Implementing experimental governance: Implications for the evaluation of industrial policy and for maximising learning from industrial practice

Briefing on work-in-progress

Presentation to the OECD Expert Group on the Evaluation of Industrial Policy
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Background to this work

- Confluence of three strands of exploratory work relating to risk issues:
  - attempts to reduce the costs and times required for evaluation and reviews of government spending by learning from the use of structured hypothesis testing in the US intelligence community (an inherently risk-based perspective)
  - tensions created by the (risk-averse) manner in which output-outcome budgeting has been applied in the public sector given governments' role as uncertainty and risk manager of last resort
  - (for myself) an interest in the investment risk management dimension of private sector and defence sector innovation and what this means for government science and innovation policy (and also the lessons for implementing experimental governance)
- Putting together a powerful international team to deliver aspects of this work: Geoff White and myself have just been joined by Ed DeSeve (a major figure in US public management who oversaw the implementation of the American Recovery and Reinvestment act for President Obama)

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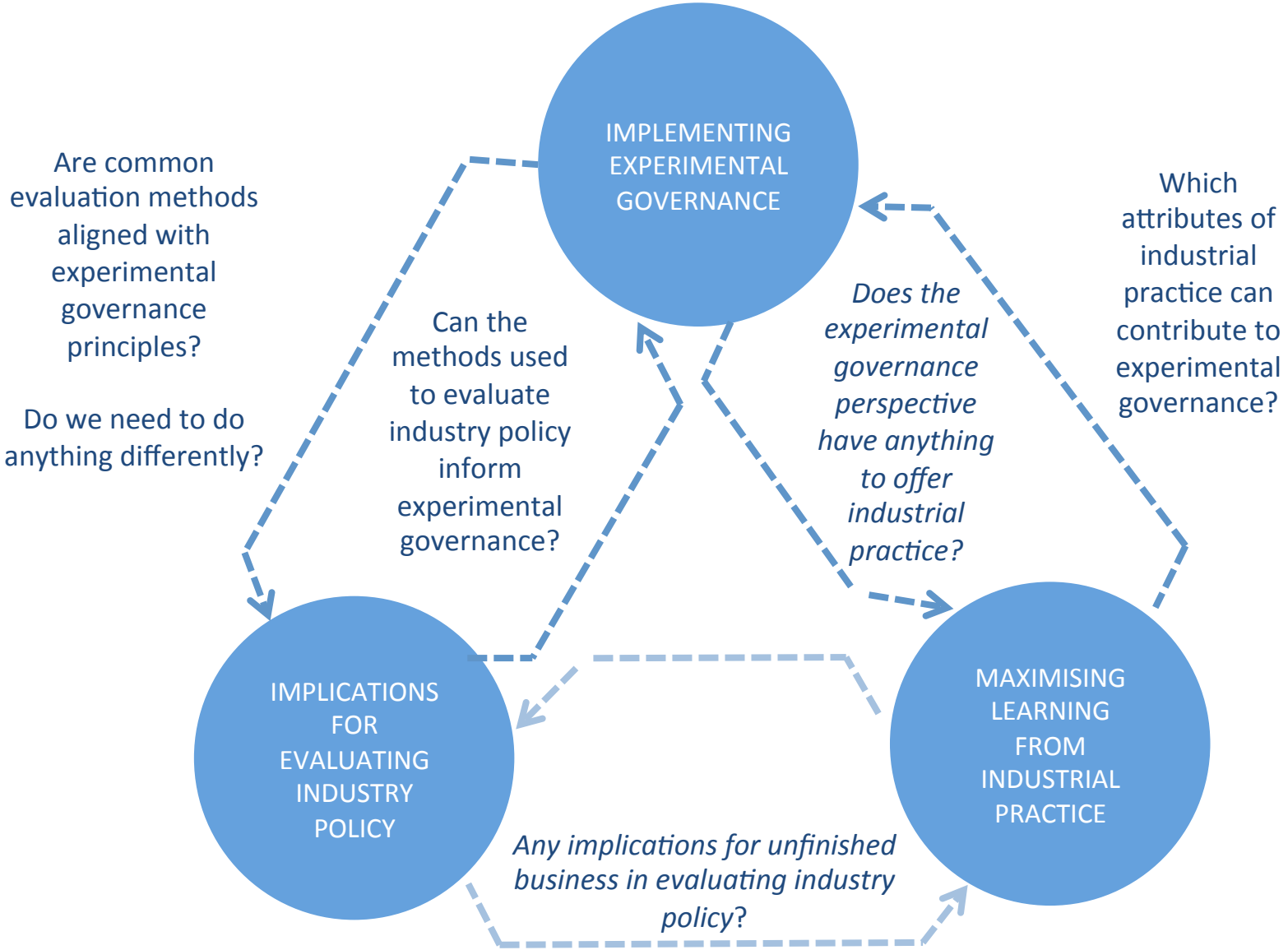

