

Research insight

Smart working The impact of work organisation and job design

Acknowledgements

The CIPD is grateful to Capgemini for their work on this report.

In producing the report, Capgemini have collaborated with a number of HR practitioners and thought leaders. Thanks go to:

- David E. Guest, King's College, London
- Stephen Perkins, London Metropolitan University
- John Purcell, University of Bath
- Stephanie Bird, BP
- Adrian Whittle, NHS
- Patrick Sturch, Essex County Council
- Linda Ryan, Consultant
- Melanie Flogdell, Centrica
- Ian Johnston, BT
- Caroline Waters, BT
- Lynn Pearson, WL Gore
- Genevieve Tennant, Allen & Overy

Contents

Foreword	4
Executive summary	6
1 Introduction	7
2 Methodology	S
3 Initial findings: literature review	10
4 Initial findings: case studies	21
5 Key themes arising from research so far	31
References	34

Foreword

We know that work is changing: the evidence is all around us. Job descriptions are increasingly inadequate as a guide to what people are actually expected to do. Organisational hierarchies are distorted and fragment as changing markets and services strengthen the pressure to give work to those who are best equipped to handle it, irrespective of job title. Organisational structures can become 'silos' that inhibit effective communication and demotivate employees. On the other hand, IT presents opportunities for developing new products and services, and new ways of communicating and managing.

In short, the systems and methods that once served to hold organisations together are now more likely to be doing damage. Managers need to take account of the changing attitudes and expectations of employees, who are unlikely to be impressed by a 'command and control' style of management. And they need to find new kinds of organisational 'glue', and new ways of organising that will allow more flexibility but still retain a necessary degree of control.

That is why the CIPD asked Capgemini to undertake research to establish how these changes are feeding through into organisational thinking and structures, and what impact they are having on both performance and employee well-being. The purpose of the research is fundamentally to help answer the following questions:

- How do work organisation and job design impact on sustainable business performance?
- What are the key concepts, ideas or frameworks that employers are currently using to tackle issues of work organisation and job design and how are they being used?
- Are employers missing important opportunities to use work organisation and job design to improve performance?
- What role do or should *HR professionals* play in addressing issues of work organisation and job design?

This report on phase one of the research is intended to provide a platform for phase two, which will look in greater depth at the experience of a number of organisations that have adopted smart working.

What is smart working?

But what are we talking about when we say 'smart working'? Capgemini offer what they call an emergent definition in the following terms:

'An approach to organising work that aims to drive greater efficiency and effectiveness in achieving job outcomes through a combination of flexibility, autonomy and collaboration, in parallel with optimising tools and working environments for employees.'

Smart working might be seen as an *objective* that can help focus managers' minds on how they can be thinking about reorganising work to improve performance. The fact that the idea of smart working has no distinct boundaries may actually make it more powerful – if it leads managers to ask questions about how the objective can be achieved in their own organisation. This is not an idea that tells managers what to do, but it can offer insights into the changes going on around them and a basis for reflecting on how best managers should respond. Smart working can perhaps be best seen as a paradigm – or, in other words, a model or pattern, or way of looking at the world.

Is there a new organisational paradigm?

The concept of a 'paradigm shift' is used to refer to a major change in the way people think about something – in this case, the way organisations work. The report proposes that a new organisational paradigm is emerging, driven by a combination of changes in both the work environment and the employment proposition. This paradigm, outlined on page 32 of the report, assumes increased organisational flexibility, giving employees more freedom of action and the

opportunity to use their discretionary behaviour in support of improved performance. Capgemini suggest that other characteristics of smart working include virtual teams, outcome-based measures, IT-based working practices and high-trust relationships.

The case studies included in the report provide evidence from a number of organisations that have adopted practices that fit within the new paradigm. This raises the question of what conditions might need to be met to conclude that a new paradigm is in fact in place. For instance, there has been a rapid spread in the use of IT; the take-up of flexible working practices – including homeworking – has gone up substantially; and more employers are adopting an employment proposition, or 'employer brand'. But is this enough to declare a new paradigm, or do organisations have to put such practices together in a specific way?

How do work organisation and job design contribute to smart working?

The debates about how best to organise work are well reflected in the literature review that forms the core of the report. The shift from 'scientific management' to a more humanitarian approach drawing on psychology and sociology is clearly documented. For HR professionals, work organisation can be seen as a major component of 'OD', or organisation development, which needs to balance both design and employee engagement strategies. These are issues that need to engage the attention of senior management collectively.

There may, however, be a risk that, in focusing on a 'top down' approach like work organisation, the 'bottom up' elements of job design are neglected. Job design is important because of the difference it can make to employee satisfaction and commitment. Issues like challenge and autonomy have a major influence on employee satisfaction and commitment. Although some jobs are heavily circumscribed, leaving little discretion to employees, others place job content much more in the hands of the individual job-holder. We need to know more about 'job crafting' and the way in which organisations are responding to it.

Stimulating debate

The CIPD wants to prompt a wider debate on smart working. Most if not all organisations will be experiencing the kind of changes and pressures that are the focus of our research. However, some of the questions organisations need to ask themselves are:

- Are we getting the best value from these developments?
- Have the changes been introduced in such a way that they reinforce one another?
- Have they been integrated as part of a consistent overall strategy?
- Have outdated ways of thinking about management been replaced by a coherent alternative philosophy?

Positive answers to these questions would help to establish the existence of a new paradigm. A new way of looking at organisational life would have been reflected in, and validated by, new ways of managing. The purpose of phase two of this research is to seek answers to these and similar questions.

If you would like to comment, or contribute to this research, please contact Mike Emmott, CIPD Adviser, Employee Relations (m.emmott@cipd.co.uk).

Executive summary

- The term 'smart work' is increasingly being used to refer to the variety of ways in which employers can build autonomy, self-control and development into jobs to pursue an interlinked agenda of employee productivity and business performance.
- This report proposes that a new organisational paradigm is emerging, driven by the combination of work environment changes (including new technology, tools, structures and working layouts) and employment proposition changes (including an organisational philosophy of greater autonomy and discretion). The paradigm is distinguished by organisations that present a different type of job, management style and approach, seeking to embrace 'smart working' principles.
- The report takes a journey through literature to consolidate the thought leadership that supports our hypothesis. We also present summaries of 'light touch' case studies, profiling several organisations that we believe demonstrate the concept in practice. Finally, we draw conclusions from our secondary and primary research and summarise the key insights before suggesting a shape and focus for phase two of this research.
- There is a wealth of literature covering the various elements that combine within our research hypothesis. Our journey through literature starts with the key question of how employers organise work and the concept of organisation design; it then looks at the changing nature of the employment relationship and its philosophical underpinnings; and finally reflects on contemporary influences on the physical work environment. The evolved combination of these factors points to a new organisational paradigm of 'smart working'.

- Profiling five leading organisations, our initial research identifies the paradigm in action. The organisations that we case study show a way of crafting jobs that feature:
 - a higher degree of freedom to act, for example self-management, a high degree of autonomy and a philosophy of empowerment
 - · concepts of virtuality in teams or work groups
 - management interventions that focus on outcome-based indicators of achievement
 - a degree of flexibility towards work location and working hours
 - physical work environments featuring more advanced communications technology, hot-desking and working from home
 - cultural conditions, ways of working, organisational beliefs and management styles that are underpinned by or drive high-trust working relationships
 - alignment of smart working with business objectives to create a 'triple win' for the organisation, its employees and its customers.
- Our research gives weight to the hypothesis that a new organisational paradigm is emerging. We conclude by summarising the key themes that have emerged from our review of literature and initial case studies.

Introduction

Ask 100 people what 'smart working' means and it is likely that you will receive 100 different answers.

We asked ten of our consultants to take views from ten of their contacts on the definition of smart working. The answers included:

- being more productive without working harder
- using better organisational skills
- a culture of flexibility
- reaping the benefits of technology
- working to clear aims and outcomes
- using talent well to leverage skills
- virtual teams and workplaces
- being in control of your own job
- making jobs less stressful and more fun
- productive people management skills
- being 'triple-bottom-line friendly' (corporate social responsibility), to talent management, to homeworking, to strategic workforce design and optimisation, to simple time management and organisational skills!
- understanding that it is possible to reinvent the way we interact with each other at work through accessing new and developing technologies so that we can work to what we have to do, rather than where we have to do it.

So, while not in any way scientific, the results of our survey were certainly interesting. Our informal survey demonstrated that, to most people, 'smart working' is about a way of operating that enables individuals, teams and organisations to be more productive. The use of new technology innovations and business initiatives that provide more flexibility were key themes. There were also numerous references to homeworking and flexible hours, with individuals working to predefined outcomes.

We concluded that 'smart working' is difficult to define and indeed has multiple definitions, is contextual and

often described a product of the drivers (why do it?), the intended outcomes (to achieve what?) and the interventions put in place (how? and by what means?).

The CIPD has produced research into major organisational changes and restructuring and the contribution that people management can make to their success. They have also focused on flexible working and how it can contribute to improved employee well-being and productivity. The term 'smart work' is increasingly being used to refer to the variety of ways in which employers can build autonomy, self-control and development into jobs to pursue this interlinked agenda.

So, taking these factors into account, we propose an emergent definition of smart working:

An approach to organising work that aims to drive greater efficiency and effectiveness in achieving job outcomes through a combination of flexibility, autonomy and collaboration, while optimising tools and working environments for employees.

We suggest that a new organisational paradigm is emerging: that 'smart working' is driving a new work experience for employees today. The purpose of this research is to validate this assertion by addressing the following questions:

- What degree of relevance does 'smart working' have for organisations today?
- To what extent are employers explicitly and deliberately designing roles that embrace this concept?
- Is there a positive benefit to taking a more humanistic perspective on smart working?
- Can a link between smart working and productivity be established? Are the links circumstantial?
- Is the trend towards flexibility simply a result of

- technological or cost drivers?
- Do organisations place the same emphasis on designing jobs as they do on structures?
- In short, is there a new organisational philosophy emerging, which places smart working at the heart of organisation design?

When the CIPD approached Capgemini as a potential partner to undertake this research, we were asked whether this topic had relevance for our clients. Our experience was that it does, so we decided to start a debate. Some clients talked about restructures that aimed to increase operational efficiency, some talked about culture change, while others told us about interventions to rationalise property spend and efforts to achieve flexibility in a global 24/7 operating environment.

Key questions that are pressing for today's businesses include:

- How can we encourage our customer service advisers to take more ownership of the customer experience to enable us to improve service levels?
- How can we create the environment for our production staff to work with the flexibility and autonomy that our management team do?
- How can we encourage innovation, facilitate decision-making and working together across our business?
- How can we maximise the potential of the talent in the organisation?
- How can we deliver to the changing and multidimensional expectations of our people?
- How do we meet the different engagement needs of 'generations': the 'baby boomers', 'Generation X' and 'Generation Y' within our workforce?
- How can we focus the team more on what they achieve at work than what they do?

