



UNIVERSITY OF
TECHNOLOGY SYDNEY

Innovative Capability in the Economy and Workplace

UTS

THINK.CHANGE.DO

Roy Green – Dean UTS: Business

Big Skills Conference
Sydney, March 2-5 2009

The global financial crisis changes everything...

But for innovation and skills, it changes nothing.

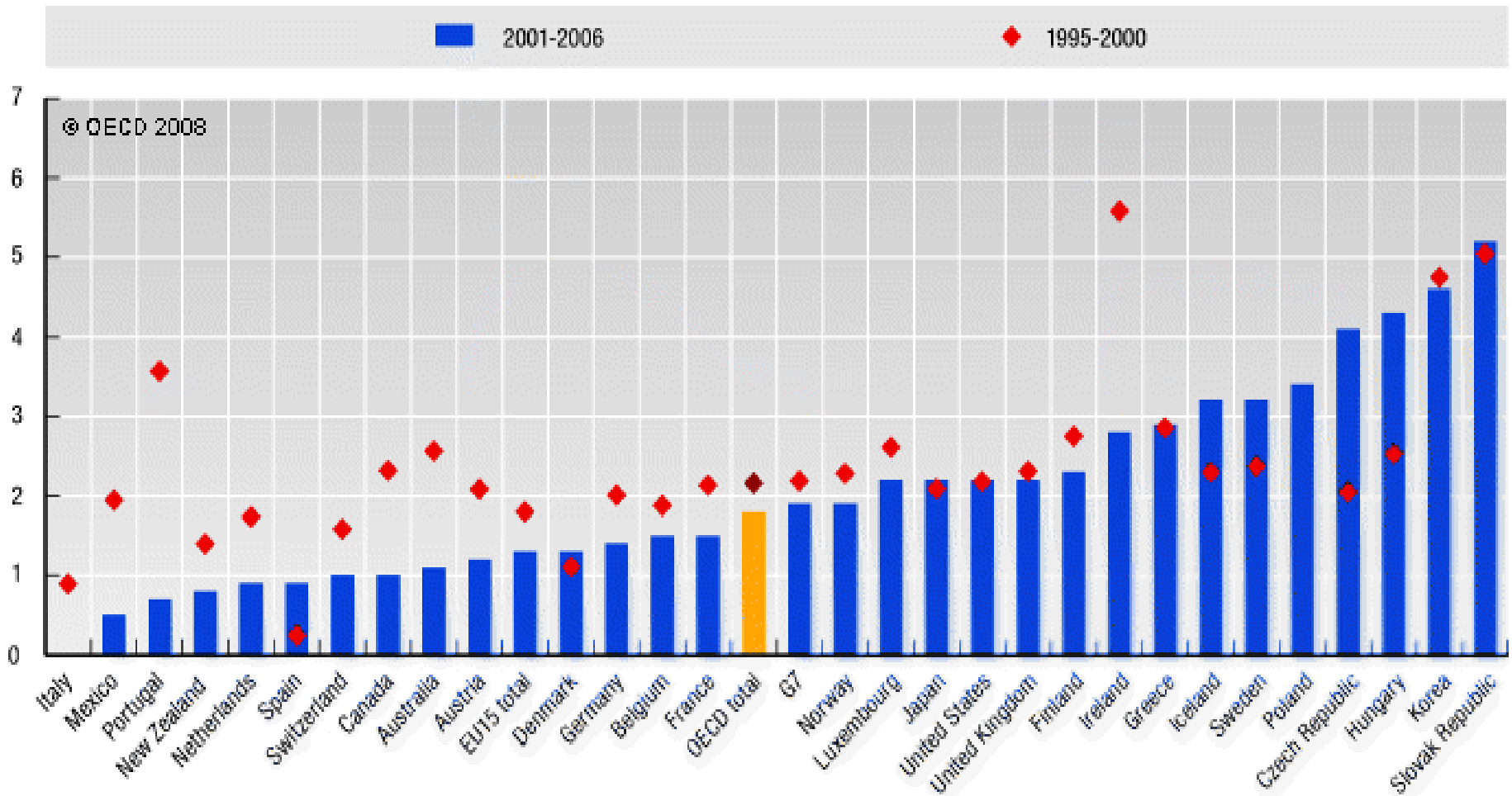
Our challenge is to link short-term fiscal stimulus to longer term competitive advantage.

‘Today, innovation – the development of new products, new services, new or improved production process, and new business models – drives growth... The application of innovation throughout an economy is critical to prosperity and competitiveness.’