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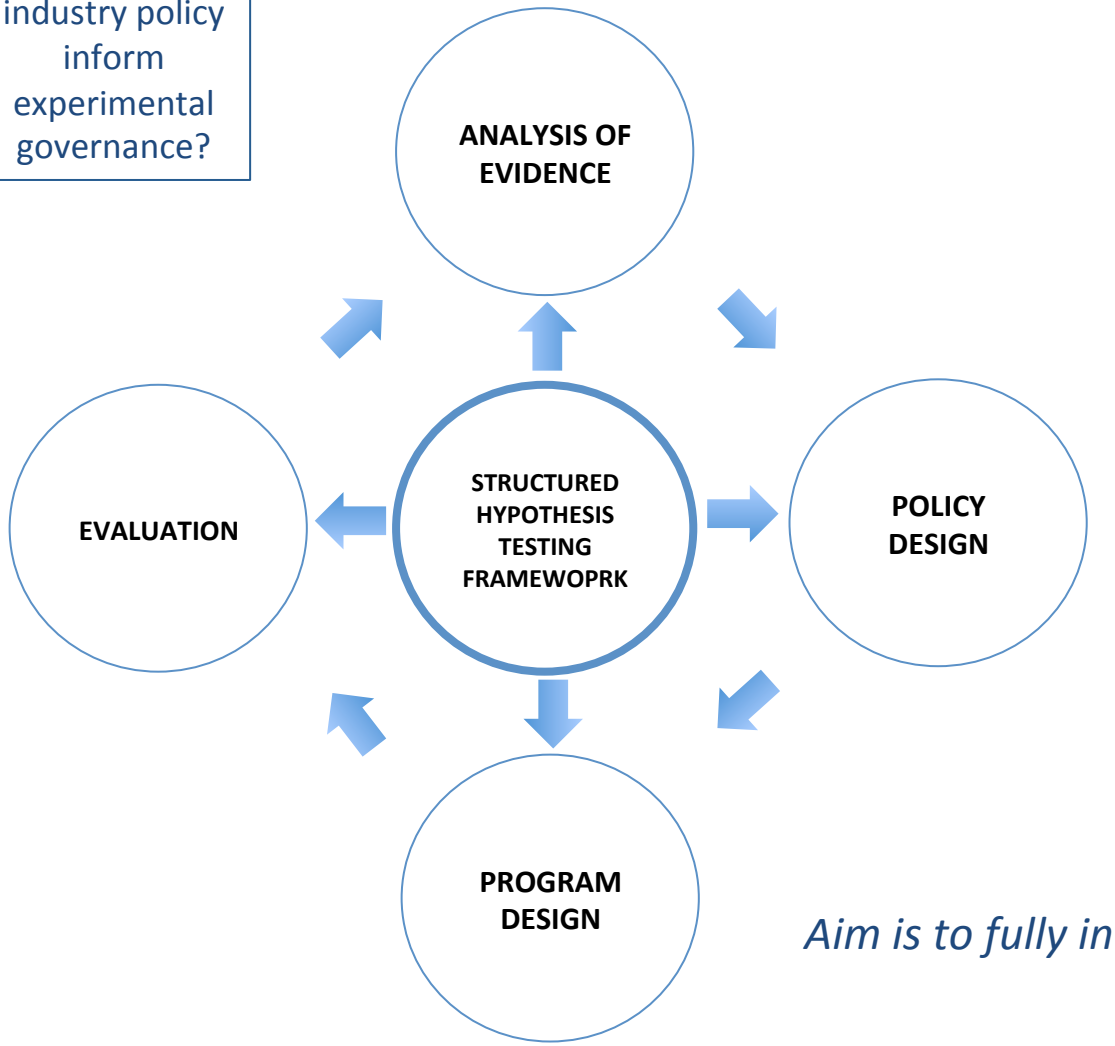
Can the methods used to evaluate industry policy inform experimental governance?

Exploring the comprehensive use of structured hypothesis testing



Particularly interested in designing and testing better ways of managing risk management via the use of structured hypothesis testing.

