

NEW MUSEUM

# RATIONALE

14 FEBRUARY 2017



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# 1. Introduction

## 1.1 Overview

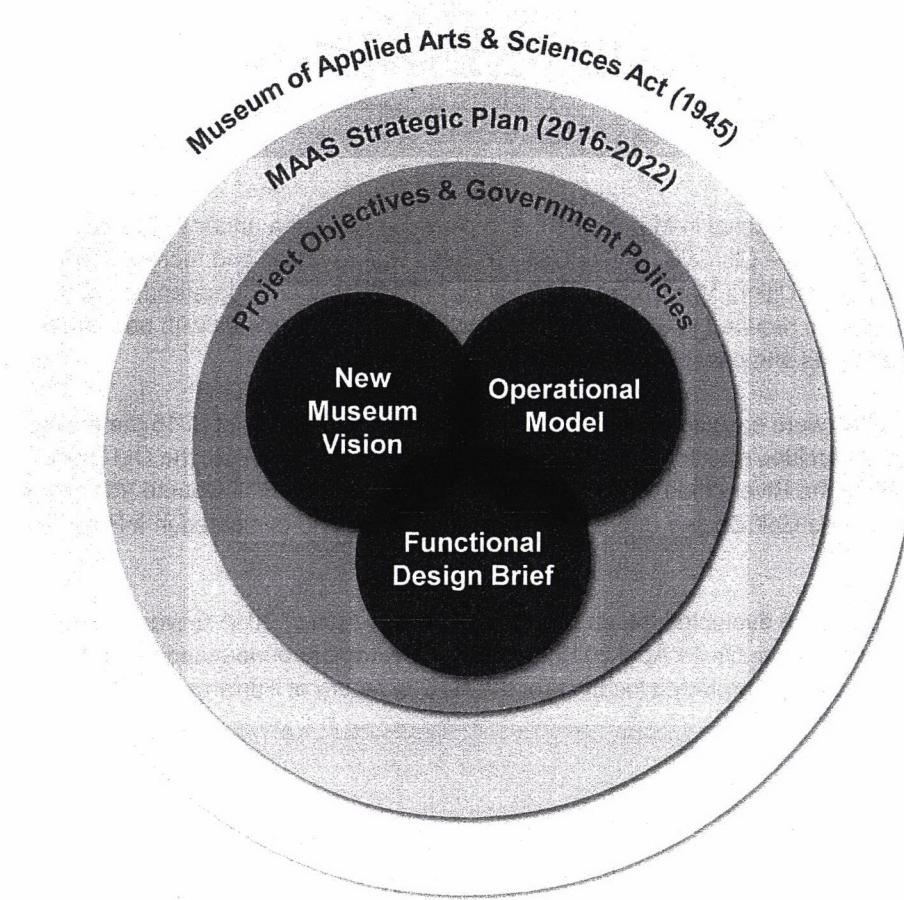
The commitment by the NSW Government to develop the Museum of Applied Arts and Sciences (MAAS) in Parramatta is an extraordinary opportunity. It is a commitment to a unique, once-in-a-generation investment to support the growth and development of one of the fastest evolving regions in NSW and Australia, to deliver on the NSW Government's strategic priorities in supporting the arts and culture sector, and to underpin the future success of MAAS.

The investment in deepening the presence of State significant cultural institutions in Western Sydney also represents greater recognition of the richness and innovation of the arts and cultural sector of Western Sydney, and the importance of supporting cultural participation and the achievement of educational outcomes. In particular, MAAS has an increasingly important role in supporting the educational and employment outcomes in the areas of STEAM (science, technology, engineering, arts and mathematics).

A new location in Western Sydney provides an opportunity to engage and attract new audiences around these disciplines. Central to the renewal program is a commitment to ensure more of the Museum's vast collection is on display.

## 1.2 Purpose

The purpose of this Rationale is to outline the model for the New Museum. It combines, and aligns, the organisation's **Mandate** (the MAAS Act), the **MAAS Strategic Plan**, the **Project Objectives** (*including NSW Government Policies*), the **Vision** for the New Museum, the **Operational Model**, and the **Functional Design Brief**.



### 1.3 Background

From early 2014, following the announcement of its 2020 Vision Strategic Plan, MAAS developed a new Masterplan for the Ultimo site. This process saw the current spaces benchmarked against world leading Museums, and identified a series of opportunities for the redevelopment of the Museum to improve financial sustainability, and significantly enhance visitor experience and operational efficiency of the Museum.

The constraints of the Ultimo site and the identified opportunities for the Museum were documented in a Preliminary and Final Business Case that successfully passed through two NSW Government Gateway Reviews throughout 2014.

The State Infrastructure Strategy was released November 2014, NSW recommended the development of a new cultural precinct in Parramatta, at its heart, as the precinct anchor was the Powerhouse Museum.

The recommendations of the State Infrastructure Strategy were endorsed by Government and incorporated within the Rebuilding NSW Plan. In February 2015, aligned with the release of the NSW Government's 10 year policy framework, Create in NSW: The NSW Arts & Cultural Policy Framework, the Premier and Deputy Premier announced that the MAAS' flagship facility, the Powerhouse Museum, would relocate to Parramatta.

*"We want to extend Sydney's cultural ribbon to Western Sydney so we will invest...to relocate the Powerhouse Museum to Parramatta. This will be the first time one of the State's five major cultural institutions will be entirely located in Western Sydney...to ensure it remains the interactive and vibrant place enjoyed by children and families. A design competition will be held to decide the final look and fit-out of the new museum, and we'll guarantee the proceeds from the urban renewal of the existing site in Ultimo will go toward the new museum in Parramatta."*

*"Western Sydney deserves its own cultural institution to be proud of and the Powerhouse Museum is a terrific cultural icon to be housed locally in the region,"*

Source: Premier's Press Release 26 February 2015

The Baird Government was re-elected in March 2015, and planning has been underway since that time. The planning work from the Ultimo Business Case process was revisited and recreated in light of the new mandate. The earlier Ultimo Masterplan had provided MAAS a clear understanding of the number and nature of spaces required to deliver the core functions of the Museum with benchmarking informing expected standards and capability of contemporary galleries.

A number of potential sites were considered for the development. In September of 2015 the NSW Government Standing Committee on Infrastructure (CIC) determined that two sites, the Old David Jones car-park on Parramatta River ('the Riverbank Site') or the Parramatta Golf Course adjacent to Parramatta High School ('the Golf Course Site'), were to be shortlisted and evaluated in a Preliminary Business Case.

The Preliminary Business Case evaluated the shortlisted site, and in April of 2016 Government considered the recommendations. On 11 April 2016 the NSW Government announced that it had chosen the Riverbank Site as the preferred location for the New Museum at Parramatta.

## 2. Mandate

### 2.1 About MAAS

The Museum of Applied Arts and Sciences is Australia's contemporary museum for excellence and innovation in applied arts and sciences. Established in 1879, our venues include Powerhouse Museum, Sydney Observatory and Museums Discovery Centre. We are uniquely placed to demonstrate how technology, engineering, science and design impact Australia and the world.

Internationally, MAAS is acknowledged for the calibre of our collection, scholarship and exhibitions. Our collection spans science, technology, design, industry, decorative arts, fashion, transport and space exploration. It is also home to the material heritage and stories of Australian culture, history and lifestyle, providing a comprehensive insight into this rich and diverse country.

MAAS is custodian to over half a million objects of national and international significance spanning cultures and millennia, and is considered one of the finest and most diverse collections in Australia. A program of temporary exhibitions and programs complements a range of permanent galleries throughout MAAS venues. We place a strong emphasis on learning and creativity. An outline of the history of MAAS can be found in Appendix A.

### 2.2 MAAS Act 1945

Established as part of the 19th century agenda for the advancement of knowledge and social reform the Museum has operated under the authority of its own Act of Parliament, The Museum of Applied Arts and Sciences Act since 1945. MAAS is a statutory body with the Arts & Culture unit within the Department of Justice Cluster. The Act provides for constitution of a body corporate of nine Trustees who, subject to the control and direction of the Minister, exercise the powers conferred by the Act.

*Under the Act the Trustees exercise the following functions:*

- i. the control and management of the Museum,*
- ii. the maintenance and administration of the Museum in such manner as will effectively minister to the needs and demands of the community in any or all branches of applied science and art and the development of industry by:*
  - a. the display of selected objects arranged to illustrate the industrial advance of civilisation and the development of inventions and manufactures,*
  - b. the promotion of craftsmanship and artistic taste by illustrating the history and development of the applied arts,*
  - c. lectures, broadcasts, films, publications and other educational means,*
  - d. scientific research, or*
  - e. any other means necessary or desirable for the development of the natural resources and manufacturing industries of New South Wales.*

*Source: Museum Of Applied Arts And Sciences Act 1945 - Sect 14*

Therefore, within their remit as body corporate and at the direction of the Minister, it is the role of the Trustees to ensure the security and maintenance of the collection and the creation of a New Museum that showcases the collection across all areas of applied science and art.

### 3. MAAS Strategic Plan 2016-2022

The Museum of Applied Arts and Sciences Strategic Plan 2016 - 2022 sets a clear direction for the Museum, its three venues – the Powerhouse Museum, Sydney Observatory and the Museums Discovery Centre – and a plan for its future. MAAS is Australia's only museum of applied arts and sciences, with an exceptional collection, significant venues and locations in Sydney, Australia's global city.

The Plan seeks to position MAAS at the forefront of contemporary museums. It outlines the Vision, areas of focus and an interdisciplinary way of working. Key themes and disciplines are identified to inform MAAS' collecting priorities, exhibitions and programs to build a consistent identity for the Museum. The themes of Our place in time – our past, present and future, Our State and our region, fostering creativity and innovation in science, technology, engineering, arts and mathematics, and building economic and environmental sustainability underpin MAAS' vision, mission and activities.

The Museum holds a vast and diverse collection which stands at the heart of all that MAAS do. In alignment with the Act and vision, museum experiences are founded upon the following core disciplines: Technologies, Health and medicine, Physical sciences, Engineering, Architecture and the built environment, Design and decorative arts, Fashion and Contemporary culture.

Within the Strategic Plan, MAAS identify the need to grow audiences, and reverse declining audience trends. Through a long term process of engagement MAAS are focussed on better understanding their audiences and continually refining their experiences to better meet the communities' needs.

The vision is to be delivered through four interdependent strategic commitments:

- **Curiosity:** Our experiences (people, research, programs and exhibitions) will evoke curiosity in our audiences and provide new pathways for participation.
- **Creativity:** We will inspire and support creativity and innovation in our diverse community. Our experiences will be entertaining, creative, engaging, participatory and productive.
- **Collaboration:** Our future relies on our ability to initiate and maintain successful partnerships. Our audiences and communities are our most important partners; we will foster local ownership. We will establish partnerships with commercial, national and international organisations and ensure a two-way relationship with our stakeholders.
- **Sustainability:** In order to thrive, the Museum of Applied Arts and Sciences must adapt, grow and deliver a meaningful museum experience well into the future. We will ensure sound business modelling, resilience, fiscal sustainability and maximise commercial returns securing public, workforce and stakeholder trust. We will conserve and strategically manage and develop our collections for future generations.

Key Measures of success include:

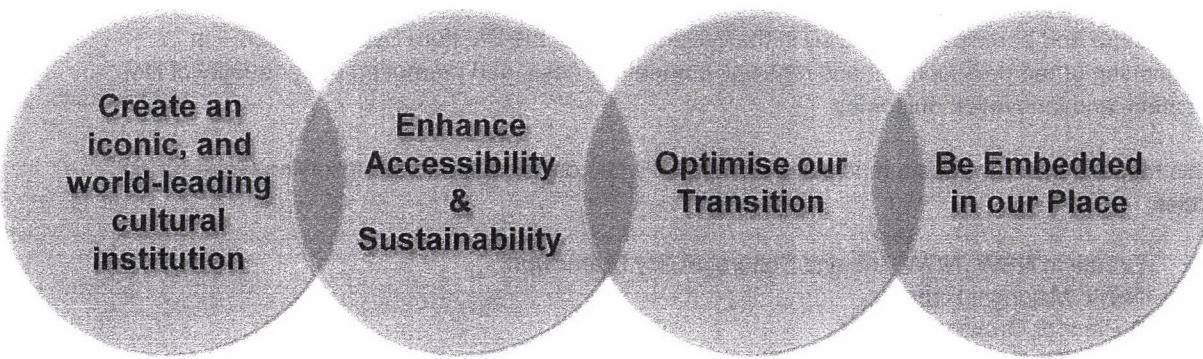
- Onsite and online audience growth
- Education audience growth, increased satisfaction with the visitor experience
- Significant contribution to NSW tourism
- Diversity and quality of partnerships
- Continued growth in self-generated revenue
- Enhanced quality of access, loans, research outcomes, publishing and acquisitions.
- Growing national and international reputation
- Increased access to programs and collection regionally, internationally and digitally

On top of these measures are the statutory reporting measures related primarily to financial matters, and compliance with Government regulations and policy. The full 2016 – 2022 MAAS Strategic Plan can be found only at [maas.museum/strategic-plan/](http://maas.museum/strategic-plan/)

## 4. Project and Government Objectives

### 4.1 Project Objectives

Developed through the Preliminary and Final Business Case, and endorsed by the Project Steering Committee, the four key objectives of the New Museum project are:



#### Create an iconic, and world-leading cultural institution

- A contemporary museum that facilitates both physical and digital museum experiences through personalisation, innovation, technology, knowledge sharing and exchange platforms
- World-class education and research facilities embedding interactive technology
- Embed more of our world-class collection at the heart of the new Museum, while maintaining international best practice storage, safety and care for the MAAS collection

#### Enhance Accessibility and Sustainability

- Maximise audience engagement to our collections and programs, physically and digitally, by including free and low-cost access
- Develop a sustainable MAAS operating model that increases and diversifies access to alternative revenue streams

#### Optimise our Transition

- Utilise robust delivery strategies that facilitate minimal disruption to operations on the Ultimo site whilst enabling seamless transition to the New Museum;
- Implement sophisticated digital, programmatic and planning strategies that will enable business continuity during the development and transition to the New Museum;

#### Be Embedded in our Place

- Be the anchor to a vibrant cultural hub, in Sydney's second CBD
- Supports government's strategies to extend Sydney's cultural offerings to Western Sydney as described in Create in NSW: The NSW Arts & Cultural Policy Framework 2015; and infrastructure investment strategy for Western Sydney outlined in Infrastructure NSW's State Infrastructure Strategy Update 2014 and the Rebuilding NSW Plan.

## **4.2 Government Policy**

As part of the State Infrastructure Strategy released November 2014, NSW recommended the development of a new cultural precinct in Parramatta, at its heart, as the precinct anchor was the Powerhouse Museum. The construction of the New Museum at Parramatta will positively contribute to the achievement of the objectives, priorities, and recommendations of key NSW Government policy and strategic planning documents.

The NSW Government's strategic priorities recognise the critical role that arts and cultural infrastructure and participation will play in the development of the Western Sydney region – in underpinning urban development and renewal, competitiveness, and promoting better quality of life, education, and innovation outcomes.

In this respect, the New Museum is being developed with consideration to the following Government policies:

- Create in NSW: NSW Arts and Cultural Policy Framework;
- NSW: Making it Happen;
- A Plan for Growing Sydney;
- Rebuilding NSW

## **4.3 Project Sponsors, Stakeholders & Project Delivery.**

Sponsorship of the New Museum Project is a collaboration between MAAS and the Department of Justice, with distinctly different but interrelated responsibilities to the NSW community. The delivery of the Project is overseen by a multi-agency Project Steering Group. Further details of this model, and these entities in Appendix D.

## 5. New Museum Vision

### 5.1 Overview

The New Museum for MAAS will be a dynamic place for people to meet, socialise, debate, learn and share ideas. It will continue to evolve the ways MAAS delivers services, shares our expertise and collections, and fosters a love of innovation, ingenuity, creativity and learning. It will mark the reinvention of our experiences and programs as we embrace new technologies and promote creativity for all the people of NSW.

Full of activity day and night, year round, it will offer a vibrant portfolio of exhibitions, events, and creative programs alongside cafes, social and open spaces. It will be a major destination for hundreds of thousands of visitors every year. Beyond simply inspiring visitors; it will leave them transformed with new knowledge and new skills.

Bringing the collection to life, the New Museum will create even more personalised on-site experiences for visitors, offering a variety of cutting-edge ways for people of all ages to connect and learn. It will feature immersive, interactive experiences with a focus on co-creative, hands-on learning and participation by the community. Combining exhibitions with workspaces, it will also bring together scientists, technologists, designers and artists from across Sydney and the world - opening up new opportunities for exciting engagement, participation and research. New contemporary spaces will be created – including dedicated spaces for young learners and entrepreneurs – and these facilities will be made accessible, adaptable and accommodating.