– *Robert Atkinson & Scott Andes, Information Technology and Innovation Foundation, 2009*

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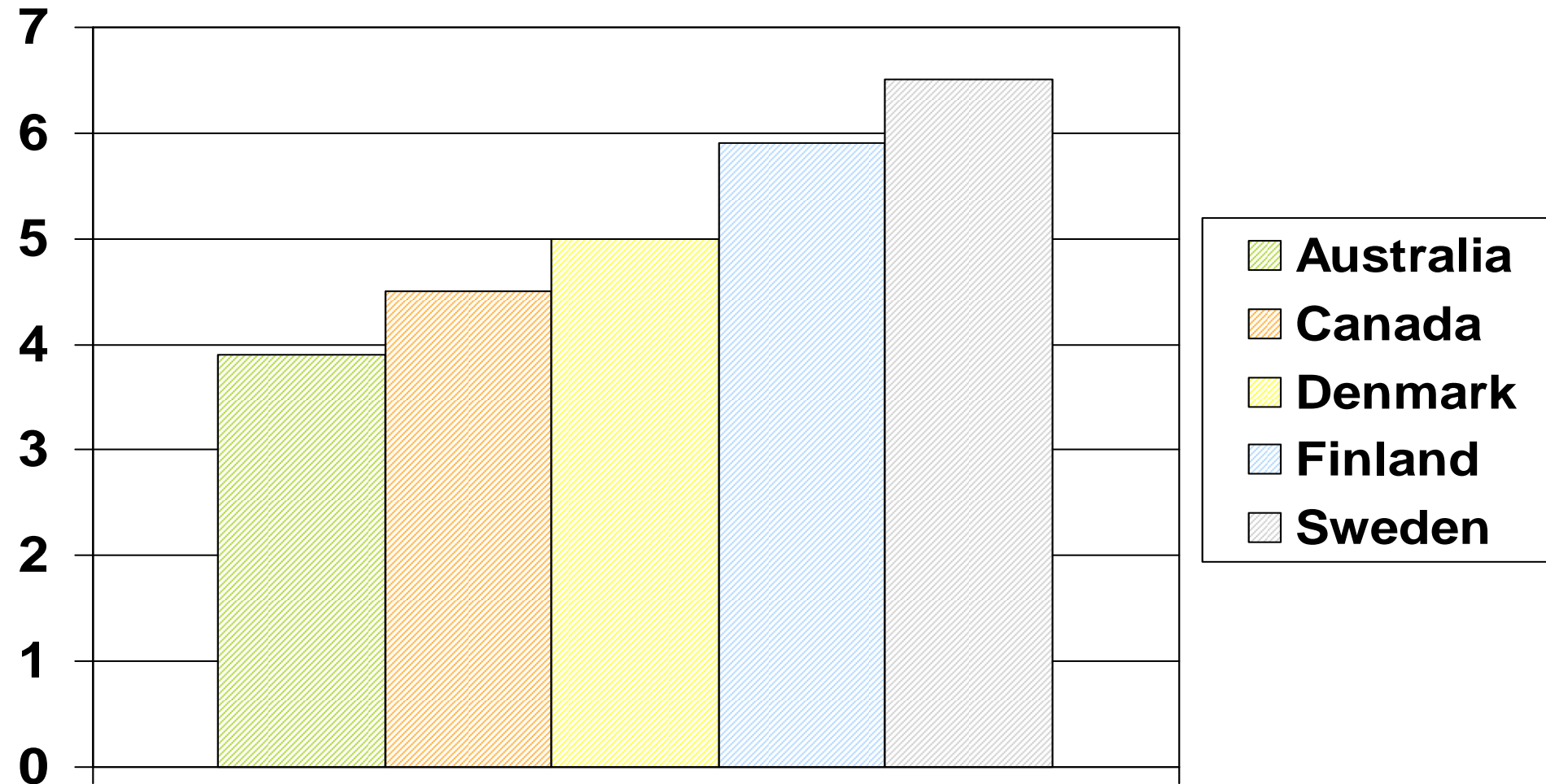
Labour productivity growth (GDP per hour), 1995-2006



- Reversal of the decades-long deterioration in Australia's terms of trade has come to an end in the global financial crisis
- Scenarios for resource-rich economies include 'Dutch disease' exchange rate effects, British 1980s consumption-led missed opportunity, or Norway's investment in research, education and infrastructure

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Investment in Knowledge (R&D, Higher Education, Software), % of GDP, 2004



