1. MAAS Research vision statement

MAAS is Australia’s leading museum in applied arts and sciences with a unique model of one museum across four sites, off-site and online. Research within MAAS is a whole of organisation activity encouraging the development of new knowledge, new practices and new projects to meet this innovative vision. Our activities inspire and foster deep research practices, sharing the new knowledge we generate with the public, expert specialists, corporate, community and the university sector. This may involve research and development extending into commercialisation. For the Museum, this is both a disciplinary specific practice as well as a transdisciplinary endeavour involving a range of different disciplines, cultural and community practices. Overall, research plays an integral role in our work as we act as a catalyst for creative expression and curious minds.

2. Introduction and Background

2.1 Introduction/context

Founded in 1880, the Museum of Applied Arts and Sciences (MAAS) is a publicly funded institution established by the Museum of Applied Arts and Sciences Act 1945 (NSW) and governed by a board of Trustees guided by the Museum of Applied Arts and Sciences Regulation 2017.

The 1945 Act specifically mentions the need to maintain and administrate research in the form of ‘scientific research’ and through ‘lectures, broadcasts, films, publications and other educational means’. In 2001 the Museum had a Collection Development and Research Policy that was subsequently superseded by the Collection Development Policy in 2010 and again in 2015. Research is not currently encapsulated in a current policy document and has been administered through a Research Strategy formulated in 2015. This new Research Strategy sits under the new Research Policy Framework.

Due to the significant role of research across the organisation, the legislative requirements for research and the current and future contractual obligations regarding research involving external organisations, it is recommended that a Research Policy Framework is established. Over the last few years, there has been an increased level of strategic priorities related to research, new Australian Indigenous protocols and plans, enhanced new technologies impacting on research practices, management, dissemination and publication and the future vision of MAAS. A Research Policy Framework will enable the activation of research across the Museum to inform and meet the vision and business planning for the one museum across four sites model. This model requires the support and enhancement of a museum-wide culture that enables innovation and research development to engage our diverse communities, our advances our research partnership opportunities, and to generally enhance our professional industry reputation. Research is specifically involved in the successful realisation of the strategic key performance indicators (KPIs). These include KPIs relating to online and onsite audience growth, diversity and quality of partnerships, enrichment of the collection, growing national and international reputation, increased accessibility of programs and exhibitions and growth in the education audience demographic.

The MAAS Research Strategy (2018 - 2023) clarifies and extends our previous research efforts by moving the research activities from a curatorial department-led practice to a whole of organisation approach encouraging transdisciplinary innovation. Using this framework, we will play a key role in identifying areas of future research and investigation to enable us to continue our path of undertaking a rigorous program of discipline specific and transdisciplinary research across applied arts and sciences and where appropriate extend into research and development and commercialisation. Our efforts will be enhanced in some areas by the development of research strategies for any specialist centres such as the Centre for STEAM and the Centre for Fashion.
Central to the success of our research efforts is a vibrant, supportive and collaborative research culture enabling MAAS researchers to partner with researchers in cultural, university and corporate organisations to develop innovative approaches to researching contemporary and material culture and the museum context.

The MAAS Research Strategy (2018-2023) will assist us in achieving our research aims of developing a national and international reputation for innovative museum research.

2.2 Definition of Research

The Australian Research Council defines research as

> the creation of new knowledge and/or the use of existing knowledge in a new and creative way so as to generate new concepts, methodologies and understandings. This could include synthesis and analysis of previous research to the extent that it is new and creative. This definition of research is consistent with a broad notion of research and experimental development (R&D) as comprising ‘creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of [humanity, culture and society], and the use of this stock of knowledge to devise applications’. (Australian Research Council 2018)

This definition of research is used within MAAS to define and guide our research activities. Within the Museum we frequently use the term ‘research’ in a very general sense to ‘look for information’ or ‘find the answer to a question’. This may be part of routine work, for example, answering a public enquiry or establishing basic information about an object for acquisition however, the definition above, extends beyond this understanding of research. Using the conventional understanding of the term, this kind of work comprises expert knowledge rather than research, which involves analysis and interpretation to develop new conclusions and thus, new knowledge. However, it needs to be acknowledged that there are various levels of research undertaken in the museum context, and that it will not always mirror conventional academic research. Research activity is driven by purpose and this will determine the form that it takes in the Museum.