We feel that these issues are at the heart of our smart working hypothesis. They demonstrate a willingness by employers to give equal consideration to both the physical and emotional elements of work design.

Our hypothesis therefore proposes that a new organisational paradigm is emerging, driven by the combination of work environment changes (including different structural context, greater use of information and communications technology and more flexible office layouts) and employment proposition changes (including an organisational philosophy of greater autonomy and discretion). This paradigm is distinguished by a different type of job, management style and job design approach that seek to embrace smart working principles.

This discussion paper takes a journey through literature to consolidate the thought leadership that supports our hypothesis. We also present summaries of 'light touch' case studies, profiling several organisations that we believe demonstrate the concept in practice. Finally, we draw conclusions from our secondary and primary research and summarise the key insights before suggesting a shape and focus for phase two of this research.

2 Methodology

This research is being conducted in two parts.

Phase one includes a review of existing literature and a small number of 'light touch' case studies, which will provide shape and focus for phase two.

Initial priorities for phase one were to refine the research scope and build and prioritise potential hypotheses. To do so, we held a number of informal meetings with a specially convened advisory group, made initial telephone calls to gain feedback on the research aims and held a collaborative event with specially invited guests from HR and academia.

This enabled us to apply a degree of focus to the topics covered within the literature review, including:

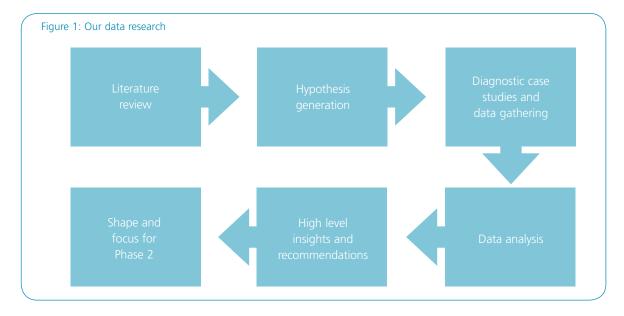
- work organisation, organisation design and job design
- physical work environment
- high-performance work practices (HPWP)
- empirical studies of the link between the above concepts and business performance
- talent management, employer branding and employee proposition concepts as they relate to our hypothesis.

In phase one we completed a number of 'light touch' telephone interviews with organisations that had been identified as having a potential fit with our hypothesis. We interviewed eight organisations and include five in this summary.

Phase two will consist of a series of more in-depth case studies covering a range of organisations that have adopted 'smart working' principles, in order to investigate the issues in more detail. We will also conduct an online survey of CIPD members.

Critical success factors for this research are to establish how the concepts are being used in practice and to what benefit. This will be used to produce practical guidance for CIPD members and HR practitioners in this area.

In producing this research, we are keen to ensure that we provide insight that is relevant, practical and replicable across organisations. This research is not intended as an empirical study to measure and demonstrate the link between smart working and performance. The main objective is to highlight literature and case study evidence of the emergence of a new organisational paradigm.



3 Initial findings: literature review

There is a wealth of literature covering the various topics that combine within our research hypothesis. Our journey through literature starts with the key question of how employers organise work and the concepts of organisation and job design. It then looks at the changing nature of the employment relationship and its philosophical underpinnings, and finally reflects on contemporary influences on the physical work environment, concluding that the evolved combination of these factors points to a new organisational paradigm of 'smart working'.

Designing organisations from the nineteenth century to the present

'Jobs are created by people for people. Whether deliberately or by default, choices are made about which tasks to group together to form a job, the extent to which job holders should follow prescribed procedures in completing those tasks, how closely the job incumbent will be supervised, and numerous other aspects of the work. Such choices are the essence of job design, which may thus be defined as the specification of the content and methods of jobs...' (Wall and Clegg, 1998).

The concept of job design dates back to the birth of scientific management in the late nineteenth century and early studies of organisational and management practice. The work of industrialists such as Taylor and Ford focused on defining clear job roles, suggesting that workers required specific tasks and boundaries to enable organisations to become more productive, effective and efficient. This 'high direction' approach to job design focused on the creation of bureaucratic structures and organisations and became the backbone to organisational design throughout the first half of the twentieth century. Taylor and Ford placed the issue of job skill at the centre of all subsequent discussions about work transformation and work organisation.

From these foundations the concept of organisation design (OD) emerged in the USA during the 1940s, gaining further momentum and credence in the 1950s and 1960s. During this time, the focus shifted from hard, process-oriented approaches to job design to 'drawing on social psychology, sociology, psychology and anthropology' (Pickard 2006). The proponents of organisational development argue that its aim is to understand the organisation as a whole; linking people, processes, systems and structures and as such 'work design and organisation design are now interminably linked' (Proctor and Mueller 2000, cited in Huczynski and Buchanan 2001).

While scientific management advocated task fragmentation to achieve organisational effectiveness, during the middle part of the twentieth century there was recognition that motivation would influence organisational performance. The work of Maslow and McGregor heavily influenced the OD movement in the post-war era. Their work and that of others (such as the Tavistock Institute and their T-Group research) advocated that job design could be influenced by understanding and responding to the motivations of individuals and small groups. However, it was Herzberg's two-factor theory of motivation and the concept of job enrichment that was to shape the development of job design during the latter half of the twentieth century (Marchington and Wilkinson 2002).

Various job enrichment theories were developed as a result of Herzberg's work.

In the 1970s Hackman and Oldham's Job Characteristics Model established links between an individual's experience, job design, motivation, performance and satisfaction (Hackman et al 1975). More recently, Butler and Waldroop developed the concept of job sculpting as a talent management tool (Butler and Waldroop 1999).

By the late 1980s there was a distinct shift in emphasis from the bureaucratic organisations advocated by Taylor and Ford to more flexible organisations suggested by Atkinson and Handy (Marchington and Wilkinson 2002). Furthermore, during the 1990s an increased emphasis on employee empowerment led to 'high discretion' models characterised by 'individual job enrichment and self-managing or autonomous teamwork... high performance work systems' (Huczynski and Buchanan 2001). Certainly Bratton et al (2007) identify a move from vertical working to horizontal working and link this to the evolution of the post-industrialised economy.

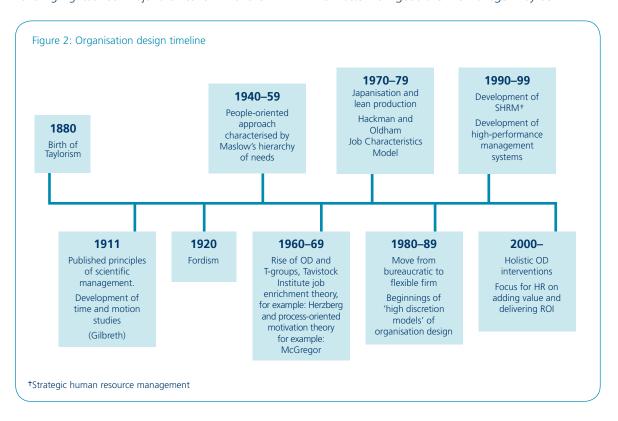
From the 1990s onwards, the rise of strategic HR management has focused attention on the linkage between HR practices and organisational performance, highlighting the fact that it is unlikely that a single intervention can lead to enhanced performance (Paul and Anantharaman 2003).

Leading academics such as Ulrich (1997) highlighted the need for HR to take a more strategic and proactive role in the development of people and organisational capability. As a result, organisational design has become more strategic and proactive. Ruona and Gibson (2004) have highlighted four major themes for HR and OD:

- increased centrality of people to organisational success
- focus on whole systems and integrated solutions
- strategic alignment and impact
- capacity for change.

Recent research suggests that job design continues to be a dynamic process requiring both the high direction and high discretion elements that have epitomised the development of organisation design (Clegg and Spencer 2007; Conti and Warner 2002; Burr and Cordery 2001). While the CIPD highlights the critical role that OD must play in facilitating organisational change to achieve competitive advantage, it reinforces the view that successful OD interventions must balance the process-driven approaches advocated in the early years with close attention to employee engagement strategies, suggesting that 'organisational capabilities will be a more enduring source of advantage than the characteristics of one particular organisational design' (CIPD 2007).

As Drucker (cited in Bratton et al 2007) suggests, 'a good organisational structure does not by itself produce good performance but a poor organisational structure makes good performance impossible, no matter how good the line manager may be.'



Literature tends to focus on the effects of job design on employee satisfaction and motivation rather than on what influences job design. Traditional organisation design theory and practice centres on a process-driven approach to designing roles and interactions within the workplace. We believe that contemporary thinking reflects a shifting mindset towards the constituent parts of a role and the psychological factors that drive job performance.

Our hypothesis reflects a belief that changes in both the physical and philosophical work environment are causing this shift.

The first assumption underpinning our hypothesis is that the philosophical basis of the employment relationship has evolved over time.

The changing employment relationship

Before looking at the many variants of the job enrichment school of thought that has been dominant from the mid-1960s onwards, it is useful to review the logic behind the approach that it replaced: job simplification.

Taylor (cited in CIPD 2007) found that manufacturing production could be improved by:

- detailed understanding of the tasks involved in a job
- restricting or removing any discretion that employees have over the way in which work is performed
- simplifying tasks, setting out standard operating procedures and times to complete work
- motivating employees through financial incentivisation.

Although there was clear evidence that this approach did indeed raise productivity and, as a result, became the conventional approach in an increasing range of manufacturing industries, research evidence started accumulating from the 1950s onwards that indicated that 'simplified jobs were boring, tiring and dissatisfying as well as potentially damaging to mental health' (Parker et al 2001).

The main response to this, led initially by Herzberg (cited in CIPD 2007), was a focus on job enrichment: the idea that deliberately designing jobs in a way that provides features such as challenge, recognition and skill usage might increase employee motivation and/or satisfaction. Perhaps the most influential work developing these themes is Hackman and Oldham's (1975) Job Characteristics Model (JCM).

Hackman and Oldham identify five 'core job characteristics':

- skill variety: the degree to which a job requires an employee to perform activities that challenge his or her skills and abilities
- task identity: the degree to which the job requires completion of an identifiable piece of work
- task significance: the degree to which the job outcome has a substantial impact on others. To illustrate this, Hackman et al (1975) set out an example comparing the essential maintenance of aircraft brake assemblies with filling boxes with paper clips
- autonomy: the degree to which the job gives an employee freedom and discretion in scheduling work and determining how it is performed
- feedback: the degree to which an employee gets information about the effectiveness of their efforts with particular emphasis on feedback directly related to the work itself rather than from a third party (for example, manager).