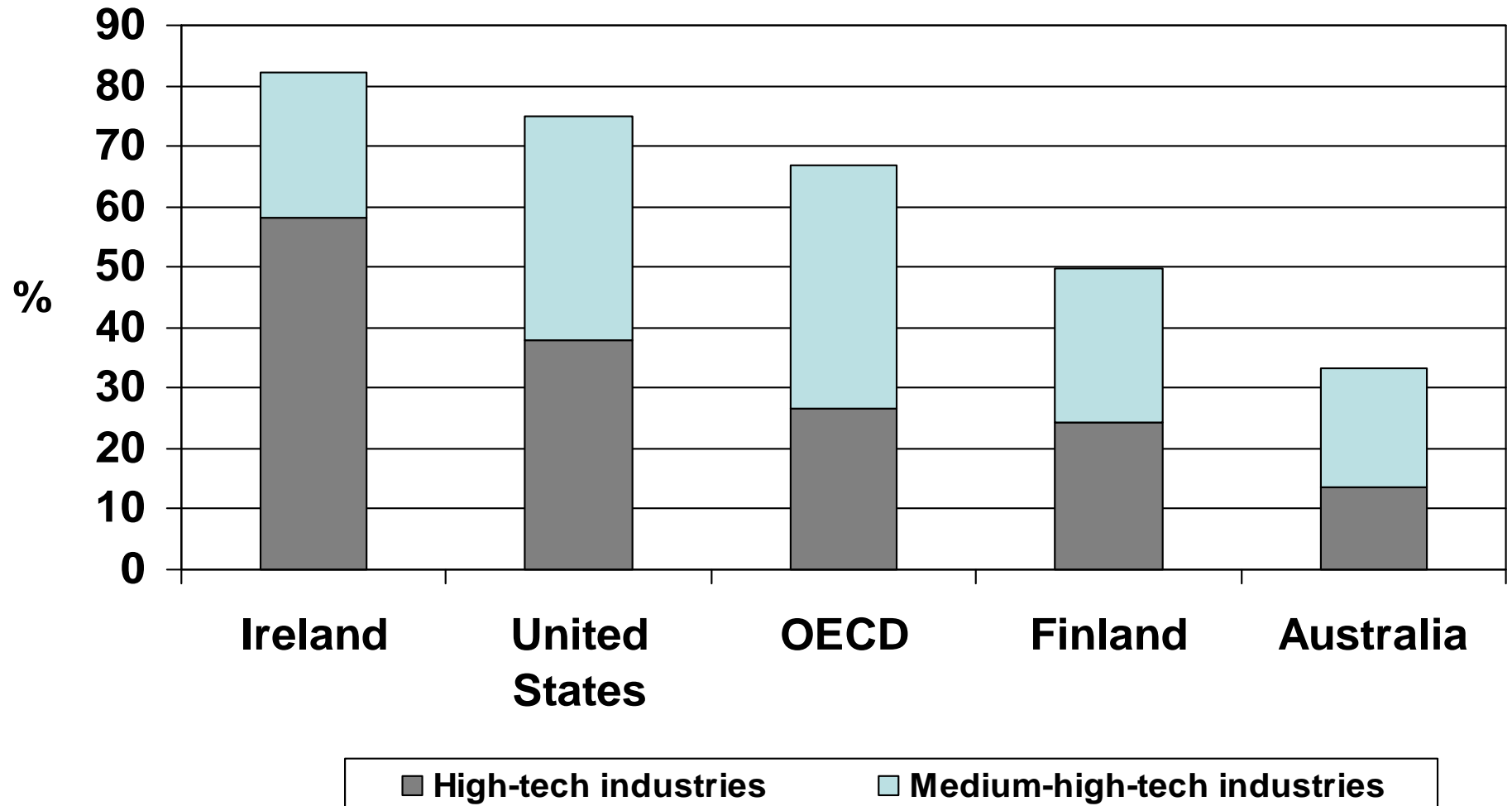
- **EU:** Lisbon – ‘the most competitive and dynamic knowledge-based economy in the world by 2010’
- **US:** ‘Rising above the Gathering Storm’
- **UK:** ‘Race to the Top’
- **Canada:** ‘Benchmarking against Global Best’

‘There is a strong link between investment in the research and innovation base of the economy and sustained economic growth... The accumulation of ‘knowledge capital’ will facilitate the evolution of the knowledge-based economy.’

