

Society for Knowledge Economics

Leading Australia to More Innovative, Productive and
Fulfilling Workplaces – The Role of Government

A report commissioned by the
Department of Education, Employment and Workplace Relations

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About the Society for Knowledge Economics

The Society for Knowledge Economics (SKE) is a not-for-profit organisation founded in June 2005. Members and supporters include organisations such as Microsoft, Westpac Banking Corporation, CPA Australia, HP Enterprise Services, PricewaterhouseCoopers, the University of New South Wales, Copenhagen Business School, and others.

The SKE believes that Australia needs collaborative, cross-sectoral programs and efforts, supported by industry, academia, policy makers and others, who work together to make Australian organisations (large and small, public and private) the most innovative, productive and fulfilling places in the world to work.

A leading knowledge economy is one that aims to better understand, develop and leverage the most potent force in creating economic and social value today—its people and collective knowledge.

To this end, the SKE conducts industry-based research projects and prepares policy submissions, research papers, thought leadership pieces and editorials to influence policy directions and management and leadership practices in the Australian economy. Visit www.ske.org.au for more information.

SKE Research and Collaborative Projects

The SKE Industry Partnering and Research Program brings together representatives from private, public, research and community organisations to investigate, research, test and develop practical programs and tools for the benefit of Australian workplaces as a whole.

Some of our research partners include:

- Business Council of Australia
- Certified Practising Accountant (CPA) Australia
- Department of Education, Employment and Workplace Relations, Canberra
- Department of Finance and Deregulation, Canberra
- Department of Innovation, Industry and Regional Development, the Victorian Government
- Innovation and Business Skills Australia
- Microsoft Australia
- New South Wales Department of Lands
- Organisation for Economic Co-operation and Development (OECD) World Intellectual Capital Initiative
- University of New South Wales
- United States Enhanced Business Reporting Consortium (the U.S. Securities and Exchange Commission)
- Westpac Banking Corporation

Research reports include:

- Society for Knowledge Economics (2009), *Workplaces of the Future*, prepared on behalf of the Department of Education, Employment and Workplace Relations, for the Workplaces of the Future Forum, Melbourne, July, 2009.
- Society for Knowledge Economics (2009), *Enterprise Innovation*, prepared on behalf of Innovation and Business Skills Australia, for the Innovation and Business Skills Australia Innovation Summit, Parliament House, Canberra, June, 2009.
- Society for Knowledge Economics (2009), *Development of an Innovation Capability Framework and a Library of Resources and Intervention Strategies*, prepared on behalf of Innovation and Business Skills Australia, January, 2009.
- Society for Knowledge Economics (2008), *Leading Australia to More Innovative, Productive and Fulfilling Workplaces—The Role of Government*, prepared on behalf of the Department of Education, Employment and Workplace Relations, November, 2008.
- Society for Knowledge Economics (2008), *Enabling Innovation: Leadership, Culture and Management at the Workplace Level*, prepared on behalf of the Victorian Department of Innovation, Industry and Regional Development, June, 2008.
- Society for Knowledge Economics (2008), *Australia's National Innovation System*, submission to Dr Terry Cutler's National Innovation Review Panel, sponsored by the Business Council of Australia, April, 2008.
- Society for Knowledge Economics (2008), *Submission to the Enhanced Business Reporting Consortium for the U.S. Securities and Exchange Commission's Advisory Committee on Improving Financial Reporting*, January, 2008.
- Society for Knowledge Economics (2007), *Leadership and Culture—the Missing Pillar of the National Innovation Agenda*, a response to the Victorian Government's proposed National Innovation Agenda, November, 2007.
- Society for Knowledge Economics (2005), *Intangible Drivers of Organisational Productivity and Prosperity—International Trends and Developments in Extended Performance Management, Measurement and Reporting*, prepared on behalf of the Department of Finance, February, 2007.
- Business Council of Australia, in collaboration with the Society for Knowledge Economics (2006), *New Pathways to Prosperity—a National Innovation Framework for Australia*, November, 2006.
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- Penny Tamkin, Programme Director Management and Leadership, The Work Foundation, United Kingdom;
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- Douglas Watt, Associate Director Research, the Conference Board of Canada.

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Project Team

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Executive Summary

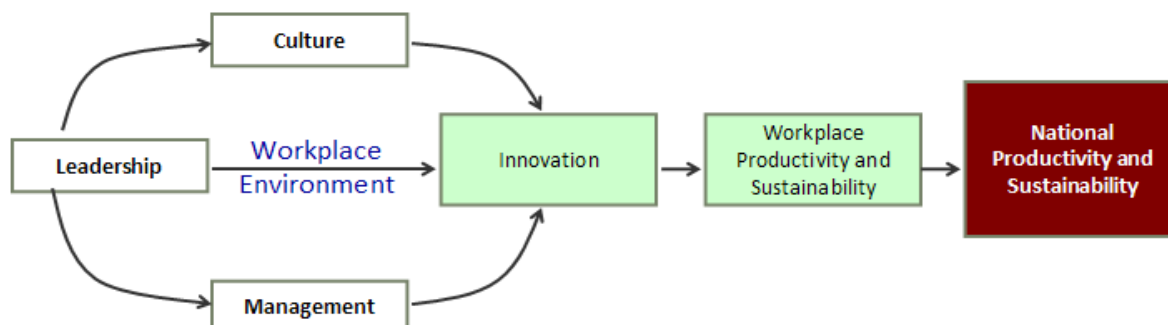
The Australian Government Department of Education, Employment and Workplace Relations (DEEWR) commissioned this report, prepared by the Society for Knowledge Economics (SKE). The objective of this report is to better understand the rationale for, and potential benefits of, government involvement and support for the development of Australia's workplace leadership, culture and management (LCM) capabilities, with the aim of encouraging more innovative, productive and fulfilling workplaces in Australia.

Report Findings:

Based on the research conducted and consultations around Australia and the world, this report concludes that:

- Innovation in the workplace is supported and enabled by a “complex, non linear system”, which is broad and dependent on more than any one factor (e.g. workplace skills, R&D, infrastructure, government regulation, incentives (Cutler, 2008)). In order to ensure the Australian innovation system is as healthy as possible, all facets require understanding and attention.
- A factor that is often overlooked or underemphasised is the role and quality of leadership, culture and management practices in encouraging and enabling workplace innovation (see Figure 1).

Figure 1. Enabling Innovation and Workplace Productivity through Leadership, Culture and Management



- Focusing on LCM at the workplace level matters both in terms of improving innovation, driving productivity and ensuring sustainability. This has never been more important than in the context of the world financial crisis, where it can be suggested that much of the problems created are a consequence of not having the right LCM practices deployed in many aspects of the world's financial markets.
- There is a real risk that in the more fearful environment of a world economic downturn, Australian businesses will cut the wrong costs. More than ever, in a downturn, great leadership is required to successfully navigate rough water. Great management and culture are required to ensure that businesses come through to the other side more innovative and more productive. Strengthening Australian businesses' LCM capabilities is arguably more, not less, important in the current environment.

- There are some examples around the world of international initiatives to apply coordinated energy across all sectors, including government and business, to raise the quality of workplace management practices and innovation capabilities. Specifically, government led workplace development programs in Ireland and Finland are worthy of serious review and consideration by the Australian Government.
- Slowing growth rates in such countries (specifically Ireland) is due to a variety of macro-economic factors, including an over extension of property and construction (which is where the job losses have occurred) and increased reliance on international financial services. Such countries are continuing to invest in workplace development programs, including LCM programs and recent years have seen an increase in investment.
- While limited evaluative data is available at this stage, where programs are successful overseas, it is generally due to a facilitative rather than prescriptive approach, and also due to shared ownership by industry, government, unions, researchers, associations and others. Leadership by the Prime Minister seems to be another key driver of success.
- In Australia, the *Enterprising Nation* report (Karpin Commission, 1995) was the last significant Government review that considered Australia's workplace management, culture and leadership.
- Australian state level initiatives directed at lifting innovation through improved leadership, culture and management practices are sporadic and where they exist, fragmented and lacking strategic coordination.
- The recent green and white papers, *venturousaustralia*¹ (Cutler, 2008) and *Powering Ideas*², provide many useful insights into "the drivers" of innovation. There are also suggestions that a "workplace of the future forum" should be considered. Yet, limited specific policy recommendations are provided for strengthening innovation by improving the quality of LCM in the workplace³.
- Whilst *Innovation and Business Skills Australia* (IBSA) is working on several important initiatives to lift businesses' capabilities to manage and lead innovative enterprises in Australia, the general lack of programs and focus by Government on LCM is surprising and a missed opportunity. This is particularly true given the growing evidence and extent of research that demonstrates the direct correlation of good LCM practices with strong business performance, including labour productivity and economic growth (see Table 1 for examples).

¹ Appendix A includes the SKE's response to *venturousaustralia*, which emphasises the need to do more in this aspect of developing Australia's innovation system.

² Australian Government Department of Innovation, Industry, Science and Research, 2009, *Powering Ideas: An Innovation Agenda for the 21st Century*, 12 May, 2009.

³ For example, the three recommendations made in the "People and Skills" section of the *venturousaustralia* report focus on education, immigration and professional associations; whilst these are very important, more is needed to lift innovation capacity in the workplace including greater focus on LCM as levers of workplace transformation.

Table 1. Examples of Productivity Impact

Country	Research	Productivity Impact of Workplace Innovation and High Performing Workplace Practices
Ireland, National Centre for Partnership and Performance, (Flood, et al., 2008)	<i>“New Models of High Performance Work Systems: The Business Case for Strategic HRM, Partnership and Diversity and Equality Systems”</i>	<p>The 132 companies adopting high performing workplace systems showed a:</p> <ul style="list-style-type: none"> • 14.8 per cent increase in <u>labour productivity</u> or €44 399 per employee or €12 million per median company 270 employees. • 12.2 per cent improvement in <u>workforce innovation</u> or €2061 per employee or €556 200 for median. • 7.7 per cent reduction in <u>employee turnover</u> or equivalent to retention of 2 additional employees in median company.
United Kingdom, The Work Foundation, (2003, 2005)	<i>“Cracking the Performance Code: How the Top Firms Succeed.”</i>	<p>The 1000 companies surveyed in 2003 showed that the top 33 per cent of performers in terms of LCM enjoy:</p> <ul style="list-style-type: none"> • 2.5 per cent more sales per employee • 1 per cent more profitability • 17.5 per cent more growth of exports as per cent of sales <p>The average United Kingdom firm is 25 per cent less productive than need be.</p> <p>The 2005 study of 3000 firms shows that firms at the top of the survey earn £1600 more per employee than those at the bottom. If the performance of 10 per cent of companies in the bottom third was increased to the average performance of the top third, £2.5 billion could be added to United Kingdom GDP.</p>
London School of Economics / McKinsey (2007)	<i>“Management Practices and Productivity: Why They Matter”</i>	<p>This 16-country comparative study found that improving management practice is “associated with large increases in productivity and output. Across all the firms ... a single point improvement in management practice score is associated with the same increase in output as a 25 per cent increase in the labour force or a 65 per cent increase in invested capital.”(p. 5)</p>
United States, Black and Lynch (2004)	<i>“What’s Driving the New Economy? The Benefits of Workplace Innovation”</i>	<p>This study used data from the United States Bureau of Labor Statistics and Worker Employer Surveys and found that innovations to workplace practices (such as re-engineering, job rotation and organising workers in teams) was an important component of total factor productivity and accounted for as much as 30 per cent of output growth amongst United States firms, that is, up to one third of United States output growth stems from productivity-enhancing innovations at the workplace level.</p>

- It is clear that more needs to be done to increase the number of Australian businesses that innovate. The Australian Bureau of Statistics’ 2006-07 survey of innovation in Australia estimated that only 260 544 businesses (or 36.8 per cent) are “active innovators”.
- If adopting sound LCM practices can improve businesses’ innovation capabilities, and thus their productivity and profitability, a key question is “why aren’t businesses doing this already?” The evidence suggests this is a case of market failure. There is a lack of information about the

benefits of adopting good LCM practices. There is also often a culture of risk avoidance and low early adopter modelling. There is a lack of adequate competition in some sectors to drive improvement in practices. And finally, there is too great a focus on the important industrial relations aspects of workplaces at the apparent expense of cooperative efforts to implement best practice LCM strategies to lift innovation capabilities and workplace productivity.

- The Australian Government can play an important role in working with businesses and industry bodies to address market failures and lead the development of management and leadership practices on the world stage, grounded in Australian-based research and models. An opportunity exists now to work collaboratively with businesses in a post-WorkChoices environment to focus on cooperative efforts to increase workplace innovation, productivity and sustainability.
- In line with arguments by overseas constituencies, such as Ireland, enterprises in a global economy must compete more effectively through higher levels of partnership, levels of innovation, chance and performance as well as openness to testing new organisational models and ways of gaining a competitive advantage.
- It now seems more obvious than ever that Australian enterprise needs a radical transformation of its workplaces if it is to improve its innovative capacity and productivity, and meet the competitive and economic challenges of the future.

Recommendations:

There are a number of strategic activities that the Australian Government can undertake to encourage and support the promotion and proliferation of advanced leadership, culture and management practices that support more innovative, productive and fulfilling workplaces⁴.

The following outlines a process that may be used to further the recommendations of this report and define Australian implementation objectives and a vehicle for executing a workplace LCM program.

Program leadership should be a cross-government collaborative effort. Importantly, there is a new opportunity for sponsorship and leadership from the Prime Minister and/or Deputy Prime Minister, given the broad cross portfolio and national interest at stake. This must be supported by strong participation from other departments (including the Department of Innovation, Industry, Science and Research (DIISR), the Department of Finance and Deregulation, and the Department of Broadband, Communications and the Digital Economy (DBCDE)), as well as joint ownership and hands-on participation by business, unions, associations, researchers, education providers, and other interested parties. This process of cross-sectoral integration could be facilitated by an independent organisation in close collaboration with Government to ensure all parties are well integrated into the agenda.

Given the Deputy Prime Minister's focus on workplace development and the need for a new agenda post-WorkChoices, DEEWR seems to be the ideal candidate for driving and hosting the planning and implementation processes.

A cross-sectoral Project and Implementation Board could be established to advise and oversee the work. This could incorporate the concept of **High Performing Workplace** or **Workplaces of the Future** to denote shared vision and intent for renewed focus on the development of LCM capabilities at the enterprise level

⁴ The ideas and suggestions in this section and the Table have been inspired by our research of international policy initiatives (including telephone conversations with key actors overseas, see section 4 for details). Specifically we have been inspired by:

- the *Comprehensive Human Capital Management Strategy for Canada* (2005), commissioned by the [Canadian Ministry for Human Resources and Skills Development](#);
- the *National Workplace Strategy*, prepared by the [Irish National Centre for Partnership and Performance](#), sponsored by the Prime Minister's Office;
- the Finnish Workplace Development Program (2004-09), TYKES, by the [Finnish Minister of Labour](#); and
- the New Zealand Workplace Productivity Agenda, by the [Department of Labour](#).

The project could involve the following steps, which would see the agenda under way by 1 January 2010:

➤ **Step 1: Building the Coalition**

Consultations with key stakeholders, including business leaders, industry and professional associations (AiG BCA, ACCI, AIM, CEDA, etc), public sector and Government departments, unions, education providers, researchers and others to evolve discussions and gather input, ideas and feedback on issues and approaches to policy design. Visits to overseas nations to research and better understand their programs—how they are run and with what effects.

➤ **Step 2: Create the Infrastructure and Design Program**

Key ministers and Government departments to consider ideas and input from step 1 develop and agree on infrastructure and approach for the implementation of an ambitious, focused and cost effective program to develop high performing workplaces in Australia. This will draw on international evidence and experience as well as the need to work towards a shared vision of change among stakeholders in the Australian context.

➤ **Step 3: Program Roll-Out and Implementation**

Launch of program by Prime Minister with involvement of key stakeholders and with emphasis on the establishment of a cooperative, partnership-based approach to change, led by an appropriate “lighthouse” and network with cross-sectoral representation. This would have the role of awareness raising, information dissemination and diffusion of new LCM practices by and to enterprises, governments and others.

Further steps might include monitoring and evaluation via a number of possible instruments, including restoration of a comprehensive and reliable **national workplace survey**, covering cohorts of both managers and employees.

Table 2 summarises key areas of activity and implementation that the Australian Government could consider as part of this program.

Table 2. Potential Role of the Australian Government in Lifting LCM Practices in Australia

Area of Activity	Potential Activities and Implementation Tactics
<p>1. Promote the vision, importance and case for building high performing workplaces and the Australian National LCM capability</p>	<ul style="list-style-type: none"> • Enunciate the Strategy and partner with others to promote the need for change and associated plans. • Partner and lead the establishment of a focal point “lighthouse” for creation and dissemination of knowledge about management best practices, information and tools. • Communicate and promote high performing workplaces within the Federal Government and across Australian States. • Support the development of partnerships across industry and internationally given that LCM development is a cross-cutting theme for organisations across the Australian economy and the world.
<p>2. Create and implement enterprise programs aimed at increasing awareness and adoption of best practices</p>	<ul style="list-style-type: none"> • Provide practical programs and funding to encourage enterprises to undertake leadership and change programs and disseminate uptake of best practice management. • Pilot, test and develop tools, frameworks, blue-prints and guidelines on best practice LCM in collaboration with Australian enterprises, leveraging international communities and experts. • Use incentives to stimulate employers’ and unions’ commitment and investment in LCM and human capital development. • Monitor and evaluate effectiveness of programs and investments and progress towards stated goals and objectives.
<p>3. Collaborate with industry, government and others in research that provides better understanding and clear proof of the links between LCM and innovation, productivity and fulfilment at work</p>	<ul style="list-style-type: none"> • Involve all stakeholders such as state governments and territories, business, academia, unions and others in working together to explore and research a wide range of questions related to the application of best practices and their productivity effects. • Collect, analyse and make available relevant labour market and workplace information that can support uptake, understanding and key learning across industries and to benchmark internationally. • Test and research the value of pilot programs to empirically validate services and the value offered to the public. • Support the communication and sharing of latest research findings. • Link research to policy development and make explicit connections between human capital policies, programs and services and specific government priorities and strategies such as innovation, Aboriginal development, immigration and employment equity.
<p>4. Evolve education curriculum across all systems to reflect basic skills needed to raise LCM capabilities</p>	<ul style="list-style-type: none"> • Focus on curriculum development and deliver education and training courses that lift the development of LCM skills in students across schools, universities and the VET sector. • Ensure tertiary education and business schools are integrated into the agenda and play a key role.
<p>5. Exemplar and role model Given that government is a major workplace, it should increase the focus on LCM and implement best practice</p>	<ul style="list-style-type: none"> • Promote and implement LCM best practices in Australian Government departments. • Develop an expanded role internationally to encourage other countries to follow suit and share knowledge. • Enhance government capacity to disseminate information and tools on-line that engage state and local governments in activities to build LCM skills.
<p>6. Improve governance across all workplaces related to management of human capital and intangible assets</p>	<ul style="list-style-type: none"> • Collaborate with industry and other interested parties to develop non-financial performance indicators to lift the quality of management of companies’ human capital and intangible assets. • Encourage better reporting and visibility of non financial performance indicators through guidelines, awards and international collaboration. • Support a national human capital and workplace management survey to evaluate and measure workplace management practices in Australian public and private enterprises.

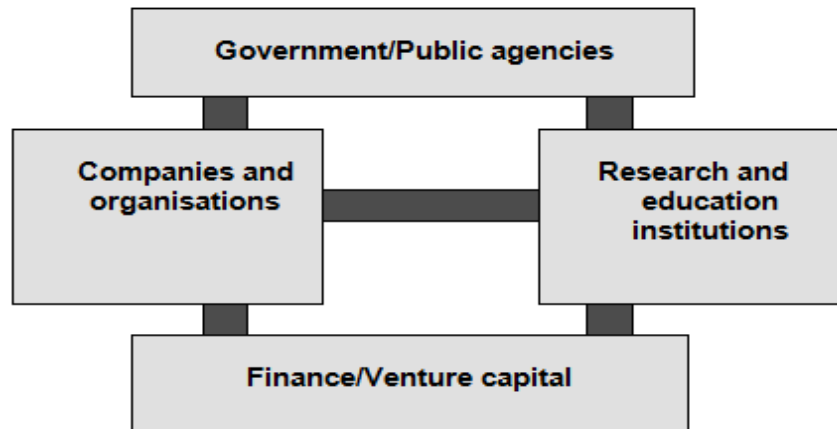
Leading Australia to More Innovative, Productive and Fulfilling Workplaces – The Role of Government

1. Rationale for Public Policy on Innovation

1.1. Background and Australian Context

It is increasingly recognised in developed economies that knowledge and innovation are key drivers of organisational productivity and competitiveness in global markets, as well as being a source of continuous improvement in the quality and effectiveness of public and private services. It is also recognised that public policy has an important role in contributing to the development of innovative capability in firms and organisations, to the high performance delivery of innovation outcomes, and to the diffusion of innovation within and across industries, including through structured collaboration and networking (see Figure 2).

Figure 2. National Innovation System



Most countries that have committed to the development of knowledge-based economies as a long-term sustainable basis for competitive advantage have engaged with stakeholders on optimal approaches to public policy, appropriate supporting infrastructure, funded programs and delivery mechanisms. They have commissioned inquiries, reviews and reports and, in the case of Ireland, a unique National Forum on the Workplace of the Future. These initiatives have led to new programs and implementation strategies. The three main elements of these approaches are:

- 1 *Development of a coherent national innovation system*, which was defined by Richard Nelson in 1993 as a “set of institutions whose interactions determine the innovative performance of... national firms” (Nelson, 1993, p. 4). Essentially, it is a whole of government approach to innovation, which links public agencies, research and educational institutions, sources of finance and individual firms in the context of a shared vision of innovative capability and performance (see again Figure 2).
- 2 *Commitment to promote investment in knowledge and human capital*, which is the fundamental condition for an effective, functioning national innovation system. International research and experience suggests that this investment should be directed as much to areas of problem solving, teamwork and communication as to technical skills, since innovation requires a broad set of capabilities in strategic management, collaboration and execution.
- 3 *Delivery of innovation priorities at the enterprise and workplace level*, as this is the basic organisational unit of the economy. Clearly, the purpose of a national innovation system and associated investment in human capital is to ensure improvement of innovative capability and

performance at the enterprise level, but this will depend in turn on the development of a highly focused approach to leadership, management and organisational culture.

Australia's latest comprehensive review of its national innovation system, *venturousaustralia* (Cutler, 2008), found much that is deficient and in need of improvement in each of these three areas. There are recommendations for improvement of the "architecture" of the national innovation system, including the establishment of a National Innovation Council and linkages across the system, substantially increased public funding of research and education to make up for years of decline, comparative neglect and wasted opportunities in both the domestic and global context, and for the concerted development of a policy focus on business and workplace innovation, on the grounds that "innovation is all about the firm and what happens in businesses. Businesses are the point where new value is created from innovative activities" (Cutler, 2008, p. 27).

Above all, the national innovation system review highlights the "challenging range of strategic, operational and integrative competencies [that] are required to lead innovative businesses" (Cutler, 2008, p. 56), and the need to revisit the issues around leadership and management skills that were flagged in the pioneering report, *Enterprising Nation* (Karpin Commission, 1995). The intensively researched and widely discussed recommendations of this report were marginalised just at the time when a broad-based consensus for change was being assembled, with great potential for positive outcomes at the enterprise level, by the subsequent narrow focus on workplace relations legislation. As a result, drawing on submissions and commissioned work, including that of the SKE (2008a), the national innovation system review points out that:

Many government workplace and innovation programs in Australia are directed at technological or scientific innovation while only a few are directed at strengthening innovation management inside organisations, including leadership and culture ... This is an area which has received extensive attention in recent years in countries like the United Kingdom, Ireland, Finland and New Zealand. The challenge is how best to promote successful adoption and diffusion of high performance work systems in both the public and private sectors. (Cutler, 2008, p. 58)

The review proposes the establishment of a "National Forum on the Workplace of the Future", on the model of the approach adopted in Ireland (Green and Walshe, 2003; National Centre for Partnership and Performance, 2004; SKE, 2008a), to engage all the constituencies in discussion about how enterprises and workplaces can become the "delivery mechanism" for innovative practices and new levels of performance. It suggests that "the process should be both national and cross-departmental, to enable "joined-up thinking" across multiple constituencies" (Cutler, 2008, p. 59). It sets out the aim of such a forum as follows:

The aim of a national forum on the workplace of the future would be to involve all relevant parties in the development of a shared vision of the future of Australia's workplaces, based on evidence and data gathering. A further aim would be to enable broad agreement on a trajectory or "roadmap" for change at the workplace level, in both the public and private sectors, and on the actions and policy measures required to bring change about. A national forum on the workplace of the future would strengthen innovation capabilities, leadership skills and management practices at the level of the workplace. (Cutler, 2008, p. 59)

The proposal for a workplace of the future forum and strategic action in Australia was first argued in the SKE (2008a, pp. 31-33) submission (sponsored by the Business Council of Australia (BCA)) to *venturousaustralia* (Cutler, 2008):

Strengthening innovation capabilities at the workplace level may, however, also require policy interventions over and above the more traditional levers of education and training. Larger scale, collaborative industry research projects, such as the five-year intellectual capital project with 150 organisations funded by the Danish Ministry of Science, Innovation and Technology, take a different approach to workplace transformation by providing opportunities for practice-based learning. Centres such as Ireland’s National Centre for Partnership and Performance, which coordinated the 2003-04 Forum on the Workplace of the Future, and the Workplace Development Program in Finland, are other examples of a more practice-based approach to transforming workplace practices ...Such centres support a more informal approach to workplace transformation and learning by offering and running workplace development projects, providing access to informal learning networks, and by disseminating information on high performance management and work practices to the business community.