Reducing the risks of

- **misdiagnosis of causes of problems**
- **negative unintended consequences**
- **wasted spending due to low efficacy**

Aim is to fully integrate evaluation into wider governance functions

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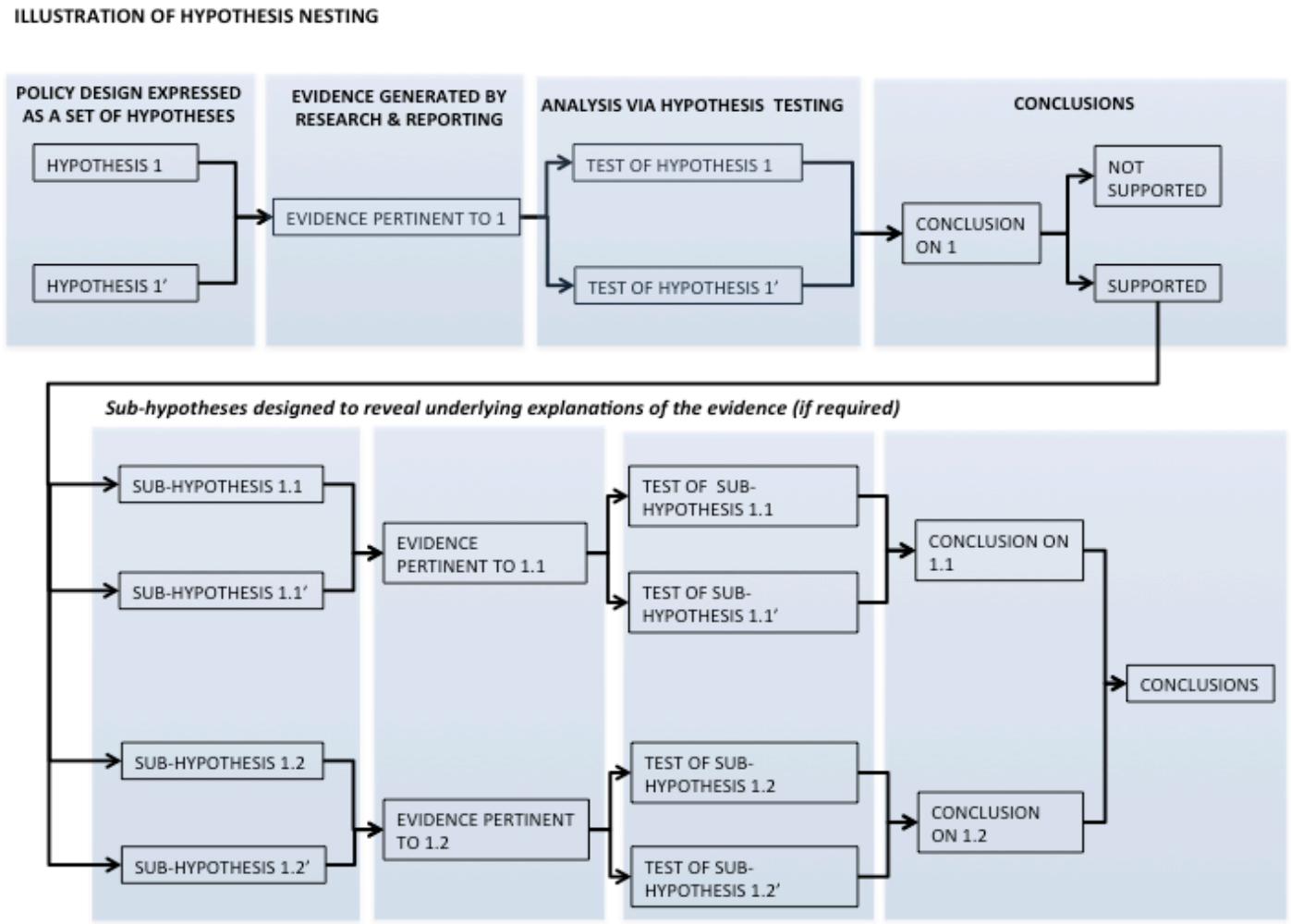
Can the methods used to evaluate industry policy inform experimental governance?

