Modernising Innovation Policy
Giving Prosperity a Purpose

Rod Glover
Department of Premier and Cabinet
Hobart, 9 July 2010

* The views expressed in this presentation are those of the author and are not attributable to either the Department of Premier and Cabinet or the Victorian Government
Five messages

1. Innovation policy must be preceded by a question: to what end?
   We have few structured debates in Australia about public values

2. Australia’s geography has some challenging implications for policy
   State Governments need to play the greater role in innovation policy

3. What generated Australia’s prosperity is not what will extend it
   We built prosperity on efficiency, but must extend it on innovation

4. Australia has the potential to lead, but it requires a mindset shift
   We’re prosperous, loaded up and have a receptive population

5. Innovation policy needs to be considered and transparent
   We need to see innovation policy as a process and discipline
Australia – resilient and prosperous

Australian and Victorian economies have been remarkably resilient through the GFC

“Australia has emerged from the global recession ahead of the pack, recording the best economic performance of any advanced economy in 2009.
The shallower downturn has meant that Australia has largely avoided the business failures and large-scale employment losses that have occurred in many other countries, providing a solid foundation for recovery.”
– Commonwealth Budget 2010-11

“... action and leadership have been critical to the resilience of the Victorian economy in weathering the global financial crisis and to Victoria emerging as Australia’s ‘engine room’ for jobs growth.”
– Victorian Budget 2010-11

Real GDP: Australia vs OECD Major 7

Real GSP: Victoria vs non-resource states
... built on an ongoing reform focus

Fundamentals
- Robust and strong institutions, superior economic management

Governance
- Openness
- Competition

Human capital
- Third wave: Healthy, educated and motivated workforce
- Second wave: Competitive and flexible markets, well regulated
- First wave: Open trading economy, connected by world-class financial markets

Timeline:
- 1990
- 2000
- 2010
Innovation is diffused across the economy
Within industries, innovation is concentrated
Innovation usually begins with a customer problem, not a technical discovery
The returns from innovation are disproportionately captured by those who bear and manage its risks, often finance providers

Some essentials of an innovation system cannot be developed by private firms alone:
- Collaboration
- Capability accumulation
- Clustering
- Tapping external knowledge

Innovation policy needs strategy
- A “horizontal” approach:
  - Leadership & long-term vision, co-ordination via budget
  - Regions: build on local strengths and pursue critical mass.
- Evaluation & monitoring, multilateral co-operation

Innovation is needed now more than ever
- “Stay the course” on investment: continue to support long-term investments in innovation (including basic R&D);
  - Not an “on / off” incremental investment, but accumulative
  - Cuts could limit growth and ability to address challenges
- Look for instruments beyond public investment
  - Reform and streamline existing policies; remove barriers
  - Use demand-side measures (procurement, standards)
  - Inject innovation into the public sector (including e-Gov)
Productivity growth over recent decades has been driven by:

- growth in the **market services sector**;
- **ICT capital investment** across all sectors;
- **skills intensification** across all sectors; and
- **product and labour market reforms** enabling resources to flow rapidly to high-growth, high-productivity sectors and firms.

Productivity levels and growth rates differ **across sectors and firms**.

**Sources:** OECD, Groningen Growth and Development Centre
Innovation frameworks have consistent themes...

Good governance
Global linkages
Competitive, flexible markets
Human capital
Business sophistication
Clusters
Collaboration

1. Increase business innovation
2. Provide the infrastructure to enable innovation
3. Develop skills for the innovation economy
4. Create a better regulatory environment for innovation
5. Forge better connections and collaborations
6. Foster a culture of innovation

The Innovation Strategy is built around five priorities for government action, which together can underpin a strategic approach to promoting innovation:

1. Empowering people to innovate
2. Unleashing innovation in firms
3. Creating and applying knowledge
4. Applying innovation to address global and social challenges
5. Improving the governance of policies for innovation
Some with more clarity than others

Finland National Economic Strategy

Innovation 100 Report
Australia is primarily an efficiency-driven economy

Factors underpinning competitive challenges

- Improvement is needed in...
  - ... infrastructure quality
  - ... firm-level technology availability and absorption
  - ... exposure to international markets
  - ... cluster development and process sophistication
  - ... innovative capacity, government technology procurement and talent