Australia does not currently have a “National Forum for Workplace Development” or a “Leadership Centre Australia”. Yet increasing innovation participation rates above the current 34 per cent may require a different approach to transforming workplace practice than those offered through education and university training. An Australian Futures Centre or a Forum for the Workplace of the Future could play a role in this.

Table. Summary of Recommendations on Leadership, Culture and Management

<p>5. Leadership, Culture and Management at the Workplace Level</p> <p><u>Objective:</u> <i>Improve innovation practices in public and private organisations</i></p>	<ul style="list-style-type: none"> • Strengthen innovation capabilities, leadership skills and management practices at the workplace level by generating widespread discussion through a “National Forum for the Workplace of the Future” or “Leadership Centre Australia”. Such a centre would enable workplace transformation through a more practice-based and participative approach to learning. It could be jointly governed and managed by government, industry and researchers and oversee a nationwide workplace development strategy. Such a body could strengthen innovation activity by: <ol style="list-style-type: none"> a. Assessing, researching and communicating the usefulness and impacts of alternative leadership styles, management structures, organisational cultures, and people management practices as drivers and/or impediments to innovation activity at the workplace level. b. Build learning networks to lead and coordinate larger scale collaborative industry research projects where diverse stakeholders (public and private companies, researchers, associations and others) jointly solve practical business problems and pilot new goods, services and processes. c. Examining, researching and communicating to and with the business community alternative business strategies, processes and staff capabilities required to lift innovation activity and develop learning networks to this end. d. Coordinating a Karpin II to feed into a subsequent assessment of management education programs to ensure that Australia’s education system is focused on delivering the capability needs of managers in coming decades.
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| | <ul style="list-style-type: none"> e. Providing input to, and possibly coordinate, a national human capital survey or workplace performance survey in Australia looking, for example, at leadership and knowledge management, results-oriented performance culture, talent management, and job satisfaction.
 f. Consider the development of collaborative (cross organisational) professional development and management of education programs. |
|--|---|

Source: SKE (2008a, pp. 31-33)

Furthermore, the parallel reviews of Australia's automotive industry and textiles, clothing and footwear (TCF) industries have independently reinforced this message. For example, the automotive industry review called for a sustained leadership dialogue along the following lines:

While volume, economies of scale and innovation [broadly defined] remain the key determinants of productivity in the industry, more needs to be done to encourage high-performance workplaces and cost-competitive supply chains. (Bracks, 2008, p. 84)

The TCF review, *Building Innovative Capability* (Green, 2008), noted recent survey evidence (ABS, 2005) that two-thirds of innovation spending by Australian firms is directed to activities other than R&D, such as new business models and systems integration. This is consistent with international findings showing that organisational innovation, including "organisation structure changes" and "major strategic partnerships" are as critical to enterprise performance and productivity as more narrowly defined categories of technological innovation (IBM, 2006). The TCF review concluded from this evidence and work commissioned for the review that:

[T]he common thread in ... success factors for the TCF industries, as for industries more generally in high wage, globalised economies, is the development of innovative capability at the level of the enterprise and workplace, which is driven not only by research and technology development but also by the increasingly important emphasis on business model transformation, market-led organisational changes and the integration of firms into external collaborative networks and supply chains ... In this context, the case for a major shift in the organising principle of industry policy has become compelling. (Green, 2008, p. 100)

These findings echo the concerns and research priorities of the SKE, which, together with the BCA, released a detailed report in 2006 on *New Pathways to Prosperity—A National Innovation Framework for Australia* (BCA-SKE, 2006). This report highlighted deficiencies in Australia's national institutional arrangements for the promotion of innovation, especially their lack of a central focus and connectivity among the different elements, but it also went substantially further to emphasise that "ultimately, the purpose of a national innovation system is to transform knowledge and resources into dynamic capabilities at the level of firms and organisations, which are then better placed to contribute to the innovation performance of the economy as a whole" (BCA-SKE, 2006, p. 25). The report argued that these capabilities must be acquired by workforces and managers, who have the key task of leading, enabling and, crucially, mobilising the commitment to change and innovation at the organisational level. Accordingly,

as workplaces become more flexible and responsive in a changing competitive environment, the emphasis of economic reform will need to evolve to a new stage – the leadership and management of Australian organisations, and the educational infrastructure and programs required to support the development of innovative capabilities within organisations. (BCA-SKE, 2006, p. 27)

Similar concerns have been expressed by groups such as AiG and ACCI, which have called for a broadening of this debate to consider other forms of innovation and ways in which governments can support them (AiG, 2006; ACCI, 2006). An important dimension of this work is to broaden the concept of innovative work practices. This follows academic research where several studies have identified a positive link between workplace innovation and innovation in products, markets and technologies (and so on). For example, in a major United Kingdom study of innovative work practices in a number of industrialised economies, Lorenz et al. (2004) concluded “there are good reasons to suppose that the firm’s capacity for innovation can be increased by the use of such practices as job rotation, quality circles and shop or service meetings” (p. 6). Similarly, Hurley and Hult (1998) have shown that firms with an “innovative culture” – that is, a management culture that emphasises learning, development and participative decision making – have greater levels of “innovativeness” and “capacity to innovate”. This, in turn, is said to carry significant benefits in terms of business productivity and performance. These conclusions have broad support in a number of reports commissioned by governments here in Australia (e.g. Productivity Commission, 1999) and elsewhere (e.g. Workplace Productivity Working Group, 2004)

1.2. The Paradox of Workplace Development and the Call for Focus

From a policy perspective, the findings of research pose an apparent paradox. The research makes clear that work practices and the development of “high involvement” or “high trust” workplace cultures can have significant positive effects on organisational outcomes. The research has also provided consistent evidence about the causal mechanisms through which work practices can have these performance enhancing effects.

Yet the available evidence is that few businesses are likely to take a *comprehensive* approach to developing these high performance workplace capabilities. As we outline in subsequent sections of this report, the available evidence indicates a number of reasons for this apparent paradox and provides a foundation for consideration of potential interventions to overcome the problem.

With the *venturousaustralia* (Cutler, 2008) review of the national innovation system underway, SKE was commissioned by the Victorian Government to explore the implications of the LCM challenge in greater depth, making the case for recapturing and building on the *Enterprising Nation* report (Karpin Commission, 1995) in *Enabling Innovation—Leadership, Culture and Management at the Workplace Level* (2008b). The key findings of this SKE report are as follows:

- There is strong support amongst key stakeholders for ensuring that leadership and management at the workplace level becomes a strategic, national priority. Stakeholders consulted commented that a Karpin II and strategic action is well overdue and that leadership and management in Australian organisations, large or small, public or private, are critical to enterprise productivity, innovation in the workplace, and the continued growth and sustainability of the Australian national economy.
- Existing national innovation surveys in Australia mostly fail to consider how innovation is managed at the enterprise level. We know too little about the enablers and barriers to innovation in the workplace, the strengths and weaknesses of Australian organisations, and the optimal configurations of LCM techniques to lift innovation rates and performance.
- Most government workplace and innovation development initiatives and programs in Australia are directed at technological or scientific innovation, while only a few policy initiatives are directed at strengthening innovation management inside organisations, including leadership and culture.
- There is no national, cross-departmental, workplace development strategy in place in Australia that focuses on innovation capabilities at the workplace level. This compares poorly with overseas nations, specifically Ireland and Finland, who have made workplace

development and innovation a policy priority supported by strong funding and “joined-up thinking” in key government departments. (SKE, 2008b, p. 8)

1.3. The Need for Action

The SKE report and the many stakeholders who participated argue that:

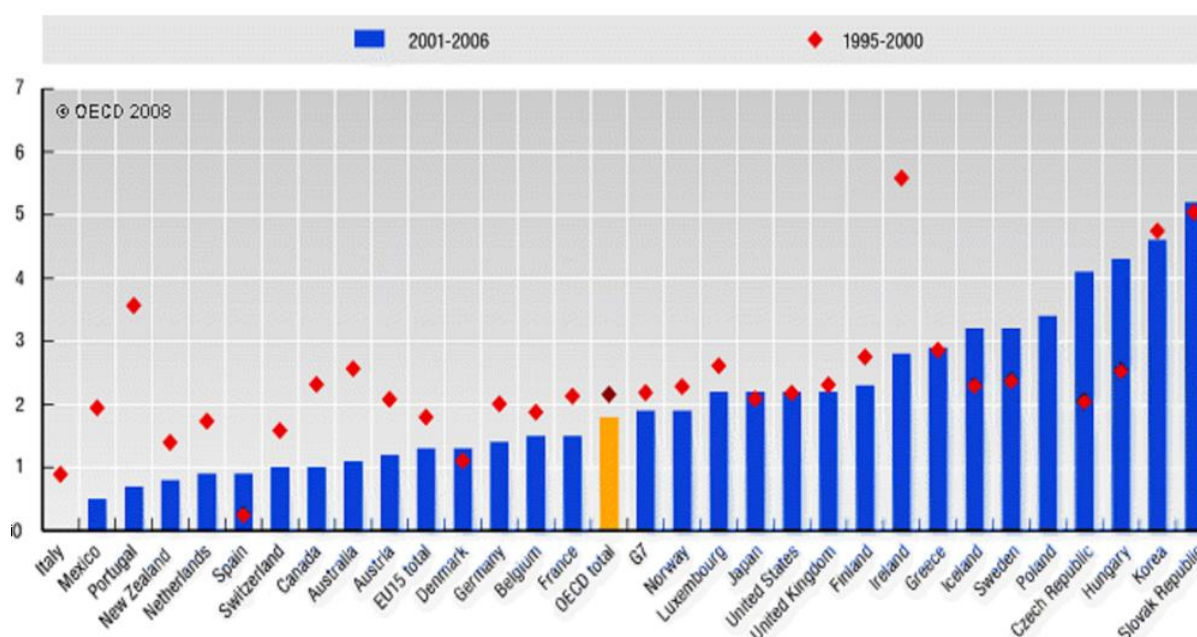
Australia can and should do more to help businesses develop the leadership skills, workplace cultures and management techniques necessary to lift innovation rates. This is a challenge for all Australian organisations – small and large, public and private. (SKE, 2008b, p. 9)

The report draws on other contributions, such as IBSA *Blueprint for Action on Innovation* (2007, p. 1), which “through sharing knowledge and leading by example ... will work to boost the innovative capacity of the Australian workforce, including the capabilities of organisations, leaders, educators and individual workers”. IBSA’s vision is for progress on three interrelated goals: inspiring a culture of innovation; developing leaders and building workforce capacity. It has begun to implement these through its “Innovation and Capability Platform”, which is the basis for a new set of training packages to develop innovative capability in organisations. In this context, the SKE report proposes “a national dialogue with key stakeholders who work together to review Australia’s innovation management capabilities and performance in the workplace”, and the formation of “an implementation group or task force on leadership, culture and management at the enterprise level ... to oversee the national dialogue and importantly the formulation of national strategies and policy” (SKE, 2008b, p. 9).

The starting point for a national dialogue, endorsed by the national innovation system review, must be to address the decline in Australia’s productivity performance over the last decade, which coincides with comparatively low levels of investment in human capital, especially in post-secondary education, and in research and innovation infrastructure.

The following OECD comparisons (see Figure 3) demonstrate the collapse in Australian labour productivity growth since 2001 from a position exceeding the OECD average to one significantly below.

Figure 3. OECD: Labour Productivity Growth (1995-2006, per cent growth)



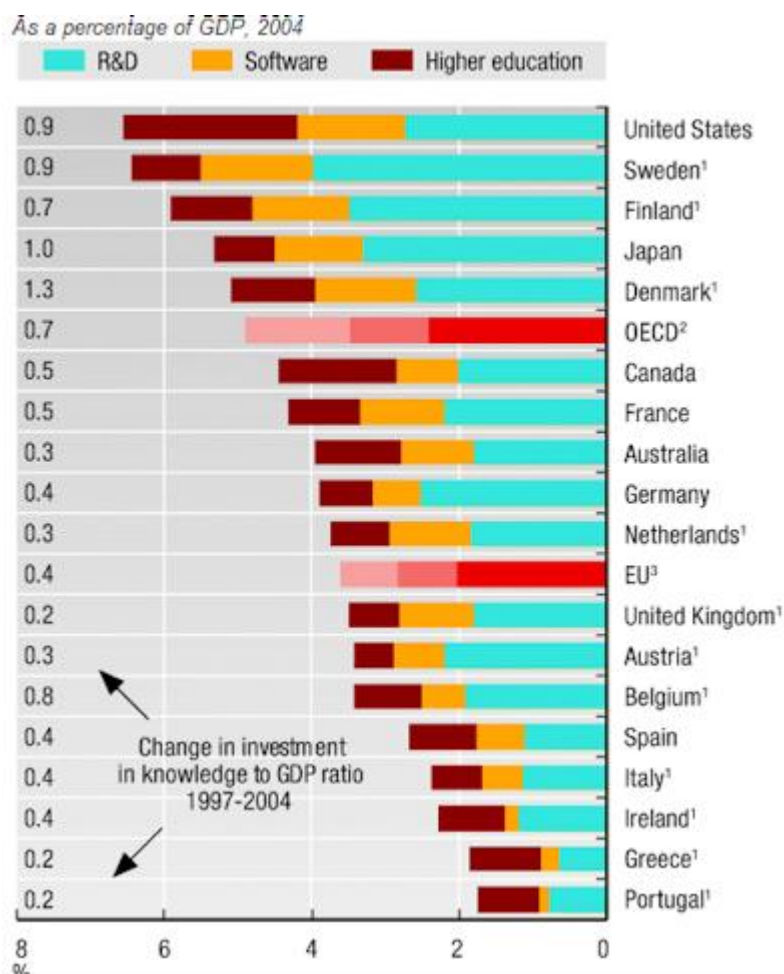
Source: OECD Productivity Database, 2008

This collapse is replicated almost to the same extent in multi-factor productivity growth. The most rapid productivity growth is occurring in new member states of the European Union which start from a low base; established economies such as Sweden, Finland, the United Kingdom and the United States remain substantially ahead of the OECD average, while Australia falls behind. While productivity growth has also reduced in Ireland, its previous levels were unsustainable and reflected growth from a low base. Ireland is now part of the group ahead of the OECD average and is exploring workplace development and innovation programs to ensure that its current growth path is sustainable.

Figure 4 indicates Australia's poor performance in a combined OECD index for investment in knowledge, encompassing spending on R&D, higher education and software (which may be treated as a proxy for technology diffusion), compared not only with dynamic knowledge-based northern European economies but also with Canada, another commodities driven economy that is pursuing its own program to diversify its activities and drive innovation. Figure 4 shows that investment in knowledge exceeds the OECD average in the United States (6.6 per cent), Sweden (6.4 per cent), Finland (5.9 per cent), Japan (5.3 per cent) and Denmark (5.1 per cent). Australia is ranked eighth and invests less than the OECD average along with Canada, France and others.

Investment in these elements of knowledge is a fundamental precondition for the development of innovative capability in enterprises and workplaces.

**Figure 4. 2007 OECD Scoreboard,
Investment in Knowledge (R&D, Higher Education, Software)**



Source: OECD Science, Technology and Industry Scorecard,
<http://lysander.sourceoecd.org/vl=6724250/cl=13/nw=1/rpsv/sti2007/ga1-1.htm>

The Global Competitiveness Report (2008-2009) of the World Economic Forum provides more up-to-date evidence of Australia's performance in global competitiveness (see Table 3). Australia's Global Competitive Index is now ranked 18, having moved one step up from a 2007/2008 ranking of 19 based on a weighted average of 131 countries or economies, but still far behind its ranking of 5 at the end of the 1990s.

Table 3. Australia's Ranking in the Global Competitiveness Report (2008-2009), World Economic Forum with 2007-08 Comparisons

Country/Economy	GCI 2008-2009 rank	GCI 2008-2009 score	GCI 2008-2009 rank (among 2007 countries)*	GCI 2007-2008 rank
United States	1	5.74	1	1
Switzerland	2	5.61	2	2
Denmark	3	5.58	3	3
Sweden	4	5.53	4	4
Singapore	5	5.53	5	7
Finland	6	5.50	6	6
Germany	7	5.46	7	5
Netherlands	8	5.41	8	10
Japan	9	5.38	9	8
Canada	10	5.37	10	13
Hong Kong SAR	11	5.33	11	12
United Kingdom	12	5.30	12	9
Korea, Rep.	13	5.28	13	11
Austria	14	5.23	14	15
Norway	15	5.22	15	16
France	16	5.22	16	18
Taiwan, China	17	5.22	17	14
Australia	18	5.20	18	19
Belgium	19	5.14	19	20
Iceland	20	5.05	20	23
Malaysia	21	5.04	21	21

Source: World Economic Forum, [http://www.weforum.org/en/initiatives/gcp/Global per cent20Competitiveness per cent20Report/index.htm](http://www.weforum.org/en/initiatives/gcp/Global%20per%20cent20Competitiveness%20Report/index.htm)

The World Economic Forum's interactive report⁵ provides in-depth information about the specific areas of relative weakness in Australia's performance, which require action if Australia is to improve its global competitiveness through innovation, productivity and workplace practices, higher education and training, and technological readiness. The innovation sub-index shows that Australia has a grave shortage of scientists and a low capacity for innovation. There are strong parallels between the shortage of scientists and the ranking of the quality of mathematics and science training in the report. Also, expenditure on R&D by both the private and public sectors and university–industry collaboration are areas of concern. In the area of business sophistication, Australia's ranking in value chain breadth and the nature of competitive advantage demonstrate further areas of weakness.

However, the sub-index of labour market efficiency is also an area of concern if Australia is to improve its global competitiveness. Areas of poor performance relate to the flexibility of wage

⁵ See <http://gcr.weforum.org/gcr/>

determination, non-wage labour costs, hiring and firing practices, female participation in the workforce and rigidity of employment. There is also an indication that Australia has an ongoing “brain drain” problem which needs to be addressed. The technological readiness sub-index indicates that Australia needs to improve its firm-level technology absorption in the workplace.

Further research is required to build on the findings of *venturousaustralia* (Cutler, 2008) and establish the fundamental causes for Australia’s deterioration in global competitiveness and the reason Australia has “slipped” in many areas critical to:

- Managing and enhancing innovation in the workplace;
- Building capabilities for innovation in the workplace;
- Assisting the growth of new technologies in the workplace;
- Improving leadership and management skills at the enterprise level;
- Fostering a culture in the workplace conducive to innovation; and
- Increasing productivity in the workplace through people’s capabilities, skills, knowledge and improved innovation management.

1.4. Current International Initiatives

As we will see further in section 4, most countries begin policy development on innovation from the objectives of increased productivity and competitiveness, but other objectives are important as well. For example, the European Union’s “Lisbon strategy” of 2000 set itself the ambition of making Europe “the most competitive and dynamic knowledge-based economy in the world by 2010”, but it also added a strong emphasis on social cohesion, job creation and environmental sustainability. The United States has held a number of inquiries on the role of knowledge and innovation in building enterprise competitiveness, including the 1995 Dunlop Worker-Management Commission and the 2001 Task Force on Restructuring America’s Labor Market Institutions, *Working in America: A Blueprint for the New Labor Market*, which conceptualised the economy

as embedded in the social structure and as depending on that structure for its capacity to operate effectively ... It sees a need for the active cooperation of workers in the work process ... and it recognizes the importance of institutions and the role they play in creating a framework in which a market operates, in mediating the relationship between the economy and society, and in reconciling economic efficiency with other social goals. (Osterman, 2000, pp. 3-4)

More recently, the *Innovate America: Thriving in a World of Challenges and Change* report (Palmisano, 2005), led to the 21st Century Workforce Initiative, which included the “Innovation Based Economic Program”, and the subsequent report, *Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Future* (Augustine, 2007), with a prestigious committee of scientists and business leaders, highlighting the increasing challenges for the United States in sustaining its competitiveness, expressing significant concerns that the scientific and technical foundation behind the United States’ economic leadership is being eroded when other nations are investing heavily in such areas.

The United Kingdom has also conducted a number of reviews, including the Lambert review of university–business linkages, the Cox review of creativity and innovation and, most recently, the 2007 Sainsbury review, *Race to the Top*, on the development of the United Kingdom’s “national innovation ecosystem”, which places a major emphasis on action at the company and workplace level. Canada

has reviewed its knowledge and innovation performance through the not for profit think tank, Conference Board of Canada, in a series of inquiries following a 2002 National Summit on Innovation and Learning, including the comprehensive “call to action” in 2004, *Benchmarking Against Global Best*. This advocates the transformation of firms and organisations and the diffusion of knowledge and innovation not only by firms themselves but also by communities, which “have a central role to play in unleashing the nation’s innovation potential” (Conference Board of Canada, 2007, p. 48). Ireland commenced its development of a national innovation system with a number of exploratory reports and a “technology foresight” exercise on how to position firms and the economy to deploy knowledge and innovation for competitive advantage in projected areas of global growth, including attraction and “embedding” of foreign direct investment (FDI) companies in local technology clusters and supply chains.

Ireland developed its National Development Plan between 2000 and 2006. It came to recognise the strong link between investment in the research and innovation base of the economy and resultant sustained economic growth. It sought to promote the accumulation of knowledge capital to facilitate the evolution of the knowledge-based economy. This has become the theme of Ireland’s remarkable transformation from a low wage, inward-looking agrarian economy to a high wage, high productivity, and globally focused knowledge economy. It’s national innovation system took shape from the social partnership required to stabilise the economy in the 1990s, reflected increasingly in “enterprise-level partnerships”, the highly targeted investment attraction policy with its linkages to local clusters and networks, and its emphasis on research and education, with an increasing role for knowledge transfer and the commercialisation of ideas. The Enterprise Strategy Group, (Enterprise Strategy Group, 2004) underlined that the creation of knowledge and its subsequent diffusion are at the core of economic activity. Knowledge is embodied in people, and it is the quality of the people within organisations that will determine the success or otherwise of firms and economies in the years ahead. The final building block was the need to transform workplace culture and leadership to capitalise on the opportunities opened up by investment in human capital, and this was engineered through the National Forum on the Workplace of the Future and the National Centre for Partnership and Performance, which will be discussed further in this report in section 4.

1.5. Brief Summary of Australian Government Initiatives

Australian Government departments have pursued some programs to lift innovation skills development at the workplace level, although none of these are directed explicitly at fostering high performance workplace practices through partnerships, collaboration, industry based research, workplace diagnostics and related programs, as seen for example in Ireland’s National Centre for Partnership and Performance (see section 4 for details). Table 4 summarises key programs run by DEEWR.

Table 4. DEEWR—Examples of Programs

1. **The Industry Skills Councils (ISC)** deliver vocational education and training to eleven industry sectors, including, for example, the Manufacturing Skills Council, the Transport and Logistics Skills Industry Council, the Agri-food Skills Industry Council, and importantly, IBSA, which aims to develop innovation capability building in the workplace.
2. **Skills Australia** is part of the Government's Skilling Australia for the Future policy. Skills Australia is a new statutory body established to provide advice on current and future demand for skills and investment of public funds in training.
3. **Skilling the Existing Workforce Project**⁶ is a tripartite (industry-government-individual) arrangement, which targets knowledge and skills requirements in advanced workplaces known as "knowledge work". It is led by the AiG.

Source: SKE (2008b, p. 57).

There are also a series of programs aimed specifically at lifting national innovation, research and development run by DIISR (see Table 5).

Table 5. DIISR—Examples of Programs⁷

- Building Entrepreneurship in Small Business (BESB)
- Commercialising Emerging Technologies (COMET)
- Commercial Ready Plus (CRP)
- Industry Cooperative Innovation Program (ICIP)
- Enterprise Connect
- Clean Business Australia
- Climate Ready Program
- Early Stage Venture Capital Limited Partnership (ESVCLP)
- Innovation Investment Fund (IIF)
- Pre Seed Fund
- R&D Start
- R&D Tax Concession
- Re-Tooling for Climate Change
- Renewable Energy Development Initiative (REDI)
- Renewable Energy Equity Fund (REEF)
- Several programs for Textile, Clothing and Footwear
- Venture Capital Limited Partnerships Program (VCLP)

Source: SKE (2008b, p. 71)

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http://www.dest.gov.au/sectors/training_skills/programs_funding/program_categories/key_skills_priorities/skilling_existing_workforce.htm

⁷ Please see the AusIndustry website for a summary of business assistance programs AusIndustry delivers:
<http://www.ausindustry.gov.au/content/level2index.cfm?objectID=AEB901E5-7CB8-4143-A3BF33B2423F9DA6>

1.6. State and Territory Initiatives

The Australian states and territories have pursued some programs directed specifically at developing innovation capabilities in the workplace. The following is a preliminary checklist of programs as derived from submission to *venturousaustralia* (Cutler, 2008).