Diagnostic nesting of hypotheses



Currently being trialed by the Productivity Commission in Australia (review of business regulation)

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Invented (partial) illustration (real pilot findings are confidential)

	Propositions	Evidence	Conclusion (based on balance of probabilities)	Observations
1.	The Institute developed and demonstrated *world-class* research capacity in public policy	• The research impact (as reflected in global citations) is very high by world standards • The proportion of Institute publications with an author from the rest of the world increased to 56% from 23% over the observation period • More than half of Institute publications with an overseas author also involve authors from the USA and/or Europe – linking them to international networks	**Proposition supported**	No further evidence required
2.	The Institute attracted increased funding from Federal and State governments, the business sector and from overseas (demonstrating its increased global standing)	• The Institute attracted levels of Federal and State funding ($23M and $3M respectively) that compares well with benchmark institutes • The share of its income represented by competitive research grants had increased to over 63% by 2012 – a 12% above benchmark institutes • The levels of business funding – and as a proportion of total income – were higher than benchmark institutes	**Proposition supported** with regard to domestic sources of funding **but no evidence as yet on overseas funding**	No further evidence required with regard to domestic sources of funding. Clarification required on definition of business income for KPI purposes Evidence required on overseas funding
3.	The Institute reached full capacity and met its targets in terms of employment and PhDs	• The target level of employment was achieved 3 years early and it has continued to operate well above that level since then • The Institute produces more PhDs and honours students than benchmark institutes even when controlled for differences in institute incomes	**Proposition supported**	No further evidence required
4.	The PhD outputs from the Institute provided research and technical skills in public policy for Australia with associated long-term national benefits	• 78% of the PhDs in stayed in Australia and 19% went overseas • 63% gained employment in the public sector	**Proposition supported but no evidence yet on the associated long-term national benefits**	No further evidence required on PhD numbers and destinations Evidence required on associated long-term national benefits

Which attributes of industrial practice can contribute to experimental governance?

Grasping the investment risk dynamics of the innovation process

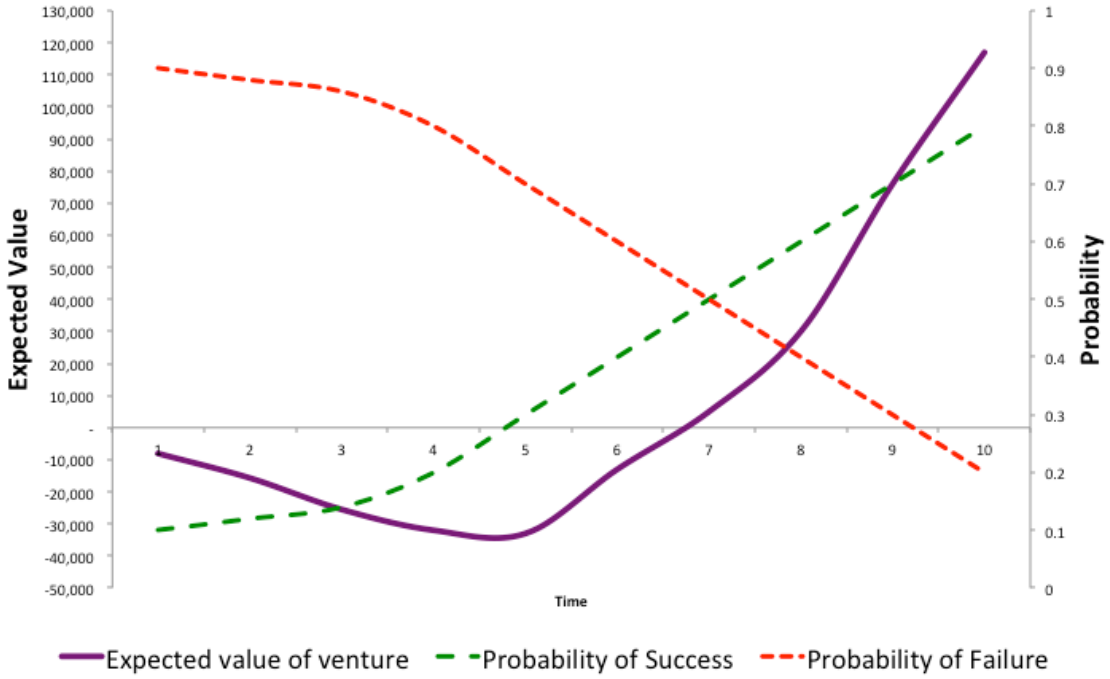
Can be useful for highlighting the importance of a well-define appetite for risk in the public sector and for specifying this appetite for risk in clear terms

$EV = P_S \times NPV_S - P_F \times NPV_F$

Where:

- P_S = Probability of Success
- P_F = Probability of Failure (1- P_S)
- NPV_S = Net Present Value of Success
- NPV_F = Net Present Value of Failure

Interested in improving how we handle the impact on investment risk of government innovation support (e.g. R&D tax concessions/credits etc). ***Can we assess this more directly than at present?***



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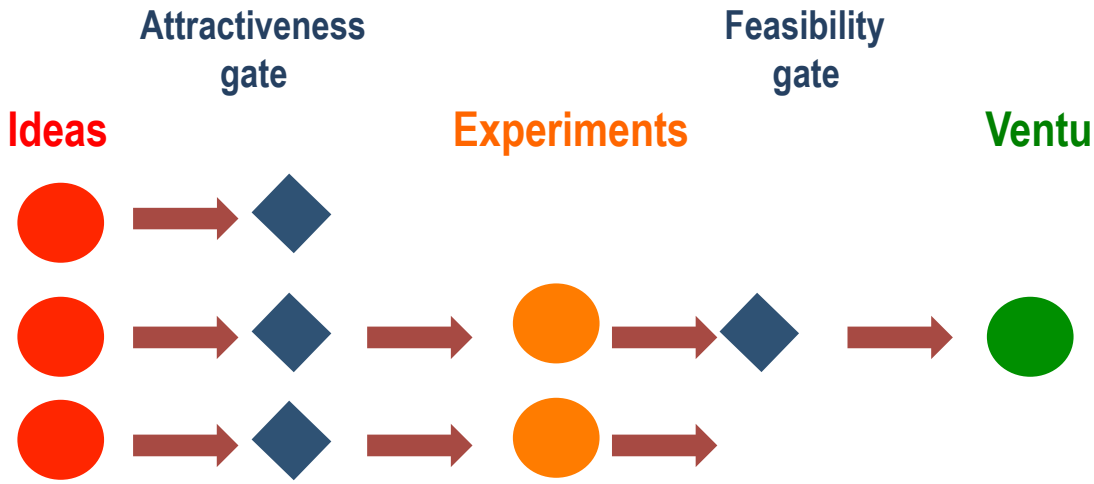
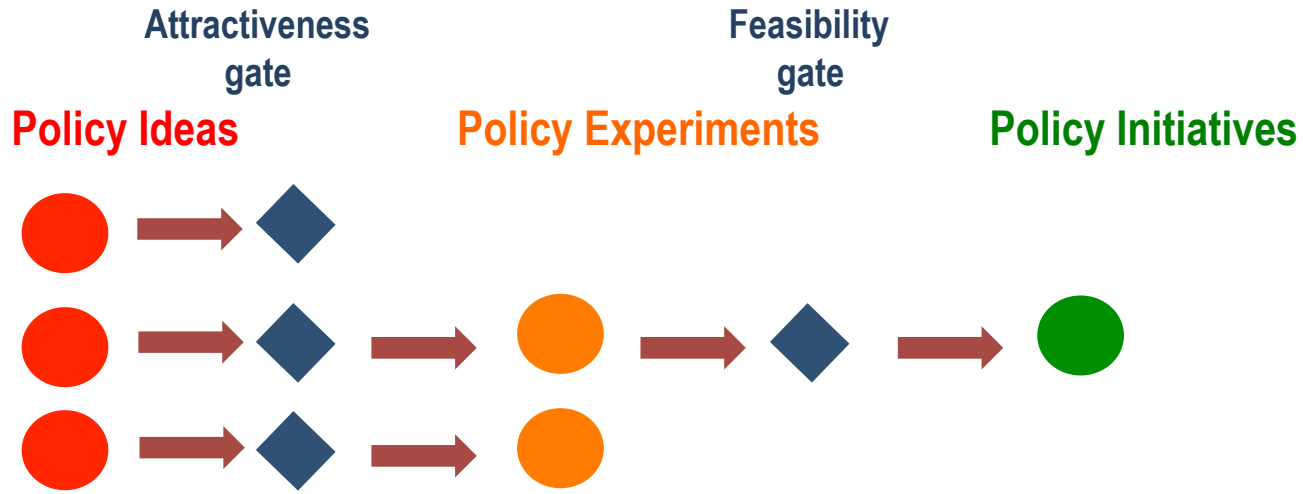
Which attributes of industrial practice can contribute to experimental governance?