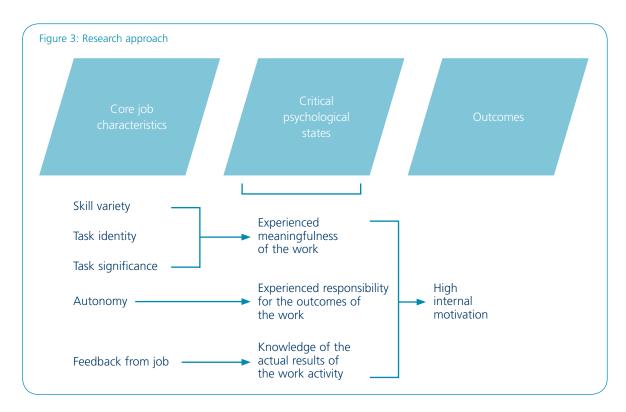
Taken together, the core job characteristics were said to produce three 'critical psychological states':

- meaningfulness the employee perceiving the work as worthwhile or important
- responsibility the belief that the employee is accountable for the outcome of his or her efforts
- knowledge of whether or not the outcome of the employee's work is satisfactory.

Designing jobs in a way that maximised the probability of all three of these 'critical states' being present was, in turn, believed to drive four positive outcomes:

- high internal work motivation
- high-quality work performance
- high job satisfaction
- low absenteeism and voluntary staff turnover.

There is a vast body of academic literature devoted to exploring and critiquing the JCM: one recent study (Humphrey et al 2007) identified more than 8,000



published articles. From a practitioner perspective, it is worth highlighting that Hackman et al (1975) took some care to set out how the insights offered by the JCM could be applied by organisations, developing both diagnostic tools and practical guidance ('implementing concepts') for employers on the most appropriate route to enhance jobs through redesign.

Interestingly, some of the recent work on refining the JCM has been triggered by the recognition that many of the challenges that this framework is intended to address have increased as a result of the introduction of modern working practices such as 'lean', total quality management (TQM), advanced manufacturing technology (AMT) and supply-chain partnering (SCP). These approaches typically require a highly skilled and committed workforce to be successful. Holman et al (2003) offer four main reasons for this:

- The complexity of modern working practices requires higher levels of technical skill and cognitive ability.
- Techniques such as TQM and SCP require interpersonal relationships within and across teams to be managed effectively.
- The requirement for continuous improvement requires creative and innovative employees.
- New work practices increase the level of discretion

and responsibility that employees must exercise, requiring an ability and willingness to engage in discretionary behaviour.

Building on the insights of the JCM, several pieces of research focus on how organisations provide people with the flexibility and environment that provides increased opportunity to learn from situations in their jobs. Wall and Wood (2005) looked at the impact of job design on knowledge and skill acquisition, concluding that the organisation of work and the ability of the individuals to manage this is a significant driver of discretionary performance. They also identified a strong correlation to an individual's ability to learn.

The idea of the connection between work organisation and learning is explored by Leach et al (2003). They focus on the effect of autonomy and teamwork on knowledge, skills and abilities (KSA), concluding that KSA mediates the relationship between autonomy and performance and between autonomy and job strain.

It's not just learning, but on overall satisfaction that we can see different attitudes emerging. Kelly (1992) analyses results from 31 case studies to review the impact of job design on job satisfaction and performance, ultimately identifying a positive relationship on worker

perceptions, job satisfaction and performance but not on motivation, even for people with high 'growth need strength'. 'Simple changes in work methods, workflow and work layout can often generate surprisingly large improvements in job performance independently of any change in job perceptions or intrinsic motivation... what satisfies employees will not necessarily motivate them to high performance.'

Lawler et al (1995) report on the effectiveness of employee involvement and TQM, specifically focusing on involvement practices such as information-sharing, developing knowledge, reward strategies and power-sharing practices. They found that several different approaches to involvement emerge and confirm five 'involvement categories'. They note that research 'will eventually show that involvement strategies can play a major role in helping firms be winners... the future may show that moving to a high performance work organisation is not so much an organisational but a societal change – one that can pay enormous dividends because it provides a better quality of life.'

Particularly interesting is the 'integrated manufacturing' concept, which links new production techniques with work organisation concepts of autonomy, skill enhancement and job enrichment.

Dean and Snell (1991) studied the relationship between integrated manufacturing and job characteristics, focusing on task uncertainty and interdependence. They construct a conceptual framework that characterises the new manufacturing paradigm, noting that scholars generally focus efforts on influencers of motivation and satisfaction rather than what influences job design. Dean and Snell suggest that what are often thought of as technology effects on job design are, in fact, products of the technological and organisational context. They highlight managerial inertia as a factor that suppresses the adaptations of jobs in this changing context.

Hannan and Freeman (cited in Dean and Snell 1991) argue that this does not mean that job design in organisations never changes but that organisations respond slowly to threats and opportunities in their environment; 'performance likely influences not only the motivation of managers to initiate changes in job design but also the availability of resources to make such changes... Organisations can simultaneously facilitate

and inhibit alignment of job design (to integrated manufacturing).'

The main conclusions that research has reached into the characteristics of jobs in recent years include:

- Job characteristics do appear to relate to both psychological and behavioural outcomes, but in a more complex way than suggested in the basic JCM model (Fried and Ferris 1987).
- Although the JCM model can provide useful information about job characteristics when used properly and consistently, and does correlate with overall job satisfaction and internal work motivation, outcomes are also linked to employees' personal views and attitudes. As a result, job design interventions will have very different effects dependent on the mindframe of the individuals affected (Taber and Taylor 1990). There are links here to the concept of a psychological contract between employer and employee (Rousseau 1995; Guest 1998).
- Where job redesign leads to employee perceptions of improved job content then employees were also likely to experience higher job satisfaction. However, performance appears to be only weakly associated with improvements in job satisfaction and work motivation (Kelly 1992).
- Although much of the research appears to show a trade-off between the goals of creating 'efficient' and 'satisfying' jobs, the insights gained can be used to minimise any adverse consequences (Morgeson and Campion 2002).
- Perceived skill utilisation the extent to which an employee believes that a job requires them to exercise a range or depth of skills – is one of the strongest predictors of job-related well-being, but is frequently neglected (Morrison et al 2005).
- Although job redesign has positive effects on effort, skill usage and problem-solving, its effectiveness also depends on the organisational context (Morgeson and Humphrey 2006).
- The practical effectiveness of job design theory can be significantly boosted by building in additional motivational, social and work context characteristics such as job complexity, problemsolving, friendship opportunities and work environment (Humphrey et al 2007).

These characteristics combine to indicate a shift in the employment relationship, identified by increased autonomy, job freedom and a more collaborative approach between employee and employer in the workplace.

It may be, then, that employers should allow their people to design their own ways of working and define their own roles within organisational defined outcomes. Syedain (2007) implies that the talent approach helps job design to achieve its objectives of enabling and indeed encouraging employees to play to their strengths. It is this 'customisation' of the employment relationship and its link to increased employee engagement that is discussed by Boudreau and Ramstad (2007), Ulrich (1997) and Butler and Waldroop (1999).

The argument that the design of a role has an impact on job outcomes is clearly compelling, but what is the specific impact on the financial performance of an organisation? What is the business benefit in delivering a 'smart working' approach? Our research now turns to empirical studies that have sought to identify a causal link between smart working and business financial outcomes.

The bottom line

Studies attempting to demonstrate the empirical connection between job autonomy, engaged employees and engagement with business performance abound. However, although there is a plethora of qualitativebased interview research, it is difficult to find quantitative and longitudinal studies that isolate the smart working aspects of roles and the link to performance. Many studies have sought to demonstrate the link between HR management practice and bottom line business value; however, the challenge is in finding those that isolate 'smart working' as a concept.

Several studies have demonstrated the financial value of HR management practice.

Guest et al (2003) studied 366 UK companies. Using objective measurements, they concluded that greater use of HR Management (HRM) links to lower staff turnover and higher profit per employee. And using subjective performance estimates, they suggested a strong association with productivity. They concluded that 'the effective deployment of human resources offers one of the most powerful bases for competitive advantage'.

Similarly, Coff (1997) takes the perspective that human assets are a source of sustained competitive advantage, referring to high-commitment practices as 'rent sharing' strategies.

However, our interest lies in those studies that make the specific connection between a 'smart working designed' role and bottom-line impact. The concept of high-performance work practices (HPWP) works well with our definition of smart working: 'practices that can facilitate employee involvement, skill enhancement and motivation' (Applebaum et al 2000).

HPWP is defined by Combs et al (2006) as the sum of the processes, practices and policies put in place by employers to enable employees to perform to their full potential. They cite employee participation and flexible working arrangements as examples of such systems that have a direct impact on ways of working and therefore flow through to job design. Combs et al report that by 2006, 92 studies had attempted to measure or link the use of performance-enhancing interventions with real improvements in business performance.

This study went a step further by using meta-analysis to test the assumption that a combination of HPWP would reinforce and support each other, leading to further performance enhancement.

The research identifies three components of the effectiveness of HPWP:

- increasing employees' knowledge, skills and abilities
- empowering employees to act
- motivating them to do so.

In considering the impact of environment, Combs et al (2006) note that flexible working builds on the foundations of HPWP. However, even knowledgeable, skilled and motivated employees will not deploy their discretionary time unless the organisational structure and job design offer the 'latitude to act'; and that this latitude is enhanced with participation programmes, self-managed teams and information-sharing. The study also found that internal social structures are equally important. It suggests that self-managed teams and flexible working combine to link people who don't typically interact and, therefore, facilitate further information-sharing and leverage of resource.

The study concludes that HPWP drives business outcomes of increased collaboration and co-operation, better development of skills and competencies to perform roles and increased motivation to do so. The key finding is that 'smart working' practices that are aligned with the business strategy and foster a climate of empowerment have a clear link to accounting returns and market value.

Thompson and Heron (2005) look at the role of managers in the use of HPWP and their resultant effects on performance. They demonstrate a clear link between HPWP and organisational performance, noting, however, that the diffusion of these practices is poor and that there is an increasing interest in understanding the specific factors within HPWP that influence performance. They confirm the existence of a strong relationship between HPWP and value-add per employee. '(HPWP) is characterized by the devolution of power, information and knowledge to employees often through team structures' (citing Lawler 1995).

Huselid (1995) reports on a large-scale study of the effects of HPWP, demonstrating a statistically significant impact on productivity and also employee turnover and corporate financial performance; the return on investment is described as 'substantial'. This study concluded that HPWP must have a strong 'fit' or alignment with the firm's competitive strategy.

Becker and Gerhart (1996) look at HR as a system within an organisation and evaluate the impact of HR on organisational performance. Included within the study is a case study of Sears, where an empowered work organisation was used to drive staff to achieve new levels of customer service, which in turn fueled increased organisational performance. The authors noted that 'an employee's ability to see the connection between their work and the company's strategic objectives was a driver of positive behaviour... We were able to establish a statistical relationship.' They note that HPWP must be designed to maximise overall quality of human capital throughout the organisation.