Table 6. Activities Underway or Proposed by Australian States and Territories

State	Leadership, Management or Culture focus	Activities Underway or Proposed
Victoria	Management	<ul style="list-style-type: none"> Proposed investigation into the management capabilities of Australian businesses. The review would be directed at improving Australia's education system. Skills development proposals with innovation focus at the workplace, to become basis for modules in the Vocational Education and Training (VET) system. Develop a national media strategy that builds awareness. In so doing, hope to create a national culture that supports innovation.
	Culture	
South Australia	Management	<p>Recognition of need to connect national skills and workforce development policy (the Council of Australian Governments (COAG) productivity agenda) in higher qualifications (e.g. Certificate 3 and above) and the wider VET sector with business and institutional innovation systems e.g. VET in Cooperative Research Centres (CRC). VET providers should be included in all programs promoting collaboration across sectors and treated the same as universities.</p> <p>National support of training programs for entrepreneurs, with strong business input. Recognition of need to invest in skills and mechanisms for skills transfer that underpin the process of innovation i.e. creativity and entrepreneurship. Government supports a number of creativity and entrepreneurship initiatives at various levels and strongly believes that these innovation skills should be introduced from primary school age.</p> <p>New Training and Skills Commission just established with innovation as a key element, and Public Sector Performance Commission with new agenda to place emphasis on developing "innovative capability" in public sector institutions and enterprises.</p>
New South Wales	Management	NSW has a State Plan and broad innovation statement focusing on five industry sectors. Emphasis on training but no mention of LCM in their two submissions—one from Primary Industries and the other from State & Regional Development. Government has established an Innovation Council and a Manufacturing Council and is commissioning work on skills to build innovative capability in enterprises and workplaces as basis of further measures.
Queensland	Culture	<p>"Smartstate" initiatives have focused on research and technology intensive investments and associated skills and education. Now moving to the next stage of building an innovation system with the following measures:</p> <ul style="list-style-type: none"> Implement a targeted marketing campaign to stimulate public awareness and interest in the value and direction of innovation. Initiate programs to achieve cultural change e.g. for leadership and entrepreneurship. Put in place incentives to encourage innovative behaviour (e.g. financial, access to services and programs, in-kind assistance). Greater emphasis on leadership, entrepreneurship, problem solving, creativity, strategic thinking, risk management and commercialisation skills in secondary, tertiary and training sectors.
	Management	
Western Australia	Management	<p>Department of Industry Resources calls for:</p> <ul style="list-style-type: none"> Education programs in areas of innovation, thinking, intellectual capital, entrepreneurial exploitation of innovation. Overseas mentor program.

2. Impact of Management Practices and Innovation on Productivity

There is a substantial international literature on the linkages between management, innovation and workplace practices, and productivity outcomes. This section will explore the evidence base establishing these linkages, with implications for the support that may be provided by public policy, as well as the seeming paradox that firms and organisations do not always pursue strategies that capitalise on the results of management research.

As long ago as the 1980s, Wickham Skinner of Harvard Business School drew lessons for management and public policy. Skinner concluded:

- Managers need to define productivity improvement and review the tools they use to achieve it. A lack of understanding of “productivity improvement” and the tools used to measure it may push their goal further out of reach.
- Resolutely chipping away at waste and inefficiency—the heart of most productivity programs—is not enough to restore competitive health. Indeed, a focus on simple cost reductions (that is, on raising output while keeping labour constant or, better, reducing it) is proving harmful.
- The cost cutting productivity approach to management is often counterproductive and can actually hinder productivity improvements and sustainability. By some, it is seen as an instinctive response that absorbs managers’ minds and diverts them from more effective manufacturing approaches. (Skinner, 1986, p. 85)

Skinner was among the first to highlight the need for government to engage with business to improve productivity in the workplace. Many governments have now done so. Other stakeholders, including unions, also have a clear interest in productivity improvement, as recognised recently with protests against narrow focus on cost cutting resulting in high stress and low trust cultures in the workplace. A culture which is the opposite of what is needed to remain competitive globally and reverse recent declines in productivity.

The relationship between innovation and productivity and the workforce is central. Lawler (1994) considers the key to success is a capable, committed and agile workforce. In high performance organisations and innovative workplaces, employees are expected to know more, do more, and have the opportunity to contribute more. Greater employee involvement can be secured through a more open and collaborative style of management and leadership, reinforced by genuine trust between managers and their employees. In particular, if employees are to become more involved, they must be trusted to make important decisions about the management of their work. However, this will require change in leadership, culture and management. This was the point emphasised in *venturousaustralia* (Cutler, 2008), building explicitly on observations in the *Enterprising Nation* report (Karpin Commission, 1995).

Likewise the Green report (Green, 2008) on the textile, clothing and footwear industries highlighted the role of management and workforce and stated that “many TCF firms have deployed knowledge and innovation with exemplary effect to achieve competitive advantage in their markets, but many others have yet to comprehend and meet this challenge”. It notes that this is reflected in an international survey of manufacturing firms by Dodgson and Innes (2006), which concluded in relation to the Australian sample that although there is evidence of manufacturers engaging to some degree in innovative business practices, particularly in seeking production efficiencies, such organisations generally fail to embrace innovation as a decisive competitive strategy.

2.1. Workplace Practices—Management Strategies, Systems and Processes

The literature clearly indicates that “there is a solid link between how well managers adopt proven best practices—such as lean-production methods on the shop floor and techniques for setting targets and tracking outcomes—and how well a company performs” (Dorgan et al., 2006, p. 2). These authors found that

the local environment can affect the quality of management; restrictive hiring regulations, for example, constrain the way companies manage people. But even in countries where such rules prevail, we found companies that performed at a high level, indicating that how they operate is more important than where they operate. In addition, employees in better-managed companies are likely to experience a more satisfactory work-life balance, with greater flexibility and autonomy in decision making and problem solving. (Dorgan et al., 2006, p. 2)

Dorgan et al. analysed how companies implement selected practices—focusing on proven approaches used by top-performing companies in numerous sectors around the world—and how well they make these practices work. The research covered 18 dimensions of management in three broad categories: shop floor operations (how companies adopt both the letter and the spirit of lean manufacturing), target setting and performance management (how companies set goals and reward employees for achieving them), and talent management (covering practices for attracting, developing and retaining valuable employees). While some of these techniques originated in Japan and the United States, they have become globally recognised and implemented. The authors concluded:

The implications for managers are clear: mediocre management goes hand in hand with mediocre corporate results. Globalization, specialization, and technology are heightening competition among manufacturers and intensifying the pressure for better management from the executive suite to the shop floor. Whatever an organisation's objective, managers influence a company's future by defining standards and by managing people, assets, and capabilities ... Companies neither can nor should keep good management practices a secret. In sector after sector, best practices emerge in operations, sales and marketing, service delivery, and elsewhere. Under the pressure of competition, companies pay close attention to the improvements that rivals make and rapidly adopt their ideas. Pioneers of best practices thus gain only a short-term advantage unless their activities are privileged or protected (by patents, for example). Eventually, rivals adopt best practices, so they become routine, lifting a sector's overall productivity. (Dorgan, et al., 2006, p. 2)

This example of the research being undertaken in the area and our broader review of the literature has identified a number of management strategies and practices to improve productivity in the workplace. These include:

- Systematically sharing operating data with the firm's workforce;
- Using employee communication and focus teams;
- Increasing customer contact/focus/feedback (customer intimacy);
- Empowering employees;
- Making ongoing management development a priority;
- Practising continuous training/cross-training;
- Using work teams appropriately;
- Developing and providing ongoing measurement and feedback;
- Creating progressive value-added supervision;
- Aligning work force behaviours with meaningful metrics;
- Developing an effective management team.

The development of new management strategies and practices over recent decades has largely been driven by the manufacturing industry, though this is now changing with the rise of the services economy. The automotive industry provides a useful example of innovation in a sector of the

manufacturing industry. Womack in *The Machine that Changed the World* (1990) identified lean production as a key driver of productivity improvement and competitiveness, with a strong correlation to the throughput time of industry networks. He argued that this technology, emergent at that time, was becoming adopted by various manufacturing industries. Market demand, in the shape of the need to provide more product variety at less cost with shorter development cycles, drives this adoption. However, adoption rates vary significantly between organisations and countries. The statistical analysis in this work supported studies by Schmenner (1987, 1988), which identified throughput time reduction as an effective strategy to improve the productivity of manufacturing firms, irrespective of nationality or type of industry. A key element was integration of strategy with new approaches to work organisation. However, a report from Australia's Automotive CRC on the findings from the Automotive Supplier Excellence Australia (ASEA) study of over 60 auto component producers (ASEA Stage 2 Report, June 2008) commented that:

Many companies do not clearly understand the purpose of strategic planning, their planning processes are generally poor and they are not actually driving any value out of their strategic plans because they are not communicating and implementing them—only 52 per cent of companies have a clear link between their strategic, operational and budget plans dropping to 32 per cent in the less than \$50 million turnover category. (p. 29)

The current tough environment in the automotive industry and the competitive pressures and weaknesses described in the ASEA Report often focus management on a narrow cost cutting approach, with a predictable response from their workforce. Fundamentally, the strategic and operational building blocks are needed to provide the basis for a cooperative effort between the participants to transform work organisation and the other variables that contribute to productivity gains and competitiveness. For example, in the *Harvard Business Review*, Adler (1993) documented the case of the Fremont, California plant run by GM, which was performing very poorly, shut down, then reopened as a joint venture with Toyota, known as NUMMI. That plant implemented the Toyota Production System, with the same workforce but with a completely different managerial approach and system, and moved rapidly from essentially worst practice to best, and productivity, innovativeness, quality, overall competitiveness and business performance were substantially improved. Jobs were saved, and then created, as were high quality vehicles and net wealth. The keys to that success were a change in leadership approach, management of people and culture, which Adler described as the “psychology of work”. The NUMMI plant and studies of it and others that are similar, demonstrate as case studies, that which is often not possible in large surveys, namely causality. As we shall see, the large cross sectional studies demonstrate strong positive correlations between quality of leadership, management and performance, and are supplemented by case studies such as NUMMI that demonstrate unequivocally that sound management and leadership is the cause and a higher rate of innovation and productivity is the effect.

The impact of workplace practices, including management systems, and specifically leadership and culture on innovation is discussed in more detail in section 3. First, we take a closer look at how workplace innovation impacts business performance (section 2.2) and, specifically, how workplace practices, such as management systems and processes, impact labour productivity and economic growth (section 2.3).

2.2. Workplace Practices and Business Performance: Some Research Evidence

The “business case” to support workplace innovation has been the subject of serious research for almost two decades. In broad terms, this research supports the proposition that workplace innovation, notably through the diffusion of what has become known as “high performance work systems”, has a significant and positive impact on business performance in a range of ways. Here, we highlight the main findings of the research in relation to four key organisational outcomes:

- The ability to recruit and retain high quality employees;

- Functional flexibility and innovation capacity;
- Workplace productivity and efficiency;
- Business profitability and sustainable competitive advantage.

Recruitment and retention of employees

Work practices can have positive consequences for the attraction of potential employees. Firms with a reputation as a good employer typically pay higher wages, provide employees with a broad range of entitlements, often going beyond legal obligations or industry standards, and seek to establish high trust working relationships with their employees and stakeholders. Businesses with a good reputation as an employer will, everything else being equal, find it easier to attract employees with valuable skills (Turban and Greening, 1997). These reputation effects can contribute to business profitability and competitiveness through reduced recruitment costs, reduced labour costs, and improved labour productivity.

The ability of a business to attract and retain staff can also have consequences for other organisational outcomes, such as innovation. A recent survey commissioned by the AiG indicates that Australian business is increasingly concerned about skill shortages, and their ability to attract skilled staff. It estimates that up to 250 000 full-time employees are required to meet current skill needs. These concerns not only relate to business ability to meet current production needs, but severely affect industry's capability to innovate. The survey reported more than two-thirds of CEOs indicated they did not have sufficient skilled staff to meet current operational needs (AiG/Deloittes, 2008, p. 22). Of these, around 60 per cent indicated that these skill shortages were significantly affecting their capacity to be innovative. The survey results also indicate that the major barrier to Australian businesses up-skilling by training new employees or recruiting new skills was the costs associated with doing so. The survey results also found that employee turnover following training was a significant barrier to up-skilling. The survey reported the potential for a "vicious cycle" dynamic in which an inability to attract or retain valued employees in a period of skill shortages undermines competitiveness. A reduced level of competitiveness in turn can limit the ability of firms to pay the higher costs associated with attracting skills that would enhance their financial viability.

Functional flexibility and innovation

Employment practices designed to enhance employee involvement and participation have been shown to lead to innovative ways of organising work and production processes (see also section 3 for more details). These practices can themselves contribute directly to workplace innovation. Participatory employment practices can also provide the mechanisms through which new product and technical knowledge is created and existing knowledge is harnessed (Shipton et al., 2005; 2006). . Change and innovation provide business with an ability to respond quickly and efficiently to changes in their industry. While the evidence was mixed, practices that contribute to diversity have also been found to enhance creativity and innovation through enhanced processes for decision making and problem solving (Kochan et al., 2003). Similarly, workplaces that invest in policies and practices designed to reconcile work and family responsibilities can contribute to employee attitudes and behaviours associated with a willingness to contribute to innovation and workplace flexibility.

Finally, the quality of the industrial relations climate within a workplace – a proxy for a positive workplace culture—and the development of a partnership approach to employment relations can provide the pre-conditions for the implementation of large scale change and organisational innovations which would otherwise create conflict in a more adversarial climate (Rubinstein, 2000).

Productivity and efficiency

As we have already noted, many studies find a significant positive relationship between work practices and organisational performance. Ichniowski et al. (1996) and others highlight three principal ways this is likely to occur:

- Innovative work practices can improve labour productivity by influencing employee motivation and work effort (see section 3 for more details). Everything else being equal more satisfied and committed employees have been found to be motivated to work harder, as well as engaging in extra role behaviours (“citizenship behaviours”) that contribute to workplace performance.
- Innovative work practices can lead to greater efficiency through their effects on worker behaviour and coordination of effort. As workers often have more information than management about work processes, greater participation can lead to process improvements and better coordination of work effort across individuals and teams.
- Apart from these motivational and behavioural effects, innovative work practices can improve efficiency independently as a consequence of their impact on work organisation and production processes, or through the reduction of labour requirements that are brought about by the more flexible and efficient deployment of labour.

Profitability and sustainability

Fewer studies assess the impact of innovative work practices on profitability and sustainability, focusing instead on a number of other business outcomes that are known, or assumed to be, predictors of financial performance, such as productivity (Chadwick, 2007). Nonetheless, the weight of evidence indicates that work practices can improve business profitability and sustainability (Wall and Wood, 2007):

- Innovative work practices can improve performance through their effects on employee attitudes and behaviours, principally through their impact on employee motivation and effort levels (see section 3 for details).
- Work practices can also be associated with a more positive workplace climate, which reduces the costs and delays associated with responding to external pressures and changing production needs, as well as reducing the costs and difficulties associated with workplace changes that alter jobs and heighten worker concerns about job security.
- Finally, work practices may have a more direct effect on production costs and efficient use of resources through improving job design and work processes.

2.3. Evidence of Economic Impacts and “Pay-Offs” of Innovative Workplaces and Best Practices in Management

A key concern of some of the high performance literature has been to place a dollar value on the return on investment of high performance work practices. This task has proved difficult for a number of reasons. First, most importantly, returns on such investments may not materialise for some time, often making it difficult to establish the unique contribution of such practices to any change in organisational performance. Second, a significant number of studies rely on subjective measures of organisational performance, making any return on investment assessment impossible. Third, many studies have highlighted that the returns on such investments may vary significantly across industry

sectors, firm types, and other economic conditions, as well as variables such as the quality of workplace culture, the intensity of implementation and senior management commitment to such innovations (leadership).

Finally, the overwhelming majority of studies investigating the performance effects of high performance work systems have examined the performance effects of “bundles” of work practices, rather than seeking to determine the performance effects of individual practices in isolation. This reflects the general view that individual work practices are unlikely to yield strong performance effects in isolation. Consistent with the theory of strategic human resource management (see, for example, Boxall and Purcell, 2008), work practices require the presence of complementary bundles of practices in order to have any significant effects. For example, most studies suggest that high performance work practices require structured opportunities for employee participation in decision making (Applebaum et al., 2000). However, employees are unlikely to take up these opportunities without the requisite skills of team-based decision making and problem solving and a reward system that provides incentives for participation. These three elements thus form a complementary bundle of high performance work practices (Bartel, 2004).

Having made these caveats, a number of well designed studies have sought to make a detailed assessment of the returns for high performance or innovative work practices:

- In a United States study of establishments drawn from a number of industries, Huselid (1995) found that establishments with the best work practices reported as much as an additional United States \$100 000 in sales per employee compared with establishments with the worst work practices. Huselid also reported a difference in profitability of around US \$15 000 per employee. Later studies, however, indicate that these differences are likely to include some measurement bias, associated with the use of a cross sectional study design. A longitudinal study by Becker and Huselid (1996) reported significantly lower returns to work practices in the same sample of firms.
- In their study of steel mills—a longitudinal study—Ichionowski and Shaw (1995) report that establishments with a full complement of high performance work practices were around 7 per cent more productive than establishments without such practices. This, they estimate, equated to annual revenues of around US \$2 500 000 annually for each steel mill.

The extent of these effects or pay-offs is further demonstrated in a number of studies.

In the United Kingdom context, The Work Foundation’s *Cracking the Performance Code* (2005) report found that companies that rated highly on its Company Performance Index (which includes human resource practices) outperformed the bottom two thirds of companies in their sample by UK£1600 in sales per employee.

In a study commissioned by the National Centre for Partnership and Performance in Ireland of 132 medium to large companies, Flood et al. (2008) estimate that companies that pursue a high performance human resource strategy outperform their competitors in terms of productivity (by around 12 per cent), and workplace innovation (by 5 per cent). Firms using high performance work practices were also found to have significantly lower levels of employee turnover.

Moreover, this study found that the returns to high performance work practices were even higher when combined with employment practices designed to promote fairness (through diversity and equality systems), and greater flexibility and co-operation through labour management partnership. In financial terms, Flood et al. (2008) estimate that when combined these bundled practices added around €44 399 in the value of output per employee.

Among the most compelling evidence of the powerful positive impact of management practices and productivity comes from Europe, in the 2007 London School of Economics/McKinsey study, *Management Matters*. This study of more than 4000 medium sized manufacturing operations in Europe, the United States and Asia “support[s] our earlier research: firms across the globe that apply accepted management practices well perform significantly better than those that do not. This suggests that improved management practice is one of the most effective ways for a firm to outperform its peers”, p. 3.

This comprehensive study stems from the question: Why if so much is known about managerial best practice, is implementation so limited?

The spread of management performance between firms, even those of similar size operating in the same industry sectors in the same regions, is very broad, suggesting that management excellence is a matter of internal policy and not just the business environment. The techniques of good management are well known and in the public domain so the fact that they are so poorly disseminated suggests either that successful implementation is elusive or that it is not a priority for many firms. We also found the managers interviewed had little idea of the overall management performance of their own organisations

The study found that “better-managed firms ... have a more highly educated workforce, among managers and non-managers alike” and that at both the enterprise level and government policy level, there are important levers that can drive improvements in productivity and innovativeness:

For companies, this research is good news, suggesting that they have access to dramatic improvements in performance simply by adopting good practices used elsewhere. For policymakers, it lays down a challenge. The overall performance of most countries is determined not by the performance of its leading companies, but by the size of its “tail” of poor performers. By developing environments that promote good management practices across all firms and by devoting as much attention to the followers as to the leaders, governments can drive the competitiveness of their entire economies. (p. 3)

The LSE study found that the spread (variance) of management practices was similar across countries in Europe, but that within any country there was significant variance from best to worst. This study was quantitative in nature and found very tight (strong) positive correlations between strength of management practices and business performance drivers such as productivity, sales growth and return on capital employed:

Improving management practice is also associated with large increases in productivity and output. Across all the firms in the research, a single point improvement in management practice score is associated with the same increase in output as a 25 per cent increase in the labour force or a 65 per cent increase in invested capital ... We found this observation is true even after controlling for a host of factors like the firm’s country, sector and skill level. (p. 5)

The study found that multinational companies were generally best managed and highest in productivity, whereas family owned and operated companies were worst (p. 7). The conclusion for policy makers was that:

Governments can play their part in encouraging the take-up of good management behaviour. Doing so may be the single most cost-effective way of improving the performance of their economies. Strong competition and flexible labour markets both lead directly to improved management performance. Multinational companies have a strong positive effect too, and their influence is felt throughout the regions in which they operate. Relentless improvement in educational standards is also essential. Better-managed firms need more highly skilled workers and they make better use of them, while better educated managers will be a key

component of the performance transformation that both established and emerging economies must undertake if they are to maintain and improve their global competitive position. (p. 10)

Another compelling study in the United States by Black and Lynch (2004)⁸ on organisational innovation and United States productivity similarly illustrates the economic benefits of improved workplace practices. Lynch (2007, p. 1) explains:

The rise in productivity during the later half of the 1990s and the first half of this decade has been mainly attributed to investments in information and communication technology. However, if you examine the various studies that have attempted to disentangle the contributions from capital deepening, labour quality and total factor productivity on average productivity, ones sees that total factor productivity has been extremely important for the growth in labour productivity in the United States over the past decade (Jorgenson, Ho and Stiroh, 2004).

Although total factor productivity is something of a black box, in Black and Lynch (2001, 2004) we analyse data from two unique surveys of workplace practices conducted by the United States Census Bureau during the 1990s and argue that organization innovation is an important component of this black box. We define organizational innovation as including human resource management practices such as organizing workers in teams – either self managed or groups meeting on a regular basis to discuss workplace issues; job rotation; training for non-managerial workers; and reengineering. Table 1 shows the extent to which United States employers have adopted various dimensions of organisational innovation.

Table 1. Incidence of Workplace Practices in 1997

Workplace Practice	Manufacturing	Non-Manufacturing
Production Workers Receive Training	76.6 per cent	85.58 per cent
Production Workers Meet Regularly to Discuss Workplace Issues	74.2	72.6
Workers Organized in Self-managed Teams	31.7	28.0
Job Rotation	49.6	39.8
Establishment has been Re-engineered in Past 3 years	12.3	9.0

Lynch (2007) goes on to explain that most of the studies using data from intra-industry or nationally representative surveys find that the adoption of a coherent system of human resource management practices, such as flexible job definitions, training, work teams, and incentive pay, results in substantially higher levels of productivity than more traditional human resource management practices. Furthermore and importantly, many of these studies have also found evidence of the existence of synergies among workplace practices – the total impact is greater than the sum of the parts. Lynch (2007, p. 2) explains:

We use our estimates of the impact of organisational innovation on productivity in a growth accounting framework to see how much of the growth in output from 1993-1996 in United States manufacturing might be accounted for by organisational practices. The results are presented in Table 2. As shown in this table, it appears that workplace practices and re-engineering efforts accounted for as much as 30 per cent of output growth over this period of time.

⁸ See also Black and Lynch (2001).

Table 2. Average Annual Rates of Growth in Output, Manufacturing					
	BLS	BLS	BLS	BLS	Black/Lynch
	1979-90	1990-95	1995-98	1993-96	1993-96
Output	2.0 per cent	3.8 per cent	4.9 per cent	4.2 per cent	4.7 per cent
Combined Inputs <i>(capital, labour, materials)</i>	0.8	2.1	2.3	2.3	3.2
Multifactor Productivity	1.1	1.7	2.5	1.9	1.6
<i>Contribution of R&D</i>	0.2	0.2	0.2	-	-
<i>Workplace Practices</i>	-	-	-	-	1.4
<i>Remaining Residual</i>	-	-	-	-	0.2

Table 7 provides a further snapshot of key research, showing the benefits and effects of improved work practices.

Table 7. Headline Improvements as a Result of Changing Working Practices

1. A study at Leyland in the United Kingdom showed that the adoption of partnership led to a reduction of 30 per cent in operating costs (£10 million over 10 years), halving of the break-even point and an improvement in quality of 30 per cent.
2. Productivity improvements of up to 20 per cent linked to high involvement and co-operative union relations in United States manufacturing.
3. Change to new work practices in United States steel plant singled out as the sole cause of United States \$1 million increase in profits per production line.
4. Team working in a Danish hospital led to significantly improved standards.
5. Local Action Team at AWE in United Kingdom developed a new production process that saved the company £100 000 in the first year.
6. In a call centre, self-managing teams achieved sales that were 20 per cent higher than those in traditionally organised groups.
7. Finnish study found that 37 per cent of organisations defined as flexible introduced new products over a 3 year period. The comparable figure for organisations defined as traditional was 3 per cent.
8. Employees in self-directed teams in United States medical and imaging industry earned 17 per cent more than workers in companies not using teams.
9. Average gain per employee was United States\$2200 per year in 192 United States organisations with gain-sharing plans.

