

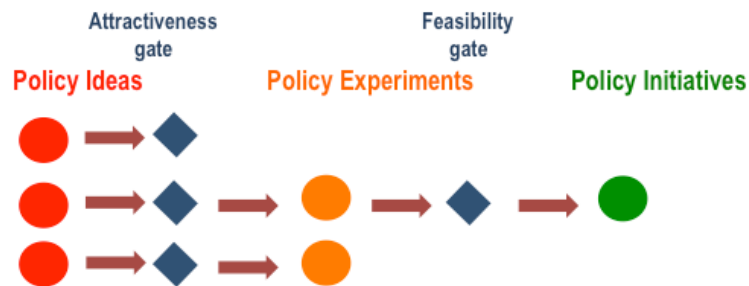
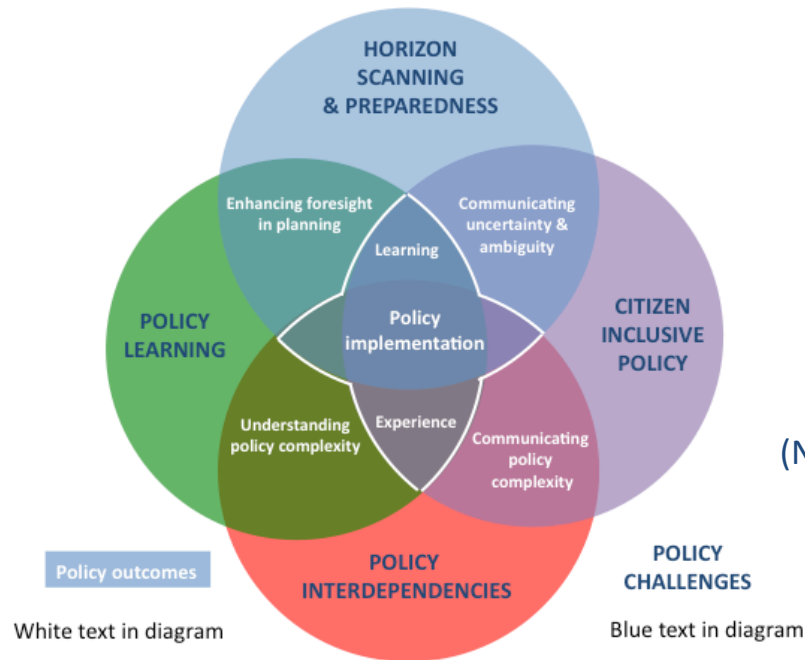
Counter balancing evidence-based policymaking with intelligence-based policymaking

Talk given to the Masters of Public Policy students at the Blavatnik School
of Government
University of Oxford

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

Where:

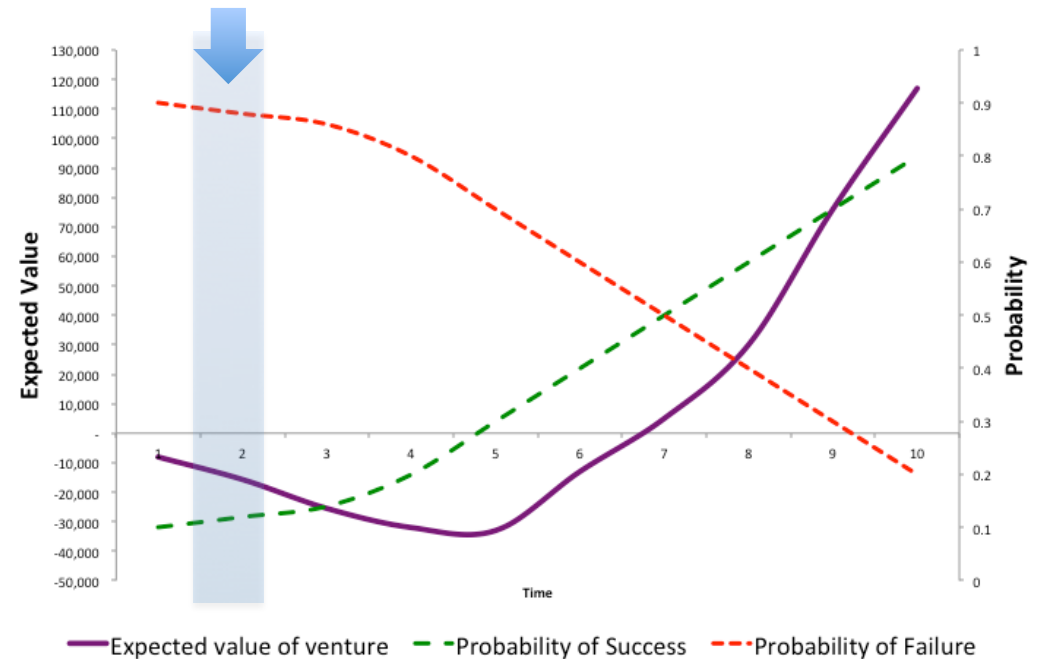
P_S = Probability of Success

P_F = Probability of Failure ($1 - P_S$)

