Horizon Scanning: Enhancing Strategic Insight for National Security Policymaking

David Connery[1]

The Australian Government has stated an intention to develop a comprehensive Strategic Policy Framework (SPF) that coordinates and guides efforts and resource allocations across Australia's national security community. This article suggests that the Australian Government should add horizon scanning to its emerging SPF in order to provide decision makers with integrated information and analysis concerning trends that will affect the external environment and generate new internal organisational needs. Morphological analysis is used to present two options for the proposed horizon planning system.

The Australian Government has undertaken a number of concrete initiatives to enhance national security policy coordination since 2008. Some have been implemented as of the date of writing, such as the 'All Hazards National Assessment' on Australia's near-term security challenges, the coordinated national security budget,[2] the national security capability plan, and the first national security strategy.[3] Together, these new approaches to planning and resource prioritisation will make important contributions towards establishing a comprehensive framework for national security policymaking in Australia.

This article proposes horizon scanning as an additional analytic method that is arguably essential to future-oriented thinking about Australia's national security challenges. After first reviewing publicly-available information about the evolving Strategic Policy Framework (SPF, 'the framework'), this article examines horizon scanning as a potential method that could play an important role in that framework. After discussing the meaning of horizon scanning and its value proposition, the article will provide a short analysis of how horizon scanning has fared—institutionally—in the United Kingdom. From there, the article will identify different elements of a horizon scanning system and use a morphological analysis to develop system options to suit

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[2] A. Gyngell, 'National Security Lecture—The University of Canberra, 28 May 2010', <http://www.ona.gov.au> [Accessed 1 July 2012], pp. 8-9.
[3] Attorney General's Department, *A Guide to Australia's National Security Capability* (Canberra: Commonwealth of Australia, 2013), p. 3; Department of the Prime Minister and Cabinet, *Strong and Secure: A Strategy for Australia's National Security* (Canberra: Commonwealth of Australia, 2013).

Australian conditions. While the main sources for this article are Australian and international literature and practical experience in horizon scanning, the findings are informed by roundtables with horizon scanning experts from the Australian Government and discussions with members of the Australasian Joint Agencies Scanning Network.[4]

Australia's national security community should develop a horizon scanning system that compliments the prospective SPF. To support this proposal, this article derives design options for a horizon scanning system and recommends options for conducting a scan focused on national security. Since the SPF is still evolving, the method used in this article will allow readers to consider new options as other elements of the framework become known, and as the preferences of senior decisionmakers become clearer.

The Evolving Strategic Policy Framework

The first National Security Statement of December 2008 announced a number of important changes to the structure and processes of national security policymaking, one of which was a Strategic Policy Framework (SPF). This framework was intended to "guide and coordinate effort across the national security community by setting priorities, allocating resources and evaluating performance".[5] The aim was to set national security priorities in an "informed, accountable, and whole-of-government manner",[6] and would include periodic Prime Ministerial statements, centralised priority setting, a coordinated budget process and an evaluation mechanism.[7] The government's intention was clearly to introduce some of the planning processes used in other contexts, such as defence, into a broader national security context. In doing so, a number of complex challenges have been highlighted that make a future-oriented posture for national security planning essential.

The complete structure of the SPF has not been made public at the time of writing, but elements of it have been described or can be safely assumed. Those already described or announced elsewhere include an annual All-Hazards National Assessment, which examines changes in Australia's

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[4] The author thanks the participants of these roundtables for their insights and helpful advice, especially Brett Peppler and Kate Delaney. For more on the Australasian Joint Agencies Scanning Network, see <http://www.ajasn.com.au>.

[5] K. Rudd MP, *The First National Security Statement to the Australian Parliament* (Canberra: Commonwealth of Australia, 2008), p. 35.

[6] Ibid, p. 36.
[7] Anon., 'Australia's National Security Framework', <http://www.ona.gov.au> [Accessed 1 July 2012], p. 3. See also Australian National Audit Office, *Management of the Implementation of New Policy Initiatives: Australian Federal Police* (Canberra: ANAO Report No 29 201-11, 2011), Appendix 5.

security environment over the following three to five years.[8] This national assessment, which is coordinated by the Office of National Assessments (ONA), is developed to inform draft national security priorities and national intelligence priorities for consideration by Cabinet.[9] This is highly relevant work because judgements about political change, economic fortunes and threat intentions are needed to inform near-term decisions. However, the three to five year timeframe is relatively short when one considers the needs of long-range planning and—as discussed below—capability development.

Within the SPF, the All-Hazards National Assessment would be complemented by periodic performance evaluations of all national security agencies.[10] These evaluations would, in turn, inform the Coordinated National Security Budget (CNSB). This budget submission has now been through four iterations and has been used to complement individual portfolio budget submissions. Perhaps most importantly, the CNSB has been used to provide an overview of proposed "spends and saves"; to group proposals according to a broad set of priorities; and to provide some advice on the relative importance of each.[11]

The leading document of the SPF, Australia's first National Security Strategy, was launched in January 2013. The Strategy takes a risk-based approach to identifying the major security challenges that Australia is likely to face in the immediate future, and offers three five-year priorities for the national security community. While this strategy adopts a remarkably short-timeframe for its analysis, it provides a lead to both immediate activity and a basis for future work.