Stage-Gate methods can be appropriate



Lesson from the private sector: Govt. officials and ministers need to get more comfortable with the advantages of 'failing early' (and being seen to do so)



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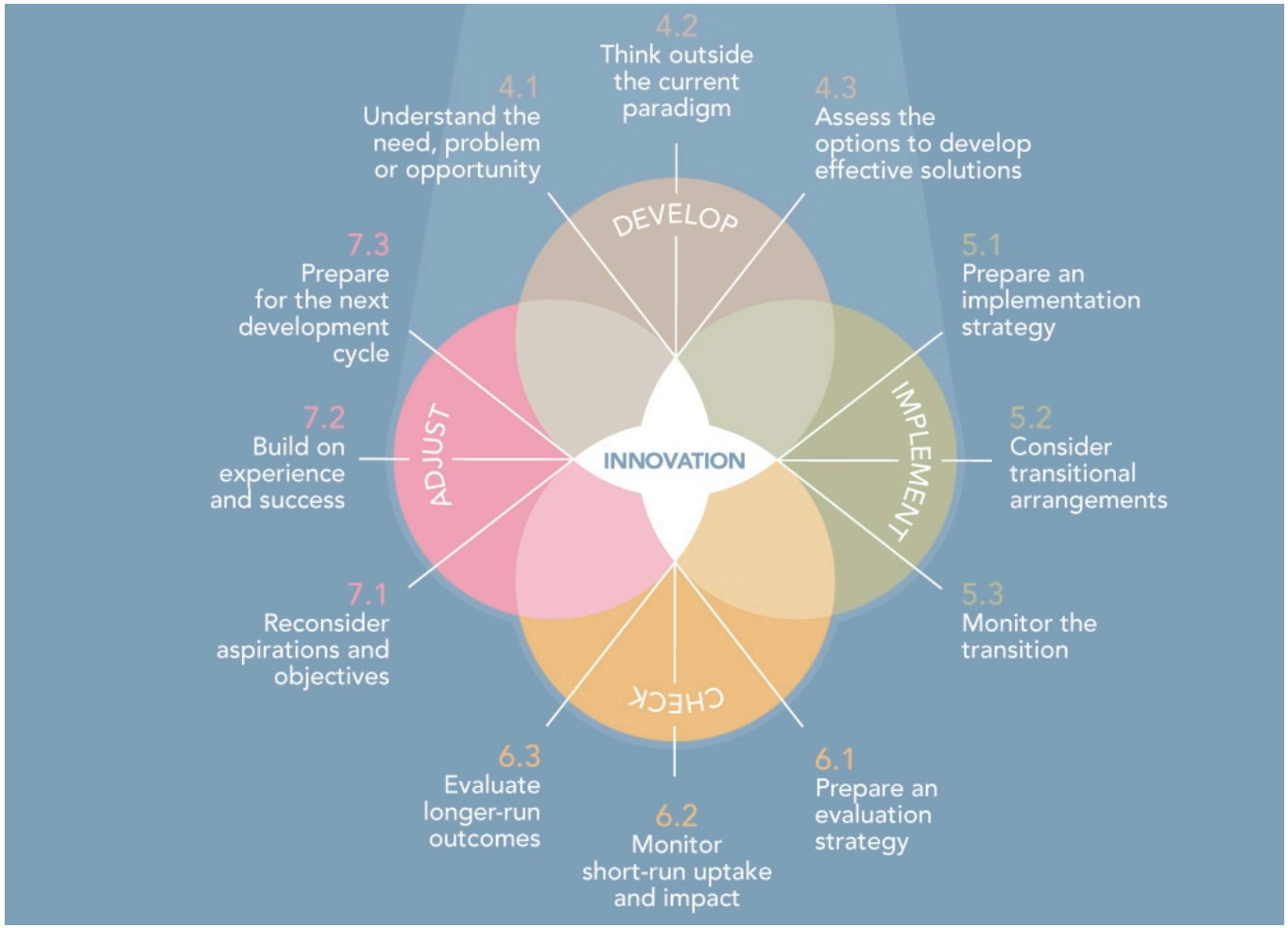
Which attributes of industrial practice can contribute to experimental governance?