Industry-specific studies have built upon the idea that clusters of complementary HR practices can boost productivity. Ichniowksi et al (1997) looked at smart working practices in the steel industry; they concluded that lines adopting flexible job assignments, job security, incentive pay and training delivered

substantially higher levels of productivity compared with those operating narrow job descriptions, hourly pay and strict supervision.

Frase-Blunt (2007) studies the impact of 'home-shoring' on call centre workers. In this context workers - enabled through information and communications technology (ICT) – operate from home but within a virtual contact centre environment. Looking at US-based companies, the article demonstrates a positive business impact in reducing costs, increasing organisational flexibility, better ability to attract candidates and 'expand the reach for talented employees'. In addition, the study concludes that home-shored workers tend to be more motivated.

Even in manufacturing, according to Macduffie (1995), flexible and just-in-time production implies a more central role for workers in the design of jobs and a more flexible approach to work organisation. Flexible production systems are commonly associated with high-commitment HRM policies such as employment security, compensation linked to performance and reduction of status barriers. This aids the psychological contract of reciprocal commitment between the worker and the employer.

As with many empirical studies on workers and work performance, the main body of empirical study has been carried out in the manufacturing industry. A logical question may therefore be: can the productivity improvements be replicated in other industries? What are the contextual factors that govern the blend of techniques that fit each industry sector? Are there certain cultural conditions that are a prerequisite to achieving success with smart working?

Research into the automotive industry by MacDuffie (1995) argues that innovative HR practices contribute to business performance when (among other conditions) employees are motivated to apply skill and knowledge through discretionary effort. Through MacDuffie's empirical study, he considers high-commitment HR practices, including the reduction of status barriers and how this aids the psychological contract of reciprocal commitment at work. MacDuffie's finding is that assembly plants using flexible production systems that 'bundle' HR practices into a system that is integrated with production/business strategy, outperform plants using more traditional mass production systems, both in terms of quality and productivity. The study links

'organisational logic' to flexible production systems and concludes that although HR practices are often considered in a vacuum, we must understand how different HR practices interact and are integrated to harness the full value. Therefore, an additional dimension is that of the cumulative effect of combinations of practices.

Dean and Snell's (1991) study into integrated manufacturing (IM) techniques concluded that the three concepts of IM, job enrichment and skill enhancement interact to have more significant impact than when used in isolation. Further, the study found that 'empowerment practices relate more strongly to company performance than other initiatives... Our findings suggest that these are the key aspects of HRM to pursue.'

This causes us to question whether there are a set of complementary smart working practices that combine to produce positive employee, and ultimately business, outcomes, or conversely a set that combine to limit their value

However, Wall and Wood (2005) challenge the validity of many studies into the value of HR management practice. They strongly suggest that future research should scientifically, and through longitudinal study, prove the correlation between business performance and HRM practices.

We therefore suggest that a case can convincingly be made for the empirical link between work practices that fit with our definition of smart working and financial performance.

The second underlying assumption of our hypothesis is that, in parallel with the evolving philosophy underpinning the employment relationship, evolution in the physical work environment combines to drive a new type of job in organisations today.

The physical work environment

Our research indicates that, for many, the physical work environment is changing profoundly. This is evidenced by the increased take-up of homeworking and changes to the physical work environment in the office that maximise the use of space and resources, such as hot-desking and drop-in zones. New technologies ranging from Blackberrys to 3G and social networking

are creating an environment in which many employees, particularly knowledge workers, are able to work in a much more mobile fashion. We also note the advent of virtual organisations without traditional corporate centre functions, which reflect a more organic and flexible work environment.

Macarthur (2007) suggests that individuals are increasingly looking to organisations that appreciate work-life balance and consequently offer flexible working environments, personalised employment contracts, mobility and personal development programmes.

Research from British Telecom (2007) shows that more than 5 million people in Britain already have some form of flexible working arrangement and it is estimated that by 2010, flexible working practices will have saved the British economy £1.9 billion in congestion costs.

Furthermore, flexible or 'smart' working is credited with:

- boosting productivity and profits
- increasing a company's skills base
- freeing up travelling time
- saving on accommodation costs
- improving employees' quality of work (and life)
- lowering absence rates
- increasing an employer's reputation as a good company to work for - hence attracting talent and consequently reducing recruitment costs
- · enabling business to attract more diverse candidates, for example those with childcare or other caring responsibilities.

The TUC (2007) suggest that, in the UK, the steady ten-year decline in the number of people working more than 48 hours a week is reversing. Many employers recognise that overworked staff are unproductive and have introduced greater flexibility aimed at better work-life balance. However, it is possible that 'email on the go' and the ability to log on via secure intranets from any personal computer may have created a different working style for many, which has effectively increased the working day. The report states that for some the flexibility is welcome and the additional hours are not perceived to be a problem but for others the loss of a strict division between work and leisure time may increase stress and drive a suspicion of being asked 'to do more for less':

- More than one in eight of the UK workforce now works more than 48 hours each week. This increases to one in six in London.
- In the south-east of England, 525,000 people work more than 48 hours, and 481,000 in London.

It is clear from our research that the perceived changes in flexibility are not available to everyone; smart working means different things to different groups of employees. The context for oil rig workers makes them very different from mobile salesforce workers and again, doctors are very different from lawyers and accountants. Some professions are tied to their location but in all cases there are changes in ways of working that affect roles and responsibilities and pose a challenge to HR and businesses in how they manage their people.

Much of the developed world is said to be moving away from basic manufacturing towards a 'knowledge economy'. According to a recent report from Microsoft (2007), in just three years' time over half the gross domestic product (GDP) for the UK will be generated from knowledge. At the same time, the development of Web 2.0 and other new technologies presents individuals with opportunities for unparalleled collaboration, networking and development. This suggests a society where traditional hierarchies are challenged and employees from diverse organisations can share their knowledge via peer-to-peer networks, online blogs, Facebook communities and so on. These developments present significant opportunities and challenges to the art of managing employees and hence to job design – so how can firms respond to this constantly evolving landscape and remain one step ahead to recruit and retain the best people?

Knowledge as the critical business asset is converging with these social systems of technologies where employees can share knowledge in new ways. Macarthur (2007) suggests that IT is no longer just a means of increasing efficiency. It now has the potential to identify, harness and develop knowledge networks that add real value to the business and identify thought leaders in the field. Hence it is unsurprising that employers are investing in knowledge management methods and innovative knowledge generation forums, which should result in a demonstrable and measurable increase in employee skill levels. Examples of this include in-house networks, encouraging contribution to external blogs, web-jamming and more.

Employers are struggling to monitor and harness the virtual organisations that are developing all around us - traditional corporate entities need to find a way to maximise the benefits of disruptive technologies.

Businesses are creating the infrastructure for self-development through online or virtual training. For many organisations this is already well under way. Much of the existing computer-based training (CBT) is unit- and text-based, which appeals to some while alienating others. Increasingly, organisations offer a mix of learning and development methods that provide opportunities for accelerated self-development by making available a range of interventions from digital learning to team-based collaborative learning (Microsoft 2007).

Technology is playing a major part in the change to the work environment on a number of levels. In many industries we see increased automation and outsourcing of routine tasks, freeing up individual time to focus on more value-added activities

The HR function is part of this trend also; many organisations ensure that the current support systems are as efficient as possible in handling day-to-day people management activities.

This has typically involved:

- automating administration and outsourcing of non-core business to free up employee time for more strategic activities
- enabling employees with employee and manager self-service that reflects well on employer brand
- giving managers and employees the right people management data via an effective people management 'dashboard'
- allowing online access to corporate networks through mobile devices.

In doing so, employers have put in place the infrastructure for a more flexible and dynamic workforce and are reinforcing the trends mentioned above. The wealth of literature devoted to high-performance work systems further supports our hypothesis that employees are

already changing their own working methods, developing a new type of relationship with their employers and, in fact, now expect much more of their organisations. As a result organisations are themselves struggling to keep up.

Research carried out by Guest (1998), among others, suggests that this is leading to a different type of 'psychological contract' between employees and employers, which has profound implications for organisations. Guest argues that this contract is important because it supports the market view of the 'employee as a rugged independent individual offering knowledge and skills through a series of interactions in the labour market'. This is reflected in the shift from a job-for-life approach to one of a 'career portfolio', which better suits the employee lifecycle.

A survey by Miller and Skidmore (2004) finds that employers will find themselves under increasing pressure to enable staff to align their working lives with their personal values and lifestyle aspirations. They suggest that increased requests for flexible working and significant preference for working in smaller rather than larger organisations are part of a pressure for 'disorganisation'. The survey predicts a change in culture and management style in the future; the authors argue that to attract, retain and motivate creative people, firms must 'disorganise' to provide the expected level of freedom and flexibility at work:

'Organisations will have to loosen up so that they feel less like organisations to their employees... People want to work in organisations that feel more human and offer greater flexibility and autonomy... that respect and reflect their values, they want to define their work rather than have work define their identity.'

In the face of the ever-increasing pace of change, employers are struggling to define next year's skill requirements and make sure that development targets and workforce planning are aligned. This involves a thorough understanding of the business unit's direction and the skills and competencies available across the organisation. As Maister et al (2000) suggest, it is critical that consideration is given to the behaviours demonstrated by top management and how these need to be replicated to convince people that new behaviours are required and not just encouraged.

Syedain (2007) argues that talent management is clearly a core intervention in improving employee motivation and productivity and implies that the talent approach may indeed also affect job design, enabling employees to play to their strengths. This may mean they need to design their own ways of working and maybe even their own job description. Indeed, as employees become more empowered and independent, businesses are increasingly being run from the bottom up, with employees pushing their own innovative and entrepreneurial agenda. A talent management solution can improve workforce management by turning performance, career and succession plans into active strategies.

The 2007 'Best Companies to Work for' study indicates a clear trend for companies to highlight 'flat structures' and 'low hierarchy' as a factor that drives employee engagement. Also highlighted were organisations that provide individuals with control over their working life, those that have an open door to leadership and focus on employee well-being to drive engagement. A clear correlation was noted between flexibility in working practices and employee engagement.

Boudreau and Ramstad (2007) cite Disney as an organisation that has understood the need to go beyond traditional static job descriptions and think intelligently about how roles need to differ dependent on what the business strategy aims to achieve:

'We suspect that... some minority of jobs (perhaps 20%) will require significant changes in the traditional job system to capture and exploit their pivotalness... One implication of effectiveness is that organisations must become more adept at identifying how to conceive and manage these new roles, which will be constantly changing and not easily captured in traditional job descriptions... A maturing talent decision science will undoubtedly mean more pressure for flexibility in traditional job descriptions.'

Further support to our hypothesis is found in a recent Equal Opportunities Commission report (2007). This suggests that socio-political drivers are changing the nature of the work environment. Pointing to flexible working practices and innovation, they suggest that 'what is needed is strategic action to make this the future of work for everyone'. They identify that clear

underpinning principles that deliver a 'win, win, win' for employees, employers and customers, and that are used not as a concession to personal needs but as a tool for improving business performance are required to transform the nature of work.