10. Higher productivity in every case where profit sharing was introduced (OECD study).
11. Gain-sharing at Dairygold pig processing plant resulted in at least 20 per cent of budget saved each year.
12. Partnership linked with employee friendly culture, for example job sharing, flexible hours and educational opportunities.
13. In the first year after the introduction of shared care team-based program of health care in a United States hospital, sick leave hours decreased from 30 000 per year to 14 600.
14. Employees in United States study of organisations with high involvement report that they have adequate resources to do their job, do less involuntary overtime and experience less conflict in the workplace.

Source: National Centre for Partnership and Performance (2008).

Unfortunately, there are no available studies to suggest the potential pay-offs associated with high performance work systems in the Australian context. In the only recent available study, Gahan and Buttigieg (2008) report on a study of manufacturing and technology sector firms. While this study finds high performance work practices have a significant effect on a number of different measures of organisational performance in a high trust workplace, they use relative performance measures, making it impossible to determine the pay-offs associated with the use of high performance work practices. An earlier study based on multiple regression analysis of 2000 establishments in the Australian Workplace Industrial Relations Survey by Alexander and Green (1992) found substantial productivity and performance improvements resulting from high intensity of collaboration between management and workforces.

3. Leadership, Culture and Management as Enablers of Innovation and Business Performance

3.1. Introduction

This section of the report illustrates, in more detail and via practical examples, the critical linkages between leadership, culture and management and innovation performance at the workplace. It builds on the previous analysis and illustrations in section 2 to show that in many cases leadership, culture and management are the mediating variables that enable (or inhibit) innovative ideas to be translated into tangible results, be it new products, services or processes. Importantly, this section places greater emphasis on the concepts of leadership and culture, in addition to management systems and processes, as discussed previously in section 2. Significantly, leadership and culture are at times neglected, and even overlooked, in the debate on innovation performance, and yet these are the very aspects of an organisation that can create the foundation for any form of innovation activity – it is people at work, including how they feel and the degree to which they are valued and enabled, who underpin and drive innovation performance in firms and organisations.

This thinking has been reflected to a larger extent in recent years where the “human aspects” of workplace management, such as staff engagement, motivation, commitment and morale (Schuster et al., 1997; Kravetz, 1988), have received renewed attention by practitioners and scholars alike. Delbecq and Mills (1985), for example, suggest that in highly innovative organisations, line managers alone do not make business decisions. Teams and committees, which include external advisers and consultants, also play a key role in decision making. This indicates a participative and collaborative management style, where individuals are encouraged, enabled and motivated to participate and thus maximise their contribution to the organisation. Paying attention to how employees feel and their emotions, such as fear, happiness, warmth, love and pride (Amabile and Kramer, 2007), is also increasingly seen as critical to creating high performance workplaces and motivating people to innovate.

Delbecq and Mills (1985) look specifically at innovation performance and argue that there are several variables that underpin organisations’ capability to be highly innovative. These include:

- The motivation to innovate
- The right team of people who can generate ideas and advocate innovation
- A corporate culture that fosters innovation and leads to productivity improvements in the workplace.

Along similar lines, to pursue systematic innovation, Neufeld et al. (2001) point to four key “determinants” for high-performance research organisations, including:

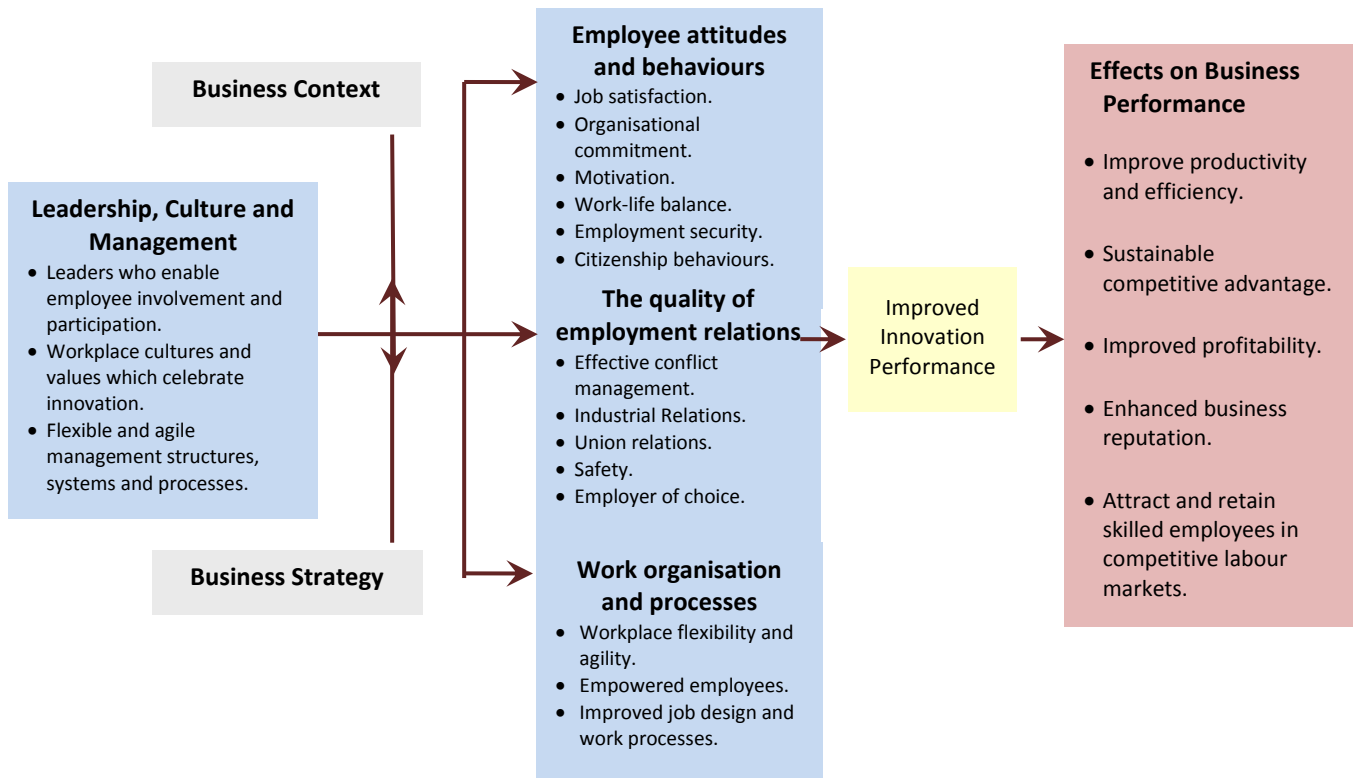
- People
- Leadership
- Research project management
- Organisational performance⁹

⁹ These were defined as follows:

- People. Employees are passionate about their work, have confidence in management, and are proud of their organisation. Management invests significant time in identifying the core competencies required to conduct, synthesise and apply knowledge effectively, and in recruiting, managing, developing, motivating, and retaining high-quality staff.
- Leadership. Employees and dependent constituencies share management’s vision, values and goals.
- Research Project Management. Organisational knowledge and intellectual capital is systematically captured and turned into inputs and innovative capability. Research projects embody world-class science, and involve the right people.
- Organisational Performance. The organisation places a high emphasis on integrity to safeguard its credibility and reputation. It is widely known and respected, and meets the needs of its dependent constituencies and alliance partners.

A more detailed review of the available research illustrates in greater detail how management practices, including leadership styles, workplace cultures and management systems and processes affect organisational innovation and performance (see Figure 5).

Figure 5. Linkages between Management Practices, Innovation and Business Performance



Sources: Becker and (1996); Ichniowski, et al. (1996); Rucci et al. (1998); Becker and Huselid (2006).

In line with these observations on employee attitudes and how “people feel at work”, the SKE (2008b) identified and researched innovative organisations in Australia and found the following three elements proved to be particularly significant to enabling innovation:

- **Leadership:** Visionary leaders, who involve people at all levels of work in defining workplace priorities and purpose, and who make innovation a desired and commonly accepted organisational activity.
- **Culture:** The shared organisational values and beliefs (including the invisible “codes of conduct” and “ways of doing”) that enable ideas to be born and transformed into new products, services and processes.
- **Management:** Configurations of management systems, tools and techniques (including technology) to support and give life to innovation.

Thus, innovation performance is a result not just of different configurations of management systems and processes (as discussed in section 2), but also of leadership styles and workplace cultures including value based/normative rules and the degree to which these are “configured”, in a way that employees at all levels are enabled, motivated and allowed to contribute their fullest at work.

Along similar lines, the Delta Organisation and Leadership LLC (now part of the Oliver Wyman group) in collaboration with the Economist Intelligence Unit, conducted the 2007 Leadership Survey and produced the report *The Global Leadership Imperative: Building an Innovation Engine* (2007), in which they find that companies excelling at innovation share three common traits:

- Their leaders create an environment—or climate—where innovation thrives.
- The importance of innovation and the critical role every employee plays are hard-wired into the company's culture.
- Organisational structures support generation and execution of new ideas.

These attributes, leadership, culture and management, and how they impact innovation, are discussed in more detail in the following sub-sections. In doing so, we seek to illuminate the role of the human side of the business as related to values, participative leadership styles, employee engagement, team-based work structures and learning organisations, to name but a few.

3.2. Leadership and Innovation Performance

Leadership is critical to innovation. Leadership concerns senior people's role in developing the organisation's environment in such a way that innovation is made an ordinary, recognised and accepted activity. Leadership, however, need not be restricted to senior executives. In fact, a key responsibility of senior people is to enable as many employees as possible to lead positive change at all levels in the workplace. The leadership dimension includes the symbolic gesturing of leaders and the role models, artefacts and symbols they create articulate and "hold up" as desired behaviours to others in the organisation and elsewhere. Leadership is about championing innovation¹⁰ and championing those ideas that require cooperation from many within the organisation and from those outside, such as customers, suppliers and others. It involves mediating the different assets that have to work in concert to make the innovation real.

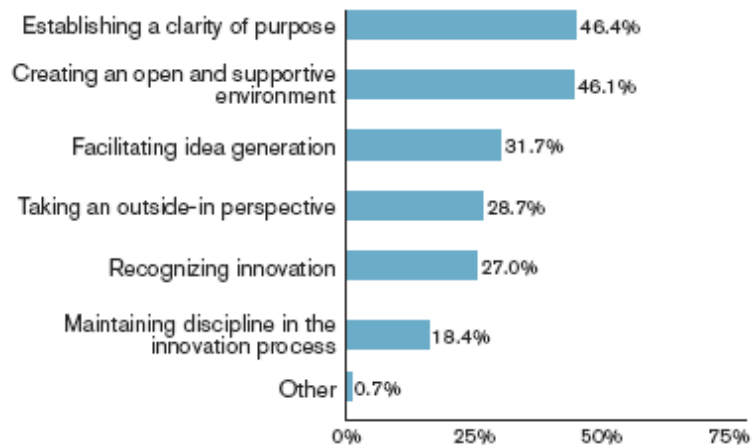
In a series of publications, Professor Jean-Philippe Deschamps has outlined the contours of innovation leadership¹¹. The claim is that innovation requires a specific form of leadership. Innovation leaders are those executives *who stimulate, steer, sustain and promote the innovation agenda in their firm*. Different innovation strategies may require different styles of leadership since styles of innovation leadership may differ between the "fuzzy front-end" and "speedy back-end" of the process. The front-end of innovation focuses on exploring opportunities, generating and selecting great ideas relating to customer problems and turning them into attractive solutions. It requires a great deal of organisational creativity. The back-end of innovation, by contrast, must convert these concepts into winning new products or services and bring them to market as quickly and cost effectively as possible. It requires organisational discipline. Both ends involve complex cross-functional processes, but these processes are very different in nature and require very different styles of leadership.

Respondents to the aforementioned 2007 Leadership Survey said that the following two leadership characteristics are most important for creating a climate for innovation: 1) establishing a compelling vision for their people; and 2) creating a climate that is open to new ideas and change (see Figure 6). Ranking next in importance were encouraging idea generation, taking an outside-in perspective, and recognising and rewarding innovation. Maintaining discipline in the process was ranked least important.

¹⁰ Llorens-Montez et al. (2005), through their empirical study, demonstrate the importance of leaders supporting innovation through teamwork cohesion, organisational learning, and technical and administrative innovation. A leader's role is to develop a suitable management style and to inculcate a workplace environment that enables, allows and encourages innovation to take place.

¹¹ See for example Deschamps (2008) and Deschamps (2005).

Figure 6. Leadership Attributes for Innovation



Source: Oliver Wyman – Delta Organization and Leadership in cooperation with the Economist Intelligence Unit, (2008), *The Global Leadership Imperative: Building an Innovation Engine*,

Respondents also said that the need to develop leaders who can create a climate for innovation was the most difficult challenge for their companies' ability to deliver business results. Clearly, leadership gaps are important obstacles in the path to innovation.

Research on leadership and innovation in Australia is limited and little is known about the leadership styles or attributes most conducive to innovation performance in an Australian context. The 2006 Fujitsu survey is one of the few larger studies into innovation that incorporates the leadership dimension. Among others, the survey found that major barriers hindering successful innovation in Australian organisations included a lack of:

- resources;
- an innovative culture;
- leadership.

Along similar lines is the BCA's 2006 report on innovation in Australian organisations that "workplace culture and leadership has a major influence on innovation capacity" (p. 22). The report states that "The companies in the study saw culture as a major factor in their ability to achieve innovation outcomes" (p. 33). It goes on to say (p. 12):

Business innovation in some circumstances has more to do with the human capital of its employees and how these skills and capabilities are applied and managed than it does with technology and invention. The findings highlight the vital importance of a skilled workforce, effective workplace relations systems and management capabilities, and strong corporate leadership in delivering a culture of innovation and enabling innovation success.

The BCA report also suggests that the solution to improving innovation in the workplace lies in education and training (p. 15):

It is vital that Australia's education and training system provides, in a systematic and comprehensive way, the requisite skills that businesses demand for innovation success. In particular, it is vital that the skills to enable effective organisational leadership and management are well developed in Australia.

The BCA report found that existing training and education programs do not always live up to business requirements and needs (see p. 49).

3.3. Culture and Innovation Performance

Organisational culture is likewise a critical enabler (or possibly a constraint) of innovation at the workplace level. Culture offers a shared system of meanings that form the basis of communication and mutual understanding. If the organisational climate does not fulfil these functions in a satisfactory way, then the efficiency of an organisation may be significantly reduced. Culture is influenced by an organisation's formal and informal rules or normative structures. The cultural aspects are most closely linked to the covert or informal rule structures. These are social and reside in the history of the organisation as "taken-for-granted", invisible, rules about expected behaviours¹² and assumptions about how and if people can be trusted or permitted to engage in innovative activities, and also how necessary, or perhaps also un-necessary, is innovation. In particular, culture addresses the question of covert barriers to people's engagement and innovation potential, their abilities to influence innovation in their work situations, and the value-based incentives that encourage them to participate in developing the organisation.

According to Tushman and O'Reilly (1997, p. 29), "organisational culture lies at the heart of innovation". Similarly, other authors emphasise that the culture of an organisation is a contributing factor in the extent to which creativity and innovation occur in an organisation. A key question posed by Martins and Terblanche (2003, p. 64) is: "What determinants of organisational culture have an influence on creativity and innovation in organisations?" According to these authors, the dimensions of culture encompass mission and vision, external environment, means to achieve objectives, and image of the organisation.

The aforementioned 2007 Leadership Survey found consensus among senior executives and innovation experts alike that a culture that encourages innovation includes:

- values of risk taking;
- challenging the status quo;
- freedom of expression.

In an ideal environment, people create new value through innovation. This is more likely to happen when every employee is expected to generate ideas for improving all aspects of the business—and where employees believe that their ideas are both welcome and valued.

Research by the SKE with Microsoft Australia exemplifies what it means to create an innovative workplace culture and illustrates how transformations in employee values are critical to enabling innovation. Mental models such as the "Learner" versus the "Knower" can help transform employee attitudes, make them more open towards others, and increase levels of curiosity (see Figure 7). "*We need Learners who are prepared to listen to each other, to our customers, partners and the community. We need to be curious and humble, to recognise what we don't know in order to be innovative and to grow our business*", Tracey Fellows, Managing Director at Microsoft Australia, explains. Culture can and should be explicitly managed through various techniques, including metaphors, symbols and storytelling, to transform beliefs and behaviours.

¹² See for example Schein (1992), who defines organisational culture as the learned, shared, tacit assumptions on which people base their daily behavior. Culture is how we do things around here (Schneider, 2000). It is a construct which concerns the collective behaviors of people, founded in their common beliefs and values with the outward manifestation of culture demonstrated in the form of language and all aspects of behavior. It is to be noted that all cultures are dynamic and so evolve continuously.

Figure 7. Culture Transformation and New Mental Models at Microsoft Australia

KNOWER	LEARNER
Fear based	Confidence Based
Desire to be right and look good	Desire to be effective and learn
“Other”-esteem	“Self”-esteem
Blame oriented . Seeks innocence	Response-ability. Seeks power
Arrogant and judgmental	Humble and curious
Self as product	Self as ongoing process

Source: Axialent 2005, all rights reserved

Source: SKE (2008b, p. 41)

Currently, however, little is known about how culture is managed within Australian enterprises and the effects of different “mental models” on innovation performance. The aforementioned Fujitsu survey (2006; 2007) is one of the few to attempt to inquire into the linkage between culture and innovation, yet it fails to break down the sub-components of “culture” and illustrate how culture is practised inside organisations and with what effects. The net result is that we need more insights into how Australian organisations manage (or not manage) workplace cultures to produce innovation outcomes and the social and economic effects of different cultural archetypes. Furthermore, since the discontinuation of the pioneering and comprehensive Australian Workplace Industrial Relations Survey (after 1995), Australia does not have a national workplace survey that sheds light on the human dimensions of work-life.

3.4. Management (Systems, Structures, Techniques and Processes) and Innovation

Management is a seemingly “large” and complex concept which is intrinsically connected to and inseparable from innovation performance in any workplace, as already evidenced in section 2. The management dimension concerns the design of techniques, systems, structures and processes that incentivise, monitor and control the development of innovation activity at the workplace. Innovation is generally in need of expansion, but sometimes novel ideas are bad ideas. Therefore, mechanisms have to be developed that can both expand, yet, at times also restrict and control the number of ideas generated and implemented. Management techniques and processes also assist in the translation process whereby abstract ideals are converted into concrete realities, be it in the form of new products, processes or services to customers. Practical examples include management techniques such as project management systems, intellectual capital reporting, human resource management, team versus silo based work structures, strategic planning and budgeting, performance remuneration, staff incentives etc. These all illustrate that it is possible to devise processes for innovation management. Many such management techniques are not “new” but they may have to be used and applied differently. Rather than using management techniques coercively to limit innovation they may be used to enable innovation; rather than being used diagnostically to stress productivity only, they may be used interactively to stress learning also.

To further illustrate how different management techniques and designs impact on innovation (as already done to some extent in section 2), it is helpful to draw forth Arundel et al.’s (2007) survey research of highly innovative companies in Europe. The survey is an example of an innovation diagnostic instrument that assesses how prepared organisations are to be innovative and also what drives and enables innovation at the workplace level. Specifically, the survey identified various types of workplace arrangements across European countries in relation to the organisation of work, learning, interaction, and employees’ ability to influence their activities at the workplace level (see the full paper for a definition of each of the survey variables).

Arundel et al. (2007) found a strong link between management archetypes and innovation effects. Specifically, they identified four types of work organisation with different learning and innovation schemes, as follows:

- 1) “**Discretionary learning**” corresponds to work organisation where problems are solved dynamically;
- 2) “**Lean production**” where group based problem solving happens;
- 3) “The hierarchically structured **Taylorist firm**”; and
- 4) The “**Traditional organisation**” based on a simple management structure.

Table 8 illustrates the workplace characteristics of each of these four types. The first two types (Discretionary Learning and Lean Production) are conducive to innovation in different ways, while the last two (Taylorist and Traditional) are less so.

The Learning organisation is the most conducive to innovation. This model is characterised by a high degree of involvement and responsibility on the part of the employee. Empowerment of staff and delegation of responsibility to “jazz” people is where innovation thrives best.

In contrast organisations organised via Taylorist principles focus strongly on norm-adherence; organisations with a Traditional management form have little strategic direction and do not encourage much innovation from employees.

Table 8. Types of Work Organisation and Differentiation in Dimensions of Innovation.

Variable	Percent of employees by work organization cluster reporting each variable				
	Discretionary learning	Lean production	Taylorism	Traditional organization	Average
Team work	64.3	84.2	70.1	33.4	64.2
Job rotation	44.0	70.5	53.2	27.5	48.9
Quality norms	78.1	94.0	81.1	36.1	74.4
Responsibility for quality control	86.4	88.7	46.7	38.9	72.6
Problem-solving activities	95.4	98.0	5.7	68.7	79.3
Learning new things in work	93.9	81.7	42.0	29.7	71.4
Complexity of tasks	79.8	64.7	23.8	19.2	56.7
Discretion in fixing work methods	89.1	51.8	17.7	46.5	61.7
Discretion in setting work rate	87.5	52.2	27.3	52.7	63.6
Horizontal constraints on work rate	43.6	80.3	66.1	27.8	53.1
Hierarchical constraints on work rate	19.6	64.4	66.5	26.7	38.9
Norm-based constraints on work rate	21.2	75.5	56.3	14.7	38.7
Automatic constraints on work rate	5.4	59.8	56.9	7.2	26.7
Monotony of tasks	19.5	65.8	65.6	43.9	42.4
Repetitiveness of tasks	12.8	41.9	37.1	19.2	24.9
Total share of employees	39	28	14	19	

Source: Third Working Conditions survey, European Foundation for the Improvement of Living and Working Conditions.

Source: Merlie ´ and Paoli (2001) in Arundel et al (2007, p. 1182)

Arundel et al.'s findings are consistent with previous studies including, for example, Prahalad and Hamel (1990), who suggest that it is firms that excel at managing their employees in such a way that there is a shared sense of commitment in achieving organisational goals and knowledge sharing patterns that achieve high performance. These firms induce their employees to mobilise knowledge and expertise across boundaries to generate innovation through their interactions. Firms that lack core competencies view each part of the organisation as rivals and, therefore, limit knowledge mobilisation. By focusing on knowledge mobilisation and assuming that creation follows automatically, the willingness of individuals to share knowledge becomes the central problem. Therefore, organisational design and structure, through managing personnel such that they build social ties (Kogut and Zander, 1992), or directly providing them with incentives for the interaction is critical in achieving innovation.

Many additional aspects of management systems, techniques, processes and structures can be further un-packed and explored to understand their effects on innovation at the workplace level. Using experiences from Ireland, the National Centre for Partnership and Performance (2004, internal document)¹³, for example, points out that:

The workplace of the future will have key attributes:

- Values linking knowledge, employee involvement and business performance;
- Company-wide commitment to change and innovation;
- Leaders and managers who empower, coordinate and motivate;
- Employees as the thinking core;
- Working practices focused on change and learning;
- HR practices linked to ongoing implementation;
- Unions focused on the broader and deeper concerns of employees.

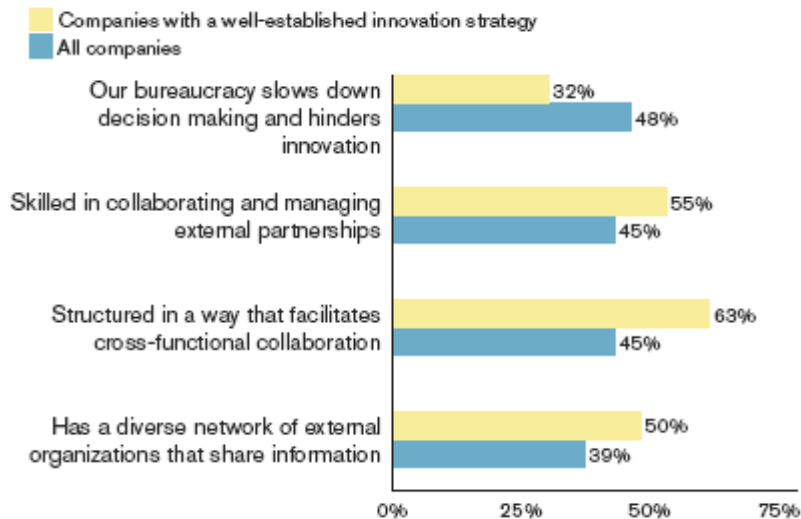
Another example is a company's performance measurement and reporting systems, which likewise require re-configuration to enable and incentivise innovation. This has been done overseas, specifically in Europe and the United States, in the form of intellectual capital or enhanced business measurement and reporting¹⁴. These emerging measurement and reporting systems recognise the value and contribution of intangible resources to a much larger extent than traditional accounting systems, thus augmenting traditional views of business performance to include human capital, relationships and networks, structural capital, and others. What we measure as managers is often what is valued, managed and acted on—hence visualising a company's invisible asset is key to better management and overall business performance.

