

Productivity growth: What are the big issues?

Comments on the Productivity Commission's  
'5-year Productivity Inquiry'

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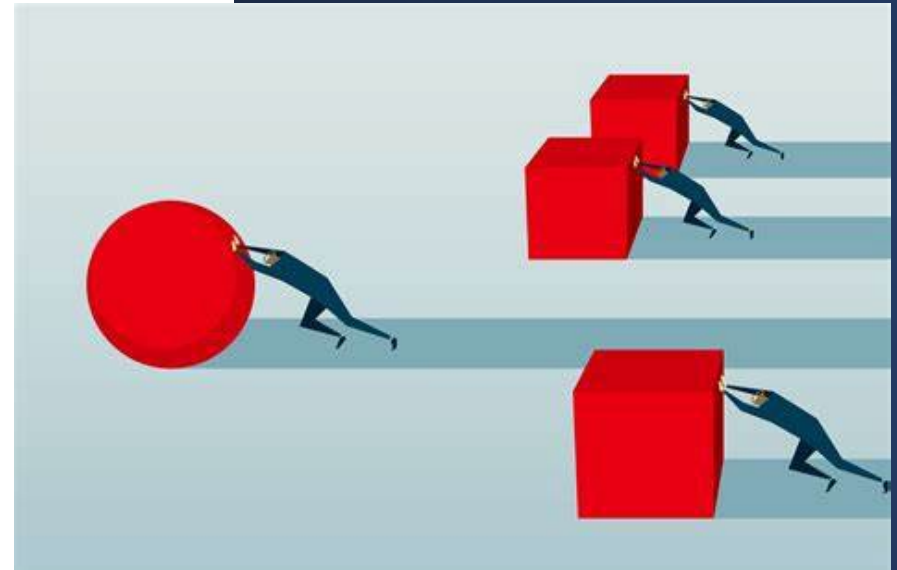
# Much to like about the recommendations

- Eliminate nuisance systems/rules/duplications
- Sophisticated discussion
- Some quibbles
  - Chronic shortage occupations paying low wages → market not working
  - Pumping supply from immigration not LT solution
  - Barriers to occupational training esp. trades



# Productivity improvement

- Working smarter not harder
- Knowledge, institutions and systems driven
- Agility important



# Big long-term issues facing Australia

- Decline of coal exports
- Iron ore? China sourcing other supplies (incl recycling)
- Political shifts
- Growth of global value chains, esp. components
- Innovation – complex & sophisticated
- Distance



# Innovation = change + ideas

**New-to-the-firm innovation (the 98%)**

Why?

- Don't know behind the frontier
- Know behind, but don't know how to make the step-change
- Know behind, know how to change, don't have owners' imprimatur