Another initiative supporting the strategy is the classified National Security Capability Plan and an unclassified *Guide to Australia's National Security Capability* ('the Guide').[12] According to the Guide, the capability plan will identify current and emerging gaps in non-Defence equipment, training and support (grouped as 'capability'), while simultaneously gaining a clearer picture of what resources are available to achieve Australia's national security outcomes. This plan will also ensure that capability investment is "focussed", provide a way to redirect existing capabilities as emerging needs are identified, and identify interdependencies among departments and agencies. The "capability-based planning" method adopted aims to inform

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[8] Gyngell, 'National Security Lecture', p. 8.

[9] Ibid., p. 8.

[10] Rudd, *The First National Security Statement to the Australian Parliament*, p. 36; Anon., 'Australia's National Security Framework', p. 3.

[11] Australian Government, 'Budget Paper No. 1, Statement 1: Budget Overview', <http://www.budget.gov.au/2010-11/> [Accessed 1 July 2012]; Gyngell, 'National Security Lecture', pp. 8-9. On the role of the CNSB, see M. McCarthy, *National Security: Past Present and Future* (Canberra: Department of the Prime Minister and Cabinet/National Security College, 2012), <http://www.dpmc.gov.au> [Accessed 12 July 2012], pp. 11-2.

[12] Attorney-General's Department, *Guide to Australia's National Security Capability*, p. 3.

the next national security strategy, particularly by providing evidence about the capabilities available (and perhaps, needed) to manage national security risks.[13]

Importantly, horizon scanning is listed in the Guide as a national security function. It aims to reduce uncertainty for decisionmakers by "providing coordinated and analytical scientific and technological support around current and future trends".[14] Such information is considered valuable because it can support capability development, consequence assessment and options development.

However, neither the National Security Strategy nor the Guide describe how horizon scanning will be conducted within the Australian Government. Nor is it entirely clear how the products of the sixteen departments and agencies involved in 'horizon scanning and risk assessment' are integrated and assessed to produce the desired inputs for guidance.[15] This article will provide suggestions for how this might be done in the Australian context after the purpose of horizon scanning, and some international experience, is discussed.

"A Thin Wisp of Tomorrow"

The human desire for certainty, said Lord Hennessy, means governments place great importance in feeling for the "thin wisp of tomorrow".[16] Lord Hennessey goes on to identify past actions taken in the British defence community to help gain these insights, and concludes his speech by asserting a duty of governments to try to identify trends and what they might mean. This is reasonable, and horizon scanning was one method he recommended for this purpose.[17] However, before we react to his exhortation, it is worth describing what horizon scanning is and is not, identifying its value proposition and success criteria, and describing the challenges of employing it to assist decisionmakers. This brief analysis will show that many choices need to be considered before horizon scanning is implemented on a significant scale in any government.

The method described as horizon scanning is a deliberate or purposeful strategic planning activity where emerging changes and developments are analysed to identify events, trends and drivers (collectively, 'factors') that may shape an organisation's future operating environment and so its policy,

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[13] Ibid., p. 11.

[14] Ibid,. p. 11.

[15] Ibid., p. 14.

[16] Lord Hennessy of Nympsfield, *The Horizon Scanners' Craft* (London: Chatham House, 2011), p. 2. He credits F. Braudel for this description.

[17] Ibid., p. 11.

research and strategic agendas.[18]   As such, horizon scanning is often a directed activity that seeks and analyses information concerning priority questions facing senior leaders about their external operating environment.[19] These parameters mean that horizon scanning is best used as part of an ongoing strategic planning process, or as a way to obtain insights into plausible factors that might influence decisions with long-term consequences. It is not, however, the only input to decisionmaking and, as later sections of this article will discuss, its utility and product needs to be appraised with a cold eye.[20]

Horizon scans seek to exploit the broadest range of information sources and perspectives available (within resources, of course) to search for 'weak signals' that provide early indictors of future trends. In the context of national security policymaking, one key information input concerns developments relating potential adversaries and allies—which in the government context is usually derived from the work of intelligence agencies. But what makes horizon scanning more than just an intelligence activity is that scanners must consider trends that are likely to influence the internal workings of the organisation. To provide these insights, information sources should extend to areas such as changes in one's own society and its expectations of government, known or emerging shortfalls in capability, emerging trends in areas such as management and information, and potential technologies that might influence capability development. From there, solid reasoning and argument brings this information together to identify possible matters of importance to the commissioning organisation.

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[18] For samples of the wide variety of definitions of horizon scanning see W. L. Shultz, 'The Cultural Contradictions of Managing Change: Using Horizon Scanning in an Evidence-based Policy Context', *Foresight*, vol. 8, no. 4 (2006); V. van Rij, 'Joint Horizon Scanning: Identifying Common Strategic Choices and Questions for Knowledge', *Science and Public Policy*, vol. 37, no. 1 (2010), pp. 7-18; and R. Popper, 'New Horizon Scanning Concepts, Practices and Systems', in *2nd DSTL Scanning Conference* (Shrivenham UK: UK Ministry of Defence, 2011), slide 6. Chun Wei Choo identified other modes of horizon scanning, including those with less formality or structure than the method defined in this article envisages ('The Art of Scanning the Environment', *Bulletin of the American Society for Information Science* (Feb/Mar 1999), pp. 22-3).