Some of the key changes in the contextual and external environment surrounding the world of work have been set out clearly by Parker et al (2001). They include:

- a shift away from large-scale industrial production, with a dramatic decline in manufacturing jobs and rise in service work
- partly as a consequence of this, the increase in customer-facing roles involving some form of emotional labour – the requirement for employees to express positive emotions in the way in which they interact with customers
- significant shifts in the demographics of the workforce:
 - an increased proportion of women
 - greater ethnic diversity
 - more educated employees
 - an ageing workforce
- growth in the number of employees engaged in 'knowledge work' – for example, professional services and new product and service development
- a requirement for greater flexibility to respond to significantly increased global competition, and delivery of products and services that are more responsive to customer needs
- developments in technology, particularly around the degree to which jobs involve and become dependent on the use of IT
- shifts from traditional, office or factory-based working to more flexible alternatives, including homeworking
- a significant increase in the number of employers that an individual employee expects to work for during their career. By reducing some of the 'friction' around switching jobs, this shift increases the likelihood that employee turnover will increase where job design is neglected.

Conclusions

In summary, we have found a solid body of literature covering the origins of the concept of organisation design and its journey from 'control and compliance' to 'commitment' and the theoretical underpinning of job

design. We found a body of work that examines the concepts of autonomy, empowerment, job enrichment and indeed the high-performance work practices (HPWP) that organisations have used to engender this way of working. We also found several studies that demonstrate scientifically the link between such work practices and organisational productivity and bottom line value. We also highlighted literature pointing to contemporary observations on the physical work environment and the expected near future in this context. However, we have not yet been able to find literature that combines these concepts, nor tests our hypothesis that a new design of role is emerging, although it seems sensible to make this logical extension.

The evolving working practices that we have identified combine to indicate a higher degree of autonomy than, perhaps, we have ever seen before. We consider this to suggest a 'collaborative work experience' in existence in many contemporary organisations. This appears to drive increased customisation of the work experience for groups of employees segmented by their individual needs and aspirations.

In all of this, there is much to suggest that the Job Characteristics Model, or close variants of it, still offers valid insights that – when applied with a degree of care – can deliver practical benefits for both employer and employee. Nonetheless, it is important to recognise the scale of changes in the workplace since Hackman's original work.

In response to these changes, more recent research offers potentially valuable developments in the framework used to both understand job characteristics and think through the impact that changes can have on employee well-being, job satisfaction and productivity. In the next phase of this research, we will look to develop diagnostic tools that are sophisticated enough to handle the new, more complex realities of the workplace but straightforward enough to generate usable insights in a wide range of work situations.

4 Initial findings: case studies

Our hypothesis rests on the assumption that 'smart working' has a new definition in the current organisational context. Therefore this case study section of the report aims to showcase practical examples of forward-thinking organisations that have adopted deliberate approaches to enable smart working and achieved a higher level of performance through individuals as a direct result.

The common differentiator of the organisations that we have selected is that their 'smart working' propositions are considered and deliberate. We believe that these organisations apply a philosophy and use the physical work environment to break down the traditional constructs of their jobs to maximise flexibility, autonomy, freedom and discretion to maximise employee contribution.

Centrica

Centrica is an international integrated energy organisation, headquartered in the UK; its brands include British Gas, British Gas Business, Dyno, Centrica Energy, Centrica Storage and Direct Energy. Centrica employs approximately 29,000 people in the UK and 4,000 overseas.

In 2005, the group reviewed its west London property portfolio with a view to consolidating five west London sites into three to gain cost economies and working efficiencies. The business recognised this as a unique opportunity to drive, in parallel, culture change in ways of working.

Project 'Martini' (later renamed Work:Wise) was established to identify and implement new working practices to take advantage of new and upgraded working facilities, which included state-of-the-art office facilities and investment in IT. The business case for flexible working was built on the idea of significant commercial property savings and promoting Centrica as an employer of choice. Centrica's Melanie Flogdell says: 'It was intended not to been seen as a 'one-off' initiative, but something that forms part of the business strategy and is embedded into our culture and processes.'

The naming of the project was designed to reflect a shift to 'anytime, anyplace, anywhere' working. In addition, the project's strapline was that 'work is something you do, not somewhere you go'.

The project implemented several physical work environment changes. Hot-desking removed static desks, creating team 'footprints' (areas of hot desks allocated to teams), 'touch down zones' (kiosks for printing and checking email) and collaborative work zones (areas for group working or meetings, for example). 'Break-out' areas were created for more informal conversations and the numbers of meeting rooms with teleconference facilities were increased. Automatic parking spaces were also removed, more spaces were added and a pre-booking system introduced. Individual file cabinets and storage solutions were replaced with lockers and a clear-desk policy was implemented. The provision of laptops and home printers was extended across employee groups, and new mobile phones with email capabilities were introduced to the business. The intranet site was upgraded and relaunched, enabling employees to better collaborate and share documents through the web.

Centrica (continued)

The project delivered tools and support to enable employees to work effectively and efficiently wherever they happen to be. Flexible working policies were promulgated across the business to drive aligned behaviour; these included policies to support greater flexibility with regard to working hours and location.

The focus of the project was how best to combine these initiatives to build a way of working that best suited and balanced the needs of the business with the individual's role and preferred working style.

These changes represent a more collaborative approach to work. Individuals now have the autonomy to choose their work location to best achieve work outcomes, within the overall parameters agreed with their line manager. For many, this includes the flexibility to work from all offices, their home or remotely, thus reducing the reliance on a permanent desk. It also includes greater flexibility with regard to working hours, removing traditional start, finish and break times. The changes also mean a focus on performance measurement rather than simply setting objectives. Employees are measured on 'outputs', not time in the office.

Recognising the cultural change these interventions created, Centrica focused attention on preparing managers and leaders to support the changes. This included a management training programme and efforts to ensure that leaders role-modelled the changes as well as interventions to prepare all Centrica employees for working differently.

These interventions included:

- roadshows engagement presentations on every site, outlining Centrica's vision of flexible working
- manager coaching to address managers' concerns and ready them to make the consultation
 process effective for their teams. The session covers individuals' preferences and how much flexibility
 their role could have; issues of trust and direction; performance management; communication and
 team cohesion
- team-building workshops this focuses on the team producing a charter on how they agree to work together and manage communications between remote and office workers. This also looked at individual working preferences
- personal surveys employees completed an online survey covering how they work now and what special requirements they may have for flexible working. The survey also captures IT details to expedite the ordering of new or additional kit
- one-to-one consultations managers have a discussion with each member of their team to agree whether they will work as an office, home or mobile worker
- technical training technical courses delivered on how to use their new personal kits, to avoid starting with bad technical habits and help people adapt to new technology (laptops, wireless tokens, broadband routers and so on). A health and safety video made by Centrica to reflect its vision of flexible working is also shown
- Work:Wise champions established across the business to promote the benefits, share successes and address any concerns.

'Managers were nervous about managing teams remotely as opposed to seeing them everyday – they were feeling they may lose control over what their employees were doing and how they could keep the team dynamics/spirit going. This can still be a concern for some, but as managers are key to the success of flexible working, our training, communication and support interventions are still happening today as teams change.'

Centrica (continued)

These changes combined to create a greater degree of flexibility and autonomy across central roles. The project is seen as a great success in driving a culture of freedom and discretion, and driving greater accountability for work outcomes.

The changes form a key part of the employee proposition. At corporate level, the changes strengthened Centrica's ability to attract and retain employees, particularly enhancing the ability to attract a more diverse set of candidates. In addition, the project improved engagement and supported employees in managing work-life balance.

The project was the cornerstone of a property strategy that saved £10 million per annum for the business. From a post-implementation review survey, further business benefits identified were:

- travel savings the equivalent of 13 return trips to the moon
- the number of flexible workers increased from 0.5% to 12%
- work–life balance improved by 38%
- 96% of flexible workers outperform office-based workers
- employee engagement improved by 3.9%.

As to the future, Centrica is looking at ways to quantify the link between its flexible approach and performance and, to measure how effective flexible working policies and procedures are, identify areas for improvement, benchmark against other organisations and share best practice.

BT

BT is one of the world's leading providers of communications solutions and services. Operating in 170 countries, it provides networked IT services, local, national and international telecommunications services, broadband and Internet products and services. BT consists principally of four lines of business: BT Global Services, Openreach, BT Retail and BT Wholesale.

The nature of BT's operations, both now and historically, require significant geographical dispersion - the property portfolio includes a presence in every town in the UK. As a company with a large office-based population, the potential for working smarter leveraging BT's communications technology seemed a logical way to reduce property costs, deliver on environmental responsibilities and drive the engagement of BT's people. Not surprisingly, as an organisation offering smart working technology to its customers, BT was keen to act as a centre of excellence in flexible working. In doing so, BT created the momentum and established tools and ways of working that now exist across industry.

Enabled by advances in communications technology, BT people can effectively respond to customers, interact as a team and perform their work duties regardless of physical location. BT provides staff with a high degree of autonomy to choose how, where and when best to work. It is estimated that three-quarters of BT's 100,000-strong workforce now work flexibly. Provided it is operationally manageable, all employees have the option of working this way.

BT (continued)

Key features of smart working at BT include:

- flexible work location
- · semi-autonomous virtual teams replacing co-located manager-led teams
- a strong focus on developing team dynamics
- Office Anywhere handset enabling mobile working
- web-based training package to support individuals and managers of individuals working flexibly –
 recognising the change required in management style
- web café for flexible workers to communicate
- a web-based BT TV channel, which can be accessed at high speed from remote locations
- · audio and video conferencing and webinars to support collaboration and meeting management
- online training (70% of BT's training is delivered online).

It's not just offering flexible working that makes BT 'smart'. BT's working philosophy is underpinned by a high degree of mutual trust and individual autonomy.

'BT is distinctly different from any organisation I have worked in,' says HR Director lan Johnston, 'and this requires a different way of managing.' Managers are encouraged to maximise the flexibility of their teams and invest significant time in optimising the team dynamic. BT managers need to be comfortable focusing on the achievements of role rather than 'what people do at work'. The role of the manager has evolved to create the environment where employees are empowered to deliver the requirements of their roles and have the discipline to self-motivate and maintain a healthy balance between home and work life. Managers need to invest time in building a sense of community and supporting employees' social needs through delivering to the informal work agenda; this includes regular team outings and fun events.

It's clear that managers are key to the success of smart working at BT. Having been at the forefront of flexible working, both organisationally and as a provider of flexible working solutions, BT are comfortable about this way of operating. But it would be unrealistic to assume that this journey was achieved without learning lessons along the way. This has required investment in developing and performance-managing people managers to support BT's way of working.

