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Work Organisation and Innovation

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Work Organisation and Innovation

Abstract

[Excerpt] Innovations in work organisation have the potential to optimise production processes in companies and improve employees' overall experience of work. This report explores the links between innovations in work organisation – under the broader label of high performance work practices (HPWPs) – and the potential benefits for both employees and organisations. It draws on empirical evidence from case studies carried out in 13 Member States of the European Union where workplace innovations have resulted in positive outcomes.

Keywords

organizations, production processes, high performance work practices, HPWPs, European Union

Comments

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Work organisation and innovation



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Eurofound research project: Work organisation and innovation

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Abbreviations used in this report

AMO	ability, motivation and opportunities					
B2B	business-to-business					
ECS	European Company Survey					
EDI	employee-driven innovation					
EESC	European Economic and Social Co	mmittee				
EPOC	Employee Direct Participation in C	Organisati	onal Change [survey]			
ESF	European Social Fund					
EWCS	European Working Conditions Sur	vey				
FMCG	fast-moving consumer goods					
FTE	full-time equivalent					
GVA	gross value added					
HPWP	high performance work practice					
HR	human resources					
HRM	human resources management					
ICT	information and communication te	chnology				
IPRP	individual performance-related pay	7				
JCM	job characteristics model					
JDC	job demands and control					
KPI	key performance indicator					
OCB	organisational citizenship behaviour					
OECD	Organisation for Economic Co-operation and Development					
POS	positive organisational support					
QWL	quality of working life					
R&D	research and development					
SAP	systems applications and products					
SMEs	small and medium sized enterprises					
TQM	total quality management					
VET	vocational educational and training					
WCM	World Class Manufacturing					
WERS	Workplace Employment Relations Survey					
Country codes						
BE	Belgium	IT	Italy			
DE	Germany	NL	Netherlands			
DK	Denmark	PL	Poland			
ES	Spain	РТ	Portugal			
FI	Finland	SI	Slovenia			
FR	France UK United Kingdom					

IE Ireland

Executive summary

Introduction

Innovations in work organisation have the potential to optimise production processes in companies and improve employees' overall experience of work. This report explores the links between innovations in work organisation – under the broader label of high performance work practices (HPWPs) – and the potential benefits for both employees and organisations. It draws on empirical evidence from case studies carried out in 13 Member States of the European Union where workplace innovations have resulted in positive outcomes.

Policy context

Innovations in work organisation can contribute to meeting the goal of the Europe 2020 strategy to attain 'smart' growth through the development of higher-quality jobs in higher value-added industries and 'inclusive' growth in which all citizens have access to high-quality employment opportunities. Innovations in work organisation may also lead to wider innovation in products and services, which could result in employment growth.

Key findings

Drivers of change

Pressure to improve performance was the main driver for innovation in the case study companies. This pressure was driven by the economic crisis and the need to meet the challenges of demographic change and intense competition. In most of the companies, inspiration for the innovation came from managers and employees were then consulted. In a number of companies, there was a dual approach consisting of a top-down initial decision to innovate, followed by a bottom-up approach for implementing and selecting improvements. Convincing staff of the benefits of innovation in work organisation remained a critical part of the implementation process. Working groups were frequently used to bring together staff from different parts of the organisation to ensure their views were taken into account.

Barriers to the adoption of HPWPs included:

- reluctance to change organisational culture;
- incompatibility with organisational strategy;
- difficulty in measuring impact and value;
- unwillingness of middle managers to delegate responsibility and give up power;
- lack of enthusiasm and skills among line managers to put HPWPs into practice;
- reluctance among employees to take on responsibilities, particularly if the rewards and opportunities for influence are not clear;
- time and costs of implementation.

A number of companies successfully tested innovations in pilot projects while others made use of expert advice, particularly where lean production methods, flexible working or new IT support systems were involved. Companies adopting new production processes often used academic expertise and sought inspiration from other companies that had implemented similar systems.

Conditions that favoured the introduction of HPWPs included support mechanisms for employees, an organisational culture that ensured that the change was sustained, strong leadership and social dialogue. Cognitive or knowledge-based learning to develop familiarity with new management processes was essential for all staff to understand the new principles and methods. Other forms of learning concentrated on shifting engrained attitudes and behaviours to inspire and motivate employees and managers to support innovation implementation.

The case study evidence suggests that the presence of social dialogue and the involvement of worker representatives made a valuable contribution to the implementation of human resource innovations. Many of the case studies used multiple channels of communication to implement and manage change. These typically combined informal direct communication between managers (at all grades) and employees with more structured mechanisms.

Impact on employee behaviour and attitudes

HPWPs that led to an increase in job satisfaction were those that facilitated task variety and decision-making, as well as encouraging a sense of responsibility and autonomy. Innovations aimed at improving employee well-being focused on work–life balance, health and lifestyle. An increase in overall employee motivation was gained through measures that included job enrichment, greater autonomy, skills variety and development, enhanced training, increased trust and support, enhanced job security, and opportunities for suggestions or challenge. Positive impacts on work–life balance and physical well-being were also found in companies that introduced innovations aimed at job design and reduced physical strain.

However, despite efforts by organisations to implement health and safety measures, the research found that in HPWPs where there was increased autonomy, task variety, flexibility and decision-making authority, there was also a rise in job strain through more work pressure, workloads and work pace.

In almost all the case studies there was evidence of HPWPs resulting in increased knowledge-sharing and problemsharing and solving. HPWPs involving lean management, teamworking, flexible working practices, workplace redesign and employee involvement were most commonly associated with increased company productivity, greater organisational commitment, improved service quality and, to a lesser extent, reduced customer complaints. Lean management, teamworking and flexible working also contributed to reduced operational costs. None of the case study organisations reported a direct impact on profit margins, though this is unsurprising given the large number of other factors affecting this outcome.

Some case studies highlighted improvements in job security for groups such as older workers, who benefited from initiatives targeted at keeping them in the labour force, but there was no evidence of HPWP adoption leading to job creation. This reflects the challenging conditions faced by many companies in the current economic climate, where job preservation is perhaps a more realistic measure of HPWP impact.

Policy pointers

Further work is required to encourage companies across Europe to reap the 'win-win' benefits for businesses and workers of innovations in work organisation. The report makes the following recommendations.

- Continue to increase understanding of the nature and impact of HPWPs among policymakers at national and European levels.
- Raise awareness of the role and potential of workplace innovation via EU-level, cross-sectoral and sectoral social dialogue committees, as well as business associations.
- Incorporate measures and benchmarks for the diffusion of HPWPs through the European Employment Strategy to monitor progress on the adoption of practices across EU Member States.
- Enhance support for innovations through building funding eligibility into existing policy programmes and funding aimed at SMEs.
- Take action to support and promote a network of organisations to exchange good practice and undertake crosscountry research in the EU.
- Improve consistency of measures designed to enhance working conditions and labour standards across sectors.
- Develop synergies between European policies on working conditions and public health policies on individual wellbeing outside the workplace.
- Incorporate knowledge of innovative HR practices in qualifications which have pan-European accreditation, e.g. undergraduate management degrees and MBAs.

Introduction

Policymakers, managers and academics have long held an interest in innovative ways to improve how people are managed at work. This interest is driven by a number of different rationales including optimising production processes for goods and services, and improving the experience of work for employees. This push has recently been accentuated by wider interest in social innovation and in linking the possibility of innovation in people management practice with broader changes to support the innovative capacity of organisations.

In the European policy context, innovations in work organisation have the potential to contribute to meeting the goal of the Europe 2020 strategy to attain:

- 'smart' growth through the development of higher quality jobs in higher value added industries;
- 'inclusive' growth in which all citizens have access to high quality employment opportunities.

Innovations in work organisation may also foster capabilities in organisational change that are conducive to wider innovations in products and services, which may in turn lead to employment growth. The recent Dortmund/Brussels position paper on workplace innovation,¹ which was signed in June 2012 by some 30 organisations from all over Europe, notes that workplace innovations shape work organisation and experience of working life, improving both quality of working life and organisational performance, and its potential centrality to Europe's competitive future. The opinion document on innovative workplaces from the European Economic and Social Committee (EESC) notes that such innovations can 'improve companies' performance, reduce long-term operating costs ... create more and better jobs', leading to a 'virtuous circle where innovativeness generates productivity, making it possible to plough investment back into the organisation to support innovativeness' (EESC, 2011). Thus innovations in work organisation have the potential to lead to mutual benefits for both employees and organisations, and increasing their diffusion should be of interest to organisations and social partners alike.

Purpose of this project

The project's objectives are to:

- study and document the introduction of work practices and work method innovations at company level through case studies;
- assess the impact of these innovations on the performance of an organisation and the outcomes for employees;
- identify the pathways which companies use to achieve these outcomes, including the role of employees in implementing innovations in work practices;
- identify further proactive roles for employees.

This report uses a conceptual framework of the links between innovations in work organisation under the broader label of high performance work practices (HPWPs) and the potential benefits for employees and organisations, drawing on empirical evidence of where innovations have resulted in positive outcomes in practice underpinned by theoretical explanation. The framework is used to analyse the implementation and effects of innovations in case study research, which is drawn on throughout the report.

¹ Available from http://ec.europa.eu/enterprise/policies/innovation/policy/social-innovation/index_en.htm

Case studies

The case studies were conducted in organisations in a range of industrial sectors, of varying sizes and across European Union Member States with differing employment regimes and levels of support for innovations in work organisation. The research successfully achieved a mix of countries from different regions and with varying EU membership history. This included:

- countries from the Nordic and Benelux regions where there is a strong tradition of innovation in work organisation;
- larger economies like France, Germany, Italy and the UK;
- countries with a more acute experience of financial crisis such as Ireland, Italy, Portugal and Spain;
- some newer Member States in the form of Poland and Slovenia.

The research also covered companies in a variety of industries across both the private and public sectors. It originally sought to focus on examples of HPWPs introduced 'bottom-up' and driven by institutional trade union involvement. However, the research teams found few suitable examples that matched the focus of the study and the report therefore looks primarily at management-driven innovations in work organisation.

The case study organisations were selected based on recommendations from national experts and evidence of innovations in work organisation available through trade journals, newspapers and peer-reviewed journals.

For each case study, relevant public documentation was consulted including web, newspaper and company reports. This provided background and context for each case study and helped the researchers to understand each case study before the qualitative interviews were conducted.

The case studies involved face-to-face interviews with a range of employer and employee representatives. For each case study, research partners from the country conducted the following in the relevant native language:

- interviews with senior managers, unit/line managers and members of the human resource (HR) department to provide an organisational perspective on initiatives and what influences them in terms of organisational policy, leadership and climate;
- up to two employee representative interviews to explore worker involvement in innovation processes connected to work organisation;
- a focus group of between four and eight employees to capture the impact that work organisation innovation has had on employee attitudes and behaviours, and to understand their views on the innovation and their involvement in the process in the manufacturing case.

The managerial interviews included one or two managers responsible for HR/personnel or industrial relations issues, a senior manager who was able to comment on the implementation and impact of the innovations on the wider organisation where relevant, and possibly a 'champion' or individual responsible for the innovation process.

Following the fieldwork, a comparative analysis was made of the findings from each written case study. This analysis was drawn on to compile the report.

Report structure

The report has eight chapters. Each chapter presents the current understanding of the topic based on literature evidence before describing and analysing empirical findings from the case studies.

Chapter 1 places innovation in work organisation within the appropriate literature, explains how it has been defined with particular reference to high performance work practices and gives an overview of each case study company and its main innovation(s).

Chapter 2 discusses organisational motivations for HR innovations and describes how each company was using the innovations to support its wider HR and organisational strategy.

Chapter 3 describes the methods used to implement the innovations, with a focus on the role of managers, employees and their representatives.

Chapter 4 outlines the impacts of the innovations in work organisation on employees using a series of theoretical frameworks to explore why each innovation achieves particular effects.

Chapter 5 outlines the impact of HR innovations on organisational outcomes.

Chapter 6 discusses the major internal facilitating conditions that influence the success of work organisation innovations.

Chapter 7 presents the study's conclusions and policy implications.

Types of innovations in work organisation 1

This chapter places innovations in work organisation within a wider literature on innovation, provides a working definition used in the research, introduces the conceptual framework used to guide the research and provides a brief profile of each of the case study organisations.

The literature on innovations in work organisation is both extensive and multi-disciplinary, drawing on studies from management science, operations management, technology studies and economics among others. However, the concept of innovation can be viewed in both social and technological forms (Pot and Vaas, 2008). A number of authors have argued that there has been a tendency to equate analysis of innovation solely to advances in technology and product markets at the expense of social reforms and changes to organisational structures, policies and processes, which can play an equally significant role and have important implications for how people are managed (Mulgan, 2006; Pot and Vaas, 2008).

The Oslo manual (OECD, 2005, pp. 47-51) defines innovation as relating to:

- introduction of a new product or service;
- introduction of new production processes such as those enabled by new technology or new work routines;
- introduction of new forms of organisation;
- new market behaviour, new strategy, new marketing methods, new alliances.

It is evident that these categories can be mutually dependent, so the introduction of a new production process may demand innovations in how work is organised. However, within this framework, the innovations relating to the management of people are covered predominantly by the category of new forms of organisation or 'organisational innovation'. Within this category, organisational innovation includes:

- business practices including knowledge-sharing and staff development;
- workplace organisation including devolution of decision-making to employees;
- external relations between employees in one part of an organisation and those of other departments or externally;
- other innovations including use of variable pay as a change to reward systems or atypical employment contracts.

With the exception of external relations, all these dimensions were included in this study because the types of innovations provided as examples are all covered by the common theoretical frameworks on people management. This is not to diminish the significance of contextual factors, including the relationships between national innovation systems, vocational and educational training (VET) systems, national R&D policies and broader public policy. However, discussions at the beginning of the project with Eurofound identified the main interest as changes in work organisation and this is therefore the focus of the study.

Innovation in work organisation has tended to be overlooked by the dominant innovation literature based on technology studies. Innovation in work organisation is related to the broader concept of social innovation but has some important differences. Social innovation is focused on tackling complex societal problems or 'wicked issues' such as coping with the implications of an ageing population or tackling endemic worklessness through innovatory approaches often involving social enterprise initiatives, especially where previous initiatives have not been fully successful. Workplace innovations are more specifically focused on innovations within organisations rather than in wider society. They are often a prerequisite for technological developments because they encompass the process changes required 'to change the beliefs, attitudes, values, and structure of organizations so that they can better adapt to new technologies, markets, and challenges' (Ramstad, 2008, p. 29). Therefore workplace innovations can be vital to advancements in overall

productivity and competitiveness through enabling optimal utilisation of the potential workforce (Pot, 2011). Having established the potential role of non-technological innovation in organisational change, this leads us to look more specifically at how innovations in work organisation are defined and understood within the academic literature.

Although work organisation innovation is not a commonly used term in the academic literature, there is a small and growing body of literature that seeks to understand changes in work organisation as examples of organisational innovation. Workplace innovation has been recently defined as 'the implementation of new and combined interventions in the fields of work organisation, HRM and supportive technologies' (Pot, 2011, p. 1). This places the emphasis on a possible connection between people management and technology utilisation, although this is not a specific focus of this project. A broader definition is provided by Ramstad who defined innovation relating to work organisation as:

renewals in the structures, processes or boundaries of a work organisation that achieve savings in the use of labour or capital resources, or an improved ability to respond to customer needs... examples of reforms can be selfmanaging teams, flatter hierarchies, outsourcing, diversified personnel skills and management systems.

(Ramstad, 2009, p. 2)

This definition clearly identifies the possibility for innovations to focus on the structure and process of people management with an emphasis on organisational benefits. However, to find an adequate theoretical underpinning for the concept of work organisation innovation, we need to explore the literature on human resource management (HRM). Here the term 'innovation' is not generally used, although the adoption of new types of HRM practices can be regarded as innovative by the companies making these changes, so they still conform to the definitions of innovation within the Oslo manual (OECD, 2005).

Work organisation is usually understood as a narrower, specific subset of HR practices, commonly interpreted as whether employees work individually or in teams, and may also include work scheduling and working time. Instead the terms 'high commitment'; 'high performance' or 'high involvement' work practices are commonly used to describe innovations in work organisation of the kind of interest to this study. The differences in emphasis on commitment, performance and involvement usually reflect particular interests or focus on the study's outcomes; they do not necessarily imply different practices are used to achieve them.

This report adopts the term 'high performance work practices' (HPWPs) as having a broad focus on any type of performance outcome, not merely those with the goal of employee involvement or commitment. It should be acknowledged, however, that use of the term does not assume that introducing particular practices is sufficient in itself to guarantee performance outcomes. Nor does it assume that any particular combination of practices is better than another since this will vary depending on organisational objectives for the initiative and organisational context (see Boxall and Macky, 2009). The quality of those practices and how they are implemented over time, by different managers and for different employees has a major influence on outcomes. The level of employee involvement is also critical and is captured in the idea of participatory innovation and the facilitating conditions of social dialogue.

High performance working is defined by Belt and Giles (2009, p. 17) as 'a general approach to managing organisations that aims to stimulate more effective employee involvement and commitment to achieve high levels of performance'. These innovative work practices are seen as distinct from the hierarchical 'control' practices of traditional Taylorist systems of management, with a move towards eliciting higher levels of 'commitment' from workers (Walton, 1985). They typically include innovation across the areas shown in Table 1.

Table 1: Areas of innovation in work practices

Туре	Examples		
Practices that structure work organisation	• Use of (autonomous) teams		
and job design	• Redesign of jobs to enlarge or enrich their content		
	• Working time arrangements including flexible start and finish times and flexible total number of hours, home or teleworking		
Practices ensuring high-level skills are an	Careful recruitment and selection		
input into the production process	• Training and development including on-the-job and off-the-job training using an means of development such as formal courses, self-study, workshop, secondments, mentoring and buddying		
Appraisal and performance management processes	Formal or informal one-to-one discussions between each employee and a line manager/supervisor		
	• A regular more formal review of performance that may or may not be linked to pay increases		
Practices that provide opportunities for	Individual working groups to improve quality or solve workplace problems		
employees to participate in and/or influence decision-making through direct or indirect methods	 Indirect representation through workplace committees or other representative groups as part of social dialogue 		
	• Informal and formal dialogue and face to face communication between managers and employees		
	 Team/departmental or whole company briefings 		
	• Employee attitude surveys		
	 Knowledge-sharing activities and knowledge management systems including those based on intranets 		
Practices that provide rewards for	Profit-sharing		
performance	Employee share ownership		
	Individual performance-related pay		
	• Employee benefits that may be financial or non-financial including access to sources of support for health and well-being		
	Career progression opportunities through vertical or lateral promotion		

Note: This is an indicative and not necessarily exhaustive list.

After careful analysis of the literature, the definition adopted for this project is one where high performance work practices or innovations in work organisation are defined as deliberate changes that can affect how employees undertake their job and/or their broader experience of work and refer to any element of people management. Although the theoretical literature underpinning much of the subject area originates primarily from the USA and the UK, there is a relatively extensive set of empirical studies on the interpretation and adoption of HPWPs across European countries and this has been drawn on throughout the report. In addition, European frameworks on aspects of HPWPs such as employee-driven innovation have been used to inform the data analysis.

HPWPs within the scope for study in this project included those which:

- offered sustainable² improvements for organisational performance;
- benefited workers through improving job quality, satisfaction or well-being;
- were driven 'bottom-up' through suggestions made by employees or heavily involved employees in their design and implementation (these are less well explored in the literature and constituted an ideal focus on 'participatory innovation');
- led to innovation in organisational processes, expansion of products/services, lifelong learning, extension of working lives and improved employability, preservation of jobs in the face of economic difficulty and job creation.

Figure 1 (p. 13) shows the conceptual framework for the project derived from analysis of the relevant literature. We draw on this framework throughout the rest of the report to:

- identify the nature of HR innovations;
- help analyse the contextual factors which influence their introduction;
- identify the impacts for employees and organisational performance;
- help explain the mechanisms by which they achieve their effects.

Profile and background of case study organisations

Table 2 (p. 13) illustrates the range of innovations adopted by the case study sites, combined with some background information on the characteristics of each organisation. From these data we can see clusters of particular types of work organisation innovations.

Five case studies focused on some form of lean production (Bombardier, FAVI, Lufthansa, NUH, Radiometer), of which four were based in manufacturing environments. Two case studies focused on well-being/health initiatives (Slovenian retail group, Volkswagen Poznań), four companies focused on flexible working (of which two were adopting these in combination with other HR innovations) and three companies were implementing a mix of multiple initiatives (Elica, Kellogg, ROFF).

The next chapter explores why the organisations adopt such innovations and how they are intended to support broader HR and business strategies.

² Assessing whether performance outcomes are sustainable involves a qualitative judgement as to whether the organisational benefits are being achieved in the short term at the expense of employees in the long term. This is because some literature identified that certain combinations or application of HPWPs can lead to work intensification and adverse health and well-being outcomes for staff.



Table 2: Company case study characteristics

Country	Case study organisation	Number of sites	Main products/service	Number of employees	Trade union status	Year established	Type of innovation
BE	Bombardier	One site in Bruges; 76 sites in over 60 countries	Development and production of rail transport solutions	709 in case study site; 65,400 across all sites	Trade union presence	Site in Bruges acquired in 1988	Teamworking to improve organisational productivity
DE	Lufthansa Technik AG	Headquarters in Hamburg; three other major sites in Germany; over 30 sites in Asia, Australia and USA	Manufacturer and provider of maintenance, repair and overhaul (MRO) services for aircraft, engines and components	11,000 staff in Germany, 6,500 permanent employees in Hamburg and 800 temporary staff	Trade union representation through Works Councils	Current operation established in 1994	Lean production system
DK	Radiometer	Headquarters in Denmark; numerous sites in USA, Switzerland, Finland and Poland	Provider of medical- technical solutions to hospitals and acute care centres	948 in Denmark; 2,300 across all sites	Trade union and Works Council presence; collective bargaining	1935	Lean management and waste reduction
ES	Kellogg	One office and one factory in Spain	FMCG manufacturer	130 in commercial operations and 270 in factory	None	Established in Spain in 1970s/1980s	Flexible working and reward system Employee well- being policies New communication policies Redesign of workplace space use

Work organisation and innovation

Country	Case study organisation	Number of sites	Main products/service	Number of employees	Trade union status	Year established	Type of innovation
FI	Care home	One site	Long-term care provider	Ward employs approx. 25 staff	Trade union presence	1919	Social 'hostess' role introduced in elderly care home
FR	FAVI	One facility	Pressure die-casting, specialising in copper alloys	406	Works Council, but no union representation	1957	Teamworking in 'mini factories'
IR	Abbott	12 sites	Healthcare	4,000 people employed in Ireland, 158 at commercial operations site	No trade union presence	Since 1946 in Ireland	Flexible working policy
IT	Elica	Four manufacturing plants in Italy; nine across Europe	Cooker hood and motor manufacturer	1,000 in HQ and main factory; 1,481 in Italy; 2,915 in total	Four trade unions, 25% unionisation	1970s	Employee involvement World Class Manufacturing New social partnership agreement Matrix team structures
NL	Rabobank Nederland (RN)	139 cooperatives, across 872 branches	Supplier of financial services and assurances	6,800 full-time equivalents (FTEs) at RN	Three trade unions*and represent members through collective bargaining. Unionisation is ~17%. Local works council; group work council and European works council	Cooperative originally founded in 1898	Flexible working and greater autonomy for employees
PL	Volkswagen Poznań	One facility	Car manufacturing (VW Caddy and T5 Transport)	6,035	Trade union presence	1993	Health and well- being initiatives focused on older workers
РТ	ROFF	Offices in Lisbon, Oporto and Covilha, as well as overseas	Developing and implementing IT solutions	500 across all sites	None	1996	Flexible working arrangements Non-hierarchical management structure Staff involvement
SI	Retail group	Over 1,500 outlets	Retail and wholesale of fast-moving consumer goods (FMCG)	24,000	Workers union and workers' council	1940s, workplace built in 1968	Health promotion policy to reduce sickness absence
UK	Nottingham University Hospitals NHS Trust (NUH)	Four test sites	Emergency care site; stroke, heart disease and cancer services	13,000 across Trust; 4,000 nurses covered by productive ward programme	Two main trade unions	2004	Lean management

* Christian Trade Union Federation (CNV), Allied Industry, Food, Services and Transport Union (FNV Bondgenoten) and Dutch General Independent Union (De Unie)

Factors influencing the decision to adopt 2 high performance work practices

In understanding the potential for diffusion of high performance work practices, it is necessary to identify the motivations and triggers that lead organisations to adopt these innovations. This chapter outlines the findings of literature evidence on triggers for change, followed by an analysis of the market positions, business strategies and HR strategies being adopted by the case sites, how these have influenced choices about work organisation innovations, and the barriers or deterrents to adoption of HPWPs identified in the literature.

Drivers for change identified in the literature

The drivers to adopt high performance work practices are many and varied. The conceptual framework in Figure 1 illustrates that some facilitating factors are rooted in the degree of favourability of broader national innovation systems, the extent of links between higher education institutions and enterprises, and the extent of public policy support. Others are more specific to each organisation's context including its business strategy, use of technology, size, sector and the degree to which it experiences customer pressures and competition, especially from companies or consumers demanding products and services where HPWPs are commonly used among producer companies. Among more sophisticated organisations, pressure to be perceived as a 'leading edge' employer and to keep abreast of trends in HR practices that are being adopted by competitors may encourage refinement or extension of workplace innovations. However, the impacts on organisational performance may be rather more marginal if these are cosmetic changes compared with more profound effects on performance within organisations adopting HPWPs for the first time. None of these factors is necessarily more important than any other and, for many companies, a combination of multiple factors is likely to be important.

Various studies of national innovation systems have illustrated the important links between public policy, VET systems and level of investment in R&D for more ambitious use of innovative management approaches by organisations (Lundvall, 1992). Such favourable conditions can be actively promoted by public policy and there is substantial evidence that policy initiatives specifically in the area of work organisation innovation, rather than broader technological innovation, can lead to organisational engagement with and adoption of HPWPs.