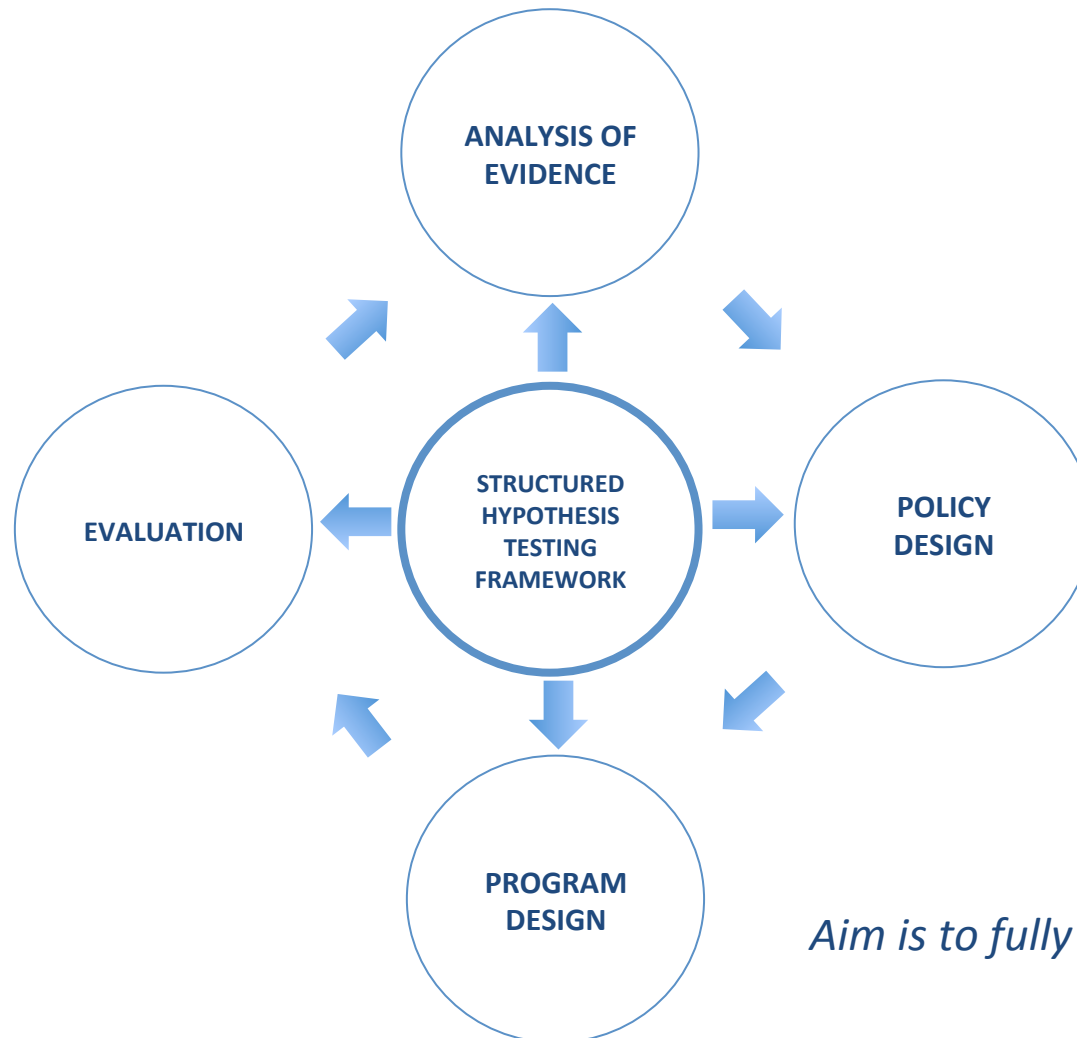
NPV_S = Net Present Value of Success

NPV_F = Net Present Value of Failure

TODAY'S FOCUS
(NEW EXPERIMENTS IN PROGRESS)



Over the last year or so we have been exploring the comprehensive use of structured hypothesis testing as a core tool for more efficient and effective government