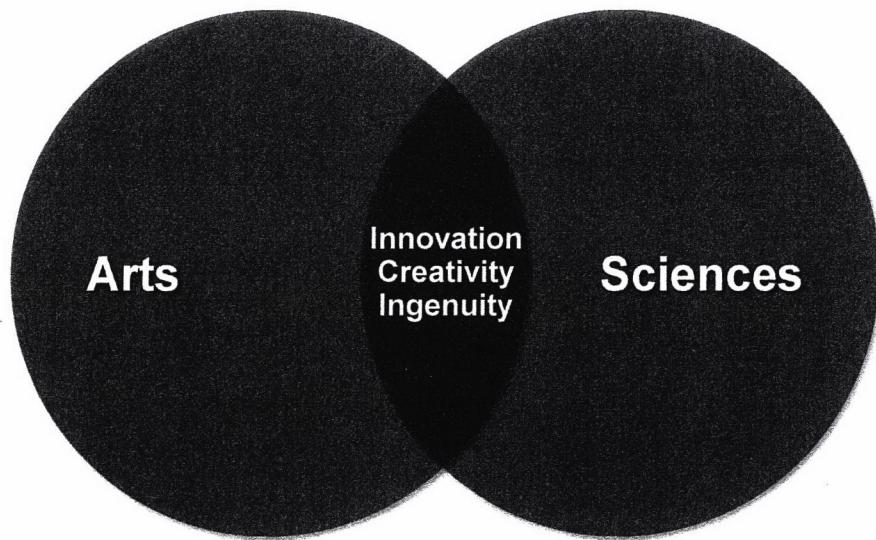
Based on Australia's largest and most significant collection of applied arts and sciences – exhibits will feature displays of iconic collection objects from spacecraft to fashion, large scale immersive displays and access to the heart of the collection through onsite visible storage. The use of sophisticated media technology will be intelligently embedded throughout to bring the collection and its stories of human ingenuity to life. New digital learning and online collaborations providing a dynamic digital and online presence, with key support for STEAM and creative industries education, will provide engaging outreach across NSW and Australia. All this will be housed in an iconic new building, with architectural, sustainability and design excellence that will set a new benchmark for museums globally.

#### Key Outcomes

- Provide 40% more of our collection accessible
- Create new public spaces to accommodate our ever growing numbers of visitors, researchers and students and make them accessible, adaptable and contemporary
- Introduce immersive experiences to breathe new life into our extraordinary collections
- Create engaging, purpose-built spaces for children, families and teenagers to nurture creative learning, innovation and play
- Promote digital literacy and provide technology-enabled spaces for entrepreneurship and innovation that support and stimulate NSW's creative economy, while more deeply embedding the creative industries, with dedicated programs and venues for business incubation, co-working and making spaces.
- Strengthen our position as the hub for the NSW community, connecting audiences across the State utilising contemporary technologies, and increase connection with regions through the digital delivery of programs

## 5.2 Five Neighbourhoods

The New Museum will be based upon the intersection of Australia's most diverse and significant collection of art and science: the place where innovation, creativity and ingenuity meet.



It will explore the intersection of arts and sciences through five 'neighbourhoods': Experience & Wonder, Innovation Lab, Research Hub, Play & Learn and Social Connection.



### **5.3 Experience & Wonder**

#### **NEIGHBOURHOOD 1**

## **EXPERIENCE & WONDER**

A place to experience awe, scale and wonder. The visitor will be immersed in large scale environments and collections, interwoven with advanced digital technologies.

No matter what your age, with hands-on activities, immersive and interactive galleries, international touring exhibitions, the Sydney Planetarium, this neighbourhood will provide spaces for audiences to interact, participate and contribute, contemplate and wonder anew.

#### **Contains:**

- Central Atrium Gallery
- Major Exhibition Spaces
- Temporary Exhibitions
- Immersion Space
- Touring Exhibitions
- Planetarium & IMAX
- Main Foyer

### **5.3.1 Central Atrium Gallery**

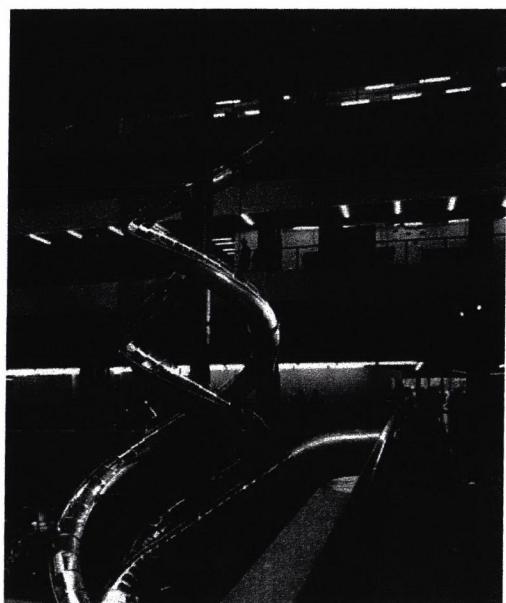
Forming the heart of the New Museum will be a multi-storey atrium, filled with an ever changing experience. A public square, a symbol of our mission and an introduction to the museum – it hosts a seasonal array of installations, visualisations, commissions and events - celebratory space to explore innovation that lies at the intersection of art and science.

The programming of this space will be timed to link to the Museum's own major Design and Science festivals, but will also respond to city wide celebrations such as Sydney Festival or Biennale. Our scientists, artists, technologists, designers and makers in residence in the museum will use this space to manifest their work – be it a performance, an installation, a protest or monumental work – the Central Gallery forms the very unique experience at the core of your visit.

Parts of this space will be adjacent to the exterior, providing a connection to the Museums place by the River, and allowing installations to flow in and out of the building - and connect to the urban fabric.

The space will support an array technologically sophisticated video, audio and lighting equipment, with suspension and loading capability to house massive and oversized installations. Screens wrap around the space to provide a lively visualisation canvas that envelops and transforms the space, further augmenting its immersive nature. It will provide a central 'beacon' within the Museum, with other experiences and galleries feeding off this central core.

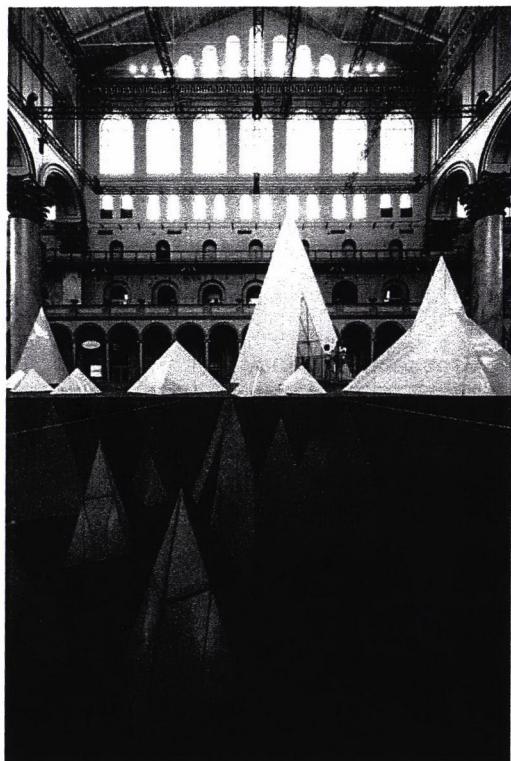
## Central Atrium Gallery: Benchmarks



### Tate Modern Turbine Hall

The Turbine Hall has hosted some of the world's most memorable and acclaimed works of contemporary art. And the way artists have interpreted this vast industrial space has revolutionised public perceptions of contemporary art in the twenty-first century. The Turbine Hall has a vast and dramatic entrance area with ramped access, as well as display space for large-scale sculptural projects and site-specific installation art.

*In thinking about what Tate Modern was going to do with this space, the idea of commissioning within it came quite late on... We realised [the Turbine Hall] was a hugely significant space; awe-inspiring in its scale, and to ask any artist to occupy that space, to perform within it, would be a momentous undertaking.* - Frances Morris, Director, Tate Modern



### National Building Museum, Washington DC

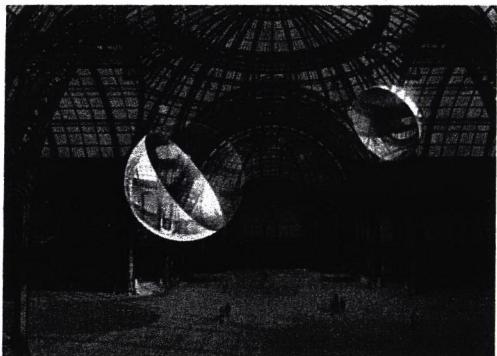
Part of the ongoing 'Summer Block Party' series featuring a major installation, workshops, talks and children's summer camp. Designed by James Corner Field Operations — the group behind New York City's High Line and the Seattle Central Waterfront — Icebergs is the new, one-of-a-kind destination for this summer. A "water line" suspended 20 feet high bisects the vertical space, allowing panoramic views from high above the ocean surface and down below among the towering bergs. The tallest "bergy bit," at 56 feet, reaches above the waterline to the third story balcony of the Museum. Visitors are able to ascend a viewing area inside the tallest berg, traverse an undersea bridge, relax among caverns and grottoes on the ocean floor, sample Japanese kakigori shaved-ice snacks, and participate in unique educational programming integrating landscape architecture, design, and the environment.



### Blood Swept Lands and Seas of Red, Tower of London

The major art installation *Blood Swept Lands and Seas of Red* at the Tower of London, marked one hundred years since the first full day of Britain's involvement in the First World War. Created by artists Paul Cummins and Tom Piper, 888,246 ceramic poppies progressively filled the Tower's famous moat between 17 July and 11 November 2014. Each poppy represents a British military fatality during the war. The poppies encircled the iconic landmark, creating not only a spectacular display visible from all around the Tower but also a location for personal reflection. The scale of the installation was intended to reflect the

magnitude of such an important centenary and create a powerful visual commemoration. All of the poppies that made up the installation were sold, raising millions of pounds which were shared equally amongst six service charities.



### Grand Palais, Paris - Monumenta

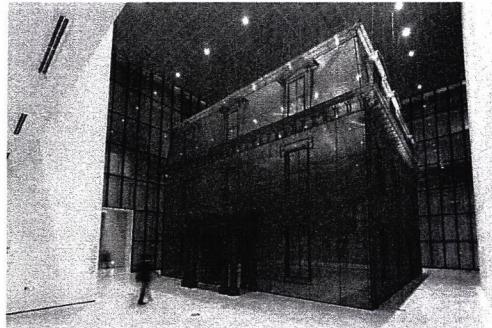
*Monumenta* is an indoor public art project that fills the vast belle époque exhibition hall of the Grand Palais with a single work for five weeks every spring. Tomás Saraceno's artistic project *Aerocene* is a series of air-fuelled sculptures that will float in the longest, most sustainable journey around the world without engines, becoming buoyant only by the heat of the Sun and infrared radiation from the surface of Earth. The project floats in the air without burning of fossil fuels, using solar panels, batteries; or helium, hydrogen and other rare gases from the ground re-sensing the circulation of energy and resources.



### Ephemeral City, Olivier Grossetete, Sydney

Frenchman Olivier Grossetête is to construct seven huge edifices in Sydney's Barangaroo - without any builders or bricks. Instead, he'll use passers-by, cardboard and lots and lots of sticky tape. Grossetete said the significance of the exhibition is the process of construction, which relies on passers-by lending a hand to assemble the flat-packed architecture in a barn-raising exercise. "The Ephemeral City is a reflection on art and power through architecture,"

he explained. "The fact that the architecture doesn't last long puts the emphasis on the act of creation and the work of the collective altogether," he said



### Home within Home within Home within Home within Home, Do Ho Suh, Museum of Modern and Contemporary Art, Seoul, Korea

"This huge fabric installation...is specially created to epitomize the vital spatial property of Seoul Box that can be undeniably characterized by its abundant natural light coming through its glass walls and the historical attribute of the Seoul branch's compound in which traditional, modern and contemporary buildings embrace each other.

### **5.3.2 Major Exhibition Spaces**

With over half a million items in the MAAS collection, our ability to tell stories about the advancement of our society is unparalleled. The major exhibition spaces in the Museum will be highly immersive spaces that take visitors on a journey to other worlds. The approach to immersion will use multiple channels of sensory engagement, cognitively rich environments, and strong narratives, radically changing the way visitors access and engage with the MAAS collection.

These immersive experiences will span multiple spaces, with tens of thousands of individual objects on display. Beyond being an environment for collection display, there will be rich interpretive layering across the spaces - from audio visual, projection, augmented reality and animated 3D models to contemporary digital tools for deeper exploration.

Visitors will be able to customise and personalise their visit, with dynamically updating journeys, narratives and pathways through these major exhibition spaces based on preferences and behaviour.

These spaces are richly designed environments: and their design is as much a part of the storytelling as the collection is. MAAS will commission leading designers and architects to work in collaboration with the Museum's staff to create them. Directly engaging with leading Australian designers, such as product designer Marc Newson, production designer Catherine Martin, visual effects company Animal Logic, architect Glenn Murcutt, to fashion designer Martin Grant - these globally leading creatives will provide a unique take on both the MAAS collection and the spaces created for it. In addition, commissioned installations and artworks will be embedded within the galleries, facades, exteriors and circulation spaces.

These long term displays will be in place for a five to seven year period however key areas within them will allow for more responsive and dynamic storytelling, with adaptive updates and flexible display using physical and digital means.

However, these spaces are not just places to absorb or contemplate: they are also space for hands-on activity and making. Dedicated hands-on "making-pods" will be placed throughout the spaces providing families and our younger visitors the opportunity to explore engineering, technology, creativity and design - and take something home.

As much about the future as the past and the present - the major exhibition spaces will provide opportunities to showcase contemporary and emerging technology, design and science. Working with research labs from across our many University partners, we will help interpret the world that is yet to be: helping people make sense of the rapid pace of change, to create more engaged citizens. Whether it be quantum computing, artificial intelligence, space exploration or urban design - these major exhibition spaces will provide a platform for informed debate and learning.

Complementing these spaces will be opportunities to dive deeper into the Museum's knowledge. Using both visitors' own devices, and embedded within the experience, will be full digital access to the entirety of the half a million MAAS collection items, along with archives, narratives and digital stories available on-demand providing new avenues for exploration, sharing and connection. Beyond the MAAS collection, these digital tools will provide connections and context to other great science and art collections around the world - joining objects and stories across place and time, and making global connections to the Australian experience.

But the Museum isn't in possession of all the knowledge - we know that our visitors come with their own stories, experience and expertise. Digital and interactive experiences within the spaces, and online, will provide new ways for visitors to contribute their own stories and knowledge - building

greater context and understanding of the collections than the Museum will ever be able to achieve by itself.

In practical terms, these major display spaces will be AAA environmentally and security rated, meeting the highest international facilities standards to enable long term care of the MAAS Collection, and allow the best global collections to tour to Sydney to form part of a richer global story of innovation and creativity. The galleries will have the scale and structure in place to accommodate the large scale MAAS objects (such as spacecraft, vehicles and aircraft) as well as the full variety of our collection materials. Each of the galleries will provide a longer term offer - to provide a consistent visitor 'promise' balancing the temporary exhibitions and programs. Having a core stable offer is critical to long lead tourism, education, learning and promotion as well as providing ongoing 'touchstone' experiences that people can return to again and again.

Five large gallery spaces spanning a total of over 4,000sqm provide spaces that vary from a vast twelve meters in height, providing volumes to show large suspended aircraft and spacecraft, through to more intimate spaces ideal for showing treasures of the collection such as jewellery, furniture and fashion. Co-located with the major galleries will be temporary exhibition spaces, as well as project spaces - and other boutique spaces and studios available for short-term experiments, collaborations, ideas and partnerships. Generous circulation and connective spaces between the Central Gallery, major and temporary galleries will provide other opportunities for social exchange, performances, pop-ups and serendipitous encounters.

### **Stories and Themes**

The Museum's collection and remit span broadly across the applied arts and sciences, but the MAAS Strategic Plan 2022 defines our core disciplines and themes. These guide the way we develop our collections, exhibitions, programs and research - and importantly provide framework for how we will develop the stories for the New Museum.

There is considerable overlap across the disciplines that share interests in a range of themes such as materials, processes and production technologies, cultural contexts and the wider design practice. These inter-disciplinary links and collaboration will be actively explored; the stories will be based on the belief that shared perspectives enrich our understanding and appreciation of material culture and enable the Museum to construct more encompassing and meaningful stories about our heritage, about living in a contemporary world, and what our world may become.

The collection contains historical and contemporary objects designed, made and used in Australia but also representative of production or use in a range of countries, regions and cultures. Whenever possible, objects are interpreted with contextual and narrative information such as associated documents, stories, images, drawings, devices, systems, models, prototypes and displays, advertising material, audiovisual recordings, digital files, oral histories and socio-cultural meaning, to fully document the object and its many stories and dimensions.

The disciplines we will focus upon are:

### **Technologies**

Technology refers to the practical application of knowledge to better and more effectively accomplishing tasks across the spectrum of human activity. It refers to individual machines and tools as well as systems. Technology is also understood to include the know-how, practices, processes and skills that mediate all aspects of society. Themes in this area includes information, communications, media and imaging technologies, robotics, small scale digital manufacturing, transport and space technologies, biotechnologies, military innovation with implications for the broader community, nanotechnologies and other emerging technologies, especially digital technologies. It includes hardware and machinery related to domestic and manufacturing technologies, office technology as well as other industrial and professional tools.