Recent extensive reviews have illustrated the variety of policy initiatives taking place to support organisations to make innovation in the broad field of people management. These include programmes in North Rhine Westphalia in Germany and the Flanders region of Belgium as well as national programmes in Ireland, Germany, Norway and France (see Totterdill et al, 2009). The motivations for introducing these policies lie variously in the need to maintain adequate productivity in the face of a smaller labour force as a result of ageing Western populations, and enabling organisations to take advantage of innovations in wider technologies and to create new products and services which requires agile workforces (Pot, 2011). Initial analysis of national government and EU-level programmes, projects and initiatives focused on stimulating product, process, market and service innovations has revealed limited evidence reporting evaluated impacts of activities which include innovations in work organisation in support of these goals.

More broadly, HPWPs that allow employees to demonstrate their competencies and individual potential have the possibility of enhancing competitiveness and the quality of working life, as well as creating optimal labour market functioning by ensuring that all the talents of employees are harnessed fully. Employee participation and, arguably, some influence over the scope and nature of workplace change, is likely to have a beneficial impact on organisational change, because participation in decision-making is likely to lead to better judgement, and potentially more productive outcomes (Locke and Schweiger, 1979). It is possible that HPWPs are introduced to support these broader goals, particularly where inspired by external influences and funding from national or EU-level policy bodies and agencies.

One strand of literature looks at the organisation at a much broader level and its ability to change and respond to the external environment, which is often a driver of innovation. There are three models (Lam, 2004) for how organisations change that stem broadly from organisational studies. First, there is an evolutionary change in which organisations either accumulate a series of incremental changes or are replaced by different organisations. A second model looks at change as punctuated equilibrium where radical changes in the environment force organisations to make periodic radical changes. Finally, in the third model, organisations are in a state of continuous change. This occurs when an organisation builds in the expectation of change. These organisations have a process of continuous learning and strategic choice.

Organisational change is often explained through institutional theory (for example, DiMaggio and Powell, 1983). This frames rationales for adoption of new management practices as:

- 'coercive': that is, driven by legislative pressures (for example, equality of terms and conditions for temporary agency workers under the recent EU directive);
- 'mimetic': that is, where organisations, often in similar sectors, seek to copy each other's products, services or organisational innovations;
- 'normative': that is, where norms of professional practice (for example in law, medicine or HR management) are transmitted between organisations through a mobile cadre of managers.

This framework does not suggest that decisions to change are non-rational, as organisations, especially those in the same product/service markets, may be facing similar problems and competitive pressures, and may rationally choose to adopt similar solutions. This is partially supported by empirical studies which seek to explain the adoption of innovations in work organisation.

In smaller companies with fewer than 100 employees, HPWPs are implemented typically due to the emergence of a specific business problem, with an individual within the organisation willing to 'champion' new practices (Cassell et al, 2002). Organisations that are undergoing significant changes through growth or decline are likely to use different HPWP at each stage of the change. Fombrun et al (1984) pioneered the life cycle model of organisational development, suggesting that organisations will put greater investment in HPWPs when they are in growth periods and reduce investment in these practices during decline.

Organisations adopting HPWPs are often driven by 'crisis and/or pressure from customers' (European Work & Technology Consortium, 1998). In these circumstances, changes can be cost driven, which can limit scope and therefore can often fall short of the organisation's full potential to innovate. New HR practices adopted due to these conditions can often fail to obtain commitment from employees or to become part of the organisational culture. Innovative practices motivated by a need for cost reduction can decrease the demand for labour (most commonly lean production models), but are also found to be likely to lead to reduced quality of working life – referred to as 'job enlargement without job enrichment' (European Work & Technology Consortium, 1998).

The European Work & Technology Consortium differentiates between a 'high road' and a 'low road' of innovation, built on the different approaches to work organisation. While the low road is driven by cost cutting, the high road values social dialogues and collaboration between partners to create a culture for innovation and achieves a balance between product and process innovation (European Work & Technology Consortium, 1998; Totterdill, 2001). Such approaches do not derive solely from rational choices among key managers, however, since there is a wide body of research evidence that shows how broader choices by organisations about their strategic position in national and international markets shapes the adoption of HPWPs; this is in turn shaped by trends in national employment regimes (Gallie, 2011). In practice, evidence shows that combinations of motivations including benefits to employees and organisations are important for driving HPWP innovations. Analysis of the 1996 Employee Direct Participation in Organisational Change (EPOC) survey of 5,525 organisations across 10 countries in Europe found greater importance is placed on the economic/productivity motives for introducing teams (20% of employers on average), rather than improving the quality of working life (QWL) for employees (8% of employers on average) with the exception of Denmark. Half of employers cited combinations of these two motives (Eurofound, 1999, p. 39).

Influence of market position

Market position is commonly a critical influence on the adoption of HPWPs in terms of the opportunities and constraints which organisations face in making choices and decisions about HR policies. Table 3 summarises the market position of each of the case studies which is explored in more detail below.

Table 3: Summary of market position of case studies

Country	Company	Market position
BE	Bombardier	Part of a multinational, global leader. Bombardier Bruges faces increasing internal and external competition, less client loyalty and unpredictable orders. The group has overcapacity, so need to ensure plant remains competitive. Quality and productivity are major concerns. Workplace innovation is seen as solution through lean manufacturing and teamworking.
DE	Lufthansa Technik AG	LHT development in mid-1990s when Lufthansa Group split into seven autonomous businesses. Increasingly challenging market. Operates in 56 countries but focus is in Europe. Germany employs 11,000 people out of 26,000 worldwide. Globally declining revenues, increasing fuel prices and increasing cost pressures. Services stabilised at much lower prices, global competition for contracts increased. Has achieved growth for 15 years, acquisitions in growth markets, emphasis on increasing efficiency.
DK	Radiometer	Multinational in USA and Scandinavia, sold in 2004 to US company. Science and technology leader that designs, manufactures and markets innovative acute healthcare and testing products to professional, medical, industrial and commercial customers; also provides ongoing service and training to end users. Sold to inject new capital and innovation into the organisation. Vision is to grow business and markets, and to develop new improved products and new services. Aims to grow 10% per year, to reduce costs by 8% per year and to improve quality by 50% per year.
ES	Kellogg	Part of the Kellogg group producing fast moving consumer goods with focus on snack foods and cereals. Been in Spain for 30 years employing around 400 staff from worldwide total of approximately 30,000. Under pressure from private label brands globally.
FI	Care home	Care for senior citizens in local authority in Finland, seeks to maintain independent living for as long as possible. Case study is in a city in a wealthy area. Aim is to improve service quality.
FR	FAVI	Pressure die cast company, part of AFICA group. Healthy financial position with 15% return over last 25 years, market leader in supply of gearbox forks, world leader in injection of cuprous alloys. High levels of technical expertise enable development of product innovations but concerned to avoid offshoring prevalent in sector.
IE	Abbott	Global healthcare company, focused on innovating new medicines, new technologies and ways to manage health. Abbott operates in more than 130 countries worldwide, involved in wide range of products; pharmaceutical and nutritional products, diagnostic instruments and tests, medical and surgical devices, veterinary products, vision technologies. Rates 71 in Fortune top 500.
IT	Elica	World leader cooker hood manufacturer with visually striking design. Growing organisation with 10% growth in revenue. Motors division is the leading producer within the European market. Culture of product, process and organisation innovation. Almost 3,000 employees – approximately half are outside Italy. Challenges due to market conditions. Historically a family company, floated in 2006.
NL	Rabobank Nederland	Part of the Rabobank Group, a financial services company operating in 47 countries with nearly 60,000 employees. A cooperative founded in 1898. Aims to be a market leader in Netherlands, to build on the bank's leading position in international food and agriculture markets; also Dutch mortgage market leader. Aims to contribute economically, socially and ecologically to a sustainable society. Had satisfactory year in 2011 with slight drop in net profits, judged to be relatively stable, performed well in stress and capital test conducted by European Banking Authority in 2011.
PL	Volkswagen Poznań	Multinational automobile manufacturer. Company has a vision of high quality cars manufactured in environmentally sustainable ways, with multiple strategic focus on customers, employees, processes and environment. Stable employment across group, but ageing workforce.
РТ	ROFF	Systems applications and products (SAP) IT solutions provider with 500 employees. Company delivers services to clients and has grown significantly from 2004. Increasingly international (offices in Portugal, Angola, France, Sweden and Morocco and global projects). When market contracted in 2002/3 offered lower wages to maintain headcount which meant able to recover quickly when market grew.

Work organisation and innovation

Country	Company	Market position
SI	Retail group	Part of multinational supermarket. Company is expanding into consumer goods and seeking to maintain market position, develop additional services and build market share in new markets. Absence levels are rising, health of older workers is of concern in response to ageing workforce, and there is a need to improve store environment and improve the health of the workforce.
UK	Nottingham University Hospitals NHS Trust	One of largest and busiest acute (hospital) trusts in England. Highly innovative at the forefront of many research programmes. Desire to be UK's best acute teaching trust by 2016 but facing cost and service quality pressures.

Two common features of influences on market positions are notable. First, despite the diversity of their market positioning, the case studies showed a preponderance of global or multinational organisations with strong market presence, and secondly their business strategies are not solely cost based. The majority of the cases (nine out of 13) are part of a much larger global corporation with the case study being a geographical unit or a specialist part of this wider group. In many cases this provides a degree of financial security for the workplaces but not exclusively, as some organisations encourage internal competition to sharpen performance. In many cases the organisation or its parent is a market leader or holds a major market share.

It was also clear that all the organisations were under pressure to improve performance, partly driven by an economic downturn which created difficult trading conditions, but also to meet the challenges of demographic change and intensified competition, especially within manufacturing industries. Ageing workforces appears as a distinct pressure in three of our case studies (Bombardier, Slovenian retail group, Volkswagen). Shifting, declining or more erratic consumer demand is another pressure on some (Bombardier, Kellogg). For others competitive strategy is closely linked with developing dynamic capability to innovate. Maintaining this as a core capability of the organisation therefore requires attention and ongoing responsiveness (Abbott, Elica, FAVI, Rabobank, Radiometer). An internal drive for continuous improvement is also evident in several organisations (Bombardier, Elica, NUH, Rabobank, Radiometer).

This suggests that pressure is an important factor in the decision to adopt HPWPs. This pressure may be external to the organisation; from clients or competitors or a more general shift in the economic landscape that provides an impetus to improvement. This is consistent with the mimetic perspective on organisational change identified by DiMaggio and Powell (1983), where trends in product markets can lead to widespread adoption of HR management practices. Additionally, pressures can be internal; a desire to be better, more efficient or more innovative, as well as to develop greater consistency between external 'market' brand and internal 'employer' brand. Contrary to the literature findings, experiencing fragility in organisational viability combined with cost pressures did not necessarily deter investment for significant innovations (Fombrun et al, 1984). However, a number of the case studies had access to support from large corporate parent companies which may have inspired them to make major innovations.

Business and HR strategies

Market position is a major influence on business strategies, which in turn influence HR strategies. There are three common generic strategies for organisations to secure competitive advantage (Porter, 1980, 1985):

- *cost leadership* (that is, the organisation produces products or services at a lower cost than its competitors);
- *innovation* (that is, the organisation produces products or services that are unique in some way);
- *quality* (that is, the organisation delivers products or services that are higher quality than those of competitors).

These generic strategies are believed to influence the HR strategies and practices of the organisation to 'fit'. Schuler (1989) suggested that there were corresponding generic HRM strategies of:

- 'accumulation' (an emphasis on resourcing that selects the best candidates possible based on attributes beyond technical fit);
- 'utilisation' (an emphasis on technical fit);
- 'facilitation' (an emphasis on collaborative working).

These generic HRM strategies can be mapped onto generic competitive strategies; for example:

- companies following a quality strategy would be expected to adopt a combination of accumulation and facilitation HRM strategies;
- companies focusing on cost reduction will adopt a utilisation HRM strategy and emphasise short-term employee relationships, offer low levels of training and development, and minimise wage costs;
- companies following an innovation strategy will adopt a facilitation HRM strategy to maximise the contribution of employees.

Table 4 classifies the case studies using the price/quality/innovation typology of Porter.

Country	Company	Price	Quality	Innovation	Other issues
BE	Bombardier	\checkmark	\checkmark		Flexibility and time to market.
DE	Lufthansa Technik AG	V	\checkmark	\checkmark	Goals to shape market by new products and a close relation to customers (speed and geography). Competes on cost, turnaround times, product quality, business models and innovative product portfolio.
DK	Radiometer		\checkmark		Admired for quality, reliability, ethics and systems.
ES	Kellogg		\checkmark	V	Quality and product innovation with a strong emphasis on employees' well-being and pride.
FI	Care home		\checkmark		Public sector state provided care. Aims to create units where residents do not have to move as needs change.
FR	FAVI	V	\checkmark	V	Innovation and quality are key. Series of new product launches enabling it to continually reinvent itself. Quest to continuously improve. Increased efficiency has meant not increased prices since 1995.
IE	Abbott		\checkmark	\checkmark	Focus on new medicines and new ways to manage health. Goal is to advance medical science to help people live healthier lives.
IT	Elica			V	Quality materials, maximising efficiency and development of personalised products. Primary objectives are innovation and design.
NL	Rabobank Nederland		\checkmark		Seeks to be the most customer oriented and innovative financial institution in the Netherlands
PL	Volkswagen Poznań		\checkmark		Strategic goals are highest quality and customer satisfaction and to be the best employer.
РТ	ROFF		\checkmark		Focus on retaining customers and delivering high quality services through employee commitment.
SI	Retail group	\checkmark	V		Want to secure customer loyalty by widening service offer.
UK	Nottingham University Hospitals NHS Trust	V	\checkmark	V	Public sector so operates within funding constraints but desire to be the 'best'.

Table 4: Classification of market position using Porter's typology

Price pressures were felt by many organisations and an increasingly competitive environment means that cost considerations become more important even where the primary competitive advantage comes from quality or innovation. The result is that the need for greater efficiency is the common strategic goal.

It was also clear that most organisations did not have a single competitive focus. This does not seem to be a lack of strategic clarity but rather a need to balance multiple demands created by parent companies and either business or individual consumers. Overall the case studies were strongly focused on differentiation strategies.

A differentiated business strategy is anticipated to match to HR strategies that focus on resourcing practices which emphasise the wider capabilities of the employee and HR practices which maximise collaboration. Given the increasing emphasis on cost, not as a differentiation strategy but as an important component of the mix, this would suggest that efficiency considerations should be more widespread. The impact on HR strategies might be to emphasise technical fit, shorten employee/employer relationships and reduce the spend on training. The key defining characteristics of the HR strategies of the case studies are summarised in Box 1.

Box 1: Summary of case study HR strategies

Bombardier (BE): reactive to changed circumstances and seeking to engage workers through teamwork and empowerment. Bruges plant tasked to come up with own initiatives but heavily performance monitored from the centre.

Lufthansa (DE): under permanent pressure to optimise cost structures through product and process innovation. Innovation is a key value with guiding principles of continuous improvement, encouraging creative thinking and rewarding innovative ideas. Also commitment to provision of training, employees expected to be conscientious, quality and performance oriented. In 2002 LEAN was adopted to improve cost-effectiveness and competitiveness.

Radiometer (DK): HR strategy based on focus on adult learning and kaizen.³ Involves developing competency in lean management, promoting high internal mobility and adopting talent development for all employees. Values include respect for people, customer oriented, quality, innovation and diversity. Parent company values include winning, quality, customers, kaizen, innovation and shareholders. Parent company encouraged process stream mapping to develop strategic priorities, identifying processes that need change, and developing goals and measures for each. HR partner is changing its role from operational to increasingly strategic.

Kellogg (ES): highly employee focused with long history of employee well-being policies. Strategic objective of being recognised as best place to work and has number of initiatives to achieve that. Aim is to have high quality employees making high quality products. Compensation philosophy based on four pillars: pay for performance, total compensation, internal equity and external competitiveness. Flexible office space use introduced. Company provides concierge services for staff (for example, booking holidays).

Care home (FI): strategic emphasis on doing work better but having no time to socialise with residents, wanted to improve quality of care but high demand ward where catering for physical needs takes up all staff time. Also meets city's need to offer work placements and jobs to long-term unemployed.

³ 'Kaizen' refers to Japanese principles for management focused on eliminating waste of time and resources in delivery of goods or services, as well as continuous improvement in management processes.

FAVI (FR): believes people inherently good, expected to share four values (common sense, honesty, humour and goodwill). Workforce autonomy is key to innovation through mini factories. Has informal HR approaches with guidance provided on management by objectives, company values and debate but formal approach to health and safety, emphasis on training, no bonuses (increased base salaries), role swapping and flat structures.

Abbott (IE): participates in Great Place to Work[®] survey objective to be recognised as good employer. Has a wide range of awards and initiatives including leadership development, innovative benefits, workplace flexibility and diversity. Aims to make employees more efficient and productive to enable them to succeed.

Elica (IT): central philosophy is investment in human capital to support core values of design. Rated the 'number one' large company in Great Places to Work® in Europe. Three HR strategies: internationalisation, innovation and brand development. Primary mechanism is through employee participation. HR is divided into three divisions: operations, sales and marketing, staff and services. Generate suggestions from employees to address work–life balance, to improve processes, to improve well-being and to increase autonomy. Has emphasis on design and art. HR involved through training, surveys and feedback mechanisms.

Rabobank (NL): aims to be a driving innovating force contributing to the sustainable development of prosperity and well-being. Many awards for employment approach including best employer. Strategic framework 2005–2010 demonstrated need for new way of working with a shift from product focused to customer focused. Workforce is becoming more educated. Encouraging entrepreneurship is therefore an initiative seen as aligning with this. Board wanted a new concept of work that would contribute to change in culture, effectiveness and cost savings.

Volkswagen (PL): HR goal is to develop HR processes that respond to demographic challenges and enable the acquisition and development of competent, productive, healthy and motivated employees. Goal to maintain productivity levels by developing positive attitudes to mental and physical health. Lots of initiatives such as redeployment of employees, coaching and mentoring to ensure knowledge is transferred, promoting healthy lifestyles including diagnostic examinations (check-up), awareness raising, improving workplace ergonomics, expanding fitness centre, highlighting common health problems and running a preventive programme.

ROFF (PT): emphasis on creating a working environment where employees can have fun and interact such as flat hierarchy, internal communication with emphasis on employee voice, celebrating success, flexible work arrangements, keeping in touch with expatriate staff, celebrating birthdays and so on, flexibility of working time and place, induction programme, more formalised performance management, training on project management, refer a friend, mini labs to encourage individual experimentation and product/service innovation, job rotation.

Retail group (SI): multiple strategic goals around leadership development, improving internal communications, transfer of expertise, rewards to generate ideas, internal and external recruitment, resourcing of sales people to improve customer service, health and safety of workers to improve absence and health of older workers. Emphasis of the innovation is on four major subthemes (nutrition, exercise, preventive health and psychological health) of health project.

Nottingham University Hospitals NHS Trust (UK): vision to be England's best acute teaching trust by 2016 for clinical outcomes, patient experience, staff satisfaction and value for money. Productive ward programme delivered through training in lean thinking that has three modules: using data, organising the workplace and reducing internal waits for patients. Involved project team led by assistant director of nursing with support from the NHS Institute for Innovation and Improvement (NHSI) and consultant in lean thinking.

In those organisations where innovation is a key element of the business strategy, the engagement of the workforce through collaboration is strongly emphasised (for example Elica, FAVI, NUH, Rabobank, Radiometer). Others have sought to maximise the quality of product or services through specific approaches such as 'lean' techniques or through an emphasis on being an excellent employer with a range of initiatives emphasising staff engagement such as well-being, flexibility, communication and a collaborative culture.

In all the case studies the chosen HR strategy was a long-term one and related to the organisational strategy. Where organisations were grappling with specific people-related issues such as an ageing workforce (Slovenian retail group, Volkswagen Poznań), the HR strategy was adapted to focus on initiatives that would deliver solutions (for example, emphasising healthy ageing). There were no examples of HR strategies being fundamentally changed because of changing pressures and no evidence that cost pressures were making HR strategies more transactional.

There are some clear sectoral patterns which explain different drivers for change. Organisations in knowledge-intensive industries and/or an expanding market tended to concentrate on innovations focused on 'talent management' and 'employer branding' that would enable them to recruit and retain staff, as represented in the cases of IT, pharmaceuticals and financial services (Abbott, Kellogg, ROFF). Organisations in sectors experiencing a more challenging economic climate were more commonly focused on cost reduction and efficiency improvements, typically in a manufacturing context (Bombardier, FAVI, Lufthansa, Radiometer).

The analysis shows that there was a clear distinction among the case study companies between three kinds of focus for implementing innovations in work organisation:

- single primary focus improved organisational performance;
- parallel focus multiple innovations, some aimed at organisational improvements and some focused on employee benefits;
- *hybrid primary focus* innovations aimed at employees with consequent benefits for organisation.

For those companies implementing innovations concerned with improving organisational efficiency, reducing costs and improving productivity, commonly based on lean manufacturing principles, there was a greater focus on organisational benefits and outcomes (Bombardier, FAVI, NUH, Radiometer). So, for example, motivations included:

- need to improve process efficiency and product quality to secure future viability (Bombardier);
- elimination of waste through adopting kaizen principles after a change in company ownership (Radiometer);
- increased efficiency and lower costs through waste reduction and improved work processes to secure long-term growth (Lufthansa);
- improved service quality and reduced costs through more efficient processes (NUH);
- enable expansion into new product markets through continuous improvement to maintain operations and avoid risk of offshoring (FAVI).

These case studies did recognise and seek to capitalise on potential benefits for employees within the context of the implementation process, but improving quality of working life was not the principal driver of change.

In the second category, a dual purpose was evident with multiple innovations implemented over a period of time, some of which were intended to benefit the organisation and some of which were intended to benefit employees (Elica, Kellogg, Rabobank, ROFF). These included provision of flexibility in working time and location (Kellogg, Rabobank, ROFF), combined with greater communication (Elica, Kellogg, ROFF), greater responsibility and range of work tasks available (Elica, Rabobank), provision of additional employee benefits relating to healthcare and concierge services (Elica, Kellogg) and enhanced performance management and training provision (ROFF).

The third set of organisations was focused on innovations primarily aimed at improving the employee experience of work, but with the intention that this would ultimately benefit organisational performance (Abbott, Slovenian retail group, Volkswagen Poznań). So, for example, flexible working schedules and locations were intended to help recruit and retain staff (Abbott), and health and well-being monitoring and promotions were introduced to help reduce sickness absence (Slovenian retail group) and deal with the challenges of an ageing workforce (Volkswagen Poznań). It is notable that even where organisations are introducing HR innovations with a primary aim of benefiting employees, the underlying motivation is founded on a commercial imperative of retaining workforce capacity.

The case studies all provide examples of relatively sophisticated organisations which have sought to use their HR strategies to respond to internal and external pressures on their market positions. However, from a policy and research perspective, it is equally useful to understand why organisations do not adopt HPWPs and to briefly consider findings from the wider literature. Surveys show highly variable levels of engagement across different sectors, types of organisation and EU Member States.

Barriers and deterrents to adopting high performance work practices

Research conducted in the past 10 years has tended to illustrate piecemeal rather than systemic adoption of HPWPs (see for example Business Decisions, 2002). Attempts to identify why organisation do not adopt HPWPs has found this is based on some attempt to make rational decisions rather than lack of awareness. For most organisations, absence of pressure from customers is a dominant factor, although lack of appreciation of the full benefits may be an obstacle. Additional barriers include reluctance to change organisational culture, incompatibility with organisational strategy and lack of proof and difficulty of measuring impact (Business Decisions, 2002). Other obstacles commonly found in analyses of the difficulties of implementing HPWPs include reluctance of middle managers to delegate responsibilities and give up power, reluctance and lack of skills among line managers to adopt responsibilities for putting HPWPs into practice, and sometimes reluctance among employees to take on responsibilities, particularly if the rewards and opportunities for influence are not clear to them.

The choices that companies make about adopting HPWPs must therefore be understood in a political rather than simply economic context. While managers may not admit openly to lack of expertise, organisations that are interested in reaping the benefits of systemic change may find it difficult to work out how to integrate different HPWPs most effectively and which order is most effective for implementing change. The differing financial contexts for individual organisations must also be recognised. Many HPWPs are relatively expensive to implement, in terms of time if not actual expenditure, and companies that are high performers and have significant resources to draw on frequently appear in the literature as examples of good practice. For smaller, less sophisticated organisations or those with pressing financial challenges, it may be much harder to find the time and resources to make desired investments.

Implementing high performance 3 work practices

The next stage is to consider the methods by which HPWPs are introduced and the specific roles of managers and employees in this process. This chapter outlines the major principles of management- versus employee-driven innovation, and the role that these played within the case studies. The roles of pilots/trials, small working groups, use of external expertise and internal/external investment are also considered.

Management-driven innovation

Standard rational approaches to 'top–down' introduction of HPWPs identify a number of mechanisms by which this can take place. For example, Birkinshaw et al (2008) reflect on the type of work models identified by Lorenz (2006):

- the lean production work organisation model aimed at improving production efficiency and reducing waste;
- total quality management;
- the spaghetti organisation (a new organisational structure aimed at increasing employee initiative and resolving hierarchy problems);
- cellular manufacturing (encompasses a new process for managing tasks inside a production unit).

They describe these innovations as 'management innovations' which are 'the generation and implementation of a management practice, process, structure, or technique that is ... intended to further organisational goals' (Birkinshaw et al, 2008, p. 829).

Different features of the way in which work is organised at an operational level can be affected by these types of management innovation; they may influence the formation of new HR practices, processes, structures or techniques. The rational perspective on management innovation suggests that they are introduced by individuals who are interested in making their organisations work more effectively (Birkinshaw et al, 2008). This typically follows standard approaches of defining the problem or goal, generating ideas for innovations to solve or achieve it, selecting ideas, testing or piloting ideas, refining/discarding the innovations and then implementing them fully.

