularly policy audiences, of the scale of engagement in, and activities of, employer networks. Further application of the findings from this study could help to inform policy interventions designed to support knowledge exchange, skills investment and business expansion by employers.

Bibliography

Bagwell, S. (2008) 'Transnational family networks and ethnic minority business development: The case of Vietnamese nail-shops in the UK', *International Journal of Entrepreneurial Behaviour & Research*, Vol. 14, No. 6, pp. 377-394.

Baldock, R. and Smallbone, D. (2003) 'Bridging the gap in support for ethnic minority owned businesses: the case of Devon and Cornwall', *Journal of Small Business and Enterprise Development*, Vol. 10, No. 1, pp. 40-49.

Beaudry, C. and Swann, P. (2001) *Growth in Industrial Clusters: A Bird's Eye View of the United Kingdom*. SIEPR Working Paper, Stanford University.

Beer, J. and Meethan, K. (2007) 'Marine and maritime sector skills shortages in the south west of England: Developing regional training provision', in *Journal of Vocational Education & Training*, Vol. 59, No. 4, pp. 467-484.

BIS (2010) *Skills for Sustainable Growth*. Department for Business, Innovation and Skills, London.

Bishop, D. (2011) 'The importance of being an insider. How networks influence the small firm's engagement with formal training', in *Journal of European Industrial Training*, Vol. 35, No. 4, pp. 326-344.

Bititci, U. S. *et al.* (2004) 'Creating and managing value in collaborative networks', in *International Journal of Physical Distribution & Logistics Management*, Vol. 34 No. 3/4, pp. 251-268.

Boleat, M. (2000) *Models of Trade Association Co-operation*. Trade Association Forum, http://www.taforum.org/index.pl?section=9;n=410

Burge, K. *et al.* (2002a), *The Role and Impact of Group Training Associations*. Research Report RR384, Department for Education and Skills.

Casson, M. and Giusta, M. D. (2007) 'Entrepreneurship and Social Capital: Analysing the Impact of Social Networks on Entrepreneurial Activity from a Rational Action Perspective', in I*nternational Small Business Journal*, Vol. 25 No. 3, pp. 220–244.

CBI (2005), *Employers collaborating to raise skills in supply chains and clusters*, Confederation of British Industry

Chaston, I. and Mangles, T. (2000) 'Business networks: assisting knowledge management and competence acquisition within UK manufacturing firms', in *Journal of Small Business and Enterprise Development*, Vol. 7, No. 2, pp. 160 – 170.

Cooney, J. and Gospel, H. (2008) 'Interfirm cooperation in training: group training in the UK and Australia', in *Industrial Relations Journal*, Vol. 39, No. 5, pp. 411-427.

Cricelli, L. and Grimaldi, M. (2010) 'Knowledge-based inter-organizational collaborations', in *Journal of Knowledge Management*, Volume: 14 Issue: 3, pp. 348-358.

Davies, B., Gore, K., Shury, J., Vivian, D. and Winterbotham, M. (2012) *UK Commission's Employer Skills Survey 2011: UK results*, UKCES, London.

Davies, I. A. (2009) 'Alliances and Networks: Creating Success in the UK Fair Trade Market', in *Journal of Business Ethics*, Vol. 86, pp. 109–126.

Deakins, D. *et al.* (2007) 'Ethnic minority businesses in Scotland and the role of social capital', in *International Small Business Journal*, Vol.25, No. 3, pp. 307-326.

Dennis, C. (2000) 'Networking for marketing advantage', in *Management Decision*, Volume: 38 Issue: 4, pp. 287-292.

DTI (2001), *Business Clusters In The UK – A First Assessment, Volume 3 Technical Annexes.*

Edwards, P., Sengupta, S. and Tsai, C-J. (2007) *Developing the Resources of the Firm: Strategy and the External Environment of Small Firms in the UK*, esrc.ac.uk

Erickson, C. and Jacoby, S. (2003) 'The effect of employer networks on workplace innovation and training', in *Industrial and Labour Relations*, Vol. 56, No. 2.

Felzensztein, C. and Gimmon, E. (2007) 'The influence of culture and size upon inter-firm marketing cooperation: A case study of the salmon farming industry', in *Marketing Intelligence & Planning*, Vol. 25, No. 4, 2007 pp. 377-393.