### **Health & Medicine**

Health is understood as the state of being free from illness and injury, but more than that to be a complete state of physical, mental and social well-being. Medicine is the science and practice of the diagnosis, treatment and prevention of human disease. In the Museum context, this discipline also includes surgery, fitness, longevity, public health, community health and traditional remedies. The history of and changing community and social attitudes towards health and medicine are also included. Themes in this area include: Australian innovations in drugs, vaccines, or surgery; medical devices and imaging technology; biotechnologies including genetic engineering; public health and safety, health education; diseases with increasing impact on the community, issues such as vaccination, euthanasia and birth control.

### **Physical Sciences**

Science is defined broadly as a set of approaches, referred to as scientific methods, through which we gain insight into our world. It includes the body of knowledge already accumulated using such methods. Physical sciences is used here to be distinct from the life sciences. Themes in this area include: physics, chemistry, mathematics, astronomy, climate science, meteorology, material science, computational science, space science and agricultural science. It also includes the history and development of those sciences as well as contemporary research, especially in Australia. Collecting will illustrate the understanding of those sciences in our society and their potential for our future economic, social and environmental well being and success.

### **Engineering**

Engineering refers to the practical application of science and technology to commerce or industry and the built environment for the benefit of the community. This includes the design, manufacture, operation and maintenance of efficient and economical structures, machines, processes, and systems. It also includes the social, cultural and historical contexts in which engineering practice occurs. Themes in this area include: civil, construction, mechanical, electrical, mining and materials engineering; transport technologies; energy and power technologies; design for mass production; trade tools and traditional crafts and skills; machine tools and production; engineering practices such as drawing, testing, modelling and prototyping.

### **Architecture and the built environment**

This discipline includes the art, science, design, construction, management, and use of buildings and structures and spaces that provide the setting for human activity, from large scale civic places to personal domains. It also includes the supporting infrastructure. Themes in this area include: historical and contemporary architecture and design of urban spaces; architectural drawings, documentation and models, agricultural and urban vehicles, and mass transit systems; roads, railways, ports and airports and their control systems; urban planning, infrastructure and systems (gas, electricity, power, communication, water, sewerage and waste systems).

### **Design and decorative arts**

Design and decorative Arts at MAAS includes visual culture and problem solving from antiquity to the present, with a particular focus on artefacts from Australia, Europe and the Asia-Pacific region from the eighteenth century onwards. Themes include the applied arts: industrial and product design, graphic design, photography, interior design; as well as craft, performing arts, everyday life, ceremonies and leisure. Themes in this area include: aspects of design and decorative arts from glass, ceramics, lacquer, plastics, textiles, furniture and woodwork; to musical instruments; commercial art and visual communication; architectural elements; jewellery, numismatics and metalwork.

### **Fashion**

Fashion encompasses the breadth of work generated in the production and consumption of fashionable dress from clothing and textiles to promotional material. Themes include the work of key

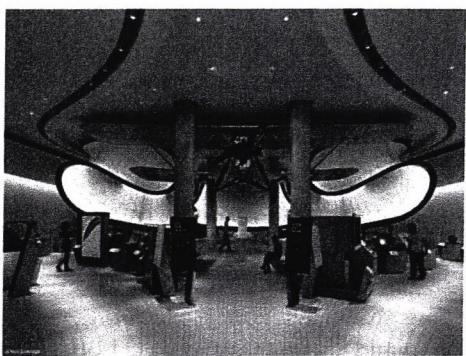
designers and manufacturers, fashion trends from the eighteenth century to the present, alternative and subcultural style, customary dress and the diversity of Australian fashion culture. Themes in this area include: fashion from colonial to contemporary Australia, Europe, North America and Asia as well as illustration, drawing, photography, swatch books, designer and company archives, and industrial technology.

#### **Contemporary culture**

Refers to the catalysts and contexts for change in our society. This might include political, social, creative or technological factors that mediate both the individual and collective experience of our time. This discipline is forward looking, but also provides a lens through which the past can be better understood. It also attempts to reflect changing museological and curatorial practices, making more vivid the contemporary circumstances surrounding the development of objects and ideas and allowing for experimentation and innovation in what and how we collect.

And while these disciplines provide focus, the threads between the disciplines, and indeed the critical intersection points between the arts and sciences are the core of the Museum's mission, and this interdisciplinary approach will be reflected in the storytelling of the Major Exhibition Galleries.

## Major Exhibition Spaces: Benchmark Examples



### Mathematics, Science Museum, London

This gallery explores how mathematicians, their tools and ideas have helped to shape the modern world over the last four hundred years. It places mathematics at the heart of all our lives, bringing the subject to life through remarkable stories, artefacts and design. More than 100 treasures from the Science Museum's world-class science, technology, engineering and mathematics collections will help tell powerful stories about how mathematical practice has shaped, and been shaped by, some of our most fundamental human concerns – including money, trade, travel, war, life and death. Dramatically positioned at the

centre of the gallery will be the Handley Page 'Gugnunc' aircraft, built in 1929 for a competition to construct a safe aircraft. This aeroplane highlights perfectly the central theme of the gallery about how mathematical practice is driven by, and influences, real-world concerns and activities. Mathematics defines Zaha Hadid Architects' design for the gallery. Inspired by the Handley Page aircraft, the gallery is laid out using principles of mathematics & physics, and inform the three-dimensional curved surfaces representing the patterns of airflow that would have streamed around this aircraft.

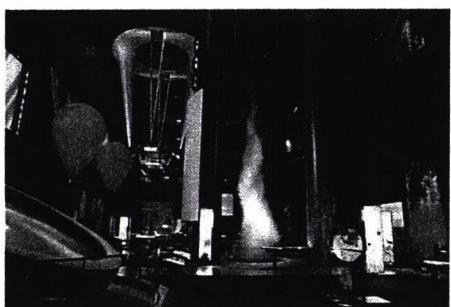


### MAK Permanent Collection ASIA: China – Japan – Korea

"In Tadashi Kawamata the MAK has found the ideal artist for the newly conceived collection presentation"

Kawamata's ideas for the MAK Collection are based in concept on permanent change and the play of light and shade. Although seemingly chaotic at first glance and placed in confrontation to the collection objects, the contrast is only superficial. Tadashi Kawamata places the artworks in a context that keeps things moving, whether the

act of observation or the observers themselves, for he says: "My projects are never finished; it seems quite natural to me that something is never finished." No computers or tablets in the gallery, no printed materials – all labels and texts are written by hand. Staff of the museum volunteered to write all the text panels within the gallery which gives it a dimension of uniqueness and creates a kind of intimacy with the reader in comparison to standard museum labels. It uses only simple materials like wood and glass, simple lighting. Kawamata has "liberated" the artworks from their vitrines and opened up entirely new perspectives on the exhibits. The vitrines he designed, which reach all the way to the ceiling and are made of unpolished wood, have been rearranged to create a new experience of the space.

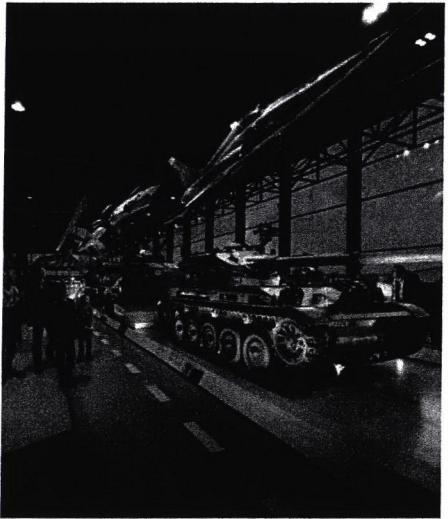


### Science Storms, Chicago Museum of Science & Industry

Our questions about the world begin almost as soon as we enter it. Why does fire burn? What is lightning? Before we even have language to express it, we are fascinated by nature. Kids eagerly ask about the color of the sky or the end of the rainbow. Grown-ups always seem to find themselves talking about the weather. We have a deep desire to interpret our observations of the world around us. Science can answer questions, but science is also about asking them. Reconnect with your sense of wonder in Science Storms. This permanent

exhibit collects forces of nature under one roof, letting you observe and experiment with seven natural phenomena: lightning, fire, tornados, avalanches, tsunamis, sunlight and atoms in motion. Sure, you'll

learn core concepts of chemistry and physics, but it's understandable if you're too busy controlling a 40-foot tornado, seeing 1.5 million volts strike or creating a tsunami to realize it.



#### National Military Museum, Soesterberg, Netherlands

This completely new museum is located at the former Soesterberg Air Base and comprises the former Military Aviation Museum in Soesterberg, and the Army Museum in Delft. Two museum concepts are elaborated on in the new museum. A 'daylight museum' is based on the ground floor, which offers a chronological overview of about a thousand years of military technology. And on the first floor a 'black box' has been developed, a thematic museum without daylight. Here, seven exciting, theatrical environments have been created. "The story of the armed forces" takes centre stage, including stories about the importance of water for our defence, about the present, past and future of the armed forces, about the position of the armed forces in Dutch society, as well as personal stories and dilemmas. A mix of media and education tools, among which models, films, animations, sound and theatrical, dynamic lighting, offer

many opportunities to convey these rich stories in an exciting way.

### **5.3.3 Temporary Exhibitions**

Beyond the Major Galleries is a series of three flexible temporary exhibition spaces. These spaces are devoted to shorter term projects: and will host a variety of both MAAS-developed, travelling and co-developed exhibitions with other Museums globally. The spaces are designed as a 'blank canvas', but are fitted out to function with many possible uses beyond traditional object displays.

Drawing from across the MAAS collection, and responding to contemporary events, anniversaries and other special occasions, the temporary exhibition program the New Museum will provide an important reason to visit again.

The Temporary Galleries are AAA rated exhibition spaces that meet the international facilities standards, allowing incoming loans of the highest value and quality from tier one institutions. The Temporary Galleries will be capable of isolation, to enable exhibition changeover whilst not disrupting other museum functions and spaces. Reusable temporary wall systems, lighting, and audio visual equipment will provide rapid change-over, limiting the amount of time the spaces are not available to the public.

#### **Temporary Exhibitions: Global Benchmarks**



##### **A World of Feathers**

##### **Museum Volkenkunde, Leiden**

In the new temporary exhibition, a theatrical tour of discovery along objects that include feathers from all corners of the world. Each room has a dedicated theatrical scenography that enhances the exploration of a certain aspect. Light, sound and media designers have generated a total experience in which all senses are stimulated. In each room visitors are immersed in an entirely different world. Step by step different aspects are discovered and further layers of meaning explored. Fascination for nature is a key undercurrent in the exhibition. In one of the rooms, the cage comprises a set

of 'story boxes', transparent showcases in which sub topics are explored by way of animations, artefacts, light, text and illustrations. They focus on how we humans use birds and feathers for our own purposes. A dynamic fashion show full of rhythmical light and sound effects at the end of the visitor's feather journey: an ode to the creativity of contemporary fashion designers such as Jean Paul Gaultier and Thierry Mugler. Films bring the feathered dresses alive, and let them sashay down the catwalk.



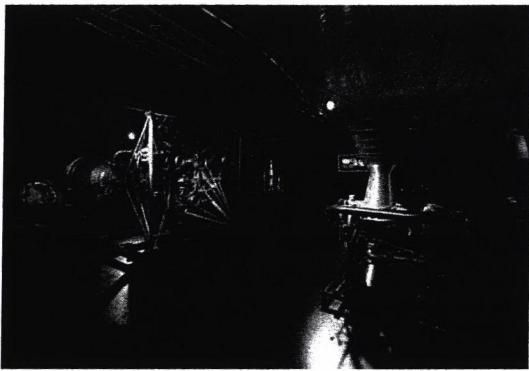
##### **Cite des Science et de l'Industrie, Paris.**

##### **Transport & Mankind Exhibition**

Transport and Mankind explores the theme of human mobility from a socio-technological perspective, focusing on changes in individual and public transport, network efficiency, traveller comfort and safety, technological innovation and eco-friendly behaviour.

The exhibition explores the reasons why we travel and the creativity of modes of transport and usage that they give rise to, it addresses current changes in terms of modes, usage and environments, and finally a

look into the future is presented as a game intended to reveal the efforts that the group is prepared to make to limit the effects of climate change due to human activity. It ends with an audiovisual representation of the world, simulating the results of a collective vote, showing what the Earth would look like if it was subject to warming.



#### **NASA, A Human Adventure**

#### **Art+Science Museum, Singapore**

Venture into the amazing world of space exploration. Be inspired by the ambitions of those who dared to dream and conquer the unknown. NASA – A Human Adventure is the most comprehensive and extensive touring space flight exhibition in the world. The exhibition marshals an extraordinary collection of over 200 historically significant artifacts from the U.S. and Soviet Union space programs. The objects on display in the exhibition are original and space flown objects or high fidelity replicas and scale

models. The exhibition follows the story of space travel. Start with the early dreamers who ignited a passion for travel to the stars, and move on to the brilliant pioneers who took the first brave steps to make trips into space a reality. Study all of their incredible inventions and see how the technology developed. Marvel at the brave astronauts who risked their lives on dangerous missions. We can only imagine the endurance and tenacity all of these gifted people possessed to come up with their countless innovations and carry out the exhausting journeys to success that made each accomplishment possible.



#### **A Fine Possession,**

#### **MAAS, Sydney**

Jewellery has been made and worn for personal, social and cultural reasons through millennia. Styles, materials and practices have varied across time and place, yet the desire to adorn ourselves has been universal. Jewellery can influence the way people perceive us, make us more attractive, mark special events or symbolise wealth and status. We make, wear, give, receive, collect and express our identity, individuality and creativity through jewellery. It

contributes to our spiritual, cultural and emotional well-being. A fine possession celebrates the central place of jewellery in our lives, from antiquity to the present-day, through a sumptuous selection of jewellery made, worn and collected in Australia.

### **5.3.4 Immersion Space**

This next generation digital storytelling space will provide immersive jumbo-format 3D projected environment for 80 people. It provides an ongoing program of 10-20 minute stories that provide an interactive insight into other worlds.

A sensational, internationally unique experience awaits visitors to the Museum. A massive wide-screen, wall to wall floor and wall projection, with laser tracking and 3D animation, with resolution at over 8K - a previously never-before-achieved level of quality creating extraordinary, breathtaking images that you cannot see at home or in a cinema. Working with film-makers, technologists, visualisation experts and scientists across the globe, the Immersion Space can take you from being inside the Large Hadron Collider, to inside the brain to the surface of Mars.

#### **Benchmark**



#### **Deep Space 8K - Ars Electronica**

Deep Space 8K is not only a setting for high-definition projections on dual 16x9-meter surfaces on the venue's wall and floor; additional viewing options include stereoscopic 3-D images, 3-D films and interactive 3-D real-time graphics. 3-D shutter glasses enable visitors to enjoy an impressive three-dimensional experience. Now, in the wake of an across-the-board upgrade of all hardware components in summer 2015, state-of-the-art projectors, high-performance processors and fiber optic cables conjure up breathtaking worlds of imagery in amazing 8K resolution. The Cinematic Rendering app for the presentation of photorealistic images of the human body in 3-D and jumbo-format dimensions. The opening of the new Ars Electronica Center in 2009 gave birth to the idea of also using the new facility to present medical themes to the public, an internationally unique venue for speeches and presentations that's also superbly suited to depicting and communicating medical content. And right from



the outset, visitors were so enthused by these presentations that we developed a regular series of events in Deep Space 8K dedicated to medical topics.

### **5.3.5 Touring Gallery**

Key to driving major visitation, revenue and popular interest is major international touring exhibitions. The New Museum will feature a Touring Gallery as the the venue for the major summer and winter touring exhibitions. These exhibitions will be a combination of major global touring exhibitions, large scale exhibitions co-developed by the Museum and partners, and large scale exhibitions developed in-house.

These exhibitions will vary considerably in their needs, ranging from entirely built 'environments' (eg the Egyptian Mummies: Exploring Ancient Lives exhibition from the British Museum (2016)), to more 'open' large scale object display such as the BMW Artist Cars (2006).

The Touring Galleries provide access to audiences for experiences that are not generally available in Australia, and are exclusively touring around the world. It is projected that there will be three exhibitions each year.

The gallery is a shell "blackbox" space - and while the space may have architectural features, the nature of temporary exhibitions means that any building architecture should be subservient to the exhibition design currently on display.

Items to be installed are often heavy, and delicate, requiring special service access for installation equipment and for convenient transport. The space will have a clear height of 12 metres, and is a clear span (column-less) space to provide complete flexibility in terms of use, design and layout.

The space will provide flexible lighting, power and conduit paths, with heavy floor loading, and a ceiling grid that can provide suspension points for large objects and displays.

In addition to the primary Touring Gallery, a secondary gallery will be the venue for partner organisations to hold exhibitions. These exhibitions and experiences may not be directly associated with the Museum. These exhibitions are likely to be a combination of major global touring exhibitions, and large-scale exhibitions developed by other NSW arts and cultural organisations.

The space may also be hired out for conventions, trade shows or other uses. This space is design to provide an expanded set of offers for the precinct beyond the core museum offer. This space provides both opportunities for a wider array of experiences than can be provided solely by MAAS, and also to provide a revenue stream back to the Museum. The facilities for the secondary touring gallery are similar to the primary.

## Touring Gallery: Benchmarks



### Melbourne Museum, Touring Hall.

The Touring Hall hosts some of the world's finest large-scale exhibitions, so we are well-equipped to think big in this space. The soaring ceiling is high enough to incorporate aerial performances or installations and the options for creative theming and lighting offer an amazing blank canvas for your event to really make an impact.