Such formulaic and controlled approaches may be entirely appropriate and necessary for the introduction of high risk technological innovations such as the introduction of a new drug. However, such standardised approaches may not be adopted for the introduction of HPWPs, particularly if they are introduced through a bottom-up process, although management support for both these processes and the ideas arising from them will still be needed.

Kristensen (2011) considers the structural framework of innovations and states that bottom-linked innovations can be based on ideas suggested by employees and managers or both, but the objectives of innovation will typically be framed by management. Other work illustrates the variety of roles played by individuals commonly called 'champions' and their function in initiating and embedding innovations. Studies have shown that in addition to the conventional, legitimate senior 'organisational entrepreneurs' who gain the backing of their peers to make innovations from the top down, other champions include 'dissonant entrepreneurs' who may be found at different levels in the organisation, who encounter resistance and who are politically skilled in building allegiances and overcoming internal opposition to achieve change (Exton, 2010).

Participatory innovation

Participatory innovation is placed in opposition to traditional technocratic views of innovation as being driven by experts, often located in R&D departments (Hoyrup, 2010) and can be included in the category of 'non-R&D innovation' (Hoyrup, 2010). Kristensen (2011) considers the concept of employee-driven innovation (EDI) to be intertwined with the roles of employees as innovators, facilitators and mediators, with three sub categories ('employee initiated, employee involving and employee steered innovation') sitting under the umbrella concept of 'employee-driven innovation'. In the employee steered innovation category, the 'structural conditions of innovation are set by management (money, staff) but the innovation process and outcomes are not' (Kristensen, 2011). Tidd and Bessant (2009; cited in Hoyrup, 2010) regard participatory innovation as very similar to the concept of high-involvement innovation through which competitive advantage is obtained through higher levels of participation. Hoyrup (2010) also draws links between the concepts of direct participation and participatory innovation, where employees are encouraged to seek solutions and make suggestions to improve organisational efficiency.

Innovative initiatives depend strongly on employees contributing their knowledge, expertise, creativity and commitment to the process (Chen and Huang, 2009; Hoyrup, 2010). In contrast to technologically driven innovation projects where special teams may be convened to develop a new product or service, EDI typically takes place on an 'in-line basis' as part of the normal working pattern and most EDI takes place through working teams based on experience and on-the-job learning (Tidd and Bessant, 2009; cited in Hoyrup, 2010). However, participatory innovation is more likely to diffuse across an organisation and be broader in its impact where management support is provided through suitable structures, processes and incentives. This collaborative and bottom-up perspective on innovation is evident in some of the fuller forms of innovation performance, levels of innovation run from innovation by chance and management attempts to innovate to forms where individuals and groups across the whole organisation are highly involved. Organisation development models have developed sophisticated methodologies in which multiple interventions can be made to bring workers and managers together to collaborate in redesigning organisational processes and structures (Teglborg-Lefèvre, 2010). These approaches are also evident in some of the public policy initiatives to improve work organisation which involve expert consultants working with managers and employees (for more details see Totterdill et al, 2009).

Employees have an important role in 'building legitimacy' for management-led innovations, particularly as 'internal change agents' who have the ability to defuse employee scepticism towards innovation (Knights and McCabe, 2000, cited in Birkinshaw et al, 2008). These internal agents tend to focus on the value of new practices and help other employees see their potential value in the context of the organisation (Birkinshaw et al, 2008, p. 838). Janssen (2003; cited in Janssen, 2004) also highlighted that innovative employees can encounter resistance to change from others who do not want change. Participatory innovations are likely to challenge the 'established framework of work goals, work methods, task relationships, informal norms, and expectations that actors in the workplace have of one another' (Janssen, 2004, p. 6) and others (colleagues or supervisors) may see this as threatening due to preferences to avoid insecurity and stress surrounding change and the desire to retain familiar work practices. This places a strong emphasis on the need for skills and resilience of both individual employees and managers to support less enthusiastic colleagues through change processes and to address their needs and concerns.

Participatory innovations are usually triggered by work-related problems and through an understanding of person–environment fit theory. A worker will attempt to cope with challenges by adapting themselves or the work context, that is, the working method, job approach, job design or allocation of tasks (Janssen, 2004). Some authors argue that participatory innovation is part of a 'problem-focused strategy' for coping with job-related problems and issues that cause strain for the employee. For the employee, changing the working environment in this way can lead to benefits such as increased performance, job satisfaction, reduced stress levels, improved interpersonal relationships and well-being (Janssen, 2004, p. 2).

Contextual factors (co-workers, supervisor, organisation and national culture) can also shape the benefits and costs of employee innovations to improve the experience of work. While these can lead to greater workloads, they can also bring greater efficiencies and lower workloads. Janssen provides an example where innovation can promote greater levels of efficiency in a group dynamic, citing the case of nurses who take on more of doctors' responsibility in patient treatment thereby reducing the number of home visits made by doctors and reducing the duplication of patient services (Janssen et al, 2004, p. 137).

Other studies have similarly viewed participatory innovation from a more positive stance. For example, one analysis, drawing on the job characteristics model of Hackman and Oldham (1976), states that employees must be encouraged to:

... produce novel ... ideas so as to solve various organisational problems and make their jobs more interesting, involving, and personally challenging, and hence leading to an increase in intrinsic motivation.

(Garg and Rastogi, 2006, p. 579)

This motivation is claimed to 'transform potential into creative ideas, which fosters fair and constructive judgement of ideas and sharing of information' (Garg and Rastogi, 2006, p. 579). In this way, participatory innovation and implementation of change, which is intended to improve the functioning of organisations, is considered to be a demonstration of change-oriented organisational citizenship behaviour (OCB) (Choi, 2007; cited in Seppälä et al, 2011).

Methods of implementing HPWPs: evidence from the case studies

The case study organisations displayed a variety of approaches to introducing their innovations and these are illustrated on a continuum of employee involvement in Table 5.

Approach	Case study organisations
Determined by employees	
Co-determined by employees/ managers	
Proposed by managers and negotiated with employees	Bombardier
	Lufthansa
	Rabobank
	Radiometer
Proposed by managers with employee consultation	Abbott
	Elica
	Finnish care home
	FAVI
	Volkswagen Poznań
	Slovenian retail group
Proposed by managers and staff informed	Abbott
	Kellogg
	ROFF
Proposed by managers with no information provided to staff	

Table 5: Level of employee involvement in innovations

In most case studies, the inspiration for the overall innovation such as introducing a lean work system, a health promotion policy or a policy to support older workers came from managers; employees were then consulted about the proposals. Management motivations for change were typically consistent with the rational models of organisational

improvement proposed by Birkinshaw et al (2008), which might be expected for the adoption of lean techniques focused on organisational efficiency. However, innovations focused on improving employee well-being equally stemmed from recognition of the value of a healthy workforce and its impact on organisational performance (for example, Slovenian retail group and Volkswagen Poznań).

In some case studies, typically those located in countries with a strong framework of social dialogue, social partners had significant involvement in the introduction of the innovations. This took the form of:

- membership of works council representatives on the flexible working project's working group;
- fact-finding visit to another company that had implemented a similar system (Rabobank);
- participation in projects resulting from changes to work organisation (Bombardier);
- representation on the steering groups for lean production initiatives;
- development of a handbook to clarify rights and responsibilities (Lufthansa, Radiometer).

In some of the case studies, however, worker representatives were clear that opposing the overall innovation would not have been an option since the future of the workplace was at risk (Bombardier) and in such cases workers had little choice about whether to support the innovations.

A number of the innovations focus on deliberately seeking employee suggestions for improvements to work processes, experiences of work, and organisational products and services (Elica, Lufthansa, NUH, Radiometer, ROFF). In these cases, following the implementation of the initial policy or framework, suggestions from employees were critical to the success of the innovation. So, for example in Italy, ideas to improve the manufacturing process and to support employee health through provision of well-being services came from employees, while in the UK, ward staff within the hospital made suggestions for reorganisation of equipment and improved communications for shift handovers, while kaizen events to ensure continuous product improvement in Denmark rely on input from staff.

This can be characterised as a dual approach to work organisation innovation, consisting of a top-down initial decision to innovate, followed by a bottom-up approach for implementing and sometimes choosing the improvements to be made, following Kristensen's description of 'employee-steered' innovations (Kristensen, 2011). It suggests that the distinction between management versus employee-driven innovation may be too stark, as these examples show a mutual dependence between each party to the employment relationship in making the innovations operate in practice.

It is also striking that, within a number of the initiatives focused on health improvement and staff well-being, participation in some of the elements is voluntary (Elica, Slovenian retail group, Volkswagen Poznań). The role of managers is therefore restricted to one of providing information, advice, guidance and support and some control and influence over work type and volumes, but personal responsibility for individual well-being and choice about engagement with well-being initiatives rests with the individual worker.

Similarly, new forms of work organisation or HR practices including total compensation systems (Kellogg) and flexible working time arrangements (Abbott, Kellogg, Rabobank) afford employees choice about whether and how much change to make to their current practices. So even if they exert no influence over the choice to adopt a policy framework, workers had considerable influence on the application of the policy in practice, how much difference it makes to their personal experience of work and the extent to which the effects of the innovation permeate the collective culture of the workplace.

More fundamentally, a number of the innovations were seeking to provide greater autonomy to employees either in the type of tasks undertaken in their job or how those tasks were undertaken (Bombardier, Elica, FAVI, Rabobank, ROFF). This offer of greater influence to employees is predicated on an assumption that higher levels of autonomy are beneficial. However, both the literature and some of the case study examples showed that change of this type can initially be viewed with suspicion, may result in greater responsibility and is not necessarily viewed as unequivocally beneficial. Convincing staff of the personal benefits of innovation in work organisation remained a critical part of the implementation process and managers were often realistic about the time that this could take.

Use of implementation teams and working groups

For case studies where innovations were larger in scale or had multiple dimensions, the use of implementation teams or working groups was common. These were valuable in bringing staff together from different parts of the organisation to enable development of common goals and objectives, and in learning about the perspectives of staff in different roles to make sure their views were recognised and taken into account in designing innovations. So, for example, five or six separate project teams were established to implement different well-being initiatives (Slovenian retail group, Volkswagen Poznań), and coordinated by HR staff, working groups were used extensively to lead different elements of projects (Abbott, Bombardier, Elica, NUH, Radiometer). Only for smaller scale innovations focused on one department (Finnish care home) was this form of coordination unnecessary.

A further common feature of the implementation process was the adoption of trial or pilot experiments on a small scale. These served to gain commitment and support from key groups of staff and to identify and resolve any initial problems, for example:

- new flexible working systems were piloted with a small group of managers (Abbott) or in one office (Rabobank);
- teamworking and lean manufacturing was introduced on a small scale (Bombardier, Lufthansa);
- the development of mini-factories was rolled out over a long period of time (FAVI);
- departments volunteered to try out lean management principles (NUH).

Several companies used formal methods of assessing how the implementation of the innovations was progressing, most commonly through employee attitude surveys, the results of which were used to inform refinements to initial approaches (Abbott, Bombardier, Rabobank).

External constraints affected the degree of choice available about participation. In some companies, discretion was available to departments about whether to participate in the innovations (Rabobank), but in other cases, a move to new premises (Kellogg) or organisational performance (Bombardier) meant that all staff would be required to take part, or the nature of individual jobs meant that participation was not possible in for example flexible working (Abbott). In most cases, this also illustrates that the process of making changes was incremental, and required ongoing refinement and persistence on the part of all participants over a long period of time.

In several companies, the approach was underpinned by a continuous improvement philosophy (Bombardier, Elica, Lufthansa, NUH, Radiometer, ROFF), which regarded organisational change as an ongoing process rather than as an end goal.

The piloting approach is partly consistent with the principles of small group working that are often advocated in undertaking major organisational change (see for example Totterdill et al, 2009). In some cases, the most enthusiastic potential staff were selected to test out the innovations as a tactical way of gathering interest and wider support from the rest of the workforce (NUH, Radiometer). Some of these examples appeared to be helpful because they allowed each

department or work group to engage with the innovation at their own pace and scale and provided some degree of control over the innovation through what was termed in one company a 'strategy of invitation' (Rabobank). This enabled each group to develop a sense of ownership, which is important in building commitment to change.

The organisations varied in how far they had adopted principles of transformational change where small groups worked together to identify improvements to working conditions or organisational performance without a specific remit (Elica) or whether the groups had a defined and directed goal in a more programmatic and bounded innovation (Lufthansa, NUH, Radiometer). These differences depended on the management philosophy and type of innovation being made rather than country-specific characteristics of management practices.

Investment and use of external expertise

Levels of investment and use of external expertise varied dramatically across the case study companies. Use of expert advice was common across all the case companies, particularly where lean methodologies or flexible working systems were being introduced. Thus external consultants were brought in to provide technical support with IT equipment and open plan office design (Kellogg, Rabobank), HR software (Kellogg) and personal training on managing flexible working (Abbott). Among companies adopting new production processes, extensive use was made of academic expertise such as:

- advice on total quality management (FAVI);
- advice on world class manufacturing from Fiat (Elica);
- advisors from Japan, other Danish companies and academics from the USA and Denmark to help implement lean systems (Radiometer).

External consultants fulfilled a similar function (Lufthansa). In several cases, reliance on external support reduced over time with the deliberate strategy of the case study companies being to develop internal capability (Lufthansa).

Three companies had made use of external funding. This included:

- European Social Fund (ESF) funding of up to €100,000 (Bombardier);
- public funding for the placement of unemployed workers as hostesses running social activities for care home residents amounting to around €580 per month in salary costs (Finnish care home);
- an unspecified national grant for staff art classes to stimulate innovative product design (Elica).

Some companies had made considerable internal investments. These included:

- \$500,000 per year (€486,420 per year as of 16 October 2012) for lean production coordinating staff and \$1.54 million (€1.17 million) for indirect costs of line management time (Radiometer);
- €5 million per year for investment in running lean production systems (Lufthansa);
- extra resources for the HR department to manage the new total compensation system (Kellogg).

Formal cost-benefit analyses had rarely been undertaken but the organisations were convinced of the benefits of their investments, in some cases because these were enabling a transformative change in the nature of the organisation's operations and/or performance, which rendered a 'before and after' comparison inappropriate.

Impacts on employees 4

HPWPs can have direct effects on employee or HR outcomes (for example job satisfaction, absence/turnover, sickness/injury and well-being) (Boselie et al, 2005). The conceptual model illustrated in Chapter 2 provides an overview of the potential outcomes for employees. This chapter first reviews the major research evidence on the impact of HPWPs on employees, then presents the case study findings and finally analyses them against four theoretical frameworks to identify the reasons for the impact of HPWPs on employees.

Employee outcomes

In analysing the outcomes of HPWPs, it is important to consider both managers' and employees' perceptions as of equal importance, since new HR practices have sometimes been shown to benefit organisations at the expense of employees (Ramsay et al, 2000). This consists of a 'labour process' view of the impact of new forms of work organisation on worker outcomes:

... to the extent that employees enjoy benefits, these take the form of minor gains in discretion, granted as a means to gain compliance with managerial aims, which are far outweighed by work intensification, insecurity and stress. (Ramsay et al, 2000)

Boxall and Macky (2009) also note how high involvement work practices which increase employee autonomy, develop employee skills and produce greater financial rewards for employees increase job satisfaction, but that the intensification of work and weight of greater responsibilities in leaner organisations can ultimately cause stresses and strains (Boxall and Macky, 2009, p. 268). Nishii et al (2008) also comment that the perceived motivations for introducing HPWPs can affect employee job satisfaction. Where employees perceive the purpose as one of improving quality or employee well-being, this had a positive impact on job satisfaction. Where the perception is of cost-cutting or increased control over employees, this has a negative effect on job satisfaction.

Employers may also face some trade-offs when implementing practices such as devolved decision-making or information sharing. Uncertainty and principal-agent problems of aligning the interests of all staff may be created by decentralisation, and there will be additional time and infrastructure costs arising from information sharing which need to be recouped through greater overall organisational efficiency, productivity or other performance measures (Zoghi et al, 2010). This raises the questions of how HPWPs can be selected and introduced in a way which creates 'mutual gains' for employees and organisations alike.

Reviewing the evidence provided mixed results for the impact of innovative work organisation on employee outcomes. A recent Eurofound report states that:

The conditions creating job satisfaction for workers (such as high levels of autonomy and involvement, increased responsibilities and task complexity, flexibility and added learning possibilities) are the same conditions creating strains (such as increased levels of stress and work pressure, greater workloads, job insecurity and poorer work–life balance). (Eurofound, 2011a, pp. 24–25)

Clearly, the method of implementation and assuring an appropriate balance between seeking organisational benefits and benefits for employees is critical to ensuring that mutually beneficial results are generated.

Providing employees with the autonomy to control their own work is linked to psychological and physical health and, by extension, to increased productivity through lower absenteeism and sickness rates (Chandola, 2010; cited in Gallie, 2011). The intrinsic rewards derived from HPWPs such as teamwork and task variety can lead to higher levels of job satisfaction and employee commitment (MacDuffie and Pil, 1997; cited in Eurofound, 2009a).

Analysis of the European Company Survey 2009 (Eurofound, 2011b) found positive statistical associations between the number of HPWPs in place and reduced problems with employee absence and motivation, supporting the suggestion that there are positive links between HPWPs and employee performance outcomes (Eurofound, 2011b, p. 36) and the more practices that are implemented, the better the outcomes.

Evidence from the European Working Conditions Survey (EWCS) 2005 showed that the proportion of employees who are 'satisfied or very satisfied with the working conditions in their main paid job' is higher in discretionary learning forms of work organisation (89%) and traditional forms (83%) than in the lean production forms (79%) and Taylorist forms (70%) (Eurofound, 2009a). Eurofound (2003) also found that employees in work described as 'constrained'(characterised by an absence of autonomy, the inability to discuss work or work organisation and a lack of demand in the nature of the work) expressed the greatest dissatisfaction with work and feelings of over-qualification compared with workers employed in activities classified as autonomous, flexible or automated. Italian research conducted in a manufacturing setting found that working conditions for employees were found to be improved following the introduction of flexible work organisation and training (Delsoldato and Pini, 2006; cited in Eurofound, 2011a).

There may also be longer term benefits for employees from experiencing HPWPs. New forms of work organisation have the potential to:

increase the employability of workers through multi-skilling, and the acquisition of higher competencies in problem solving, communication and teamworking will help labour market adaptation ...

(Eurofound, 2007, p. 5)

Adoption of innovations in HR management have also been found to change the structure of desired qualifications – which favours qualified employees, increasing the demand for skilled labour – due to greater use of multi-tasking and emphasis on 'initiative, creativity and social competences' (Eurofound, 2011a, p. 24). This could potentially benefit workers through the additional positive effects of acquiring skills through lifelong learning as higher qualified workers typically have better outcomes on a range of quality of life indicators including health, life expectancy and income.

A major source of helpful insights into the impact of the different forms of work organisation on different measures of employee health and well-being comes from the series of surveys developed by Eurofound on employee working conditions. The adoption of discretionary learning forms of work organisation, compared more conventional forms, is repeatedly found to result in lower work intensity, lower levels of exposure to work-related risks, better work–life balance, greater job security, and greater satisfaction with working conditions and quality of working life (Eurofound, 2009a). In contrast, analysis of EWCS 2005 shows that employees' health or safety is regarded as at risk because of work by more than a third of employees experiencing Taylorist forms and lean production forms of work organisation. Just under a fifth of employees experiencing discretionary learning forms of work organisation hold this view (Eurofound, 2009, p. 35).

Further analysis shows that risks to employee health are found to be most acute when high work pressures are combined with low levels of employee autonomy (Karasek and Theorell, 1990; cited in Gallie, 2011). This is consistent with longitudinal studies which have found that high work pressures increase the risks of coronary disease and mortality (Johnson and Johannson, 1991; Theorell and Karasek, 1996; Marmot, 2004, 2010; Theorell, 2007; all cited in Gallie,

2011). An examination of evidence from EWCS 2005 on work intensity shows that working at very high speed is more common in Taylorist forms of work organisation (46% of employees) than in the lean production forms (39%), discretionary learning forms (18%) and traditional forms (16%) of work organisation. Working to tight deadlines and having insufficient time to perform work is more common in lean production models (Eurofound, 2009a, p. 37).

Some risks of negative effects of HPWPs on employees have been found by numerous European studies including three Danish projects cited in Eurofound (2011a, p. 22):

- 'New sources of stress?' Danish Association of Lawyers and Economists (DJØF, 2004);
- 'Lean production without stress' National Research Centre for the Working Environment (NFA), Technical University of Denmark and Aalborg University;
- 'Knowledge and stress' NFA (National Research Centre for the Working Environment), Technical University of Denmark, Aalborg University and Copenhagen Business School.

The new forms of work organisation bring new risks, which are characteristic of the intensification of work (Eurofound, 2003). These effects have been associated with increased levels of multi-tasking, stress and skills-biased workforces. Although work intensity is typically associated with worsened working conditions, where employees are able to cope with work intensity, they can derive a source of pleasure from it (Eurofound, 2003). However, Eurofound (2009b) reported that high work intensity lowers the probability of work being sustainable over the long term, with some 47% of employees responding to EWCS 2005 stating that they would be unable to do the same job when they reached 60 years old.

Higher work pressures also increase the likelihood of having accidents at work (Notelaers et al, 2010; cited in Eurofound, 2011a). Based on the results from ECWS 2005, it is possible to examine the relationship between the different forms of work organisation on the physical risks employees must take in the course of their work. All risk factors (measured on exposure to ergonomic risks, ambient risks, and chemical, biological and radiation risks) are lower in discretionary learning forms of work organisation than in lean production models. For example, ergonomic risk factors (defined through exposure to tiring or painful positions, carrying or moving heavy objects, standing or walking at work, repetitive hand or arm movements and vibrations from hand tools or machinery) are found to be higher for employees working in Taylorist forms of work organisation and less so in lean production forms than in discretionary learning and traditional forms. For example, some 47% of employees in Taylorist work settings stated their job involves tiring or painful positions half or more of the time compared to 36% in lean production, 23% in traditional settings and almost 19% in the discretionary learning form (Eurofound, 2009a, p. 34).

Equally significant differences are observed in the level of exposure to 'ambient risks' (defined as exposure to loud noises and to high or low temperatures) and the different forms of work organisation. There is a higher level of exposure in the Taylorist and lean production forms; for example, some 47% of employees in Taylorist settings and 37% in lean production forms reported exposure to loud noises, compared to 14% in discretionary learning settings. Exposure to low temperatures is more frequent in lean production than in the Taylorist forms, in contrast with exposure to loud noises or high temperatures (Eurofound, 2009a, p. 34). Eurofound (2003) also observes that if flexibility in working hours is organised to serve production schedules, this is often to the detriment of the quality of life at work for the employee through generating stress at work through 'unexpected interruptions' or insufficient time to complete work. These stresses 'will be expressed in terms of impaired health' (Eurofound, 2003, p. 51).
Some studies have investigated the impact of specific HPWPs on worker outcomes. Mohr and Zogi (2006; cited in OECD, 2010) used the findings of the Workplace and Employee Survey (WES) from 1999 to 2001 to examine whether job enrichment increased job satisfaction and found that employees participating in HPWPs such as suggestion schemes, information sharing, task teams and training had increased job satisfaction. Kalmi and Kauhanen (2008) using the Finnish 2003 Quality of Work Life Survey conducted a similar analysis using work intensity, task discretion, job security, stress and job satisfaction as employee outcomes of work organisation such as working in self-managed teams or traditional teams, information sharing, and participating in training and incentive pay systems. They found that information sharing had a positive effect no matter what outcome was considered and that self-managed teams and training were associated with higher task discretion, higher earnings and greater job satisfaction. Training was positively associated with task discretion and earnings.

Flexibility in working time may be valuable as there is some evidence that other innovations in HR practices can lead to increased job strain and the intrusion of work into home life. White et al (2003) found that some HPWPs were positively associated with 'negative job-to-home spillover', meaning that work commitments encroach on family time. However, they also found that the use of flexible working practices can in some circumstances mitigate this effect. Organisations implementing HPWP typically adopt flexible working policies in order to foster the levels of employee motivation necessary for HPWP to be successful (Osterman, 1995; cited in Eurofound, 2011b). Garg and Rastogi (2006, p. 579) similarly found that innovation in workplaces often requires flexibility to be introduced into job profiles. They state that flexible schedules, compressed working, job sharing, and telecommuting must be permitted within organisations to 'make optimal use of time and labour'.

HPWPs such as performance-related pay and target output measures can often result in greater work pressures, heavier workloads, longer working hours, less job satisfaction and more conflict between work and home lives, particularly if 'performance pressures are internalised as their own' by workers (BIBB, 2010; cited in Eurofound, 2011a, p. 23). Research by the Organisation for Economic Co-operation and Development (OECD) based on the EWCS 2005 found that countries with higher proportions of part-time workers and fixed terms contracts had lower job complexity and that 'precarious' work favoured routine jobs with fewer learning opportunities (OECD, 2010).

Impact of HPWPs on employees: evidence from the case studies

Table 6 summarises the impacts on employees of the different innovations introduced in the 13 case studies. The most common employee outcomes from the HPWPs implemented were:

- increases in job satisfaction and motivation;
- initial and small scale labour turnover caused by implementation of the innovation;
- reduction or intensification of work pressures and work control;
- typically improvements in employee work–life balance and working conditions.