[19] B. Habegger, *Horizon Scanning in Government: Concept, Country Experiences, and Models for Switzerland* (Zurich: Centre for Security Studies, 2009), pp. 8-12. Decision-makers might also look to use horizon scanning to help form questions.

[20] A discussion of horizon scanning methodology would require a lengthy article in itself. For good general overviews of different insights into methodology, see B. Ramalingam and H. Jones, 'Strategic Futures Planning: A Guide for Public Sector Organisations', (Overseas Development Institute) <http://www.odi.org.uk> [Accessed 12 July 2012], p. 33; Michael Jackson, 'Practical Foresight Guide Chapter 4 – Scanning' (Shaping Tomorrow, 2011), <http://www.shapingtomorrow.com> [Accessed 12 December 2012]; Habegger, *Horizon Scanning in Government*; O. Da Costa, P. Warnke, C. Caglin, and F. Scapolo, *The Impact of Foresight on Policy-Making: Insights from the Forlearn Mutual Learning Process* (Sevilla: Institute for Prospective Technological Studies, 2006); and Chun Wei Choo 'The Art of Scanning the Environment'.

The way these insights are used within an organisation can vary. For some, scanning products will promote conversations about the future and help to focus senior decisionmakers on emerging challenges.[21] This differs from other 'futurist' methods such as scenario planning, in that horizon scanning does not aim to create internally consistent 'stories' about possible futures.[22] Instead, horizon scanning generally produces analytical reports that identify and critically examine threats and opportunities in a business, research or policy-related context. Further use can be made of this product however, and some describe the value of horizon scanning in terms of communication: internally to engage all levels of the organisation in thinking about the organisation's future; and to communicate with external audiences in ways that build collaborative links or awareness.[23] In the last form, communication is about shaping expectations and preparing an agenda.

These 'hard' uses are clearly designed to position an organisation for the future, but they are not the only possible ones. Other authors have pointed to the use of horizon scanning as a tool to build strategic thinking capability in an organisation; as a way to build networks; as an agent for change; and for mutual learning.[24] These 'softer' uses appear to address some other priority needs for the Australian Public Service (APS), particularly as the recent 'blueprint for reform' described a perceived lack of strategy and innovation across the APS.[25]

Despite its potential, horizon scanning has limitations. For one, it is an inexact art: the result depends upon the skill and creativity of those involved, and the willingness of senior leaders to use the product. The vast amount of available information can make review, analysis and retrieval of relevant information a daunting task. This factor makes an agreed method and technological support essential for the project, and can make horizon scanning a resource-intensive activity unless it is well-focused and

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[21] See K. Van Der Heijden, *Scenarios: The Art of Strategic Conversation*, 2nd ed. (Chichester UK: John Wiley and Sons, 2005); and M. Butter et al., *Scanning for Early Recognition of Emerging Issues; Dealing with the Unexpected* (SESTI, 2010), p. 5.

[22] The basic primer for this methodological approach was P. Schwartz, *The Art of the Long View* (New York: Currency Doubleday, 1996). M. Amer, T. U. Daim and A. Jetter, 'A review of scenario planning', *Futures*, vol. 46 (2013), pp. 23-40 provide a recent overview of scenario planning methods. For a recent Australian attempt to harness this methodology, see Athol Yates (ed.), *Australia's Security Nightmares* (Australian Security Research Centre, 2012).

[23] Butter et al., *Scanning for Early Recognition of Emerging Issues*; A. Havas, D. Schartinger, M. Weber, 'The Impact of Foresight on Innovation Policy-making: Recent Experiences and Future Perspectives', *Research Evaluation*, vol. 19, no. 2 (2010), pp. 101-2; K. Gustafson, 'Strategic Horizons: Futures Forecasting and the British Intelligence Community', *Intelligence and National Security*, vol. 25, no. 5 (2010), p. 602.

[24] Habegger, *Horizon Scanning in Government*, p. 9; Schultz, 'The Cultural Contradictions of Managing Change', p. 5.

[25] Advisory Group on Reform of Australian Government Administration, *Ahead of the Game: Blueprint for the Reform of Australian Government Administration* (Canberra: Commonwealth of Australia, 2010), p. 41.

supported.[26]   The rapid pace of change in some areas, especially technology, makes any scan 'perishable'.   Lastly, horizon scanning also relies heavily on participants identifying the linkages between events and envisaging the implications of change for the organisation.   As a consequence, it can be easy to claim too much for horizon scanning, and it is essential to establish some criteria for success.[27]

Some possible criteria are straightforward. The scan must meet a need— ideally, one identified and valued by senior leadership. The scan itself must be responsive to the client, which entails being aware of how their needs will change over time, and making changes to products or focus as the emerging situation dictates.   The involvement of appropriate stakeholders in the process in some way (possibly as full participants, but perhaps in a review, debate or analysis function) is another criterion which will likely help to build broad support for the final product.   Most of these criteria are relatively tangible and can be measured, but they only fill part of the bill.

