16 January 2017

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Dear Alan,

The Australian Academy of the Humanities (AAH) warmly welcomes the Draft Roadmap's recommendation of a Humanities, Arts and Social Sciences (HASS) platform as one of the nine priority areas. This is clear recognition that the HASS sector's national infrastructure requirements are significant and urgent, and cannot be met through institutional or commercially available infrastructure.

The AAH has serious concerns, however, that the current framing of the HASS platform in the Draft Roadmap is abstract, and does not specifically articulate its purpose, strategy and remit. With the increasing uptake of digital and computational methods of research within the humanities, what we need now is strategic infrastructure development at a national scale that will transform research capability across the sector over the next decade.

We strongly encourage the authors of the Roadmap to draw more directly on the advice the sector has already given about what is distinctive and necessary about this kind of infrastructure for *research*, not just curation and preservation, including a more precise explanation of what a HASS platform is and what it will achieve. Without a compelling strategic research case there is a risk that such a facility will not merit support in the critical funding stage of the Roadmap process.

In order to better align the capability with other Focus Areas, and to capture the intent and scope of a HASS platform, the AAH proposes a change of title to: 'Australian Society and Culture'. What the AAH has envisaged is a *Digital Index of Australian Life*, offering unprecedented access to and discoverability of uniquely Australian social and cultural data to enable advanced research on issues of national priority and significance.

The proposal to establish a National Advisory Group is also something we support – and would strongly emphasise that it needs representation from across the research sector, including the humanities and social sciences.

The attached submission focuses on the HASS platform and recommends specific rewording. We have kept as close as possible to the requested word limit, however due to the fact that we offer alternative wording alongside existing wording we have slightly exceeded the limit. We have opted for a tabular format which we hope will be more useful and clear-cut for the purposes of this submission. The AAH stands ready to assist with further refinement to ensure a robust case for the research infrastructure needs of the sector is presented.

Yours sincerely,

Professor John Fitzgerald FAHA
President

Australian Academy of the Humanities (AAH): Comments on *Draft 2016 National Research Infrastructure Roadmap*

Current wording from the Draft Roadmap	AAH recommended alternative wording	AAH rationale for proposed changes
Title: *Platforms for Humanities, Arts and Social Sciences (HASS)*	Change the title of 'Platforms for HASS' focus area to – *Australian Society and Culture*.	The AAH's proposed change of title better aligns this capability with the other Focus Areas and captures the scope of the facility.
National Research Infrastructure Focus Areas (pp. 8-9) *Platforms for Humanities, Arts and Social Sciences (HASS)* – Bringing together multiple data sets from many social science disciplines will enable the harvest and re-use of data for research purposes. Improved interoperability of existing portals and facilities, and leveraging next generation technologies will deliver a greater degree of integration across state, national and international institutions. This approach will be revolutionary and will include the harmonisation of platforms for Indigenous research.	*AAH suggests alternative wording as follows:* *Australian Society and Culture* – Australian researchers are recognised internationally for delivering solutions to complex social and cultural challenges including health, social cohesion, security, history, identity and heritage, education, demography and planning, the economy and the environment. Advancing research in these areas is critical to our future, and requires a nationally coordinated approach to infrastructure development to drive transformations in the way researchers discover, access, curate and analyse Australia's social and cultural data. This national research infrastructure will build on existing infrastructure and deliver a next-generation approach to big data availability and curation, strategic prioritisation of material to be digitised, and integration of widely dispersed datasets across state, national and international institutions.	The way the HASS platform is described in the Draft Roadmap is abstract and does not include a clear statement about its research objectives, priorities and benefits, unlike the other Focus Area descriptions. The emphasis on 'social science disciplines' in the current description does not do justice to its full remit. This needs to be 'a researcher-driven national-scale facility' that prioritises digital data developments according to strategic research priorities.[1] The current wording in the Roadmap is confusing, at various times referring to a HASS platform as a 'facility', 'platform', or 'portal'. We recommend that a national 'facility' should be the overarching framework this encompasses core platforms (including technical) and data portals which are points of entry/discovery.
Alignment of National Science and Research Priorities and Focus Areas (p.23) *Platforms for Humanities, Arts and Social Sciences is*	*AAH suggests adding:* Cybersecurity and Food.	HASS is integral to achieving multidisciplinary solutions alongside STEM capabilities. An Australian Society and Culture capability will support the discovery and