			Type of	impact		
Country	Case study	Job satisfaction	Labour turnover	Staff absences	Enhanced motivation	
BE	Bombardier	Increased due to job enrichment; challenging work, greater task variety, responsibility and autonomy.		No impact	Improved through job enrichment and improved job security.	
DE	Lufthansa	Increased as workplace improvement visible; increased autonomy.		No direct impact	Increased due to greater responsibilities and new skill development.	
DK	Radiometer	Task variety, job rotation, autonomy and decision- making authority produce positive job satisfaction scores.	High turnover (50% of employees replaced in last eight years). Those unable to adjust left. Turnover increased from 3.7% to 3.9% in last two years.	No impact	No information	
ES	Kellogg	No direct impact on experience of job content.	Turnover of 5–10%	No information	No direct impact	
FI	Care home	Evidence of negative impact as nurses viewed activities of ward hostesses as diminishing their opportunities for social contact with residents. Meaningful work for nurse hostesses.	No impact	No impact	No information	
FR	FAVI	Increased due to autonomy, improved equipment quality, and proximity to clients.	Generally low; initially some turnover among middle managers due to loss of personal authority.	No information	Increased due to autonomy compensating for limited progression opportunities due to few hierarchical layers; enhanced training and skill variation.	
IE	Abbott	Employee satisfaction index increased.		No information	Increased trust and support had positive impact on motivation.	
IT	Elica	Meaningful work (job rotation and cross-functional working; autonomy in decision-making) experienced by 98% of staff; 99% proud to work for company.	Substantial decrease from high levels. Matrix structure – some turnover as result of structural change; managers welcomed their departure as not seen to fit with new company philosophy.	Sickness absence decreased from 5–6% to 3%. Rate of absenteeism lowest in sector in Italy. Workplace accidents and injuries reduced from 2% to 0% over past five years.	Increased due to opportunity to challenge stages in production process; and increased control through flexible working arrangements.	
NL	Rabobank	Overall increased. Satisfaction lowest in youngest age groups (this group works less at home and more outside regular office hours). Increased individualism and lower social contact negatively impacted satisfaction.	Highest in youngest age groups as difficult for them to build a social/professional network.	Marginally increased (0.3%). Frequency of absence declined but length of absence increased.	No information	
PL	Volkswagen Poznań	Less monotonous tasks; job rotation, lower physical strain for older employees.		Lower staff absences (fell from 3.2% to 2.5%); fewer doctor visits. Unexpected impact of staff coming to work when sick due to monetary reward for attendance.	Increased for workers 50+ as improved job security.	
РТ	ROFF		Low; longer job tenure compared with sector average.	No information	No information	

Table 6: Impact of HPWPs on employees

			Type of impact					
Country	Case study	Job satisfaction	Labour turnover	Staff absences	Enhanced motivation			
SI	Retail group	Employees satisfied with changes; improved working environment; some greater task variety.	No impact	Work injuries reduced, sickness absence decreased and produced substantial savings.	Opportunities to make suggestions has improved motivation.			
UK	NUH	No direct effects	Some attrition of ward managers less able to implement productive ward programme. Generally no impact.	Declined; improved data collection helped managers address issues earlier (new trust policy implemented at similar time as productive ward programme).	No direct effects			

Job satisfaction, labour turnover and motivation

The high performance work practices that commonly increased job satisfaction in the case studies were task variety, responsibilities, autonomy and decision-making authority, reflecting the findings of Boxall and Macky (2009) and Eurofound. The case studies also supported, to a certain extent, evidence from Nishii et al (2008) that motivations for implementing HPWPs linked to quality and employee well-being had a positive impact on job satisfaction. Innovations such as teamworking (Bombardier, FAVI) and flexible working arrangements (Rabobank, Volkswagen Poznań) introduced to improve production and service quality increased job satisfaction. The innovations introduced to improve employee well-being through a focus on work–life balance, health and lifestyle (Abbott, Slovenian retail group, Volkswagen Poznań) also increased job satisfaction. There was no link in the case study evidence between impact on job satisfaction and cost reduction as a motivation for implementing the innovation.

Job satisfaction was negatively affected at two case study organisations (Finnish care home – for nurses group only; Rabobank). A common factor between these HPWPs was the impact on social contact at work. Nurses in the Finnish care home perceived they had fewer opportunities for social contact with the residents they cared for as a result of the innovation, while the flexible working introduced at Rabobank increased individualism and reduced the level of social contact employees had with their colleagues. Equally, in the Rabobank case study, labour turnover was highest among the newer employees who found it difficult to establish a social and professional network due to the flexible working arrangements. This illustrates the importance of social interaction at work and its influence on job satisfaction and consequently retention. Other cases paid particular attention to creating a sense of identification with and effective commitment to the organisation in recognition of the impact that teleworking could have on employees (ROFF).

Linked to this is the evidence in the case studies (Elica, FAVI, NUH, Radiometer) of the initial implementation of innovations in work organisation resulting in those threatened by the innovation leaving the company. The HPWPs that substantially changed job roles (Elica, FAVI, Radiometer), or placed new responsibilities on individuals (NUH), resulted in those unable to adjust to the change leaving the organisation.

Employee motivation was improved by those innovations which provided job enrichment, greater responsibility and autonomy, skill variety and development, enhanced training, increased trust and organisational support, enhanced job security and opportunities for suggestions or challenge (Abbott, Bombardier, Elica, FAVI, Lufthansa, Slovenian retail group, Volkswagen Poznań). There was again no link between motivation and cost reduction being a driver for implementation.

Table 7 summarises the impact of HPWPs on well-being and working conditions.

Country	Case study	Job strain	Work control	Work–life balance/ well-being	Discipline/ grievances	Working conditions
BE	Bombardier	Workload increased; targets tightened; increased stress; lack of support network when taking difficult decisions.	Work pace and task variety increased, greater autonomy.	Improved due to collegiality and better team management of absence.		Health and safety and environment improvements.
DE	Lufthansa	Employee perception that they had to work faster due to stronger performance orientation. Strained relationships with colleagues due to internal pressure to achieve targets.	Work pace increased			Investment in new tools; availability of materials improved; better light, temperature and health and safety measures.
DK	Radiometer	Rising stress indicators; continued work pressure; increased workload.	High degree of management control	Pressure placed on existing flexible working arrangements due to interdependence within teams.		
ES	Kellogg	Responsibility of individuals to manage working time to avoid work intensification.	Choice of working time/location offers increased work control.	Improved through telework and working time flexibility.		Kitchen facilities improved.
FI	Care home	Nurses' ability to focus on core tasks has reduced stress levels.	Nurses have more time to focus on core job tasks.			Good working atmosphere reported on ward.
FR	FAVI	Increased work intensification but autonomy, flexibility and improved communication helped combat work stresses. Fatigue and repetition improved through multi- tasking.	Increased autonomy and skill discretion.			Improvements in health and safety measures.
IE	Abbott	Intensive work patterns continued but flexible working provided greater flexibility to cope with these pressures; additional time-off granted in return for extra efforts.		Increase in perception following pilot year that managers encourage work–life balance of 20%.		
IT	Elica	World Class Manufacturing (WCM) – reduced job strains due to opportunities to make suggestions to reduce unnecessary physical exertions in production process.	Great autonomy in decision-making has enhanced responsibilities for key account managers. Matrix structure – increased skill discretion, responsibilities, autonomy.	Supplementary agreement offered opportunities to improve quality of life.		WCM – employee suggestions improved health and safety; levels of work comfort increased.
NL	Rabobank	Increase in work pressure – more overtime; blurring of work and home boundaries.	Line managers lost employee control; change in job content for secretaries resulted in loss of status.	Activity related working enabled better work–life balance. Some blurring of work and home boundaries for older workers.		
PL	Volkswagen Poznań	Lower physical demands, less work strain due to ergonomic design.	Lighter tasks given to older workers; greater skill discretion from job rotation.	Positive impact due to lower physical strains.		Improvements in health and safety measures; ergonomic work design made production lines more suited to capabilities of employees.

Table 7: Impact of HPWPs on well-being and working conditions

Country	Case study	Job strain	Work control	Work–life balance/ well-being	Discipline/ grievances	Working conditions
РТ	ROFF		High levels of autonomy and responsibility; adjustments to working time schedule to suit client requirements.			
SI	Retail group	Modern technology eased work strains; however smaller warehouse resulted in more heavy lifting.	Increased workload, increased work pace.	Better quality leisure time through company provision of activities; improved physical and psychological well- being.		Store refurbishment improves lighting, ventilation, temperature. Stricter health and safety measures.
UK	NUH		Greater division of tasks; greater responsibility for own work areas.	Impact on larger wards evident. Indirect effect on fewer staff working late (or missing breaks).		Improvements through work space redesign and changes to storage and ordering.

There was evidence in the case studies (Bombardier, Lufthansa, Rabobank, Radiometer) that the HPWPs that improved autonomy, task variety, flexibility and decision-making authority also increased job strain through increasing work pressure, workloads and work pace. In the HPWPs involving lean management (Lufthansa, NUH, Radiometer, Bombardier), there was evidence that stronger performance and target orientation resulted in greater workloads, work pace and pressure (Lufthansa).

In the Rabobank case study there was also evidence that flexibility in working time resulted in increased work pressure due to the blurring of home and work boundaries. This supports findings by White et al (2003) about the 'negative job-to-home spillover'. However, other case studies (Abbott, FAVI) also showed that flexible working practices in some circumstances mitigated the effect of increasing job strain through providing the opportunity to use time and working methods more efficiently; this was also emphasised by Garg and Rastogi (2006).

The impacts of the innovations on work–life balance and physical well-being were positive in the majority of case studies where evidence was available (Abbott, Bombardier, Elica, Kellogg, NUH, Slovenian retail group, Volkswagen Poznań). Flexible working arrangements and better absence management were the key drivers behind improvements to work–life balance, while improved job design reducing physical strain and opportunities to participate in subsidised leisure activities were seen to improve health and the ability to cope with job demands.

The organisations implementing HPWPs such as teamworking, lean management and innovation linked to employee well-being also made improvements to health and safety measures (Bombardier, Elica, FAVI, Lufthansa, Slovenian retail group, Volkswagen Poznań). These improvements were made where employees had increased work control as a result of the innovation. Six of the case studies also made physical improvements to working environments for employees as part of the innovation (Elica, Kellogg, Lufthansa, NUH, Slovenian retail group, Volkswagen Poznań). At three of these case studies (Elica, Slovenian retail group, Volkswagen Poznań), work strain reduced due to the improvement to the workplace/work station.

In addition to the personal impact of HPWPs experienced by employees, there was also evidence of some behavioural change which contributed to shifts in organisational performance. These impacts are summarised in Table 8.

Country	Case study	Increase in no. of suggestions	Increased flexibility	Increased knowledge- sharing/ idea generation	Attitudes to risk/failure	Willingness to experiment and engage with change	Organisation commitment
BE	Bombardier		Employees multi- skilled as less task division.	Increased staff feedback on ideas for change.			Increased due to more assigned responsibilities.
DE	Lufthansa	No impact	Increased due to cross-qualification; new competences acquired enable replacement of colleagues on work tasks; assumed new responsibilities	Increased through Lean Academy		Positive impact on willingness to engage with change.	Improved punctuality, reliability and discipline in team.
DK	Radiometer	Kaizen events provided opportunities for creativity and suggestions for improvement. Those in U-cells had fewer opportunities for creativity.	Increased through job rotation and skill development.	Increased through job rotation.		Increased enthusiasm, ownership and commitment to new suggestion implementation.	
ES	Kellogg	Increased number of employees requesting changes.	Increased through flexible working arrangements; better suited to employee commitments.	Increased through working alongside different colleagues in flexible office environment; increased dialogue.			Sense of pride in employer identified. Flexible benefits scheme seen as visible effort from company to meet employee expectations.
FI	Care home	Increased from ward hostesses; some censure of suggestions based on suitability.		Increased idea generation from ward hostesses.	Negative effect as nurses feared increased risk due to ward hostesses interfering in tasks of qualified staff.		
FR	FAVI	Increased due to rewards for team with greatest number of suggestions.	Increased due to operators multi- tasking and working where demand requires it. Increased reactivity to client requirement.	Increased number of suggestions discussed with leaders.	Closer communication and multi- function teams highlighted risks early allowing time for resolution.	Employees at risk following innovation less willing to engage with change.	High level of commitment; willingness to work extra hours to fill unexpected orders.
IE	Abbott		Increased flexibility in method and location of work; for many employees this flexibility existed before innovation.			Dependent on managers' attitude – some employees still expected to be present in office.	
IT	Elica	WCM – formalisation of submission of suggestions reduced quantity but increased quality.	Supplementary agreement – working time flexibility increased engagement. Matrix structure – increased flexibility in teams; created multiple and changing responsibilities.	Increased knowledge-sharing has improved ability to respond to client needs. Job rotation enabled employees to understand others' goals and objectives; increased reception to colleagues' suggestions.		Initially employees suspicious of innovation but experience of benefits removed doubt. Increase in willingness to take on larger projects and greater responsibility.	

Table 8: Behavioural impact of HR innovations in organisations

Work organisation and innovation

Country	Case study	Increase in no. of suggestions	Increased flexibility	Increased knowledge- sharing/ idea generation	Attitudes to risk/failure	Willingness to experiment and engage with change	Organisation commitment
NL	Rabobank		Increased; helped with stress prevention; working day times extended and use of information communication technology (ICT) increased flexibility.	Increased through ICT use; increased access to information and virtual working. However, no structured overview of all available information in company.		Only 20% of staff fully engage with all ICT tools due to unfamiliarity.	Increase in proportion of staff who feel 'involved in the organisation'.
PL	Volkswagen Poznań	Increased opportunities to submit suggestions.	Increased through job rotation.	Better involvement of staff has offered new opportunities to make use of knowledge and experience.		Greater willingness from employees to be initiators of change.	Employee loyalty increased due to certainty of prolonged employment.
РТ	ROFF	Improved due to increased employee influence.	Increased flexible working better suited employee commitments.	Strong collaborative working and team spirit enabled employees to share best practice, solve problems and promote mutual learning and development.		Provisions for employees to experiment and research technological solutions fostered creativity and willingness to change.	High level of commitment – employees trusted and reciprocate through increased contribution.
SI	Retail group	Increased due to management implementation of suggestions.		Increased willingness to share ideas and learn.		Increased - employees taking part in all available medical exams.	
UK	NUH	Increased due to management implementation of suggestions and increased opportunity for discussion.		Positive impact from training; facilitated problem sharing and collective problem- solving.		Delegated responsibility for changes ensured consistency in application (rather than only when management was present). Challenge of 'old habits' occurred.	

Table 8: Behavioural impact of HR innovations in organisations (continued)

Country	Case study	Organisational citizenship behaviour (OCB)	Attitudes towards performance management	Increased learning opportunities	Communication/ Dialogue	Culture
BE	Bombardier	Increased engagement and collegiality. Fear of peer pressure. Some friction in self managing teams.	Positive	Fewer development opportunities.	Improvement in direct communication with management; management more accessible; fewer communication steps.	
DE	Lufthansa	Enhanced feelings of personal responsibility; increased trust and cooperation within team.	Feelings of surveillance increased due to regular discussion of key performance indicators (KPIs).	LEAN led to new qualification requirements.	Increased; bottom-up process and feedback gained importance. Greater informal dialogue between colleagues about work processes.	
DK	Radiometer	Job rotation developed professional and social bonds.		Formal learning events and informal learning develops competencies.	Feedback lacks clear explanation.	

Country	Case study	Organisational citizenship behaviour (OCB)	Attitudes towards performance management	Increased learning opportunities	Communication/ Dialogue	Culture
ES	Kellogg	Increased trust due to new office arrangements; choice of compensation flexibility improves motivation and organisational commitment/identification. Concierge services and kitchen facilities increase perceived organisational support and enhance conscientiousness.	Shift in focus away from presenteeism towards output measurement.		Open and transparent regarding working time and work–life responsibilities. Removal of managers' offices enabled more fluid internal communication.	
FI	Care home					
FR	FAVI	Willingness to work beyond core hours; colleague help is reciprocal; collective identity.	Monitoring has been abandoned; greater focus on trust; monitor quality of own work.	Opportunities for managers to become multi-skilled across functions.	Communication paths more efficient as operators closer to functional representatives and accelerated decision making.	
IE	Abbott			Social and professional contact opportunities offered by training.	Lack of consistency in communication of programme especially to new starters.	New flexible culture integrated with autonomy
IT	Elica	Supplementary agreement – viewed as evidence of management concern for staff well-being and recognition of employee value. Increased engagement. Employees more interested in job due to creative opportunities. Matrix structure – job rotation and cross-functional working improved altruism.	Number of high performers in last three years have increased by over 10%	WCM – developed employee confidence which in turn increased number of suggestions.	WCM – greater face to face communication about targets. Matrix structure – cross- functionality improved communication between teams. Greater use of informal communication with management.	Feeling of community generated by WCM created participatory culture; ongoing dialogue through feedback mechanisms and training and guidance. Decentralised teamworking rather than hierarchical structure.
NL	Rabobank	Increased cooperation between departments. Negative impact for employees yet to build up own network in organisation due to increased individualism.		Increase in virtual training offerings.	Lack of physical colocation with team members is threat to social contact. New focus on communication through ICT.	Led to transformation in leadership style with greater emphasis on trust. Removal of own work spaces and regular social contact changed culture.
PL	Volkswagen Poznań	Improved altruism through understanding of colleagues' capabilities and management recognition of employee capabilities.				Mutual trust, cooperation and collaboration.
PT	ROFF	Access to managers, contact on foreign assignments, flexible working policy and adoption of employee suggestions reinforce perception of support, and enhance commitment.		Emphasis placed on induction of new employees to improve integration into company culture.	Headcount growth has caused difficulties in accessing information as there is lack of clarity on where information is available.	

Country	Case study	Organisational citizenship behaviour (OCB)	Attitudes towards performance management	Increased learning opportunities	Communication/ Dialogue	Culture
SI	Retail group	Provision of new equipment increased perception of organisational support.		Training to counteract tendency to rush work at expense of safety.	Improved information flow from HR to employees.	No impact
UK	NUH	Delegation of implementation responsibilities increased active engagement; increased willingness to make suggestions and go beyond usual duties to implement changes.	Increased visibility and clarity of performance data; more localised performance data; improved collection of 'positive' performance data (that is, patient experience; staff satisfaction).	Delegating module leadership responsibilities increased confidence and abilities; improved promotion prospects.	Indirectly impacted improvement in communication on patient handovers.	Movement towards employee involvement; capturing employee ideas and removing hierarchies.

Employee behavioural outcomes

The implementation of lean management principles (NUH, Radiometer), teamworking (FAVI), employee well-being initiatives (Slovenian retail group, Volkswagen Poznań) and employee involvement (Elica, ROFF) provided particular evidence of an increase in the number of suggestions from employees. Commonly, where the number of suggestions increased there was evidence of management implementing employee ideas, which suggests that when employees perceive they have influence they are more likely to increase their involvement. A number of the organisations moved towards multi-skilling their workforces and job rotation (Bombardier, Elica, FAVI, Lufthansa, Radiometer, Volkswagen Poznań), which provided increased flexibility within teams and enriched jobs. In one case study, job rotation also fostered a better understanding between teams of different goals and work objectives, making employees more receptive to suggestions from colleagues for improvement (Elica). Flexibility, which allowed employees to better fit work around personal commitments, was evident in the case studies from Abbott, Elica, Kellogg, Rabobank and ROFF.

There was evidence in almost all case studies, across the different innovations, of the HPWPs increasing knowledgesharing and idea generation. There was also evidence of greater collective problem sharing and solving. In the NUH case study, collective problem-solving generally had a positive effect on service quality and resulted in reduced patient complaints. This builds on the conclusion by Janssen (2004) that employee participation increases the likelihood of employees working through problems associated with the innovation.

There was little evidence in the case studies of HPWPs directly affecting employee attitudes to risks or failure, but enhanced willingness to make suggestions implies willingness to take a risk by expressing ideas, even if they are not implemented. However, in the FAVI case study, one positive impact was noted of improved communication and of multifunction teams being better able to address production risks. This also helped create a more efficient approach to customer queries.

The evidence from the case studies on the willingness of employees to experiment and engage with change was varied. In the FAVI case study, employees threatened by the HPWP (middle managers whose role changed as a result of the team structure) perhaps understandably showed less willingness to engage with the innovation and this fuelled the exit of some of these employees from the organisation. In the Abbott case study, the willingness of employees to engage with the flexible working innovation was also dependent on the attitudes of individual line managers, with some still showing preference for the previous presenteeism culture. Where the innovation involves greater technological change (Rabobank – shift towards greater use of ICT), there is evidence of challenges around getting staff to engage with the change when they are unfamiliar with the new tools or methods and, in the NUH case study, of employee involvement and delegation of responsibility resulting in greater consistency in application of the innovation.

Innovation involving lean management (Bombardier, Lufthansa) was positively associated with an increase in organisational commitment, with employees showing greater commitment as a result of job enrichment and greater reliance on team cooperation (punctuality, discipline and reliability). HPWPs that placed greater emphasis on trust towards employees also showed evidence of fostering greater organisational commitment (FAVI, Lufthansa, Rabobank, ROFF, Volkswagen Poznań). The HPWPs such as teamworking (Bombardier, FAVI), flexible working (Kellogg, Rabobank) and employee involvement (Elica, ROFF) also increased organisational citizenship behaviours through reinforcing the perception of employer support, which in turn encouraged employees to increase their contribution or cooperation. The Bombardier case study raised the issue of peer pressure induced through teamworking and frictions occurring in self-managing teams. However, teamworking in the FAVI case study was also positively associated with reciprocal behaviours.

Teamworking (Bombardier, FAVI), flexible working (Kellogg), employee involvement and organisational redesign (Elica) had a positive impact on attitudes towards performance management. Lean manufacturing principles, however, had more of a mixed effect; there were positive results in the Elica and NUH case studies, but the enhanced focus on KPIs in the Lufthansa case study, as a result of lean management, increased the feeling of surveillance for employees.

The case studies support the findings by Chen and Huang (2009) on training investment in order to develop innovations. In particular lean management (Lufthansa, NUH, Radiometer) and teamworking (FAVI) provided development opportunities for employees to acquire new skills and training which also enhanced knowledge-sharing and idea generation.

Less formal communication was also a common feature linked to the introduction of HPWPs; communication paths became more efficient (Bombardier, Elica, FAVI, Kellogg, Slovenian retail group) and resulted in accelerated decisionmaking, which in turn had positive impacts on service quality. New participatory cultures were also fostered by increases in mutual trust and cooperation and employee involvement (Abbott, Elica, NUH, Rabobank, Volkswagen Poznań). The removal of hierarchies (Elica, NUH) and decentralised teamworking also helped generate participatory cultures.

Explaining the impacts of HPWPs on employee behaviour

Much of the research which seeks to model connections between innovations in HRM practices and outcomes for employees and organisations encompasses the following two elements (Teece et al, 1997; Leede and Looise, 2003, p. 114):

- Formal structures or processes which constitute practices that are core to enabling innovation to take place (for example, teamworking). Within the conceptual framework, these are the high performance work practices.
- Principles which are either formally or informally embedded within the organisation related to the management of change, approaches to risk, organisational leadership and organisational culture. These constitute the internal facilitating conditions embedded within the conceptual framework.

These two elements are necessary, as possessing a human capital advantage through high quality and talented staff alone is not sufficient to enable companies to attain higher levels of performance. Staff talents need to be mobilised to release their discretionary effort and this requires embedding of practices to support the complex process of performance improvement through managerial support. The mechanisms by which HRM practices lead to these higher levels of performance for organisations, and better quality and experience of work for employees, are best explained by models that lend themselves to explaining individual behaviour in the workplace.

The discussion which follows focuses on summarising some of the main theoretical principles that have been used to link HR practices to changes in employee attitudes and behaviour which may benefit them and/or their employer and

which underpin the causal connections implied in the conceptual framework. These principles are then used to analyse the reasons why HPWPs resulted in the employee behaviour changes reported in each case study.

Four main different theoretical perspectives are selected which have merit in explaining why changes in HR practices might affect organisational performance. These are based primarily on psychological models of employee behaviour which are most suitable for explaining effects on individuals in a workplace context. These are:

- ability, motivation and opportunities (AMO) model;
- organisational citizenship behaviour (OCB) model;
- job characteristics model (JCM);
- job demands and control (JDC) model.

Ability, motivation and opportunity model

High performance work practices have commonly been explained through the AMO model first developed by Bailey (1993). This model proposes that HPWPs increase the discretionary effort of employees through increasing employees' ability to do their job, motivation to go beyond their job descriptions and the opportunities to exert discretionary effort. The ability dimension of the model ensures that employees have the appropriate skill levels to make use of the opportunity to use their discretionary effort through participatory work practices. Employees also need the motivation to use the discretionary effort, and opportunity refers to involvement in the company's decision-making process (Appelbaum et al, 2000).

Organisational citizenship behaviour model

The OCB model also links employee discretionary behaviour and its impact to organisational performance. Organisational citizenship behaviours are:

- discretionary: that is, the employee can choose whether or not to demonstrate it (it is 'extra-role' behaviour);
- not an enforceable requirement of the role or the job description;
- not directly or explicitly recognised by the formal reward system;
- those that promote the effective functioning of the organisation (Organ, 1988, p. 4; cited in Coyle-Shapiro et al, 2004).

There are five specific dimensions of OCBs:

- *Altruism* helping behaviours such as volunteering to do some of a colleague's work;
- Courtesy behaviours that reduce work-related conflicts which could include simple acts like making coffee for colleagues but also include acts such as warning colleagues of changes to deadlines;
- Conscientiousness behaviours that ensure work quality and productivity is improved or maintained; for example, checking work for errors or getting up early to avoid being late at work during bad weather;
- *Civic virtue* taking an active interest in and contributing to non-essential aspects of work; for example, attending non-essential meetings and also defending the organisation's reputation if criticised by outsiders;
- *Sportsmanship* tolerating adverse working conditions without complaint; for example, dirty working conditions or high work volumes.

Not all of these behaviours necessarily benefit employees and their organisation equally. For example, sportsmanship might inhibit employees from raising legitimate concerns about quality of working life. However, altruism, courtesy and conscientiousness may have the potential to make working life collectively easier and offset other negative outcomes of these behaviours for workers. For the organisation, conscientiousness is likely to improve the quality of work outputs and civic virtue may directly support improved decision-making and innovation through employees making suggestions for rectifying existing problems and taking on additional tasks such as taking part in an exploratory project for a new product or service.