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

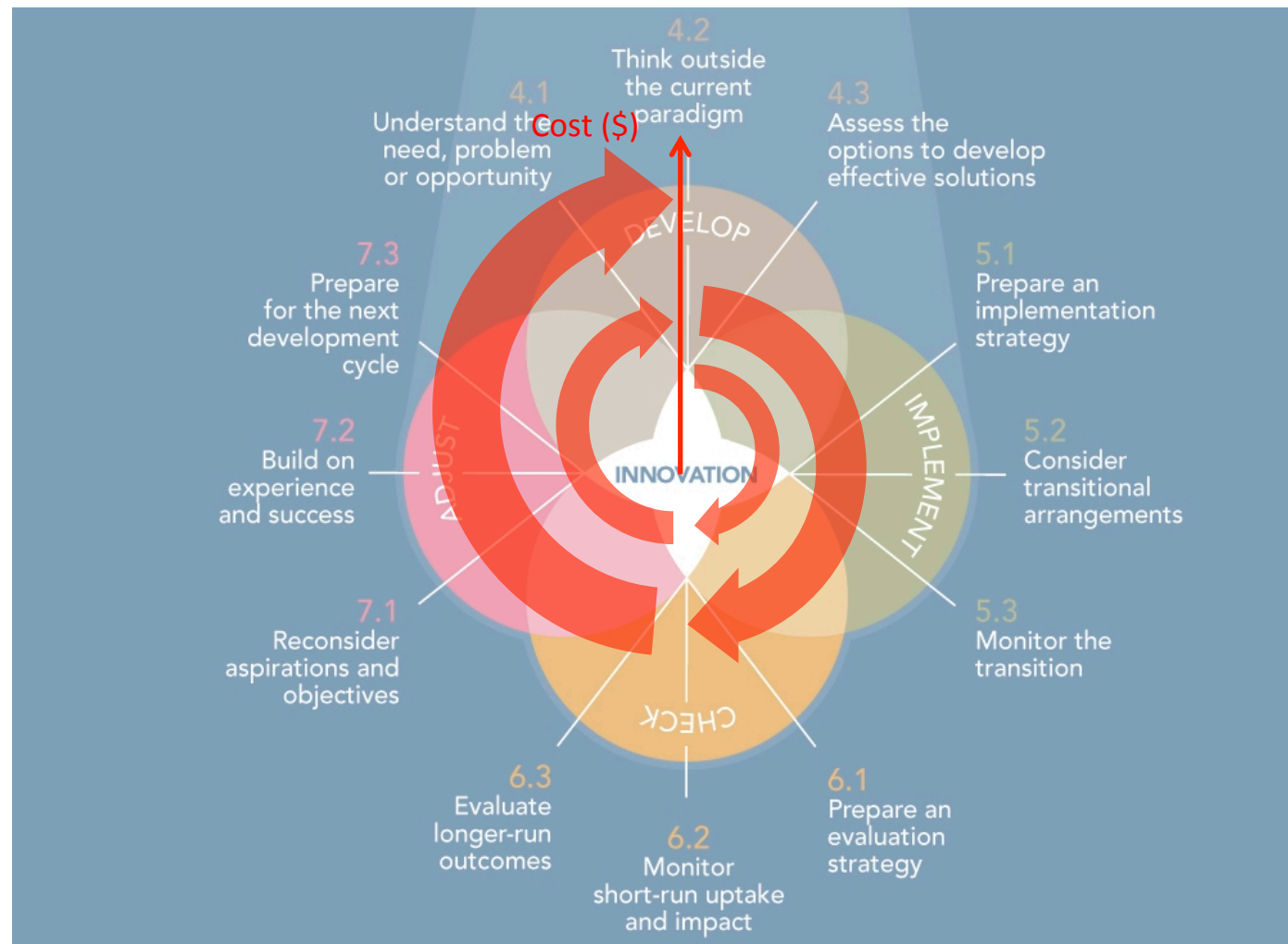
Aim is to fully integrate evaluation into wider governance functions

Which attributes of industrial practice can contribute to experimental governance?

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

Evaluation and review are the critical functions in Rapid Spiral Development

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



PROBLEMS

PUBLIC SECTOR
PRODUCTIVITY

RISK AVERSION
& SPURIOUS
PRECISION IN
GOVERNMENT

DRAWBACKS TO
COMMAND AND
CONTROL

CHALLENGES IN SOLVING PROBLEMS

SUBJECTIVITY,
OBJECTIVITY &
CREATIVITY

“EVIDENCE
BASED”
POLICYMAKING

THE DOUBLE
HERMENEUTIC &
“OPEN
GOVERNMENT”

POTENTIAL SOLUTIONS

GOVT. AS
UNCERTAINTY &
RISK MANGER
OF LAST RESORT

EXPERIMENATAL
& DISTRIBUTED
GOVERNANCE

INTELLIGENCE
ANALYSIS
METHODS

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Evidence based policy making & real policy decision-making



Image © Mark Matthews

We can only observe the valley we are in (evidence). We must conjecture about what lies in the next (unobserved) valley based on accumulated pattern recognition experience: previous conjectures tested by learning-by-doing

This can take many academics out of their comfort zone (detailed scrutiny of parts of the valley of evidence they are in)

As uncertainty and risk managers of last resort, governments have responsibility for speculating about what the hidden valley may look like (on the basis of pattern recognition)