Any scanning effort will also rely upon less tangible or elusive success criteria that will probably be hard to create or estimate in advance. Among these will be the relative and intangible criterion best described as 'senior leader satisfaction': a criterion that often relies on the subjective judgment of those being supported by the scan. Closely tied to this, the scan must produce insights considered plausible by users.   Also important, but awkward to measure, is 'influence'.   Ideally, one would like to be able to illustrate how a well-timed scanning product shifted the debate or unearthed a previously unseen opportunity.   But attributing influence to a scan is difficult when 'good ideas have many parents', and claiming success in ambiguous situations could lead to resentment.   Even more difficult to achieve is what futurist Richard Slaughter described as a "legitimising process". Indeed, he argued that the absence of legitimisation undermined a well-resourced futures analysis effort, known as the Australian Commission for the Future.[28]   Others have pointed to the importance of "favourable political circumstances", meaning that scans with influential supporters have at least some chance of success.[29]   Given the intangible nature of these success factors, and the naturally sceptical disposition of most (Australian) decisionmakers, it is worth articulating the value proposition for horizon scanning.

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[26] In terms of support, information technology is especially important to reducing search effort and matching new information to users.

[27] For instance, Da Costa and others think horizon scanning can perform roles across the policymaking system, including deep roles in implementation (Da Costa et al., *The Impact of Foresight on Policy-Making*, pp. 372-6).

[28] R. A. Slaughter, 'Lessons from the Australian Commission for the Future: 1986-98', *Futures*, vol. 31, no. 1 (1999), pp. 93-4.

[29] J. Calof and J. Smith, 'Critical Success Factors For Government Led Foresight', Third International Seville Seminar on Future-Oriented Technology Analysis, Seville, 16-17 October 2008, p. 7. The authors also place a significant emphasis on early success to promote the process.

The value of horizon scanning can be expressed in two ways. The first is a general proposition, which claims that the long-view nature of horizon scanning will help leaders to become less reactive. A well-conducted scan will achieve this because there is latitude for scanners to explore so-called weak signals and develop narratives about long-term trends. Since this search does not merely concern threats, horizon scanning can illuminate possible opportunities, be they in the form of new technology or even changing attitudes. Perhaps the most valuable aspect of this proposition for time-poor senior leaders is how high-quality scanning product provides space, structure and distilled information to discuss the organisation's future and its priority challenges. As others, such as Ross Babbage of the Kokoda Foundation and the authors of the APS Reform Blueprint have noted, time to consider longer term matters is often in short supply in increasingly crowded decision agendas.[30]

A second, more specific element of the value proposition for horizon scanning for Australia's emerging SPF derives from its product. Done well, horizon scanning should illuminate broad trends, weak signals and possible events beyond the three-to-five year view of the current All Hazards National Assessment. This could allow those using the horizon scan product—especially those responsible for investment decisions and priority setting—to identify challenges to the organisation well before the trends become time-critical crises.

Before continuing with the case for a horizon scanning capability in Australia, it is worth considering how this function emerged and evolved in the United Kingdom (UK). Here, horizon scanning has been employed by many policy and intelligence agencies for nearly two decades, and many departments have formal scanning units. These include specialised scanning units for science and technology, environment and food, defence, international development, and health; and a centre with responsibility for horizon scanning methodology.[31] These units appear well established, but of most interesting for this study are the two attempts made to impart centralised direction into horizon scanning by creating units within the Cabinet Office itself.

The first was Horizon Scanning Unit, which was established in 2008. This unit aimed to coordinate scans by others and produce its own reports to inform decisionmaking. According to one senior official with knowledge of this case, this meant the unit's role was unclear and its work seen to duplicate others'. Consequently, the unit failed to get widespread support in Whitehall and, as austerity budgets hit the UK after 2008, its resources

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[30] R. Babbage, *Strategic Decision Making: Optimising Australia's National Security Planning and Coordination for 2015* (Canberra: Kokoda Foundation, 2008), pp. 6-9; Advisory Group on Reform of Australian Government Administration, *Ahead of the Game*, p. 21.
[31] See Department for Business, Innovation & Skills, 'Foresight', <http://www.bis.gov.uk/foresight> [Accessed 15 December 2012].

shrank until it disappeared within the Civil Contingencies Secretariat a few years later. A parallel effort in the national security field was established to inform the risk assessment for the 2009 National Security Strategy and 2010 Strategic and Defence and Security Review. Despite some success with these projects, this effort failed to thrive because it adopted a complex and insufficiently robust method, and the initial product was rushed and poorly received. While undoubtedly disappointing, these experiences did not kill horizon scanning in the UK. Instead, a new secretariat with the sole aim of coordinating government scans for a senior officials board will be instituted at the direction of the Cabinet Secretary. While this new effort is still being established, its clearer focus, senior support and solid base of infrastructure give some cause for optimism in the future of this method in the UK.[32]

Based on the gap in the long-range analysis used for the SPF, the value propositions, and some lessons from the UK's experience, it is clearly worth considering a method for providing long-range analysis for the framework. Horizon scanning is a potentially useful method because it can provide decision makers with targeted advice about—and a chance to consider— trends and drivers that will likely shape the organisation's future. Given the nature of the SPF, such advice would need to be developed and presented as part of a process that is led, resourced, conducted and analysed within government, probably with some involvement from experts outside the official community. But there are many, many ways that such a process and its products could be designed and packaged as discrete options for a suitable system.