The aforementioned 2007 Leadership Survey likewise points out the importance of management systems and processes to enabling innovation. Specifically, it finds that a "bountiful flow of creative ideas is worthless without business processes to assess them, put them into action, and motivate risk taking and other behaviours that drive execution. Corporate systems and processes that facilitate cross-functional or cross-business collaboration as well as partnerships with external organisations play a particularly important role in enabling innovation" (ibid, p. 26) (see Figure 8).

¹³ Not available for public release.

¹⁴ See for example the OECD "World Intellectual Capital Initiative", started in Paris on October 31, 2007. The WICI brings together industry and policy experts from the EU, Japan and Australia to collaborate on promoting the management and reporting of intellectual capital/assets at company level throughout the world and to develop business management and reporting frameworks to this end. See also the Australasian Capital Reporting on Knowledge Award for an example of an Australian initiative (http://www.arawards.com.au/criteria_a.html). See Boedker et al. (2007) for an overview of international trends and developments in Intellectual Capital Measurement and Reporting (www.ske.org.au).

Figure 8. Corporate Structures and Systems



Source: Oliver Wyman – *Delta Organization and Leadership in cooperation with the Economist Intelligence Unit, (2008), The Global Leadership Imperative: Building an Innovation Engine,*

3.5. Conclusion

This section of the report has sought to illustrate via practical examples the critical linkages between LCM and innovation performance in the workplace. It has shown that LCM is, in many cases, the mediating variables that enable (or inhibit) innovation to be translated into tangible results, be it new products, services or processes. Importantly, leadership, culture and management have transformative effects in sometimes mundane ways that are not always recognised or celebrated to the extent they deserve.

Table 10 from the SKE report (2008b) summarises some of the possible effects of transformations in leadership styles, workplace cultures or management techniques, and illustrates how these seemingly mundane practices can have significant impacts on companies’ financial performance (revenue growth), customer satisfaction, and also, importantly, the well-being, emotions and happiness of employees.

Table 9. Innovation Case Studies
Summary of Relationships between Leadership, Culture and Management and Innovation

Company	Leadership, Culture and Management Techniques	Effects
Microsoft	Changing culture and values: making people curious "Learners versus Knowers"	<ul style="list-style-type: none"> • Business remodelling, resulting in better coverage of customer accounts • More satisfied and better serviced customers • Double digit revenue growth • Exceeded 2007 revenue growth targets • Improved market competitiveness
PricewaterhouseCoopers	Structuring for innovation: breaking down silos and enabling collaboration "Watermelons"	<ul style="list-style-type: none"> • Staff motivated to put themselves in the shoes of their clients • Happier customers • More services per client • Larger revenue opportunities • More opportunities to grow the business.
Acquire Technologies	Designing business processes that enable innovation and ideas to travel Strategic Planning, an "Ideas Box"	<ul style="list-style-type: none"> • Transformation in business model to Solutions Provider • Happier, better serviced customers • New service/product offering (QBOX) • Competitive advantage in industry
AMP Capital Investors (Sustainable Alpha Team)	People and Culture: unlocking the hidden value of businesses (50 data points on human capital) "Treasure Maps"	<ul style="list-style-type: none"> • More accurate company valuation • Better information to inform buy/sell decisions • Adjustment of risk premiums/discount rates • Better insights into a company's future earnings potential • Point of differentiation in industry
Australian Broadcasting Corporation	Decentralising responsibility and enabling the participation of many "Participative Leadership"	<ul style="list-style-type: none"> ▪ Proud employees with a sense of appreciation and satisfaction in their work ▪ Increase in reach and penetration into new social networks/ re-definition of audiences ▪ High public satisfaction rates ▪ Increase in traffic and downloads ▪ Strengthened market position and leadership

Australian organisations need more insights into these seemingly mundane, yet critical, aspects of workplace management. Participative, industry based research programs, new diagnostic and workplace assessment tools, the creation of communities of practice and learning networks, and the dissemination of best practice examples are some examples of initiatives that can motivate broad based uptake and practice throughout Australian organisations, public or private, large or small, as discussed in more detail in section 5.

4. International Policy Responses to Workplace Development

4.1. Introduction

Internationally, governments have investigated, deployed and, to some degree, evaluated policy directed to improving rates of innovation at the enterprise level. In most cases, policy is not directly aimed at building innovative capability through leadership, management and culture. Greater emphasis is placed on formal skills development through traditional education and workplace learning. A significant component of such skills development tends to be in traditional areas of science, technology and analytical business fields like accounting, law and economics. However, there are increasingly examples of policy devoted to encouraging the development of what has come to be known as “High Performing Workplaces”. Some examples are Finland’s Workplace Development Program and Ireland’s Workplace Innovation Program, based on the “National Forum on the Workplace of the Future”. Other examples, such as the Manufacturing Enterprise Programme in the United States and the Manufacturing Advisory Service in the United Kingdom, tend to focus on business diagnostics rather than innovation, though their impact is positive in this context. One common problem of many programs is that they often rely on management in their day to day operations in the marketplace to take up these new practices, rather than pursuing direct and more conscious measures aimed at incentivising and bringing about uptake and transformation. Increasingly, it is recognised that LCM are vital elements in determining whether workplace productivity and performance is likely to increase and that this cannot always be left to market forces alone. Also of significance is a growing emphasis on promoting work life balance and business sustainability rather than purely economic measures of well-being.

4.2. An Overview of International Policy Responses

Most countries begin policy development on innovation with the aim of increasing productivity and competitiveness, but other objectives are important as well. For example, the European Union’s “Lisbon strategy” of 2000 set itself the ambition of making Europe “the most competitive and dynamic knowledge-based economy in the world by 2010”, but it also added a strong emphasis on social cohesion, job creation and environmental sustainability. This emphasis on the knowledge economy largely flows from the desire of developed, high wage economies to innovate in order to compete through a “race to the top” rather than through lost cost competition with emerging economies, some of which have not only cheaper workforces but also greater numbers of increasingly well-qualified workers.

In Table 10, we set out the relevant policies from seven leading countries directed at workplace development, the aim of which is to create innovative, productive and sustainable economies and industries. The Table identifies the policy in question, the department responsible, focus areas and, if known, investments in the policy responses¹⁵.

¹⁵ The following is a list of questions asked during the consultation with representatives of overseas governments (see the Acknowledgements section for details on who we spoke with):

- Whether government is/was involved or not and to what extent;
- What is/was the rationale for government involvement?
- Whether or not the ventures were successful;
- Why or why not the ventures were successful;
- Lessons learned: even if they were not successful why not? Any implications for the Australian context?
- Size of budget, length of investment?
- Challenges faced and why;
- Are such initiatives linked into other government policy areas?
- Extent of partnerships in such initiatives with trade unions, employer organisations, multi-national corporations.

Table 11. Summary of International Policy Initiatives

Country	Department	Policy	Focus Areas and Resources Investment
Ireland	Prime Minister's Office	National Workplace Strategy (NCP, 2005)	<p>€ 6million Workplace Innovation Fund promoting innovation and research at enterprise level.</p> <p>€3 million Enterprise based projects in private sector, Social Partnerships initiatives, Public Awareness Campaign, Evidence Based Advocacy for Workplace Innovation.</p> <p>National Centre for Partnership and Performance, staff and administration budget €2 million to run office.</p> <p>€39 million One Step Up – Competency Development Programme, builds skills in workplace targeting 25 000-30 000 individuals.</p> <p>Accelerating In-Company Skills seeks to develop leadership and management skills. Over 55 projects and €21 million in funding.</p>
Finland	Finnish Minister of Labour	National Workplace Development Strategy TYKES (2004-09)	<p>Foci included raising quality of management training and the operational processes of organisations themselves to be more receptive to innovation.</p> <p>The budget for Tykes is €14.5 million per annum or app. €87 million over the five year period (2004-07). Target of 1000 projects and 250 000 employees involved by 2009. About 65 per cent of projects funded are in the private sector with the remainder in the public sector. The great majority of projects are taken up by SMEs. The program is planned to continue beyond 2009 and an increased budget is currently being sought.</p>
New Zealand	Department of Labour	Workplace Productivity Agenda	<p>Partnership between government, business and unions to pursue four initiatives: awareness raising, development and distribution of diagnostic tools, implementation, research and evaluation. Budget in excess of NZ \$1 million per annum.</p> <p>Enterprise Training Programme estimated NZ \$1 million per annum, Better by Design NZ\$1 million per annum and Growth Services NZ\$10 million per annum, New Zealand Trade and Enterprise NZ\$1 million per annum over three years</p>
Canada	Canadian Ministry for Human Resources and Skills Development (2005) and the Conference Board of Canada	<p>Comprehensive Human Capital Strategy for Canada</p> <p>National Innovation Strategy 2002</p>	<p>Workforce partnering is a key theme of this policy. Calls for a National Human Capital strategy which would unify several disparate strategies have not been acted upon. Calls for focus on innovation as well as leadership, culture and management development.</p>

United Kingdom	Dept for Business Enterprise and Regulatory Reform (BERR) Department of Innovation, Universities and Science (DIUS)	Leadership and Management Programme: Train to Gain The Knowledge Transfer Partnership (KTP) programme	The Department of Innovation, Universities and Science (DIUS) is running a program called “Train to Gain”, which is targeted at improving the leadership and management skills of small to medium sized enterprises (SMEs). The funding for this has been expanded from UK£4 million per annum to UK£30 million per annum. Eligibility will be extended from April 2008 to SMEs with between ten and 250 employees (currently 20 to 250 employees). This UK£90 million investment will increase the skills of around 60 000 key directors and managers in approximately 42 000 small and medium sized companies. Such initiatives, it is hoped, will reinforce the United Kingdom as a source of talent but also serve to retain that talent in the United Kingdom. The KTP provides support to firms to transform their businesses and, in so doing, develops a cadre of young executives with a range of project management skills.
United States	Department of Labor	21st century Workforce Initiative (WFI) initiative ¹⁰⁴	Aims to prepare the nation to adapt to changes in the economy, for example, in how Americans will work, where they will work, and how they will balance professional and family lives. No focus on leadership, management or culture at workplace level.
Japan	Japanese Ministry of Economy, Trade and Industry	Various policies	Some focus on leadership, management and culture, through the World Intellectual Capital Initiative. Some efforts being made to raise awareness of entrepreneurs and celebrate success.

IRELAND

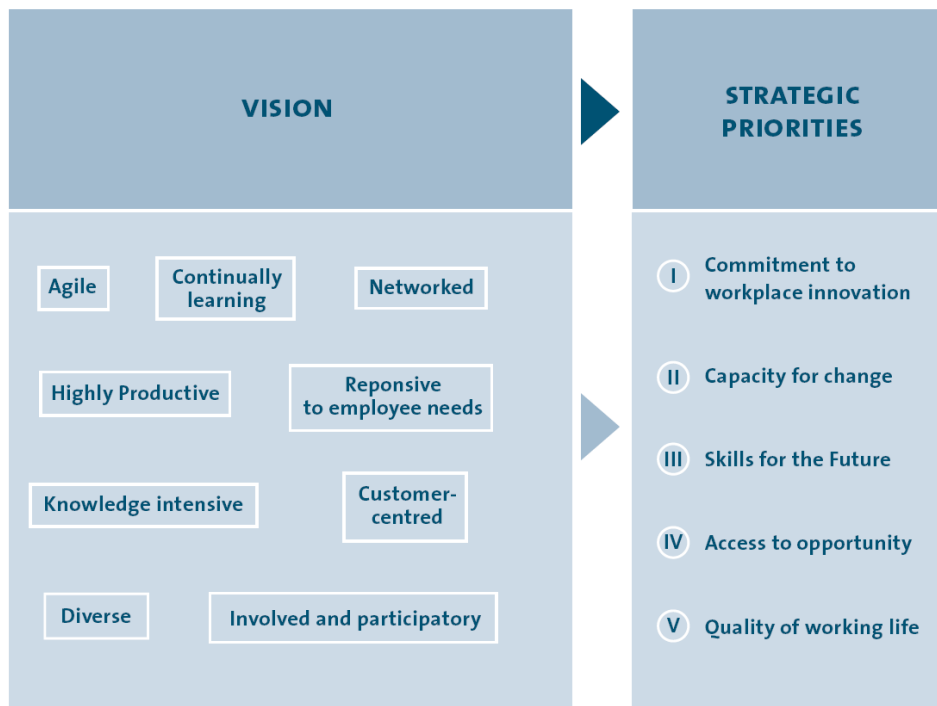
Ireland commenced its development of a national innovation system in the 1990s with inquiries, reports and a “technology foresight” exercise on how to position firms and the economy to deploy knowledge and innovation for competitive advantage in projected areas of global growth, including attraction and “embedding” of foreign direct investment (FDI) companies in local supply chains. Its national innovation system took shape from the social partnership required to stabilise the economy in the 1990s, reflected increasingly in “enterprise-level partnerships”; the investment attraction policy with its linkages to local clusters and networks; and its emphasis on research and education, with an increasing role for knowledge transfer and the commercialisation of ideas.

According to the Irish National Centre for Partnership and Performance (2004)¹⁶ developing workplaces of the future requires long-term strategic vision and:

a fresh look at key management skills such as motivation, openness, communication and project management. It also looks on employees as assets and assets which can appreciate in value if the right conditions are created. The vision focuses on working practices and their ability to deliver higher performance for companies and employees. The key human resource challenge is the ability to change and in the workplace of the future this must become a key responsibility for HR managers or those managing human resources. Finally, this vision for the workplace of the future creates new challenges and opportunities for unions as they must respond to the changing pressures and needs of the workforce.

¹⁶ Not available for public release.

Figure 9. Workplaces of the Future



Source: *Irish Workplaces, A Strategy for Change, Innovation and Partnership 2007–2010*

In the 2004 report, *Ahead of the Curve*, (Enterprise Strategy Group, 2004, p51) it is claimed that “knowledge creation and diffusion are at the core of economic activity. Knowledge is embodied in people, and it is the quality of the human resources that will determine the success or otherwise of firms and economies in the years ahead”. The final building block was the need to transform workplace culture and leadership to capitalise on the opportunities opened up by investment in human capital, and this was engineered through the “National Forum on the Workplace of the Future” held in 2004-05, which was set up and led by an interdepartmental group chaired by the Prime Minister and run by the National Centre for Partnership and Performance. That Centre reports to the Office of the Taoiseach (equivalent to Australia’s Prime Minister). For the purpose of this report, we interviewed the Director of the National Centre for Partnership and Performance.

In her view, the rationale for government involvement was in two key areas: first, that the Office of the Taoiseach has a history of being innovative in terms of policy development and saw this initiative as an extension of its existing Social Partnership program. Second, Ireland has a history of intervening in market forces to make Ireland an attractive location for companies to relocate to and by supporting and promoting its own business sector to grow export markets. Therefore this was a logical extension. Underlying the initiative was a concern, expressed also by the Enterprise Strategy Group, that much of Ireland’s export success was based on products and services that embodied innovation and research, which has its source in the home base of foreign direct investment (FDI) companies and not in Ireland.

On the question of whether or not the ventures were successful, the Irish regard the initiative as successful due to the widespread adoption of their policies by other government departments. For example, the Industrial Development Agency, which aims to attract overseas companies, is now citing the National Centre for Partnership and Performance and its work as reasons why Ireland is a good place to set up a business. The Central Statistics Office is about to start asking questions in its quarterly surveys on innovation. Enterprise Ireland now has teams of people supporting companies to improve levels of LCM in the workplace. Employer organisations are on board because they see the benefits of the program. In April 2009 Enterprise Ireland will have the results back from a major

workplace survey, last done in 2004, which will help them understand where they have been successful¹⁷.

Part of the reason for the success to date has been the quality of the research undertaken, which has helped to build a compelling business case and derive evidence of tangible business impacts.

The existing budget for the Work Innovation Fund is €9 million over 3 years and the NCPP itself has a budget of €2 million to cover staff and administration costs associated with running programs such as the Work Innovation Fund.

The largest challenge have faced to date has been with “getting the unions on board”. They were focused on fighting the negative impacts of globalisation as it impacted their workforces and therefore took time to get their heads around this agenda, the Director of the NCPP explained to us. Secondly they were not keen that the program worked with non-unionised companies. However they are now getting behind the program.

The Director also pointed to the current wide and deep linkages at all levels of government helping them to really gather momentum specifically: the Department of the Taoiseach; the Department of Enterprise, Trade and Employment; the Department of Finance; the Department of Education and Science and the Industrial Development Agency (IDA Ireland).

The challenge of the Global Financial Crisis (GFC) was raised with the director with the question “has this affected or impacted the NPCC’s work at all?” She replied that, on the contrary, “Workplace innovation is a critical component of Ireland’s response to dramatically changed economic circumstances at home and abroad”. She believes “it is as important a contributor to our continued prosperity and productivity as innovation in R&D or science and technology”. While it is undeniable to say that Ireland’s economy has suffered recently as a result of the GFC, that is seen to be more related to the nature of the Irish economy, its strong financial services sector and its exposure to export markets, rather than a function of adopting high performance workplace partnerships.

Figure 10 illustrates the agreed strategic priorities and critical action areas in the National Workplace Strategy, which informed the current policies and initiatives.

¹⁷ Note: Finland has also done an evaluation of the Irish program.

Figure 10. Example of Irish National Workplace Strategy



Source: National Centre for Partnership and Performance, (2005, p. 11).

FINLAND

Finland recently released a revised Innovation Strategy (Finnish Ministry of Employment and the Economy, 2007). It addresses several concerns and issues. Specifically, it targets raising management training standards and capabilities—particularly in change management. The strategy, and the consultations that have taken place since its announcement, also seek to incorporate potentially important initiatives, such as “the formation and organisation of work assignments and processes, the rewarding of staff, working hours, occupational health and safety and participation systems and operations, and methods and tools that support the development of staff”.

Another initiative is TYKES, which aims to improve workplace productivity through funding of collaborative work projects between employees and employers. The budget for the TYKES program is around €14.5 million per annum or US\$87 million over five years (2004-09). The program first started in 1996 and the recent round of funding began in 2004 and continues until 2009. Negotiations to continue the funding of this program are underway, with an increase requested. While Finland, in common with many European countries, is now under severe budget pressure from the GFC, the

workplace productivity program is seen to be one way in which Finnish organisations can innovate and recover more quickly.

The target of TYKES (2004-09) is to run 1000 projects involving around 250 000 employees. The programs are popular with more applications received than can be funded. Around 75 per cent of the projects funded go to SMEs. Applications are invited from both private businesses and the public sector, with about 35 per cent of funding going to the latter sector.

One significant challenge is to ensure that the projects are in fact collaborative in nature, rather than unilateral imposition of new work practices or innovations in the workforce. This is a basic requirement of funding any project. The TYKES office believes that this requirement has been met but it has required careful scrutiny¹⁸.

NEW ZEALAND

The New Zealand Department of Labour has set up the Workplace Productivity Reference Group to implement its strategy to improve productivity through workplace partnership initiatives.

It has four pillars of activity and a budget of over NZ\$1 per annum (excluding salaries and operating costs).

The initiatives are designed for:

1. awareness raising;
2. development and distribution of diagnostic tools;
3. implementation (e.g. demonstration projects and an education program);
4. research and evaluation.

The initiative is based on the concept of High Performance Workplaces and uses a tripartite coalition of government, business and unions to encourage the development of productive workplaces with engaged employees who contribute to the economy and well-being of the country.

The stated rationale for such a move was that government is committed to social partnership. Furthermore, low levels of workplace productivity were raised by business and unions as a priority issue — and, as noted above; no individual party was able to bring about change by itself. This is partly a recognition that New Zealand's large number of micro, small and medium enterprises do not have the capability or resources to invest in making changes in their workplaces—even if more profitable outcomes were guaranteed—but there is huge potential for these firms to grow and be more innovative.

Evaluation of the program is not yet available. The signs so far are that interventions have been successful for the firms that have been involved. However, the government does not have the resources to help each individual firm so they are yet to determine how the lessons from the current projects can be disseminated to other firms and across industry groups/regions.

Budget allocated to the Workplace Productivity Agenda is over NZ\$1 million per annum plus staff resources, accommodation, etc within the Department of Labour. Funding is expected to be ongoing, but amounts are not known. New Zealand Trade and Enterprise works with larger companies in the same program. They have assisted over 60 companies in lean-manufacturing initiatives—an important part of their work is to embed at both shop floor and management levels an appreciation that partnership with the workforce is more productive than traditional hierarchical structures of management. This calls for a culture change in organisations. Part of their program involves a two day workshop with the CEO and a small team on the importance of change management and leading by example. Funding for this initiative is an additional NZ\$1 million over the last three years, with a budget request currently being considered for NZ\$4-5 million per annum.

¹⁸ Note: During our interviews with TYKES, the SKE has requested data on financial returns on the investments being made.

An important lesson for Australia would be to ensure there is adequate time allowed in the project plan for the significant front-end investment that is needed to establish successful partnerships and build relations with all stakeholders. Ensuring all the parties involved are on the same page in terms of expectations, processes, outcomes and governance is another key aspect to consider—as is open communication.

CANADA

Canada's Innovation Strategy was launched on February 12, 2002. Its initiatives are largely traditional and little has been done since then to revise the strategy. Suggested improvements to that strategy have been made by the Conference Board of Canada in a series of inquiries following a 2002 National Summit on Innovation and Learning, including the comprehensive “call to action” in 2004, *Benchmarking against Global Best*. This advocates the transformation of firms and organisations and the diffusion of knowledge and innovation not only by firms themselves but also by communities, which “have a central role to play in unleashing the nation’s innovation potential” (Conference Board of Canada, 2004, p. 36).

The Conference Board of Canada is a privately funded organisation that is not-for-profit and has a current annual budget of some CA\$33million with approximately 200 employees. The Board disseminates innovative practice through its member networks and communities. Members pay a fee to join a network, which enables them to support research and share access to the findings.

In a paper from 2005 prepared for the Canadian Ministry for Human Resources and Skills Development Canada, the Conference Board called for a Human Capital Strategy that unifies many elements of Canada’s policy framework. Specifically, it calls for ways to help “manage talent to retain, develop, engage and promote” including “innovative leadership development and succession planning practices and organisational development and culture-change strategies”, (p. 6). The same document also calls for ways to help companies measure their innovation capability. This builds on an innovative diagnostic tool called the General Innovation Skills Aptitude Test (GISAT), designed and launched in 2004. This tool provides an assessment of innovation capabilities of staff at the workplace level¹⁹.

UNITED KINGDOM

The United Kingdom has conducted a number of reviews into management, innovation and education, including the Lambert review of university–business linkages, the Cox review of creativity and innovation and, most recently, the 2007 Sainsbury review, *Race to the Top*. The latter focuses on the development of the United Kingdom’s “national innovation ecosystem”, which places a major emphasis on action at the company and workplace level.

United Kingdom innovation policy is focused on six key initiatives, including supporting entrepreneurship and small business as sources of innovation and skills in the workplace. Recent papers such as *Enterprise: Unlocking the United Kingdom’s Talent* (United Kingdom Treasury, 2008) point to an evolution of policy initiatives, recognising that traditional responses are no longer adequate by themselves.

Research by Delbridge et al. (2006 p. 13) has suggested there may be limited scope for further initiatives to improve the environment in which firms operate. The United Kingdom enjoys a competitive and liberal market where entrepreneurship is encouraged and skills are improving—the problem may exist in firms themselves and attention should be directed to the ways in which firms utilise the skills available to them and to their methods of work organisation.

Innovation and skills have been identified as two of the five drivers of productivity and are mutually supportive. There is also a clear link between innovation and high performance workplaces, where new ideas are encouraged and rewarded. In order for United Kingdom companies to compete on the basis of innovative products and services they need:

- the skills required for that product innovation (i.e. the technical skills);

¹⁹ Innovation Business Skills Australia is now adapting this tool for use here in Australia (in collaboration with the SKE). Currently, pilot tests are being undertaken with a selected group of Australian enterprises.

- the skills required to manage innovation and change (i.e. inspirational leadership); and
- workplace cultures that encourage creative ideas to flourish.

The Department of Innovation, Universities and Science (DIUS) is running a program called “Train to Gain”, which is targeted at improving the leadership and management skills of SMEs. The funding for this has been expanded from £4 million per annum to £30 million per annum. Eligibility will be extended from April 2008 to SMEs with between ten and 250 employees (currently 20 to 250 employees). This £90 million investment will increase the skills of around 60 000 key directors and managers in approximately 42 000 small and medium sized companies. Such initiatives, it is hoped, will reinforce the United Kingdom as a source of talent but also serve to retain that talent in the United Kingdom.

Furthermore, the Knowledge Transfer Partnership (KTP) program, which provides support to firms to transform their businesses and, in so doing, develops a cadre of young executives with a range of project management skills, will be doubled.

The Department of Business, Enterprise and Regulatory Reform (BERR) and DIUS are also starting work with Regional Development Agencies to strengthen business engagement with the provision of learning opportunities and best practice.

UNITED STATES

The United States has held a number of inquiries on the role of knowledge and innovation in building enterprise competitiveness, including the Dunlop Worker-Management Commission in the 1990s and the 2001 Task Force on Restructuring America’s Labor Market Institutions, *Working in America: A Blueprint for the New Labor Market*, whose perspective on the role of firms and organisations conceptualised the economy “as embedded in the social structure and as depending on that structure for its capacity to operate effectively ... It sees a need for the active cooperation of workers in the work process ... and it recognises the importance of institutions and the role they play in creating a framework in which a market operates, in mediating the relationship between the economy and society, and in reconciling economic efficiency with other social goals” (Osterman, 2001, pp. 3-4).