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currently mapped to the following: Transport, Advanced Manufacturing, Environmental Change, and Health.		analysis of social and cultural data relevant to both the 'cybersecurity' and 'food' priorities.[2]
2.2 Platforms for Humanities, Arts and Social Sciences (pp. 29-31) *Description:* This national research infrastructure focuses on enabling inquiry across the research spectrum including research into cultures, communities, environments, health and social well-being. Humanities, Arts and Social Sciences (HASS) platforms range from physical collections across the humanities, arts, environmental and medical sciences to online portals that facilitate the digitisation and digital access to original artefacts, materials and knowledge. In addition, HASS based platforms can be used to manage and integrate data to enable the development of solutions for complex social problems for the benefit of all Australians.	*AAH suggests alternative wording as follows:* This national research infrastructure area focuses on advancing research into Australian society and culture. It will enable unprecedented access to and discoverability of Australian cultural and social data; allow new research questions to be asked using evidence from a wide variety of data types and sets; provide access to tools with which to manage, curate and analyse data for specific research needs; and facilitate the sharing and reuse of data. Through this capability we will enhance our knowledge of the origins and development of human societies on the Australian continent; the conditions of social conflict and cohesion; the fundamental drivers of economic growth and decline; Australia's place in the world; and the building blocks of communities and cultures that characterise Australian life in its regions and cities.	The current wording is too generic. It needs to specifically articulate the facility's purpose, strategy and remit and highlight the problem-oriented dimensions of HASS research.
Future Directions: The opportunity exists to accelerate the impact of HASS research through a single platform that will make dispersed data sets more easily accessible. This platform will build on the foundations of institutional-	*AAH suggests alternative wording as follows:* There is an opportunity to accelerate the impact of Australia's social and cultural research through a coordinated strategy which builds on collective national	The AAH's suggested re-wording aims to specifically articulate the platform's purpose and capture three of the biggest challenges for research in the HASS sector: data availability, skills development in digital data curation and research translation.

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[2] As the National Science and Research Priorities statement itself recognises addressing these priorities and practical challenges 'will require effort from across the full spectrum of research disciplines, including the physical and life sciences, engineering, information and communications technology and the humanities and social sciences', see http://science.gov.au/scienceGov/ScienceAndResearchPriorities/Pages/default.aspx

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level research infrastructure capabilities and bring holistic insight into society and its functioning. Specifically, this will improve the overall coordination of research infrastructure supporting access to physical and digital collections through enhanced digitisation aggregation and interpretation platform processes. The harmonisation of platforms for Indigenous and other cultural research purposes also supports this broader endeavour.	research infrastructure capabilities and takes a next-generation approach to big data. This facility will improve the overall coordination of research infrastructure supporting access to physical and digital collections through enhanced digitisation aggregation and interpretation tools and platforms; integrate with Digital Data and eResearch Platforms for targeted skills development; and involve active participation of both researchers and communities.	A national facility of the kind envisaged here implies a national content discovery ecosystem that supports interoperability; leverages collective national research infrastructure in collecting institutions; and enhances existing institutional infrastructure that can serve a national role. It is will also be important for the facility to develop strategic connections with other focus areas, notably the cross-cutting Digital Data and eResearch platforms.
What we have: There is significant institutional level research infrastructure across the HASS sector. Only relatively small-scale national research infrastructure currently exists. Collecting institutions National, state and territory collecting institutions house unique and irreplaceable items and materials that are necessary for undertaking cross-disciplinary longitudinal studies. These vast collections and holdings cannot be maintained by a single institution. As such, physical collections should continue to be categorised and preserved across a number of institutions – not doing so could undermine the valuable work of these institutions and research communities.	*What we have:* *AAH suggests inserting the following section at the end of the second sentence of the opening section (i.e. after '…currently exists'):* There is no common, national-scale facility that allows researchers to access, discover, connect or curate the vast social and cultural record which documents who we are as a nation, how we experience and interact with our environment and our connections and understanding of cultures and communities around the world. This is in clear contrast to other developed nations. Collecting institutions *AAH suggests replacing the opening sentence with the following:* Much research content is maintained by national, state	The reference to 'collecting institutions' in the Roadmap is generic; a list of the key infrastructures and datasets is required. The level of specificity achieved in the Platform for Indigenous Research section should be the model. Two exemplars in Australia are the data aggregators Atlas of Living Australia (ALA) and Trove. ALA is an exemplar because it harvests research data produced by a diverse community of researchers. Trove is outstanding because (for example, in its gateway to newspaper collections) it is open and collaborative (citizen researchers expand transcribed content), gives direct access to data and is capable of being manipulated through new digital tools (harvesting data, text mining and visualisation). A number of submissions pointed to international exemplars, including Europeana, CLARIAH, the Digital Public Library of America and Stanford University collaboration and links