# Good ideas...

Partnering with industry associations etc

Government agencies to support benchmarking

Trialling government-funded extension services

Accept product standards adopted in leading economies

Accelerate diffusion of cluster expertise

Eliminate practices not underpinned by adequate evidence



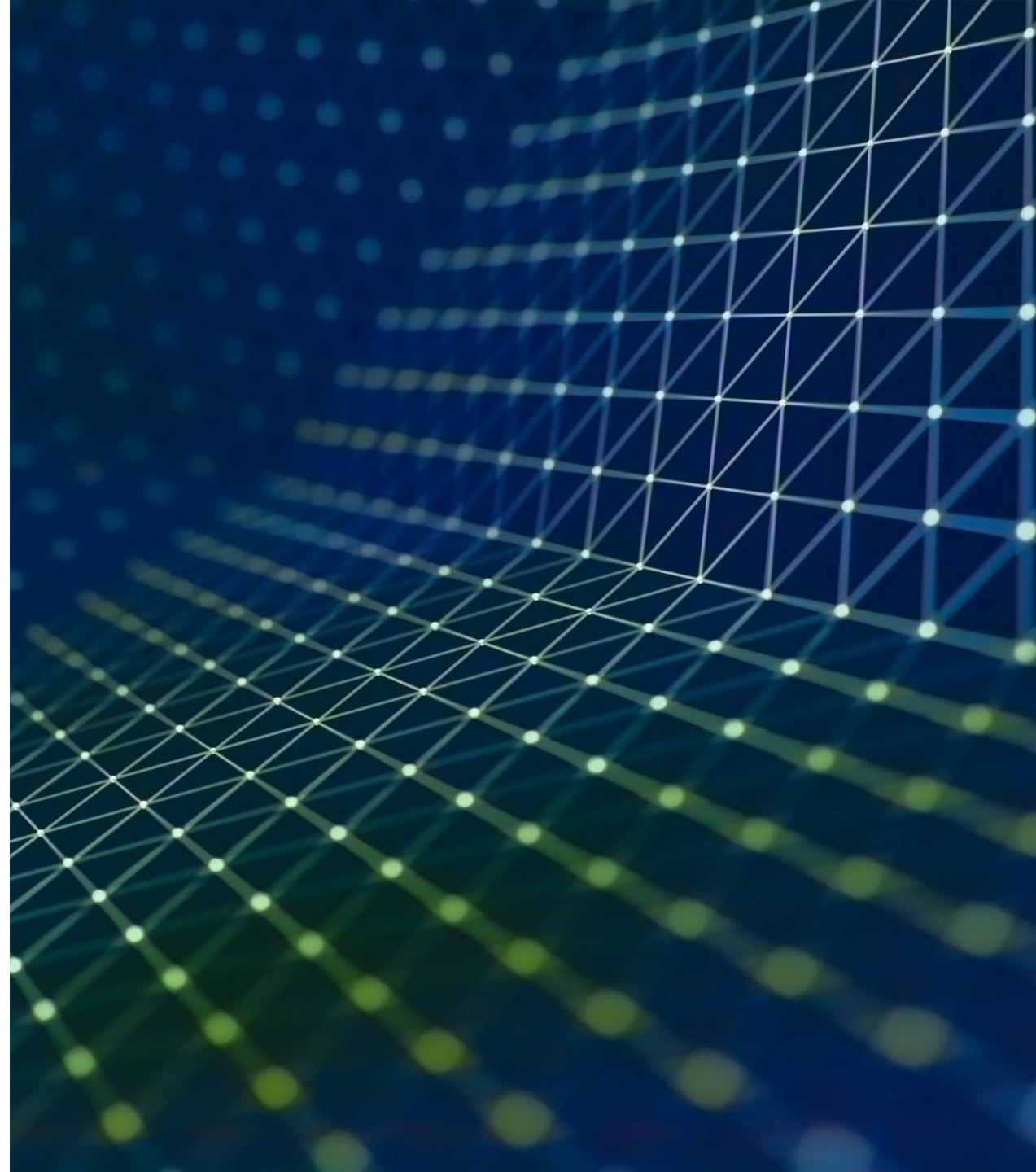
# Programs to benchmark & learn since 1980s...

Enterprise connect; Entrepreneurs program; ASEA; C21;  
RDCs; export & R&D programs...

Stuck at pilot status (100s firms per year cf. 500,000 firms in  
Australia)

Evaluations positive (e.g. Palangkaraya 2008; Bruno 2019;  
Thomson 2021; Kollmann et al 2019; Tuhin 2016; Alston et  
al 2000)

**Not scaled-up, constant flux**



## Other programs not objectively evaluated (i.e. effect on firm performance)

- Growth Centres
- CRCs (but note Kollmann et al 2022)
- ARC Linkage projects
- Medical Research Future Fund





# Innovation = change + ideas

## New-to-the-world innovation

- No longer : idea → IP → prototype → commercialise → profits
- Now:
  - Many parties – spread risk, specialised skills
  - Multiple forms of protection
  - Complex contracts
  - Global markets
  - Market risk > technology risk



# USA: WWII mission-based govt spending

- Reinforced existing tech clusters, powered take-off
  - Radar & communications
  - Jet propulsion
  - Optics
  - Chemistry-pharma
- Long-lasting effects on geog of tech agglomerations (>20 years)

(Gross & Sampat 2020)



# 1970s → more mission-based funding

- SBIR, DARPA, ARPANet, DOD, DOE
- 1970s: ~100% top 100 innovations from one business
- 2000s: > 66% top 100 innovations from business and public research collaboration