Supported by its dedicated entry foyer and connected to the Courtyard, there is plenty of space for a large

number of guests to comfortably enter and enjoy the space, or hold different stages of your events in the various zones. Take pre-dinner drinks in the Foyer, then move through into the Touring Hall for a big party, award ceremony, corporate dinner or product launch.



### Resnick Pavilion, LACMA

The Lynda and Stewart Resnick Exhibition Pavilion, designed by Renzo Piano, dramatically expands the museum's exhibition space and unifies the western half of the museum's twenty-acre campus. The single-story, 45,000 square foot structure is the largest purpose-built, naturally lit, open-plan museum space in the world.

### **5.3.6 Visible Collections**

This aspect of the New Museum is designed to share more of MAAS' extraordinary collection for all to see, study and enjoy. Traditionally collections are presented in permanent collection galleries with long term displays, or curated into shorter term exhibitions along conceptual themes, with the bulk of the collection hidden out of sight.

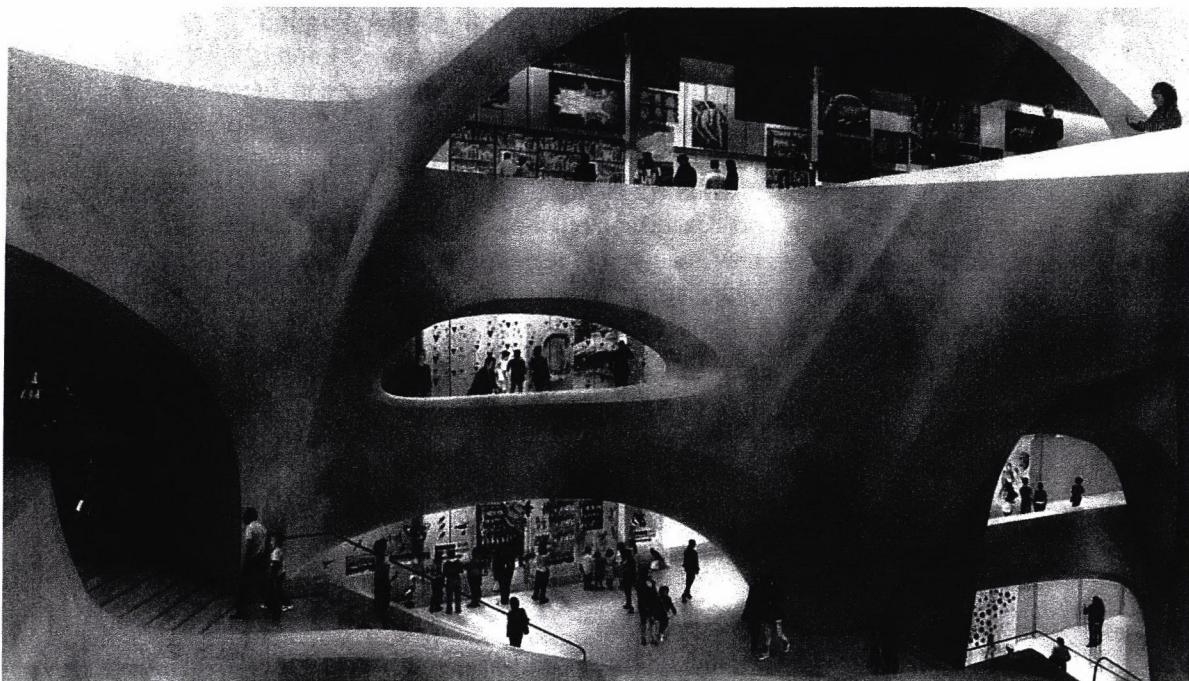
The New Museum will explore a radical departure from this model incorporating state of the art open access display for collections and audience engagement throughout the building. This approach to 'transparent collections' means that collection care, conservation areas will be seen by visitors of the Museum, and will encourage deeper engagement with the vast collection.

Additionally, dedicated space for the display of new acquisitions, and "rapid response collecting" will enable the public more immediate access and dialogue on the collecting activities of the Museum, and the Museum to have collection spaces without locked in programs where it can be responsive to events and interactions.

The implication of this model for curating with collections is radical and exciting. It will provide new modes of understanding the use of collections in meaning making, storytelling and conceptual framing. It creates a dialogue between object and viewer that is shaped much more actively by the Museum in cohort with visitor, and builds upon MAAS' existing "Recollect" program which has to date displayed over 10,000 items in 2014, a large proportion having never been on display in the past decades.

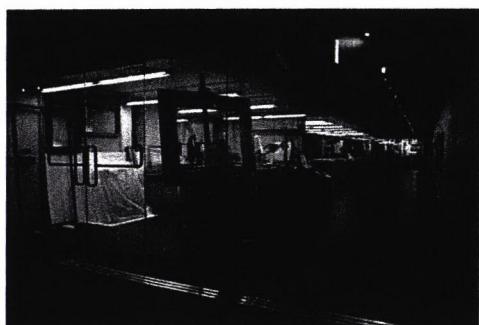
Further, the building will be designed for the incorporation of collection within its facilities, façade, corridors and orientation spaces, designed to place the collection constantly in the forefront of the visitor experience.

## **Visible Collections: Benchmarks**



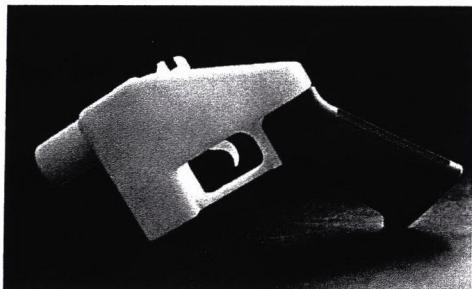
### **Collections Core, American Museum of Natural History**

The latest addition to New York's historic American Museum of Natural History, the Richard Gilder Center for Science, Education, and Innovation embodies the museum's integrated mission of science education and exhibition. At a time of urgent need for better public understanding of science and for greater access to science education, the Gilder Center offers new ways to learn about our world and to share in the excitement of scientific discovery. The Collections Core will house 3.9 million specimens, approximately 10 percent of the Museum's collection. Niche spaces tucked within this central space will house exhibition elements, as well as laboratories, imaging facilities, visualization theaters, and classrooms while also revealing more of the museum's extensive scientific collections. The public will be able to engage with innovative tools used by museum scientists, such as the tools used for gene mapping, 3-D imaging, and big data assimilation and visualization, to gain a deeper understanding of our world and how science is conducted today. Main features of the new building include the 21,000-square-foot, five-story Collections Core, housing millions of specimens and artifacts from the Museum's collection and the 9,520-square-foot Invisible Worlds Immersive Theater, showcasing cutting-edge scientific technologies such as CT scanners, scanning electron microscopes, and high-resolution, high-speed cameras.



### **Smithsonian American Art Museum Lunder Public Conservation Lab**

At the Lunder Conservation Center, visitors have the unique opportunity to see conservators at work in five different laboratories and studios. The Center features floor-to-ceiling glass walls that allow the public to view all aspects of conservation work—work that is traditionally done behind the scenes at other museums and conservation centers. Interactive kiosks and special displays make it easy for visitors to learn about the importance of conservation and show how to take an active role in caring for public art and monuments, as well as how to care for personal treasures at home.



#### Rapid Response Collecting, V&A, London

Rapid Response Collecting is a new strand to the V&A's collecting activity. Objects are collected in response to major moments in history that touch the world of design and manufacturing. Ranging from Christian Louboutin shoes in five shades of 'nude'; a cuddly toy wolf used as an object of political dissent; to the world's first 3D-printed gun, each new acquisition raises a different question about globalisation, popular culture, political and social change, demographics, technology, regulation or the law.

### **5.3.7 Sydney Planetarium & IMAX**

A planetarium presents a simulated display of the night sky that allows people to enjoy the wonder of the stars in a comfortable environment regardless of the time of day—or the weather. A first for Sydney, this space will have a domed ceiling, reclining seats, a sophisticated surround sound system and an ultra-high resolution video projection system. The result will be spectacular colour and movement like never before, creating a unique immersive environment and awe-inspiring astronomical experience.

Planetarium shows are informative and entertaining for a wide range of audiences. Each show will involve an audio visual feature that explores an astronomical topic from an unexpected angle, and will be followed by a live presentation by the Museum's knowledgeable staff on the current night sky and the major astronomical objects that can be seen. The information presented in these sessions will allow anyone to go into their backyard at night and experience the joy of astronomy.

The content within the Planetarium will be co-developed by the Museum and will employ the talents of some of Australia's most creative scriptwriters, actors, visual designers, composers and sound post-production professionals.

This space will be convertible from Planetarium-mode to IMAX Cinema-mode, providing the capability to display 3D film allowing maximum opportunity for utilisation and public access across the day and night.

IMAX has undertaken the largest R&D investment in the company's history to develop its next-generation projection and sound system – featuring groundbreaking laser technology, with only a small number of venues globally having this technology. The new laser projection represents a quantum leap in cinema technology – providing audiences with the sharpest, brightest, clearest and most vivid digital images ever, combined with a whole new level of immersive audio.

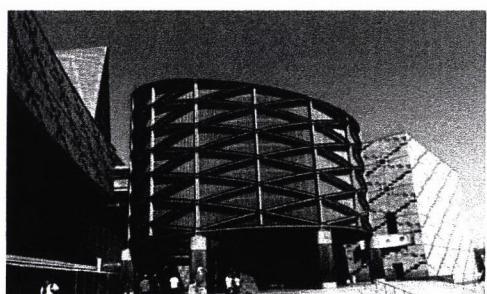
The Planetarium should be accessible directly from the Main Foyer and able to operate while the rest of the Museum isn't open to the public, or when other events are occurring in the Museum. It will have its own food and beverage capacity and waiting area.

## Benchmarks: Planetarium & IMAX



### Hayden Planetarium, AMNH, New York

At the heart of the Rose Center for Earth and Space is an 87-foot-diameter sphere that appears to float inside a glass cube. Its upper half constitutes the Hayden Planetarium, which opened in 2000 along with the Rose Center for Earth and Space. It remains an enduring beacon of astrophysical education, as was its predecessor, which opened in 1935. The 429-seat Space Theater, which features a custom-made Zeiss Mark IX Star Projector and a Digital Dome Projection System to display a hyperrealistic view of the planets, star clusters, nebulae, and galaxies, uses a scientifically accurate 3D map of the observable universe based on millions of astronomical observations. Known as the Digital Universe Atlas, this map of the cosmos is maintained by a team of Museum scientists and visualisation experts in collaboration with colleagues from organisations such as NASA. The Digital Universe Atlas also provides the foundation for the Museum's Space Shows, which are screened in the Space Theater.



### California Sciencenter, IMAX

The Science Center is an educationally focused IMAX Theater with a capacity to create images of exceptional clarity and impact through the use of the largest film frame in the motion picture industry. The 7-story screen brings to life worlds as small as an atom and as vast as the universe. IMAX movies are designed to educate and enlighten as much as they are to entertain. Perfectly positioned as part of the Museum, joint offers include an amazing IMAX film in conjunction with a museum gallery

visit. An educational excursion, it is a powerful medium to present information that is exciting, memorable, easy to understand and relevant to a wide variety of ages and subject areas. With movies that will take you to the outer reaches of space, the depths of the ocean or even back in time, browse through the library to find a film that suits your excursion needs.

### **5.3.8 Main Foyer**

The Main Foyer will provide an architecturally distinguished ‘arrival’ statement. It will include an entry, orientation and preliminary contact point for all visitors to the Museum before they enter the other areas of the Museum. The Main Foyer is your welcome to the museum. The architecture shall invoke a sense of being welcomed and invited into the Museum, where people may choose to linger and feel a sense of belonging.

The Main Foyer will provide a rendezvous centre for visitors, cloakroom and public amenities, orientation to the interior of the building, information of forthcoming events and exhibitions, an information service point, initial reception and ticketing point and space for acknowledgment of sponsors, donors and partners.

The Main Foyer will also be used as an event space after hours, and provides the capacity to showcase large items and will include floor loading and ceiling suspension capacity to enable this. Discrete, but robust security requirements shall be sensitively incorporated into the architecture of the Main Foyer.

## Benchmarks – Main Foyer



### Atrium, Federation Square, Melbourne.

The Atrium is a galleria-like structure of glass and steel that provides an impressive indoor venue for exhibitions, product displays, launches, artistic installations, showcases and markets. The space is home to some of Melbourne's major galleries, cafes and specialty stores, including The Ian Potter Centre: NGV Australia. The Atrium measures approximately 90m x 17m with a 15m suspended ceiling and a cantilevered opening onto Flinders Street. The central floor space is complemented by the Fracture Gallery and the Air Gallery, with the steel frame of the building providing

excellent points for rigging. The Atrium also provides direct access to the Deakin Edge theatre, with the flexibility to use both venues as part of a large festival, event or exhibition.



### Great Court, British Museum

Designed by Foster and Partners, the Queen Elizabeth II Great Court transformed the Museum's inner courtyard into the largest covered public square in Europe. It is a two-acre space enclosed by a spectacular glass roof with the world-famous Reading Room at its centre. An architectural competition was launched to re-design the courtyard space. There were over 130 entries and it was eventually won by Lord Foster. The competition brief had three aims: Revealing hidden spaces, Revising old spaces, Creating new spaces.

## **5.4 Innovation Lab**

### **NEIGHBOURHOOD 2 INNOVATION LAB**

A place to innovate through co-creation and collaboration. Whether you are a designer, tinkerer or dreamer, the New Museum will draw out your creativity and making ability. With access to experts, education and learning studios, in-residency programs, startup incubators and dedicated spaces for making – this is a place of production. It will be recognised globally as a centre for research fostering learning through partnerships with the education sector, leading digital outreach to deliver new learning experiences and developing innovative projects.

Bordering the Central Gallery, the Innovation Lab is our studio space for making, tinkering and digital learning. The Lab will support our digital outreach, video streaming and broadcast activities. These programs will be regularly refreshed and programs updated quarterly in line with school holidays.

The centre will highlight Australia's scientific, technology, design and innovation edge, this centre will produce a daily stream of presentations, video and audio delivered onsite and online.

A weekly live stream from the centre showcases contemporary science, innovation and design as it happens. This immersive experience spanning multiple spaces, with dedicated hands-on making spaces throughout.

The centre will function as an interactive laboratory and inspirational working spaces and will have provision for embedded visible collection storage and display.

This neighbourhood will include:

- Production Studios
- Maker Spaces
- Startup and Incubator Spaces
- Makers, Designers, Technologists in Residence
- Learning Studios
- Centre for STEAM

#### **5.4.1 Production Studios**

All Museums, including MAAS are increasing utilisation of all forms of media to convey our stories, the production studios provide a central hub for producing video, photography, live streaming and interactive events. These productions are focussed on providing broadly accessible content to visitors who can't make it to the Museum and promoting the activities of the organisation.

While the studios are a production space for the Museum, they are also a publically accessible space for digital learning and teaching events, part of a suite of flexible, digitally focused spaces in the Innovation Lab.

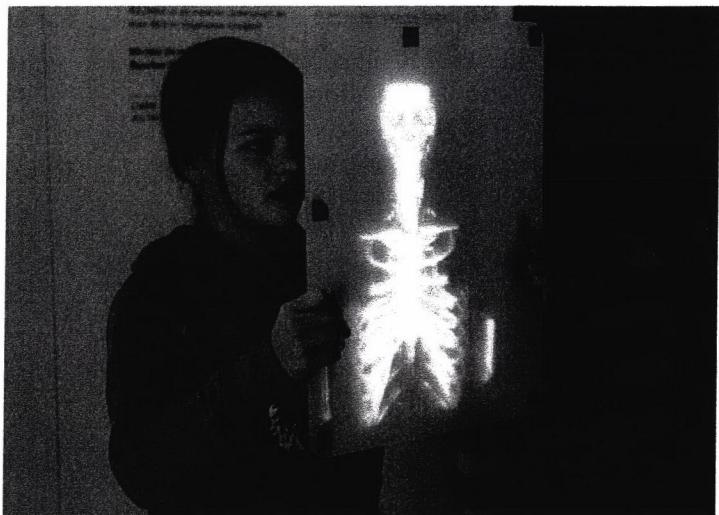
The studios are the base for expanding the Museum's highly successful video conferencing education programs. These highly interactive screen-based lessons are led by MAAS curators, educators and guest experts and connect directly to classrooms. This facility allows the Museum to connect with Museum programs from anywhere in the world. From Hobart to Perth, China to USA, world-class programs are available without leaving the classroom.

Some current examples of the range of programs currently offered includes:

*Indigenous Astronomy.* Learners will experience the living cultural astronomy of the Kamaroi / Euahlayi (NSW) or Boorong (Vic) peoples and be inspired by the images and lore found in the night sky. Dreamtime stories including those about Warambul (The Milky Way) and Yaraan or Gulabah (The Southern Cross) demonstrate a deep understanding and relationship with the sky that is shared across Australia's diverse Aboriginal and Torres Strait Islander communities.