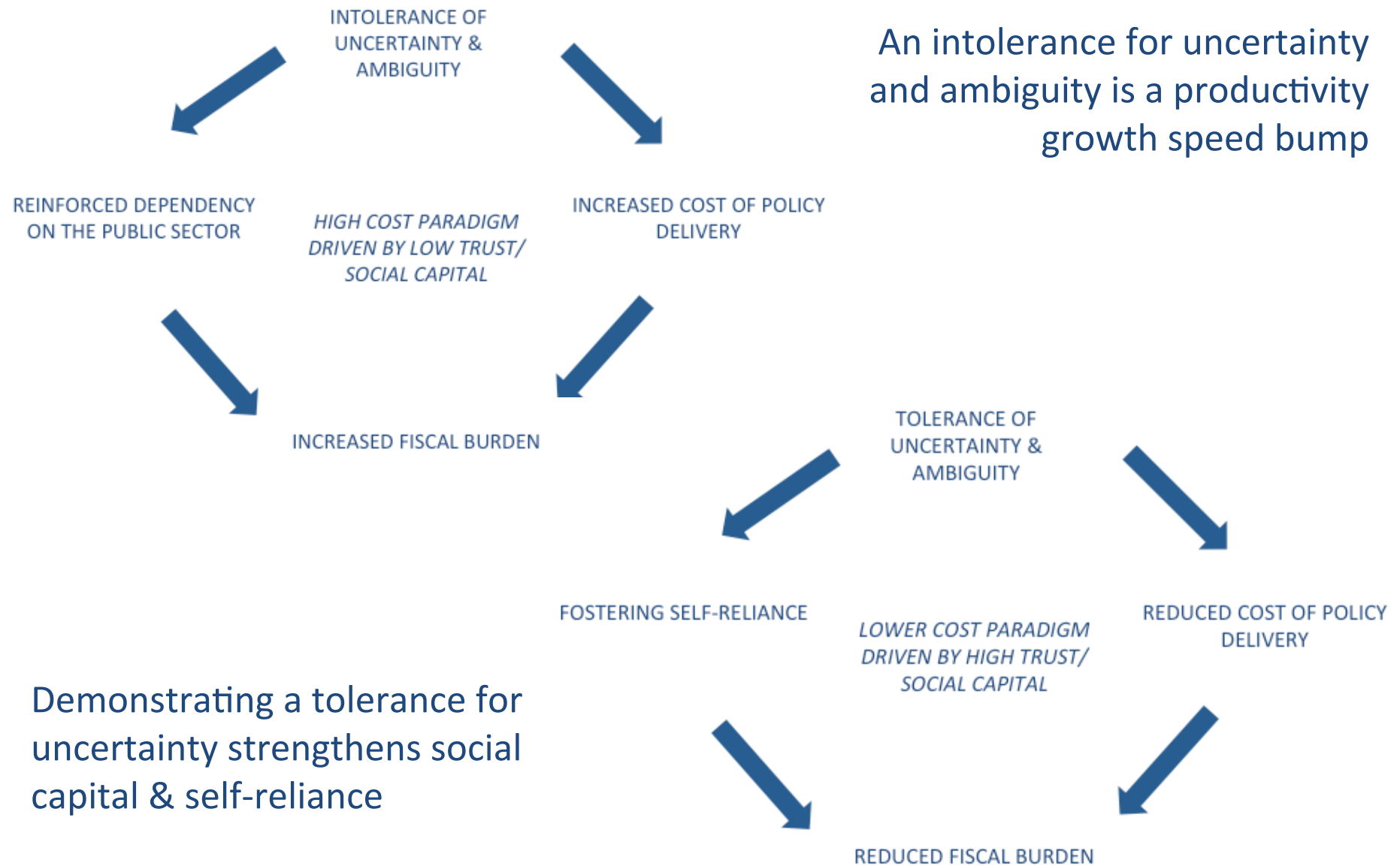
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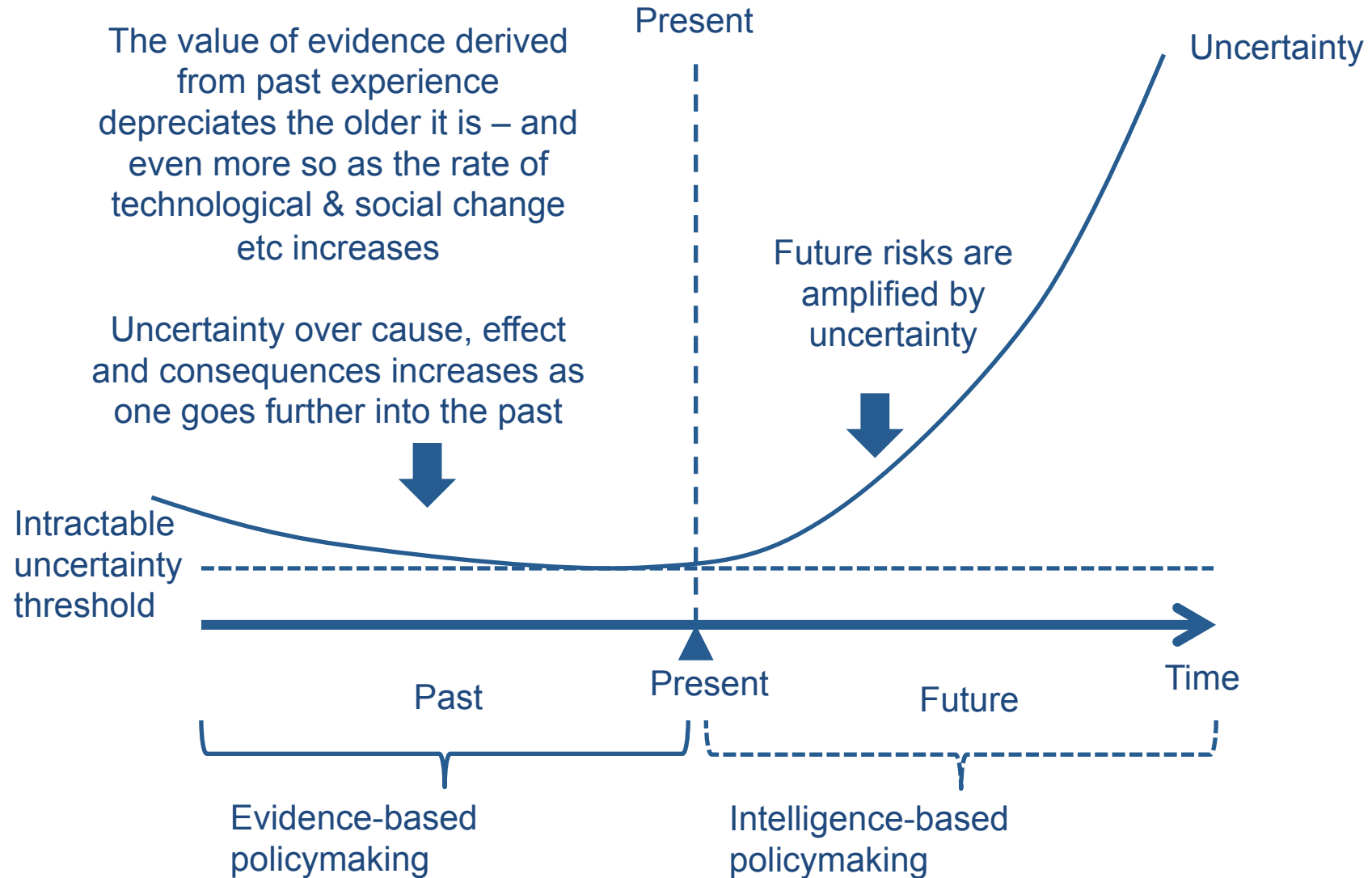
Crawford School of Public Policy