Australia's global competitiveness ranking, WEF 2010

<table>
<thead>
<tr>
<th>Factor</th>
<th>Basic requirements</th>
<th>Efficiency enhancers</th>
<th>Business and sophistication enhancers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial market sophistication</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labour market efficiency</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goods market efficiency</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Institutions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Higher education and training</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health and Primary Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Macroeconomic stability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market size</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technological readiness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infrastructure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business sophistication</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Financial deregulation has improved financial market sophistication
- Product and labour market reforms have resulted in efficient markets
- Human capital focus boosts performance in higher education and skills
- Limited innovation and technological readiness, and poor business sophistication, undermine an otherwise positive business environment
- Infrastructure remains an area of need, reflecting Australia’s geography

Such frameworks can be revealing – the WEF example

Such frameworks can be revealing – the WEF example
Terry Cutler’s 10 framework propositions

10 framework propositions to shape innovation policy

1. The market place is the crucible for innovation. The firm and the entrepreneur must be at the heart of innovation
2. People and talent are what make it happen.
3. Access to knowledge and information flows is what connects and energises the players within the innovation system.
4. Innovation policy needs to address systemic points of failure - a broader notion than market failure
5. A small country economy faces the challenge of accessing and leveraging the 98% of knowledge not invented locally – global integration is a necessity.
6. Innovation policy calls for a whole of government perspective and coordination
7. National priorities for innovation should focus on distinctive strengths and challenges
8. We need to invest in gathering information about innovation to support evidence based policy
9. There needs to be clarity about the role of different players
10. Within a global economy, innovation systems must internationalise.
If innovation is the answer, what is the question?
This is necessarily a philosophical and a practical question

Philosophical considerations

- Both subjective and objective
  - What people themselves think matters too

- Both processes/experiences and outcomes
  - The process and experience matters too

- Reconciling the right and the good
  - Both individual rights and overall welfare

- Reconciling the local and the global
  - Both my community and the world I live in

Practical thoughts

- A good job and a good life
- Income, wealth and consumption choice
- Security and resilience
- Family, friends and community
- Health and well-being
- Autonomy, knowledge and self-expression
- Personal and social identity
“Our vision of America’s future is one where prosperity is built by skilled, productive workers and sound investments that will spread opportunity at home and allow this nation to lead the world in the technologies, innovation, and discoveries that will shape the 21st century. Innovation will create new jobs and catalyze broadly shared economic growth. The lives of every American will improve as innovations diffuse and scale throughout the economy, leading to breakthroughs in health, education, energy, transportation, information, and much more.

Despite American economy’s historic strength, our economic growth has rested for too long on an unstable foundation. Explosive growth in one sector of the economy has provided a short term boost while masking long-term weaknesses. While our economy remains the most dynamic, innovative, and resilient in the world, we cannot rest on our laurels while other countries catch up. We must redouble our efforts to give our world-leading innovators every chance to succeed. For this purpose, government has a key role to play. A modern, practical approach recognizes both the need for government to lay the foundations for innovation and the hazards of overzealous government intervention.”
Developed nations do not differ greatly in the challenges they nominate as critical to their innovation efforts.

The Challenges for EU Innovation Policy

- Changing Demographics (Ageing Population)
- Climate Change (Sustainability)
- Social Exclusion (Future of Young)
- Future Technologies (Possibilities and Risks)
- Sustainable Cities (Urbanisation)

Source: Business Panel on future EU Innovation Policy
Where might Australia’s innovation challenges lie?

- **Globalisation and a changing economy**
  - The emergence of Asia, particularly China and India, as global economic powers
  - Increasing economic integration, with global supply networks and mobility of people, ideas and investments
  - Increasing role of knowledge and services as driver of productivity and jobs outcomes (and inequality and exclusion)

- **Changing demographics**
  - Ageing populations in a number of countries, with associated demands on pensions, health and caring; and opportunities
  - Increasing urbanisation and related challenges such as congestion, infrastructure and service pressures
  - Changing social preferences (more progressive, greener, healthier, local quality of life)

- **Sustainability pressures**
  - Climate change and its consequences for attitudes, industries and extreme events
  - Resource stresses, driving higher prices, new technologies and resource productivity
  - Complex systems and uncertainty recognised but not addressed in coherent manner

- **Rapid change**
  - Transformative impact of online and web 2.0 forces reshaping how we work, live, play and connect
  - New ethical challenges associated with technology – biotechnology, nanotechnology, ubiquitous internet, cognitive.
  - Co-production and open and distributed innovation are re-making how problems are solved and value created.