*Mission to Mars.* Fill your classroom with a genuine sense of wonder, discovery and hi-tech science. This exciting 2-part video conference program, gives your class an engaging framework to talk about space, consider the possibility of life on other planets and to carry out an authentic collaborative scientific investigation. Part 1 is a 45-minute video conference that introduces students to the search for life on Mars, gives clues about what features to look for on our re-created Martian surface, and demonstrates the tools they will use to plan and practise their mission. Part 2 is held about a week later and is a 90-minute video conference and internet connection. Students will remotely control a robot rover across the Mars Yard in their mission to search for evidence of life. Images captured by students with the rover's cameras are made available for download and post-mission analysis - all from your classroom.

## Production Studios: Benchmarks



### Ars Electronica - FutureLab, Linz, Austria

The Ars Electronica Futurelab staff includes experts in a wide array of disciplines at work on ideas that will exert a powerful effect on our future. Media art, architecture, design, interactive exhibitions, virtual reality and real-time graphics make up the Futurelab's inspiration pool. Here, innovative people reconfigure available knowledge, build bridges to art, and come up with concepts designed to facilitate our interaction with the world of today and tomorrow.

[www.aec.at/futurelab](http://www.aec.at/futurelab)



### Digital Studios, ACMI, Melbourne

With a large stage area and comfortable tiered seating, the ACMI studios is suitable for presentations, workshops, seminars and launches. Studio 1 is a production and educational amphitheatre which can accommodate everything from multimedia performances to television broadcasts, and is equipped with video projection, video conferencing, green-screen, web casting and online facilities. ACMI also houses a digital studio for hands-on workshops and production programs. Participants can access the technology, and develop

the skills, to produce their own moving image work.

### 5.4.2 Maker Spaces

Makerspaces (also known as 'hackerspaces') are a relatively recent phenomenon that's fast gaining popularity around the world. They are physical spaces that allow the public to utilise the various tools and machines used to create physical objects, like 3D printers, laser cutters and wood-making tools. These are dedicated studio spaces providing the tools for creation — that give people the opportunity to shape the world around them with objects of their own devising. A makerspace is a physical location where people gather to share resources and knowledge, work on projects, network, and build. Makerspaces provide tools and space in a community environment.

Expert advisors will be available some of the time, but often novices get help from other users. The makerspace—sometimes referred to as a hackerspace—is often associated with fields such as engineering, computer science, and graphic design. The concept emerges from the technology-driven "maker culture," associated with *Maker Faire* that the Museum hosts annually. This idea of a collaborative studio space for creative endeavours has caught hold in education, where the informal combination of lab, shop, and conference room form a compelling argument for learning through hands-on exploration. Makerspaces are being embraced by the arts as well as the sciences, and a new energy is building around multidisciplinary collaborative efforts.

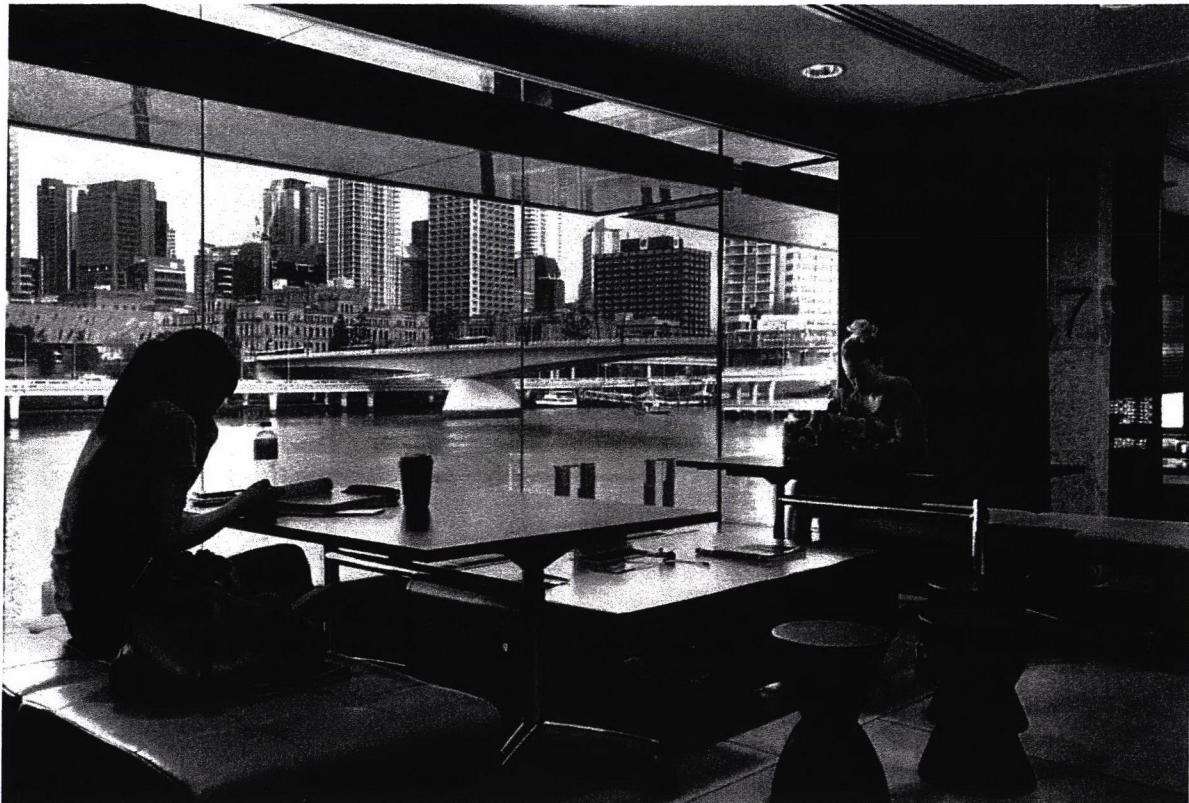
#### **Maker Spaces: Benchmarks**



##### **Space Tank Studio, Melbourne**

Space Tank Studio is a fully equipped creative manufacturing incubator. Building a Makerspace to provide machinery, technology and fabrication areas to support many makers was the clear solution. But the scope does not stop there. It's not enough to just support makers with physical solutions. Helping them succeed as business people is essential to supporting the industry relevance of creative entrepreneurs. The Studio continues to engage with industry, local government, businesses and the world of makers in an effort to broaden the acceptance of

Makerspaces and grow an ecosystem of connections to assist creative entrepreneurs. Makerspaces remove the burden of expensive overheads by incorporating the principle of sharing and collectivity into their operating model. Not only do you benefit from affordable fabrication solutions, you'll meet other talented creatives, share inspiration and get valuable feedback.



### The Edge, State Library of Queensland

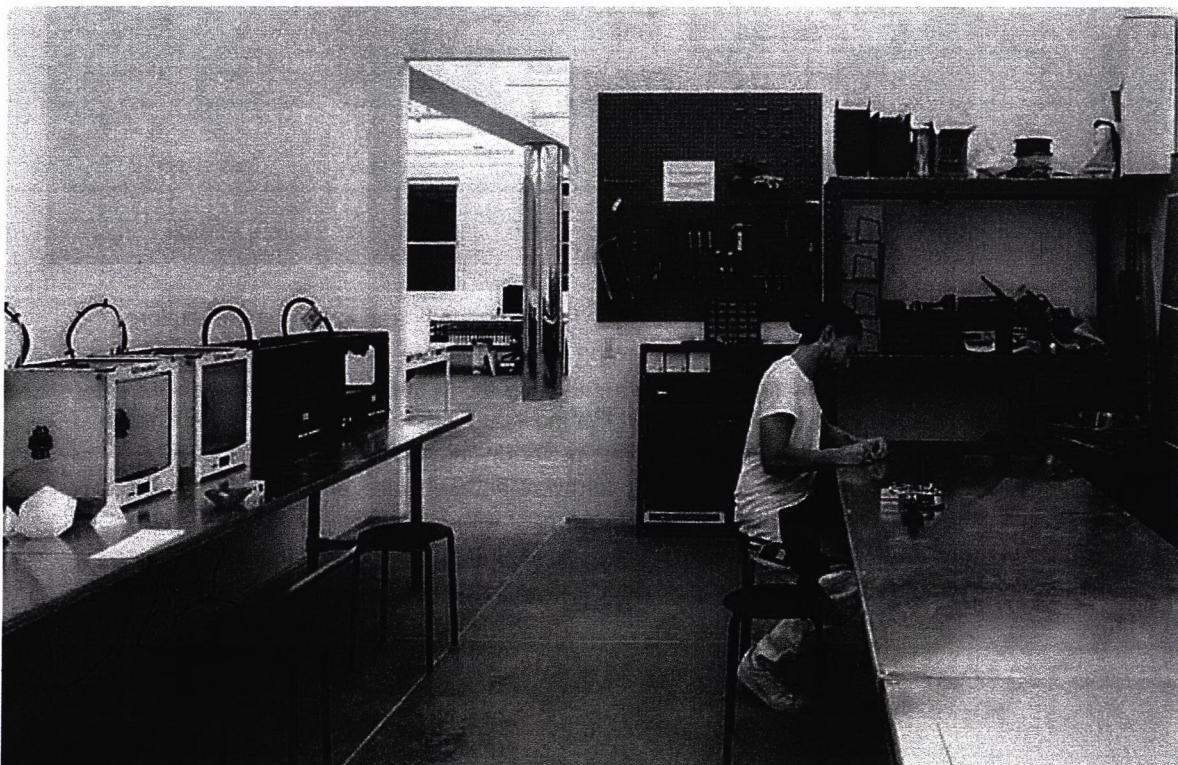
The Edge aims to provide Queenslanders of all ages with the opportunity and inspiration to explore creativity across the arts, technology, science and enterprise. The Edge is an initiative of State Library of Queensland, creatively engaging the next generation of library users and continuing State Library's leadership in reimagining libraries for the 21st century. For individuals, The Edge offers: a year-round calendar of workshops, activities, events and exhibitions, opportunities to develop your creative practice and projects, free access to a broad range of hardware and software, an online community to connect with people of similar interests, physical spaces to meet with other and work on your own projects and access to free wi-fi. For organisations it opportunities for partnerships and collaborations around programming, a range of venues for events and workshops and program models on a fee-for-service basis.

### **5.4.3 Startup and Incubator Spaces**

As part of the Innovation Lab, a series of office and flexible working spaces will be embedded to address one of the most critical needs of the creative industries sector – access to affordable work space. Embedding innovators and practitioners within the Museum space breaks down existing barriers, and creates new opportunities for cross-pollination. The Museum has long provided indirect ways of supporting and collaborating with the next generation of creative talent through our programs and exhibitions - but the incubator provides a direct way of engaging with industry.

This model forms part of a new wave of creative institutions who are shifting to a model of co-creation with new collaborators and partners. The incubator will leverage the Museum's resources, intellectual capital and experience back into the creative sector.

#### **Benchmarks**



#### **NEW Inc, New York**

NEW INC is the first museum-led incubator. A co-working space designed to encourage collaboration and spark new ideas from the synthesis of different disciplines. The intersection of art, design, and technology with a goal to foster interdisciplinary collaboration. It provides access to resources, expertise, and benefits not found in other incubators. A shared workspace and professional development program that brings together more than 100 cultural practitioners and creative entrepreneurs, including anchor tenants Columbia University's GSAPP Incubator, Rhizome and NYC's top professionals. It is a balance between a business incubator and an artist residency program.



### **ACMI X, Melbourne**

Join our curators, programmers, producers and administrators in a 60 seat co-working space dedicated to the creative industries. Designed by award-winning architects Six Degrees, ACMI X is a 2,000 square metre state-of-the-art office space in the heart of Melbourne's arts precinct and a first for an Australian museum. Established to provide a home for Melbourne's creative practitioners, ACMI X is a brand new co-working space that assembles a vibrant mix of filmmakers, digital and visual artists, digital producers, web developers, screenwriters and designers. Reserved solely for individuals, collectives and businesses working with the moving image, we're fostering a creative culture that champions collaboration, innovation and sustainability. By providing infrastructure and a community platform that enables discovery, learning and growth for individuals and businesses alike, creative fusions and cross-disciplinary partnerships emerge from the energy and collaboration between co-workers and ACMI's own creative employees at ACMI X.

#### **5.4.4 Makers, Designers, Technologists in Residence**

Allied with the Incubator will be opportunities for practitioners in-residence. These professionals will be supported to work within the Museum - and will directly engage with the Museum's programming, exhibitions, collections and research. Visitors would be able to interact with these makers, to gain a first-hand interpretation of their practice and culture.

The Museum will support local makers in the development and presentation and creation of empowering experiences and will include public art and installations that may inhabit the Central Gallery. Their work and the visitor experience will be supported by studio space to cater for the program. Visitors will be able to take workshops with resident makers, watch them at work, and meet and engage with them in formal and informal formats.

A series of small flexible spaces will be utilised for the residencies, enabling experimentation with audience response, engagement and use of the exhibition space for evolving outcomes. The Museum sees as critical that the program would source Indigenous and non-Indigenous people from various multi-cultural backgrounds, to produce work with the Museum. Space will allow for eight practitioners at any given time, with a range of facilities for fabrication, making, display and interaction with visitors.

## Residencies: Benchmark



### MAD Artists Studios, New York

The Artist Studios host artists and designers daily as they produce their work in a live studio environment. Visitors to MAD meet working artists who openly welcome questions and dialogue, and discuss their processes, materials, and concepts with diverse members of the public. This program serves as an innovative model of interactivity and engagement that benefits local artists and Museum visitors through observation, making, and discussion of creative processes.

*MADmakes* workshops also occur, led by artists-in-residence, *MADmakes* is a drop-in,

hands-on series where visitors can test their skills at art making and creative production. *MADmakes* provides an opportunity for visitors to better understand and appreciate the workmanship that goes into contemporary studio practice today.



### Fashion + Design Accelerator, New York

The Brooklyn Fashion + Design Accelerator is a hub for ethical fashion and design that provides designers with the resources needed to transform their ideas into viable businesses. The hub brings high-potential fashion designers, industrial designers and technologists together under one roof. A dedicated work space that provides on-site business mentorship, small-run apparel production, digital fabrication services, sponsored industry projects and strategic NYC partnerships, educational programs and hosts, showroom space and retail sites. Connecting production and technology to a 21st century vision that seeks to redefine the fashion industry.

#### **5.4.5 Learning Studios**

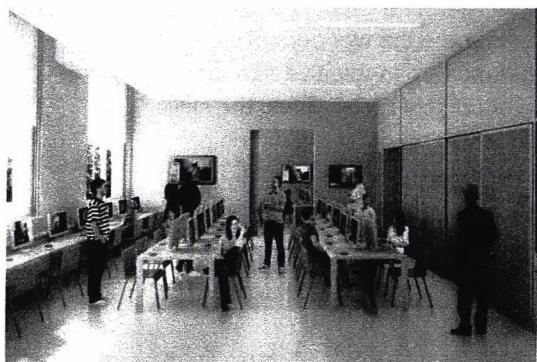
Dedicated to developing new creative and technology skills in both our education audiences and the public at large, these flexible studio spaces will provide a space for creativity and curiosity to flourish.

A large open plan studio space can be flexibly divided up to provide a range of facilities for groups of many different sizes, and to allow 'messy' activities with paint or clay, as well as more technology focussed spaces with contemporary media production tools for hands-on and in depth programs that provide novel technology, design, and science experiences.

Catering to the dedicated needs of large school groups, the learning studios will provide a simple entry path from a coach drop off area through to the studios. Special facilities to welcome school groups and handle storage and retrieval of their school bags will be provided.

The Studios will also provide gathering spaces and generous circulation for large groups. Visible Collection is embedded throughout these spaces, keeping a direct connection between the learning programs and the MAAS Collection. The Studios are connected to the galleries and directly connected to the Central Gallery, alongside the Maker Spaces and Resident Studios.

## Learning Spaces: Benchmarks



### Teekenschool, Rijksmuseum

The Rijksmuseum's multidisciplinary education centre is housed inside the historic drawing school known as the 'Teekenschool'. After the renovation, the former school building has regained its original function as a place where people can pursue and develop their talents. The restored building is poised to be the largest centre for museum education in the Netherlands. Its three modern studios host a wide spectrum of activities, organized under the motto: 'learning to look by doing'.



### Dallas Museum of Art, Creative Connections

The Center for Creative Connections (C3), where you can LOOK, TOUCH, LISTEN, READ, MAKE, and TALK about art. Whether you are 2 or 102, our job is to inspire you, engage your interests, and pique your curiosity. This unique 12,000-square-foot learning environment provides interactive encounters with original works of art and artists for visitors of all ages. There are three key spaces: Studio, TechLab and Theatre: The Studio is a place where your creativity can get messy. A variety of hands-on art-making programs for children and adults take place in this space, The Tech Lab is the space where art and technology merge to inspire your creativity. We

invite visitors of all ages and skill levels to experiment with and use technology in unique ways to respond to works of art in the Museum's collection and create original artwork. Stop by the Tech Lab during our monthly Late Night event to participate in the Late Night Art Bytes program. Teen programs also take place in this space. The Theater is a comfortable space where we host storytellers, performances, and lectures during special events such as First Tuesdays and Late Nights. At times, this space is used to display video installations from the Museum's collection.

#### **5.4.6 Centre for STEAM**

The MAAS Centre for STEAM encourages people of all ages to embrace the wonders of science, technology, engineering, art and mathematics (STEAM) through hands-on innovative experiences. In a rapidly changing world, science and arts literacy can empower society by providing the skills needed to excel in the 21st Century, to make informed decisions and to meet the demands of tomorrow's world. In collaboration with industry leaders, educators, researchers, students and the public, the MAAS Centre for STEAM presents exhibitions, engaging learning programs, dynamic public events and scholarly inquiry.

