



SIGNIFICANCE
International

Australian Government National Research Priorities

2012 Process to Refresh the Priorities

Submission

Veronica Bullock
21 February 2012

Preamble

Thank you for conducting this review and for inviting public input. Significance International, a cultural heritage consultancy, is pleased to respond to the questions in the well-composed Consultation Paper.

This submission is emailed as an attachment because tracked changes were the most efficient way to express editing suggestions.

For further information about Significance International please visit www.significanceinternational.com or email info@significanceinternational.com.

Veronica Bullock
Director

ENHANCING SOCIETY, CULTURE AND COMMUNITIES

Official questions regarding the new HASS research priority and my responses.

1. Does the proposed wording of the new 'Enhancing Society, Culture and Communities' NRP and its associated priority goals provide an opportunity for researchers within the humanities, arts and social sciences to contribute to Australia's research priorities?

The inclusion of a dedicated HASS related research priority is a definite advance. However, humanities, arts and social sciences do not operate in a vacuum. Naturally they draw on and respond to knowledge and 'ways of seeing' in other communities, including those in the sciences. We are gradually realizing that extreme specialization in any field, that excludes or trivializes 'reality checks', has limited value for our future goals.

Evidence is gathering that illustrates the limitations of science without reference to HASS, for example in sustainability studies (Bell and Morse 1999; Allen, Tainter and Hoekstra 2003). At this juncture, it is important to cast HASS as useful to both HASS and STEM endeavour, and to encourage communication between the two at every opportunity.

Therefore I have suggested a revision to the top-level wording for this new NRP to: 'Communicating through society, culture and communities'. HASS has the capacity to create the new 'language' we need to arrive at a sustainable future together, if communication lines are open (Bell and Morse 1999).

2. Do you consider that those suggested adequately cover the areas of national priority of particular importance to the HASS disciplines?
3. Do the descriptions underneath the draft NRP and each priority goal adequately explain their purposes?

I accept the seven scoped associated priorities and associated descriptions with significant revisions, shown via tracked changes. These express the thesis at 1. Fundamentally, it is important to weave science, technology, and things into HASS goals, while retaining and respecting the central and productive role of individuals and groups. It is also critically important to state that study of the past is relevant to present and future problem solving, innovation and creativity.

Words like 'celebrate' and 'enhance' have limited value in this context because they are both passive and fit with traditional 'nice but unimportant' models of the humanities, arts and social sciences.

COMMUNICATING THROUGH SOCIETY, CULTURE AND COMMUNITIES

Stimulating the development of an Australia which understands and supports cultures, knowledges, choice, wellbeing, and engaged citizenship.

- **A creative and imaginative Australia**

Creating a vibrant Australia through art, sport, research, cultural industries, social innovation, as well as science and technology.

- **Culture, heritage and identity**

Understanding and using Australia's identity, culture, heritage and histories for the present and future.

- **Social inclusion, diversity and equity**

Explaining the benefits of tolerance, diversity, multiculturalism and social engagement.

- **Quality of life**

Maximising the wellbeing of Australians by understanding the factors conducive to its growth, including supportive social and working environments, liveable human settlements, informed risk taking, and increased choices for individuals and groups.

- **Knowledges**

Effecting change through the transformative power of lifelong learning and community development, and increasing the skills needed for problem solving, innovation, and leadership, in addition to making connections between people, things, organisations, technologies, and phenomena.

- **Effective institutional governance**

Developing a stronger civil society through active democracy,

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institutional effectiveness, cross-institutional cooperation, and coordinated management of public resources – especially when identifying and treating problems.

- **Indigenous Australia**

Understanding, improving wellbeing, and celebrating the knowledges and creativities of indigenous Australians.

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AN ENVIRONMENTALLY SUSTAINABLE AUSTRALIA

Official question regarding this NRP and my response:

4. Are there any amendments which should be considered to the existing language of this NRP and/or its associated goals to refresh its relevance to contemporary Australia?

Sustainability is not just about the environment, or rather ecology. It is a philosophy, a collective vision for the future, expressible in many ways. In addition to the environment / ecology focus of Phase 1 Sustainable Development, new ways of engaging with each other are required for Phase 2 Sustainable Development to be achieved.[1]

While Ecologically Sustainable Development must remain prominent in people's minds and genuine advance must be made in this sphere, elements of broader education for sustainability include critical thinking and reflection, systemic thinking, active participation, and forming productive partnerships. This requires clarification of people's values and cultures (ARIES 2009: 3 - 4).