Framing public sector innovation using Demming's 'Plan-Do-Check-Adjust' cycle



A decision-making framework developed for the Australian National Audit Office

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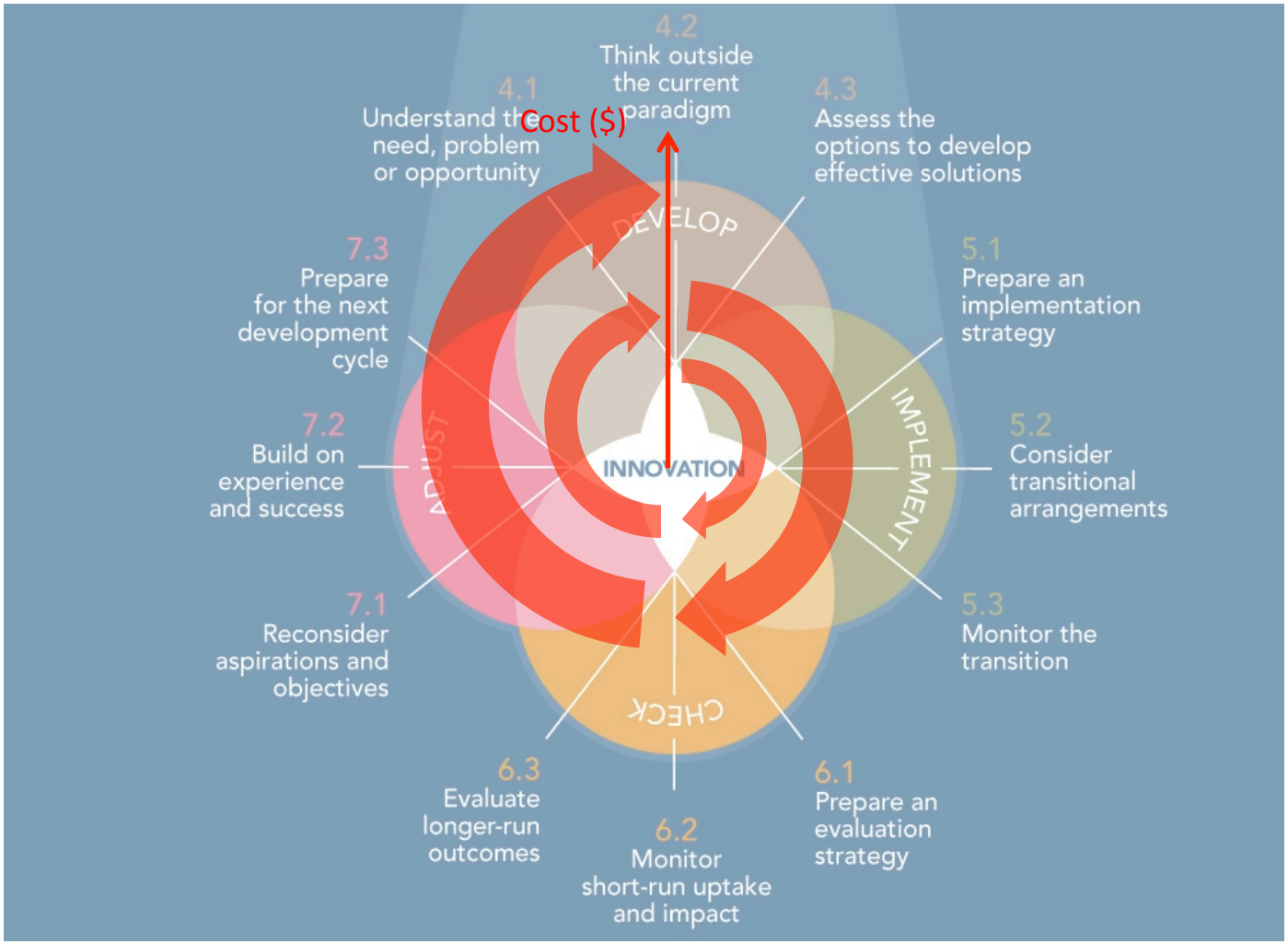
Which attributes of industrial practice can contribute to experimental governance?

Rapid Spiral Development (faster Plan-Do-Check-Adjust)

Evaluation and review are the critical functions in Rapid Spiral Development

BUT, NEED TO BE MUCH FASTER AND CHEAPER TO SUPPORT RAPID SPIRAL DEVELOPMENT



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Those seeking taxpayers' funding tend to stress Public Value creation mainly when seeking funding and after completing/near the end of the project or program

*KPIs are less 'fit for purpose' in this phase: need to focus on the nature and extent of **Public Value** creation (but all too often are still used in contracts)*

*KPIs are 'fit for purpose' in this 'building' phase (no **Public Value** created during this phase)*

Fast and cheap regular monitoring shifting from KPI performance to public value creation as appropriate