More recently, the report *Innovate America: Thriving in a World of Challenges and Change* (Palmisano, 2004), led to the 21st Century Workforce Initiative, which included the “Innovation Based Economic Program”, and the subsequent report, *Rising above the Gathering Storm: Energizing and Employing America for a Brighter Future* (Augustine, 2005) with a prestigious committee of scientists and business leaders highlighting the increasing challenges for the United States in sustaining its competitiveness, expressing concern that the scientific and technical building blocks of the United States’ economic leadership are eroding when the economies of many other nations are gathering strength. However, innovation and productivity policy does not appear to be treating such calls seriously. The *National Innovation Act 2005* was never passed.

There is little attention given to encouraging high performance workplaces through policy stimulus, yet the United States remains by most measures the most innovative and productive economy in the world as a result of a history of investment in research and education in both companies and universities and interventions through government agencies, particularly the Department of Defence, NASA and the Small Business Innovation Research (SBIR). Significantly, irrespective of current public policy indifference, recent research on United States industry innovations over a 40 year period found that the trend to collaboration has now developed to the point where today “approximately two-thirds of the award-winning United States innovations involve some kind of interorganisational collaboration – a situation that reflects the more collaborative nature of the innovation process and the greater role in private sector innovation by government agencies, federal laboratories and research universities” (Block and Keller, 2008, p. 3).

JAPAN

In 2006, the Ministry of Economy, Trade and Industry (METI) introduced three new strategies on “innovation”, “productivity improvement”, and “Asian dynamism”. The “New Economic Growth Strategy” is designed to improve growth in the face of constraining factors derived from a declining population and other challenges, by leveraging these strategies, as well as by building support for talented Japanese nationals.

Human capital development is largely targeted at employees rather than entrepreneurs. The strategy has four elements. Firstly, it aims to develop a national system focused on improving productivity per capita. Secondly, it aims to be the world's top-level innovation centre through product development and intellectual property exploitation. Thirdly, METI works to improve corporate productivity through efficient utilisation of management resources, achieved through corporate reform and process improvement. Fourthly, METI works to ensure a safe environment in which companies and consumers can conduct business. One example of this is the Japanese participation in the World Intellectual Capital Initiatives, which aims to develop global standards for better measuring and reporting intellectual capital.

Scrutiny of the Japanese Ministry of Health, Labour and Welfare website shows little material or policy focusing on workplace development. Some commentators (e.g. Noland, 2007) suggest this should not be surprising since Japan's productivity and innovation rates have stalled since the disappearance of opportunities for easy technological catch-up as the country approached the international technological frontier. Japan's catch-up had been based on a model emphasising lifetime employment and skills development within the firm, combined with a steady infusion of capital via a stifled and inefficient banking system, and marginal improvements in competitiveness largely due to process innovation-based cost reduction or incremental increases in product differentiation.

Noland (2007) points to a lack of awareness of entrepreneurship among young adults, punitive government regulation on start ups and negative associations of risk in comparison with working for a large company as significant cultural factors inhibiting new business start-ups. The structural upheaval caused by reforming some of the practices had allegedly contributed to the formation and maintenance of "bastion markets" (Noland and Pack, 2003). Slow growth forced adjustments in private sector practices, such as lifetime employment (which is an important basis for firm-based training) and the maintenance of cross-shareholding by keiretsu affiliates, which were significantly unwound. He feels that Japan's slower growth recently may also be due to an educational system that does not foster creativity, instead encouraging a narrow focus and "teaching to the test" with respect to secondary school and university entrance examinations.

4.3 Why Market Forces Alone are not sufficient to Improve Innovation and Productivity Nationally?

Governments intervene in the operation of market forces within their economies when there is a risk of market failure or, in the words of the leading United States industry economist Dani Rodrik, a risk of "coordination failure". In Ireland, government intervention support for workplace management is seen as a logical extension of helping indigenous businesses become more competitive and grow export markets, and of attracting in-bound investment from overseas firms and organisations. Even in the United States, the rhetoric surrounding the supremacy of the free market in relation to building innovative capability and competitiveness has been muted by the recent events of the GFC and the requirement of government intervention on an extraordinary scale, far beyond that which is contemplated in this proposal.

The international evidence shows a number of reasons why government should seek to stimulate innovation and productivity through policy designed to assist business. We have summarised some of these below:

- In enterprises where cost minimisation is the strategy, or where the focus is on short term profit maximisation, management may choose not to invest in training and workplace development since benefits are realised over the longer term. However, evidence points to significant benefits for those companies that train, including increased staff retention and engagement and long term performance. The Irish call such cost minimisation strategies the "race to the bottom" and point to evidence that suggests companies that consistently adopt cost minimisation as a strategy are not sustainable in the long run.
- Businesses that do not have full time Human Resource functions or use consultants to assist their organisational development may lack the sophistication to implement high performance workplace initiatives and need help from government and others. New Zealand's experience

underlines this conclusion.

- Workplace partnerships involve a collaborative approach between employers and employees – if the level of debate between these two groups is about basic pay levels, it is unlikely to be conducive to implementing more advanced concepts like partnering agreements, profit sharing, employee quality forums. Only government and its appointed actors can play a role in bringing together employers and employees in constructive dialogue and action that result in innovative, productive workplaces. This is found in all the countries we have studied.
- Skills development alone is not guaranteed to result in innovation and increased productivity. Indeed some argue that in Australia we already have a surplus of skills that are not utilised effectively in Australian workplaces. Indeed, some research points to an over-abundance of skills and a lack of companies capable of using those skills effectively. A stronger focus on leadership, management and culture at the workplace level provides opportunities to better utilise existing skills and to achieve productivity gains by engaging workers to contribute their greater potential.
- Businesses may not consider it to be in their best interest to take part in, or share best practice in, high performance workplace developments that may be disseminated to others, including their competitors. However, a government appointed “lighthouse” organisation, working in conjunction with businesses, academia, industry associations and others can take that role and would follow examples from the United Kingdom, Ireland, New Zealand and Canada. Open Innovation is a relatively new concept originating in the software industry. Opening up corporate boundaries to collaborate for mutual benefit is not typical behaviour, although those that embrace it do perceive significant benefits.

See also Appendix B for more suggestion on why companies fail to innovate.

4.4. Conclusion

Evidence from the research into international policy initiatives and responses, outlined above, suggests that opportunities exist for Australia to consider developing a national workplace development initiative or strategy in partnership with disparate stakeholders who might traditionally find dialogue a challenge, but whose interests in meeting this challenge are clear from international research and experience.

Furthermore, SKE’s research shows that traditional solutions grounded in workplace relations agreements, or training and education, are not alone sufficient to improve the uptake of innovative practices and increase workplace performance and productivity. Traditional responses include, among others, skills development, partnering initiatives, and science, technology, engineering and mathematics education opportunities in schools and universities. These are noteworthy but more is needed to maximise workplace productivity and the contribution of individual workers.

Emerging responses from countries like Ireland, Finland, Canada and New Zealand involve both traditional measures and additional solutions such as workplace partnerships, social learning networks, collaborative research and pilot testing new management tools and techniques. These are new forms of productivity interventions at the workplace level that aim to raise the level of skills and sophistication of leadership and management and thus strengthen workplace productivity in ways previously thought impossible. A critical aspect is that such countries benefit from strong political leadership on this issue, including leadership by the Prime Minister.

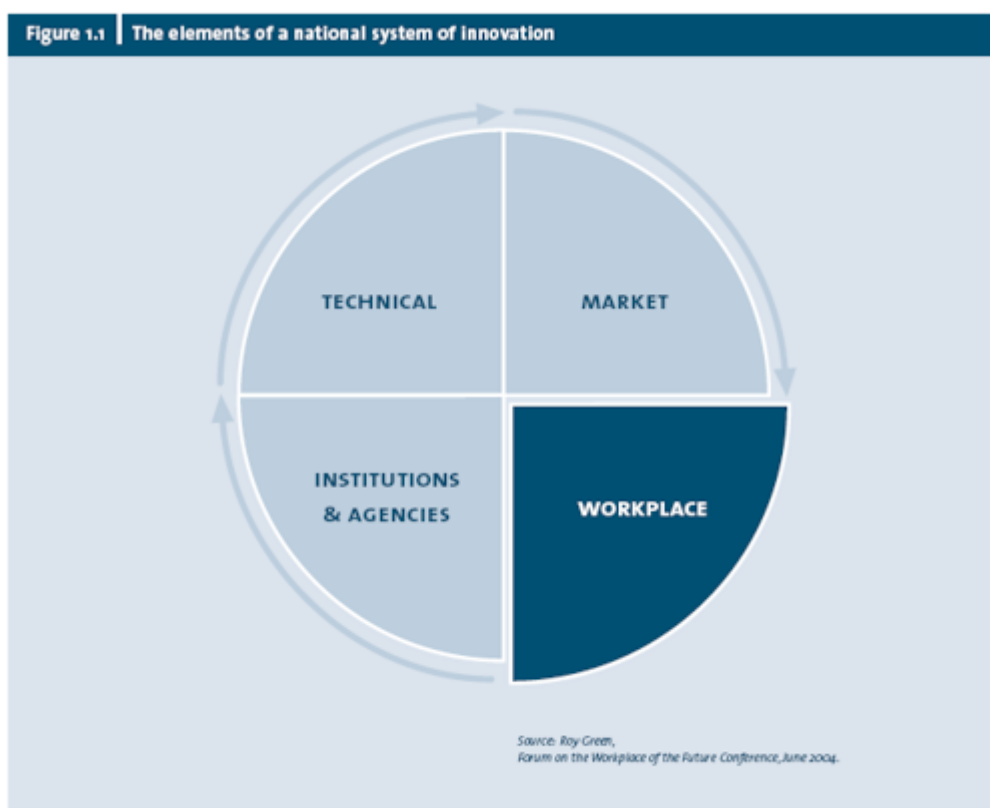
5. Future Role of the Australian Government in Promoting Leadership, Culture and Management Development at the Workplace Level

There are a number of activities that the Australian Government can undertake to encourage and support the promotion and proliferation of high performance workplaces that demonstrate best practice in leadership, culture and management systems. See Table 1 in the Executive Summary for ideas and suggestion on Implementation Activities and Tactics (see also Appendix A).

5.1. Leading Edge Implementation Approaches

The research outlined in this report has shown that there are several examples of government policy and involvement that extend beyond the traditional realm of R&D and science led innovation—technological innovation—to focus on the workplace and step changes in productivity and performance through organisational innovation (see Figure 11).

Figure 11. The Elements of a National System of Innovation



Source: National Centre for Partnership and Performance (2005, p. 3).

The National Centre for Partnership and Performance in Ireland and the Finnish TYKES program are two leading initiatives worldwide that provide notable examples of models to inspire action in policy development and implementation in other parts of the world. These initiatives show strong prioritisation of partnerships across government departments and collaboration with a wide range of stakeholders, including, business, universities, professional organisations, industry associations and trade unions.

Much effort is taken to enrol all relevant parties in collaborative efforts and this seems to be one of the most critical enablers of successful implementation and execution of national policy and strategies. In the case of Finland, many initiatives also involve international collaboration and the development of networks and connections outside national boundaries. For example, 40 per cent of the Finnish TYKES funded projects involve international collaborations. Focus on building leadership, culture and management skills inside organisations to enable innovation and productivity in an economy is clearly present or implied to varying degrees.

The initiatives are commonly motivated by a competency strategy, which places the development of individual and organisational competencies at the centre of policy and government initiatives. As highlighted by the National Centre for Partnership and Performance in Ireland, management and leadership capacity, employee involvement, training and lifelong learning, equality and diversity, and quality of working life must be promoted and disseminated widely across the private and public sector as key strategic responses to economic and social challenges.

There is increasing recognition that workplace development strategies are central to enhancing growth, employment and innovation. Notably, often these go beyond traditional training based approaches to workplace transformation to include a wider range of initiatives such as collaborative projects, practice based learning and the conscious development of collaborative partnerships and learning networks across and within organisations—the development of innovative capability.

5.2. Implementation Considerations

In reviewing the experiences of other countries and, in particular, those of Ireland and Finland, a number of key considerations need to be taken into account in order to define an effective implementation path and approach.

These are (not exclusively):

- **Strong, top level leadership and sponsorship**—this is particularly important given the “new frontier” represented by programs that focus on workplace development. Top level support will be required to ensure that commitment to the program is strong and for the long haul.

For example, in Ireland this sponsorship came directly from the Prime Minister and the Prime Minister’s department.

- **Clear objectives and scope**—need to be clearly defined in order to ensure that activities have focus and impact.

For example, in Finland, the guiding principle was that “TYKES supports research-assisted work organisation development based on cooperation between management and staff, which promotes qualitatively sustainable productivity growth in Finnish workplaces.”

- **Significant funding and resources**—the intent of the program must be to have broad ranging impact on workplace innovation, productivity and fulfilment. As a result, significant expenditure on communication and programs that engage management and workplace practices is needed.

For example, in Finland, the budget for TYKES has been €14.5 million per annum

- **Institutional Structure charged with driving and operating the program**

For example, in Ireland, this is the National Centre for Partnership and Performance; in Finland the TYKES program is administered by the Ministry of Employment and the Economy

- **Well defined and executed programs and campaigns**

For example, in Ireland, the National Centre for Performance and Partnership has the following five programs;

1. [Workplace Partnership](#)
2. [National Workplace Strategy](#)
3. [Workplace Innovation Fund](#)

Eligible projects under the Workplace Innovation Fund are:

- *Encouraging employee empowerment and participation*
- *Supporting workplace learning and creativity*
- *Improving communication and consultation with employees*
- *Developing management and leadership capacity to facilitate workplace innovation*
- *Introducing HR processes to support business and employee needs*
- *Promoting team work*
- *Facilitating a collaborative approach to decision making and problem solving*

4. [Research and Policy Development](#)
5. [Communication and Dissemination](#)

5.3. Possible Implementation Approach for Australia

Whilst Ireland and Finland provide the most advanced examples of high performance workplace of the future program implementation, they should serve as a guide and inspiration rather than as the answer or prescription to what Australia's approach should or may be.

It is the recommendation of the authors that an Australian approach should build on these experiences with the following considerations:

- **Leadership and Sponsorship**—provided by the Prime Minister or Deputy Prime Minister; implementation led by DEEWR with support across other departments including DIISR, Department of Finance and DBCDE so that strong connections are made to the innovation agenda and industry programs already in place.

State Government involvement and partnership should be encouraged.

- **Objectives and Scope**—the potential scope of workplace development is so broad that it is important to focus on the area with the most impact, that is the manager, and hence leadership, culture and management should be the primary focus of the Australian high performance workplace development program.
- **Institutional Structure/Model**—A “*lighthouse*” entity should be formed, with the aim to be internationally connected and a recognised global thought leader, for the research and promotion of better understanding and practice in workplace leadership, culture and management. Serious consideration should be given to an entity that can be operated with deep participation and governance of all potential stakeholders.
- **Funding**—Significant multiyear government funding commitment is required, with the aim that the “*lighthouse*” receives increasing contributions through memberships (corporate and individual), research projects and the provision of products and services.

Funding is required to enable enterprises to undertake new leadership and change programs, to disseminate key learning across industries and to benchmark internationally

- **Potential Program Structure and Outline:**
 - **Research and Proof Points** that prove the links between best practice LCM, innovation, productivity, sustainability and workplace fulfilment. Conducted through collaborative cross sector primary and secondary research

- **Establishment of a common international language** for the domain of leadership, culture and management and the practices that produce the most effective outcomes. Collaborate with international efforts such as the OECD originated World Intellectual Capital Initiatives
- **Promote and deploy best practice across the Industry and the Public Sector**, using the “lighthouse” to assist in connecting and communicating across governments, experiences and progress
 - Social networks (using online media and collaborative projects);
 - Conferences and Forums;
 - Guidelines, Blueprints and Best Practice Publications;
 - A network of trained facilitators or consultants who can work with businesses to implement best practice.
- **Identify the key levers and best practices** in LCM that produce best outcomes in innovation, productivity, sustainability and workplace fulfilment.
 - Workplace feedback – quality of systems;
 - Strategic Planning and clear common workplace purpose;
 - Alignment of individual objectives and incentives;
 - Workplace skills that support innovation and change management;
 - Leadership styles;
 - Workplace values and behaviours that best support open, innovative and fulfilling environments;
 - Factors that encourage best and most effective deployment of technology;
 - Measurement systems and approaches to managing intangible assets;
 - Stakeholder management and reporting best practice;
- **Design broad-based workplace development network and communication and survey programs that can have nationwide impact**
 - For example, a national awareness program (television, print and on line) and human capital surveys that encourage employees to give their management workplace feedback through for example on-line survey tools—confidentiality protected.

List of Acronyms

ACCI	Australian Chamber of Commerce and Industry
AiG	Australian Industry Group
AIM	Australian Institute of Management
ASEA	Automotive Supplier Excellence
AWERS	Australian Workplace Employee Relations Survey
BCA	Business Council of Australia
BERR	Business, Enterprise and Regulatory Reform
CEDA	Committee for Economic Development of Australia
COAG	Council of Australian Governments
CPA	Certified Practising Accountants
CPI	Company Performance Index
CRC	Cooperative Research Centre
DEEWR	Department of Education, Employment and Workplace Relations (Australia)
DIISR	Department of Innovation, Industry, Science and Research (Australia)
DIUS	Department of Innovation, Universities and Science (United Kingdom)
FDI	Foreign Direct Investment
GFC	Global Financial Crisis
HILDA	Household Income and Labour Dynamics in Australia Survey
IBSA	Innovation and Business Skills Australia
KTP	Knowledge Transfer Program
LCM	leadership, culture and management
METI	Ministry of Economy, Trade and Industry (Japan)
NCPP	National Centre for Partnership and Performance (Ireland)
SBIR	Small Business Innovation Research
SKE	Society for Knowledge Economics
SME	Small to Medium Sized Enterprise
SOS	Student Outcome Survey
TCF	Textile, clothing and footwear
TFP	Total Factor Productivity

VET

Vocational Education and Training

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Appendix A: Major Quantitative Studies Examining the Relationship between Work Practices and Performance Outcomes.

Author(s)	Country/ Industry/ Sample size	Method	Explanatory measures relating to work practices, employment relations and employees	Measures of performance	Key findings
Ahmad and Schroeder (2003)	Germany, Italy, Japan, US, N=107, Manufacturing.	Survey with multiple respondents	Multiple items covering 12 HR practices	Composite index of cost, quality, delivery, flexibility, and product innovation.	HR practices found to have positive effect on performance.
Applebaum et al. (2000)	US, Manufacturing, N=18 plants, 48 departments (Panel data)	Survey, field study, plant data	Multiple items to capture effects of different work practices	Productivity	Found a significant positive relationship between bundles of high performance work practices and productivity.
Arthur (1994)	US, Mini steel mills, N=30	Survey of HR managers, self-report measures	Compared "control" and "high commitment" HR strategies based on 3 dimensions: (decentralisation, training, skill)	Productivity and scrap rate	Significant positive relationship with both productivity and scrap rates.
Bartel (2004)	US, Banking, N=150-160 (Panel data)	Site visits, employee surveys	HRM environment, communication, performance and reward systems, composite measures of high performance work systems	Sales per employee	High performance work systems were found to be significantly and positively related to sales per employee.
Batt (2002)	US, Call centres, N=260	Survey of general managers	Composite index to measure HR incentives, job design, skill level.	Percent change in sales over previous 2 years.	Work practices and HR incentives found to have significant positive relationship with change in sales.
Black and Lynch (2001)	US, manufacturing, national employer survey (Panel data), N=1621	Survey with single respondent	Individual items to measure different work practices (binary variables)	Productivity	Found a significant positive relationship between a range of work practices and productivity. These effects were found to be stronger in unionised workplaces.
Capelli and Neumark	US, Manufacturing, N=433-666.	Survey, single respondent	HR index based on multiple items	Sales per employee and labour costs	No individual practices have a significant relationship with productivity, but HR bundles have

(2001)					significant relationship with performance.
Chadwick (2007)	US, manufacturing, N=1212	US census data	Measures of the following HR practices: self-managed teams, job rotation, quality meetings, intensive selection, average pay, and formal training expense.	Value added	Found the intensity with which different HR practices were utilised moderated the relationship between HR practices and their positive effect on performance.
Delaney and Huselid (1996)	US, Cross industry sample, N=590	Survey, single respondent	Five dimensions: selection, training, pay, decentralisation, promotion.	Organisational performance (subjective).	HR bundles have positive relationship with organisational performance.
Delery and Doty (1996)	US, Banks, N=101-216	Survey of senior HR managers	Seven dimensions to capture 2 contrasting strategies: appraisal, employee involvement, employment security, job design, profit sharing, promotion, training.	Return on assets, return on equity.	Vertical fit between HR strategy and product market strategy has significant positive relationship with performance.
Erickson and Jacoby (2003)	US, Cross industry sample N=977	Survey, management respondent	Organisational learning measures to capture different types of learning networks	Composite index of ten high performance work practices, Investment in skills	Involvement in learning networks was significantly associated with diffusion of high performance work practices and investments in skills/training.
Flood et al. (2008)	Ireland, Cross-industry, N=132	Survey, single respondent	Measures of different HR practices, composite index to measure use of high performance work system	Productivity, innovation, employee turnover	Found use of high performance work systems has a significant positive relationship with productivity, innovation and employee retention.
Guest and Hoque (1994)	UK, Manufacturing (Greenfields), N=119	Survey of HR/line managers, self report measures.	Four alternative strategies based on use of 22 HRM practices.	Productivity, quality (subjective)	No significant effects.
Guest and Peccei (2001)	UK, Cross industry, N=54	Survey, management and employee representatives	Measures of HR practices and labour management partnership.	Organisational performance (subjective)	Found a significant positive relationship between a range of partnership practices and a range of organisational outcomes,

					including attraction and retention and labour turnover.
Guest et al. (2003)	UK, Manufacturing and services, N=610	Survey, HR directors	48 items to create a composite HR index.	Sales per employee and profitability	HR practices not found to be significantly related to sales or profitability. However, found a significant positive relationship between clusters of HR practices and productivity.
Guerrero and Barruad-Dider (2004)	France, cross-industry, N=166	Survey of HR managers, single respondent	Multiple items to capture four sets of HR practices: communication, compensation, empowerment, and training and skill development.	Productivity	Found a significant positive relationship between employee empowerment and communication practices and productivity
Guthrie (2001)	NZ, Cross-industry sample, N=164.	Survey, single respondent	High involvement work system index based on 12 practices.	Sales per employee	High involvement work systems found to have a significant positive relationship with performance.
Hoque (1999)	US, Hotels, N=209	Survey, single respondent	Index of HRM practices based on 21 items	Productivity, financial performance, service quality (subjective)	HRM is positively related to productivity, quality and financial performance.
Horgan and Muhlau (2006)	Holland, Ireland, cross-industry sample, N=400	Management survey, single respondent	Multiple items to measure different high performance workplace practices (incentive systems, sharing arrangements, guidance practices, training and selection), also used a composite measure of high performance work systems.	Employee performance (subjective)	Found significant positive relationship between the high performance work system variable and employee performance.
Huselid (1995)	US, Cross-industry sample, N=968	Survey senior HRM management, self-report	Two dimensions of HR strategy: skills and structure; incentives and motivation.	Productivity, Tobin's q, Return on Assets	Significant positive relationship between the interaction of HR dimensions and return on assets.
Huselid et al. (1997)	US, Cross-industry sample, N=293.	Survey of senior executives or line managers	Two dimensions captured with multiple items: technical HRM and strategic HRM	Productivity, Tobin's q, Return on Assets	Strategic HR strategy has a significant positive relationship with return on assets, but no

					significant effect found for productivity or Tobin's q.
Ichniowski et al. (1997)	US, Steel Production, N=36	Interviews, surveys with multiple respondents, panel data	Multiple items to capture four HR strategy types from traditional to innovative.	Productivity	HR innovation has a significant positive effect on productivity.
Koch and McGrath (1996)	US, Cross-industry, N=319	Survey of senior executives	Four indices based on multiple items to capture HR planning, recruitment, employee development, HR sophistication.	Productivity	HR practices will have a significantly stronger positive relationship with capital intensive establishments.
MacDuffie (1995)	US, Automotive, N=62	Survey, multiple respondents	Two dimensions consisting of multiple items to measure work practices and HR policies.	Productivity.	HR bundles have significant positive relationship with productivity.
Paul and Anantharaman (2004)	India, software, N=410	Survey of managers, single respondent	Peoples Management Practice Scale covering a wide range of HR and employment practices	Operational performance (productivity, quality, employee retention, speed of delivery and operating costs) (subjective measure) and financial performance	Found a significant relationship between bundles of work practices and labour retention and employee commitment.
Peccei et al. (2005)	UK, Cross-industry, N=>500.	1998 National WERS survey		Productivity and quality (subjective)	Found a significant relationship between employee involvement and information sharing practices and productivity and quality.
Richard and Johnson (2001)	US, Banks, N=63-73	Survey, senior HR manager	Multiple items to capture index of HR effectiveness	Return on equity, productivity	No direct relationship between strategic HRM and performance; however, strategic HRM found to have a significant positive relationship with return on equity in capital intensive establishments.