BT identify multiple benefits associated with their working philosophy:

- ability to attract higher-quality candidates and those from often under-represented pools
- higher rates of staff engagement (7% higher than the national average) and productivity (averaging 21%) for employees working flexibly
- lower absenteeism (3.1% compared with the national average of 8.5%) and staff turnover of less than 4%
- · improved recruitment: a wider geographical area allows for recruitment of scarce skills and resources
- 98% of women return to BT after maternity leave, saving BT £5 million per year in recruitment and induction
- reduced overheads, including £1 billion in office costs and equipment for homeworkers
- property savings of £220 million in ten years
- savings equivalent to 1,800 years commuting and £9.7 million travel costs over a 12-month period
- greater customer satisfaction (a rise of 5% since the introduction of flexible working).

The sustainable benefit, possibly worth more than the financial case, is clear from BT's website. 'The quality of our people – the way they behave with our customers and their motivation – is the only sustainable differentiator in today's markets.'

WL Gore

WL Gore was founded in 1958 by Bill and Vieve Gore, who set out to explore the possible uses, benefits and marketability of fluorocarbon polymers. Nowadays Gore is probably best known for its GORE-TEX® fabrics; however, it also operates in several other markets. The fluoropolymer products provide innovative solutions throughout industry; in next-generation electronics, for medical products, in the automotive industry and to manufacture high-performance fabrics. Today, the enterprise employs approximately 8,000 associates in more than 45 locations around the world.

Gore has been named winner of the Sunday Times 'Top 100 Best Companies to Work For' for four consecutive years (2004-2007), it is named in the list of '100 Best Workplaces in the EU' (2005) and this year it has earned a position on FORTUNE magazine's annual list of the '100 Best Companies to Work For' for the eleventh year running.

Being a 'best company' requires 'a deep-rooted commitment by an organisation to being the best it can be in every area of the workplace and in supporting the day-to-day working lives of its workforce'. Gore believes that a strong people focus has tangible benefits, including improved workplace engagement, better staff retention, reduced recruitment costs and improved financial performance. This has been part of its founding principles and philosophy since the firm's inception.

When Bill Gore formed the company he articulated four key principles that would guide how the business would operate:

- fairness to each other and everyone with whom we come in contact
- · freedom to encourage, help and allow other associates to grow in knowledge, skill and scope of responsibility
- the ability to make one's own commitments and keep them
- · ability to make decisions without reference to others, but in consultation with other associates before undertaking actions that could seriously negatively impact the success of the company.

These four guiding principles work in productive tension with each other.

Culture and business are not viewed as separate entities at Gore. Culture is Gore's key differentiator and provides competitive business advantage. Its cultural framework drives how the company operates at a macro level and at individual and team level. 'Smart working' is not an isolated initiative within the organisation. Gore's people are its greatest asset so driving efficiency and effectiveness for associates through its core values of fairness, freedom, commitment and consultation stands at the heart of everything it does.

Gore has a non-hierarchical, flat organisation structure (a 'lattice' structure). There are no traditional organisational charts, no ranks or job titles and no chains of command nor predetermined channels of communication. What is important when recruiting new people is that they have the right fit with Gore's culture.

There are no rigid job specifications at Gore. Instead, associates make a commitment to contribute individually and collectively to work areas or projects according to their skills. Individuals are encouraged to take an interest in a wide variety of job areas or projects. Providing the core responsibilities within their role are carried out, an associate can then stretch and build on their role to suit their interests, aspirations and the business needs. Gore's 'lattice' structure gives associates the opportunity to use their own judgement, take ownership of work areas and access the resources they need for projects to be successful.

WL Gore (continued)

Additions/stretch to roles may be one-off activities or may be longer-term activities that add onto existing roles. This is entirely flexible and will depend on the associate and their situation.

Associates choose another associate to act as their sponsor. The sponsor coaches individuals to help them maximise their contribution to the company and chart a course through the organisation to fulfil personal objectives while also maximising business performance and advancing business objectives.

John Housego, manufacturing leader of Gore's fabrics plant, says he was impressed by the company's work ethic right from the word go: 'I get a sense of ownership within the company by fulfilling a variety of roles while guiding and helping others.'

When somebody leaves another person is not automatically hired. The position is re-evaluated to see if it is still relevant and applicable to the needs of the business. In this way the work/role design is constantly evaluated and refreshed by all members of the organisation. Gore welcomes overlaps in different work areas. Constant role refresh is achieved by each associate taking a keen interest in ensuring their role is enabling them to maximise their contribution to the business and always looking for new opportunities to stretch what they do.

Leaders often naturally emerge by demonstrating special knowledge, skills or experience that 'advance a business objective' and by demonstrating 'followership' in their teams. However, leaders don't always head up projects and make key decisions. Associates communicate person to person and are accountable to fellow members of their multidisciplined teams. Gore encourages knowledge-based decision-making so those best informed to lead the project at that moment in time will do so.

There is no pay-grading structure at Gore. Salary increments are made according to a person's contribution. There is an annual contribution and compensation process where associates within the same team rank each other according to an associate's contribution to the overall team effort and to the enterprise.

Gore also has an annual global associate survey that collects the views and feelings of all associates. The questions examine a host of workplace issues, ranging from culture effectiveness to job satisfaction and engagement. Feedback is then discussed with teams so they can elect areas for development within their team for the next year.

HR's role is to support the various business processes that enable associates to operate in the best way they can, for example the annual survey, the contribution process, personal development plans and so on. HR is a business partner that works very closely with the leadership to support the business in the most effective way possible; it is not a stand-alone function. Lynn Pearson, Ann Gillies and Vikki England, HR associates, reject being tagged as personnel directors – they work within the same lattice structure as all other associates.

Gore's fundamental belief in maximising the potential of its people continues to be key to the success of the business. Gore's core values and ways of working are built on the principles of 'smart working'. Its unique culture, which fosters creativity, self-motivation, participation and equality, has proven to be a key contributor to associate satisfaction and retention.

Capgemini

Cappemini is a global leader in consulting, technology, outsourcing and local professional services. Headquartered in Paris, the organisation operates in more than 30 countries with 82,000 people across the globe.

Capgemini Consulting in the UK employs 800 consultants working across functional and industry sectors.

Cappemini's consultants need the ability to work effectively from any location. Therefore, all new joiners are provided with powerful lightweight laptops with wireless connectivity, mobile phones with email and Internet capability, easy access to teleconferencing facilities and the ability to access the intranet remotely for information and processes. Business applications are hosted on the intranet to enable consultants to remotely access time and expense recording, HR applications (including performance management applications), company communications and, importantly for knowledge workers, the ability to tap into the collective understanding, expertise and experience of the business through an online knowledge management system. In addition to classroom learning, experiential learning, coaching and mentoring, a significant amount of e-learning is available through the web.

Although consultants are often based on-site with clients, Capgemini's office accommodation is designed to maximise collaboration and innovation. There are no permanent desks at Capgemini's Wardour Street office; instead floors accommodate clusters of hot desks and collaborative work areas. The coffee area features entire walls and coffee tables made of markable white boards. In addition, one of the building's six floors is used as an accelerated solutions environment for consultants and their clients. This intentionally unusual environment features non-traditional decor, music, sweet treats and flexible 'zones' to create the right conditions for effective and accelerated decision-making and a safe environment for open and honest discussion.

The success of consultancy engagements is based on the extent to which they meet defined objectives and client expectations. Consultants are therefore performance-managed against these criteria, as well as business objectives and behavioural indicators.

In parallel with taking a highly outcome-driven approach to the contribution of the individual, a common set of behavioural competencies per grade aligned with learning interventions, feedback and self-analysis tools is used to provide appropriate focus on the ways of working of consultants.

Capgemini provides its people with a great deal of autonomy in their daily work. Consultants are often responsible for the planning and definition of projects in line with customer requirements and operate as self-managed individuals. Consultants refer to mentors and 'reviewers' (a colleague a grade above who is responsible for performance management) on development matters. Pastoral care is provided by a business team leader. All these roles interact within a virtual environment, rarely being together in the same physical environment or project team. As a result of this context, telephone, conference calls, email, other electronic communications and frequent social gatherings are a key feature of the culture at Capgemini. Indeed, internal communications contribute greatly to the sense of community within teams and across the business.

Capgemini has adopted a management style that complements this context. The business operates a flat structure, with six grades of consultants throughout the business. Leaders in capability units ensure that they are approachable and know their people on a personal level. Culturally, decision-making is delegated and it is a low-politics environment. Values of fun, modesty, solidarity, freedom, trust, boldness and honesty are celebrated and reinforced through recruitment, performance, recognition, learning and other processes, and role-modelled by leaders.

Capgemini (continued)

Capgemini attracts a high standard of applications for vacancies and is proud of its low attrition rates. Two Capgemini consultants were recognised at the first Consultant of the Year Awards in 2007. In addition, Capgemini receives a high standard of customer feedback and its share performance has consistently outperformed the DAC (Capgemini is listed on the Paris Bourse).

Allen & Overy

Allen & Overy is recognised globally as one of the top-tier international law firms; with nearly 5,000 people employed in 28 major international centres, the firm is one of the largest and most successful legal practices in the world.

While job design is not explicitly pursued in any law firm, the organisational structure (the partnership) has served the legal professional well for hundreds of years and looks set to cope with the challenges described in the research. The professional services sector is different from its industry peers in retaining this dynamic organisational structure. Hence Allen & Overy is not listed on any stock exchange, it is not regulated by onerous rules driven by quarterly reporting, and it positively encourages a spirit of entrepreneurship and innovation.

The partnership structure is clearly a big part of the smart working philosophy at Allen & Overy; the firm portrays a modern, exciting image while maintaining its history and traditions. Genevieve Tennant, Global Director of Human Resources, believes that embracing change within a robust and proven organisational model is critical to attracting and retaining the best talent.

The fact that it is almost entirely a people business means that the HR function at Allen & Overy plays an increasingly important facilitating role in enabling the firm to attract, motivate and retain the best possible quality of staff at all levels. The firm's use of connected and supportive people management processes has led the firm's HR leaders to win international awards for their efforts to differentiate and grow its illustrious brand.

'Allen & Overy leads the way in its people management practices,' says Tennant. 'We are constantly focused on the war for talent in all areas of the business and have taken many initiatives to be the employer of choice in the legal sector.' Across the three key groupings (partners, associates and support) there is an acknowledgement by HR that there is now much increased mobility in the legal sector and that innovation is a constant necessity in the face of this challenge.

'High-performance work practices' have therefore been adopted in the form of innovative incentive schemes, family-friendly policies, flexible benefits (including holiday trading), career breaks and sabbaticals and so on. The firm is also focused on the pursuit of excellence in back-office functions and selective outsourcing where

Allen & Overy (continued)

this is perceived to increase quality at a competitive price. While the partnership model has endured for centuries, it seems set to allow the brightest and most individualistic employees the freedom to develop in the new organisational paradigm; it certainly accommodates the sorts of freedom and autonomy that 'Generation Y' purports to crave. It also supports corporate social responsibility and employee wellbeing. The firm actively encourages pro bono work and providing help and support to local schools and various charities.