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	and territory collecting and cultural institutions, public-sector institutions and local societies and communities. *AAH also suggests including the following sentence at the end of the paragraph i.e. 'after valuable work of these institutions and research communities'.* The challenge is to produce an infrastructure that enables discoverability – to open up digital research content in our archives and cultural collections. Key infrastructures Key infrastructures, publicly held databases and corpuses include: Trove, Atlas of Living Australia, PARADISEC, AustLit, AusStage, Australian Policy Online (APO), Founders & Survivors, the Prosecution Project, FAIMS, AUSTLII and HuNI.	between British Library Labs, Turing Institute and Knowledge Quarter.[3] The diversity of disciplines, research methods and data collections demands more complex treatment. As currently framed, the distinctiveness of the humanities and social sciences has not been captured in the Roadmap. Specific reference to large humanities corpuses and datasets is warranted as is more granular detail on the large social sciences datasets and surveys such as the Census, HILDA, surveys of social attitudes, labour force and business data collections.[4]
What we need: Coordination and Integration for a Singular HASS Platform Platforms for HASS include a range of research infrastructures that are expanding beyond single disciplinary research approaches and leveraging existing portals and facilities such as the National Library's Trove	*AAH suggests renaming the platform and inserting the following section in place of the current first paragraph:* Coordination and Integration for an Australian Society & Culture Facility A national-scale facility is needed to enable connections to be drawn across a number of datasets and platforms,	The current draft is strongest when it achieves specificity and makes explicit reference to both existing facilities and the range of activities and research approaches that the new infrastructure would enable. It is not clear how the Indigenous Platform and Social Sciences Platform work with respect to the

[3] Europeana brings open source standardisation to the digitisation of cultural heritage across the European Union, see http://www.europeana.eu/portal/en; CLARIAH (bringing together two existing infrastructures DARIAH and CLARIN) to develop digital infrastructure that integrates large collections of data and software from different humanities disciplines, see http://www.cltl.nl/projects/current-projects/clariah/; the Digital Public Library of America and Stanford University collaboration Hydra, see https://projecthydra.org/, a new, national network and repository system, enabling discovery, interoperability and reuse of digital research resources; the UK's new Alan Turing Institute for Data Science, see http://www.cs.ucl.ac.uk/alan_turing_institute/.

[4] Refer to the submission from the Academy of the Social Sciences in Australia for further details, see https://submissions.education.gov.au/Forms/National-Research-Infrastructure-Capability-Issues-Paper-Submissions/Documents/Academy%20of%20Social%20Sciences%20in%20Australia.pdf