Way (2002)	US, Small firms, cross-industry, N=446	Survey of plant managers	Single index of 7 high performance work practices.	Productivity (objective and subjective)	Performance pay found to have significant relationship with productivity.
Wright et al. (1999)	US, Petrochemical industry, N=38	Survey, single respondent	Multi-items to capture five dimensions: cost, flexibility, quality and time.	Financial performance	Training has a significant positive relationship with financial performance; HR bundles also have a significant effect.
Wright et al. (2003)	US, Food services, N=50	Employee survey	Composite index of HR practices.	Productivity and profitability	HR found to be positively related to profitability, but not productivity.
Youndt et al. (1996)	US, Metal Manufacturing, N=97	Survey with multiple respondents	Two dimensions captured with multiple items: administrative HR, capital-enhancing HR.	Productivity, customer alignment (subjective)	Human capital enhancing HR strategy has significant positive relationship with productivity.

The following three Tables continue to provide evidence which point to significant positive links between the intensity of most management practices with both productivity and innovation outcomes. They also show there is less crisp quantitative evidence available for government initiatives, because of their less direct effect.

The three Tables are organised as follows:

1. Management
2. Innovation
3. Government

1. Management

Management - People Practices

Author	Year	Title/Journal	Qualitative or Quantitative Evidence?	Main Points and Relevant Insights
Australian Manufacturing Council (AMC)	1994	"Leading the Way" Report	Quantitative Survey of 1400 manufacturing sites in Australia and New Zealand. The findings of the report focus on the differences between the top 20% on the scorecard (the "Leaders") and the bottom 20% (the "Laggers").	<p>Aspects of People Management Processes (Stratified % of sites that agree)</p> <p>Effective top down and bottom up communication:</p> <p>Australia 78 per cent of Leaders and 29 per cent of Laggers, New Zealand 83 per cent of Leaders and 32 per cent of Laggers.</p>
				The findings of the report focus on the differences between the top 20% on the scorecard (the "Leaders") and the bottom 20% (the "Laggers").
			Showed very strong quantitative evidence that four key management factors are significantly related to higher levels of competitiveness, exports, cash flow and productivity.	<p>Aspects of People Management Processes (Stratified per cent of sites that agree)</p> <p>Employee satisfaction is regularly and informally measured:</p> <p>Australia 57 per cent of Leaders and 17 per cent of Laggers, New Zealand 60 per cent of Leaders and 17 per cent of Laggers</p>
				<p>Aspects of People Management Processes (Stratified per cent of sites that agree)</p>

			<p>These four factors were:</p> <p>Management of People</p> <p>Leadership</p> <p>Customer Focus</p> <p>Management of Quality</p>	<p>Have an organisation wide training and development process including career path planning</p> <p>Australia 49per cent of Leaders and 13 per cent of Lagggers, New Zealand 52 per cent of Leaders and 16 per cent of Lagggers</p>
				<p>Aspects of People Management Processes (Stratified per cent of sites that agree)</p> <p>Employee flexibility, multi-skilling and training are used:</p> <p>Australia 89 per cent of Leaders and 57 of Lagggers, New Zealand 82 per cent of Leaders and 50 per cent of Lagggers</p>
				<p>Aspects of People Management Processes (Stratified per cent of sites that agree)</p> <p>Occupational Health and Safety practices are excellent:</p> <p>Australia 83 per cent of Leaders and 38 per cent of Lagggers, New Zealand 88 per cent of Leaders and 38 per cent of Lagggers</p>
				<p>Aspects of People Management Processes (Stratified per cent of sites that agree)</p> <p>Concept of the internal customer is well understood:</p> <p>Australia 81 per cent of Leaders and 34 per cent of Lagggers, New Zealand 84 per cent of Leaders and 44 per cent of Lagggers</p>

Management (continued) - Customer Focus

Author	Year	Title/Journal	Qualitative or Quantitative Evidence?	Main Points and Relevant Insights
AMC	1994	Leading the Way	Quantitative Survey of 1400 manufacturing sites in Australia and New Zealand. The findings of the report focus on the differences between the top 20 per cent on the scorecard (the "Leaders") and the bottom 20 per cent (the "Laggers").	<p>Aspects of Customer Focus (Stratified per cent of sites that agree)</p> <p>External customers' current and future requirement are known:</p> <p>Australia 80 per cent of Leaders and 42 per cent of Lagggers, New Zealand 75 per cent of Leaders and 34 per cent of Lagggers.</p>
				<p>Aspects of Customer Focus (Stratified per cent of sites that agree)</p> <p>Customer requirements are effectively disseminated and understood throughout the workforce:</p> <p>Australia 72 per cent of Leaders and 19 per cent of Lagggers, New Zealand 68 per cent of Leaders and 15 per cent of Lagggers</p>
				<p>Aspects of Customer Focus (Stratified per cent of sites that agree)</p> <p>Customers' requirements are used in designing new products and services:</p> <p>Domestic customers</p> <p>Australia 92 per cent of Leaders and 77 per cent of Lagggers, New Zealand 82 per cent of Leaders and 84 per cent of Lagggers</p> <p>Overseas customers</p> <p>Australia 65 per cent of Leaders and 29 per cent of Lagggers, New Zealand 63 per cent of Leaders and 57 per cent of Lagggers</p>

			<p>Aspects of Customer Focus (Stratified per cent of sites that agree)</p> <p>There is an effective process for resolving external customers' complaints:</p> <p>Australia 95 per cent of Leaders and 74 per cent of Laggards, New Zealand 52 per cent of Leaders and 57 per cent of Laggards</p>
			<p>Aspects of Customer Focus (Stratified per cent of sites that agree)</p> <p>Customer complaints are used to initiate process improvements:</p> <p>Australia 92 per cent of Leaders and 65 per cent of Laggards, New Zealand 94 per cent of Leaders and 79 per cent of Laggards</p>
			<p>Aspects of Customer Focus (Stratified per cent of sites that agree)</p> <p>Customer satisfaction is systematically and regularly measured:</p> <p>Australia 83 per cent of Leaders and 25 per cent of Laggards, New Zealand 84 per cent of Leaders and 29 per cent of Laggards</p>

Management (continued) - Aspects of Quality

Author	Year	Title/Journal	Qualitative or Quantitative Evidence?	Main Points and Relevant Insights
AMC	1994	Leading the Way	Quantitative Survey of 1400 manufacturing sites in Australia and New Zealand. The findings of the report focus on the differences between the top 20 per cent on the scorecard (the "Leaders") and the bottom 20 per cent (the "Laggers").	<p>Aspects of Quality (Stratified per cent of sites that agree)</p> <p>Have well established methods to measure the quality of products and services:</p> <p>Australia 95 per cent of Leaders and 61 per cent of Lagggers, New Zealand 98 per cent of Leaders and 68 per cent of Lagggers.</p>
				<p>Aspects of Quality (Stratified per cent of sites that agree)</p> <p>Have site wide standardised and documented operating procedures:</p> <p>Australia 83 per cent of Leaders and 46 per cent of Lagggers, New Zealand 85 per cent of Leaders and 55 per cent of Lagggers</p>
				<p>Aspects of Quality (Stratified per cent of sites that agree)</p> <p>All employees believe that quality is their responsibility:</p> <p>Australia 77 per cent of Leaders and 35 per cent of Lagggers, New Zealand 90 per cent of Leaders and 48 per cent of Lagggers</p>

			<p>Aspects of Quality (Stratified per cent of sites that agree)</p> <p>Work closely with suppliers to improve each other's processes:</p> <p>Australia 62 per cent of Leaders and 30 per cent of Laggards, New Zealand 69 per cent of Leaders and 30 per cent of Laggards</p>
			<p>Aspects of Quality (Stratified per cent of sites that agree)</p> <p>Work closely with suppliers in product development:</p> <p>Australia 59 per cent of Leaders and 34 per cent of Laggards, New Zealand 53 per cent of Leaders and 29 per cent of Laggards</p>
			<p>Aspects of Quality (Stratified per cent of sites that agree)</p> <p>Certification has been a significant factor in improving product quality:</p> <p>Australia 73 per cent of Leaders and 47 per cent of Laggards, New Zealand 78 per cent of Leaders and 59 per cent of Laggards</p>
			<p>Aspects of Quality (Stratified per cent of sites that agree)</p> <p>Certification has been a significant factor in improving business performance:</p> <p>Australia 71 per cent of Leaders and 38 per cent of Laggards, New Zealand 71 per cent of Leaders and 42 per cent of Laggards</p>

Management (continued) - Planning Aspects of Manufacturing Strategy

Author	Year	Title/Journal	Qualitative or Quantitative Evidence?	Main Points and Relevant Insights
AMC	1994	Leading the Way	Quantitative Survey of 1400 manufacturing sites in Australia and New Zealand. The findings of the report focus on the differences between the top 20 per cent on the scorecard (the "Leaders") and the bottom 20 per cent (the "Laggers").	<p>Planning Aspects of Manufacturing Strategy (Stratified per cent of sites that agree)</p> <p>There is a mission statement which has been communicated throughout the company:</p> <p>Australia 68 per cent of Leaders and 41 per cent of Laggars, New Zealand 77 per cent of Leaders and 43 per cent of Laggars.</p>
				<p>Planning Aspects of Manufacturing Strategy (Stratified per cent of sites that agree)</p> <p>There is a comprehensive and structured planning process:</p> <p>Australia 75 per cent of Leaders and 36 per cent of Laggars, New Zealand 86 per cent of Leaders and 42 per cent of Laggars</p>
				<p>Planning Aspects of Manufacturing Strategy (Stratified per cent of sites that agree)</p> <p>Plans focus on the achievement of best practice:</p> <p>Australia 86 per cent of Leaders and 45 per cent of Laggars, New Zealand 84 per cent of Leaders and 44 per cent of Laggars</p>
				<p>Planning Aspects of Manufacturing Strategy (Stratified per cent of sites that agree)</p> <p>Customer requirements, supplier capabilities and the needs of other</p>

			<p>stakeholders are incorporated into the planning process:</p> <p>Australia 92 per cent of Leaders and 50 per cent of Laggards, New Zealand 90 per cent of Leaders and 51 per cent of Laggards</p>
			<p>Planning Aspects of Manufacturing Strategy (Stratified per cent of sites that agree)</p> <p>There is a written statement covering all manufacturing operations:</p> <p>Australia 52 per cent of Leaders and 27 per cent of Laggards, New Zealand 72 per cent of Leaders and 33 per cent of Laggards</p>
			<p>Planning Aspects of Manufacturing Strategy (Stratified per cent of sites that agree)</p> <p>The site's manufacturing operations are effectively aligned with its central business mission:</p> <p>Australia 93 per cent of Leaders and 53 per cent of Laggards, New Zealand 84 per cent of Leaders and 63 per cent of Laggards</p>
			<p>Planning Aspects of Manufacturing Strategy (Stratified per cent of sites that agree)</p> <p>Environmental ("green") protection issues are proactively managed:</p> <p>Australia 67 per cent of Leaders and 30 per cent of Laggards, New Zealand 62 per cent of Leaders and 49 per cent of Laggards</p>

Management (continued)

Author	Year	Title/Journal	Qualitative or Quantitative Evidence?	Main Points and Relevant Insights
Watson	2008	Skills in Use: Labour Market and Workplace Trends in Skills Usage in Australia Skills in Use: Labour Market and Workplace Trends in skills Usage in	<p>Quantitative analysis of data was used from the following four data databases:</p> <ul style="list-style-type: none"> ▪ Student Outcome Survey (SOS) NCVET 2005 with 50,000 respondents; ▪ NCVET 2004 with 2,500 respondents – Down the Track Survey (DTT) with 2,500 respondents; ▪ Household, Income and Labour Dynamics in Australia Survey (HILDA). Sample size varied but larger than DTT; ▪ NCVET Survey of Employer Use and Views of the VET System (SEUV) conducted in 2005 with a view to gaining information about employer skill needs, and their use of vocational education and training (VET). The survey was repeated in 2007 and some findings 	<p>“Three quarters of employees experienced no change in their usage of skills in the period from 2003 to 2005. About 12% experienced a decrease and 13% experienced an increase.</p> <p>These results are based on analysing the HILDA data, a longitudinal survey which re-interviews the same people each year”. p. 17</p>
				<p>“About 14% of employees experienced limited opportunities to enhance their skills in the workplace. Again this figure was much higher among the less skilled occupations. The industries with the highest figures were retail trade and hospitality, with wholesale trade and manufacturing also prominent”. p. ix</p>
				<p>In relation to contingent work, Watson found that:</p> <p>“The link with contingent work is also evident when it comes to skills enhancement. Part-time jobs and jobs with high proportions of unemployed workers were much less likely to be jobs offering opportunities for skills enhancement. On the other hand, jobs with higher proportions of VET graduates were more likely to be jobs with higher levels of skills enhancement”. p. ix</p>
				<p>“About 41% of employees undertook work-related training or education in the twelve months prior to being surveyed. The largest proportions undertaking training were professionals and associated professionals; the lowest proportions were labourers and elementary clerical and sales service workers”. p. ix</p> <p>“Casual workers were much less likely to undertake training than</p>

		Australia	related to this report.	permanents. However, among those casuals who did undertake training, the key factors associated with this were: working full-time; working in a larger workplace; being in a trade union; having VET qualifications; and working in mining or health and community services. Having a VET qualification was more advantageous to casual workers than to permanents". p. ix.
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Management (continued)

Author	Year	Title/Journal	Qualitative or Quantitative Evidence?	Main Points and Relevant Insights
	2008		Quantitative finding	The results show that of 3,000 UK firms surveyed, in terms of added value, the top third firms out-perform the bottom two-thirds by £1,600 per worker per annum.
			Quantitative finding	<p>The five core clusters of the Company Performance Index (customers and markets, shareholders and governance systems, stakeholders, human resource practices, and creativity and innovation management) have a powerful impact on total factor productivity (TFP).</p> <p>Acting on basic factor inputs they explain 76% of the difference in productivity across firms (Across 3, 000 companies and over 20 case studies).</p>
			Quantitative finding	A sector analysis by the Work Foundation as part of the Company Performance Index Study found that: “Some 60% of firms are actively investing in R&D but, of those that are, expenditure amounts to only 1 per cent of total sales. Moreover, average training spend per employee is only £874 per annum with a median of £167 per employee. Training spend is particularly low in agriculture, transport and other community sectors. Those businesses investing the most in training are also the most innovative”. p.7
			Qualitative finding The Work Foundation’s Company Performance Index (CPI) “is a measure of the aggregate impact of adopting a blend of	According to the work foundation “much more recent work has established a number of helpful principles. These include findings that: <ul style="list-style-type: none"> ▪ So called high performance work practices seem to have more impact when implemented in “bundles” rather than in isolation; ▪ That establishment-level analysis of firm performance is more reliable than studies which look at policy set by head offices or by remote companies;

The Work Foundation (UK)		Cracking the Performance Code	<p>strategies. The importance of the CPI in research terms is its comprehensive nature. It is the first truly comprehensive tool that explains “blended” business strategy. Previous research on high performance companies is simultaneously illuminating and disappointing”. p. 14</p>	<ul style="list-style-type: none"> ▪ The contingency approaches to high performance – where firms seek the “best fit” between their strategic choices over business goals and the practices they choose to achieve them – are more reliable than following prescriptive templates or “scorecards”.” p. 14
			Qualitative finding	<p>In relation to the relationship between the added–value per employee, by examining the relationship between the Company Performance Index (CPI) and the added-value per employee, the Work foundation found that: “Here we can see that there is a positive correlation between the two and that 66% of the difference in value-added per employee between the companies is explained by the impact of the CPI factor inputs. Indeed, the value added per employee generated at the top of the CPI is £1,600 more per year than those at the bottom”. p.14</p>

Management (continued)

Author	Year	Title/Journal	Qualitative or Quantitative Evidence?	Main Points and Relevant Insights
The Work Foundation (UK)	2008	Cracking the Performance Code	Qualitative finding	<p>The Work Foundation found that:</p> <p>“The Company Performance Index (CPI) is a strong predictor of total factor productivity (TFP). This implies that a considerable part of the answer to the problem of productivity lies in closing the gap between high and low performing businesses”. p. 18</p> <p>(Across 3, 000 companies and over 20 case studies)</p>
			Quantitative finding	<p>The Work Foundation found that:</p> <p>“The five core clusters of the Company Performance Index (CPI) – People, Customers and Markets, Innovation, Stakeholder Focus and Shareholders – have a powerful impact on both firm level performance and on Total Factor Productivity. It can be seen that there is a strong statistical relationship, and that productivity is positively correlated with the Company Performance Index which acting on factor inputs explains 76 per cent of its difference”. p.17</p>
			Quantitative finding	<p>“Our calculations suggest that, if we can increase the performance of just 10% of the bottom two thirds of UK firms to the average performance of the top third, this would add around £1,600 added value per worker per annum – contributing £2.5 billion to the UK’s total GDP, raising the trend growth of the UK economy by around 0.25 per cent each year”. p. 8</p> <p>(Across 3, 000 companies and over 20 case studies)</p>

			Qualitative finding	<p>The Work Foundation found that:</p> <p>“Strategic intent is translated into practical action primarily through the five similarly inter-dependent “intangible” factors of production (Structure; Process; Communication; Leadership; and Culture and Employee Relations) are used and applied”. p. 20</p> <p>(Across 3, 000 companies and over 20 case studies)</p>
			Qualitative finding	<p>The Work Foundation found that:</p> <p>“The top firms of the Company Performance Index are characterised by the simplicity of their processes”. p. 23</p> <p>(Across 3, 000 companies and over 20 case studies)</p>
			Qualitative finding	<p>In relation to communication, the Work Foundation found that:</p> <p>“High performance means good communication between peers and an apparent willingness for managers to share openly all relevant information both to individuals and to representatives of staff bodies such as Trades Unions and Works Councils. Communication and the steady flow of information not only, up and down, but across the organisation were typically seen as strength by all levels of staff”.</p> <p>“Knowledge is power” was not in evidence but knowledge sharing was very much seen as a core organisational objective especially to those acting at the customer interface or the factory floor”. p. 25-26.</p> <p>(Across 3, 000 companies and over 20 case studies)</p>

Management (continued)

Author	Year	Title/Journal	Qualitative or Quantitative Evidence?	Main Points and Relevant Insights
The Work Foundation (UK)	2008	Cracking the Performance Code	Qualitative finding	<p>From a study of the high performing firms ranked by the Company Performance index (CPI), the Work Foundation found that:</p> <p>“It is clear that the “how” of high business performance is as important as the “what”. If business leaders are to derive meaningful benefits from research of this kind, they need more than statistical evidence. They need the practical stories of real businesses that have, themselves, built and sustained competitive advantage”. p. 19</p>
			Qualitative finding	<p>The Work Foundation commented that:</p> <p>“There is a significant gap between the highest and lowest performing organisations in the UK. Reducing this gap would help to improve the UK’s overall productivity – and this improvement can only happen at the level of the firms. Raising productivity levels ensures that firms enjoy a lower cost base and that scarce resources are more efficiently used”. p.10</p>
Don Scott-Kemmis	2008	Industry Policy for a Knowledge Economy	Qualitative finding	<p>In relation to managing Technology diffusion programs, Scott-Kemmis refers to the importance of standardisation as an important instrument is necessary to...</p> <p>“Facilitate the development of standards to promote application, e.g. in e-commerce, ISO 9000 series”. p. 42</p>

Challis, D., Samson, D. & Lawson, B.	2005	International Journal of Production Research, Vol. 43, No. 1, 1 Jan. 2005, 81- 107	Quantitative findings	Employee Performance correlated positively (0.647) with Manufacturing Performance. There was also a positive correlation (0.496) between Employee Performance and total Quality Management achievement and performance. Refer Table 2, p. 96.
				“At the 0.05 level of significance, ability to change (0.145), HR management (0.278), leadership (0.242), planning (0.175), training (0.106) are all correlated with manufacturing performance”. p. 95.
				More importantly, Challis, Samson and Lawson found that: “At the 0.05 level of significance, ability to change (0.150), HR management (0.398), leadership (0.394), planning (0.275), teams (0.113) and training (0.103) are correlated with employee performance”. p. 97
				“Total Quality Management (TQM), Leadership and HR Management are the three attributes with the greatest associations with Employee and Manufacturing Performance”. p. 97
US National Institute of Standards and Technology	1997- 2006	Repeated stock index studies (9 separate studies of the stock price revaluation of companies that win the US national presidential Baldrige Award)	Quantitative findings (Baldrige winners are companies that are rigorously assessed as being strong on the factors of: <ul style="list-style-type: none"> ▪ Leadership ▪ People management 	Nine separate studies , www.nist.gov/baldrige , then navigate to “stock studies”, show that companies that are strongly led and well managed, outperform the US S&P 500 by very large amount, being in most cases by a factor of between 3.5 and 5. These studies are mostly measures of all Baldrige award winners and are taken over a ten year period. For example from http://www.nist.gov/public_affairs/releases/g00-26.htm : Although you will not find it listed in the financial section of the newspaper, the "Baldrige Index" has once again outperformed the Standard & Poor's 500-this year by 4.8 to 1, one of the highest

			<ul style="list-style-type: none"> ▪ Information and analysis ▪ Customer focus ▪ Operating outcomes ▪ Planning ▪ Quality systems) 	<p>returns since the Commerce Department's National Institute of Standards and Technology started doing the study in 1995.</p> <p>"Baldrige Award winning organisations build excellence into every aspect of the way they do business and this study shows that is good <u>for</u> business. Customers are delighted, employees are enthusiastic and empowered, and it shows in the bottom line and in all other aspects of their business," said Commerce Secretary William M. Daley.</p> <p>The "Baldrige Index" is a fictitious stock fund made up of publicly traded U.S. companies that have received the Malcolm Baldrige National Quality Award. NIST "invested" a hypothetical \$1,000 in each of the whole company winners--ADAC Laboratories (1996 winner), Eastman Chemical Co. (1993 winner), Federal Express Corp. (1990 winner), Motorola Inc. (1988 winner) and Solectron Corp. (a winner in 1991 and 1997). The investments were tracked from the first business day of the month following the announcement of award recipients through Dec. 1, 1999. Adjustments were made for stock splits. Another \$1,000 hypothetically was invested in the S&P 500 for the same time period.</p> <p>NIST found in this sixth annual study that the group of whole company winners outperformed the S&P 500 by 4.8 to 1, achieving a 1,101 percent return on investment, compared to a 228 percent return for the S&P 500.</p> <p>See also http://www.baldrige.nist.gov/Stock_Studies.htm</p>
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2. Innovation

Author	Year	Title/Journal	Qualitative or Quantitative Evidence?	Main Points and Relevant Insights
The Work Foundation (UK)	2008	Cracking the Performance Code	Quantitative finding	<p>The Work Foundation found that:</p> <p>“Some 60% of UK firms were actively investing in R&D but, of those that were, expenditure equates to only 1 % of total sales. The Government has committed itself to achieving a rate of R&D investment equivalent to 2.5 per cent of GDP by 2015”. p. 52</p> <p>(Across 3,000 UK companies and over 20 case studies)</p>
			Qualitative finding	<p>According to the Work Foundation:</p> <p>“Those businesses investing the most in training are also the most innovative”. p. 7</p>
			Quantitative finding	<p>The Work Foundation reports that:</p> <p>“Only three sectors – transport and communications, manufacturing and utilities – have particularly well developed industry networks. Health, mining, manufacturing and utilities are sectors with the highest levels of innovation. But even here, in the case of manufacturing and mining, nearly 20 per cent of firms are well below the industry benchmark”. p.7</p>
			Quantitative finding	<p>“By surveying over 1,000 companies, we found that companies at the top of our Company Performance Index (CPI) were generating 2.5 per cent extra growth , 2.5 per cent more sales per employee, and 17.5 per cent more growth in terms of exports as a percentage of sales than those at the bottom of the CPI ranking. Further, the top ranking companies had, on</p>

				average, a 6% lead over lower ranking ones in terms of their ability to perform at the technological frontier of their industry. In short, the findings showed that the average UK firm was 25 per cent less productive than it arguably could be or should be were it to be better managed and followed the measures of success predicted in the Company Performance Index (CPI)". p. 11
Don Scott-Kemmis	2008	Industry Policy for a Knowledge Economy	Qualitative finding	<p>In relation to raising awareness as an intervention with in SMEs, Scott-Kemmis comments:</p> <p>"Knowledge Acquisition and application in SMEs can be supported by raising awareness through:-</p> <ul style="list-style-type: none"> ▪ Inter-firm networks to assist firms to identify and respond to new & emerging opportunities. ▪ External consultants to facilitate collective assessment/planning ▪ Diagnostic capability". p.35
			Qualitative finding	<p>In relation to strengthening knowledge and understanding as a focus of intervention within in SMEs, Scott-Kemmis comments:</p> <p>"Most SMEs do not have effective mechanisms for gathering diffuse knowledge have poor external links.</p> <p>Strengthening knowledge and understanding through:-</p> <ul style="list-style-type: none"> ▪ Networking & improved access to information & knowledge ▪ External agents to catalyse the formation of networks and knowledge sharing". p. 35
			Qualitative finding	<p>Scott-Kemmis claims that another approach to supporting knowledge acquisition and application in SMEs is by focusing on Stimulating implementation as an intervention. Scott-Kemmis suggests that this can be achieved through: "The provision of experts (typically academics) to work within firms". p. 35</p>

Innovation (continued)

Author	Year	Title/Journal	Qualitative or Quantitative Evidence?	Main Points and Relevant Insights
Don Scott-Kemmis	2008	Industry Policy for a Knowledge Economy	Qualitative finding	<p>In relation to the important issue of technological diffusion programs, Scott-Kemmis highlights the importance of focusing on awareness building and technology awareness demonstration. For example, “potential users can be made aware of the uses of new technology through demonstration projects, training, pilot plants, performance benchmarking, web pages or electronic information”. p. 42</p> <p>Example: Regional Technology Centres (Japan)</p>
			Qualitative finding	<p>Information search and referral services are another focus to improve technological diffusion within SMEs. For example, this may be achieved through “Providing technical information to lower the search costs for potential users, via regional centres or the internet”. p. 42</p> <p>Example: Technical Information Centres (Denmark; many US States)</p>
			Qualitative finding	<p>Technical assistance and consultancy is another possible way of enhancing technological diffusion within SMEs. For example, “The provision of experts can facilitate technological diffusion by assessing problems and identifying technological options for upgrading”. p. 42</p> <p>Example: Usually located in regional technology centres, Manufacturing Extension Partnerships (Kansas, Ohio, and Oklahoma).</p>
			Qualitative finding	<p>Training also plays an important role in any technological diffusion program. One mechanism can be to:</p> <p>“Promote investment in human capital, by identifying training needs, improving the supply of appropriate training, providing training services”. p.</p>

				42 Example: UK Learning & Skills Council http://www.lsc.gov.uk/
			Qualitative finding	Collaborative research and technology projects can provide an effective focus for technological diffusion in organisations. For example, this can be achieved by: “Increasing industry involvement in applied research”. p. 42 Example: Applied Research Centres – Steinbeis and Fraunhofer Centres (Germany)
			Qualitative finding	Technological diffusion can also be enhanced in organisations through personnel exchange and support of R&D personnel. For example, “Staff can be seconded to technology centres or other firms and subsidies can be provided for the employment of qualified staff in SMEs”. p. 42 Example: Regional Technology Centres (Japan)
			Qualitative finding	Facilities for technology transfer can provide another focus for the diffusion of technology. Facilities can: “Often be linked to research centres and combine demonstration, information provision and other local support”. p. 43 Example: Advanced Technology Development Centre, Univ. Georgia. Centres in many science parks.
			Qualitative finding	Where the focus of a technological diffusion program is on regional or sectoral measures, “the development of “social capital” can be achieved through inter-firm and inter-organisational links”. p. 43 Example: Many regional and national cluster development programs.