When the London headquarters moved to its current location in 2006, great attention was paid to the quality of life of all employees at the firm. The building was developed with environmental issues in mind; recycling and solar power being only two of the obvious signs of this. The design of the building was equally important, with a focus on open space to encourage collaboration, and lots of light to engender feelings of well-being. Health and fitness was also a big consideration; there is an on-site fitness centre, health screening facilities, dental facilities and more, all accessible during office hours to minimise inconvenience to employees.

The firm's employer brand is very important and this extends beyond the usual employment proposition to current employees. The alumni network is a recognised source of new business and knowledge-sharing and is a highly valued part of the organisational model – the firm produces a yearbook for all alumni and encourages a variety of activities, such as alumni art exhibitions and alumni discussion forums. The firm's Facebook group has thousands of members, including both current employees and alumni, and is indicative of the brand loyalty that the firm's approach engenders.

The organisational structure encourages challenge and allows employees to stretch themselves and explore their limits. According to Roger Lui, an Associate in the Hong Kong Banking Practice, one of the main attractions in joining the firm was Allen & Overy's truly international outlook. Being a global firm was clearly not just something that it was paying lip service to, but an important part of the firm's ethos.

Taking advantage of advances in communications technology, Allen & Overy has rolled out state-of-the-art knowledge management software, available on Blackberry, giving staff a high degree of autonomy in where and when they work - this is particularly important as the firm becomes ever more global. As a result, the idea of flexible working is becoming more common, although this is always balanced by the needs of the business and the recognition that clients come first, something all employees at Allen & Overy understand. Those who are able to thrive in this environment are very well rewarded for their efforts.

Key features of smart working at Allen & Overy include:

- Organisational structure enables entrepreneurship and innovation.
- People management interventions are increasingly seen as critical to the success of the firm.
- · There is an increasingly strong focus on developing team dynamics, including increasing use of executive coaching.
- New career paths have been introduced to retain those who may not aspire to partnership.
- Partners are encouraged to actively engage with associates on a range of business issues.
- Career breaks and flexible working arrangements are becoming more prevalent.
- · Blackberry and laptops enable mobile working, audio and video conferencing, and webinars support greater international collaboration and virtual teamworking.
- Online training is increasingly being adopted.

Allen & Overy (continued)

Allen and Overy identify multiple benefits associated with their working philosophy:

- ability to attract higher-quality candidates and understand how best to develop skills and competencies; indeed, the skills and competencies required of associates have been captured in a global competency framework
- higher rates of staff engagement as measured through the bi-annual staff survey
- improved recruitment: a wider geographical area of recruitment allows for recruitment of scarce skills and resources – the firm has implemented a new performance management process to encourage more regular feedback and better career development
- · retaining women after maternity leave is a key priority: emergency childcare facilities, maternity coaching and parenting are just some of the initiatives introduced in the past few years
- greater customer satisfaction.

'Above all', says Tennant, 'the partnership model is critical to the concepts of innovation, autonomy and entrepreneurship in the firm - tremendous importance is attached to this. Whilst some centralisation and standardisation has been necessary as the firm has grown, the model is always sufficiently flexible to cope with local differences and individual needs."

5 Key themes arising from research so far

Our initial hypothesis suggests that a new organisational paradigm is emerging in the way that jobs are designed that links evolution in both the physical and philosophical work environment with social and political drivers for change. Our challenge has been to identify a body of evidence that demonstrates that employers are creating jobs in a new way to embrace the opportunities offered by the current business environment.

Several key themes have emerged from our review of the literature and our initial case studies:

- Organisations must be clear on the drivers and intended outcomes of smart working before defining what changes are needed in organisation design and work processes.
- There appears to be no magic formula for smart working interventions, but we have seen evidence of combinations that are mutually destructive, as well as those that are mutually supportive.
- Interventions that change established ways of working, both within the physical work environment and the constructs of how people operate, are significant changes to ways of working and need to be managed accordingly.
- There is a need to understand and assess the business context before identifying the appropriate smart working intervention.
- Implementing the intervention is not enough: making these new ways of working operate as expected requires a significant change to management style. More focus is required on the precise implication for line managers: is a new management style required? Must organisations redefine the people manager profile? How best to align people management practices?

Job design is the subject of an extensive body of academic and practitioner literature stretching back to the traditional approach to job design associated with Taylor, initially stemming from studies in how to raise the productivity of workers in manufacturing environments. More recent work has looked at approaches that try to address the fundamentally different challenges posed by the rise of service and knowledge work, the impact of new technology and the shift away from traditional working patterns (for example homeworking). This range is underpinned by a basic question: is medium-term productivity maximised through job simplification or job enrichment? Even more fundamental is the question of whether it is possible to demonstrate that jobs can be designed in a way that is inherently motivating, with the following results:

- performance improves as a result of discretionary effort
- improvements in the perceived characteristics of these jobs help employers to attract and retain talented people.

The world of work is changing fast and the current influences on the employment relationship may represent the most significant change in social relationships since the Industrial Revolution. The move from manpower to knowledge power and different ways of working means that employers must decide whether or not to grasp the opportunity to make a real difference to performance by incorporating the changes into their organisational structures, job design and role definitions.

HR has a major part to play in driving business performance. A number of studies have sought to prove the empirical link between, for example, employee engagement, job design, HPWP, HR management practices and business performance. The conclusion seems clear: adopting such practices has a demonstrably positive effect on the bottom line. However, despite persuasive research by the CIPD demonstrating the

linkages between people management and business performance and strong evidence that individual practices have a positive effect on performance, there is no consensus that a specific model, or set of practices, will necessarily have such an effect.

Furthermore, there has not yet been a study that focuses on or isolates the concepts relating to smart working as we have defined it, in the contemporary organisational context. Although we might make a logical extension from existing studies, most pre-date the current technological and physical work environment influences. In addition, there is a significant body of work from within the manufacturing industry, yet our interest lies across industrial sectors.

Many organisations are able to articulate ways in which they embrace the concepts of smart working, and there are hundreds of examples of great practice in this area. Certainly, we see a move away from the Tayloristic principles of division of labour and scientific management towards greater collaboration and commitment within the employment relationship. Within the organisations profiled in this report, we have identified the emergence of a new paradigm, distinguished by the intent of the organisation: those that deliberately create roles that embrace the concepts of smart working in order to increase freedom within job roles.

It is the experience of these organisations that leads us to question whether it is the shape of the role or the way that it is managed that is the key driver of 'smart working'.

This in itself suggests a number of questions:

- Is smart working a product of the way an employee is managed as much as the way that they operate?
- Do management practices help or hinder smart working visions being realised?
- What is the role of the manager in shaping jobs?
- Is the manager's role more powerful than organisational processes in refining culture, shaping role profiles and developing working processes?

Smart working is about more than flexible working practices or the introduction of new tools. It is a

fundamentally different approach to designing how employees work.

Notwithstanding these questions, our initial research characterises the new paradigm as reflecting the combined effect of:

- a higher degree of freedom to act than that offered by traditional roles, frequently characterised by self-management, a high degree of autonomy and a philosophy of empowerment
- concepts of virtuality in teams or work groups
- management interventions that focus on outcome-based indicators of achievement (role descriptions, performance management processes, robust processes to cascade corporate objectives to individual level)
- work location and hours that are (to a greater or lesser degree) flexible
- physical work environment conditions, for example hot-desking, working from home, mobile communications technology (for example laptops with ability to remotely connect to network, Blackberrys, mobile phones, online application and portals, teleconference facilities)
- cultural conditions, for example ways of working, organisational beliefs and management styles that are underpinned by or drive a high-trust working relationship and therefore enable smart working to flourish
- alignment of smart working with business objectives to create a 'triple win' for the organisation, its employees and its customers.

The role of HR in this context might be to create the space and set the parameters for job contribution that will enable individuals to take greater ownership of their employment experience, while delivering higher levels of performance and quality in line with the organisation's view of the role requirements.

The concept is simple enough, and the 'smart working equation' seems fairly intuitive. Smart working results from employees' emotional reaction to their work situation and its impact can be measured by factors such as productivity, engagement, retention and, ultimately, financial performance. Specific changes associated with smart working such as flexibility may pay for themselves through reduced travel time or accommodation costs.

However, the paradigm is not universally in place. We have identified organisations that demonstrate exemplary practice in this area, and reap the benefits of doing so; but whether through inertia, lack of understanding or philosophical reluctance, many organisations remain ignorant of the benefits of smart working and the performance improvement that it can bring.

Despite narrowing over the last decade, the UK productivity gap is still significant. Within the context of a global economy characterised by rapid development of the Chinese and Indian economies, a potential recession in the US economy and rising employment rates, organisations need to identify new ways to get more from their assets and better control their costs. Restructuring, reorganisation and outsourcing are increasingly commonplace and have already stripped out excess costs in many organisations. If organisations are questioning how to raise performance further, smart working offers a solution that also provides a mechanism for businesses to build on the talents of their people.

Making the commitment to smart working is not enough. Organisations must take time in planning, implementing and optimising the changes, ensuring that a cultural change takes place. The leadership role in delivering this should not be underestimated: senior management must lead the way.

Smart working produces an environment for better individual and teamworking. It requires managers to collaborate with their teams to realise potential and manage people as high-performing assets. Smart working looks at the ultimate potential of an employee. This calls for a very different way of managing and of viewing the employment relationship. It is based on a relationship of mutual trust and respect, requires greater and more effective two-way communication and is underpinned by clarity on organisational strategy and success factors at individual level. Smart working allows employees to take greater control of their destiny, but also needs employees to be more adaptable to change. Multiple types of flexibility sit alongside this relationship.

Smart working is not new, but reflects a message that HR professionals have been seeking to get across for some time. Managers must motivate and inspire their teams to perform. They must also ensure that greater flexibility doesn't upset the effort balance (too much or too little), setting clear targets, but providing employees with the autonomy to decide how best to meet them. Organisations must strive to create the environment and infrastructure that enables individuals to contribute to their full potential while at work. Employees must embrace the opportunities of flexible and collaborative work relationships and work environments. Through smart working, the agendas of individuals, their managers and organisations can merge to create a triple win.

We believe therefore that there is real value in testing this hypothesis further in phase two of this research. We propose therefore that phase two should look to achieve the following:

- Assess and validate the existence of the new organisational paradigm of 'smart working' using a larger sample reference group.
- Test the working assumptions, and seek to identify a model around the interrelationship between business drivers, outcomes and intervention.
- Measure the impact of this on organisational performance.
- Identify the contextual factors that influence organisational fit or suggest prerequisites for success; for example, capture, assess and articulate the cultural conditions that predetermine the success of smart working.
- Explore the implications for managers and for the HR function.
- Provide a replicable toolkit to support organisations looking to benefit from smart working.