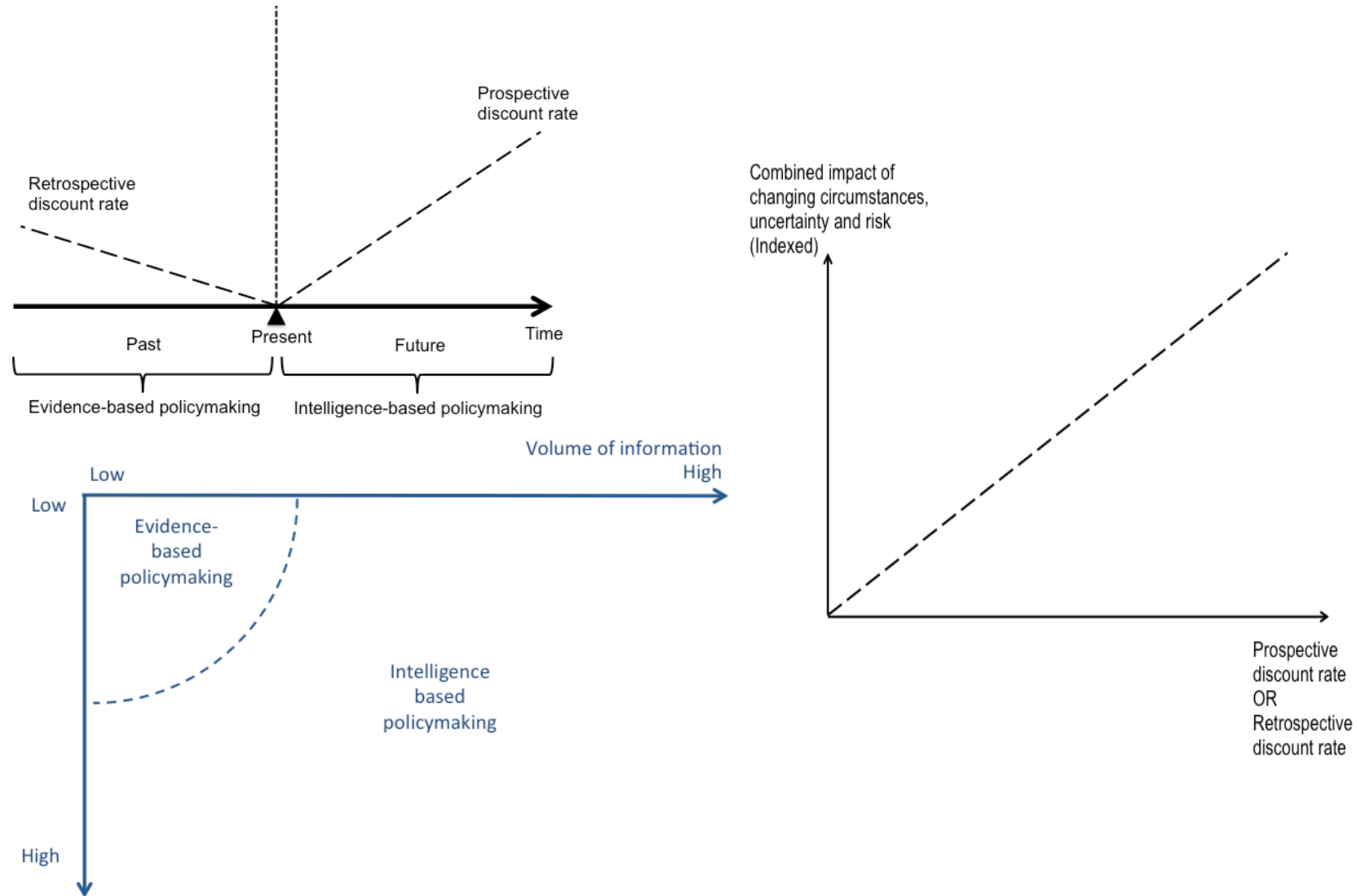
Australian National University

An intolerance for uncertainty and ambiguity is a productivity growth speed bump