Fletcher, D. (2010), 'A review of the educational and support infrastructure for family business in the UK', in *International Journal of Sociology and Social Policy*, Vol. 30 No. 7/8, pp. 440-456.

Fuller-Love, N. and Thomas, E. (2004) 'Networks in small manufacturing firms', in *Journal of Small Business and Enterprise Development*, Vol. 11, No. 2, pp. 244-253.

Gibb, A. (1997) 'Small firms' training and competitiveness: building upon the small business as a learning organisation, in *International Small Business Journal*, Vol. 15, No. 3, pp. 13-29.

Gospel, H. and Forman, J. (2003) *The provision of training in Britain: Care-studies of inter-firm co-ordination*. The Management Centre Research Papers 017.

Gospel, H. and Foreman, J. (2006) 'Inter-firm Training Co-ordination in Britain', in *British Journal of Industrial Relations*, Vol. 44, No. 2, pp. 191-214, June.

Harris, L. and Rae, A. (2009) 'The revenge of the gifted amateur … be afraid, be very afraid…', in *Journal of Small Business and Enterprise Development*, Vol. 16, No. 4, pp. 694-709.

Herrera Bernal, S. M., Burr, C. and Johnsen, R. E. (2002) 'Competitor networks: international competitiveness through collaboration: The case of small freight forwarders in the High-Tech Forwarder Network', in *International Journal of Entrepreneurial Behaviour & Research*, Vol. 8, No. 5, pp. 239-253.

Huggins, R. (2010) 'Network resources and knowledge alliances: Sociological perspectives on inter-firm networks as innovation facilitators', in *International Journal of Sociology and Social Policy*, Vol. 30, No. 9/10, pp. 515-531.

Huggins, R. (2008) 'The evolution of knowledge clusters. progress and policy', in *Economic Development Quarterly,* Vol. 22, No. 4, pp. 277-289.

Huggins, R. (2001) 'Inter-firm network policies and firm performance: evaluating the impact of initiatives in the United Kingdom', in *Research Policy*, Vol. 30, pp. 443-458.

Hughes, M., Ireland, R. D. and Morgan, R. E. (2007) 'Stimulating Dynamic Value: Social Capital and Business Incubation as a Pathway to Competitive Success', in *Long Range Planning*, Vol.40, No.2, pp154-177

Inkpen, A. C., Tsang, E. W. K. (2005) 'Social Capital, Networks, And Knowledge Transfer', in *Academy of Management Review*, Vol. 30, No. 1, pp. 146–165.

Johnson, C. *et al.* (2011) *Evaluation of National Skills Academies: Synthesis Report*. Skills Funding Agency.

Kitching, J. (2008) 'Rethinking UK small employers' skills policies and the role of workplace learning', in *International Journal of Training and Development*, Vol. 12, No. 2, pp. 100-120.

Kitching, J., Smallbone, D. and Athayde, R. (2009) 'Ethnic diasporas and business competitiveness: Minority-owned enterprises in London', in *Journal of Ethnic and Migration Studies*, Vol. 35, No. 4, pp. 689-705.

Leek, S. and Canning, L. (2011) 'Entering and developing a service network', in *Journal of Services Marketing*, Vol. 25, No. 1, pp. 58–67.

Lockett, H. *et al.* (2011) 'Product Service Systems and supply network relationships: an exploratory case study', in *Journal of Manufacturing Technology Management*, Vol. 22, No. 3, pp. 293-313.

Macpherson, A. and Holt, R. (2007) *Knowledge, learning and small firm growth: A systematic review of the evidence*, Research Policy 36.

McDonald, F. *et al.* (2007) 'Is there evidence to support Porter-type cluster policies?', in *Regional Studies*, Vol. 41, pp. 39-49.

Moehler, R. C., Chan, P. W., Greenwood, D (2008) 'The interorganisational influences on construction skills development in the UK', in Dainty, A (ed), *Proceedings of the 24th Annual ARCOM Conference, 1-3 September 2008, Cardiff, UK*, Association of Researchers in Construction Management.