Ireland's National Development Plan 2000/06

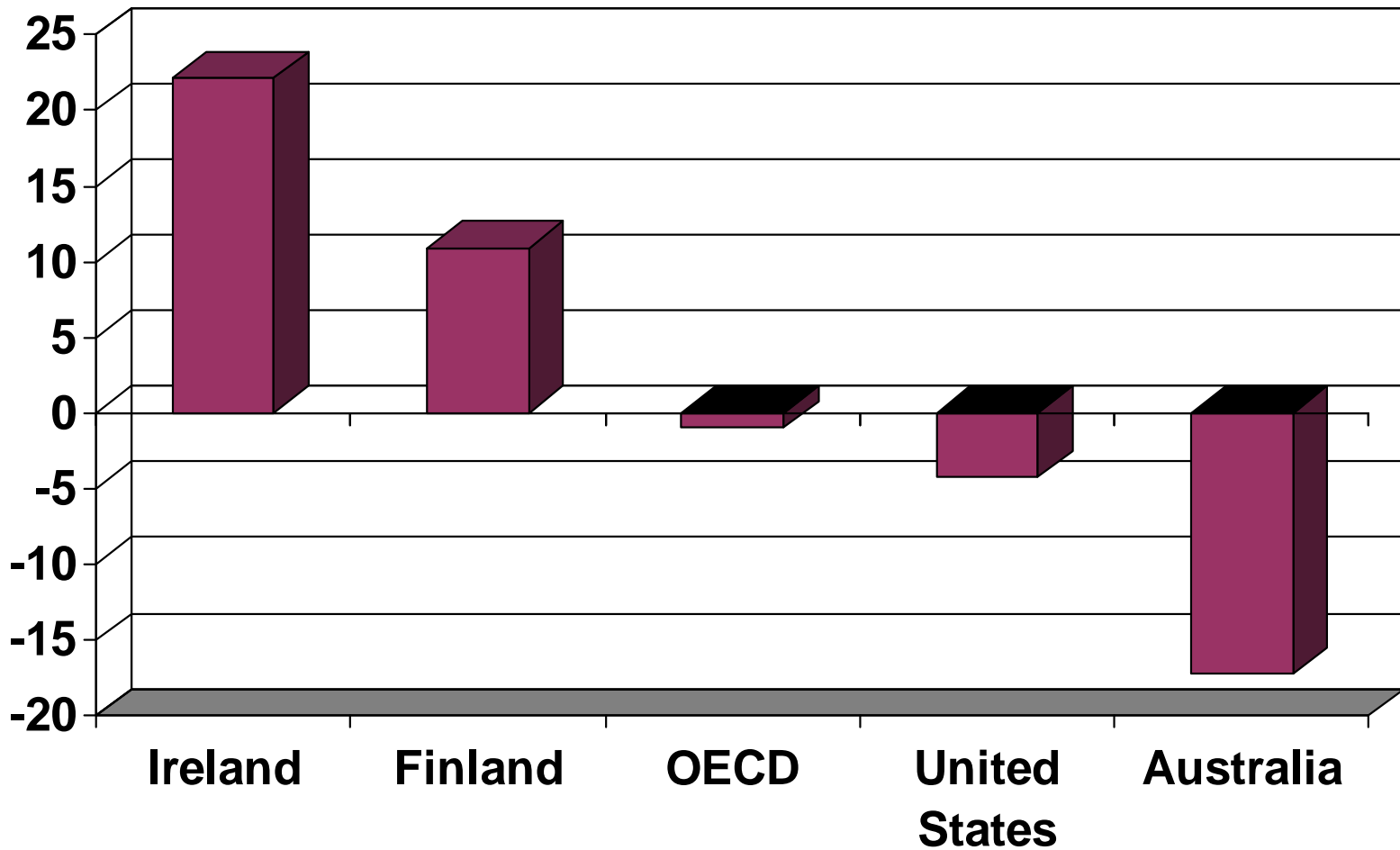
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Share of high & medium high tech industries in manufacturing exports (%)



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Information & communications technologies trade balance (%)



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Venturous Australia – building strength in innovation

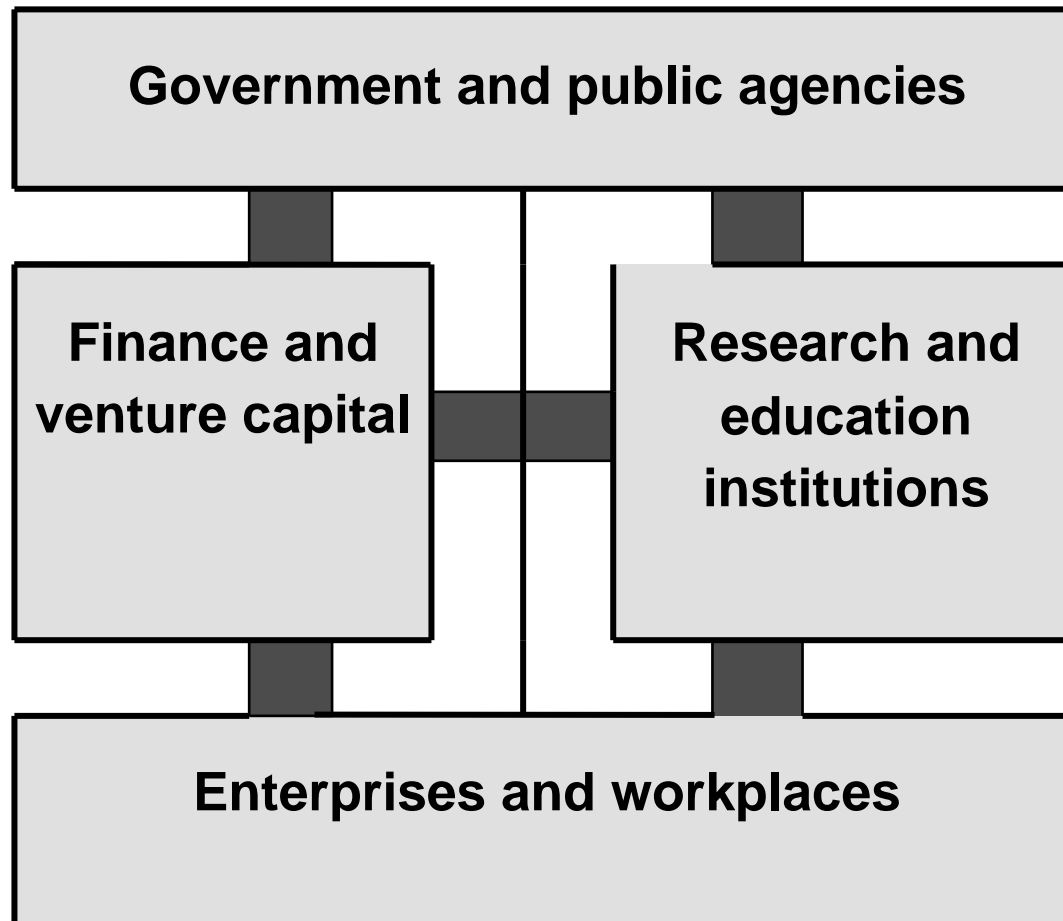
Australia's national
innovation systems review –
available online at

www.innovation.gov.au



- Innovation drives *productivity growth* and competitiveness of firms
- Innovation promotes *social inclusion* through expanded opportunities
- Innovation will contribute to achieving *environmental sustainability*

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National innovation system



‘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.’