OCBs are founded in psychological contracting theory (for example Rousseau, 1995). This suggests that OCBs can be fostered and encouraged if organisations adopt particular HRM principles and practices that are rooted in social exchange and reciprocity as the underlying explanations for why employees engage in OCB. In essence, this means that employees will demonstrate OCBs if they are treated well by their employer, and have their expectations and employer promises about job content, aspirations and working conditions met (Coyle-Shapiro, 2002). This would include provision of positive organisational support (POS), an umbrella term which covers a number of behaviours usually demonstrated by supervisors, line managers and colleagues including concern for an individual employee's welfare, provision of guidance, feedback on performance and personal development opportunities. Such POS activities could be reinforced through HR practices and processes including training and development, performance management and reward systems.

Job characteristics model

The third relevant model to explain why and how HPWPs might affect employee attitudes, behaviours and outcomes for them and their employers is Hackman and Oldham's (1976) job characteristics model (JCM). This recognises how job characteristics contribute to different psychological states and that the strength of employees' need for growth (that is, challenges and personal development) has a significant moderating effect (Garg and Rastogi, 2006).

The model identifies the five core job characteristics (skill variety, task identity, task significance, autonomy and feedback) that affect three critical psychological states (experienced meaningfulness, experienced responsibility, and knowledge of results). These in turn are accountable for producing increased work satisfaction, internal work motivation and performance, and reduced absence and employee turnover. In broader terms, the model emphasises the importance of communication, problem-solving and learning as processes which can be fostered through application of appropriate HR practices. Notably this means that the processes by which outcomes are achieved can be complicated rather than unidimensional. Making these innovations 'is not seen as a linear process, but as involving a system of interactions between different functions and different players whose experience, knowledge and know-how is mutually reinforcing and cumulative' (Ramstad, 2008).

Job demands and control model

The fourth model seeks to explain levels of stress experienced by staff with reference to the level of demand imposed by the work tasks and how much control or choice the worker has over their tasks (Karasek, 1979). This contributes usefully to our conceptual framework because it focuses directly on a key measure of employee well-being as an outcome of the model.

Job demands include factors such as:

- how often workers are interrupted;
- time pressures;
- incidence of conflicting demands;

- reaction time required;
- pace of work;
- proportion of work performed under pressure;
- amount of work;
- degree of concentration required;
- dependency on other inputs for work speed.

Control refers to how much discretion employees have over the tasks they perform and how they undertake them. It has two subdimensions: skill discretion and decision authority. Skill discretion encompasses task variety, level of repetitiveness, opportunities for creativity and to learn new skills. Decision authority refers to how far employees can make choices about their work, and how far they can influence their own work team and more general company policies.

Analysing the possible combinations of the characteristics of the model yields four types of jobs:

- 1. low demand, low control;
- 2. low demand, high control;
- 3. high demand, high control;
- 4. high demand, low control.

Critics have noted that much attention is given to the negative health effects of high demand, high control jobs such as those of senior managers, but the evidence base overall finds that the last category of high demand, low control jobs – typically occupied by staff in lower grades – has the worst health outcomes (Sisson, 2009). It is evident, however, that the application of HPWPs may have considerable potential to avoid or ameliorate the negative effects of poor quality jobs.

Evidence from the case studies

In seeking to understand the impact of innovations in work organisation on employees, this study can make a contribution by exploring the reasons why employees are motivated to comply with, support or resist organisational change.

Table 9 draws primarily on data from discussions with employees within the case studies where explanations for their responses to innovations are categorised against each of the four theoretical frameworks described by the AMO, OCB, JCM and JDC models (see page 44). These frameworks are not necessarily mutually exclusive in their motivational assumptions but they do differ in focus and emphasis. This offers the potential to capture the mechanisms by which highly diverse work organisations seeking to achieve differing objectives achieve particular results.

Country	Case study	AMO model	OCB model	JCM model	JDC model
BE	Bombardier	Motivation improved through provision of support to acquire new skills and greater sense of responsibility.	Collegiality and peer support enhance individual performance, possibly at risk of high peer pressure.	Greater task variety and team autonomy improves meaningfulness of work through use of different skills and sense of responsibility.	Task variety improves level of skill discretion and decision control; multi-skilling reduces job demands through easier coverage of absence. Greater decision authority improves access to resources. Demands remain high due to work targets.
DE	Lufthansa	More personal development fostered ability and improved motivation, new career paths in training offered opportunities to develop careers.		Experience of meaningful work improved; provision of better feedback on performance.	Heightened autonomy beneficial but some evidence of intensified control through performance monitoring.
DK	Radiometer			Skill variety, job rotation and feedback on performance helpful but lack of explanation of what results mean can impair this. Team autonomy contributes to meaningful work and sense of responsibility.	Production demands are an ongoing source of stress. Levels of management control exerted through lean production can be high.
ES	Kellogg		Choice of compensation flexibility improves motivation and organisational commitment/identification. Concierge services and kitchen facilities increase perceived organisational support and enhance conscientiousness.		Choice of working time/location reduces perceived demands.
FI	Care home			Possible reduction of meaningfulness of work through reduced social contact with patients for nurses. Hostesses experience benefits of undertaking meaningful work.	Nurses able to focus on core job tasks reducing job demands.
FR	FAVI	Autonomy compensates for limited (but available) promotion opportunities in flat organisational structure; provision of training stimulates motivation.	Provision of health and safety equipment creates perception of support; colleagues help each other out.	Autonomy and feedback valued by employees, strong emphasis on creating sense of responsibility. Multiskilling enables task variety.	Multi-skilling reduces repetition and job strain by enabling workers to undertake wider variety of tasks to improve skill discretion and overall job control.
IE	Abbott				Flexible working reduces perceptions of job demands for those with access.
IT	Elica	Opportunities to make suggestions, improved creativity skills through art training have enhanced motivation.	Well-being initiatives have improved perception of organisational support. Job rotation and cross-functional working has improved altruism.	Great autonomy in decision- making has enhanced responsibilities.	Input to suggestion schemes has enhanced opportunities for creativity and overall skill discretion and decision- making authority. Enhanced motivation from improved control through flexible working arrangements.
NL	Rabobank			Some evidence that greater autonomy improves perceptions of responsibility.	Flexible working improves control over work for those able to use it through enhanced decision-making authority, but intensive ICT work still causes some musculoskeletal health problems.

Table 9: Explaining impact of innovations in work organisation on employees*

Work organisation and innovation

Country	Case study	AMO model	OCB model	JCM model	JDC model
PL	Volkswagen Poznań	Opportunities provided for older workers to remain employed improves job security.	Improved altruism through understanding of colleagues' capabilities and perceived organisational support from management monitoring of employee capability.	Improved task variety helps boost variety of skills used.	Enhanced skill discretion from reduced task repetition via job rotation, reduced job demands from improving job design and reducing physical strain for older workers.
PT	ROFF	Flat organisational structure and career development activity provides opportunities for skill development, enhancing motivation.	Access to senior managers, contact on assignments, flexible working policy and adoption of employee suggestions reinforce perceptions of support, mutual altruism and enhance affective commitment to the company.	Flat structure contributes to autonomy and meaningful work, project-based work organisation enhances skill variety.	Flexible working lowers perceptions of job demands but working hours and demands can be intense due to client/market demands.
SI	Retail group	Provision of opportunities to make suggestions has enhanced working environment and improved motivation.	Provision of new equipment enhances perception of organisational support.	Indirect impact on task variety in bakery due to expansion of product range after store refurbishment.	Increased workload has increased job demands but better organisation of work has served to reduce them. Subsidised leisure activities may improve health and ability to cope with job demands. Work intensification in one department as a result of space redesign.
UK	NUH	Provision of career and skills development and opportunities to make suggestions.	Willingness to make suggestions and go beyond usual duties to implement changes.	Enhanced opportunities for responsibility and problem- solving.	Better shift change procedures reduce unpaid overtime. Opportunities to make suggestions about clinical processes have enhanced decision-making control.

* For definitions of the models used, see page 44.

The analysis shows several major trends worthy of discussion.

Provision of autonomy and discretion in how employees perform their work appears to have a prominent place in explaining impact across a number of innovations, although provision of enhanced control over work is a common feature of the AMO, JCM and JDC models.

There is a distinction between the motivational mechanics of innovations aimed at improving employee well-being that are not centrally focused on job content and those which have fundamental implications for the tasks which employees perform. Innovations aimed at offering greater flexibility to staff in terms of working time, patterns and location tend to achieve their impact through the OCB and JDC models by enhancing perceptions that employees care about staff welfare and through increasing control over the timing and location of work (Abbott, Kellogg, Rabobank, ROFF). Innovations aimed at improving production efficiency tended to achieve impact through increasing skill discretion and autonomy by giving greater responsibility and variety of tasks to workers, combined with broader influence on organisational processes following both the JDC model and the ability and opportunity dimensions of the AMO model (Bombardier, Elica, FAVI, Lufthansa, Radiometer, Volkswagen Poznań).

Organisational context and volume of market demands mean that implementing innovations in work organisation aimed at providing enhanced flexibility and discretion does not necessarily offset increased job strain arising from intensified production pressures. Case studies, often those in a manufacturing context, found that increased demands for production efficiency could cause continued pressure on workers (Bombardier, Lufthansa, Radiometer, ROFF). This suggests that managers need to be vigilant in monitoring workloads and not assume that reorganisation of work is a panacea against high work volumes. Previous research evidence illustrates that discretionary learning forms of work organisation are often superior to pure lean production systems, and consequently the methods used and the context in which lean production is implemented are crucial in shaping the overall effects on workers (Eurofound, 2009a). Such effects were not apparent to the same extent in the NUH case study because the implementation of lean production principles offered considerable discretion to staff at ward level and was intended to eliminate inefficiencies in work processes, thus reducing rather than increasing job strain. Concerns about work intensification can apply equally to flexible working systems for white-collar staff where considerable responsibility was placed on individual staff to manage their own working time (Abbott, Kellogg, Rabobank, ROFF).

In addition, there is evidence that improving mutual understanding of the perspectives of co-workers is an important mechanism for enhancing collegiality and altruism (Bombardier, Elica, FAVI, Volkswagen Poznań), and perceptions of enhanced organisational support provided by managers and organisational facilities can enable employees to be more conscientious and focus more closely on their work (Abbott, Kellogg). These features of innovations serve to build a mutual rapport enabling effective cooperation. This analysis does not imply that such characteristics are either unimportant or absent from innovations in other case settings, rather they are likely to be more firmly embedded and institutionalised through the employment cultures in some of the other case sites (Finnish care home, Lufthansa, Radiometer) so the innovations therefore demand less perceived change to workers in these dimensions.

Impacts on organisational performance 5

To convince organisations of the benefits of HPWPs, it is essential to document their impact on organisational performance, as economic arguments are often those of greatest significance to managers. Research evidence (Boselie et al, 2005) has illustrated the impact of HPWPs on a variety of organisational performance indicators including:

- financial outcomes such as profits, sales, market share and accounting measures;
- operational performance outcomes; for example, output measures such as productivity, quality, and efficiency.

This chapter reviews the major research evidence on the impact of HPWPs on organisational performance indicators and then presents the case study findings.

Research evidence

Recent evidence from analysis of the European Company Survey (ECS) 2009 showed that HPWPs such as profitsharing, autonomous teamworking and the take-up of flexible working opportunities by at least a fifth of the workforce are associated with lower employee absence levels and fewer problems with staff motivation. Employee retention problems were also lower where autonomous teamworking and formal employee representation was used (Eurofound, 2011b).

These HR-related outcomes are important due to the influence employee behaviours can have on organisational outcomes (Purcell, 1999; Wood, 1999; Paauwe, 2009). Innovative work practices, including stringent recruitment and selection, autonomous teamwork, flexible job assignments, intensive communication and training achieve higher levels of productivity than more traditional approaches according to a number of studies (Ichniowski et al, 1997; Wood, 1999).

Analysis of the ECS 2009 shows that HPWPs such as training, performance pay, teamworking and flexible working practices have been associated with 'above average' company productivity. It was also found that practices with 'beneficial' links to a 'good economic situation' for the company are training, pay and teamworking practices. The ECS showed that the effects of HPWPs on organisational performance can be achieved through improving employee performance rather than having a direct effect on 'operational and organisational outcomes' (Eurofound, 2011b, p. 2).

This is confirmed in the wider literature dating back to the mid-1990s. The well-known study by Huselid (1995) found evidence that interactions between sets of HPWPs improved company performance. Using survey data from 968 US companies, he found that an increase in one standard deviation in each innovative work practice raised sales by an average of \$27,044 per employee in one year (Huselid, 1995, p. 658).⁴

Meta-analyses and reviews of large numbers of HPWPs and performance studies have also found links between HPWPs and performance (Wood, 1999; Boselie et al, 2005). More broadly, Combs et al (2006) examined the relationship between HR and organisational performance through a meta-analysis of 92 recent studies of this relationship. They found that an increase of one standard deviation in the use of HPWP is associated with a 4.6% increase in return on assets and a 4.4 percentage point decrease in turnover. Similar conclusions are reached by other reviews, including that of Wood and Wall (2007) who found that 19 of 25 studies examined reported some statistically significant positive relationships between HR practices and performance, albeit with small effect sizes.

Combinations of practices including flexible job design, employee involvement, skill development and relating rewards

At today's values this is equivalent to $\notin 20,798$ per year.

to performance have been related to improved productivity in a survey of 398 manufacturing companies in Finland (Pot, 2011). Improvements in workplace organisation and adoption of non-technical innovations have been linked to improved productivity and financial performance in the Netherlands (Pot, 2011).

A study by Black and Lynch (1997; cited in Capelli and Neumark, 2001) using the 1994 US National Employers Survey found that work practices (for example, recruiting strategies) have little relationship to labour productivity at the organisation level unless they are introduced in combinations with other work practices and they found that TQM only impacts performance when a significant number of the workforce is involved in programmes of employee participation. Other studies illustrate the operational benefits of TQM systems. Easton and Jarrell (1998; cited in Capelli and Neumark, 2001) studied the effect of TQM using a measure of the financial performance of publicly listed companies. They compared a sample of companies that had introduced TQM with a sample of similar non-user companies and found that the impact of TQM was better performance, demonstrated through accounting measures and better stock prices. These studies are generally cross-sectional rather than longitudinal, which makes attributing causality to innovations in work organisation impossible. However, the aggregation of results in large-scale surveys from many different organisations may actually diminish the apparent impact that such innovations have in individual organisations and therefore underestimate the potential benefits to individual companies of implementing HPWPs.

The literature also suggests that improved financial performance resulting from the adoption of HPWPs may also enable organisational expansion. Results from the EPOC survey also suggest that companies utilising participatory forms of work organisation report increased employment rates; 34% of workplaces involved in direct participation measures had seen an increase in employment rates over the previous three years compared to 24% among companies that did not use these measures. 'Non-participatory' companies were also more likely to report a fall in employment rates; 35% had reduced numbers compared to 27% among participatory workplaces (Eurofound, 1999).

Overall, increased opportunities for participation and teamworking within European companies may lead to short-term pain for long-term gain in terms of job creation. On balance, longer term employment prospects are likely to be better in those companies that make changes than in those which do not (Sisson, 2009).

Impact of individual HPWPs

Some evidence of positive impacts on organisational outcomes have also been found in analysis of specific HPWPs. Evidence from Sweden, which examined how companies organise work for innovation and growth, showed that organisational success was positively correlated to organisational conditions that promote job satisfaction and work innovation such as job enrichment, job enlargement, participation and autonomy (Eurofound, 2011a, p. 19).

Teamworking

Other evidence shows that teamworking has a positive impact on a company's financial performance and productivity. Analysis of the ECS shows a positive link between adoption of teamworking and management perceptions of financial performance and productivity (Eurofound, 2011b). Analysis of the Workplace Employment Relations Survey (WERS) shows that 59.6% of companies which organised work in teams believed their productivity was above average compared with other establishments in the same industry, compared to 46.6% of companies using other forms of work organisation (Procter and Burridge, 2008). On financial performance, 65.4% of organisations using teamworking scored themselves above average compared with 51% of companies that did not engage in the practice. Devaro (2006) also used survey data on companies' assessment of their financial performance to measure the impact of teamworking. He found the predicted benefit of team production for the median establishment was considerable, with an 8.7 percentage point increase in the probability that financial performance is a lot better than the industry average.

The evidence around the impact of greater autonomy in teamworking is more ambiguous. Procter and Burridge (2008) found that allowing teams to be semi-autonomous produces an additional positive impact on productivity and work quality, but not on financial performance, while Devaro (2006) found no such effect for autonomous teams. This highlights the importance of the definition and level of autonomy adopted. Devaro defined 'autonomous teams' as those who have control over how they perform their work, whereas Procter and Burridge defined 'semi-autonomous teams' as those where members work together and are given responsibility for specific products or services and can jointly determine how the work is performed.

Training

Links have also been found between training and improved individual performance; for example in the semi-conductor industry where investment in training improved the problem-solving skills of machine operators and was found to reduce the number of production defects (Hatch and Dyer, 2004). The same study showed that training can have a strong positive effect on productivity. Company productivity was measured using a production function to estimate the value added per employee, designed to measure productivity rather than profitability to discount impacts beyond companies' control. They found the effect of extensive training was both statistically and substantively significant, representing a gain of over 6% in value added per employee. Similarly, analysis of the ECS shows that provision of training has links to improved productivity and self-reported perceptions of organisational financial performance (Eurofound, 2011b).

More specifically, studies have shown that training plays a significant role in developing innovation and organisations providing training benefit from enhanced knowledge and skills and 'innovative capability' in performing work tasks (Chen and Huang, 2009). Therefore it is through training that companies develop the 'organisational expertise in terms of demand and content for the innovation' (Weisberg, 2006; cited in Chen and Huang, 2009, p. 106). Training investment increases employees' skills across all levels of the organisation and this can help grow a 'source of ideas for further innovation' (Torraco and Swanson, 1995; cited in Chen and Huang, 2009). This is supported by further evidence showing the importance of developing workforce skills in order to be able to reap the benefits of HPWPs. The EPOC survey found that managers believed a well-trained workforce was vital to securing the effectiveness of participatory workplaces; the proportion of workplaces using direct participation methods requiring highly trained staff was double that of those who did not use such techniques. Furthermore, the number of managers reporting direct participation measures had been a complete success was more than double among those with a highly skilled workforce than those with low-skilled employees (Eurofound, 1997, p. 171).

Employee involvement, knowledge-sharing and communication practices

Studies of employee involvement, knowledge-sharing and communication practices show that they have a generally positive effect on productivity. Ichniowski et al (1997) used data from companies engaged in steel production to highlight this finding. They measured productivity through an 'engineering production function', looking at the total 'uptime' of production lines. They found that production lines that adopted employee information and consultation practices gained an average of 3.5 percentage points of uptime. HPWPs that encourage workers to think and interact are some of those most strongly associated with increased firm productivity in US manufacturing companies. Black and Lynch (2004) used data from US manufacturing companies to estimate that workplace innovation practices contributed 1.4% per year to company productivity (measured as output per hour). This would mean that, at the most generous estimate, innovative workplace practices accounted for approximately 30% of output growth in manufacturing over the period 1993–1996, or 89% of multifactor productivity. Other studies have found specific links to innovation including the significance of reducing recruitment, retention and absenteeism difficulties through improving the dialogue between management and employees (European Work & Technology Consortium, 1998).

The role of less formal and non-institutionalised communication and consultation techniques can also be helpful. According to analysis of the ECS, use of 'ad hoc consultation in the absence of formal employee representation' has a positive effect on organisational productivity (Eurofound, 2011b). Similarly, open and transparent communication practices which support employee involvement are also found to have a positive influence in promoting creativity and innovation (Martins and Terblanche, 2003; cited in Heffernan et al, 2009, p. 9) The results from a survey of 6,322 workplaces in Canada show that decentralised decision-making and information-sharing are both strongly correlated with innovation; establishments that use one of these forms of workplace organisation were 14–22% more likely to have an innovation than those who do not, and the marginal effect of information-sharing was consistently larger than the marginal effect of decentralisation (Zoghi et al, 2010). Hempell and Zwick (2008) also argue that providing stronger employee participation significantly increases the probability of product and process innovations in subsequent periods by more than 10 percentage points.

As well as enhancing participation to improve business outcomes, studies have identified that employee involvement plays an important role in ensuring that the innovation processes function optimally and the importance of involving as many workers as possible. High levels of employee participation in decision-making make it more likely that employees will work through the problems associated with introducing innovation (Janssen, 2004). For example, teams that meet regularly to exchange information and contribute to decision-making will more 'comprehensively process information and opinions about the innovation and the innovation process, and ensure a more effective outcome' (Janssen, 2004).

Similarly, empirical studies emphasise the importance of involving employees in the implementation of innovative working practices (Black and Lynch, 2004). In their studies on labour productivity in US manufacturing companies, they found that what mattered was not the adoption of a particular practice, but how practices were implemented. For example, they state that:

...simply adopting a Total Quality Management system has an insignificant or negative impact on productivity unless the proportion of workers involved in regular decision making within the plant is also high.

(Black and Lynch, 2004, p. 9)

Reward systems

Evidence on the performance effects of reward systems tends to be more positive about group-based systems rather than individual performance-based systems. Group-based or company performance based pay systems achieve their effects through stimulating employees to make suggestions for organisational improvements and innovations because they will stand to gain a share in rewards accruing as a result (Kessler, 2010; OECD, 2010). These pay practices are also more likely to be effective if employee interest is represented in the operation or design of the system (OECD, 2010).

Additional performance benefits of motivated staff are that they are less likely to be absent, which has been illustrated for a number of group-based pay systems including profit-sharing (Eurofound, 2011b), and may be less likely to leave their job, although this may be due to 'lock in' effects while employees wait for shares to vest rather than genuine commitment to the organisation. Nevertheless, such schemes may be important to foster higher levels of effort including innovation because of the requirement to take risks to attempt to innovate. This is easier in a high trust environment, which is more likely to be fostered among colleagues with longstanding working relationships.

It is also important for new reward systems to be implemented together with other HPWPs in complementary systems of practices, rather than as individual innovations. For example, Kandel and Lazear (1992; cited in Black and Lynch, 2004) showed that introducing a profit-sharing plan for all workers in a company may have little or no impact on productivity unless it is linked with other practices that address the inherent free rider problem associated with company-wide profit-sharing plans. Profit-sharing and employee involvement in decision-making are often complementary (Pot, 2011). Overall, much of the literature shows that the processes of allocating rewards and providing constructive feedback on performance are likely to have stronger psychological effects than extrinsic rewards themselves (Blinder, 1990; Folger and Konovsky, 1989; Folger and Cropanzano, 1998). This places greater emphasis on the role of associated

appraisal and performance review processes, not merely as a means of delivering a decision on pay but as having an important independent function.

There is further debate about the contribution of individual performance-related pay (IPRP) to HPWP systems. Authors have suggested that individual performance-related pay can discourage cooperation and adversely affect trust levels if employees compete to achieve higher levels of pay (Appelbaum et al, 2000; Pendleton 2006). Analyses of how to create 'inspiring' culture for innovation (Lemon and Sahota, 2004) have discussed the use of financial incentives for innovative activity. They show that while effective, especially in the short-term, the focus on performance-related pay could see intrinsic motivation replaced by extrinsic motivation and foster a focus on innovation for immediate, personal reward rather than longer-term or whole-company benefits (2004:14). There may also be a clash between the processes that make performance monitoring for the purposes of IPRP possible such as repetitive tasks undertaken in isolation and with other HPWPs such as teamworking and devolution of autonomy (Belfield and Marsden, 2003).

Innovation performance

Adoption of HPWPs has been argued to be a prerequisite to enable other forms of innovation in an organisation to take place and organisations that are relatively more innovative are argued to have greater competitive advantage and in turn be more likely to engage in innovation and adopt HPWPs. These organisations are more likely to be responsive to change, for example if a product market collapses or changes significantly; this is supported by research that illustrates that seeking to implement an HRM approach which encourages innovation has been linked to market success in pharmaceutical research and development (Omta et al, 1994). Other examples include evidence in the literature that innovations in HRM have taken place to support office rationalisation. For example, in one major company's real estate department, work space was underutilised for 40% of the time and the increase in mobile working required changes in work organisation and change in employee management from a presenteeism approach to managing by output. This workplace innovation was seen to enable more flexible ways of working to the benefit of employees and the employer (Pot, 2011).

Beugelsdijk (2008) established a distinction between 'incremental' and 'radical' innovations, stating that innovative work organisation practices have a positive impact on innovation outcomes but that different types of practices may have differing impacts according to whether 'incremental' or 'radical' innovation is the intended result. His data, drawn from a sample of 988 Dutch companies, suggested that, while performance-based pay and training are both positively associated with incremental innovation, they are not associated with radical innovation. The proportion of employees with flexible working hours, however, was not related to incremental innovation but was significantly and positively related to radical innovation (Beugelsdijk, 2008, p. 833). Incremental innovation may therefore be relatively easier to 'organise' since it is more dependent on a clearly identifiable set of practices.

Studies by Laursen and Foss (2003), Lorenz (2006), Leede and Looise (2003), Zoghi et al (2010) and Weerwardena (2011) all focus on the effects of new HR practices on innovative and entrepreneurial activities within companies. While they all find generally positive effects, the main questions appear to link to the combinations of different types of HR practices that may have the greatest impact on innovative activity, and whether or not particular activities act as a substitute or complement to one another. Previous analysis of the EWCS (Lorenz, 2006) has shown that combinations of workplace practices which foster high levels of responsibility, task delegation and problem-solving opportunities to employees are associated with higher levels of organisational innovation.

Performance variations by sector and size of organisation

Analysis of the EWCS has shown considerable diversity in the forms of work organisation both within and across sectors (Eurofound, 2009a). Much of the early research into HPWPs was conducted in the manufacturing sector, but reasonably extensive case study evidence shows that these practices can have equally beneficial effects in service industries; see for example Boxall (2003) for further discussion.