2.3 Research Objectives

Research at the Museum may include:

- Scholarship: the analysis, synthesis and interpretation of ideas and information.
- Pure research: work undertaken to acquire new knowledge without a specific application in view.
- Strategic research: work which is carried out to discover new knowledge which might provide for an envisioned future application.
- Action research: the development of new knowledge through engagement in practice.
- Research and development: activities related to innovation and entrepreneurship, development and activation of products and processes.
- Transdisciplinary research: the development of new knowledge, practices and products through combining different disciplines and cultural paradigms.

• Indigenous research as informed by MAAS’ Reconciliation Action Plan, the Australian Indigenous Cultural and Intellectual Property Protocol and the Australian Aboriginal and Torres Strait Islander Collection Management Reference Group.

• Audience Engagement and Experience research: Monitoring, front end, formative (including experiential prototyping) remedial and summative evaluation research, primarily market, marketing and social will be undertaken to both understand audiences themselves and build knowledge about exceptional museum/audience engagement and experience.

The MAAS Research Strategy (2018-2023) supports the intentions as outlined in the Research Policy to enhance our reputation for museum research in Australia and beyond based on:

• Research in the applied arts and sciences that produces new knowledge and benefits society
• Research that is transdisciplinary, drawing on the strengths of collaboration between the arts and sciences, technology enablers and our expert knowledge communities
• Outcomes from research collaborations with university, corporate, community and cultural institutions and professionals
• A culture of deep research inquiry and curiosity about the material and contemporary world and the museum context. This includes researching the role of future museums, what they are and how we should respond to changing audience needs and ways of engaging.

We will achieve these by:

• Visible research activity as experiences in the museum, online and offsite.
• Fostering a connection between research, our collection, collection management, exhibitions, learning, conservation, development, programs and our audiences.
• Cultivating a research culture across MAAS that supports staff research practices through professional development, collaborative processes, mentoring, and peer support.
• Developing a program of transdisciplinary research activity attracting researchers from a range of institutions, communities and industries.
• Communication of our research to the public through engagement with events, digital, exhibition, publication and speculative research and development practices.
• Continuing to strengthen and engage an integrated strategic university, industry and corporate partnership network.
• Extending the digital research platform and expanding the ways we digitally engage with our stakeholders ensuring research is clearly branded, has rich easily located quality resources and delivers scholarly and expert outputs.
• An innovation strategy and accompanying initiatives by 2023 that strengthens practice-based research, speculative transdisciplinary exhibition and engagement, innovation and entrepreneurial culture.
• Developing an expert research publication strategy.
• Specific research initiatives in accordance with specialist centres such as Centre for Fashion and Centre for STEAM.

3. Governance

3.1 Research Manager

Co-ordination of museum-wide research activities in collaboration with specialist experts across the organisation. Ensures the research services are managed in accordance with this MAAS Research Strategy, MAAS Research Policy and Framework, related legislation, policies, strategies, plans and
procedures and accepted best practice standards. The Research Manager reports to the Director Curatorial, Collections & Exhibitions.

3.2 University, Industry and Corporate Research Partnerships

MAAS engages in wide-ranging research partnerships to deepen its specialist knowledge and enable new processes and investigations to be undertaken with expert communities. The partnerships are managed between the Head of Development and the Research Manager, and will engage other stakeholders across the organisation to manage and oversee aspects of these partnerships where appropriate. The Head of Development will undertake the overall management and servicing of these relationships working with relevant internal stakeholders. The Research Manager will manage the projects and detail of the relationships when pertaining to Research activities. This may include facilitating activities such as workshops, conferences, publications and specific exhibition projects, and may involve coordination with other teams across MAAS. These partnerships will be formalised through a Memorandum of Understanding or Partnership Agreement and may also be related to external funding agreements such as the Australian Research Council linkage projects.