References

APPLEBAUM, E., BAILEY, T. and BERG, P. (2000) Manufacturing advantage: why high performance work systems pay off. Ithaca, NY: Cornell University Press.

APPLEBAUM, E. and BERG, P. (1999) Hierarchical organisation and horizontal coordination: evidence from a worker survey. In: BLAIR, M. and KOCHAN, T. (eds). The new relationship: human capital in the American corporation. Washington: Brookings Institution.

BECKER, B.E. and GERHART, B. (1996) The impact of human resource management on organizational performance: progress and prospects. Academy of Management Journal. Vol 39, No 4. pp779-801.

BOUDREAU, J.W. and RAMSTAD, P. M. (2007) Beyond HR: the new science of human capital. Boston: Harvard Business School Press.

BRATTON, J., CALLINAN, M. and FORSHAW, C. (2007) Work and organisational behaviour: understanding the workplace. Basingstoke: Palgrave Macmillan.

BRITISH TELECOMMUNICATIONS. (2007) Broadband: the role for communications in beating congestion [online]. London: British Telecommunications. Available at: http://www.btplc.com/Thegroup/ Regulatoryinformation/Consultativeresponses/ BTdiscussionpapers/Congestion/Congestionreport.htm [Accessed 28 February 2008].

BURR, R. and CORDERY, J.V. (2001) Self-management efficacy as a mediator of the relation between job design and employee motivation. Human Performance. Vol 14, No 1. pp27-44.

BUTLER, T. and WALDROOP, J. (1999) Job sculpting: the art of retaining your best people. *Harvard Business* Review. Vol 77, No 5, September-October. pp144-152. CAMPION, M.A., MUMFORD, T.V. and MORGESON, F.P. (2005) Work redesign: eight obstacles and opportunities. Human Resource Management. Vol 44, No 4, Winter. pp367-390.

CHARTERED INSTITUTE OF PERSONNEL AND DEVELOPMENT. (2007) Organisation development [online]. Factsheet. London: CIPD. Available at: http://www.cipd.co.uk/factsheets

CHIEN, M. (2004) A study to improve organizational performance: a view from SHRM. Journal of American Academy of Business. Vol 4, No1. pp289-291.

CLEGG, C. and SPENCER, C. (2007) A circular and dynamic model of the process of job design. Journal of Occupational and Organizational Psychology. Vol 80, No 2, June. pp321-339.

COFF, R.W. (1997) Human assets and management dilemmas: coping with hazards on the road to resourcebased theory. Academy of Management Review. Vol 22, No 2, April. pp374-402.

COMBS, J., LIU, Y. and HALL, A. (2006) How much do high-performance work practices matter? A metaanalysis of their effects on organizational performance. Personnel Psychology. Vol 59, No 3, Autumn. pp501-28.

CONTI, R. and WARNER, M. (2002) A customer-driven model of job design: towards a general theory. New Technology, Work and Employment. Vol 17, No1, March. pp2–19.

DEAN, J.W. and SNELL, S.A. (1991) Integrated manufacturing and job design: moderating effects of organizational inertia. Academy of Management Journal. Vol 34, No 4. pp776-804.

EQUAL OPPORTUNITIES COMMISSION. (2007) Working outside the box: changing work to meet the future. Manchester: EOC.

FRASE-BLUNT, M. (2007) Call centres come home. HR Magazine. Vol 52, No 1, January. pp84-89.

FRIED, Y. and FERRIS, G.R. (1987) The validity of the job characteristics model: a review and meta-analysis. Personnel Psychology. Vol 40, No 2, Summer. pp287-322.

GUEST, D.E. (1998) Is the psychological contract worth taking seriously? Journal of Organizational Behavior. Vol 19, Supplement No 1, December. pp649-664.

GUEST, D.E., MICHIE, J. and CONWAY, N. (2003) Human resource management and corporate performance in the UK. British Journal of Industrial Relations. Vol 41, No 2, June. pp291-314.

HACKMAN, J.R. (1987) The design of work teams. In: LORSCH, J. (ed). Handbook of organizational behaviour. Englewood Cliffs, NJ: Prentice Hall. pp315-42.

HACKMAN, J.R., OLDHAM, G. and JANSON, R. (1975) A new strategy for job enrichment. California Management Review. Vol 17, No 4, Summer. pp57–71.

HACKMAN, J.R. and OLDHAM, G.R. (1975) Development of the job diagnostic survey. Journal of Applied Psychology. Vol 60, No 2, April. pp159-170.

HOLMAN, D., WALL, T. D. and CLEGG, C. (2003) The new workplace: a guide to the human impact of modern working practices. Chichester: Wiley.

HUCZYNSKI, A. and BUCHANAN, D. (2001) Organizational behaviour: an introductory text. 4th ed. London: Financial Times/Prentice Hall.

HUMPHREY, S.E., NAHRGANG, J.D. and MORGESON, F.P. (2007) Integrating motivational, social and contextual work design features: a meta-analytic summary and theoretical extension of the work. Journal of Applied Psychology. Vol 92, No 5. pp1332-1336.

HUSELID, M.A. (1995) The impact of human resource management practices on turnover, productivity and corporate financial performance. Academy of Management Journal. Vol 38, No 3, June. pp635-672.

ICHNIOWSKI, C., SHAW, K. and PRENNUSHI, G. (1997) The effects of human resource management practices on productivity: a study of steel finishing lines. American Economic Review. Vol 87, No 3. pp291-313.

KELLY, J. (1992) Does job re-design theory explain job re-design outcomes? Human Relations. Vol 45, No 8. pp753-774.

LAWLER, E.E., MOHRMAN, S.A. and LEDFORD, G.E. (1995) Creating high performance organizations: practices and results of employee involvement and total quality management in Fortune 1000 companies. San Francisco, CA: Jossey-Bass.

LEACH, D.J., WALL, T. D. and JACKSON, P. (2003) The effect of empowerment on job knowledge: an empirical test involving operators of complex technology. Journal of Occupational and Organizational Psychology. Vol 76, No 1. pp27-52.

MACARTHUR, S. (2007) Knowledge management: times are a-changing [online]. Blog. 23 November. Available at: http://macarthursrant.blogspot.com/2007/11/knowledgemanagement-times-are-changing.html [Accessed 28 February 2008].

MACDUFFIE, J.P. (1995) HR bundles and manufacturing performance: organizational logic and flexible production systems in the world automotive industry. Industrial and Labour Relations Review Vol 48, No 2. pp197-221.

MAISTER, D.H., GREEN, C.H. and GALFORD, R.M. (2000) The trusted advisor, New York: Free Press.

MARCHINGTON, M. and WILKINSON, A. (2002) People management and development. London: Chartered Institute of Personnel and Development.

MICROSOFT. (2007) All our tomorrows: the way ahead for UK plc [online]. Reading: Microsoft. Available at: http://www.microsoft.com/uk/press/content/presscentre/ releases/2007/06/pr03835.mspx [Accessed 28 February 2008].

MILLER, P. and SKIDMORE, P. (2004) Disorganisation: why future organisations must loosen up [online]. London: Demos. Available at: http://www.business. orange.co.uk/servlet/Satellite?pagename=Business&c= OUKPage&cid=1144404026338 [Accessed 28 February 2008].

MORGESON, F.P. and CAMPION, M.A. (2002) Minimizing tradeoffs when redesigning work: evidence from a longitudinal quasi-experiment. Personnel Psychology. Vol 55, No 3, Autumn. pp589-612.

MORGESON, F.P. and HUMPHREY, S.E. (2006) The work design questionnaire (WDQ): developing and validating a measure for assessing job design and the nature of work. Journal of Applied Psychology. Vol 91, No 6. pp1321-1339.

MORRISON, D., CORDERY, J. and GIRARDI, A. (2005) Job design, opportunities for skill utilization, and intrinsic job satisfaction. European Journal of Work and Organizational Psychology. Vol 14, No 1, March. pp59-79.

PARKER, S. K., WALL, T.D. and CORDERY, J.L. (2001) Future work design research and practice: towards an elaborated model of work design. Journal of Occupational and Organizational Psychology. Vol 74, No 4, November. pp413-440.

PAUL, A.K. and ANANTHARAMAN, R.N. (2003) Impact of people management practices on organizational performance: analysis of a causal model. International Journal of Human Resource Management. Vol 14, No 7, November. pp1246-1266.

PICKARD, J. (2006) Get your motor running. People Management. Vol 12, No 20, 12 October. pp40-41.

ROUSSEAU, D.M. (1995) Psychological contracts in organizations: understanding written and unwritten agreements. Thousand Oaks, CA: Sage.

RUONA, W.E.A. and GIBSON S.K. (2004) The making of twenty-first-century HR: an analysis of the convergence of HRM, HRD and OD. Human Resource Management. Vol 43, No 1, Spring. pp49-66.

Sunday Times best 100 companies to work for. (2008) Times Online. 29 February. Available at: http://www. timesonline.co.uk/tol/life_and_style/career_and_jobs/ best_100_companies/ [Accessed 29 February 2008].

SYEDAIN, H. (2007) A talent for numbers. People Management. Vol 13, No 12, 14 June. pp36-38

TABER, T.D. and TAYLOR, E. (1990) A review and evaluation of the psychometric properties of the job diagnostic survey. Personnel Psychology. Vol 43, No 3, Autumn. pp467-500.

THOMPSON, M. and HERON, P. (2005) Management capability and high performance work organization. International Journal of Human Resource Management. Vol 16, No 6, June. pp1029-1048.

TORRACO, R.J. (2005) Work design theory: a review and critique with implications for human resource development. Human Resource Development Quarterly. Vol 16, No 1. pp85-109.

TRADES UNION CONGRESS. (2007) Long hours working on the increase [online]. London: TUC. Available at: http://www.tuc.org.uk/work_life/index.cfm?startrow=13 &endrow=18 [Accessed 28 February 2008].

ULRICH, D. (1997) Human resource champions: the next agenda for adding value and delivering results. Boston, MA: Harvard Business School Press.

WALL, T.D. and CLEGG, C. (1998) Job design. In: NICHOLSON, N. (ed). Blackwell's encyclopedic dictionary of organizational behavior. Oxford: Blackwell. pp265-268.

WALL, T.D. and WOOD, S.J. (2005) The romance of human resource management and business performance and the case for big science. Human Relations. Vol 58, No 4. pp429-462.

WOOD, S.J. and WALL, T.D. (2007) Work enrichment and employee voice in human resource management: performance studies. International Journal of Human Resource Management. Vol 18, No 7. pp1335–1372.

We explore leading-edge people management and development issues through our research. Our aim is to share knowledge, increase learning and understanding, and help our members make informed decisions about improving practice in their organisations.

We produce many resources on people management and development issues including guides, books, practical tools, surveys and research reports. We also organise a number of conferences, events and training courses. Please visit www.cipd.co.uk to find out more.