*Business Council of Australia/Society for
Knowledge Economics,
New Pathways to Prosperity, 2006*



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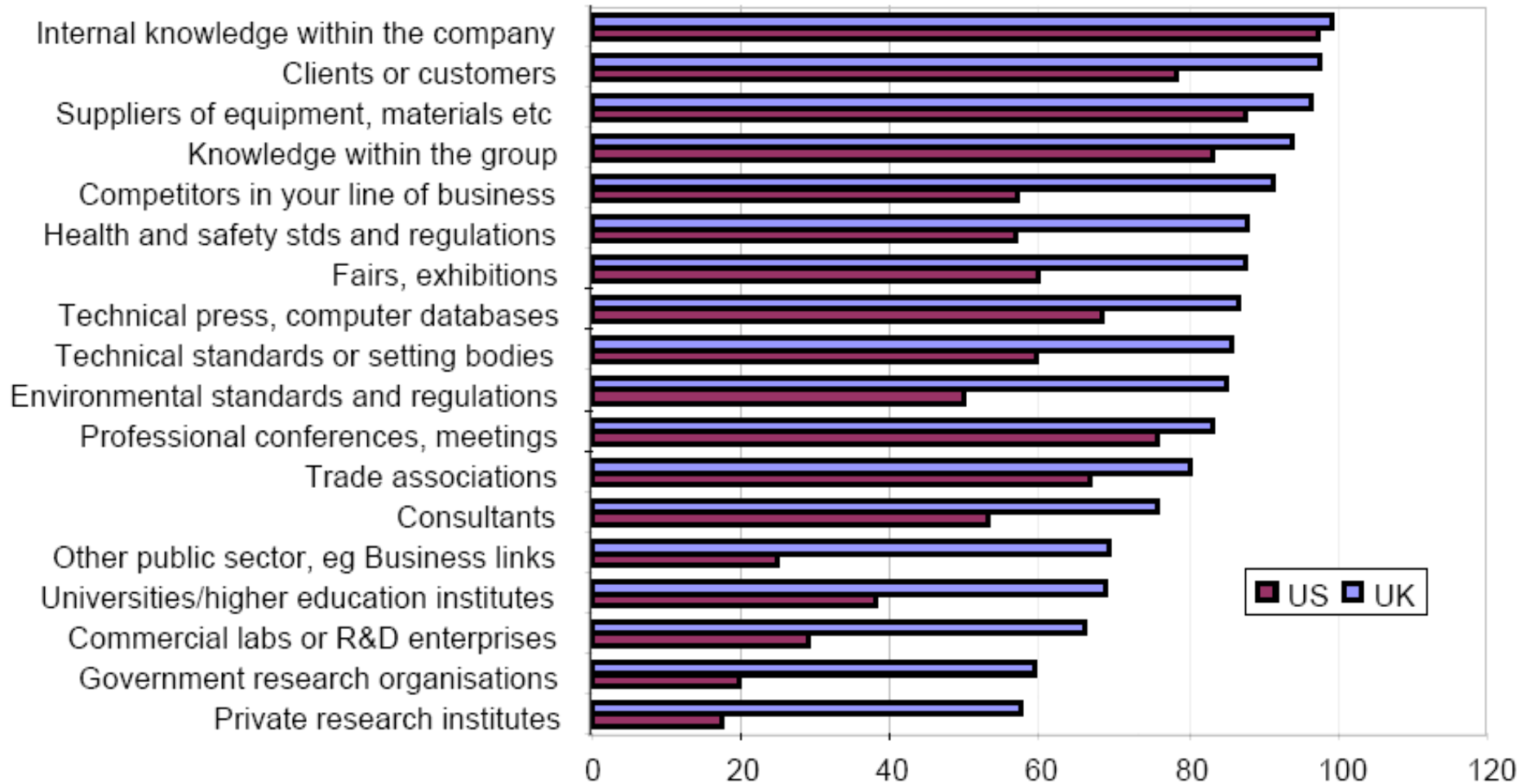
Broad approach to innovation

Innovation is...

- **More than science and technology**
- **Non-linear with multiple sources**
- **Incremental as well as breakthrough**
- **Low tech and high tech industries**
- **Driven by collaboration not silos**

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Sources of knowledge for innovation (% companies)



‘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... The challenge is how best to promote successful adoption and diffusion of high performance work systems in both the public and private sectors.’