$EV = P_S \times NPV_S - P_F \times NPV_F$

Where:

P_S = Probability of Success
P_F = Probability of Failure (1- P_S)
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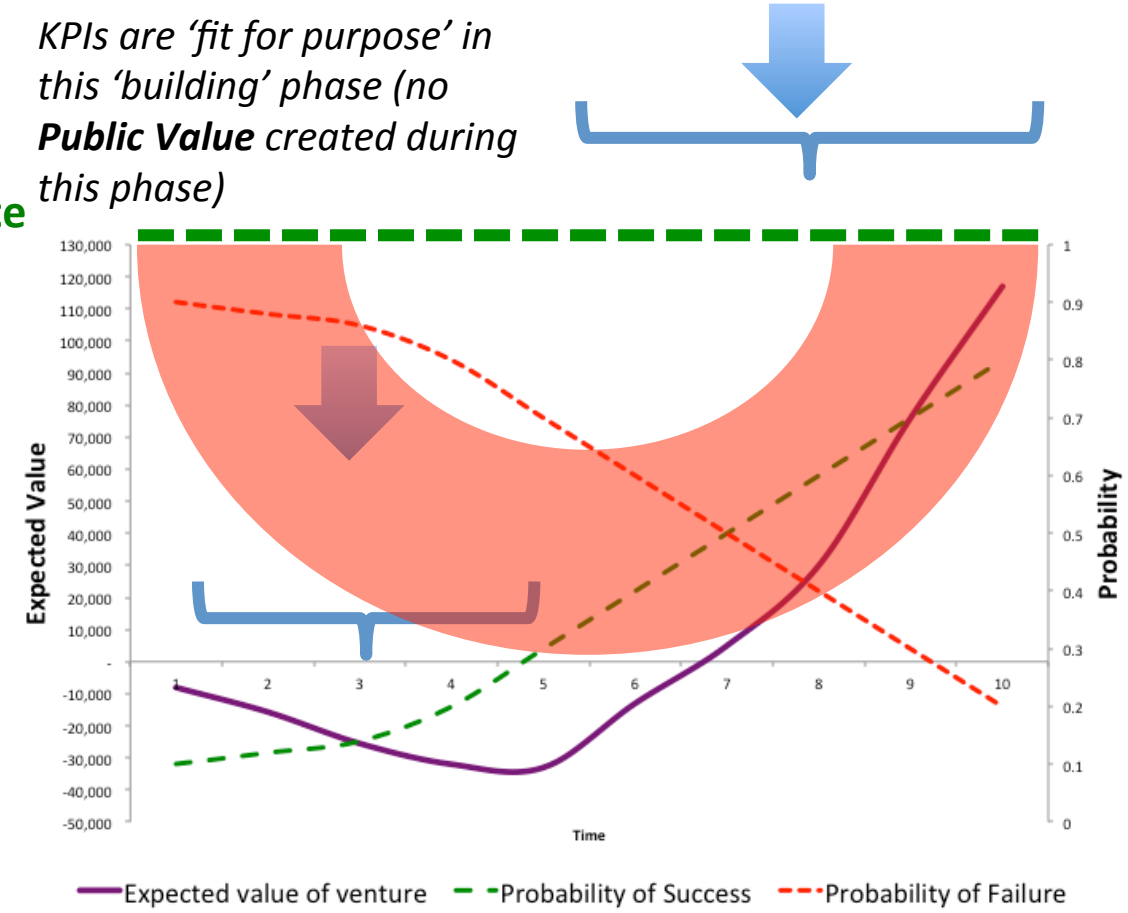
Note: the public value dip during the intervention life cycle is from Paul Harris (2013) *Outcome oriented science policy for the Tasmanian Government*



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Final remarks on the evaluation dimension

- A template approach based on structured hypothesis testing could be used to complement existing established methods – as a cheap continuous monitoring mechanism/'early warning' approach
  - An 'instrument panel' function: would indicate whether or not any problems are evident. Full evaluation and review efforts would be needed to diagnose root causes of any problems identified by this monitoring function
  - Could create the potential to make cost savings by triggering full evaluation and review functions *only when indicated*. If a program or project is meeting expectations (or evolved expectations in a developmental context) then the template-based monitoring function may be sufficient to demonstrate performance and accountability
  - Substantive evaluation and review activities would only be required when there are more major/significant issues to resolve and opportunities to learn from experience (*that's also when diagnostic hypothesis nesting could kick in*)

END