Analysis of evidence from the ECS by Eurofound (2011b) distinguished between companies with fewer than 250 employees and those with more than 250 employees. The results showed that there were more associations between a variety of HPWPs and organisational performance outcomes in small and medium sized enterprises (SMEs) than in the larger companies – measured through responses to the management questionnaire citing the economic situation of the company as good. In smaller companies there were links between the company's economic situation and the range of HPWPs adopted. This is explained through the greater impact of the relative contribution of each employee in a smaller company, which makes the relationship between HPWPs and performance outcome more important (Eurofound, 2011b).

Analysis of the EWCS also shows that there may be differential effects of innovations in HPWPs depending on the size of organisation. Despite lower take-up of HPWPs in smaller businesses, there is evidence that they can benefit from these practices in the same way that large organisations do. The study by Way (2002) of companies employing fewer than 100 employees found HPWPs reduced overall turnover and voluntary turnover, and increased perceived productivity but had no actual impact on labour productivity. Messersmith and Guthrie (2010) also found that the use of HPWP in smaller companies is associated with higher levels of sales growth, product innovation and organisational innovation than in larger organisations. Kenny and Reedy (2006) focus on the types of work practices which affect innovation outcomes in SMEs (companies with 10–249 employees). Their analysis of 25 SMEs in the manufacturing sector revealed that only the cluster of HR practices they classed as 'basic conditions' for innovation (adequate resources, adequate funding, supportive management, a technically competent team, good strategic direction and a non-constraining environment) bore a statistically significant relationship to the number of new products or services launched. Other factors (open communication, a more entrepreneurial or risk-taking culture, diverse information sources and procedures such as suggestion programmes) were not found to have a statistically significant relationship between innovative activity and commitment to R&D in SMEs.

Lastly, there is some suggestion that organisations with the furthest distance to travel may have most to gain. Eurofound (2011b) also found evidence in the ECS 2009 that most HPWPs have a significant and positive relationship for both the highest- and lowest-performing companies. However, there is a much stronger positive link for individual HPWPs and combinations of them and the managerial judgement of performance in poorer performing companies, suggesting that 'if such a link were causal, that poorer-performing companies may stand to gain greater benefits from the application of HPWPs' (Eurofound, 2011b, p. 2).

Impact on organisational performance: evidence from the case studies

A highly diverse range of impacts on organisational outcomes was evident in the case study companies, typically varying according to the objectives that each organisation wanted to achieve from the innovations. A summary is presented in Table 10.

Country	Case study	Service quality	Complaints	Efficiency	Productivity	Gross value added
BE	Bombardier	Increase in customer focus and service quality. Improvement in timely deliveries; decline in open issues at shipment and backorders reduced to zero.		Employees' efficiency improved.	Employees stated productivity had increased by 30%.	
DE	Lufthansa	Improved service quality		Improved; delivery reliability increased	Increased; reduced average lead time for component repairs to target levels in some divisions.	
DK	Radiometer					
ES	Kellogg		Reduced as efficient co-location of customer services and sales more conducive to problem- solving	Increased due to flexibility in new working arrangements	Increased due to flexibility in new working arrangements.	
FI	Care home	Residents' well-being and quality of life improved; health of residents improved based on standard tests.		Increased as nurses' work pace increased and concentrated on core work tasks.		
FR	FAVI	Improved as integration of sales into teams made immediate quality adjustments possible, in line with client needs.	Reduced. Cross-skilling of sales and quality control created efficient approach to customer queries about service quality.	Decentralised warehouses increased efficiency and ensured adequate stock levels. Accelerated decision making improved client response time.	Increased; production in gearbox manufacture increased due to modifications suggested by employee.	
IE	Abbott	Positive impact on employee availability to engage closely with company stakeholders.				
IT	Elica	Elica Life: numerous design awards achieved. Matrix structure: better able to respond to client needs.		WCM – capacity to reduce production costs increased by 300% in one year. Matrix structure – efficiency obtained within business-to-business (B2B) sales department.	Increased through implementation of WCM and supplementary agreement.	Elica Life: as result of arts programme 95% of design is conducted in-house.
NL	Rabobank				Employee productivity increased (47% compared with 36% of employees stated they perform better); mostly attributed to new leadership style.	
PL	Volkswagen Poznań			More ergonomic designs increased efficiency at work stations.	Production volume increased.	
РТ	ROFF	High client retention rate				
SI	Retail group	Customer feedback on refurbishment was positive.		More ergonomic designs increased efficiency.	Improved as work pace increased.	
UK	NUH	Higher quality care and improvement in patient safety. Satisfaction rate in patient surveys increased to high level.	Substantial reduction in complaints.	Improved; better shift management and ordering processes.		

Table 10: Impacts of HPWPs on organisational performance indicators

Country	Case study	Profit margin	Market share	Increased turnover	Employment levels	Operating costs
BE	Bombardier		Market competitiveness scored positively on employee survey. Attracted new orders from within Bombardier Group and from major competitor.			Wrap rate (including administration hours) decreased by 13%; production costs reduced.
DE	Lufthansa				Stable employment levels despite fears of workforce reduction.	Reduced due to improvements in efficiency and productivity.
DK	Radiometer			Increased but not attributed directly to innovation.	Change in workforce profile: growth in professional roles and decline in manual jobs.	
ES	Kellogg		Market share maintained despite increasing competition; attributed to employee effort.		Reduction in time taken to fill vacancies; increased number of applications; most cost effective recruitment.	
FI	Care home				Increased employment levels through addition of ward hostesses.	Only minimal increase in operating costs as ward hostesses' salaries paid by state, ward covered cost of supplies for activities.
FR	FAVI				Small turnover at middle management level; generally stable employment levels.	
IE	Abbott					
IT	Elica		Increase in product and process innovation increases likelihood of developing best sellers that adapt to changing market needs.	Increased; 30% of revenues obtained from products introduced in last three years. Elica Life project sold externally.	Number of staff employed in B2B department fell, leading to cost savings.	
NL	Rabobank			Slight fall in turnover; not attributed to innovation.	Staff reduction but not attributed to innovation.	Cost savings achieved through: reduction in paper use (30%) and travel costs. Maintenance costs reduced due to sustainable materials in new building.
PL	Volkswagen Poznań	Increased (indirect effect of innovation).		Increased (indirect effect of innovation).	Prolonged employment for older workers; offered job security without impacting actual employment levels.	
РТ	ROFF				No impact	
SI	Retail group				No impact	
UK	NUH	N/A	N/A	N/A	New staff hired but not directly attributable to innovation.	Cost savings were not a major benefit of the programme.

Table 10: Impacts of HPWPs on organisational performance indicators (continued)

The HPWPs involving lean management (Elica, Lufthansa), teamworking (Bombardier, FAVI), flexible working practices (Rabobank), workplace redesign (Kellogg, Slovenian retail group, Volkswagen Poznań) and employee involvement (Elica) were most commonly associated with increased company productivity from the case study evidence. This reflects the findings in the ECS in reference to teamworking and flexible working associated with 'above average' company productivity (Eurofound, 2011) and is in line with the findings of Pot (2011) which showed that improvements in workplace organisation were linked to productivity. Efficiency improvements were also most commonly associated with teamworking (Bombardier, FAVI), lean management (Elica, Lufthansa, NUH) and workplace redesign (Kellogg, Slovenian retail group, Volkswagen Poznań).

Improvements in service quality were associated with teamworking (Bombardier, FAVI), lean management (Elica, Lufthansa, NUH), flexible working (Abbott, ROFF), employee involvement (Elica, ROFF) and work redesign (Abbott, Slovenian retail group). These improvements were commonly obtained through the innovation producing a stronger customer focus and improving customer responsiveness. Teamworking and greater collaboration (FAVI, Kellogg) were also associated with a reduction in customer complaints. This was typically attributable to the resulting improvement in communication between functions, which facilitated efficient problem-solving. This finding is supportive of the conclusion by Janssen (2004) that greater employee participation results in more comprehensive exchange of information to ensure effective outcomes.

There was no evidence in the case studies of the HPWPs directly impacting profit margins and only one case study (Elica) where there was a link to the innovation (employee involvement) and increased turnover (a project resulting from the innovation was sold to external organisations). This perhaps highlights the difficulties in attributing the causality of changes in organisational performance indicators to the innovations in work organisation.

While the EPOC survey found that HPWPs that utilised participatory forms of work organisation resulted in increased employment rates, this was not evident from our empirical case study research. The case studies implementing innovations around employee involvement (Elica, Kellogg, ROFF) did not report increased employment levels; in fact, the Elica case study showed evidence of reduced numbers in one department as a result of gained efficiencies. Lean management (Radiometer) resulted in a change in the workforce profile, with growth in white-collar jobs and declining levels of manual workers; or resulted in stable employment levels despite fears of workforce reduction (Lufthansa). The Kellogg case study found that the combination of flexible working, employee well-being initiatives and workplace redesign resulted in faster and easier recruitment, indicating that these innovations can help attract talent to the organisation. Employee well-being initiatives had generally positive impacts on employment, offering job security for older workers at Volkswagen Poznań and increasing the potential labour pool at Kellogg.

Teamworking (Bombardier), lean management (Lufthansa) and flexible working (Rabobank) resulted in lower operational costs. Savings were most clearly identified by the flexible working initiative in the Rabobank case study where savings in resource and travel related expenditure could be directly attributed to the flexible working innovation.

Factors facilitating the introduction of 6 high performance work practices

There are five main sets of factors identified as important for the successful introduction of HPWPs. These include:

- employee support mechanisms to enable employees to cope with change and to implement some of the practices;
- organisational culture, which may be particularly important in ensuring that change is embedded and sustained;
- leadership, which may be critical in championing and sustaining participatory innovations;
- the broader organisational approach to change and learning;
- social dialogue and industrial relations systems.

This chapter explores previous research evidence on the role that each of these factors plays in achieving benefits from HPWPs for employees and organisations.

Employee support mechanisms

The effectiveness of many of these practices will also depend on the existence of a supportive environment, which encourages creativity and problem-solving among employees. The need for employer support as a form of intrinsic motivation is fundamental to the model assessing the climate for creativity (Amabile et al, 1996). In addition, research has identified the need for both 'task support' in providing time, funding and equipment for employees to engage in innovative processes, as well as 'socio-emotional support' through providing the interpersonal support necessary to function creatively (Tesluk et al, 1997). It is also necessary to ensure clarity on goals for innovation and the means available to staff to achieve them (Tesluk et al, 1997). This suggests the need for a focus on systems of performance review and line management. There is a large body of literature on the role of line managers in supporting the implementation of changes in HR practices (for example: Purcell and Hutchinson, 2007; Marchington and Wilkinson, 2010) which stresses the need for appropriate skills and expertise in supporting employees through change.

Conversely, several authors discuss potential impediments to innovation that can be created in an unsupportive environment. These possible impediments raised are workload pressure, cultures of 'segmentalism', a focus on control of actions, decisions and information and lack of supervisor support (Angle, 1989; Amabile et al, 1996; Oldham and Cummings, 1996).

Lastly, the effective implementation of participatory innovations can also be dependent on the supervisory style in the organisation (Axtell et al, 2000; cited in Janssen, 2004). For example, in an authoritative supervisory relationship, the success of a participatory innovation will depend on the supervisor's provision of information and expertise, resources and support to develop and implement the innovation.

The case studies showed widespread evidence of a number of types of organisational support being provided and essential to the effective operation of the innovations including tangible, practical and intangible features. Practical examples of support for new innovations included adequate provision of ICT equipment to support flexible working initiatives (Abbott, Kellogg, Rabobank). More intangible and extensive forms of support included training, which had a number of functions in raising awareness of the need for and justifying innovations such as flexible working and health promotion (Abbott, Kellogg, Rabobank, Slovenian retail group), policies to help ageing workers (ROFF) and training in management methodologies, most commonly lean production principles (Lufthansa, NUH, Radiometer).

Compared with some of the literature on managing change, the case study organisations in many cases appear to have placed less emphasis on the use of performance management processes by line managers to ensure compliance. In part this is because participation in some of the initiatives is voluntary (for example, some of the health promotion activities), but in other cases the scale of change in work processes is profound, such as transitions to participatory cultures and reorganisation of work processes (Elica, FAVI, Lufthansa, NUH, Radiometer), and based as much on a cultural shift as compliance with formal HR procedures.

Organisational cultures

Organisational culture is a manifestation of deep-seated values and beliefs, some of which cannot be articulated but are evident in ingrained normative behaviours (Schein, 1978; Legge, 2005). Fostering innovation is based on applying a mixture of formal and informal structures and processes, and researchers have argued that these need to support internal integration of staff to enable them to build trust, which makes people more willing to share ideas, and coordination of communication which puts in place structures through which ideas can circulate (Kanter, 1988; Tushman and O'Reilly, 1997).

Particularly critical are organisational tolerance and encouragement of diversity in terms of demographic and personality characteristics of individuals and how the organisation manages risk. Research has identified that handling risk may vary particularly widely depending on organisational context, nature of the sector and stage of the innovation process. Ensuring employees are willing to take risks at points when initial ideas and suggestions are being developed is important (Filipczack, 1997) and can be cultivated through making time, space and communication channels available and appointing and rewarding senior individuals who are prepared to engage in this process.

Levels of comfort with risk-taking may also vary at a societal level (Beck, 1992), although the connections with innovation are not linear and straightforward, since national cultural behaviours may be counteracted by organisational cultures and policy initiatives. Similarly trust between individuals is important and needs to be cultivated through HR practices that allow long-term relationships to build. Many of the case study organisations recognised the importance of cultural change and the length of time required for new organisational cultures to become embedded. This was particularly challenging for HR innovations that required some staff to break habitual routines and attitudes to work processes such as location and hours of work (Abbott, Rabobank) and for innovations relying on employees contributing suggestions to improve the impact of changes or improve organisational performance more broadly (Elica, FAVI).

Some authors have identified distinct 'cultures' of innovation which are associated with different sets of HR practices, categorising these as 'controlled', 'fuzzy', 'inspiring' and 'cultivated' models (Lemon and Sahota, 2004). The 'controlled' model is closest to the 'Taylorist' model of work organisation where formal innovation is largely contained and product-oriented. The 'fuzzy' model is also defined by fairly traditional, Taylorist working practices, but creativity takes the form of allowing individuals to work on innovation projects outside of their formal role. The 'inspiring' model is characterised by an expanding focus from product-centred innovation to innovation in work organisation. The 'cultivated' model 'incorporates innovation as a critical process in its own right with a focus on the long-term and the whole organisation', overriding the cost-restrictive approach dominant in other archetypes (Lemon and Sahota, 2004, p. 15).

There were a variety of cultural forms of innovation within the case studies. Typically those adopting a lean methodology within a manufacturing environment were more 'controlled' (Lufthansa, NUH, Radiometer) while whole organisation approaches were similar to the 'cultivated' model (Elica). Some of the organisations that were well known for product-based innovation were now seeking to extend this to work organisation innovation (Kellogg, ROFF).

The presence of an innovation 'champion' has also been identified as an important criterion which affects whether HPWPs are successful (Wolfe et al, 2006). This is also a common finding in much of the HR and broader organisational change literature. For example, within the HR literature, the role of individual champions is identified as being critical to the adoption of employee involvement mechanisms, where such champions are often younger managers seeking to build their careers (Marchington et al, 1992).

The case studies varied significantly as to how dependent they were on single individuals leading change. In a number of the companies changes were systemic and broader based, especially where the sites were owned by large multinational organisations (Bombardier, ROFF, Slovenian retail group, Volkswagen Poznań) with multiple change champions either being formally appointed (Bombardier) or emerging (Abbott). In some of the smaller organisations, senior managers were particularly influential in steering innovations (Elica, FAVI).

Organisational leadership

Leadership that fosters innovation is that which takes the decision that innovation is going to be a priority for the organisation and pays attention to putting in place the structures, processes and management behaviours that will enable it to flourish. The style of leadership is likely to involve devolved management structures and delegation of responsibilities to enable employees' freedom to experiment with organisation of work. Supervisors and managers are likely to make heavy use of consultation mechanisms and to support and encourage employees to make suggestions, as well as embodying the innovative behaviours sought. They are likely to be most concerned with developing the potential of each individual rather than the accomplishment of individual tasks.

There is plenty of evidence that leaders believe that these kinds of factors drive innovation. For example, work by McKinsey in surveying senior leaders has shown consistent views that people and organisational culture drive innovation (Barsh et al, 2008). Other researchers have shown that leaders' roles in developing and communicating an open culture where people can voice suggestions and constructive feedback are also important (for example, Kanter et al, 1997). The leadership role in setting the direction of the organisation is important; Amabile and Gryskiewicz (1987) stress the importance of communicating a vision of the organisation as innovative and risk taking.

Others have stressed that culture is supported by systematic innovation processes (for example, McGourty et al, 1994) which is also the responsibility of the leader. A literature review by AIM (Munshi et al, 2005) supports this point and concludes again that an environment of risk taking is important and requires leaders to act as both motivators and organisational architects. Which style is most appropriate is dependent on the phase of the innovation; the creative or explorative phase lends itself to leaders as motivator, then exploitation of the innovation more to leader as architect.

Across the case studies there was widespread agreement that management support was probably the single most important factor in enabling change. Therefore even where HR innovations seek input from employees to make them successful, without initial management support, the innovations would not be attempted. Management support was, however, helpful in a number of forms. Senior leaders often acted as the inspiration for major shifts in company culture and philosophy. This was especially notable in those case studies where seniority confers considerable status and power on top managers, who are therefore well placed to make change (Elica, FAVI). The second notable feature of management support was where innovations and training associated with them were piloted with management staff (Radiometer, Volkswagen Poznań). This helped to persuade managers of the significance and power of the innovations and to develop their function as change agents to promote the innovation to the staff they managed.

Lastly, a major theme running through the case studies was managerial focus on staff as individuals with differing needs and preferences, and a number of the innovations specifically targeted segments of the workforce (Slovenian retail group, Volkswagen Poznań) or sought to accommodate individual needs (Abbott, Kellogg, ROFF, Volkswagen Poznań). This reflects a growing trend in the customisation of HR practices to enable them to meet individual expectations in line with psychological contracting principles rather than applying a 'one size fits all' set of policies to the entire workforce. It helped to foster an emotional identification or 'affective commitment' between employees and their organisation, developing staff loyalty to an employer brand and creating a bond with the employer that went beyond transactional fulfilment of pay expectations. Managers reinforced the focus on individuals by spending time in face-to-face discussion with individuals to understand personal motivations and needs and to provide individual support and guidance on the impact of the innovations (Finnish care home, Lufthansa, NUH, Radiometer, ROFF, Slovenian retail group). This kind of close contact was also instrumental in fostering the development of trust between managers and staff. In turn this helped to create organisational climates in which employees were prepared to take some risks in engaging with the innovations through, for example, making suggestions for organisational improvements without fear of this being interpreted as negative criticism or ideas being dismissed without due consideration.

Organisational change and learning approach

Organisational ability to change and respond to external environments may be critical in influencing the adoption and impact of HPWPs. There are three models (Lam, 2004) of how organisations change that stem broadly from organisational studies. First, there is an evolutionary change in which organisations either accumulate a series of incremental changes or are replaced by different organisations. A second model looks at change as punctuated equilibrium where radical changes in the environment force organisations to make periodic radical changes. Finally, in the third model, organisations are in a state of continuous change. This occurs when an organisation builds in the expectation of change. These organisations have a process of continuous learning and strategic choice.

Within the organisational change literature there is also a considerable amount of empirical research at a micro-level which reports on methods of fostering change. This literature emphasises how important it is to acknowledge and reflect learning processes, including small group methods and organisational development interventions in a formal sense, as well as the culture and quality of organisational relationships and communication styles and practices.

Literature on organisational learning stresses that all organisations are knowledge-creating and problem-solving: all organisations are cognitive enterprises (Argyris and Schön, 1978). Thus prior accumulation of knowledge and methods of assimilation are key to innovation. This aspect of work organisation is rooted in the disciplines of psychology and management. Whereas in psychology the role of the individual is emphasised (in particular their creativity, mental models, beliefs and stimuli are stressed in the process of knowledge creation), in management disciplines, collective processes are emphasised such as collective mental models, methods of stimulation, and so on. In this aspect of work organisation it is important to understand the context of knowledge creation.

Since some important and valuable knowledge for implementing innovations is tacit, organisations create a context for tacit knowledge exchange (Nonaka, 1994). Collective knowledge in the form of routines and norms emphasises and aids communication for tacit knowledge exchange. Further, knowledge tends to be cumulative. Thereby it creates patterns of organisational choices (Coriat and Dosi, 1998; Pavitt, 1991) that lead to path dependencies. Although the cumulative nature of the knowledge an organisation possesses defines the organisation and allows it to develop heuristics for innovation, it can also hinder the organisation (Hamel and Prahalad 1990; Leonard-Barton 1992; Levinthal and March 1993) by preventing knowledge growth in unknown territories. 'Dynamic capabilities' are therefore necessary to balance exploration and exploitation. Outside forces become important for innovation, once again emphasising the systemic nature of innovation. Furthermore, internal practices such as dynamic teams create decentralised group structures which may further support innovation. This knowledge creation concept can be further applied by focusing on different innovation systems at the regional, sectoral or national level. For example, certain cultures produce corresponding types of knowledge (Hall and Soskice, 2001).

Because innovation in any form is heavily dependent on having the capability to learn and adapt, we need to consider the organisational structures and processes that characterise 'learning organisations'. Developed originally by Argyris and Schon (1978), the model distinguishes between single loop and double loop forms of learning. Single loop learning is closer to the incremental forms of innovation discussed above where improvements are made to any aspect of organisational operations, assuming that the functions are fundamentally sound. Double loop learning involves questioning of basic assumptions about the purpose and goals of the organisation, often with more radical outcomes. Systemic adoption of HPWPs is often associated with double loop learning and is characterised by significant attention to strengthening individual and collaborative learning processes through problem-solving involving autonomy, initiative and communication among employees, who are often members of multiple teams. This does not, however, diminish the role of adaptive learning in implementing innovations as it may be complementary; once a significant innovation has been identified, adaptation from staff may be needed to support its implementation or further ongoing modification (Hoyrup, 2010).

More critical studies have questioned whether learning organisations exist in their purest forms as described by theoretical archetypes, but the principles of using learning to enable organisations to undertake radical transformation in the interests of survival or to change their products or services significantly are important ones to consider in relation to changes in work organisation. The literature on learning organisations stresses the importance of aligning organisational systems and processes, including HR practices, to support learning as a core activity. This would include internal structures, rewards, communication systems, use of IT and harnessing knowledge through external relationships. Extensive descriptions of the practices and philosophy are provided by Pedler et al (1991) and Senge (1990). Numerous reviews have usefully highlighted how different management disciplines have treated the concept of organisational learning (for example, Dodgson, 1993). It must also be acknowledged that organisational culture and organisational design are interdependent and mutually reinforcing (Škerlavaj et al, 2007).

Three different forms of learning played important roles within the case studies:

- 1. Cognitive or knowledge-based learning concerning new management processes
- 2. Awareness-raising of the significance and impact of particular topics such as health and work-life balance
- 3. Learning focused on changing attitudes and behaviours.

At one level, cognitive or knowledge-based learning to develop familiarity with new management processes was essential for staff at all levels to understand new principles and methodologies being adopted; for example, lean production training including a value mapping and team building day for 40 managers (Bombardier, Radiometer), nine days' training for ward managers and staff (NUH), and the development of extensive lean production training through an internal training institute (Lufthansa).

Innovations based on improving health and well-being often included some form of learning intervention aimed at raising individual awareness of the importance of maintaining good health (Slovenian retail group, Volkswagen Poznań). Other forms of learning were focused more on shifting engrained attitudes and behaviours in order to inspire and motivate employees and managers to support and drive forward the implementation of innovations. These included:

- five half-day training sessions to help employees understand concepts of work–life balance supplemented with an away day and workbook to support learning (Abbott);
- workshops to develop organisational vision (Lufthansa, Rabobank) and personal objectives for flexible working (Rabobank);

- nine days of training aimed at developing leadership skills for team managers and supervisors as change ambassadors (Bombardier);
- art classes to help stimulate employees' creativity to help them contribute to product design (Elica).

In addition, considerable informal and on-the-job support and training was provided through coaching and individual discussions with line managers (Rabobank) and informal peer-to-peer learning (Finnish care home). There was widespread adoption of collaborative work group discussions to identify collective improvements to work processes which facilitated collective learning to make systemic changes (Elica, FAVI, Lufthansa, NUH, Radiometer). Interviewees from case study companies stressed that the process of learning was cumulative and often took place over a long period of time, with openness to change becoming a characteristic of behaviour at all levels of the workforce.

Much of the learning was aimed at transformational change but within a 'single loop' learning context (Argyris and Schon, 1979). This means that the ultimate goals and purpose of the organisation were not being questioned, but managers were open to suggestions on how improved organisational performance could be achieved within the overall frame or scope of the innovation. In several cases this led to the complete restructuring of work organisation over a period of several years (Elica, FAVI, Lufthansa, Rabobank, Radiometer), illustrating how organisational learning can lead to organisational redesign. It also led to cultural changes where the organisations became continuously adaptive in seeking improvements to systems and processes by harnessing employee suggestions.

Social dialogue and industrial relations systems

Social dialogue is considered by the European Commission to be 'discussions, consultations, negotiations and joint actions involving organisations representing the two sides of industry (employers and workers)'.⁵ This may include formal consultation processes, co-determination, collective bargaining and indirect representation of employees through joint working parties.

Social dialogue forms the 'voice' of employees in an organisation and expression of this 'voice' can be through employees providing ideas to improve work processes and ensure that employees' views are taken into account in decision-making (Wood and Wall, 2007). Social dialogue has a role in supporting innovations in HPWPs by contributing to the creation of a mutually supportive, high trust culture that provides positive conditions for changes in how employees are managed and treated.

