# Submission

# 2016 National Research Infrastructure Roadmap Capability Issues Paper

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**Environment and Natural Resource Management**

Question 20: Is there anything else that needs to be included or considered in the 2016 Roadmap for the Environment and Natural Resource Management capability area?

**Understanding Cultures and Communities**

Question 26: Is there anything else that needs to be included or considered in the 2016 Roadmap for the Understanding Cultures and Communities capability area?

**Data for Research and Discoverability**

Question 35: Is there anything else that needs to be included or considered in the 2016 Roadmap for the Data for Research and Discoverability capability area?

**Other comments**

This response provides a statement specifically about collecting organisations and addresses in one statement questions in the Environment and Resource Management capability; Cultures and Communities capability and Data for Research and Discoverability.

The consultation document references the national and state cultural collecting institutions as providing research infrastructure (see 8.1.3, p.33). We define cultural collecting institutions as comprising museum, libraries, archives – a sector often known by the acronym *GLAM*, with the addition of galleries making up the first letter. Other collecting institutions, just as important but often neglected in the definition, include state and national herbaria, film and sound archives, and historical societies. In common between all of these organisations is a mission to collect, care for, research, interpret, and make available through public exhibition, the natural and social history of Australia and beyond.

The consultation document has a number of sections where museums and their research and collections are relevant. However, the document sways towards a common problem – that of separating out science and humanities as independent from each other whereas in the GLAM sector this is not, and cannot be, the case.

Museum Victoria, as are all the major state and territory museums, is a multidisciplinary museum. It is the largest public museum organisation in Australia and holds collections of humanities, social history, archaeology, indigenous cultures, biological and earth sciences. And the boundaries between these are often blurred; and become more so when we think of the wider GLAM sector.

In the GLAM sector, our collections do not fit neatly into organisation boundaries –

- Several state and territory museums (e.g. Tasmania and Northern Territory) have significant art collections
- Most museums and galleries also have a library and archive.
- Libraries often have museum-style collections of 3-d material referred to as *realia.*
- All the organisations in the GLAM sector collect historic (and contemporary) photographs, diaries, letters and personal effects.

Within a multidisciplinary museum organisation such as Museum Victoria, there is further blurring of boundaries. Museum Victoria holds a large scientific artwork collection, for example, and one can ask whether this is science? Art? Part of an archive?

One thing we can agree about is that infrastructure that further facilitates and promotes the cross disciplinary collaboration and interaction between academic disciplines (sciences and humanities) as well as cultural organisation types (museums, libraries, archives and galleries) will be increasingly beneficial. We strongly support suggestions made in other submissions, such as the Atlas of Living Australia's Culture to Country proposal that will allow for greater aggregation capability between sciences and humanities collections data, information and stories. Aggregating collections data, as has already been demonstrated amply through the Atlas of Living Australia and Trove absolutely does open up the collections of the GLAM sector to researchers in the Humanities and Social Sciences, many branches of science and to STEM educators.

Museum Victoria already contributes to, and derives benefit from participating in, current national aggregation platforms including the Atlas of Living Australia (ALA) and Trove. To the Atlas of Living Australia we provide over 800,000 specimen occurrence records, of which over 14,500 have one or more images. We work productively with the ALA and are exploring delivery of new data types, particularly data that will support future genetic and genomic work; and the trait data developed by our researchers over many years. To Trove we contribute over 100,000 records comprised of items from our humanities collections, species descriptions, biological specimen records where the specimen itself has some social historical significance (such as the record for Phar Lap) and authored articles. Through a different technical delivery mechanism, we contribute our library catalogue records to Trove. A national data aggregation platform that provides a standardised data delivery mechanism according to clear and agreed data standards would provide a welcome addition to the fractured approach with which we currently work.

To international data aggregators, we contribute sciences data to the Global Biodiversity Information Facility via ALA and to the Encyclopedia of Life in an ad hoc way through the efforts of individual researchers. Museum Victoria also collaborates with the Atlas of Living Australia to lead Australia's participation in the Biodiversity Heritage Library. This international project seeks to provide free access to full text biodiversity literature from libraries around the world. Australian publishers and institutional libraries have so far contributed 761 volumes comprising over 166,000 pages into the BHL platform.

The point of noting Museum Victoria's contributions to existing aggregators is to highlight how museum, herbarium, archive, library and other cultural collections can themselves be seen as core infrastructure that requires support. Scientific specimen collections, including both biological and earth sciences collections, have been stored and cared for over one hundred years yet they are still

revealing new research potential. Advances in DNA barcoding technology, materials analysis, crystallography, 3D imaging and scanning mean that even the very old collections can still be mined for new data.

In the realm of humanities collections, book and document digitisation releases texts previously inaccessible or unfindable except through serendipity. Photographs and film can be analysed for faces, places and understanding of lifestyles, architecture, industrial or farming practices and community. The collections themselves, across the cultural and sciences collecting sector represent research infrastructure that is only barely being tapped at the moment.

Digitisation is often held up as the solution to unleashing the stored potential of GLAM sector collections but what form a digitisation capability might take is unclear. Digitisation currently often means a text based catalogue record plus an image and occasionally moving image and/or audio. Making digitised records is slow, labour intensive and not always targeted to research needs. We would welcome a further discussion about 'future digitisation' – where this might mean something vastly different from what's currently understood. Future digitisation of the collections held by GLAM sector organisations might mean a genetic sequence; a Biobank sample; or a point cloud from a 3D scan and not just a cataloguing record.

In summary, Museum Victoria welcomes the further development of the NCRIS Roadmap and capabilities. We fully support the NCRIS capability we already participate in – the Atlas of Living Australia. We would welcome future support for Trove or similar aggregation platform for humanities information and would encourage even further aggregation of capabilities that support both sciences and humanities. We wish to encourage consideration of the nation's heritage and science collections as research infrastructure in their own right, full of data and information that can yet be unlocked.