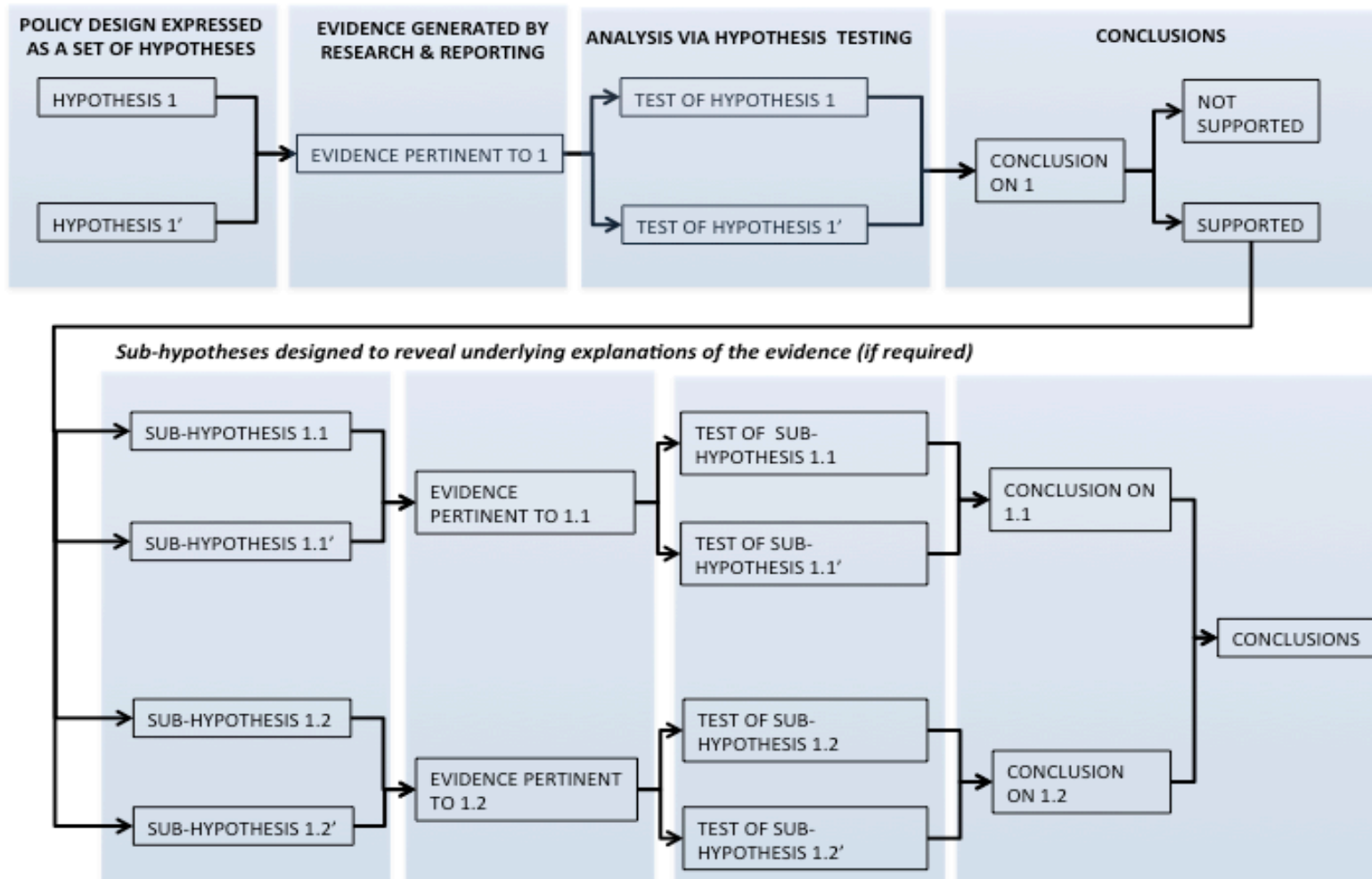
Demonstrating a tolerance for uncertainty strengthens social capital & self-reliance