In a number of European countries, social dialogue practices are required by national law (Paauwe, 2004) as part of broader systems of industrial relations supported through nationally specific institutional infrastructure. Social dialogue and industrial relations systems are therefore supporting structures which may influence the nature and quality of communications and dialogue that take place within organisations. These are both innovations in HPWPs in themselves and may influence the outcomes of other HPWP innovations. The influence of social dialogue and industrial relations regimes are therefore likely to be a key variable of interest within the case studies that is likely to affect how HPWPs are implemented.

⁵ http://ec.europa.eu/social/main.jsp?catId=329&langId=en

Evidence from the case studies

There was considerable evidence of involvement of social partners across the case studies but the level and scope of engagement between managers and worker representatives varied considerably depending on the type of innovation, its method of implementation and the national industrial relations regime. This is reflected in Table 11, which presents a simple sliding scale for assessing the level of social partner involvement, ranging from communication in its weakest form to co-determination in its strongest form.

Aspect	Case studies
Communication	Abbott, FAVI, ROFF – direct with employees
Consultation	Elica, Volkswagen Poznań Finnish care home, Kellogg, NUH, Slovenian retail group – (in)direct consultation with employees through non-union channels
Negotiation	Bombardier, Elica, Lufthansa, Radiometer ROFF – on wider working conditions
Co-determination	Lufthansa

Table 11: Social partner involvement in HPWP implementation

Table 11 illustrates the diversity of types of engagement with social partners which the case studies adopted. The level of influence exerted by social partners commonly reflected national industrial relations systems in the group with most powerful negotiation arrangements. In some cases the scope and arrangements for the innovations were the subject of direct discussion between managers and trade union representatives (for example, Elica). In other cases trade union representatives were primarily concerned to ensure that the introduction of HR innovations did not undermine or contravene the terms of existing agreement industrial relations agreements (Bombardier, Lufthansa) or that the negotiations focused on provision of additional benefits such as paid leave which were taking place in parallel with substantive changes and re-organisation of work (Elica).

For other organisations, union representatives exist but were not closely involved in the implementation of the innovation (Finnish care home, NUH, Slovenian retail group). This was commonly because the innovations were being implemented at a local level in a particular department or site within a workplace, and the worker representation function typically focused on strategic issues for which social dialogue took place at a higher level in the organisation.

In some organisations where the level of social partner involvement amounted to communication and information provision, this was due to a mixture of factors. First, in these companies the nature of the innovations changed the location and timing of work rather than job content (Abbott, ROFF). Secondly, US-owned parent companies have a lower propensity to undertake social dialogue than many European companies (Abbott) and, thirdly, smaller companies are less likely to have a formal trade union presence (FAVI). In the absence of formal systems of representation, ad-hoc forms of non-elected employee representatives were used for consultation (for example, FAVI, Finnish care home, ROFF), which is a relatively common practice in SMEs or smaller workplaces.

All the evidence suggests that the presence of social dialogue and the involvement of worker representatives made a valuable and helpful contribution to the implementation of the HR innovations in the case studies. The presence and active participation of worker representatives, whether in an official unionised capacity or not, was helpful in enabling both managers and employees to understand differing needs and priorities, to overcome any resistance to change on both sides through consultation and to resolve any initial problems or difficulties in implementing the innovation through well-established communication structures (Lufthansa, Radiometer).

Where there was unionised representation of staff, this enabled further protection of workers' rights which was particularly important to gain staff commitment to some of the innovations. For example, where lean production systems were introduced and created a possible threat to job security if they resulted in greater workplace efficiency, union representatives secured an agreement that enhanced productivity would not result in job loss in the short term (Bombardier, Lufthansa). The economic climate and intensity of competition faced by the companies involved were beginning to raise questions about the sustainability of these agreements in the medium term, but without the role of unions in securing worker cooperation to change, it is uncertain whether one of these workplaces would have survived to date (Bombardier).

In addition to formal worker representation structures, an important feature of many of the case studies was using multiple channels of communication to implement and manage change. These typically combined informal direct communication between managers (at all grades) and employees with more structured mechanisms, discussed more fully earlier. Some cases illustrated unions participating at a strategic level to ensure consistency between principles of workplace innovations and negotiated agreements on working conditions (Bombardier, Rabobank) or took the form of trade union representatives sitting directly on working groups implementing the innovations (Lufthansa, Radiometer, Volkswagen Poznań). In some cases, union representation activity was limited to discrete parts of the innovation (Elica) and in one case working groups for the innovation were entirely separate from union representation (NUH).

Maintaining open and dual channels of communication typically allowed different types of concerns about HR innovations to be addressed through the most appropriate route. Several companies maintained practices of 'open door' policies for managers (Abbott, Elica, FAVI, Kellogg, ROFF), especially where the use of formal representation structures as a communication channel was less developed and establishing ongoing open dialogue was important to persuade staff of the benefits of change over a period of time. Additional common sources of information provided to offer advice included newsletters and intranet resources (Abbott, Kellogg, NUH, ROFF, Slovenian retail group).

Conclusions and policy implications 7

This report draws on 13 case studies conducted across a variety of EU Member States to explore innovations in work organisation (also termed HR innovations) using a composite conceptual framework developed for the study, which included contextual factors influencing change and a review of previous literature. The research investigated organisational rationales for adopting innovations, methods of implementation, impact on employees and organisations, and identified common facilitating conditions which help to explain 'what works and why', taking into account differing organisational circumstances. This chapter presents the conclusions from the project, followed by some implications for national and European-level policy in the area.

Types of innovations in HR/work organisation

Most case study organisations had adopted hybrid strategies in which they were seeking to differentiate themselves from their competitors and were facing pressures on costs simultaneously with a need to improve productivity, service quality or product/service. The majority were international businesses facing some pressures as a result of globalisation and intensified competition within their own product markets.

The innovations implemented by the case study sites were highly varied depending upon organisational financial context, sector and HR goals but can be divided into three main types:

- Single primary focus improved organisational performance, typically focused on lean manufacturing principles, organisational efficiency and improved product quality (Bombardier, FAVI, Lufthansa, NUH, Radiometer), also service quality innovations (Finnish care home);
- Parallel focus multiple innovations, some aimed at organisational improvements and some aimed at benefiting employees such as improved communication, autonomy for employees, training/performance management, flexible working opportunities combined with efficient use of workspace (Elica, Kellogg, Rabobank, ROFF);
- *Hybrid primary focus* innovations aimed at employees with consequent benefits for organisation, for example health and well-being management and promotion initiatives (Slovenian retail group, Volkswagen Poznań).

There was relatively limited evidence of clear integration of different high performance work practices to support the same goal. In some cases, this was deliberate where one issue was of interest, but overall it is consistent with wider evidence that organisations adopt innovations in work organisation in a piecemeal fashion. This may reflect a need to prioritise scarce resources or a desire to 'pick and mix' the policies which have particular appeal, but points to a need for a better systemic understanding of how different HR practices complement each other and the order in which such practices can most fruitfully be implemented.

Some clear sectoral patterns explained different drivers for change. Organisations in knowledge-intensive industries and/or an expanding market tended to focus on innovations concerned with 'talent management' and employer branding which would enable them to recruit and retain staff, as represented in the cases of IT, pharmaceuticals and financial services (Abbott, Kellogg, ROFF), combined with savings from efficient use of workplace space. Organisations in sectors experiencing a more challenging economic climate were more commonly focused on cost reduction and efficiency improvements, typically in a manufacturing context (Bombardier, FAVI, Lufthansa, Radiometer), sometimes linked to securing future workplace viability and powerful influence from a North American parent company (Bombardier, Radiometer).

Methods of implementing change

In most of the case studies, the inspiration for the overall innovation came from managers and employees were then consulted about the proposals. In some case studies, typically those located in countries with a strong framework of social dialogue, social partners had significant involvement in the introduction of the innovations (Bombardier, Lufthansa, Radiometer). In a number of case studies, there was a dual approach to work organisation innovation, consisting of a top-down initial decision to innovate, followed by a bottom-up approach for implementing and sometimes choosing the improvements to be made (Elica, Lufthansa, NUH, Radiometer, ROFF). This illustrates a mutual dependence between each party to the employment relationship in making the innovations operate in practice. This was particularly critical where innovations needed to secure employee cooperation in making use of the greater autonomy afforded as part of the innovations or contributing suggestions for organisational improvements (Bombardier, Elica, FAVI, Rabobank, ROFF).

Convincing staff of the personal benefits of work organisation innovation remained a critical part of the implementation process and managers were often realistic about the time that this could take. Working groups were frequently used with considerable claims for success in bringing staff together from different parts of the organisation to enable development of common goals and objectives and learning about the perspectives of staff in different roles to make sure their views were recognised and taken into account in designing innovations (Abbott, Bombardier, Elica, Kellogg, Lufthansa, NUH, Radiometer, Slovenian retail group, Volkswagen Poznań).

A number of countries successfully tested out innovations in pilot projects either by targeting particular teams or grades of staff. This served to gain commitment and support from key groups of staff and to identify and resolve any initial problems (Abbott, Bombardier, FAVI, Lufthansa, NUH, Rabobank). This was consistent with a continuous improvement philosophy (Bombardier, Elica, Lufthansa, NUH, Radiometer, ROFF) which regarded organisational change as an ongoing process rather than as an end goal.

Several companies made use of expert advice, particularly where lean methodologies or flexible working or new IT supporting systems were being introduced (Abbott, Kellogg, Rabobank). Companies adopting new production processes often used academic expertise and sought inspiration from other companies that had implemented similar systems (Elica, FAVI, Lufthansa, Radiometer). In several cases, reliance on external support reduced over time with the deliberate strategy of the case study companies being to develop internal capability. Three case studies (Bombardier, Elica, Finnish care home) had made use of external funding to contribute to the costs of the innovation; in other case studies, the investment, especially in implementing lean work processes, was considerable.

This suggests overall a sophisticated approach to managing the implementation of high performance work practices and a significant commitment by managers to maximise the success of the projects. The scale of change and investment involved should not be underestimated by companies considering the adoption of these innovations. The scale and complexity of the organisational innovations made are likely to deter organisations which have furthest to travel, though potentially most to gain, from embarking on innovations in work organisation. This implies a need to consider suitable support mechanisms (see section on policy recommendations below).

Impact of innovations on employees and organisations

HPWPs that commonly increased job satisfaction were those that enabled task variety, responsibilities, autonomy and decision-making authority, supplemented by innovations introduced to improve employee well-being through a focus on work–life balance, health and lifestyle. The latter enabled a more effective balance between work and personal life rather than directly affecting job content. Preserving social contact between colleagues and customers, especially where new

working patterns are introduced, is important to sustain job satisfaction. Employee motivation was improved by the innovations which provided:

- job enrichment;
- greater responsibilities and autonomy;
- skill variety and development;
- enhanced training;
- increased trust and organisational support;
- enhanced job security;
- opportunities for suggestions or challenge.

Positive impacts were also found on work-life balance and physical well-being where innovations improved job design and reduced physical strain.

However, HPWPs that improved autonomy, task variety, flexibility and decision-making authority also increased job strain through increasing work pressure, workloads and work pace – despite efforts by organisations to implement health and safety measures. The latter often focused on how work was carried out rather than the volume and pace.

There was evidence in almost all case studies of HPWPs increasing knowledge-sharing and idea generation, heightened where opportunities to acquire and use new skills in a redesigned work process were provided. There was also evidence of greater collective problem sharing and solving. Innovations involving lean management were positively associated with an increase in organisational commitment, with employees showing greater commitment as a result of job enrichment and greater reliance on team cooperation (punctuality, discipline and reliability). HPWPs that placed greater emphasis on trust towards employees also showed evidence of fostering greater organisational commitment. HPWPs involving teamworking, flexible working and employee involvement also increased organisational citizenship behaviours through reinforcing the perception of employer support, which in turn encouraged employees to increase their contribution or cooperation. Less formal communication was also a common feature linked to the introduction of HPWPs; communication paths became more efficient and resulted in accelerated decision-making which in turn had positive impacts on service quality. New participatory cultures were also fostered by increases in mutual trust and cooperation and employee involvement.

HPWPs involving lean management, teamworking, flexible working practices, workplace redesign and employee involvement were most commonly associated with increased company productivity, improved service quality, and, to a lesser extent, reduced customer complaints as complaint levels were often reported to be low already. Lean management, teamworking and flexible working also contributed to reduced operational costs. No case study organisations reported a direct impact on profit margins, which is unsurprising because of the large number of other influences which affect this outcome.

Some case studies illustrated improvements in job security for groups such as older workers who benefited from initiatives targeted at keeping them in the labour force, but there was no evidence of HPWP adoption leading to job creation. This reflects the challenging conditions faced by many of the case study companies in the current economic climate, where job preservation is perhaps a more realistic measure of HPWP impact.
There are a number of explanations for the relative impact of different innovations discernible through the theoretical frameworks used to analyse the data. One lies in the centrality of innovations to the work process and, partly dependent on this, the degree of employee engagement in the changes made. Greater centrality to the work process clearly makes innovations more likely to have a direct impact, even if measuring change over time is difficult because the nature of organisational change can be profound, for example in product market (FAVI). Those initiatives characterised by a high degree of employee choice about whether to participate, which are often positioned on the boundaries of work/personal life (for example health promotion, flexible working, compensation choices, concierge services) appear to have had a less profound and sometimes more uneven impact across the workforce. These types of innovations tend to achieve their impact by enhancing perceptions that employers care about staff welfare and through increasing control over the timing and location of work. Innovations aimed at improving production efficiency tended to achieve impact through increasing skill discretion and autonomy by giving greater responsibility and variety of tasks to workers, combined with broader influence on organisational processes.

Organisational context and volume of market demands mean that implementing innovations in work organisation aimed at providing enhanced flexibility and discretion does not necessarily offset increased job strain arising from intensified production pressures. Case study sites, often those in a manufacturing context, found that increased demands for production efficiency could cause continued pressure on workers (Bombardier, Lufthansa, Radiometer, ROFF). This reflects wider literature findings that changes in work organisation should be supported, although not indiscriminately because similar terminology covers different systems which use similar instruments, implemented in different ways. Thus the application of HPWP systems needs to be considered carefully as these practices can be deployed with a variety of impacts on workers.This point can equally apply to flexible working systems for white-collar staff, where considerable responsibility was placed on individual staff to manage their own working time (Abbott, Kellogg, Rabobank, ROFF), often in a context of considerable customer and client pressures.

Key facilitating conditions for change

Five main sets of factors were identified as important for successful introduction of HPWPs. These include:

- employee support mechanisms to enable employees to cope with change and to implement some of the practices;
- organisational culture, which may be particularly important in ensuring that change is embedded and sustained;
- leadership, which may be critical in championing and sustaining participatory innovations;
- the broader organisational approach to change and learning;
- social dialogue and industrial relations systems.

Organisational support provided to employees to make innovations successful included tangible, practical types such as ICT equipment, and intangible types such as training. Training had a number of functions in raising awareness of the need for and justifying innovations and in management methodologies.

Management support was probably the single most important factor in enabling change and senior leaders often acted as the inspiration for major shifts in company culture and philosophy, combined with effective engagement of middle managers as change agents through participation in pilot projects.

Managerial focus on staff as individuals with differing needs and preferences, which was often reflected by embedding employee choice in the innovations and considerable time spent by managers on dialogue with employees, helped to build and sustain trust across organisations.

Three different forms of learning played important roles within the case studies:

- 1. Cognitive or knowledge-based learning concerning new management processes
- 2. Awareness-raising of the significance and impact of particular topics such as health and work-life balance
- 3. Learning focused on changing attitudes and behaviours.

At one level, cognitive or knowledge-based learning to develop familiarity with new management processes was essential for staff at all levels to understand the new principles and methodologies being adopted. Innovations based on improving health and well-being often included some form of learning intervention aimed at raising individual awareness of the importance of maintaining good health. Other forms of learning were focused more on shifting engrained attitudes and behaviours in order to inspire and motivate employees and managers to support and drive forward the implementation of innovations. In addition, considerable informal and on-the-job support and training was provided through coaching and individual discussions with line managers and informal peer-to-peer learning. There was widespread adoption of collaborative work group discussions to identify collective improvements to work processes which facilitated collective learning to make systemic changes. The process of learning was cumulative and often took place over a long period of time, with openness to change becoming a characteristic of behaviour at all levels of the workforce.

A diversity of types of engagement with social partners was adopted by case study companies, commonly reflecting national industrial relations systems in the case studies with the most sophisticated representation structures and established channels of communication. All the evidence suggests that the presence of social dialogue and involvement of worker representatives made a valuable and helpful contribution to the implementation of the HR innovations. The presence and active participation of worker representatives, whether in an official unionised capacity or not, was helpful in enabling both managers and employees to:

- understand differing needs and priorities;
- overcome any resistance to change on both sides through consultation;
- resolve any initial problems or difficulties in implementing the innovation through well-established communication structures.

Companies without formal representation instead used a mix of formal and informal direct communication between managers (at all grades) and employees. These dual structures often functioned well in companies with formal representation mechanisms for social partners.

Policy pointers

Recent reviews of the state of workplace innovations in Europe position them as a major contributor to wider social innovation which will support capacity-building in European companies in order to contribute to the goals of the European Economic Strategy. These goals include the attainment of 'smart' growth through the development of higher quality jobs in higher value added industries and 'inclusive' growth in which all citizens have access to high quality employment opportunities. Innovations in work organisation may also foster capabilities in organisational change conducive to wider innovations in products and services, which may in turn lead to employment growth.

Overall, workplace innovation is a greater determinant of the success of innovations in products and services than investment in ICT and R&D. However, there is some consensus that the diffusion of HR innovations across European

companies is so far too limited, too patchy and too slow (European Commission, 2011). This is due to a combination of employers finding the language of innovations in work organisation difficult to interpret, market failures leading to limited pressures for diffusion and a surprising lack of policy stimulus. This leads to the following recommendations for action.

- 1. Continue to raise understanding of the nature and impact of High Performance Work Practices among policymakers at national and European levels. The variety of terminology and practices encompassed can make this a difficult territory to map and understand for non-experts so a concerted effort should be made to provide a simple and compelling definition with potential for widespread recognition and acceptance.
- 2. Raising awareness about the role and potential of workplace innovation should include EU-level social partners who are well placed to take action to help diffuse HPWPs in organisations. In particular, evidence of the role that social partners can play at institutional levels in diffusing HPWPs would be welcome. This would include EU-level, cross-sectoral and sectoral social dialogue committees which are positioned to disseminate good practice among national affiliates and organisations. Such multi-level diffusion would help maximise cumulative impact, since the action of individual actors is likely to be more limited in its reach. Eurofound is well placed to lead on this activity due its tripartite structure and pan-European reach. Social partners are also well placed to take action to help diffuse HPWPs across organisations, given their ability to translate and provide convincing examples from research findings and through their knowledge of practices in different organisations to persuade managers and workers of the benefits of adopting HPWPs.
- 3. Incorporate measures and benchmarks of the diffusion of High Performance Work Practices through the European Employment Strategy to monitor progress on the adoption of practices across different EU member states. This might include measures of the adoption of practices such as performance management, employee consultation/involvement/communications methods and levels of job autonomy, in addition to training provision indicators already measured through the Continuing Vocational Training Survey. Existing survey data already provide an indication of differential diffusion patterns across EU countries, for example through Eurofound's European Company Surveys, but appropriate policy levers need to be considered to encourage member states to support diffusion of HR innovations in each country.
- 4. Enhance diffusion of understanding, promotion and support for work organisation innovations through building funding eligibility into existing policy programmes, e.g. ESF and broader innovation funding programmes aimed at SMEs through the European Commission's Directorate General for Enterprise and Innovation, and Directorate General for Employment, Social Affairs and Inclusion. The review of policy initiatives conducted for this project revealed a gap in programmes which seek to foster an integrated approach to capital and social innovations. The case studies in this report add to the already considerable body of evidence suggesting that there is much learning to spread from relatively sophisticated practice in Benelux and the Nordic countries to other parts of the EU, but equally promising examples of innovations from southern European countries which are less well documented in existing literatures.
- 5. Take actions to support and promote a network of organisations to exchange good practice, undertake cross-country research and comparisons between Member States. Wider reviews of the literature often show that managers are sceptical and unconvinced of the benefits of HR innovations. Their preferred method of learning about the benefits of innovations is primarily through the experience of comparable organisations, so exchange visits could be funded based on the Cedefop model for exchange of good practice between VET practitioners, which the European Foundation for the Improvement of Working and Living Conditions would be well placed to facilitate. A dossier of short case studies as impact narratives could be helpful. These should be focused on implementation of work organisation innovations in a variety of organisational contexts and illustrate the impact of work organisation innovations not as an end in themselves but how they contribute to wider organisational change and key performance indicators.

- 6. Improve consistency of mechanisms designed to enhance working conditions and labour standards across sectors. The case studies have shown considerable variation in the application of work organisation innovations between sectors. Where worker representation is more robust, there appear to be higher levels of employee engagement with more powerful and extensive forms of change. Policy attention needs to be given to how best to lever the power of supply chains to embed good HR management practices as a norm, especially through multi-national companies, drawing on the expertise of organisations such as the ILO and the European Foundation for the Improvement of Working and Living Conditions.
- 7. Develop synergies between European policies on working conditions and public health policies on individual wellbeing outside the workplace. This would help to bridge the interface between employer responsibilities for staff health and safety and individual rights and responsibilities held by all citizens. The European Occupational Health and Safety Agency (EU OSHA) and the EC's Executive Agency for Health and Consumers (EAHC) may have a helpful role to play here.
- 8. Encourage an understanding of High Performance Work Practices among managers, focusing on how different policies, processes and systems can be integrated to develop synergies in overall HR strategies resulting in optimal performance outcomes. Incorporate knowledge of innovative HR management practices in major management qualifications which have pan-European accreditation, e.g. generalist undergraduate management degrees and MBAs.

References

All Eurofound publications are available at www.eurofound.europa.eu.

Amabile, T. M. and Gryskiewicz, S. S. (1987), *Creativity in the R&D laboratory*, Technical Report 30, Center for Creative Leadership, Greensboro, NC, USA.

Amabile, T. and Conti, R. (1999), 'Changes in the work environment for creativity during downsizing', *Academy of Management Journal*, Vol. 42, No. 6, pp. 630–640.

Amabile, T., Conti, R., Coon, H., Lazenby, J. and Herron, M. (1996), 'Assessing the work environment for creativity', *Academy of Management Journal*, Vol. 39, No. 5, pp. 1154–1184.

Angle, H. L. (1989), 'Psychology and organizational innovation', in Van de Ven, A. H., Angle, H. L. and Poole, M. S. (eds.), *Research on the management of innovation: The Minnesota studies*, Harper & Row, New York, pp. 135–170.

Appelbaum, E. and Berg, P. (2000), *High-performance work systems and labor market structures*, Kluwer Academic/ Plenum Publishers, New York.

Appelbaum, E., Bailey, T., Berg, P. and Kalleberg, A. (2000), *Manufacturing advantage: Why high-performance work* systems pay off, Cornell University Press, Ithaca, NY.

Argyris, C. and Schön, D. (1978), Organizational learning: A theory of action perspective, Addison-Wesley, Reading, MA, USA.

Arundel, A., Lorenz, E., Lundvall, B.-A. and Valeyre, A. (2006), 'The organisation of work and innovative performance: A comparison of the EU-15', conference presentation at the Statistics Canada Blue Sky II Indicators Conference, Ottawa, Canada, October 2006.

Ashton, D. and Sung, J. (2002), *Supporting workplace learning for high performance working*, International Labour Office, Geneva.

Axtell, C. M., Holman, D. J., Unsworth, K., Wall, T. D., Waterson, P. E. and Harrington, E. (2000), 'Shopfloor innovation: Facilitating the suggestion and implementation of ideas', *Journal of Occupational and Organizational Psychology*, Vol. 73, No. 3, pp. 265–285.

Bailey, T. (1993), *Discretionary effort and the organization of work: Employment participation and work reform since Hawthorne*, Working paper, Teachers College, Columbia University, New York.

Barsh, J., Cappozzi, M. M. and Davidson, J. (2008), Leadership and innovation, McKinsey, New York.

Batt, R. and Appelbaum, E. (1995), 'Worker participation in diverse settings: Does the form affect the outcome, and if so, who benefits?' *British Journal of Industrial Relations*, Vol. 33, No. 3, pp. 353–378.

Beck, U. (1992), Risk Society: Towards a new modernity, Sage, London.

Belfield, R. and Marsden, D. (2003), 'Performance pay, monitoring environments, and establishment performance', *International Journal of Manpower*, Vol. 24, No. 4, pp. 452–471.

Belt, V. and Giles, L. (2009), *High performance working: A synthesis of the key literature*, Evidence Report 4, UK Commission for Employment and Skills, London.

Bessant, J. R. (2003), *High-involvement innovation: Building and sustaining competitive advantage through continuous change*, John Wiley & Sons, Chichester.

Beugelsdijk, S. (2008), 'Strategic human resource practices and product innovation', *Organisation Studies*, Vol. 29, No. 6, pp. 821–847.

BIBB (2010), *Grundauswertung der BIBB/BAUA Erwerbstätigenbefragung 2005/2006*, Bundesinstitut für Berufsbildung, Dortmund.

Birdi, K., Clegg, C., Patterson, M., Robinson, A., Stride, C. B., Wall, T. D. et al (2008), 'The impact of human resource and operational management practices on company productivity: A longitudinal study', *Personnel Psychology*, Vol. 61, No. 3, pp. 467–501.

Birkinshaw, J., Hol, M. J., Hamel, G. (2008), 'Management innovation', *Academy of Management Review*, Vol. 33, No. 4, pp. 825–845.

Black, S. and Lynch, L. (1997), *How to compete: The impact of workplace practices and information technology in productivity*, NBER Working Paper No. 6120, National Bureau of Economic Research, Cambridge, MA.

Black, S. and Lynch, L. (2004), 'What's driving the new economy? The benefits of workplace innovation', *The Economic Journal*, Vol. 114, pp. 97–116.

Blinder, A S. (1990), Paying for productivity, Brookings, Washington DC.

Boselie, P., Dietz, G. and Boone C. (2005), 'Commonalities and contradictions in HRM and performance research', *Human Resource Management Journal*, Vol. 15, No. 3, pp. 367–394.