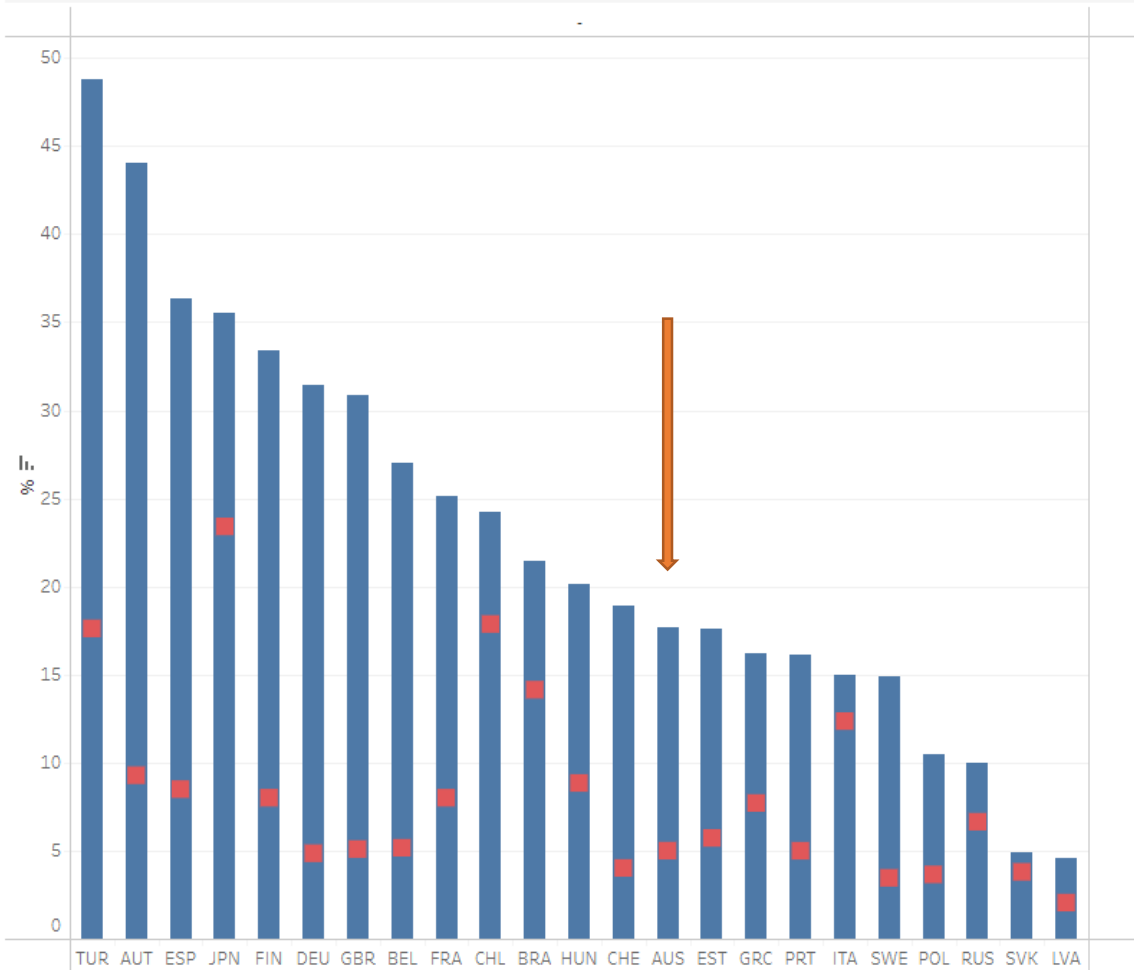
(*R&D Magazine* cited in Atkinson 2018)



**Firms receiving government funding for innovation (including R&D and excluding contracts for goods and services), 2016-2018**

As a percentage of product or business process innovation-active firms within each group

■ Non-R&D active  
■ R&D active



Source: OECD, based on the 2021 OECD survey of Business Innovation Statistics and the Eurostat's Community Innovation Survey (CIS-2018), <https://www.oecd.org/sti/inno-stats.htm>, April 2022



# What can be done?

- Realign risk-reward trade-off for financiers
  - > rent taxes (capital gains & super profits)
  - Norwegian 50% super profits tax
  - end tax deduction that favours debt over equity
  - reduce reward for real estate development
- Best and brightest go to developing new industries (not tax accountants and lobbyists)
- Develop experts who take ideas from proof-of-concept to commercial sale (e.g. Grey Innovation)



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# In sum

- Possible decline of some of its major exports
- Need to scale-up best-practice ideas for raising performance of the 98%
- Need to be smarter
  - objectively evaluate what works
  - scaling up successful programs
  - bipartisan political and bipartisan industry support
- Continuity of programs essential



**SPECIFIC**  
**MEASURABLE**  
**ATTAINABLE**  
**RELEVANT**  
**TIME-BASED**





All-in-all:  
Great piece of  
work

Far reaching

Well researched

Well argued