Review of National Innovation System, 2008



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Workplace innovation: Scope

- New products and services, drawing on sources of knowledge within and outside the enterprise
- New operational processes, including relationships in global supply chains
- New business models within the firm and in the 'extended enterprise' of networks and clusters
- New approaches to marketing and sales as part of strategic repositioning
- New work organisation, with high performance work and management systems

US research has found that:

- *a third of US output growth* stems from productivity enhancing innovations at the workplace level (Sandra Black & Lisa Lynch on organisational innovation and productivity, 2001, 2004)
- When employees are highly engaged, their companies achieved *26% higher labour productivity*, lower turnover and *13% higher returns to shareholders* over last 5 years (Watson Wyatt *WorkUSA Survey 2008/09*)

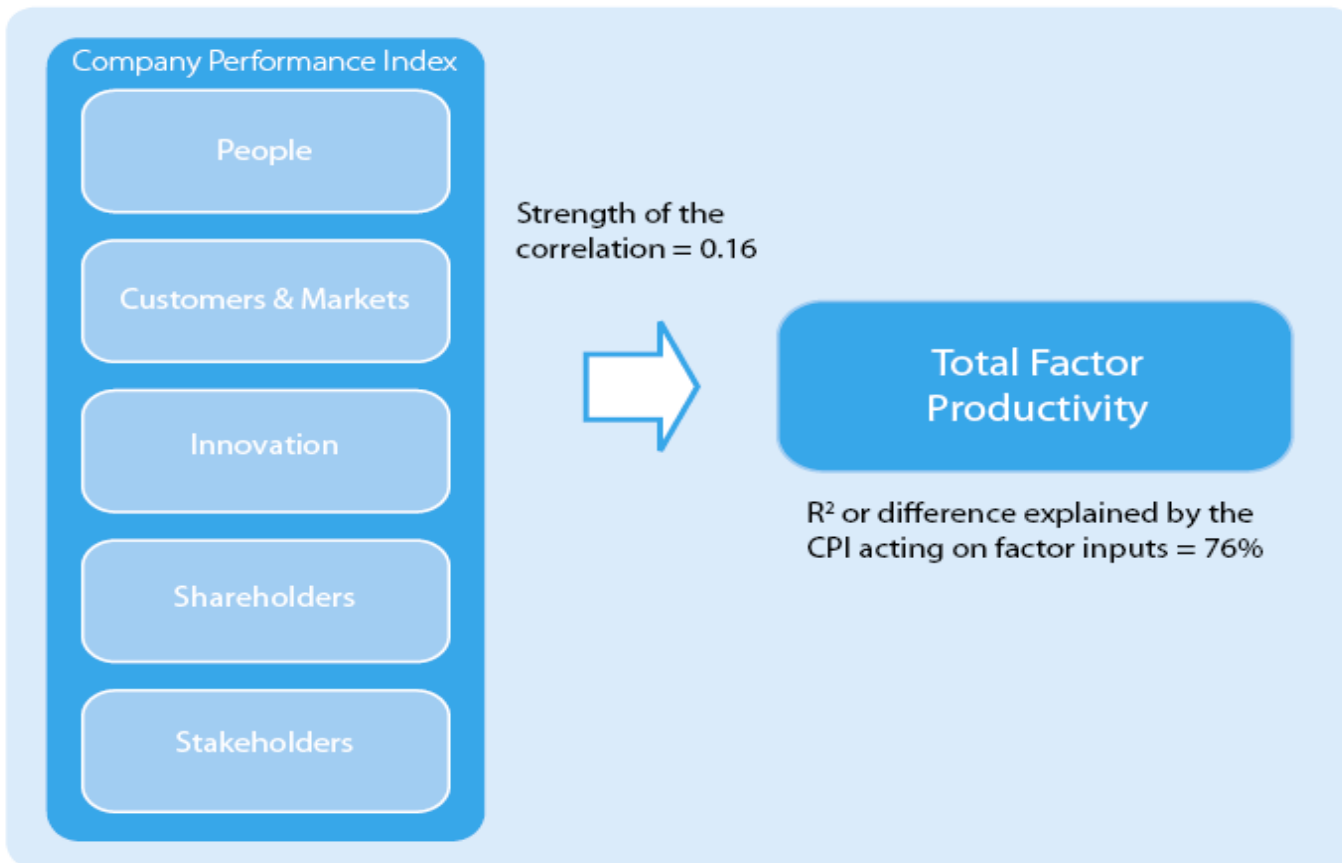


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Workplace innovation: UK

- UK study found that the best managed, most innovative 30% of companies achieved higher growth, sales per employee, profitability and exports
- Increasing the performance of just 10% of companies in bottom third to average of top third would add GBP 2.5 million to UK GDP and 0.25% to trend growth
 - *Work Foundation, Cracking the Performance Code, 2003, 2005*

Figure 1.4 Performance & Productivity



Irish government study found that adoption of high performance work systems was associated with:

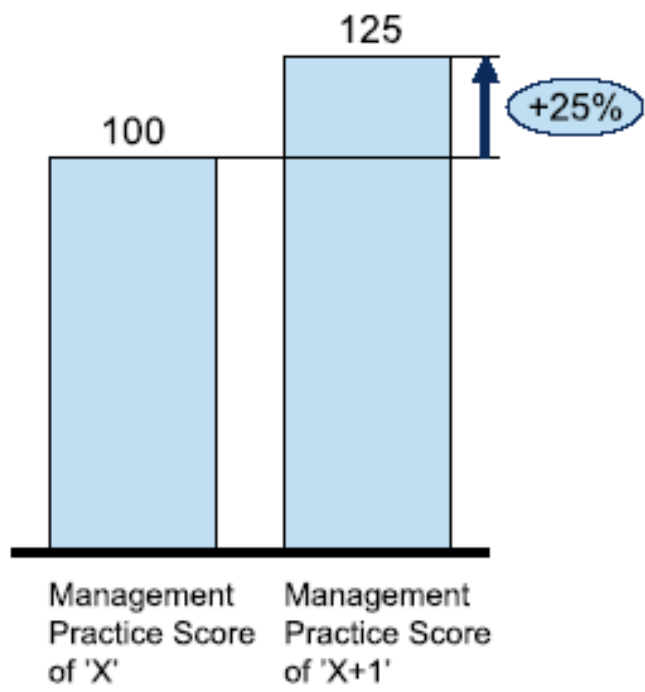
- 15% increase in labour productivity or EUR 44,000 per employee, equivalent to EUR 12 million per median company (270 employees)
- 8% reduction in employee turnover or equivalent to retention of additional 2 employees per median company
- *National Centre for Partnership and Performance, 2008*

A 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% increase in the labour force or a 65% increase in invested capital’.

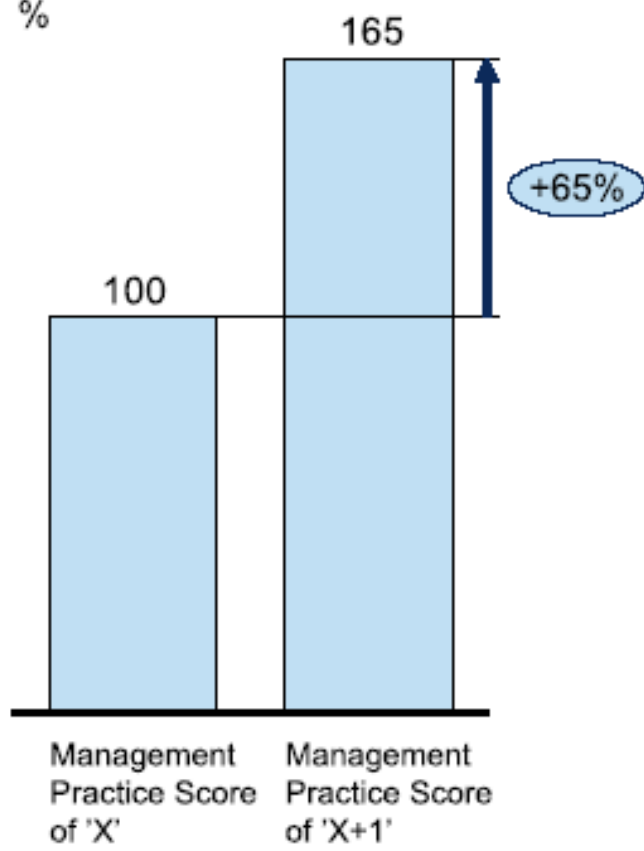
- *LSE-McKinsey study of managerial practices and productivity, 2007*

Exhibit 4: Output increases associated with improved management practice are large relative to labour and capital investment*

Labour-Management Practice Equivalency
%



Capital-Management Practice Equivalency
%



- Improved management practice is equivalent to large increases in existing
 - Labour
 - Capital
- This is true for all companies* irrespective of the quality of current management practices



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Workplace innovation: Policy

‘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.....*

‘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...’

- *LSE-McKinsey study of managerial practices and productivity, 2007*



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Finnish Workplace Development Program

'Measures that focus directly on the company and workplace level have a key role... Features in an increasingly knowledge-intensive and networked economy include the following:

- Proactive and participatory management
- Utilisation of new ICT in the organisation of work
- Application of team-based forms of work organisation
- Close cooperation with clients, other actors in the value chain and external expert organisations
- Multi-skilled staff with versatile job assignments
- Good opportunities for staff to develop in their work and take part in decision-making which affects their work
- Systematic improvement of skills and competencies.'



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Canadian Human Capital Strategy

‘A Comprehensive Strategy is important because human capital demands a central place in the federal government’s plans for developing Canada’s society and economy in order to achieve the overarching goal of sustainable prosperity.’