3.3 MAAS Research Advisory Committee: Terms of Reference

The Research Advisory Committee will meet quarterly to:

- Lead, plan and review the Museum’s research efforts
- Review and endorse proposals for new research projects
- Provide research ethics guidance and approval ensuring adherence to the MAAS Code of Good Practice in Research and the Australian Indigenous Cultural and Intellectual Property Protocol.
- Communicate the Museum’s research activities both internally and externally
- Oversee grants and partnerships generating significant research outcomes
- Review, discuss and endorse proposals for expert research publications
- Review information from expert international and national research advisory committees
- Monitor research-based public facing projects including symposia, programs and exhibitions
- Oversee Research Fellows, Research Residencies and Research Internships

The Committee will consist of a cross-section of key Museum staff involved with research and will be chaired by the Research Manager.

4. Research Services

4.1 MAAS Research Library

The MAAS Research Library provides reference and research services to both MAAS staff and external clients. The eclectic nature of the library collection reflects the development of the Museum’s object collection. The Research Library blends hard copy materials with online resources, including auction databases and scholarly publications. Access to information which is not held in the library collection is available through the Research Library’s membership of the Libraries Australia Document Delivery (LADD) service, managed by the National Library of Australia. The proposed four-site model for the Museum of Applied Arts and Sciences will be a catalyst for the selected digitisation of the library collection.

4.2 MAAS Photography Library

The MAAS Photography Library provides visual resources and research services to both MAAS staff and external clients. The collection comprises the analogue and digital photography production since about 1974 and can be divided into object and non-object photography. All photographs have
the status of state records. The object photography collection augments the collection management system records with visual reference. It is also used to illustrate and promote the collection in in-house and external exhibitions and publications. Non-object photography is a documentary record of MAAS projects and associated activities, people, locations and events over the last 44 years. It is used illustratively in exhibitions and publications and as a primary source to support research into display practices, work practices, public engagement, artists and makers, performances, engagement with the Indigenous community and significant sites in Sydney and NSW, including the construction of the Powerhouse Museum and the move from Harris Street to the Powerhouse Museum in 1988. Further digitisation of the analogue material will increase the value and availability of this resource.

4.3 MAAS Archives

The key aspects of the work of the MAAS Archives, especially its dual role in terms of the institutional archives and the collected archives, are outlined in the MAAS Archives Policy. The institutional archives are mainly used by MAAS staff to help with current operations, providing information about past decisions or approaches that have an influence on the organisation going forward. MAAS Archives is associated closely with the Records unit and as such acts as the corporate memory of MAAS. The institutional archives additionally help provide greater context about objects or collections accessioned by MAAS such as materials required for curatorial research such as material relating to donors and the provenance through investigating other sources. External researchers access the archives for specialist research largely relating to the collection.

5. Types of Research projects

At MAAS research includes the creation of new value, knowledge and/or the use of existing knowledge into the collection management, curatorial practice, education and digital learning, public programming, conservation, digital and museum practice. Each of these areas may involve research into digital and media related aspects of material culture and the museum context.

The Museum is an active participant in research to address the Museum’s four strategic ambitions: curiosity, creativity, collaboration & sustainability, and the eight collecting disciplines of: technologies, health and medicine, physical sciences, engineering, architecture and the built environment, design and decorative arts, fashion and contemporary culture.

Research will address the overall MAAS strategic themes, be sustainable and be located within one or more of the key types of research. Research will focus on producing new knowledge about contemporary and material culture through an attention to object-oriented research, collection field research, exhibition research, research in conservation, museum education and learning, audience experience and response, digital and media innovation, transdisciplinary processes and museology. These areas may overlap contributing to innovative research topics, methodologies, and findings and may include approaches that are pre-, post- and iterative projects (e.g. Co-design).