Efforts to visualise and explain the options for a horizon scanning system can be helped by using a method which presents elements of a problem comprehensively, describes options clearly, and remains flexible enough to cope with change. The next part of this article applies morphological analysis to articulate some broad options for a horizon scanning system that can support the Australian Government's SPF.

Options for a Horizon Scanning System

Faced with the challenge of designing a new rocket, Swiss astronomer Fritz Zwicky broke the known system down into parameters (component parts) and the differing values for these parameters (conditions), and presented these as a comprehensive matrix. The matrix was then used to investigate the relationships created when the values of each parameter are combined into a prospective system. The result was a range of internally consistent

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[32] Interview with senior UK official with knowledge of horizon scanning.

options that could be employed to satisfy the problem at hand. This method became known as (General) Morphological Analysis.[33]

In this article, morphological analysis will be employed to identify options for the potential ways to design a horizon scanning effort for the SPF. The parameters for this particular horizon scanning system have been selected after a literature review and discussions with expert roundtables, and grouped following the architectural axiom 'form follows function'. The aim is to identify the key parameters of form and function that decisionmakers will need to consider as they review any proposal for a horizon scanning system. A number of different choices for values within each parameter have been identified in an effort to provide a comprehensive coverage of the way each parameter could be performed within this system. The result of this exercise is shown in Table 1. Since there are just over two million possible combinations in this table, the next process involves identifying and discarding inconsistent value combinations to produce a smaller—but admittedly still very large—number of potential options for a candidate system.

The matrix begins by identifying the function variables, which describe the purpose and expected outcomes of the scanning effort, and placing these across the top row. The key variable, and indeed the key decision, is the first: whether the scan is based on a broader government effort or whether it will be a stand-alone effort focused on national security. There are significant advantages for both, and neither assumes that the eventual scanning product will be open source or classified. Indeed, as will be described later, the main advantage of nesting the scan in a broader whole-of-government effort is the breadth of expertise and literature that could be covered. This might also constitute an economical measure, as the overhead costs are shared among many. Still, the scan will need to create product relevant to the concerns of senior national security officials: a broader effort might compromise that focus if the responsible team is not careful. The broader effort might also make it more difficult to use classified inputs to the scan, which might be seen as highly detrimental to the intended outcome.

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[33] T. Ritchley, 'General Morphological Analysis: A General Method for Non-quantified Modelling', Swedish Morphological Society, <http://www.swemorph.com/ma.html> [Accessed 2 July 2012], pp. 2-7.

Table 1: Crafting Options: Elements of a Horizon Scanning (HS) System

		Choices for Parameter Values				
HS System Function Parameters	**Purpose**	Scan for all national policy fields	Single-purpose scan for all national security fields	HS specific to national security strategy framework		
	General method	Active	Passive			
	Reporting frequency	Bi-yearly major report	Yearly report with additional short reports	Frequent short reports	Major report timed to meet needs	One-off effort
	Sponsor	Ministerial	Secretary-level	Deputy Secretary-level	Below Deputy Secretary	Board including non-government members
	Release policy	All reports released publicly	Selected (declassified?) reports made public	Reports released only to a closed network	All product classified	
HS System Form Parameters	**Type of product**	Synthesised scan reports for the entire area of concern	Multi-subject reports (combine two or more topic areas)	Single-topic reports (usually on a specific but small area of interest)		
	Scanning participants	Intelligence only	All government only	Government and non-government participants		
	Team structure	'Centre of Excellence'	Dedicated team	Coordinating core	Individual coordinator	Virtual team (network)
	Outreach	Public conference	Closed network conference and seminars	Classified conference and seminars	No conference or seminars	Briefings for key meetings
	Aftercare	Dedicated team	Follow-up by individuals	Nil	Pull by users	

As the earlier discussion explained, support for a horizon scan, including resource commitments and direction, needs to come from an appropriate managerial level. In this instance, there are numerous plausible options for a sponsor or commissioning authority ranging from ministers, through to senior officials, or a mixed board of official and invited external members. This authority will become the focus of the scan output: their questions and priorities will guide the work and be the principal measure for determining the scan's success or otherwise.

The type of product and release policy refines the purpose further by providing guidance on the expected presentation of scan reports. It is important for this detail to be decided early because scanning organisations

with significant contributions from non-national security agencies might find it difficult to manage a classified scan.

The 'function' of the horizon scanning system influences the choice of variables that define the 'form' of the organisation tasked with the scan. The form variables include the hosting responsibility, which will have an important impact upon how the scan might be undertaken and candidates who could participate. Following this, the next variables include the team structure and who will actually participate in the team. The last variables considered are outreach and 'aftercare', which includes follow-up activities such as presentations and written explanations of the findings, and preparations for the next product. These last variables will have implications for participation, resourcing and communication.

The parameter values chosen for Table 1 have been selected with the aim of producing a scan suitable for informing national security policy officials. This means some possible values can be omitted, such as a scan conducted wholly outside government. A few others are worth listing but need not be considered further because it is possible to make some assumptions about the type of system that government would *not* want for this scan. The first to be discarded is a passive option for conducting the scan, which reflects an assumption about government preferences for organisation and accountable outcomes.[34] A 'Centre of Excellence' model is also discarded due to the Australian Government's current fiscal constraints and the need to identify (always unpopular) spending reductions to compensate for new proposals.[35] A scanning group involving 'intelligence only' participants is also discarded because broader participation will be essential to ensure organisational and capability development expertise is available for the scan. These few omissions have reduced the number of possible options by three-quarters from the original number of possible groupings: still an impractical number to describe in detail, but a good indication of the broad nature of the horizon scanning task and the ways in which it could be approached.