Boxall, P. (2003), 'HR strategy and competitive advantage in the service sector', *Human Resource Management Journal*, Vol. 13, No. 3, pp. 5–20.

Boxall, P. and Macky, K. (2009), 'Research and theory on high-performance work systems: progressing the high-involvement stream', *Human Resource Management Journal*, Vol. 19, No. 1, pp. 3–23

Business Decisions (2002), *New forms of work organisation: The obstacles to wider diffusion*, DG Employment & Social Affairs, KE-47-02-115-EN-C, European Commission, Brussels.

Capelli, P. and Neumark, D. (2001), 'Do "high performance" work practices improve establishment level outcomes?' *Industrial and Labour Relations Review*, Vol. 54, No. 4, pp. 737–775.

Cassell, C., Nadin, S., Gray, M. and Clegg, C. (2002), 'Exploring human resource management practices in small and medium sized enterprises', *Personnel Review*, Vol. 31, No. 6, pp. 671–692.

Chandola, T. (2010), Stress at work, The British Academy, London.

Chen, C. J. and Huang, J. W. (2009), 'Strategic human resource practices and innovation performance – The mediating role of knowledge management capacity', *Journal of Business Research*, Vol. 62, No. 1, pp. 104–114.

Choi, J. N. (2007), 'Change-oriented organizational citizenship behavior: Effects of work environment characteristics and intervening psychological processes', *Journal of Organizational Behavior*, Vol. 28, No. 4, pp. 467–485.

Combs, C., Yongmei, L., Hall, A. and Ketchen, D. (2006), 'How much do high-performance work practices matter? A meta-analysis of their effects on organizational performance', *Personnel Psychology: A Journal of Applied Research*, Vol. 59, pp. 501–528.

Coriat, B. and Dosi, G. (1998), 'Learning how to govern and learning how to solve problems: On the coevolution of competences, conflicts and organizational routines', in Chandler, A. D., Hagström, P. and Sölvell, Ö. (eds.), *The dynamic firm: The role of technology, strategy, organization and regions*, Oxford University Press, Oxford, pp. 103–133.

Coyle-Shapiro, J. (2002), 'A psychological contract perspective on organisational citizenship behaviour', *Journal of Organizational Behaviour*, Vol. 23, No. 8, pp. 927–946.

Coyle-Shapiro, J., Kessler, I. and Purcell, J. (2004), 'Exploring organisationally directed citizenship behaviour: reciprocity or 'Is it my job?', *Journal of Management Studies*, Vol. 41, No. 1, pp. 85–106.

Delsoldato, L. and Pini, P. (2006), *Dinamiche innovatie, relazioni industriali, performance. Una indagine sulle imprese manifatturiere di Reggio Emilia*, Serie Working Paper No. 1, Research Centre for Innovation and Knowledge Economy, Ferrara, Italy.

Devaro, J. (2006), 'Teams, autonomy, and the financial performance of firms', *Industrial Relations: A Journal of Economy and Society*, Vol. 45, No. 2, pp. 217–269.

DiMaggio, P. J. and Powell, W. (1983), 'The iron cage revisited institutional isomorphism and collective rationality in organizational fields', *American Sociological Review*, Vol. 48, pp. 147–160.

DJØF (Danish Association of Lawyers and Economists) (2004), *Nye kilder til stress? Foreløbig afrapportering fra resultaterne af spørgeskemaundersøgelsen i DJØF's 'stress-projekt'* [New sources of stress? Preliminary reports from the results of the questionnaire in DJØF's 'stress-project], DJØF, Copenhagen.

Dodgson, M. (1993), 'Organizational learning: A review of some literatures', *Organization Studies*, Vol. 14, No. 3, pp. 375–394.

Eaton, S. C. (2003), 'If you can use them: Flexibility policies, organizational commitment, and perceived performance', *Industrial Relations: A Journal of Economy and Society*, Vol. 42, No. 2, pp. 145–167.

Easton, G. S. and Jarrell, S. L. (1998), 'The effects of total quality management on corporate performance: An empirical investigation', *The Journal of Business*, Vol. 71, No. 2, pp. 253–305.

EESC (European Economic and Social Committee) (2011), *Innovative workplaces as a source of productivity and quality jobs*, Own Initiative Opinion, EESC opinion SC/034, EESC, Brussels.

Engstler, M. and Welsch, R. (2008), *Banks & future: Preparing for the Scenario 2015*, Foresight Brief No. 131, The European Foresight Monitoring Network, Brussels.

Eurofound (1997), Sisson, K. (ed.), New forms of work organisation – Can Europe realise its innovative potential? Results of a survey of direct employee participation in Europe, Publications Office of the European Union, Luxembourg.

Eurofound (1999), Benders, J., Huijgen, F., Pekruhl, U. and O'Kelly, P., *Useful but unused – Group work in Europe*, Findings from the EPOC Survey, Publications Office of the European Union, Luxembourg.

Eurofound (2003), Daubas-Letourneux, V. and Thébaud-Mony, A., *Work organisation and health at work in the European Union*, Publications Office of the European Union, Luxembourg.

Eurofound (2007), Vašková, R., Teamwork and high performance work organisation, Eurofound, Dublin.

Eurofound (2009a), Valeyre, A., Lorenz, E., Cartron, D., Csizmadia, P., Gollac, M., Illéssy, M. and Makó, C., *Working conditions in the European Union: Work organisation*, Publications Office of the European Union, Luxembourg.

Eurofound (2009b), Burchell, B., Cartron, D., Csizmadia, P., Delcampe, S., Gollac, M., Illéssy, M., Lorenz, E., Makó, C., O'Brien, C. and Valeyre, A., *Working conditions in the European Union: Working time and work intensity*, Publications Office of the European Union, Luxembourg.

Eurofound (2011a), Isusi, I., Recent developments in work organisation in the EU27 Member States and Norway, Eurofound, Dublin.

Eurofound (2011b), Cox, A., Higgins, T. and Speckesser, S., *Management practices and sustainable organisational performance: An analysis of the European Company Survey 2009*, Eurofound, Dublin.

European Commission (2009), *Commission Working Document. Consultation on the future EU 2020 Strategy*, COM(2009) 647/3, European Commission, Brussels.

European Commission (2011), Bureau of European Policy Advisers (BEPA), *Empowering people, driving change: Social innovation in the European Union*, Luxembourg: Publications Office of the European Union.

European Work & Technology Consortium (1998), Work organization, competitiveness, employment: The European approach, Nottingham Trent University, Nottingham.

Evans, W. R. and Davis W. D. (2005), 'High-performance work systems and organisational performance: The mediating role of internal social structure', *Journal of Management*, Vol. 31, No. 5, 758–775.

Exton, R. (2010), 'Enterprising health: Creating the conditions for entrepreneurial behaviour as a strategy for effective and sustainable change in health services', *Journal of Health Organization and Management*, Vol. 24, No. 5, pp. 459–479.

Filipczak, B. (1997), 'It takes all kinds: Creativity in the workforce', Training, Vol. 34, No.5, pp. 32–38.

Folger, R. and Konovsky, M. A. (1989), 'Effects of procedural and distributive justice on reactions to pay raise decisions', *Academy of Management Journal*, Vol. 32, No. 1, pp. 115–130.

Folger, R. and Cropanzano, R. (1998), Organizational justice and human resource management, Sage, Beverly Hills, CA.

Fombrun, C., Tichy, N. and Devanna, M. (eds.) (1984), Strategic human resource management, John Wiley, New York.

Foss, N. J., Laursen, K. and Pedersen, T. (2010), 'Linking customer interaction and innovation: The mediating role of new organisational practices', *Organization Science*, Vol. 22, pp. 980–999.

Gallie, D. (2011), *Production regimes, employee job control and skill development*, Centre for Learning and Life Chance in Knowledge Economies and Societies, London.

Garg, P. and Rastogi, R. (2006), 'New model of job design: motivating employees' performance', *Journal of Management Development*, Vol. 25, No. 6, pp. 572–587.

Guthrie, J. P. (2001), 'High-involvement work practices, turnover, and productivity: Evidence from New Zealand', *Academy of Management Journal*, Vol. 44, No. 1, pp. 180–190.

Hackman, J. and Oldham. G. (1976), 'Motivation through design of work', *Organizational Behaviour and Human Performance*, Vol. 16, No. 2, pp. 250–279.

Hall, P. A. and Soskice, D. W. (2001), Varieties of capitalism: The institutional foundations of comparative advantage, Oxford University Press, Oxford.

Hamel, G. and Prahalad, C. K. (1990), 'The core competence of the corporation', Harvard Business Review, May 1990.

Hatch, N. W. and Dyer, J. H. (2004), 'Human capital and learning as a source of sustainable competitive advantage', *Strategic Management Journal*, Vol. 25, No. 12, pp. 1155–1178.

Heffernan, M., Harney, B., Cafferkey, K. and Dundon, T. (2009), 'Exploring the relationship between HRM, creativity climate and organisational performance: Evidence from Ireland', paper presented at 2009 Academy of Management Conference, 7–11 August, Chicago.

Hempell, T. and Zwick, T. (2008), 'New technology, work organisation and innovation', *Economics of Innovation and New Technology*, Vol. 17, No. 4, pp. 331–354.

Hoyrup, S. (2010), 'Employee driven innovation and workplace learning: Basic concepts, approaches and themes', *Transfer: European Review of Labour and Research*, Vol. 16, No. 2, pp. 143–154.

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, pp. 635–672.

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, pp. 291–313.

Janssen, O. (2003), 'Innovative behaviour and job involvement at the price of conflict and less satisfactory relations with co-workers', *Journal of Occupational and Organizational Psychology*, Vol. 74, pp. 347–364.

Janssen, O. (2004), 'How fairness perceptions make innovative behaviour more or less stressful', *Journal of Organizational Behavior*, Vol. 25, No. 2, pp. 201–205.

Janssen, O., van de Vliert, E. and West, M. (2004), 'The bright and dark sides of individual and group innovation', *Journal of Organizational Behavior*, Vol. 25, No. 2, pp. 129–145.

Jiménez-Jiménez, D. and Sanz-Valle, R. (2008), 'Could HRM support organizational innovation?', *International Journal of Human Resource Management*, Vol. 19, No. 7, pp. 1208–1221.

Johnson, J. V. and Johansson, G. (eds.) (1991), *The psychosocial work environment: Work organization, democratization and health. Essays in memory of Bertil Gardell*, Baywood Publishing Company, Amityville, New York

Kalmi, P. and Kauhanen, A. (2008), 'Workplace innovations and employee outcomes: Evidence from Finland', *Industrial Relations*, Vol. 47, No. 3, pp. 430–459.

Kandel, E. and Lazear, E. (1992), 'Peer pressure and partnerships', *Journal of Political Economy*, Vol. 100, No. 4, pp. 801–817.

Kanter, R. M. (1988), 'When a thousand flowers bloom: Structural, collective and social conditions for innovation in organizations', in Staw, B. and Sutton, R. (eds.), *Research in organizational behaviour: An annual series of analytical essays and critical behaviour*, Vol. 22, Elsevier Science.

Kanter, R. M., Kao, J., and Wiersema, F. (eds.) (1997), *Innovation: Breakthrough ideas at 3M, DuPont, GE, Pfizer, and Rubbermaid*, HarperBusiness.

Karasek, R. (1979), 'Job demands, job decision latitude and mental strain: Implications for job redesign', *Administrative Science Quarterly*, Vol. 24, pp. 285–306.

Karasek, R. and Theorell, T. (1990), *Healthy work. Stress, productivity and the reconstruction of work life,* Basic Books, New York.

Kenny, B. and Reedy, E. (2006), 'The impact of organisational culture factors on innovation levels in SMEs: An empirical investigation', *Irish Journal of Management*, Vol. 27, No. 2, pp. 119–142.

Kessler, I. (2010), 'Financial participation' in Wilkinson, A., Gollan, P., Marchington, M. and Lewin, D. (eds.), *The Oxford handbook of participation in organizations*, Oxford University Press, Oxford, pp. 338–360.

Knights, D. and McCabe, D. (2000), 'Ain't misbehavin'? Opportunities for resistance under new forms of "quality" management', *Sociology*, Vol. 34, pp. 421–436.

Kristensen, C. J. (2011), 'Employee driven innovation in social work', paper presented at Employee Driven Innovation and Work Place Learning International Research Meeting, IRES Emilia-Romagna Bologna, Italy, 13–14 October 2011.

Lam, A. (2004), *Organisational innovation*, Brunel Research in Enterprise, Innovation, Sustainability & Ethics Working Paper No 1, Brunel University, London.

Laursen, K. and Foss, N. J. (2003), 'New human resource management practices, complementarities and the impact on innovation performance', *Cambridge Journal of Economics*, Vol. 27, No. 2, pp. 243–263.

Leede, J. and Looise, J. K. (2003), 'Innovation and HRM: Towards and integrated framework', *Creativity and Innovation Management*, Vol. 14, No. 2, pp. 108–117.

Legge, K. (2005), *Management work and organisations: Human resource management, rhetorics and realities*, Anniversary edition, Palgrave Macmillan, New York.

Lemon, M. and Sahota, P. S. (2004), 'Organisational culture as a knowledge repository for increased innovative capacity', *Technovation*, Vol. 24, No. 6, pp. 483–498.

Leonard-Barton, D. (1992), 'Core capabilities and core rigidities: A paradox in managing new product development', *Strategic Management Journal*, Vol. 13, No. S1, pp. 111–126.

Levinthal, D. A. and March, J. G. (1993), 'The myopia of learning', Strategic Management Journal, Vol. 14, pp. 95–112.

Locke, E. A. and Schweiger, D. M. (1979), 'Participation in decision-making: One more look', *Research in Organisational Behaviour*, Vol. 1, pp. 265–339.

Lorenz, E. (2006), 'The organisation of work, education and training and innovation', paper presented at *Conference on Education, Innovation and Development*, Calouste Gulbenkian Foundation, 27–28 November 2006, Lisbon.

Love, J. H., Roper, S. and Mangiarotti, G. (2006), *Organizing innovation: Complementarities between cross-functional teams*, DRUID Working Paper 06-27, Danish Research Unit for Industrial Dynamics, Copenhagen Business School, Copenhagen.

Lundvall, B.-Å. (ed.) (1992), National systems of innovation: Towards a theory of innovation and interactive learning, Pinter Publishers, London.

MacDuffie, J.P. and Pil, F. (1997), 'Changes in auto industry employment practices: An international overview', in Thomas, K., Lansbury, R. and MacDuffie, J. P. (eds.), *After lean production*, Cornell University Press, Ithaca, NY, pp. 9–42.

Marchington, M. and Wilkinson, A. (2010), *People management and development: Human resource management at work*, Chartered Institute for Personnel and Development, London.

Marchington, M., Goodman, J., Wilkinson, A. and Ackers, P. (1992), *New developments in employee involvement*, Employment Department, London.

Marmot, M. (2004), Status syndrome, Bloomsbury, London.

Marmot, M. (2010), Fair society, healthy lives. Strategic review of health inequalities in England post-2010, The Marmot Review, London.

Martins, E. C. and Terblanche, F. (2003), 'Building organisational culture that stimulates creativity and innovation', *European Journal of Innovation Management*, Vol. 6, No. 1, pp. 64–74.

McGourty, J., Tarshis, L.A., and Dominick, P. (1994), *Idea generation & innovation: A behavioral model based on the practices of exemplary companies*, Stevens Alliance for Technology Management, Castle Point on the Hudson, NJ.

Messersmith, J.G. and Guthrie, J.P. (2010), 'High performance work systems in emergent organizations: Implications for firm performance', *Human Resource Management*, Vol. 49, No. 2, pp. 241–264.

Mohr, R. and Zoghi, C. (2006), Is job enrichment really enriching?, US Bureau of Labor Statistics, Washington DC.

Mulgan, G. (2006), 'The process of social innovation', *Innovations: Technology, Governance, Globalization*, Vol. 1, No. 2, pp. 145–162.

Munshi, N., Oke, A., Stafylarakis, M., Puranam, P., Towells, S., Möeslein, K. et al (2005), *Leading for innovation*, Executive briefing, Advanced Institute for Management, London.

Nishii, L.H., Lepak, D.P. and Schneider, B. (2008), 'Employee attributions of the "why" of HR practices: Their effects on employee attributions, and customer satisfaction', *Personnel Psychology*, Vol. 61, No. 3, pp. 503–545.

Nonaka, I. (1994), 'A dynamic theory of organizational knowledge creation', Organization Science, Vol. 5, No. 1, pp. 14-37.

Nonaka, I. and Takeuchi, H. (1995), The knowledge creating company, Oxford University Press, Oxford.

Notelaers, G., De Witte, H. and Einarsen, S. (2010), 'A job characteristics approach to explain workplace bullying', *European Journal of Work and Organisational Psychology*, Vol. 19, No. 4, 2010, pp. 487–504.

OECD (Organisation for Economic Co-operation and Development) (2010), *Innovative Workplaces: Making better use of the skills within organisations*, OECD Publishing, Paris.

OECD (Organisation for Economic Co-operation and Development) and Eurostat (2005), Oslo manual: Guidelines for collecting and interpreting innovation data, 3rd edn, OECD Publishing, Paris.

Oldham, G. R. and Cummings, A. (1996), 'Employee creativity: Personal and contextual factors', *Academy of Management Journal*, Vol. 39, No. 3, pp. 607–635.

Omta, S. W. F., Bouter, L. M. and Van Engelen, J. M. L. (1994), 'Managing industrial pharmaceutical R&D: A comparative study of management control and innovative effectiveness in European and Ango-American companies', *R&D Management*, Vol. 24, No. 4, pp. 303–315.

Organ, D. W. (1988), Organizational citizenship behavior: The good soldier syndrome, Lexington Books, Lexington, MA.

Osterman, P. (1995), 'Skill, training, and work organization in American establishments', *Industrial Relations: A Journal of Economy and Society*, Vol. 34, No. 2, pp. 125–146.

Paauwe, J. (2004), HRM and performance: Achieving long-term viability, Oxford University Press, Oxford.

Paauwe, J. (2009), 'HRM and performance: Achievements, methodological issues and prospects', *Journal of Management Studies*, Vol. 46, No. 1, pp. 129–142.

Parker, S. and Ohly, S. (2008), 'Designing motivating jobs: An expanded framework for linking work characteristics and motivation', in Kanfer, R., Chen, G. and Pritchard, R. (eds.), *Work motivation: Past, present, and future*, SIOP's Organizational Frontiers Series, Routledge Academic, London, Chapter 7.

Pavitt, K. (1991), 'Key characteristics of the large innovating firm', British Journal of Management, Vol. 2, pp. 41-50.

Pedler, M., Burgoyne, J. and Boydell, T. (1991), *The learning company. A strategy for sustainable development*, McGraw-Hill, London.

Pendleton, A. (2006), 'Incentives, monitoring, and employee stock ownership plans: New evidence and interpretations', *Industrial Relations: A Journal of Economy and Society*, Vol. 45, No. 4, pp. 753–777.

Perry-Smith, J. E. and Blum, T. C. (2000), 'Work-family human resource bundles and perceived organizational performance', *Academy of Management Journal*, Vol. 43, pp. 1107–1117.

Polanyi, M. (1958), Personal knowledge: Towards a post critical philosophy, University of Chicago Press, Chicago.

Porter, M. E. (1980), Competitive strategy: Techniques for analyzing industries and competitors, Free Press, New York.

Porter, M. E. (1985), Competitive advantage: Creating and sustaining superior performance, Free Press, New York.

Pot, F. (2011), 'Workplace innovation for better jobs and performance', *International Journal of Productivity and Performance Management*, Vol. 60, No. 4, pp. 404–415.

Pot, F. and Vaas, F. (2008), 'Social innovation, the new challenge for Europe', *International Journal of Productivity & Performance Management*, Vol. 57, No. 6, pp. 468–473.

Procter, S. and Burridge, M. (2008), 'Teamworking and performance: The extent and intensity of teamworking in the 1998 UK Workplace Employee Relations Survey (WERS98)', *International Journal of Human Resource Management*, Vol. 19, No. 1, pp. 153–168.

Purcell, J. (1999), 'The search for "best practice" and "best fit": Chimera or cul-de-sac?' *Human Resource Management Journal*, Vol. 9, pp. 326–341.

Purcell, J. and Hutchinson, S. (2007), 'Front-line managers as agents in the HRM performance causal chain: Theory, analysis and evidence', *Human Resource Management Journal*, Vol. 17, No. 1, pp. 3–20.

Ramsay, H., Scholarios, D. and Harley, B. (2000), 'Employees and high-performance work systems: Testing inside the black box', *British Journal of Industrial Relations*, Vol. 38, No. 4, pp. 501–531.

Ramstad, E. (2008), Innovation generating model: Simultaneous development of work organisation and knowledge infrastructure, PhD thesis, Helsinki University of Technology, Helsinki.

Ramstad, E. (2009), 'Expanding innovation system and policy – An organisational perspective', *Policy Studies*, Vol. 30, No. 5, pp. 533–553.

Robinson, A. G. and Stern, S. (1997), Corporate creativity, Berrett-Koehler, San Francisco.

Rousseau, D. (1995), *Psychological contract in organizations: Understanding written and unwritten agreements*, Sage, Newbury Park, CA.

Schein, E. H. (1978), Career dynamics: Matching individual and organizational needs, Addison-Wesley, Reading, MA.

Schuler, R. (1989), 'Strategic human resource management', Human Relations, Vol. 42, No. 2, pp. 157-184.

Senge, P. M. (1990), The fifth discipline: The art and practice of the learning organization, Doubleday, New York.

Seppälä, T., Lipponen, J., Bardi, A. and Pirttilä-Backman, A.-M. P. (2011), 'Change-oriented organizational citizenship behaviour: An interactive product of openness to change values, work unit identification, and sense of power', *Journal of Occupational and Organizational Psychology*, Vol. 85, No. 1, pp. 136–155.

Sisson, K. (2009), *Why employment relations matter*, Warwick Papers In Industrial Relations Number 92, Industrial Relations Research Unit, Warwick.

Škerlavaj, M., Štemberger, M. I., Škrinjar, R. and Dimovski, V. (2007), 'Organizational learning culture – The missing link between business process change and organizational performance', *International Journal of Production Economics*, Vol. 106, No. 2, pp. 346–367.

Teece, D., Pisano, G. and Shuen, A. (1997), 'Dynamic capabilities and strategic management', *Strategic Management Journal*, Vol. 18, No. 7, pp. 509–533.

Teglborg-Lefèvre, A. C. (2010), 'Modes of approach to employee-driven innovation in France: An empirical study', *European Review of Labour and Research*, Vol. 16, pp. 211–226.

Tesluk, P. E., Faar, J. L. and Klein, S. R. (1997), 'Influences of organizational culture and climate on individual creativity', *The Journal of Creative Behavior*, Vol. 31, No. 1, pp. 21–41.

Theorell, T. (2007), 'Psychosocial factors in research on work conditions and health in Sweden', *Scandinavian Journal of Work and Environment Health*, Vol. 33, No. 1, pp. 20–26.

Theorell, T. and Karesek, R. (1996), 'Current issues relating to psychosocial job strain and cardiovascular disease research', *Journal of Occupational Health and Psychology*, Vol. 1, pp. 9–26.

Tidd, J. and Bessant, J. (2009), *Managing innovation – Integrating technological, market and organisational change*, John Wiley & Sons, Chichester.

Torraco, R. J. and Swanson, R. A. (1995), 'The strategic roles of human resource development', *Human Resource Planning*, Vol. 18, No. 4, pp. 10–21.

Totterdill, P. (2001), *Labour market and work. Organization trends*. TUTB Newsletter No. 15–16, February 2001, European Trade Union Technical Bureau for Health and Safety, Brussels.

Totterdill, P., Exton, O., Exton, R. and Sherrin, J. (2009), *Workplace innovation policies in European countries: A report to KOWIN*, UK Work Organisation Network, Nottingham.

Tushman, M. L. and O'Reilly, C. A. III (1997), *Winning through innovation: A practical guide to leading organizational change and renewal*, Harvard Business School Press, Boston, MA.

Walton, R. E. (1985), 'From control to commitment in the workplace', *Harvard Business Review* (March-April), pp. 77-84.

Way, S. A. (2002), 'High performance work systems and intermediate indicators of firm performance within the US small business sector', *Journal of Management*, Vol. 28, No. 6, pp. 765–785.

Weerwardena, J. (2011), 'Exploring the role of learning capabilities in innovation-based competitive strategy', conference presentation, *Organisational learning and knowledge*, 30 May to 2 June, Lancaster.

Weisberg, R. W. (2006), 'Expertise and reason in creative thinking: Evidence from case studies and the laboratory', in Kaufman, J. C. and Baer, J. (eds.), *Creativity and reason in cognitive development*, Cambridge University Press, Cambridge, pp. 7–42.

White, M., Hill, S., McGovern, P., Mills, C. and Smeaton, D. (2003), "High-performance" management practices, working hours and work–life balance', *British Journal of Industrial Relations*, Vol. 41, No. 2, pp. 175–195.

Whitfield, K. (2000), 'High-performance workplaces, training, and the distribution of skills', *Industrial Relations*, Vol. 39, No. 1, pp. 1–25.

Wolfe, R., Wright, P. and Smart, D. (2006), 'Radical HRM innovation and competitive advantage: The Moneyball story', *Human Resource Management Journal*, Vol. 45, No. 1, pp. 111–145.

Wood, S. (1999), 'Human resource management and performance', *International Journal of Management Reviews*, Vol. 1, No. 4, pp. 367–413.

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, pp. 1335–1372.

Work In Net (2010), *The grand societal challenge: Sustainable European work to withstand global economic change and crisis*, Final conference of the WORK-IN-NET Consortium on 11–12 March 2010, Berlin.

Zoghi, C., Mohr, R. D. and Meyer, P. B. (2010), 'Workplace organisation and innovation', *Canadian Journal of Economics*, Vol. 43, No. 2, pp. 622–639.

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