Diagnostic nesting of hypotheses

ILLUSTRATION OF HYPOTHESIS NESTING



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

	Propositions	Evidence	Conclusion (based on balance of probabilities)	Observations
1.	The Institute developed and demonstrated <i>world-class</i> research capacity in public policy	<ul style="list-style-type: none"> 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)	<ul style="list-style-type: none"> 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	<p>No further evidence required with regard to domestic sources of funding.</p> <p>Clarification required on definition of business income for KPI purposes</p> <p>Evidence required on overseas funding</p>
3.	The Institute reached full capacity and met its targets in terms of employment and PhDs	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<p>No further evidence required on PhD numbers and destinations</p> <p>Evidence required on associated long-term national benefits</p>

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*JUDGE HYPOTHESES BY THE
LEAST NUMBER OF NEGATIVE
ASSESSMENTS*

PAIRS OF COMPETING HYPOTHESES

Crawford School of Public Policy

Australian National University

*THE GREATER THE UNCERTAINTY THE
LARGER THE NUMBER OF COMPETING
HYPOTHESES SHOULD BE*

	A	A'	B	B'	C	C'
EVIDENCE (MULTI-SOURCE)						
X	+	-	+	-	-	-
Y	-	+	-	+	+	-
Z	-	-	-	+	-	-
Ψ	+	+	+	+	+	-



= CURRENTLY A TENDENCY TO PLUMP FOR ONE PROPOSED 'SOLUTION' BASED ON SELECTED 'KILLER FACTS'

Figure 15

Question: Will Iraq Retaliate for US Bombing of Its Intelligence Headquarters?

Hypotheses:

H1 - Iraq will not retaliate.

H2 - It will sponsor some minor terrorist actions.

H3 - Iraq is planning a major terrorist attack, perhaps against one or more CIA installations.

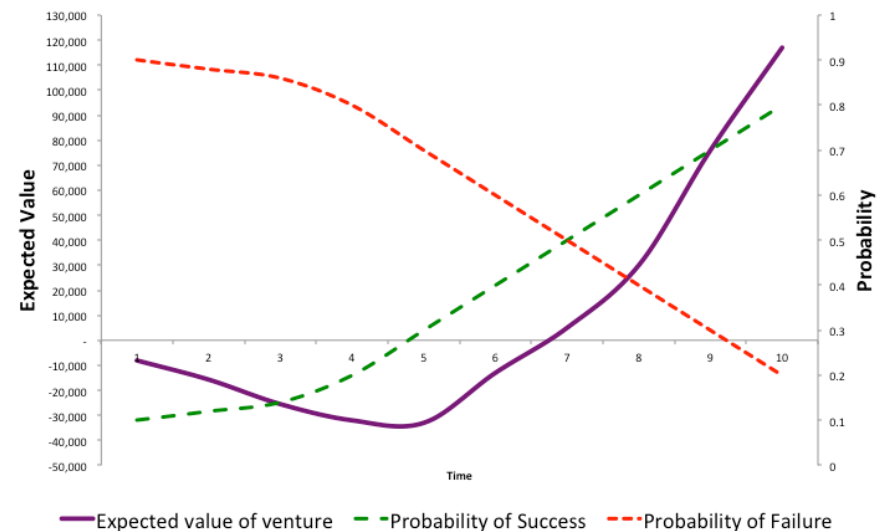
	H1	H2	H3
E1. Saddam public statement of intent not to retaliate.	+	+	+
E2. Absence of terrorist offensive during the 1991 Gulf War.	+	+	—
E3. Assumption that Iraq would not want to provoke another US attack.	+	+	—
E4. Increase in frequency/length of monitored Iraqi agent radio broadcasts.	—	+	+
E5. Iraqi embassies instructed to take increased security precautions.	—	+	+
E6. Assumption that failure to retaliate would be unacceptable loss of face for Saddam.	— —	+	+

Source: Heuer, R. J. (1991) The psychology of intelligence analysis. Center for the Study of Intelligence Analysis. CIA

TREAT TESTS OF HYPOTHESES AS INVESTMENTS IN
REDUCING UNCERTAINTY AND RISK

WE INVEST IN TRYING TO BUY MORE COMPELLING
ODDS IN THE FUTURE

A BASIS FOR ASSESSING VALUE FOR MONEY &
COMMUNICATING PUBLIC VALUE?



“The social object of skilled investment should be to defeat the dark forces of time and ignorance which envelop our future” Keynes

**Philosophy of science: *conjectures and refutations*
*creativity is not random mutation***

Subjectivity: a problem or the solution?