With this breadth in mind, two possible options will be sketched below. Each option aims to be internally consistent and to provide a genuinely different approach. While only one value has been selected for each parameter in most cases, a second value is sometimes used to show the subtle distinctions that could be made when assembling viable options. Some additional decisions that need to be made about the scanning system will also be presented after each option is explained.

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[34] The active/passive distinction drawn in this article may indeed be too stark, especially where technology can enable better searching and data matching (discussion with Brett Peppler).
[35] Habegger, *Horizon Scanning in Government*, p. 17-20 describes an initiative such as this by the Singaporean Government.

OPTION 1: PLUG-IN AND COLLABORATE

The concept for Option 1 is an active whole-of-government scanning effort that satisfies a number of policy areas, with national security being only one. As this is a government-wide effort, and potentially not only limited to the Commonwealth, the assumed size of the resources available and the numbers of team participants that could be mustered in support are considerable. While the decentralised application of resources means Option 1 falls short of a 'centre of excellence' model, an effort of this size and expertise would probably produce at least a major multi-field report and additional short reports on topics of interest to the steering board. Alternatively, this scan could produce more frequent reports to satisfy a broader range of priority subjects.

Table 2: Option 1—Plug-in and Collaborate

		Parameter Values (with Logical Alternatives)		
HS System Function Parameters	**Purpose**	Scan for all national policy fields		
	General method	Active		
	Reporting frequency	Yearly report with additional short reports	Frequent short reports	
	Sponsor	Secretary-level	Deputy Secretary-level	Board including non-government members
	Release policy	Reports released only to a closed network		
	Type of product	Synthesised scan reports for the entire area of concern	Multi-subject reports (combine two or more topic areas)	
HS System Form Parameters	**Hosting Responsibility**	Central agency	Joint venture: government and other	
	Scanning participants	Government and non-government participants		
	Team structure	Dedicated team		
	Outreach	Closed network conference and seminars	Briefings for key meetings	
	Aftercare	Small core	Individual coordinator	

The large number of stakeholders means this type of scan should be managed from very senior levels. While ministerial-level involvement was considered an impediment in one review because political alignment compromised the credibility of the scan,[36] there is no credible benefit to be gained from circumventing ministerial knowledge for an effort involving

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[36] Slaughter, 'Lessons from the Australian Commission for the Future', p. 3.

significant resources. Still, ministerial steering is another matter. In this option a steering board at the Departmental Secretary/Deputy Secretary level is envisaged because these officials control the necessary resources and understand ministerial priorities. Non-government officials could also be invited to join this board, which should bring broader perspectives to the task.

With non-government involvement at the steering—and probably participation—levels, the scan should be conducted in an 'open' style so that security classifications are not a factor, unless this was desired in final product. Ways to achieve this style might include forming a 'joint venture' hosting arrangement, perhaps in a university; and sharing some, if not most, product with academia and industry. This option does not preclude additional classified analysis conducted solely within government for the specific purpose of informing the SPF or the like, although such product is likely to come late in the process and bring an additional cost overhead.

The broad nature of such a scan lends itself to being hosted by a central agency to ensure that the whole-of-government perspective is met. However, the joint venture model is another way to achieve this, as any venture could be specifically established to fulfil that mandate. In the Australian context, the Australian National Institute for Public Policy (ANIPP) at the Australian National University might be a sound joint venture partner, or the informal Australasian Joint Agencies Scanning Network (AJASN) might be augmented to enhance its ability to coordinate this large activity.

Significant outreach and aftercare is envisaged for this option. This could include conferences or working groups to develop product, and publicly released analysis to inform and advise. In time, the scan might be seen as a public good that would inform other sectors of the community. The scan products could also provide a valuable contribution to, and so entree to, international scanning efforts.[37]

The participants suggested for this option include government and non-government experts based on a dedicated team. This model is considered to be the most appropriate way to harness national and international talent, and to ensure that the best possible sources of information and expertise are available to the scanning team. The team itself would be relatively small but large enough to create products: perhaps six to ten people, depending on the resources available across government and the desired frequency of products. The team would also coordinate input from the scanning network's member agencies and be ultimately responsible for meeting the steering board's priorities.

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[37] van Rij explains the utility of international cooperation "lies in the expectation that the sum of the scans may reveal issues" which have been overlooked in individual scans (van Rij, 'Joint Horizon Scanning', p. 9).

The key advantages of Option 1 include its ability to co-opt and consult leading thinkers regarding emerging trends, which is likely to make available the widest possible array of data and analysis. This option also spreads costs over many participants, and allows for easy collaboration with existing security and non-security horizon scanning activities, such as the AJASN. If such an approach is acceptable, the resource implications of this option for individual agencies could be relatively small. An additional layer of analysis for national security purposes might be needed to ensure fitness for purpose, but this is likely to involve a relatively small number of people to develop a separate product to inform selected SPF activities, such as the National Security Strategy or National Security Capability Plan.