Our goals are to:

- Make STEAM relevant and engaging
- Build skills for the future
- Provide meaningful collaborations with industry
- Reveal the wonder of science

The Centre for STEAM operates its programs across all the areas of the Innovation Lab neighbourhood, in addition to gallery, exhibition and auditorium spaces.

#### **Benchmark**



##### **Data.Space (Berlin)**

The DATA SPACE is SAP's flagship space in Berlin. It is a space to meet, work, and eat together in a stimulating and innovative environment. We offer a physical handshake with innovators, change makers, partners, startups, artists, Berlin's multifaceted community, and all people interested in Digital Transformation. The DATA SPACE is built up out of four interconnected areas: DATA HALL, DATA KITCHEN, DATA HUB, and DATA ROOM.

The DATA ROOM is a high tech interactive workshop space. It can be used for a multitude of creative workshop formats. An example is to use it as an addition for your design thinking sessions.

## **5.5 Research Hub**

### **NEIGHBOURHOOD 3 RESEARCH HUB**

A place to dig deeper into the past to inform the future. Using the MAAS collection as a central resource, it will inspire and foster scholarly inquiry, research and sharing new knowledge generated with the public. Utilising the research partnerships with Universities across Australia it will bring about future thinking; in the Centre for STEAM (Science, Technology, Engineering, Arts and Mathematics) access to the research and archives, and the Centre for Fashion. The Library Lounge provide a dedicated space for research, study, meeting and learning.

This Neighbourhood will include

- Library Lounge
- Researchers in Residence
- Centre for Fashion

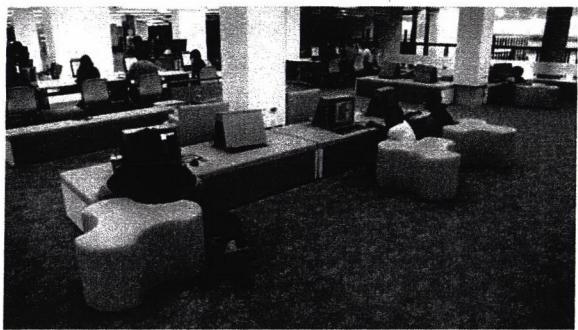
### **5.5.1 Library Lounge**

MAAS has throughout its 135 year life held a growing library and research archive of books, periodicals and images of applied arts and sciences. However, it has traditionally been an 'on request' service, accessible only to researchers and those 'in-the-know'. The New Museum will completely change this model, putting the Library into a contemporary context, and putting it directly into the hands of the public.

Beyond direct access to the vast holdings of the MAAS library and archives, the Library Lounge will be a shared place for study, work, writing, focus and respite. Designed not just for the specialist user, the Lounge will provide everyone from the keen amateur to our own curators a space for self-directed learning. With bookable 'focus pods', shared desk spaces, quiet reading areas and spaces for group discussion - this will be a contemporary space devoted to expanding your understanding of the arts and sciences.

The space will be acoustically treated to provide zones for quiet or activity, and flooded with abundant natural light. The space will have adequate floor loading to take densely packed shelves of books and archives. Dedicated secure spaces within the Library Lounge will enable rare and precious books and collection items to be made available for supervised study.

## Benchmark: Library Lounge



### State Library of Queensland, Level One.

On Level 1, you can access SLQ's free wi-fi service, even if the Library is closed. There are spots to recharge your laptop or mobile device and there is 24 hour security to keep you safe. Food and drinks are allowed everywhere on Level 1. *Kuril dhagun* - this is the place for our Aboriginal and Torres Strait Islander communities to meet, and for us to learn about unique Queensland Indigenous cultures, through exhibitions, events and digital programming.

*Infozone* - book a computer or use an express one; plug in your laptop; print, copy or scan; relax; meet your friends, *The Parlour* - play games, view exhibitions, read and relax. *The Corner* - SLQ's well-loved space for families and children. There are programmed activities from Monday to Friday for under 8s and their parents and carers. *Welcome Desk* - the information desk and your entrance to levels 2, 3, 4 and 5. Find out about SLQ membership, use the cloak room to store your belongings and find out just about anything from our friendly team.



### Wellcome Collection, Reading Room, London

Come and experience the new incarnation of our Reading Room. An innovative hybrid of gallery, library and events space, the Reading Room is designed to encourage you to indulge your curiosity and explore more than ever before. With over a thousand books and 100 objects – including contemporary sculptures, paintings, medical artefacts and manuscripts – the room is an open invitation to dig a little deeper into what it means to be human. Settle down with a book from our shelves on a comfy sofa, contemplate life quietly or strike up a conversation with a stranger. You will find plenty here to inspire you. Drop by to spark connections and new ideas. The Reading Room is open during gallery opening hours. Just come whenever you have a moment – you may even chance upon one of our pop-up Reading Room events.

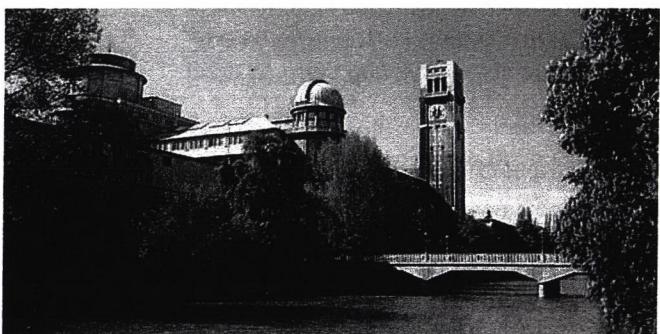
### **5.5.2 Researchers in Residence**

Building upon the existing MAAS Research Fellowship program, the Knowledge Hub will provide dedicated space for researchers in residence. It provides a supportive environment for researchers to undertake research related to the Museum's collection, education, conservation and museum practice.

It will enable access the Museum's resources to support their research for short to medium lengths of time. This hub will initiate and develop collaborative research and facilitate interaction with, and training of, MAAS staff. Residents are expected to make a tangible contribution to the Museum during the period of their stay, for example, through presenting work-in-progress or research outcomes to MAAS staff or through the public programs offered by the Museum, professional development for MAAS staff, contributing to object statements, writing articles for publications, or by making a broad contribution to the Museum's public programs. The program is targeted at established researchers such as university academics and independent scholars. Residents will be provided with access to the MAAS collection – via current exhibitions or through a supervised exploration of collections, staff expertise – curatorial, conservation, education, programs, digital & media and a workspace.

In addition, many universities across Sydney that have partnerships with the Museum will have their researchers and academics participate in this program.

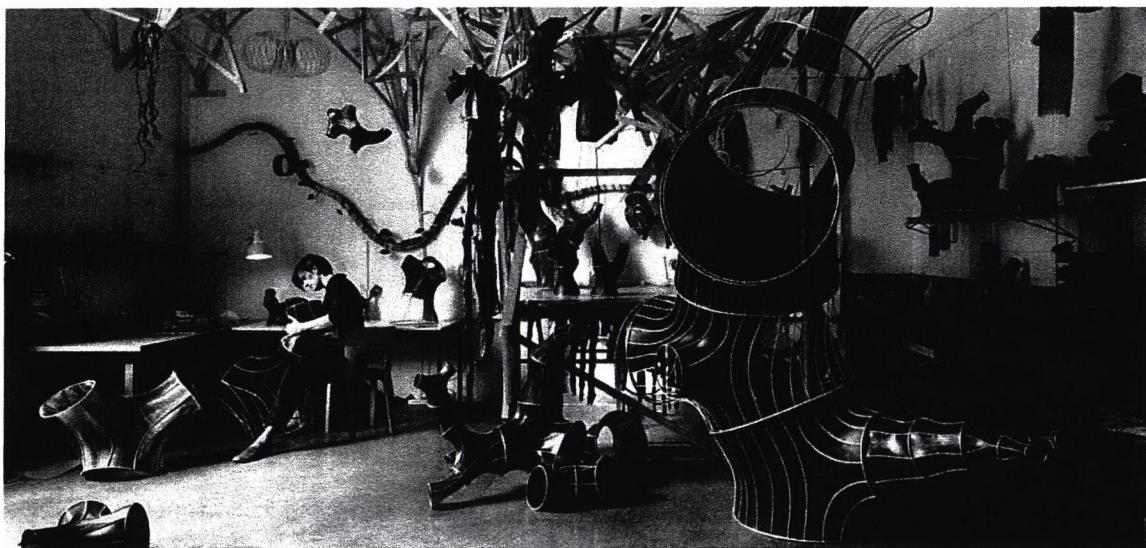
## Researcher Residencies: Benchmarks



### Deutsches Museum, Scholars in Residence

The Deutsches Museum in Munich has several positions to offer research scholars interested in working for six or 12 months on projects involving the museum's vast and heterogeneous collections. The scholarship programme is international and interdisciplinary in scope. There are myriad opportunities at the Deutsches Museum for innovative

research into scientific processes and the changing cultures of technology. Founded in 1903, the museum's holdings comprise some 100,000 objects; an archive of 4,500 shelf metres including an extensive collection of scientific photographs, technical illustrations, trade literature and private papers; and a specialist research library with 875,000 volumes, 5,000 journals, and an extensive collection of rare books on the history of science and technology. During their stay, visiting scholars will have daily contact with the museum's curators, archivists and librarians. Scholarship holders will have their own workplace with a desktop computer and telephone. They will present their research projects to colleagues at the beginning of their stay and will be expected to participate regularly in the Museum's colloquium series and workshops.



### V&A Residency Program

Supporting contemporary artists, designers and makers has always been at the heart of the V&A's mission. Our Residency Programme enables creative practitioners to gain unique access to the Museum's collections, archives and curatorial expertise, providing them with a studio on-site, a bursary and a production budget to experiment, create a new body of work and engage with the public. We issue open calls for residency applications twice a year, usually in the Spring and Autumn. For each open call, we define a particular area of the collections or a specific theme or medium we would like the resident to explore.

### **5.5.3 Centre for Fashion**

The centre fosters creative excellence, scholarly inquiry and public curiosity through exhibitions, interactive events, fellowships, designer residences, publications, acquisitions, programs and research. The Centre for Fashion provides a tangible access point for exploring often abstract concepts of design, form and style.

The centre will function as an interactive laboratory and inspirational studio space. The Centre will also include provision for visible collection storage and display, and incorporate collection study spaces building upon the existing MAAS *Lace Study Centre*. While the activities of the Centre will occur across the Museum, a central space for detailed focussed study is contained within the Research Hub.

## Centre for Fashion: Benchmarks



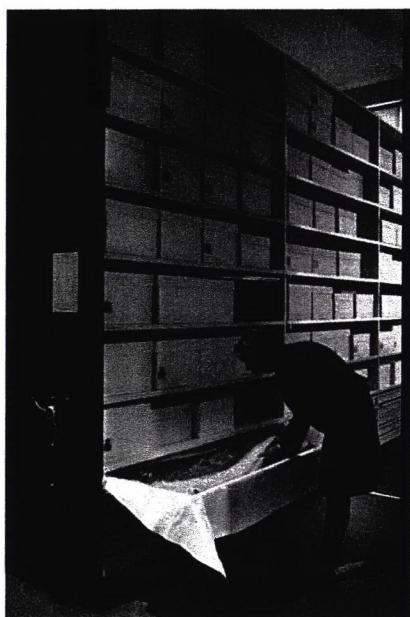
### Kyoto Costume Institute, Japan

Kyoto Costume Institute (KCI) systematically collects and preserves outstanding examples of western clothing through the centuries, as well as the documents and other items related to this area of study. The institute also conducts research, subsequently exhibiting or publishing its findings. KCI's principle activity since its foundation has been to collect authentic samples of western clothing from each era, together with the underpinnings that shape the clothing, and pertinent documents that explicate the background.

KCI's collection currently ranges from the 17th century to the present day, with holdings of 12,000 items of clothing and 16,000 documents. The institute has received donations from some of today's top designers and fashion houses such as Chanel, Christian Dior, Louis Vuitton and was presented with a gift of approximately 1,000 sets of clothing from Comme des Garçons.

### The Clothworkers' Centre, V&A, London

The Clothworkers' Centre for the Study and Conservation of Textiles and Fashion is a state-of-the-art facility that offers visitors and researchers a truly unique opportunity to inspect and study one of the most important collections of textiles and fashion in the world, ranging from archaeological fragments to heavy tapestry and carpets, accessories and underwear to embroidered 18th century court dresses and contemporary haute couture. The Clothworkers' Centre offers visitors a quiet, light, spacious and comfortable study room where individuals and small groups of up to three people can study objects of their choice, a seminar room for larger groups of up to 18 people, a small study collection of historical textiles selected to show a range of techniques and reference books and on-site access to the collections database.



## 5.6 Play & Learn

### NEIGHBOURHOOD 4 **PLAY & LEARN**

A place for encouraging natural curiosity. The New Museum will provide a place for play and learning for all. With family-focused spaces, a new children's museum will feature Australia's first children's play and learning space dedicated to the applied arts and sciences. The New Museum will create intergenerational experiences for families and our youngest visitors, with spaces for workshops, performances and music spaces. An enriching place, the New Museum will create culturally diverse experiences for all communities, open to dialogue and shared understanding.

Includes:

- Sydney's first Dedicated Children's Gallery
- Activity Space
- Hands on learning and play spaces throughout the Museum
- School Holiday and after school programs

### **5.6.1 Children's Gallery**

A dedicated Children's Museum will be Australia's first children's play and learning space dedicated to the applied arts and sciences. Developed in partnership with leading early learning experts, this will be Australia's first children's play and learning space dedicated to the applied arts and sciences for ages up to 10 years. A separately accessed space, with indoor and outdoor areas and a parents chill-out lounge.

Here collection objects will be interspersed with regular new artist commissions and activations. The Children's Museum will offer four programs per year in line with school holidays. The Children's Gallery will benefit from views over the river and dedicated café and retail spaces.

The Children's Gallery will be one of the Museum's most significant spaces and will have a prominent entry off the Main Foyer. The Children's Gallery will house a permanent experiential learning space that requires less stringent environmental controls than the main exhibition galleries. In addition, dedicated support spaces for families including parents rooms, family toilets, cloaking and pram parking.

## **Children's Museum: Benchmarks**



Farmers Market in a child-sized replica, complete with plastic produce, a flower stand, and cashier's station.

### **Perot Museum, Dallas**

Created especially for children age 5 and younger, the Children's Museum gives babies, toddlers and preschoolers a space of their own to explore alongside a parent or caregiver. A model of the Trinity River corridor gives children have the chance to examine local flora and fauna. There's a fun tent and campfire set up so they can pretend to be camping. Explorers can don wildlife vests and pick up a pair of binoculars to search for wildlife hidden around the museum. Visitors can explore the Dallas



slides, a rooftop Ferris wheel and a cantilevered school bus that juts out from the roof, subterranean caves, a pipe organ, hundreds of feet of tunnels that traverse from floor to floor, an aquarium, ball pits, a shoe lace factory, a circus arts facility, restaurants, and even a bar... because why not? All the materials used to build the museum including salvaged bridges, old chimneys, construction cranes, and miles of tile are sourced locally, making the entire endeavor a massive recycling project.

### **City Museum, St Louis**

Housed in the former home of the 10-story International Shoe Company, the sprawling 600,000 square-foot City Museum in St. Louis is quite possibly the ultimate urban playground ever constructed. The museum is the brainchild of artist and sculptor Bob Cassilly who opened the space in 1997 after years of renovation and construction. Although Cassilly passed away in 2011, the museum is perpetually under construction as new features are added or improved thanks to a ragtag group of 20 artists known affectionately as the Cassilly Crew. So what can you find at the City Museum? How about a sky-high jungle gym making use of two repurposed airplanes, two towering 10-story slides and numerous multi-floor



### **Beijing Science and Technology Museum, Children's Museum**

The conception of the New Museum is "to experience science and inspire innovations; to serve the general public and promote harmony". As the most prominent education vehicle for the Museum, is "Children's Science Paradise". This hall is an attractive place for children who like science and hands-on activities where they can have great fun. It comprises seven theme exhibition areas (Happy Farm, Cheerful Water Bay,

Science Castle, Exploring Mountains, Safety Island, Performance Scene and Hands-on Activities) with a total area 3,800 square meters. It is set up for three-to-ten-year-old children, aiming at inspiring their



interest in science in various educational ways, including games, discussions and interaction.

### **5.6.2 Family Activity Space**

While the main Children's Gallery display will be a long term (five to seven year long) installation, a more flexible, short term space is required to ensure a regular changing offer to drive ongoing visitation, and respond to program and thematic activity across the Museum. This space will be heavily activated four times per year during school holiday periods, and will feature 'pop-up' installations, artist commissions, creative play opportunities and performance.

This flexible space will allow for performance with lighting, audio and temporary seating. It will also provide for 'messy' and wet play areas. The space will have direct adjacency to the outdoor play area, so that installations and performances can occur both indoors and out.