**must move beyond the notion of perfect information as an ideal type
grasp the reality of ignorance (Knightian uncertainty)**

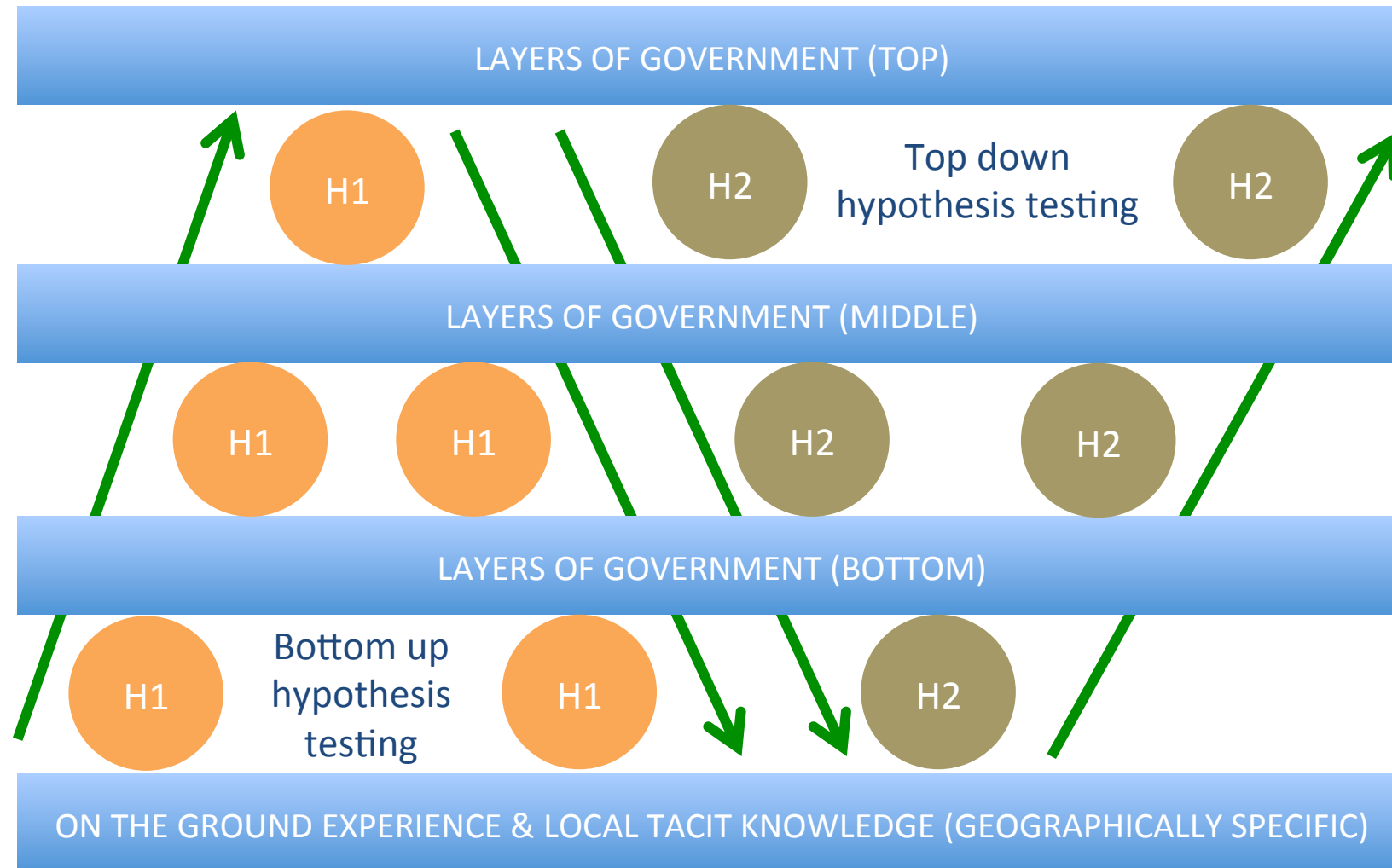
creativity stems from subjectivity.....

... especially in coping with the dark forces of time and ignorance

A focus on hypothesis generation highlights the importance of fostering, indeed ‘managing’, creativity better than we currently do in the public sector

The growing emphasis on public sector innovation and design thinking helps - but does not necessarily assist government to act as the uncertainty and risk manager of last resort (a strong focus on the valley of evidence we are in)

Structured hypothesis testing as a tool for delivering experimentalist & distributed governance (including risk assessment and management)



Do we need to achieve such a profound transformation in government?:

- *Are the potential benefits of experimentalist & distributed governance worth the costs of attempting the transformation away from a Principal-Agent paradigm?*
- *Would a new broader stance based on intelligence-based policymaking help or hinder this transformation?*
- *Would such a transformation enhance or confuse perceptions of public value (both within government itself and in the general community)?*

How can we actually achieve such a transformation in government?:

- *Can uncertainty and risk aversion be overcome in practice (especially given the personality types that typically seek to become government officials)?*
- *What formal methods might we use to strengthen uncertainty and risk management in ways that allow the risk-reward relationship to operate more effectively within government?*
- *What else would we need to do?*

END