The main disadvantages of this option include the breadth of focus, which could mean that national security agencies are supporting tangential work. The time schedule for delivering scan reports would probably be based on a compromise between many competing needs, and therefore might not suit specific customers such as national security officials. Its openness might also inhibit discussions concerning particular countries or technologies, especially if classified information would help in understanding the related trends. Any dedicated team would need to recall the UK experience, where the 'coordinate and produce' model proved difficult to implement. Importantly, the assumed efficiencies of this approach might also be lost if an additional, dedicated effort is still required to meet the needs of the SPF. Despite these possible drawbacks, the *Plug-in and Collaborate* options could provide an effective option for a major national effort.

OPTION 2: BESPOKE SYSTEM FOR THE SPF

Option 2 privileges responsiveness to the SPF and secrecy far more than Option 1. This means that the sponsors, host and scanning participants would be drawn primarily, and perhaps solely, from government agencies involved in national security.

This option does not envisage a single scanning organisation. Instead, it assumes each national security organisation would conduct their own analytical scanning effort, and share this product with others. Discussions with experts in roundtables already points to significant effort by many agencies: this option proposes and ability to coordinate and encourage all to make at least some effort to scan the horizon. It also means Option 2 will probably cost more than option 1, when all is taken into account.

Also envisaged in Option 2 are periodic 'community products' to support specific SPF activities, such as updates to the National Security Strategy, the National Security Capability Plan or other similar activities. These products would include and complement intelligence analysis such as the shorter-term annual 'All Hazards National Assessment' by integrating analysis of longer-term trends of interest to the national security community. As a result, the scanning outputs are most unlikely to be released publicly: at

least, not without extensive revision to remove classified information or findings. Given the aim and closed nature of the activity, the sponsoring group could be formed from the second or third-tier of senior officials and hosted from either a policy agency or a central agency: a likely candidate is the (appropriately resourced) Department of the Prime Minister and Cabinet.

Given the specific nature of this scan, a team of four to five government participants would form a core team, but its function would be focused largely on coordinating the effort of others. Also in contrast to Option 1, this team would be resourced by the subset of Commonwealth agencies with responsibilities for national security. Still, a high level of cooperation with non-security entities would be needed to cover the entire policy field. Regardless of the actual size of the core team, most relevant national security agencies should be involved in some way, as each would be encouraged to produce scanning product with relevance to their organisation. This could bring up to seventeen Commonwealth government agencies into the scanning activity: more if State and Territory governments also participate. External experts from within and outside government should be consulted widely, although sharing product or process activities could be problematic if security classifications are imposed on the product or process activities.

The need for outreach and aftercare is probably more limited in Option 2, and would be focused on internal, i.e., national security, audiences. It would be possible to use product in some, more closed international situations, perhaps in cooperation with close security partners.

The main advantages of Option 2 are its focus, responsiveness and broad ownership. While scan participants would be free to look where they need to and consult external sources, the intended customers would be the national security agencies who resourced the task and provided the initial inputs. The ability to conduct work at a classified level is greater with this option than with Option 1.

The responsiveness of this option is another important advantage over Option 1. While this 'bespoke' option involves a large number of national security agencies, the number of agencies involved in Option 1 might easily exceed two or three times that of Option 2. Identifying the optimal time to deliver product in Option 1 would be a challenge, whereas Option 2 needs a fewer number of agencies to agree on what the scan needs to be used for. Other advantages might come from the ability to maintain a relatively simpler tasking process, and to maintain support over the long term because individual agencies, rather than a disembodied central group, own the scan in cooperation with others.

Table 3: Option 2—Bespoke System for the SPF

		Parameter Values (with Logical Alternatives)	
HS System Function Parameters	**Purpose**	Scan specific to national security SPF	
	General method	Active	
	Reporting frequency	Timed to meet needs (i.e. of SPF)	
	Sponsor	Deputy Secretary-level	Below Deputy Secretary
	Release policy	Reports released only to closed network	
	Type of product	Synthesised scan reports for the entire area of concern	
HS System Form Parameters	**Hosting Responsibility**	National security policy department	Central agency
	Scanning participants	Government only participants	
	Team structure	Coordinating core	
	Outreach	No conference or seminars	Briefings for key meetings
	Aftercare	Follow-up by individuals	

The principal disadvantages of this option reflect the advantages of Option 1: coverage and cost. As the coordinating core itself would only be able to encourage others, it could prove hard to develop true 'whole of government' product without significant senior leadership support or an *ad hoc* assignment of resources. As individual scanning products would probably rely upon a narrower base of expertise, some trends external to mainstream national security analysis might not receive due attention or not receive thorough analysis by experts. Of course, there are ways to mitigate this disadvantage, and experienced scanners are likely to consult and cast their information nets very widely. On the surface, this option might not be as expensive as Option 1, but the full cost would need to be shared among fewer agencies and no savings could be harvested by closing existing scanning efforts.

On balance, the optimal solution for the national security community is Option 2 because it is focused; it is most likely to be responsive to the needs of the SPF; and, unlike Option 1, classified product can be intrinsic to the main process. This makes it possible for the bespoke option to use existing scanning efforts that are currently being undertaken by national security agencies. Also, the 'openness' advantage of Option 1 could be diluted by skilful collaboration with existing non-security scans, and by encouraging the scanning team to search widely. Furthermore, there is nothing to preclude the bespoke option planning team from joining the AJASN, which would also serve to ensure breadth in research and engagement with a broad audience.