Part of our responsibility to a sustainable future is to develop ourselves, perhaps in unforeseen ways as yet. I believe that it is important not to express our resources as only utilisable. Even if we transform the way we utilise them, this is still a backward-looking capitalistic approach. Such historic assumptions should always be challenged when considering new scenarios. Therefore, I have

suggested including 'ourselves' and 'view' [perception] into the description for this NRP.

Importantly, I have also suggested a revision to the top-level wording for this NRP to simply: 'A sustainable Australia'. I believe this more open wording indicates more than the currently received environmental aspects of the sustainability agenda.

A SUSTAINABLE AUSTRALIA

Transforming the way we view and utilise ourselves, and our land, water, mineral and energy resources through a better understanding of human and environmental systems and the use of new technologies.

▪ **Communicating sustainability**

Enabling different communities (from HASS, STEM, and society) to design research questions, and to assess and express outcomes.

▪ **Water – a critical resource**

Sustainable ways of improving water productivity, using less water in agriculture and other industries, providing increased protection of rivers and groundwater and the re-use of urban and industrial waste waters.

▪ **Overcoming soil loss, salinity and acidity**

Identifying causes and solutions to land degradation using a multidisciplinary approach to restore land surfaces.

▪ **Reducing and capturing emissions in transport and energy generation**

Alternative transport technologies and clean combustion and efficient new power generation systems and capture and sequestration of carbon dioxide.

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- **Sustainable use of Australia’s biodiversity**

Managing and protecting Australia’s terrestrial and marine biodiversity both for its own value and to develop long term use of ecosystem goods and services ranging from fisheries to ecotourism.

- **Developing deep earth resources**

Smart high-technology exploration methodologies, including imaging and mapping the deep earth and ocean floors, and novel efficient ways of commodity extraction and processing (e.g. minerals, oil and gas) while minimising negative ecological and social impacts.

- **Transforming existing industries**

New technologies for resource-based industries to deliver substantial increases in national wealth while minimising environmental impacts on land and sea.

- **Responding to climate change and variability**

Increasing our understanding of the impact of climate change and variability at the regional level across Australia and addressing the consequences of these factors on the environment and on communities.

PROMOTING AND MAINTAINING GOOD HEALTH

Official question regarding this NRP and my response:

5. Are there any amendments which should be considered to the existing language of this NRP and/or its associated goals to refresh its relevance to contemporary Australia?

I have suggested additions to the top-level wording of this NRP. Good health is of course of fundamental importance. However, the further personal extension of health into well-being should be expressed,

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and then use of both assets to engage productively within society, physically and mentally, should be stated as a desired outcome.

PROMOTING AND MAINTAINING GOOD HEALTH, WELLBEING AND ENGAGEMENT

Promoting good health and well being for all Australians.

- **A healthy start to life**

Counteracting the impact of genetic, social and environmental factors which predispose infants and children to ill health and reduce their well being and life potential.

- **Ageing well, ageing productively**

Developing better social, medical and population health strategies to improve the mental and physical capacities of ageing people.

- **Preventive healthcare**

New ethical, evidence-based strategies to promote physical and mental health and prevent disease through the adoption of healthier lifestyles and diet, and the development of health-promoting products.

- **Strengthening Australia's social and economic fabric**

Understanding and strengthening key elements of Australia's social and economic fabric to help families and individuals live healthy, productive, and fulfilling lives.

Understanding and improving the health of Indigenous Australians.

- **Finding cures for disease**

Developing new medical technologies to improve health outcomes.

FRONTIER TECHNOLOGIES FOR BUILDING AND TRANSFORMING AUSTRALIAN INDUSTRIES

Official question regarding this NRP and my response:

6. Are there any amendments which should be considered to the existing language of this NRP and/or its associated goals to refresh its relevance to contemporary Australia?

I accept the suggested revision to the top-level wording for this NRP, and have inserted two words at associated priority descriptions, to remind the reader of the relevance of culture as a pillar of sustainability, as well as the application of materials science to preservation / conservation solutions e.g. built structures, archaeological sites, cultural landscapes and museum objects.