- **Physical and digital object-oriented research**
  The intention of object-oriented research is to provide as much information as possible about an object, its design, manufacture, function, provenance and significance. Initial object or collection research takes place at the time of acquisition as part of the formal acquisition process. Each object in the MAAS collection is considered in terms of its historic, aesthetic, scientific and social values to determine how its meaning is understood by people and by communities. Further research is undertaken on existing collection objects when they are included in exhibitions, publications, public programs or other museum activities. As with all research at MAAS, our involvement in object-oriented research is focused on producing new knowledge.

- **Collection field research**
The objective of collection field research is to develop an understanding of the changes occurring in the design, fabrication, exchange, use and significance of material culture. It seeks to place objects in their economic, physical and social contexts and broaden understanding of the nature, social context, history and future of science, technology, industry, design and decorative arts in Australia and internationally. Collection field research is primary research that is innovative and seeks to establish new ideas, analysis and conceptual relationships in the study of material culture.

- **Exhibition and experience content research**
  A rich field for research inquiry is that of exhibition and experience themes, practices and concepts. This area of research brings to the fore the development of exhibitions and experiences, particularly the subject based research that much program development draws upon. Such research relies on the use of primary and secondary sources and interpretive strategies as applied to objects. This area of research includes aspects of curatorial, exhibition development and public programs practice in relation to conceptualising exhibitions and experiences in the museum context.

- **Collections management and conservation research**
  Conservation research facilitates the highest standards of collection care and conservation through understanding the chemical and physical properties of materials, their methods of manufacture and the deterioration processes that affect these materials. Conservation research may involve:
  - Developing and implementing preventive and strategic measures for managing collections
  - Developing new interventive techniques for treating collection objects
  - Undertaking condition surveys of collections
  - Identifying and controlling causes of deterioration within collections
  - Evaluating environmental factors affecting the collections and developing methodologies and systems to mitigate or reduce their impact
  - Developing handling, storage and display methodologies for objects
  - Developing and adapting technologies for conservation purposes
  - Analysis and identification of materials using scientific methods such as FTIR (Fourier Transform Infrared Spectrometry) and XRF (X-ray Fluorescence) analysers.

- **Museum education and learning research**
  Research into museum education and digital learning focuses on pedagogical effectiveness and innovation in the museum context. Research includes education and learning across a variety of age groups, and includes links with the formal educational curricula and lifelong learning. The focus of such research may be face-to-face learning encounters or those mediated via technology, including online.

- **Museology and new museum practices research**
  Museology research considers key trends (globalisation, digital disruption, mass migration, etc) which impact museums and their context, museum programming and curation, and the development of the skills and knowledge necessary for museum practice. Such research endeavours to create new understandings of museums in the broadest sense, including their relevance and value to current and future audiences. It seeks to explore, and critique challenges and opportunities faced by museums, and create new knowledge regarding their place in society.
• Digital and media innovation research

Digital and media innovation research relates to our collection data set, large public audience, and the Museum’s information/learning mission. We partner with tertiary and corporate researchers working with the web and other networks in research relating to data visualisation, communication, social media, mobile technologies, virtual environments, interaction design, human computer interaction, robotics, video conferencing, artificial intelligence, augmented reality, media art, and to new approaches to learning and teaching. The digital department are working with researchers, developers and educators to inspire new applications using the collection API and to enrich the visitor’s experience of the museum through multiple digital and technology channels.

• Transdisciplinary research

Transdisciplinary research moves between the different disciplines of the collection, different departmental expert knowledge and expert community and corporate stakeholders. Through working with transdisciplinary methodologies and processes new knowledge and practices will emerge. This research area will also work with external expert parties from multiple disciplines across the arts and sciences and will form the basis of some of the deep research partnerships held with university and corporate partners.

• Audience Engagement and Experience Research

Monitoring front end, formative, remedial and summative evaluation, research: primarily market, marketing and social will be undertaken to both understand audiences themselves and build knowledge about exceptional museum/audience engagement and experience.