Further variations could be made to either model. For instance, the purpose of Option 2 could be expanded to support all planning across the national security policy area, such as supporting future defence, border security or counter-terrorism white papers. Such a scan would certainly be extensive, but in all probability less focused and more expensive than the existing Option 2 proposal because a larger scanning team might be required. However, this broader purpose could absorb some existing scanning efforts and so help to reduce duplication. Another variation could involve hosting the Option 2 model through a joint venture arrangement with an institution such as the Australian National University's National Security College. This option may offer the scan the best of both worlds because the National Security College is already established as a joint venture and includes staff seconded from the public service. Information security would, however, be more complex than Option 2 currently assumes.

Further tinkering with aspects of product, team and process in both options are feasible, although some aspects would have resource implications. For example, additional products such as a product similar to the US 'Global Trends' series, or an aftercare plan involving engagement with a variety of audiences, would almost certainly require more resources than Option 2 currently envisages. Changes to engage more groups or sources of expertise in the scan process, such as expanding the board to include non-government experts, are also possible, and might be attractive to senior decisionmakers if openness and communication are imperative.

In addition to these broad considerations of function and form, decisionmakers will need to address a range of other matters when establishing the scan. Settling the time dimension, for instance, will be an important decision. Many scans or futures activities tend to operate in the twenty to thirty year time band, and this seems optimal for capability or similar planning activities.[38] But such a timeframe might not suit other purposes, such as risk management or strategy. Information connectivity will be another key decision, and will be determined largely by the level of security needed for the scan data and product. As the earlier mention of success factors suggests, evaluation is best built into the scanning system, and this process and criteria should receive significant attention from the outset. Even earlier still, officials with potential responsibilities for a horizon scanning initiative should conduct a needs analysis to identify exactly what is currently being done in this space, and importantly the type of help that senior officials want with regards to making decisions about the balance of attention and resources concerning Australia's future national security challenges. They would not want to grasp a 'wisp' of the future that does not help senior officials to meet the challenges faced by their respective organisations, and the nation at large.

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[38] Ramalingam and Jones, 'Strategic Futures Planning', pp. 32-3.

Conclusion

National security policymaking in Australia has entered new space over the past five years. It has, for the first time, taken a broad view of Australia's national security challenges, and resolved to enhance coordination and develop detailed plans about the future in areas such as capability development. This work is being developed into a cohesive Strategic Planning Framework, with the intention of optimising resource allocation and, ultimately, the effectiveness of Australia's national security arrangements. Some elements of the SPF and its supporting tools have already been identified and all seem logical and achievable, with significant effort and goodwill. One missing element is a tool like horizon scanning, which this article contends is very important as a planning activity because it can take an extended view of Australia's security challenges over time, and provide decisionmakers with synthesised insights into the emerging strategic environment.

The value of undertaking horizon scanning for national security planning purposes is clear, particularly because it will provide senior officials with space to think expansively about the future and be less reactive to events. More specifically, horizon scanning will also provide value by filling the analytical gap between the existing shorter-term All Hazards National Assessment and the big drivers that will unfold beyond three-to-five years hence. As the expert workshops consulted as part of this project show, different parts of government are already taking advantage of horizon scanning to support decisionmaking today. However, there is no comparable work underway in the national security community that integrates intelligence analysis of the external environment with drivers that will pose internal challenges to an organisation. What is needed now is a horizon scanning system that will suit the specific requirements of a forward-looking SPF.

This article has suggested two broad options that essentially differ in the way they support different groupings of national decisionmakers. Option 1, which was based on promoting a whole-of-government—and perhaps even broader—scanning network, was described as having significant advantages in terms of the range of expertise it could muster and the openness of its processes in support of essentially all policy decisionmakers. In contrast, the narrower focus of the bespoke Option 2 would provide national security decisionmakers with a laser-like focus on their needs and those of the SPF. Both options would be feasible and both could produce a result if implemented after a careful needs assessment and with real support from senior leaders.

Still, the focus and responsiveness of Option 2, if tempered with a deliberately collaborative attitude towards non-security scanning efforts, makes it superior yet probably marginally more expensive: this option should

be developed further if Australia's national security community accepts the value proposition of horizon scanning.

Whether Option 2 provides the best fit at the time of decision—and whether variations of it are attractive or not—will depend upon the preferences of decisionmakers and the weight they place on the various technical, resource and 'small-p' political factors that are difficult to assess from a distance. For instance, some excluded variations might become more attractive, such as an extensive and expensive 'centre of excellence' model, if the government's fiscal priorities change. These uncertainties help to make morphological analysis a useful tool because it provides decisionmakers with a menu to build a system that suits their needs, without necessarily having to return to the drawing board.

Dr David Connery is a long-time member and former board member of the Kokoda Foundation. He produced this article during his appointment as Deputy Director (Strategy and Development) at the ANU's National Security College. He is currently Senior Analyst (Strategic Policing) at the Australian Strategic Policy Institute davidconnery@aspi.org.au