FRONTIER TECHNOLOGIES FOR BUILDING AND TRANSFORMING AUSTRALIA

Stimulating the growth of world-class Australian industries, institutions and services using innovative technologies developed from cutting-edge research.

- **Breakthrough science**

Better understanding of the fundamental processes that will advance knowledge and facilitate the development of technological innovations.

- **Frontier technologies**

Enhanced capacity in frontier technologies and associated services to power world-class industries of the future and build on Australia's strengths in research and innovation

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- **Advanced materials**

Advanced materials for applications in energy, manufacturing, construction, conservation, communications, transport, agriculture and medicine and the creative industries.

- **Smart information use** Improved data management services for existing and new business applications and creative applications for digital technologies

- **Promoting an innovation culture and economy**

Australia's creative and technological capability by understanding the factors conducive to innovation and realizing commercialisation. This includes promoting the impact of innovation on social, economic, cultural and environmental wellbeing.

SAFEGUARDING AUSTRALIA

Official question regarding this NRP and my response:

7. Are there any amendments which should be considered to the existing language of this NRP and/or its associated goals to refresh its relevance to contemporary Australia?

Apart from reminding the reader of culture as a pillar of sustainability, culture is included in the new 'Extreme Events' associated priority to ensure that cultural sites and objects are included in more general concepts of entities affected by emergencies.

Cultural heritage is not integrated into existing Emergency Management training manuals or regimes in Australia. The expertise is available and is trying to be integrated, but is having little success. [2] It is my hope that this new associated priority will rectify this situation.

The 'Understanding our Region and the World' reads very much like a 'them and us' scenario. We should realize that in order to understand others we have a duty to understand ourselves more.

Xenophobia exists in Australia and requires better definition and even control, if our aim is to interact more openly and productively with the rest of the world. I have therefore added understanding 'ourselves' to this associated priority.

SAFEGUARDING AUSTRALIA

Safeguarding Australia from terrorism, crime, invasive diseases and pests, strengthening our understanding of Australia's place in the region and the world, and securing our infrastructure, particularly with respect to our digital systems and food production.

- **Critical infrastructure**

Protecting Australia's critical infrastructure including our financial, energy, communications, and transport systems.

- **Understanding our region and the world** Enhancing Australia's capacity to interpret and engage with its regional and global environment through a greater understanding of languages, societies, politics, cultures **and ourselves**.

- **Protecting Australia from invasive diseases and pests**

Counteract the impact of invasive species through the application of new technologies and by integrating approaches across agencies and jurisdictions.

- **Protecting Australia from terrorism and crime**

By promoting a healthy and diverse research and development system that anticipates threats and supports core competencies in modern and rapid identification techniques.

- **Transformational defence technologies**

Transform military operations for the defence of Australia by providing superior technologies, better information and improved ways of operation.

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- **Extreme events**

Improving our ability to manage extreme economic, environmental, [cultural](#) or social events through preparedness and planning, recovery structures and processes, risk analysis, response technologies and protocols.

Official final question and my response:

8. Are there any further amendments or refinements which should be considered to the NRPs and/or their associated priority goals in order to reduce repetition or duplication?

Not at this stage from me, although I hope others map the NRPs more carefully than I have done. I have focussed on harmonising the new HASS NRP (my area of expertise) with the existing NRPs.

I would like to suggest a diagram or two in the final NRP publication, which locates and explains the NRPs in relation to the [2011 Strategic Roadmap for Australian Research Infrastructure](#) capabilities, similar to those on pages 15 and 16 of that document. Also, guidance on where to use the NRPs would be helpful for users e.g. just how relevant they are to Australian Research Council grant applications.

Notes:

[1] Phases adapted from Apostolakis 2004.

[2] For example, the efforts of [Blue Shield Australia](#).

References:

- Allen, T.F.H, Tainter, J.A. and Hoekstra, T.W. 2003 *Supply-side Sustainability* Columbia University Press, New York.
- Apostolakis, G. 2004 How useful is quantitative risk assessment
Risk Analysis Vol 24 (3): 515 – 520.
- ARIES 2009 *Education for Sustainability: the role of education in engaging and equipping people for change*, Australian Research Institute in Education for Sustainability, Australian Government Department of the Environment, Water, Heritage and the Arts, Macquarie University, Canberra.
- Bell, S, and Morse, S. 2000 *Sustainability Indicators: measuring the immeasurable* Earthscan London.