NESTA/ SQW (2009) *A review of mentoring literature and best practice: Creative business mentor pilot,* www.nesta.org.uk/library/.../Creative-Business-Mentor-Review.pdf

NESTA/ Chapain, C. *et al.* (2010) *Creative clusters and innovation: Putting creativity on the map*, www.nesta.org.uk/events/.../creative_clusters_and_innovation_report

NESTA/ Marston, L. (2011) *All together now: Improving cross-sector collaboration in the UK biomedical industry*, www.nesta.org.uk/assets/features/all_together_now

Novelli, M., Schmitz, B. and Spencer, T. (2006) 'Networks, clusters and innovation in tourism: A UK experience', in *Tourism Management*, Vol. 27, pp. 1141–1152.

Parker, C., Anthony-Winter, T. and Tabernacle, D. (2003) 'Learning by stealth: introducing smaller retailers to the benefits of training and education in Barnet', in *International Journal of Retail & Distribution Management*, Vol. 3i, No. 9, pp. 470-476.

Pittaway, L. *et al.* (2004) 'Networking and innovation: A systematic review of the evidence', in *International Journal of Management Reviews*, Vol. 5-6, No. 3-4, pp. 137-168.

Phillipson, J.l., Gorton, M. and Laschewski, L. (2006) 'Local Business Co-operation and the Dilemmas of Collective Action: Rural Micro-business Networks in the North of England', in *Sociologia Ruralis*, Vol. 46, pp. 40–60.

Rhodes, P. and Graver, A. (2002) *An Evaluation of Employer Learning Networks*. Research Report RR367, Department for Education and Skills

Robson, P. J. A., Bennett, R. J. (2009) 'Exploring the Use of Trade and Professional Association Services', in *Applied Economics*, Vol. 1.

Sako, M. (1992) *Prices, quality and trust: inter-firm relations in Britain and Japan*, Cambridge University Press.

Schaefer, A. and Kerrigan, F. (2008) 'Trade associations and corporate social responsibility: evidence from the UK water and film industries', in *Business Ethics: A European Review*, Vol. 17, No. 2, April.

Stanfield, C., Cox, A. and Stone, I. (2009) *Review of Employer Collectives Measures: Final Report: Evidence Report 10*, UK Commission for Employment and Skills.

Stone I/UKCES (2011) *International approaches to high performance working*, Evidence Report 37.

Street, C. T. and Cameron, A. F. (2007) 'External Relationships and the Small Business: A Review of Small Business Alliance and Network', in *Journal of Small Business Management,* Vol. 45 No. 2, pp. 239–266.

UKCES (2011) *Maximising employment and skills in the offshore wind supply chain*, Evidence report 34 Volume 1 Main report.

UKCES (2010a), *Developing Leadership and Management Skills through employer networks*, UK Commission for Employment and Skills.

UKCES (2010b), *The 2010 Report Ambition 2020: World Class Skills and Jobs for the UK.*

UKCES (2008), *Engaging Small Employers in Continuing Training, An International Review Of Policies And Initiatives*.

Veal, G. and Mouzas, S. (2010) 'Learning to collaborate: a study of business networks', in *Journal of Business & Industrial Marketing*, Vol. 25, No. 6, pp. 420-434.

Waters, R. and Lawton Smith, H. (2008) 'Social networks in high-technology local economies. The cases of Oxfordshire and Cambridgeshire', in *European Urban and Regional Studies*, Vol. 15, No. 1, pp. 21-37.

Westerlund, M. and Rajala, R., 'Learning and innovation in inter-organizational network collaboration', in *Journal of Business & Industrial Marketing*, Volume: 25 Issue: 6.

Wood, A. M., Watts, H. D. and Wardle, P. (2004) 'Growth-Oriented Small Firms and the Nature and Extent of Local Embeddedness: The Case of a Traditional Metalworking Cluster', in *Growth and Change*, Vol. 35, pp. 419–433.

List of previous publications

Executive summaries and full versions of all these reports are available from

www.ukces.org.uk

Evidence Report 1

Skills for the Workplace: Employer Perspectives

Evidence Report 2

Working Futures 2007-2017

Evidence Report 3

Employee Demand for Skills: A Review of Evidence & Policy

Evidence Report 4

High Performance Working: A Synthesis of Key Literature

Evidence Report 5

High Performance Working: Developing a Survey Tool

Evidence Report 6

Review of Employer Collective Measures: A Conceptual Review from a Public

Policy Perspective

Evidence Report 7

Review of Employer Collective Measures: Empirical Review

Evidence Report 8

Review of Employer Collective Measures: Policy Review

Evidence Report 9

Review of Employer Collective Measures: Policy Prioritisation

Evidence Report 10

Review of Employer Collective Measures: Final Report

Evidence Report 11

The Economic Value of Intermediate Vocational Education and Qualifications

Evidence Report 12

UK Employment and Skills Almanac 2009

Evidence Report 13

National Employer Skills Survey 2009: Key Findings

Evidence Report 14

Strategic Skills Needs in the Biomedical Sector: A Report for the National Strategic Skills Audit for England, 2010