- Conference Board of Canada and Ministry of Human Resources and Skills Development, 2005

**Elements of a
comprehensive
human capital
strategy for
Canada**

1
Early
childhood
development

2
Define and
communicate
skills targets
to build workforce
capacity

3
Develop skills
in target groups
and populations

4
Recognize and
credentialize skills and
qualifications—foreign
and domestic

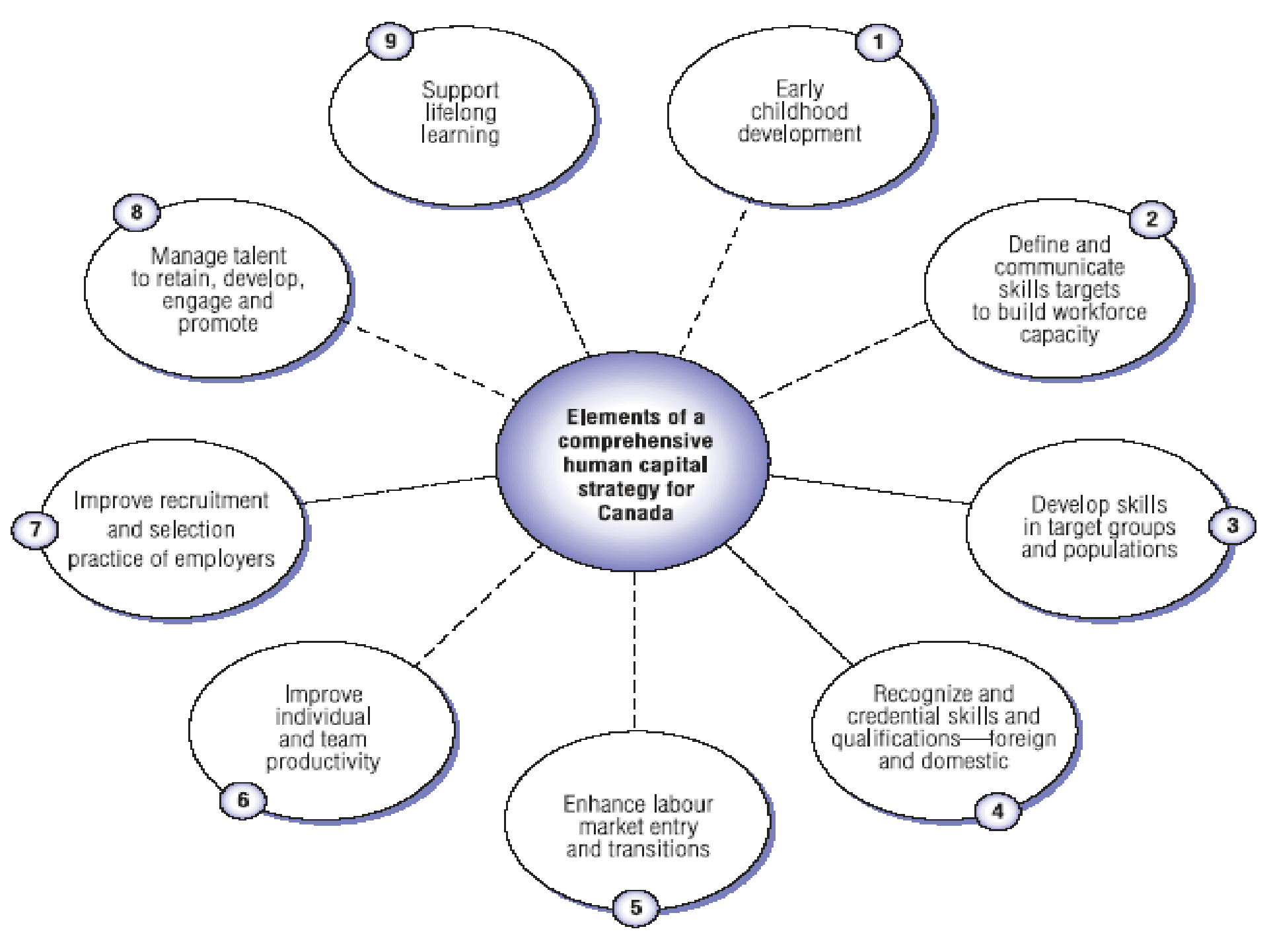
5
Enhance labour
market entry
and transitions

6
Improve
individual
and team
productivity

7
Improve recruitment
and selection
practice of employers

8
Manage talent
to retain, develop,
engage and
promote

9
Support
lifelong
learning



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Irish Workplace Development Strategy

VISION

Agile

Continually learning

Networked

Highly Productive

Reponsive to employee needs

Knowledge intensive

Customer-centred

Diverse

Involved and participatory

STRATEGIC PRIORITIES

- I Commitment to workplace innovation
- II Capacity for change
- III Skills for the Future
- IV Access to opportunity
- V Quality of working life



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Workplace of the future

- Innovation review proposed *national forum on the workplace of the future* to develop ‘shared vision of the future of Australia’s workplaces’
- This would enable broad agreement on ‘roadmap for change at the workplace level... and on the actions and policy measures required to bring it about’
- The policy outcome would ‘strengthen innovation capabilities, leadership skills and management practices at the level of the workplace’
- **This is cost-effective policy which links short-term recovery measures to longer term innovation and productivity performance**