## Activity Space: Benchmarks



### Paper Planet, Polyglot Theatre, Melbourne

Paper Planet is a spectacular forest of tall cardboard trees that invites children and their adults to populate the world with fantastic paper creations. Children's imaginations go wild in a world made of paper. Towering cardboard trees are the starting point and from there, only paper, tape and nimble fingers are used to create a new planet. After exploring the space, families make creatures, vines and flowers, costumes and impossible constructions, populating the world around them. This is a durational installation that grows as the participants engage with

performers and their own imaginative flights of fancy. Theatre and play merge as children discover a world of adventures in this magical forest. Paper Planet is an experience that all ages find inspiring and utterly blissful.



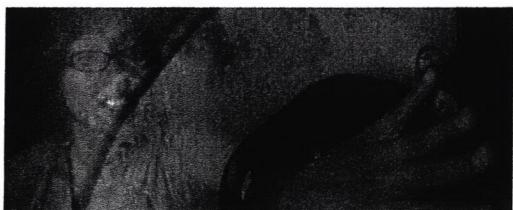
### Melbourne Museum, Children's Gallery

The Children's Gallery is a wondrous place for babies to 5-year-olds where children will explore, play and learn. Future palaeontologists will excavate fossils in our dinosaur dig; budding botanists will traverse our discovery garden, exploring plants and stories; young curators can gaze at our specially selected museum objects, and for everyone who loves to dance, there is a 'camouflage disco' where children turn into spotty and stripy disco dancing animals. This unique gallery will support families, carers, educators and children to learn together. The exhibition experiences combine hands-on exploration and discovery, open-ended play-based learning, extraordinary immersive environments and unique museum collection objects.

### **5.6.3 Hands on learning and play spaces throughout**

While there is a dedicated space for children within the Museum, all the Museum spaces will contain areas for activity and play. These will be incorporated into the Major Galleries, Temporary and Touring Exhibitions.

#### **Benchmarks**

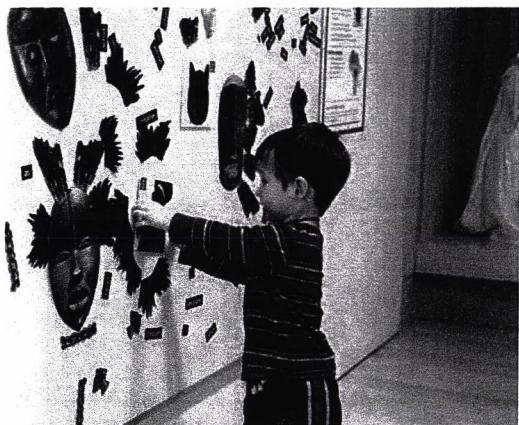


##### **Exploratorium, San Francisco**

##### **Soap Film Painting**

Under the influence of gravity, a thin window of soap film creates an ever-shifting array of colors. The five-foot square soap film, created by pulling a cord, is a soapy-water sandwich, with two outside layers of soap molecules around an inner layer of soapy water. The thickness of the soap film changes as the water drains

down the inside of the film. When white light (made up of many colors) shines on the soap film, some light reflects off the front of the film and some reflects off the back. These two reflections combine to make beautiful colors, a phenomenon called interference patterns. Make a soap film exhibit of your own at home and create colorful masterpieces.



##### **Indianapolis Museum of Art,**

##### **African Arts Activity Space**

Children and grown-ups are invited to creatively play at the museum in a variety of ways. In-gallery arts activity spaces are designed to enable children and their grown-ups to learn about the museum's permanent collection alongside one another. Learn about the significance of objects found in the permanent African collection by reading books, making a magnetic animal masks, going on an art hunt, doing a Scratch Art activity, using our Ipads to play. Activities in the space change periodically and are designed as self-guided experiences. Facilitators activate the space during school holidays and other

special events.



##### **Gallery of Modern Art, Brisbane**

##### **Kids and Families Programs, APT for Kids**

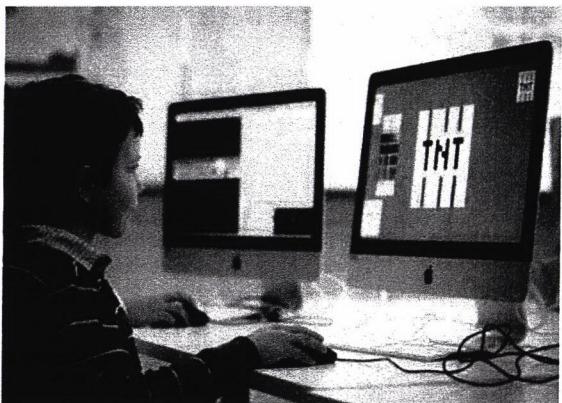
As part of 'The 8th Asia Pacific Triennial of Contemporary Art', APT8 Kids features a number of interactive artworks, hands on and multimedia activities created by exhibiting artists especially for children and families. Offering a rich participatory experience and curated to reflect key themes of the exhibition, APT8 Kids provides meaningful insights into contemporary art created across Australia, Asia and the Pacific.

#### **5.6.4 Holiday and After School Programs**

School Holiday periods are amongst the busiest times for Museums globally. With families and holidaymakers seeking meaningful ways to share social time, the role Museums play in providing both organised and 'drop-in' programming is critical. The New Museum will provide tailored programming across all the school holiday periods, ranging from digital creative workshops such as create your own video game, to sleep overs in the exhibition spaces, to hands on activities.

Programs are developed to align to major summer and winter exhibition programs, and other festivals throughout the year. Programming also aligns across the other MAAS sites at Sydney Observatory and Museums Discovery Centre. In addition, after school programs will be provided - allowing greater learning opportunities, and flexibility for families.

#### **Benchmarks**



##### **Digital Programs, MAAS, Sydney**

Curious about the technical and design processes behind Minecraft and other 3D platform games? Use a professional game production engine, Unity 3D, to make a working prototype of a platform from a puzzle game inspired by Minecraft! A key mechanic to be explored is the creation and destruction of blocks (or other objects) to create unique puzzles. The release of Unity 5 has democratised gaming giving everyone access to the most powerful tools in the industry. In this two-day introductory workshop you will learn to develop an in-game character, menus and levels. This workshop includes an introduction to C# coding. Learn about the different

aspects of game design pipeline to go from an empty project to a playable game! This workshop exclusively uses professional tools used by some of the largest companies in the world including Mojang, Blizzard and Rovio. Programming experience (Scratch or Python) will be an advantage but is not necessary, beginners are welcome.



##### **The Future Festival of the Next Generation, Ars Electronica, Linz**

What does it mean to save the world? Saving the world means transforming what has become a place that is hostile to life into a thoroughly livable habitat. And saving the world also means conserving and caring for it as a place worth living in, where it's already Paradise on Earth. Nothing less than contributing to saving the world was the mission assigned to u19-CREATE YOUR WORLD when the Future Festival of the Next Generation was launched in 2011. After all, we can succeed in

saving the world—and we will succeed, make no mistake about that—if each and every one of us pitches in. u19 – CREATE YOUR WORLD is a competition for youngsters who are creative and curious, and whose idea of having fun is developing something new.

## 5.7 Social Connection

### NEIGHBOURHOOD 5 **SOCIAL CONNECTION**

A place to connect, to come together and be together; Your local neighbourhood. The New Museum will be a place for individuals, owned by the community and the city – a new living room.

A destination for day and night, it will offer a range of social spaces from large public spaces, cafes and bars, shopping and retail, nooks for casual study and work spaces, event and function spaces for celebrations or conferences, and simply places just to chill out. The New Museum will welcome visitors by offering a variety of experiences for you to explore or to simply drop in, take in the atmosphere and make the most of the riverside site.

Includes:

- Museum Shop
- Riverfront Plaza
- Cafes
- Auditoriums, Meeting Rooms and Event Spaces

### **5.7.1 Museum Shop**

The Museum shop will be an integral part of the Museum, providing a unique outlet for merchandise, publication catalogues, and souvenirs. Working in collaboration with Australian designers, artists and creatives, the Shop will feature unique pieces as well as Museum publications.

The Shop will be accessible directly from the Main Foyer, and is located with visibility to the street. The Shop features durable but elegant retail fittings consistent with a Museum of design, and consistent with the Main Foyer it connects to, while still having the capacity to read as its own independent operation.

#### **Benchmark**



#### **MoMA Design Store, New York**

At MoMA Design Store, you'll find classics of yesterday and today, from humble masterpieces to transformative technologies. Design that elevates the everyday. In 1932, MoMA was the first art museum to establish a curatorial department dedicated to Architecture and Design. As an extension of the Museum's educational mission, MoMA Design Store exemplifies good design with a discerning selection of design objects highlighting the latest in materials, production and concepts from around the world. Every piece you'll find at our stores has been reviewed and approved by MoMA's curators. Some are represented in the Museum's collection. Many are MoMA exclusives. Come inside. Discover the world's most inspiring design objects.

### **5.7.2 Riverfront Plaza**

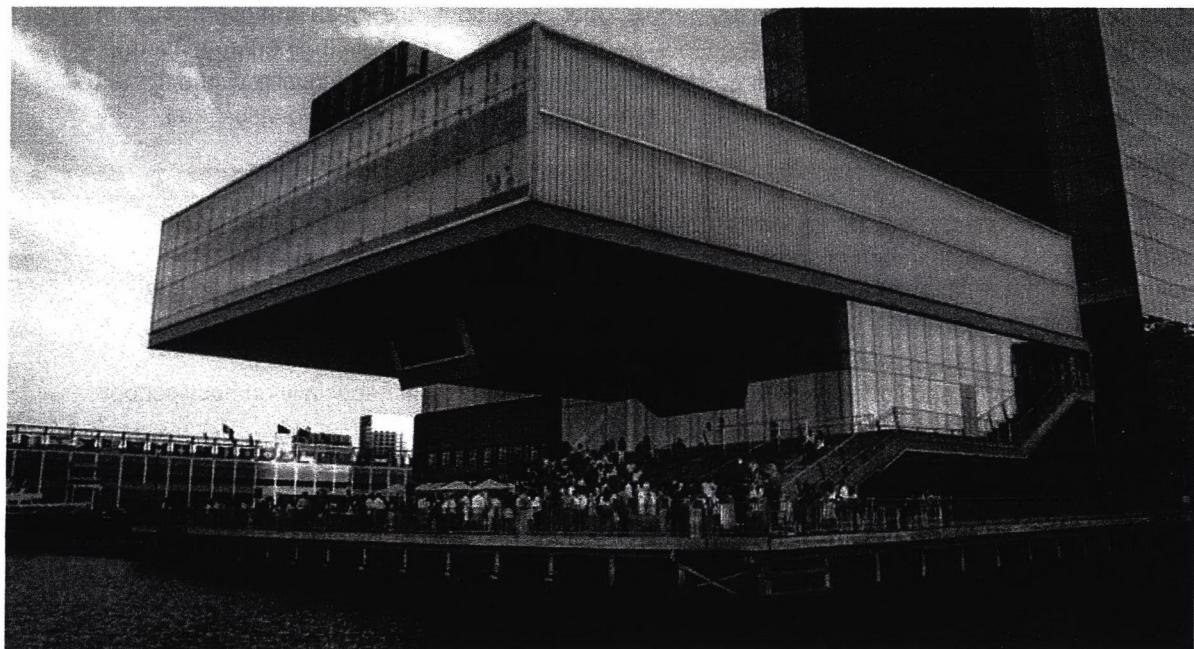
An important component of the Museum is the Riverfront Plaza, is an elevated space that provides the views over the natural surrounds of Parramatta. In addition, other elevated balconies and raised outdoor areas as part of the upper floors of the building will create an opportunity to extending the experience to meet and connect with the region.

Somewhere you can catch up with friends and family for coffee or lunch, take in an exhibition, check out a maker at work or participate in a workshop. The Museum will be a drawcard and something you will be proud to show off to visitors. Whether you ride your bike, walk, take your car, or come on a coach, everyone is welcome. The river will offer a unique vista and access to a children's play space. These spaces will be a place to socialise, do business, engage with science and applied art, all surrounded by the natural environment. It will provide a major asset to become recognised as a key part of the city's quality of life. This inspiring place will become a hub for you to meet and socialise, becoming an essential part of your lifestyle.

The social spaces within and around the museum will provide an architecturally inspiring community plaza, a cultural meeting place, a heart-beat for the city designed to bring people of diverse cultural communities together. Extending to the sky above, the area will form an orientation and contemplative space by day and by night, a place for exhibition openings and events.

The spaces will work together with other function areas to enable the Museum to become a venue for private events and functions. This will weave the Museum into the culturally significant moments of the lives of the community, and enliven the Museum with the social fabric of culturally specific traditions. The Museum plaza also extends across the cafe, lounge, and galleries that enables local designers and makers to come together, meet, exhibit, and gather.

## River Plaza: Benchmark



### Institute of Contemporary Art, Boston

The ICA offers a robust variety of exhibitions, music, dance, film, talks, tours, family activities, and teen programming throughout the year. Expand your horizons with every visit and discover something new. The north wall of the café features sliding glass doors that face the Harbor. These 6-foot x 12-foot panels extend from floor to ceiling and slide over and stack to create an open-air dining space. The Plaza is a 3,500-square-foot area adjacent to the museum café and the bold Grandstand of public seating. The wood of the plaza merges with Boston's 47-mile HarborWalk, which then continues inside the building as the floor and ceiling material of the theater. This sheltered open space at ground level is a public area where people can enjoy views of Boston Harbor.

### **5.7.3 Cafes**

The Museum café will have an area to seat 100 people, opening out onto the plaza and waterfront, with a link to the Main Foyer. Day-long visitors need food and beverages to maintain their energy, but the café also provides a key social engagement point and opportunity to drive commercial revenue. It features comfortable lighting and can be utilised for events with simple lighting, audio-visual and staging setup.

The café will be the new place to go with unsurpassed views over surrounding river vista. Whether you ride your bike, walk, take your car, or come on a coach, there is an opportunity to enjoy a unique outlook with your meal. There will also be easy access to a children's play space making it an ideal destination for playgroups, family gatherings or social outings.

Additional 'pop-up' cafes and coffee carts will operate around the Museum, especially on busy school holiday periods.

#### **Benchmark**



#### **Eye Film Museum, Amsterdam**

Our bar-restaurant is open daily for coffee, lunch, drinks, or dinner. Of course this also includes the most stunning views imaginable of the harbour and Amsterdam's Central Station. Our kitchen is open every day from 10:00 to 22:30.

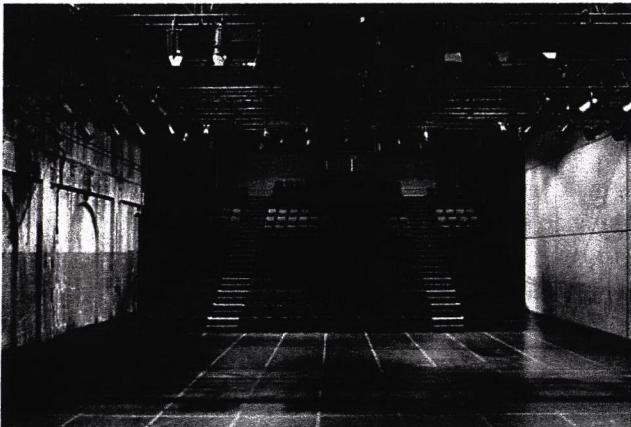
#### **5.7.4 Auditoriums, Events and Meeting Rooms**

Key parts of the Museum's program for groups, education audiences and the public are forums, symposiums, lectures and presentations. Two flexible auditoriums are included, alongside the studio spaces in the Innovation Lab. Programs are presented using state of the art large-format projection, video and audio, but these spaces are adaptable with retractable tiered seating, allowing conversion to flat floor spaces suitable for dinners, receptions, parties or performance.

Beyond the Museum programming of these spaces across the daytime, these facilities are also available for corporate events and conferences to drive commercial revenue.

The auditoriums will have shared and adjacent break-out spaces for food service, meetings, gatherings and conference registration. These break-out spaces will capitalise on views to the river and let natural light in to enable contrast to the auditorium environment. The auditoriums will also include dedicated technical/control spaces, dressing and preparation rooms and small bars/kitchens.

#### **Benchmarks**



##### **Carriageworks Bay 20, Sydney**

A contemporary space with heritage elements that is ideal for conferences, screenings, filming and live music. This post-industrial setting is a flexible venue that can also host intimate VIP events and presentations. Theatre Style it seats 500, Standing between 500-800. 33 x 16.5m.



##### **Perez Art Museum, Miami**

At the heart of the building, a stair as large as a gallery connects the two exhibition levels. This stair also functions as an auditorium, using sound-insulating curtains in different configurations to provide space for lectures, film screenings, concerts and performances. Our idea was to avoid for such events to be isolated in a space remaining unused for most of the time. At PAMM, events in preparation are visible. When the space is not being actively used for events, visitors and staff use it for or individual reading and study.

## **Supporting the Physical Spaces**

### **Technology**

In addition to the physical capacities of the building, the role that digital plays within it is critical. MAAS has always been a place for understanding how things are made. We use technology as an interpretive tool: but we simultaneously use it as a “teaching moment”, asking the question “how does this work”? This duality of medium and message is important. In the same way that we expect an art museum to look and feel worthy of being an art museum (architecture, design, ambience, scale) - we should expect that the New Museum would feel like an exceptional hybrid science/art experience. Embedded ‘making’ through the application of art and science is our authenticity. This embedded technology needs to happen at each touch-point whether that’s within the Museum or without. This means creating unique physical and non-digital experiences that are informed, augmented and enhanced by digital applications and methodology. Technology is a strong enabling mechanism. At a bare minimum the technology is a carrier of information, but at its best it is fully embedded in our experiences. This embedding enhances the Museum’s ability to be conversational, flexible and fluid.