Evidence Report 15

Strategic Skills Needs in the Financial Services Sector: A Report for the National Strategic Skills Audit for England, 2010

Evidence Report 16

Strategic Skills Needs in the Low carbon Energy generation Sector: A Report for the National Strategic Skills Audit for England, 2010

Evidence Report 17

Horizon Scanning and Scenario Building: Scenarios for Skills 2020

Evidence Report 18

High Performance Working: A Policy Review

Evidence Report 19

High Performance Working: Employer Case Studies

Evidence Report 20

A Theoretical Review of Skill Shortages and Skill Needs

Evidence Report 21

High Performance Working: Case Studies Analytical Report

Evidence Report 22

The Value of Skills: An Evidence Review

Evidence Report 23

National Employer Skills Survey for England 2009: Main Report

Evidence Report 24

Perspectives and Performance of Investors in People: A Literature Review

Evidence Report 25

UK Employer Perspectives Survey 2010

Evidence Report 26

UK Employment and Skills Almanac 2010

Evidence Report 27

Exploring Employer Behaviour in relation to Investors in People

Evidence Report 28

Investors in People - Research on the New Choices Approach

Evidence Report 29

Defining and Measuring Training Activity

Evidence Report 30

Product strategies, skills shortages and skill updating needs in England: New evidence from the National Employer Skills Survey, 2009

Evidence Report 31

Skills for Self-employment

Evidence Report 32

The impact of student and migrant employment on opportunities for low skilled people

Evidence Report 33

Rebalancing the Economy Sectorally and Spatially: An Evidence Review

Evidence Report 34

Maximising Employment and Skills in the Offshore Wind Supply Chain

Evidence Report 35

The Role of Career Adaptability in Skills Supply

Evidence Report 36

The Impact of Higher Education for Part-Time Students

Evidence Report 37

International approaches to high performance working

Evidence Report 38

The Role of Skills from Worklessness to Sustainable Employment with Progression

Evidence Report 39

Skills and Economic Performance: The Impact of Intangible Assets on UK Productivity Growth

Evidence Report 40

A Review of Occupational Regulation and its Impact

Evidence Report 41

Working Futures 2010-2020

Evidence Report 42

International Approaches to the Development of Intermediate Level Skills and Apprenticeships

Evidence Report 43

Engaging low skilled employees in workplace learning

Evidence Report 44

Developing Occupational Skills Profiles for the UK

Evidence Report 45

UK Commission's Employer Skills Survey 2011: UK Results

Evidence Report 46

UK Commission's Employer Skills Survey 2011: England Results

Evidence Report 47

Understanding Training Levies

Evidence Report 48

Sector Skills Insights: Advanced Manufacturing

Evidence Report 49

Sector Skills Insights: Digital and Creative

Evidence Report 50

Sector Skills Insights: Construction

Evidence Report 51

Sector Skills Insights: Energy

Evidence Report 52

Sector Skills Insights: Health and Social Care

Evidence Report 53

Sector Skills Insights: Retail

Evidence Report 54

Research to support the evaluation of Investors in People: Employer Survey

Evidence Report 55

Sector Skills Insights: Tourism

Evidence Report 56

Sector Skills Insights: Professional and Business Services

Evidence Report 57

Sector Skills Insights: Education

Evidence Report 58

Evaluation of Investors in People: Employer Case Studies

Evidence Report 59

An Initial Formative Evaluation of Best Market Solutions

Evidence Report 60

UK Commission's Employer Skills Survey 2011: Northern Ireland National Report

Evidence Report 61

UK Skill levels and international competitiveness

Evidence Report 62

UK Commission's Employer Skills Survey 2011: Wales Results

Evidence Report 63

UK Commission's Employer Skills Survey 2011: Technical Report

Evidence Report 64

The UK Commission's Employer Perspectives Survey 2012

Evidence Report 65

UK Commission's Employer Skills Survey 2011: Scotland Results

Intelligence > Investment > Impact