**Innovation**

**Prosperity**

**Liveability**

**Sustainability**

**Opportunity**

**Stewardship**
We have a multi-speed, not two-speed, economy ...

The sectors making different contributions to growth, creating a multi-speed economy

Compound annual growth rate of Victoria’s gross value added 2004/05 - 2008/09

Share of Victoria’s gross value added, 2008-09
... with implications for how we do innovation policy

The multi-scale economy

In a multi-scale economy, firms compete on a combination of local, national and international scale. The conditions that promote competitiveness differ significantly from sector to sector. Sectors with high tradability must rely on value-added (and differentiation) to compete; local sectors require both low-cost and value-added.

International sectors

Success in international sectors require achieving world-class productivity levels. This requires differentiation based on either endowment (e.g., land, minerals), advanced capabilities (e.g., production technology, services or trading platforms) or brand (e.g., quality of life, natural beauty).

National sectors

Success in national sectors (such as much of financial services, telecommunications and defence) requires nation leading positions. Given Australia’s small market size, there is a tendency for these sectors to specialise in one location.

Local sectors

Success in distributed sectors (such as retail, wholesale, utilities, construction) require policies to ensure or replicate competitive pressures in the absence of external pressure. Regulatory reform, flexible markets and best practice diffusion are critical to world-class productivity levels in these areas.

Regional specialisation matters

• A greater degree of specialization creates higher levels of wealth, higher incomes and increases the range of goods and services available to consumers – Ken Henry
• Region’s specialize in different sets of clusters, the strength of which determine competitiveness – Michael E. Porter
• Firms located in clusters are more likely to be innovative, pay higher wages and achieve greater productivity – Michael E. Porter

Large countries need regional policy

• Decentralisation of economic policy is especially important in larger countries to foster regional specialization, internal competition, and local accountability – Michael E. Porter
• The six most competitive economies in the world (Switzerland, Sweden, Finland, Denmark, Luxembourg and Singapore) all have small populations – World Economic Forum
• Australia’s large land mass and small size make it hard for Canberra to coordinate innovation policy partnerships across-the-board – OECD Innovation Strategy, Australian consultations
Firm-level differences appear to be associated with management

Source: Management Matters, p.37 – Roy Green’s work, based on LSE-McKinsey cross-country analysis
With Australia again scoring better on efficiency than innovation

Sources: Management Matters, p.20 – Roy Green’s work, based on LSE-McKinsey cross-country analysis
Good process is essential to economic strategy

Successful reforms have two key ingredients …

Planning and preparation
- Significant pre-work needed
- Solid, visible evidence base
- Consistency of purpose
- Electoral mandate powerful

Policy leadership and commitment
- Government leadership key
- Stakeholder engagement
- Shared vision within govt
- Consistent communications

… with good process critical

Why good process makes strategy work:
- Decide which decisions warrant the effort
- Identify the biases that may affect decisions
- Select practices/tools to counter key biases
- Embed practices/tools in formal processes

Be clear about the conversation type:
- Exploring
- Deciding
- Implementing

Sources: OECD (2009), ‘Lessons from structural reform’
We are just starting on a longer journey …

Policy mindsets are changing ... led by economists

- The challenge of developing people’s potential has evolved from a self-reliance perspective to a capabilities one.
- Infrastructure, service, resource and innovation systems are evolving from markets to complex systems perspectives.

Capabilities

- Systems

- The aim of policy is evolving as wealthier, more educated societies lead the march from growth perspective to a well-being one.

Well-Being

... but the next phase of change may be harder

- Real ethics: Utilitarian v rights
- Grounded cosmopolitan: Localism v globalism
- Design thinking: Analytical v intuitive
We need to reconnect policy with purpose …

<table>
<thead>
<tr>
<th>VALUES</th>
<th>Policy themes, linked to citizens</th>
<th>Protection / safety / fairness</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISSUES</td>
<td>Policy areas, linked to priority themes</td>
<td>Law and order / justice policy</td>
</tr>
<tr>
<td>POLICIES</td>
<td>Specific policies, linked to policy areas</td>
<td>Sentencing reform / more police</td>
</tr>
</tbody>
</table>

Citizens, the PM/Premier, Ministers, Departmental Secretaries and policy officers have focus at different points of the V-I-P chain.
Five messages

1. Innovation policy must be preceded by a question: to what end?
   - We have few structured debates in Australia about public values

2. Australia’s geography has some challenging implications for policy
   - State Governments need to play the greater role in innovation policy

3. What generated Australia’s prosperity is not what will extend it
   - We built prosperity on efficiency, but must extend it on innovation

4. Australia has the potential to lead on innovation policy
   - We’re prosperous, loaded up and have a receptive population

5. Innovation policy needs to be considered and transparent
   - We need to see innovation policy as a process and discipline