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and the ALA. The integration of existing HASS platforms needs to be supported along with the use of digitisation and next generation technologies. This integration enables improved multidisciplinary approaches that increasingly underpin the HASS sector. To fully realise the potential of current research infrastructure for the humanities, arts and social sciences, a number of platforms should be enhanced and incorporated into a single platform to leverage future research needs that demand increased discoverability, accessibility and the utilisation of innovative technologies. Improvements to existing research infrastructures are occurring incrementally and it is vital that this important work be continued by the relevant institutions. Focus on national investment would provide additional benefit and bring institutional capabilities collectively up to the level of national scale research infrastructure. Enhanced access to national and state collections will be critical for future HASS research. This should include a greater degree of interoperability across all collecting institutions. In addition, the unique and ongoing role of these institutions needs to be recognised as collective national research infrastructure. Supporting these facilities also provides opportunities for researchers by improving access to the physical items in old and new collections. Accessibility of collections will be changed through the use of technologies such as digitisation that alters the way researcher's access collections across the country. Subsequently, there is an imperative to improve the accessibility to physical items and build on digitisation efforts that are shaping the nature of HASS research.	allowing researchers to frame and investigate advanced research questions about Australian society, history, identity, economy and our relationships with other cultures and societies. The facility will offer researchers unprecedented discoverability of and access to untapped data archives, and support multidisciplinary approaches that increasingly underpin the research sector. It will support research on issues of national priority and significance, including research on Indigenous cultures, traditions, languages and health; and allow researchers to examine trends across time and place. Building on existing infrastructure, such as Trove and the Atlas of Living Australia, the facility will drive collaboration between researchers, libraries, collecting institutions, universities and research agencies. Key areas of focus include: • Coordination and access to data collections • Interoperability of existing key infrastructures, platforms and digital collections • Development of a digitisation excellence capability to help coordinate the use of innovative technologies and digitisation techniques • Digital skills development and research training • Investment in digital archiving and preservation • Service provision *[existing paragraphs follow]* *AAH suggests change of title to:* Platforms for Indigenous Research	'overarching' HASS 'platform'. There needs to be a more strategic case made for the collective package and collaboration needed achieve this. The recognition of cultural and collecting institutions as part of the national research infrastructure system is welcome, but this section has lost focus on research needs. Integration is only the first step in the process to support nationally significant infrastructure. This facility will need to develop strong collaborative relationships and focus on capacity building to keep pace with international efforts.

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There has been significant effort and institutional investment in developing the process and undertaking the digitisation of materials. Trove and ALA have been instrumental in leading much of this work. Australia needs to coordinate access to the digitisation of collections and ensure that existing platforms and digital collections are interoperable domestically and internationally. One solution is to establish a digitisation excellence capability that could help coordinate the use of digital technologies and digitisation techniques. Any current or future digitally based capability should be designed to be interoperable with leading international digital collections such as Europeana and draw on best practice for digital collections such those developed by the Smithsonian. Interoperability with these international collections facilitates open data, provides researchers access to Australian diaspora information and enables Australia to help shape international research infrastructure. Harmonisation of Platforms for Indigenous Research Improved integration and coordination across HASS should include the harmonisation of platforms for Indigenous research. A platform that can leverage Australia's cultural assets is needed. Creating a cohesive platform that harvests information, that is interoperable, and that provides appropriate levels of accessibility for communities and researchers alike is required. This platform will require community consent and access controls for Indigenous and other culturally and	*[no further changes for this section]* *AAH suggests change of title to:* Integration of Humanities and Social Sciences Data into the Australian Society and Culture Facility *AAH suggests reference to humanities disciplines as follows:* *Insert '*and humanities disciplines such as archaeology, linguistics and history' *after 'political science' in the first sentence.* *In first sentence of second paragraph insert '*and humanities disciplines' *after the reference to 'A platform that brings together multiple data sets from social science …'*	

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linguistically diverse (CALD) communities. Enabling CALD communities to access their history and information on the same level as Indigenous communities recognises Australia's diverse multicultural richness. Integration of Social Sciences Data into the HASS Platform A number of disparate and non-standardised large data sets exist across many social science disciplines such as psychology, sociology and political science. Countries such as the USA have made significant successful investments in harvesting and re-using data for multiple research purposes has expanded data use and improved impact. A platform that brings together multiple data sets from social science disciplines will have the ability to harvest and re-use data for research purposes. An integrated HASS data platform will enable the Australia research community to leverage existing data sets and ensure multi-use and cross disciplinary research.		