• Audience co-design projects such as Citizen Science

Audience participatory projects such as Citizen Science are research projects if the testing or data collected is evaluated and incorporated into new knowledge frameworks by expert scientists or other expert practitioners. The data collection, testing and prototyping practices are, therefore, integral to the new knowledge being produced.

6. Funded Research

Funding will be sought for research projects as often as possible and in alignment with the Development Strategy. Opportunities to participate in funded research projects come from many sources. MAAS participation in a funded research project will be considered by the Research Advisory Committee, and between meetings of this committee, the Research Manager in conjunction with Director Curatorial, Collections & Exhibitions, Director Communications & External Affairs and the Director Programs & Engagement, will identify a member of staff responsible for leading the Museum’s activity. The member of staff is required to fulfil criteria that they are expert specialists able to lead rigorous research projects that will contribute to the museum’s international and national reputation. Roles and responsibilities will be decided on a project-by-project basis.

Depending on the application outcomes the MAAS Research Manager in collaboration with the MAAS Development team will:

• administer the funding agreement process and its sign-off;
• monitor funding agreement through activation including milestones, schedules, resourcing and budget expenditure;
• coordinate grant acquittal reporting at the completion of the project.
7. Research Ethics

The MAAS Code of Good Practice in Research will be adhered to ensuring research is carried out in an ethical and rigorous manner leading to high-quality research outcomes. The Code draws on key frameworks developed by the International Council of Museums (ICOM) Code of Ethics for Museums; Museums Australia Code of Ethics; and Australian Code for the Responsible Conduct of Research.

For Audience evaluation research the preferred evaluation guidelines that steer the ethics of the practice are outlined by the Australian Evaluation Society. [https://www.aes.asn.au/join-the-aes/membership-ethical-guidelines/7-aes-codes-of-behaviour-ethics.html](https://www.aes.asn.au/join-the-aes/membership-ethical-guidelines/7-aes-codes-of-behaviour-ethics.html)

Australian market and social research is also guided by the code of ethics for market and social research projects. [https://www.amsrs.com.au/documents/item/194/](https://www.amsrs.com.au/documents/item/194/)

The MAAS Research Advisory Committee will oversee the compliance with the Code.

8. Indigenous Research and Cultural Material


9. Support for research amongst MAAS staff

The Research Manager will work with colleagues across the Museum to ensure that research project members have sufficient time and support to deliver museum-based research to the highest international standard. This will involve support when seeking external grant funding, internal peer review, in addition to a range of activities such as training workshops, seminars amongst others.

The MAAS research aims to:

- Develop a supportive space to discuss various aspects of research with colleagues to enhance expert knowledge and exchange
- Increase the knowledge and skill base about a range of research methods and their application amongst MAAS colleagues
- Build an internationally and nationally respected research culture
- Intellectually and practice-based rigorous research benchmarked against best-practice models
- A research environment that works in connection to current relevance to disciplinary expertise and/or innovative transdisciplinary practices that are connected to the Museums strategic vision and collection
- To build partnerships with external researchers that hold mutual relevance exhibited through jointly approved integration of objectives and outputs
- Increase research, innovative exhibition, programs, digital, publication and experience outcomes amongst MAAS staff.

These support activities aim to ensure MAAS staff involved in research are sufficiently skilled to participate fully, including in the writing of publications associated with the research.
10. **Research Outputs**

10.1 **Visiting Research Fellowship Program**

We will seek out other partnership arrangements with universities, notably through the enhancement of the Visiting Research Fellow Program. The MAAS Visiting Research Fellowship Program provides a supportive environment for researchers to undertake research related to the Museum’s collection, education, conservation and museum practice. The fellowships will enable researchers to access the Museum’s resources to support their research for a short period of time. The visit will initiate and develop collaborative research and facilitate interaction with, and training of, MAAS staff. Visiting fellows are expected to make a tangible contribution to the Museum during the period of their stay and are encouraged to engage with the public and staff through talks, exhibitions and other project presentations. All aspects of the program will be managed by the MAAS Research Manager.