Innovation (continued)

Author	Year	Title/Journal	Qualitative or Quantitative Evidence?	Main Points and Relevant Insights
Don Scott-Kemmis	2008	Industry Policy for a Knowledge Economy	Qualitative finding	<p>“Internal diversity (of many types) can contribute to capacity of innovation systems to renovate themselves. The capacity for maintaining a dynamic innovation system will also be influenced by the level of internal diversity: knowledge diversity (e.g. basic research and applications research; industrial diversity that facilitates inter-sectoral knowledge flows and new combinations; and structural diversity, including large firms (with their formal processes and longer planning horizons) and smaller firms²⁰. Maskell (2001), drawing on the work of Loasby, emphasises the importance of the diversity of vision within a cluster, a diversity which is likely to exist far more readily among a group of firms than in one large firm”. p. 16</p>
				<p>In relation to the strongest predictive factors, Ota’s findings include the following where the covariance figures have been inserted in brackets to indicate the strength of the relationships:</p> <ul style="list-style-type: none"> ▪ “The enrichment level of “Harnessing the competence base” affects especially the improvement of “Organisational Intelligence” with a covariance of (0.62) ; ▪ The enrichment level of “Management of technology” affects the improvement of “Structure & systems management” (covariance of 0.36), “Vision & strategy” (covariance of 0.21), and “Culture and Climate (covariance of 0.29); ▪ The enrichment level of “Structure & system” affects the improvement of the “Creativity and idea management (covariance of 0.31);

²⁰ Tappi, D. (2005) Clusters, Adaptation and Extroversion: A Cognitive and Entrepreneurial Analysis of the Marche Music Cluster European Urban and Regional Studies, Vol. 12, No. 3, 289-307 (2005)

Masaharu Ota	2008	<p>Paper for POM Tokyo, August, 2008.</p> <p>“Development of Innovation Methodology for Japanese Enterprise based on innovation Capability”.</p>	<p>Quantitative findings from analysing data from 400 manufacturing companies in Japan</p>	<ul style="list-style-type: none"> ▪ The enrichment level of “Organisational intelligence” affects the improvement of “Management of technology” (covariance of 0.35); ▪ The improvement of “Culture & climate” is affected or achieved by the enrichment level of other overall elements; ▪ The forming of “Vision & strategy” is affected strongly by not only the enrichment level of “Harnessing the competence base” (covariance of 0.37) but also by “Management of technology” (covariance of 0.21)” p. 6 <p>“These characteristics of Innovation Capability or management for Japanese enterprise may suggest that Japanese management is a very special form from the point of management theory. That is, western management theory says “Vision and strategy” lead to the improvement of other elements of capability. Our investigation indicates that “Harnessing the competence base” is the most important capability and the enrichment of the system to support employees, for example “Organisation intelligence”, “Management of technology”, and “Structure & system”, is the important capability to develop their business. The forming of “Vision & strategy” and “Culture & climate” is done after the enrichment of other capabilities”. p.6</p>
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3. Government Policy

Author	Year	Title/Journal	Qualitative or Quantitative Evidence?	Main Points and Relevant Insights
The Work Foundation (UK)	2008	Cracking the Performance Code	Qualitative finding (across 3,000 companies and more than 20 case studies)	The findings of the Work Foundation are that there are four broad areas of policy development. "These are: Encouraging investment in innovation, R&D, and knowledge; Encouraging investment in people; Encouraging the development of high trust relationships between employers and employees". p. 9
			Qualitative finding	The Work Foundation claim that: "The government (UK) should commit to hitting the Lisbon target of 3% of GDP to be invested by 2010 and review the operation of the R&D tax credit to evaluate whether it is having the anticipated effect on the level of innovation in the UK. It should implement the recommendations of the Lambert Report into science and innovation as soon as practicable while creating fast-track visa processes for scientists and researchers". p. 9
			Qualitative finding	According to the Work Foundation: "The UK lags behind many other leading European countries such as France, Germany and the Nordic countries and others by 20%. Achieving the Treasury target of increasing productivity growth rate from around 2 to 2.5 per cent per worker per hour each year by a quarter of a percentage point will be no easy task". p. 10
			Qualitative finding	SMEs face a number of disadvantages. ScottKemmis claims, for example, that: "Often SMEs cannot cope with complex regulations. Unit cost of compliance for small firms often high". p. 36.

Don Scott-Kemmis	2008	Industry Policy for a Knowledge Economy	Qualitative finding	In relation to mechanisms which can be used in technological diffusion programs within SMEs, Scott-Kemmis refers to subsidies, low cost loans, grants for the use of consultants, the purchase of new equipments. p. 43 Example: US SBIR Program, Regional Technology Centres (e.g. Minnesota)
			Qualitative finding	In relation to technological diffusion within SMEs, Scott-Kemmis refers to Procurement and advocates: "Policies that require offsets to (and support for) SMEs can promote technology support". p. 43 Example: US SBIR Program
			Qualitative finding	In relation to achieving greater inter-firm collaboration sponsorships (vertical, horizontal, sectoral) for information sharing, joint production, joint problem solving as being other mechanisms which can be used for technological diffusion within SMEs. p. 43. Example: EU Sprint Program.
			Qualitative finding	Macro-economic policies which can be implemented relate to overall framework conditions that influence technological diffusion within SMEs e.g. cost of capital, IP protection, labour market policy, tax policy (e.g. depreciation for investment in new technology) p. 43.

Government Policy (continued)

Author	Year	Title/Journal	Qualitative or Quantitative Evidence?	Main Points and Relevant Insights
Don Scott-Kemmis	2008	Industry Policy for a Knowledge Economy	Qualitative Finding	Policies for promoting innovation within SMEs include: “Efficiency of R&D, R&D grant, tax: - Inclusion of SMEs to national R&D programs - Stimulating generation of knowledge in SMEs” p.41
			Qualitative Finding	Policies for promoting innovation within SMEs include: “Technological collaboration: - Promoting collaboration between firms: vertical & horizontal collaborations - Promoting technological collaboration between SMEs and universities/public institutions” p.41
			Qualitative Finding	Policies for promoting innovation within SMEs include: “Government equity programs: - Establishing governmental sponsored special-purpose funds, which provide direct equity financing to innovative SMEs or venture firms - Participating in private hybrid funds specialized for investment in innovative SMEs or venture firms”. p. 41
				Policies for promoting innovation within SMEs include:

			Qualitative Finding	<p>Direct loan programs: - Providing direct loans to innovative SMEs or venture firms with favourable interest rates or often with long-term fixed rates; and</p> <p>Loan guarantee programs:- Providing official guarantee about SMEs to financial institutions with which loan guarantee institutions compensate the losses in the case of the SMEs” default” p. 41.</p>
			Qualitative Finding	<p>“The overarching national institutional (including policy) framework shapes the emergence and evolution of innovation systems – in large part by enabling actors to self organise to solve development problems or respond to opportunities. For example. Freeman (1987) describes the institutional changes in Japan made it possible for that nation to embrace the IT revolution:</p> <ul style="list-style-type: none"> • a flexible industry structure; • foresight capacity; • capacity to mobilise very large resources in pursuit of strategic priorities; and • the flows of information/knowledge within and between firms”. p.16

Appendix B: If organisational innovation is so good why isn't every employer doing this?

The question of identifying the pre-conditions for the diffusion of workplace innovations has remained a key focus within the organisation innovation literature (see van der Panne et al. 2003). The reason for the sustained interest in this question reflects the persistent puzzle of explaining why, given the evidence that innovative organisations experience superior performance outcomes (however measured), so few firms appear to innovate. This question has generated a substantial body of work which seeks to: isolate those factors that engender a propensity to innovate; identify the characteristics of organisations associated with their ability to innovate successfully; and to isolate the conditions which allow for innovations to be diffused within organisations and across organisational boundaries.

Blair and Kochan (2000), for instance, note that while the contribution of a firm's intangible assets, including the "knowledge skills and ideas" of employees have, since the 1970s, accounted for a growing proportion of the book value of publicly listed firms, these same firms appear to have abandoned labour management practices associated with worker innovation behaviours:

"organisational forms and employment relationships appear to be changing in ways that tend to undermine loyalty and commitment and encourage mobility by employees ... Are these trends consistent in ways we do not understand, ways that contradict accepted theory and wisdom? Are the new employment relationships and organisational forms that are emerging able to harness the ideas and skills of the people who are actually doing the work as well as or better than old forms? Or is the corporate sector eating its seed corn in some sense – getting a temporary boost in earnings by cutting payrolls and contracting out more work but failing to make the necessary new investments in training and building a committed and innovative workforce?" (Blair and Kochan, 2000, p. 2).

Or, more bluntly, Erickson and Jacoby (2003) ask, "why, if innovative work practices are beneficial to performance, the intensity of adoption varies greatly across establishments?" (p. 204). The explanation for this appears to lie in the fact that the performance effects of employment practices is moderated or inhibited by a number of contextual factors. From the research reviewed for this study, four broad issues appear to have influenced the relatively low take-up of high performance work practices.

Perceived risks

The research on high performance work systems indicates that some businesses may not be willing to contemplate the development of innovative work practices in the first place because of perceived risks.

- Developing and implementing comprehensive plans for innovative work practices may require a business to make investments in developing new human resource capabilities and to incur costs associated with these practices (Ichniowski et al., 1997). Yet the returns on such investments may be unclear and difficult to quantify, particularly where some of these benefits may not be immediately evident or where the practice is subject to a declining return at a higher level of implementation (Chadwick, 2007). The perception that investments in innovative work practices are risky may also be caused by a number of factors relating to the intangible nature of a firm's human resources and the difficulties in calculating a return on investment in human capital development (Osterman, 2000).

- Business may lack adequate knowledge regarding the potential role practices can play in improving organisational performance. Erickson and Jacoby's (2003) study of the role of inter-firm networks in the diffusion of workplace innovations similarly demonstrates the role of knowledge in shaping firm-level choices. The authors found a positive association between employer participation in networks and the adoption (and intensity of adoption) of high performance work systems and training programs. The authors concluded that businesses that fail to interact with competitors within their industry through participation in networking activities did not acquire the knowledge and understanding to implement workplace innovations effectively. By participating in networks managers are given opportunities to trade knowledge about innovative practices and their effective implementation. While this knowledge may be available through external sources, such as consultants, many businesses are reluctant to engage outside individuals because of the cost and scepticism about the potential benefits.

Implementation challenges.

A number of challenges in effective implementation of employment practices may reduce their impacts on improving organisational outcomes. Unfortunately, few studies examining the links between employment practices and business outcomes explicitly control for implementation in a comprehensive manner (Bosalie et al., 2005). However, Wall and Wood (2007) note that where practices are implemented in a piecemeal or unconvincing manner the evidence suggests that the benefits associated with these practices will be reduced.

The available evidence suggests that one major reason for ineffective implementation of employment practices is a lack of coherency across different levels of management about how practices should be operationalised (Bowen and Ostroff, 2004). A number of studies have highlighted the problem of ensuring that management at all levels of an organisation has a common view of an organisation's human resource strategy for it to be effectively implemented. In an Australian study examining the congruence in perceptions of human resource strategies across different levels of firms in the health sector, Bartram et al. (2007) found that there were significant differences in perceptions of the organisation's human resource priorities between chief executive officers, HR directors and other senior managers. This, the authors concluded, inevitably resulted in a significant loss in the effective implementation of human resource policies and a failure to develop the link between employment practices and improved organisational outcomes despite an intention to do so.

The role of front-line supervisors.

A number of studies have highlighted the role of front-line supervisors, in particular in influencing the extent to which implementation of human resource practices are effectively achieved. Leonard and Levine (2003), for instance, found that a major reason for the ineffective implementation of equal opportunity practices was the responses of line managers to such policies. Foster and Harris (2005) likewise indicated that many line managers found it difficult to apply policies that gave rights to certain groups of employees, but not to others. In a more general study, Purcell and Hutchinson (2007) examined the relationship between human resource practices, the behaviour of front-line managers and employee attitudes and responses to such practices. The authors found that there was a significant association between employee's perceptions of front-line management's behaviour and employee commitment and positive job experience. This study also concluded that employees' perceptions of supervisors influenced their views of human resource practices.

Workgroup and workplace cultures.

Problems of implementation issues may also arise as a consequence of work group or workplace cultural issues. In a number of studies investigating the implementation of employment practices,

employee perceptions of the context in which practices are to be implemented have been found to exert a strong influence over the take-up of such practices. Simon and Sochynsky (1995), for example, found that the use of dispute resolution and grievance procedures was contingent on employee perceptions of trust between management and employees and the perceived fairness of these procedures. Lewis (1997) found that the use of family-friendly policies was significantly associated with employee perceptions of such practices as entitlements rather than “perks”. Career-orientated women with family responsibilities were also found to be reluctant to take up family-friendly policies on the belief that it could prove damaging to their careers. Similarly, workplace climate has been found to be a significant predictor of the effective use of employment practices, most notably grievance procedures. Eaton (2003), for example, found that the “usability” – not the formal presence – of practices was the most significant predictor of their use and impact on employee attitudes.

The scope and intensity of implementation.

In one of the few studies examining the performance effects of high involvement work systems that accounts for the quality of implementation, Chadwick (2007) found that the *scope* (i.e., the proportion of employees covered by the practices) and *intensity* of implementation (i.e., the extent to which resources and management efforts were directed at effective implementation), significantly affected the performance effects of these practices. As the scope of implementation involved a larger proportion of the workforce, the positive performance effects were significantly higher. Further, the performance effects were also larger as more effort and resources were devoted to effective implementation. However, Chadwick found that these effects were subject to declining returns on further investments as both scope and intensity reached a critical level.

Factors influencing the strength of the employment practices–performance relationship.

The research also highlights a number of contextual factors that influence the strength of the relationship between employment practices and organisational outcomes, particularly financial performance:

- *Industry and product market characteristics.* Cross-industry studies typically find significantly average lower returns to high performance work practices than single industry studies. This can be attributed to a range of unobserved industry factors likely to influence this relationship (Capelli and Neumark, 2001). For example, the returns to high performance work systems have been found to be greater in industries that compete on the basis of product quality and innovation, rather than costs. Similarly, more capital intensive firms report higher returns to innovative work practices compared with less capital intensive firms.
- *Business strategies.* A number of studies have also found the type of business strategy employed by a business will have consequences for the potential effects of work practices on performance. Richard (2000), for example, compared firms in the US banking sector pursuing growth versus downsizing strategies. He found that firms pursuing a growth strategy were able to yield a significant performance effect by investing in employee diversity practices. In comparison, no such relationship was evident for downsizing firms. Similar effects have been noted in relation to the returns on employment practices that provide for greater employee participation and involvement (Huselid and Becker, 1997; Youndt et al., 1996; Arthur, 1994).
- *The SME context.* SMEs typically have less formal employment arrangements compared with larger firms. SMEs have also been found to be less likely to introduce “bundles” of human resource practices (Dex and Schiebl, 2001). There are a number of reasons why the return on investments in high performance or high involvement work practices is considerably lower in SMEs compared with larger businesses. First, diseconomies of scale make it harder for

small businesses to invest in sophisticated work practices. Second, small businesses generally enjoy lower margins and face a more uncertain future compared with large firms. This uncertainty increases the risks associated with implementing such practices and can make it harder to justify investments in employment practices. Third, SMEs also face budget constraints, making these investments more difficult to make, even where they believe the investment is likely to produce a positive return.

- *Complementarities and the effects of bundling.* Most studies suggests that the adoption of innovative work practices will be ineffective or less effective in improving performance unless practices are adopted in complementary “bundles”. This would suggest that the bundling of complementary work practices can unlock beneficial synergies that increase the impact of practices on performance outcomes.

Institutional context and policy settings.

The need for businesses to innovate in terms of human resource management has been recognised by the Business Council of Australia (BCA) and the Australian Government (Forsyth et al., 2006). Both the BCA and the Government acknowledge the role that high performance work systems can have in promoting greater productivity, efficiency, profitability and sustainability within organisations. The research on workplace innovation also indicates that regulatory settings can have a significant impact on the propensity to utilise innovative work practices and the types of practices adopted. The absence of the appropriate institutional support and policy settings to facilitate the adoption of fair and co-operative employment practices may be one of the major reasons these practices are not more widespread. Inappropriate policy settings may also have adverse effects on the willingness of firms to introduce fair and co-operative employment practices.

Institutional support can also provide business with the capacity to pursue a “high road” employment strategy which would otherwise be difficult or costly to pursue. This is particularly evident in relation to training (Grimshaw and Carroll, 2006). Similarly, the research evidence suggests that the incentive to bundle employment practices in particular ways is institutionally dependent. For example, in a study of innovative work practices in 15 European countries, Lorenz and Valeyre (2005) found that work organisation was closely related to different institutional settings. Forms of “lean production” were typically found in countries with relatively deregulated labour markets, while “learning forms of work organisation” were more prevalent in countries with regulated labour market settings. The authors concluded that relatively well-developed systems of employer coordination around pay and vocational training created an institutional setting more conducive to business pursuing learning forms of work organisation involving high levels of employee skill and autonomy

Appendix C: SKE Response to *venturousaustralia*

Senator the Hon Kim Carr
Minister for Innovation, Industry, Science and Research
Industry House, 10 Binara Street
CANBERRA ACT 2604

September 22, 2008

Dear Minister,

The Society for Knowledge Economics, and our stakeholders, welcome the “*venturousaustralia*” Green Paper and congratulate the expert panel members and all concerned responsible for its development.

We are very pleased with the clear message and multiple references to the importance of “*innovative workplaces*” to a healthy Australian Innovation System and that “*innovation largely revolves around what happens in business*”. Also welcome is the focus on the need for innovation in the Public Sector.

The point on Page 19 that “*the pursuit of innovation involves change processes within a societal or community context*” is also an important one worthy of attention.

Innovation is about leading change for economic and social benefit. As Mark Dodgson points out on Page 33, this requires a range of “*strategic and leadership competencies*” and on Page 35 “*to reset Australia’s innovation policy to foster a critical mass of Australian firms with the skills and capabilities to make innovation a decisive business strategy*”.

Hence, we strongly support Recommendation 3.1 and the suggestion of a *National Forum on the Workplace of the Future*, with one point of significant amplification that; we need to invest in and develop Australia’s workplace leadership, culture and management capabilities across both private and public sector enterprises.

Attached is a submission we are happy to submit in response to the Green Paper, a *Society for Knowledge Economics* report commissioned by the Victorian Government “*Enabling Innovation: Leadership, Culture and Management at the Workplace Level*”, prepared in collaboration with University of New South Wales and Copenhagen Business School. This report has been endorsed widely by leaders from across all sectors of our economy.

It is our strong recommendation that the leadership, culture and management aspects of workplace innovation are given much more attention as part of Government support for the development of Australia’s innovation system and is reflected as such in your response to the Green Paper.

As stated on Page 54 regarding “Workplace Innovation”;

“The public policy objective here is twofold. First we want to promote greater investment in skill upgrading and development to achieve an outcome of increased firm productivity and innovativeness. The second objective is to support everyone in the workforce to be able to develop and hone their skills and talents over the course of their whole careers.”

What is not adequately stated and addressed in the *venturousaustralia* report (despite references on Page 56 and 57) is that **this aim is highly dependent on having workplace leaders across our economy with the capability to create cultures and management systems that encourage workplace innovation and enable their people to achieve to their potential, leveraging the possibilities of information and communications technology.**

Hence we believe Government policy must invest and have involvement in the development of Australia’s workplace leadership capabilities for innovation and hence productivity.

The Society for Knowledge Economics would welcome the opportunity to lead or participate in a process to define action that can and should be taken to address this vital and foundational (and often overlooked) aspect of our innovation system; **leadership, culture and management at the workplace level.**

We agree that, as stated on Page 56, there is a *“need to revisit the issue of management education and leadership skills that were flagged in the Karpin Report”*.

We believe that, as mentioned, on Page 73 and Recommendation 6.5, we need to *“build concentrations of excellence, encourage collaboration and achieve better dissemination of knowledge.....”* There is no more worthy area of such focus than our Nation’s leadership capacity and capabilities in the workplace.

Just as on Page 151 *“A common problem for many Governments is that they use yesterday’s institutions to meet tomorrow’s problems”* the same applies to the private sector. Old styles of leadership, culture and management are not adequate for the connected world economy we live in today, which requires all organisations to connect with and collaborate with a wide range of stakeholders and to understand how to leverage the potential of communications and information technology.

The Innovation leadership challenge closely aligns with the same leadership challenges organisations face in addressing sustainability. *The Society for Knowledge Economics* is collaborating with the OECD and the United States Extended Business Reporting Consortium on matters related to development of better measurement of intangibles and aspects of organisational performance related to innovation. We see these matters as needing focus as part of the workplace leadership, culture and management elements of our innovation system.

The Society is also currently examining options for operationalising the concept of the Workplace of the Future via a project commissioned by the Department of Education, Employment and Workplace Relations. For this project, we are leveraging the expertise of key stakeholders in our network, including Professor Roy Green from UTS and Danny Samson from Melbourne University, a member of the original Karpin task force, which produced the 1995 *Enterprising Nation* report.

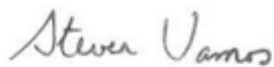
The “leadership, culture and management” aspects of our innovation system need much greater attention. Cross sectoral focus, including business, academia, unions and government is the key to making progress in this vital aspect of our innovation system.

***The Society for Knowledge Economics* believes a “lighthouse” organisation needs to exist that brings key stakeholders together from all sectors to better understand the challenges, and identify effective means to develop and distribute leading practices in leadership, culture and management. Such an entity can develop and recommend broad workplace development programs promoted by Government and implemented across the public and private sector.**

Such an entity needs to be strongly connected to programs such as Enterprise Connect, Comet, IBSA, and the Industry Innovation Councils, to ensure that leading practices are distributed to business and industry through these vehicles as well.

The Society for Knowledge Economics looks forward to the opportunity to explore these ideas further and to participate deeply in a National “Lighthouse” for Leadership, Culture and Management in the workplace.

Yours Sincerely,



Steve Vamos

President, Society for Knowledge Economics