10.2 **Research publication and online platform**

As part of its focus, MAAS strives to communicate research outcomes to the university and corporate sector, community and broader public to ensure that new knowledge about contemporary and material culture acts to inform and shape cultural and public life. Communication about research will occur through a variety of scholarly journals, conference papers, book chapters, digital channels, speculative exhibition, and books, and will be coordinated by the Research Manager in consultation with key MAAS staff as required. At times this may include specific expert research publications aimed at specific specialist audiences and/or in association with deep iterative research projects. Additionally, commissioned works with contemporary writers, expert practitioners and academics will be accommodated particularly in relation to targeted research projects pivotal to leading museum and transdisciplinary research. We will also communicate MAAS research via publications with a broader/commercial appeal such as trade journals, magazines, book chapters, digital channels, distributed and onsite speculative project-based exhibition and books. Such efforts will be coordinated by the Research Manager in conjunction with other Senior Leadership Team members as required. The Research space on SharePoint will house a project planning section to assist in this process that is able to be accessed by all staff.

Communication will include writing for online publications about research activity and outcomes to promote an understanding of the Museum’s research to the public in broad and popular forums. This includes developing a digital platform for Research that is clearly branded, easily located resources and spans different modalities of communication on the MAAS website. Online communication about research will be coordinated by the Research Manager in collaboration with Senior Leadership Team members as required.

10.3 **Research Symposium**

Research Symposia will likely be held twice a year for a full day appealing to GLAM and specialist expert partner organisations inclusive of university colleagues and students. The symposia will strive to be set around the core research questions fully outlined in the Research Implementation Plan and will be explored by expert practitioners across disciplines and drawn from partner networks and internal staff. At times, these will feature linkages with research being investigated through ARC Linkage grants and specific partnership agreements that are assisting with the research that matches MAAS research criteria and helps investigate critical areas of inquiry.
10.4 Research and development innovation space by 2023

As identified in the Research Policy, a physical hub for research, speculative transdisciplinary exhibition and engagement (lab), innovation and entrepreneurial culture will be developed. This transdisciplinary lab concept continues to build the expert work already carried out by Curatorial, Conservation, Digital, Programs, Audience Engagement and Insights, Education and Digital Learning. It will enable the testing and prototyping of projects, products and processes. This is likely to interconnect with the iterative research projects connected to contractual research projects that require ongoing research facilities available over several years. This lab is intended to connect to the specialist research centres, innovation sector and an integrated university and corporate partnership strategy. This lab will feature a co-working capacity so that MAAS can embed external stakeholders where required developing a 'porous' working research and development practice. It will also form a hub for entrepreneurial and commercialisation activities.

10.5 Object-based Learning Facilities

Facilities will be developed to showcase our research projects and access key literature, materials and digital content to support the ongoing deep research carried out in specifically targeted areas. This will be developed collaboratively with Libraries and Archives, Education and Digital Learning, Strategic Collections, Curatorial and other Senior Leadership Team members as required. Services and facilities may include amongst others research display facilities at Museum Discovery Centre, storage facility tours, research library, staff subject specialist presentations, development of digital interfaces and exhibition tours.

10.6 Research events

As part of our commitment to communicating research to the public and engaging both expert and broader communities, in collaboration across/between MAAS to deliver a series of research experiences including:

- Seminars
- Workshops
- Symposia
- Conferences
- Digital Channels
- Exhibition
- Mobile projects
- Commissions
- Programs

Publications and programs will be aligned to transdisciplinary practices alongside the eight key research areas. When possible, events will be linked to relevant MAAS-scheduled exhibitions. We will foster connections between our research, the MAAS collection, curatorial, exhibitions, education and digital learning, conservation, digital and public programs.

11. Research implementation plan

This MAAS Research Strategy will be accompanied by a full implementation plan and budget that is developed in consultation with departments across the organisation. This will be approved and managed by the Director Curatorial, Collections & Exhibitions. Specific MAAS-set objectives will be provoked through a set of MAAS research questions that set the core investigative territory for new and existing enquiries. These are likely to be supported through industry and university partnership agreements.