### **Programs**

The New Museum will provide purpose built, flexible learning spaces that will facilitate the provision of changing educational offerings. The New Museum will provide a cyclical program of facilitated experiences for all developmental levels that will be led by dedicated educational staff. Self-guided experiences will also be available to allow older school children and class groups to explore the New Museum’s offerings.

The provision of high quality visitor services is not only key to the development of positive visitor experience, but also an expectation of the community of its cultural facilities. Enhanced visitor services in the New Museum will include:

- The Central Gallery which will function as a public meeting, reception space and entrance;
- Digital and interactive access to the museum and collection;
- Personalised and customised guided and interactive tours;
- Enhanced restaurant and café offerings;
- Enhanced entertainment offerings, including the Planetarium, and immersive spaces
- Enhanced retail offerings and temporary, pop-up shops.

Expectations of contemporary audiences have shifted to include not only physical access to museums and collections, but expectations of attractions, engagement and online access prior, during and post visit. The New Museum will be centred on a holistic approach to audience access and engagement. This will be achieved through increased online and remote access to the collection and products, as well as extended offerings during on site attendance.

## 6. Operational Model

### 6.1 Current Operational Model

The Powerhouse Museum currently operates on the following model:

<b>Public Spaces</b>	
Arrival & Ticketing	Two arrival points, front desk, information, cloaking and ticketing services, supporting 570,000 visitors annually.
Long Term Exhibition	Nine Long Term Exhibition Spaces across 3 levels, displaying 6000+ collection items in 5,200sqm.
Temporary Exhibition	Nine Temporary Exhibition Spaces comprising 3,700sqm. 6-8 exhibitions turned over annually.
Children's Exhibition	One Long Term 700sqm exhibition space, supported by outdoor play spaces.
Touring Exhibition Gallery	1750sqm Touring Hall, with 2-3 exhibitions/year, primarily ticketed.
Events	2 Auditoriums, Breakout Spaces, Central 'Turbine' Hall, Commercial Kitchen – supporting 780+ events for 25,000+ patrons annually.
Education Spaces	4 Workshop Spaces, The Lab Learning Space, 4 Classrooms, Schools Arrival, supporting 62,000 students annually.
Commercial	2 Cafes, 1 Retail Shop, Café Kitchen.
Support Spaces	Members Lounge (supporting 5000+ members), Volunteers Lounge (supporting 430 volunteers).
Programs	2 Major Festivals (Sydney Design, Sydney Science Festival), 4 School Holiday Programs annually, 200+ other talks, forums, lectures etc. annually. Website and Online Collection Access for 3.5M visitors. 50,000 participants in offsite/regional programs.
<b>Back of house</b>	
Staff Accommodation	Office, Meeting, Amenity and Kitchen Spaces for 200+ staff, volunteer and casual staff. Directorate Suite, Boardroom.
Collections Care	Conservation Laboratories and Treatment Spaces (1,500sqm) supporting care of the 0.5M collection items valued at \$0.34B, and supporting 400+ outgoing collection loans, and 850+ new collection acquisitions annually.
Collections Storage	Onsite secure and climate Control Storage for 400,000 collection items, across 2,960sqm. Dedicated higher security spaces for weapons, jewels etc.
Functional Storage	Crate Storage, Mannequin storage, showcase and plinth storage. Event support storage (staging, seating, tables).
Commercial Storage	Cool Rooms, Dry Stores, Secure Stores for Food and Beverage. Stock storage for Retail.
Technical Workshops	Timber, Metal and Paint shop support exhibition Production of 10 shows/year, and ongoing maintenance. Technical workshop support spaces for audio visual and technology. Photography and Video Studios for collection documentation and media production. Maintenance workshops for Facilities, HVAC and Steam plant. Security Control Room.
Library and Archives	490sqm of Library and research access spaces.
Loading	2 Site Access loading areas, one for touring exhibition loading, other for General Goods and Collections.

The Museum operates two other sites, Sydney Observatory and Museums Discovery Centre, but all centralised services (Corporate, Facilities, Programming, and Collection Care etc) operate from the Powerhouse Museum site.

## **6.2 Key Changes, Opportunities and Remediation for the New Museum**

While some core functions of the Museum will need to be replicated on the new site, a series of key changes and opportunities have been identified. In addition, there are existing limitations and issues with the current building that need to be remediated in the development of the new site.

### **6.2.1 Self-Generated Revenue**

NSW Government grant support has been indexed over the past 10 years, efficiency dividends effectively negate this. Combined with Public Sector wage growth, the Museum has an effective ongoing reduction in core Government grant-in-aid.

It is critical that the new facility maximises opportunities for self-generated revenue in order to ensure ongoing sustainable operations for the Museum.

In addition to commercial operations, sponsorship, donations and fundraising all contribute to the bottom line. Retail sales are another strong source of income. Rental income from other occupants can build viability, as can the revenue generated from the very successful venue hire business. The redevelopment of the museum must build upon existing commercial strength. It must reflect the organisational culture, be financially viable and sustainable.

The key opportunities identified through a combination of modelling and benchmarking is:

- A Planetarium cinema as a major visitor attraction (the first significant planetarium in NSW)
- Flexible and stand alone function spaces - capitalisation of views, unique attributes of 'being in a museum', varied group sizes, proximity to theatres and ability to be accessed both from within the museum and directly from public spaces.
- Mixed retail offer: provide a multiple offer and points of sale for precinct visitors and Museum visitors.
- Integrated café/food and beverage offers which add to the Museum experience, with the opportunity for day-night activation: e.g. standalone operations as a restaurant/bar.
- Flexible non-permanent or pop-up outdoor structures – for events and performance. Range of event spaces that can be utilised for museum, sponsor, partner and venue hire opportunities.
- As a 'new build' there will be improved efficiency of all aspects of core operations, from collection management and fit-for-purpose plant and equipment;
- A purpose-built facility that provides flexibility and scalability within the operating model for the Museum to adapt the intensity of staffing, programmatic and other offerings to factors such as seasonality and time-of-day.

The development of an effective and sustainable operating model is a core objective of the development of the New Museum and will be critical in ensuring the success of the Museum over time.

### **6.2.2 Technology**

#### **Mobilisation and Continuity of Experience**

As we continue to strap technology onto our bodies the expectation of how the museum serves us shifts. Individuals expect a seamless experience from museum data/events/knowledge within their daily flow/stream of digital/social consciousness, and when they choose to get transactional it needs to keep up with the seamless flow. Accessing information, news, choosing to come to an event, or reading an article is no different from any other brand in the marketplace. The 'handoff' between physical, digital, information seeking and transactional interactions should be perfected.

## Big Data / Big Computation / Data Visualisation

While everyone is talking about Big Data: few have a space to experience it. Museums can provide a grand space where these types of technology can manifest in way that will never occur on your personal device. It requires savvy partners for source data, technology, analysis/synthesis and artistry.

## Pervasive Computing

If we work to the assumption that we know the 4D (location plus time) data of every collection item, experience, transaction, visitor and staff member - what next? We hit some amazing opportunities for extremely tailored personalisation of experience based on real time computation/data mining and simultaneously horrific incidents of privacy violation. That said - Museums will not be alone in this arena. If millions sign up for Groupon et al, we can only take it as a sign that privacy/value/transactional benchmark will continue to be set by the visitor market, and museums would be foolish to stand prudishly to the side.

### 6.2.3 Consumer Preferences and Audience

Visitors to museums and other cultural activities are no longer attending simply during the day, day to night activity is critical to the overall mix of audience behaviour, and how a contemporary city operates. Separate museum functions should be able to be operated and ticketed separately, especially outside 'standard' business hours. These separable uses include auditorium, commercial event spaces and IMAX/Planetarium spaces.

Audiences are also increasingly demanding increased transparency about how their public institutions work. Beyond maximising public access to the MAAS collection through a combination of exhibits and visible storage, this project seeks to increase research/access spaces so they are not hidden, but become part of the building fabric.

### 6.2.4 Sponsors and Partners

Key to the New Museum's success will be the potential to partner with business and other strategic organisations such as universities locally and across Sydney. It will be essential that the new location is both accessible and attractive to our partners, particularly those who will be potential clients for our facilities and services.

### 6.2.5 Current Site Limitations

The facility must be able to operate efficiently in zones which respond to the security levels, hours of operation and functional requirements, and to provide separation and security between Front of House (FOH /galleries) and Back of House (BOH) activities to enable them to occur at the same time of the day without compromising those activities.

To improve operational efficiency and flexibility of the venue as a whole: provide separation and security to enable commercial operations and activities to take place independent of gallery opening hours.

The existing site at Ultimo has a series of challenges that are a result of its adaptive reuse of an existing building and should be avoided in the development of the new Museum:

- Confusing circulation
- Entrance on two levels
- Inappropriate and non-compliant disability access
- No back of house circulation – all goods travel through public spaces
- Goods Lift only services some spaces within the building
- Cramped foyer spaces
- Inadequate cloaking, toilets and disabled facilities

- Aging of the building and deterioration of carpets, exterior claddings
- Lack of column free exhibition space
- No dedicated education facilities to meet the demands from schools
- International gallery standards not being achieved in all areas
- Limitations in control and performance of mechanical systems, and limited environmental sustainability overlay

## 6.3 New Operational Model

### 6.3.1 New Functions

Several functions of the New Museum are not part of the existing business operations at Ultimo. The new business and operational models related to these functions have been considered as part of this business case and are outlined here:

<b>Public Spaces</b>	
Children's Exhibition	Greater programming capacity, with greater school holiday events, and co-developed programs, responding to projected community demand. Some additional staffing, some additional sources of ticketed revenue.
Touring Exhibition Gallery	Second Touring Hall for third party use, new revenue sources associated with hire.
Event Spaces	More contemporary/technologically-advanced spaces reduces staff costs, increases attractiveness for commercial hire.
Education Spaces	Significantly increased spaces allowing much greater capacity to grow program and respond to projected community demand.
Resident Program	New spaces for this program, small staffing impost to facilitate program.
Planetarium	New facility and program. Operational costs, including staffing, content production, ticketing, food and beverage revenues included in the model.
<b>Back of house</b>	
Commercial Storage & Circulation	Improved access and pathways increases efficiency in back of house movement.
Library and Archives	Facility moves to audience facing function.
Loading	Enhanced functionality increases efficiency

## 6.4 Functions Changed and Transferred

In addition to the above transformed public experiences, many core museum operations will transfer. The below table maps the transfer of existing functions to the new functions.

	<b>Ultimo</b>	<b>Parramatta</b>
<b>Public Spaces</b>		
Arrival & Ticketing	Two arrival points, front desk, information, cloaking and ticketing services, supporting 570,000 visitors annually	Transfer
Long Term Exhibition	Nine Long Term Exhibition Spaces across 3 levels, displaying 6000+ collection items in 5,200sqm.	Replace existing, all new
Temporary Exhibition	Nine Temporary Exhibition Spaces comprising 3,700sqm. 6-8 exhibitions turned over annually.	Significantly changed
Children's Exhibition	One Long Term 700sqm exhibition space, supported by outdoor play spaces	Significantly enhanced
Touring Exhibition Gallery	1750sqm Touring Hall, with 2-3 exhibitions/year, primarily ticketed	Additional Hall for third party activity
Planetarium	N/A	New
Events	2 Auditoriums, Breakout Spaces, Central 'Turbine' Hall, Commercial Kitchen – supporting 780+ events for 25,000+ patrons annually	Significantly changed
Education Spaces	4 Workshop Spaces, The Lab Learning Space, 4 Classrooms, Schools Arrival, supporting 62,000 students annually	Significantly enhanced
Commercial	2 Cafes, 1 Retail Shop, Café Kitchen	Enhanced
Support Spaces	Members Lounge (supporting 5000+ members), Volunteers Lounge (supporting 430 volunteers)	Transfer
Programs	2 Major Festivals, 4 School Holiday Programs annually, 200+ other talks, forums, lectures. Website access for 3.5M visitors.	Transfer, continually adapt
<b>Back of house</b>		
Staff Accommodation	Office, Meeting, Amenity and Kitchen Spaces for 200+ staff, volunteer and casual staff. Directorate Suite, Boardroom.	Transfer
Collections Care	Conservation Laboratories and Treatment Spaces (1,500sqm) supporting care of the 0.5M collection items.	Transfer
Collections Storage	Onsite secure and climate Control Storage for 400,000 collection items, across 2,960sqm. Dedicated higher security spaces for weapons, jewels etc.	Transfer
Functional Storage	Crate Storage, Mannequin storage, showcase and plinth storage. Event support storage (staging, seating, tables)	Transfer
Commercial Storage	Cool Rooms, Dry Stores, Secure Stores for Food and Beverage. Stock storage for Retail.	Transfer
Technical Workshops	Timber, Metal and Paint shop support exhibition production, ongoing maintenance. Technical workshop. Photography and Video Studios. Maintenance workshops for Facilities, Security Control Room.	Transfer, adapt
Library and Archives	490sqm of Library and research access spaces	Moves to part of Public Spaces to enhance offering
Loading	2 Site Access loading areas, one for touring exhibition loading, other for General Goods and Collections	Transfer

## **7. Functional Design Brief**

From his announcement, the Premier set the tone for the new building at Parramatta: it must be an icon for Sydney, the Museum, and the world. Its form must follow the functional needs of the Museum – but to be true to our mission – it must also be a world-class manifestation of both art and science. It will engage with its urban environment and be integrated with, and connected to, the city.

Full detail is in the **Functional Design Brief** document, but in outline:

### **7.1 Qualities of the Facility**

#### **7.1.1 Design Excellence**

As Australia's leading museum of applied arts with *Architecture and the Built Environment* as one of our eight disciplines, the Museum must embody world class design excellence and significance in its physical form. Our mission in applied arts and sciences must translate to a building with superior design and innovative engineering qualities.

#### **7.1.2 Landmark**

The New Museum in Parramatta will be iconic, and become a symbol for Western Sydney. Architecture and placement within the site will reflect this, an identity distinct from its surrounding buildings. Distinctive element(s) visible from key approach corridors should signal the Museum's presence within a busy urban landscape. The planned 'Civic Link' (Horwood Place) promenade from Parramatta Square, connecting the Train Station to the Museum, is a key arrival moment. Entry should also address the river for access from the Rivercat. The location within the city is fundamentally about the River and connection to it – the Museum will exist between two bridges, and is part of a 'River Room.' Vistas should be created to and from the Museum to key points of interest.

#### **7.1.3 Coherent**

The museum should be experienced as a coherent entity architecturally, and not a 'diaspora' of disparate elements that causes difficulty in visitor navigation, or leads to parts of the experience not understood as being 'part of', or conceptually branded as, the whole Museum. MAAS is destinational: it is not a thoroughfare. So whilst being permeable, the Museum isn't reduced to only being on a path from one point to another.

#### **7.1.4 Porosity**

The building can be permeable to public uses, however the museum should have control over that permeability (for security, events and commercial).

#### **7.1.5 Sustainability**

The design should minimise environmental impact and utility costs. Few museums in Australia have yet given consideration of a LEED or Minimum 4 star Greenstar rating. This should be reflected in the approach. All museum areas must be temperature and humidity controlled within internationally recognised conservation standards. These standards must be maintained to remain internationally competitive for major touring exhibitions and to loan significant and highly valuable objects. There is a significant opportunity to build into the design solution active and passive measures to minimise the substantial energy usage that tight environmental controls consume.

Users and visitors will benefit from improved amenities and healthy environments where the design incorporates energy efficient mechanical and electrical systems, or renewable energy technologies.

The project ESD solution will be required to:

- Incorporate innovative passive design principles, and take a whole of building approach to reducing operational expenditure;
- Consider innovative initiatives that showcase ESD principles demonstrative of the Museums place at the intersection of art and science;
- Develop systems and solutions which are innovative yet robust, effective, and appropriate;
- Utilise International ESD Guidelines to benchmark the performance of the design and construction of similar iconic and world class facilities;
- Be supported by extensive analysis of the environmental, physical, economic and social underpinnings of the site;
- Provide solutions that are particular and appropriate for the site, locality and service delivery of the Museum;

#### **7.1.6 Universal Access**

The Museum aspires to provide experiences that are available to people of all abilities. Exceeding regulatory/building code requirements, the Museum should set a high benchmark for access across differing physical, cultural and psychological needs to provide an excellent visitor experience for all. The Museum will provide audiences with the best quality physical and digital experiences as well as optimum access to the Museum's collections through personalisation, innovation, technology, digital, knowledge sharing and exchange platforms.

#### **7.1.7 Open Space, Aspect and Connections**

Key visitor groups (particularly family audiences and school groups) require outdoor spaces for play, recreation and as a 'break' from the museum going experience but also to provide the flexibility to extend the experience and programming outside the building. Key opportunities for broader public programming such as outdoor concerts, cinema, festivals and markets need proximate (controlled) public space. Ideally this space should be accessible from within the building but also in a controlled way directly from adjacent public spaces. The MAAS experience will begin well outside the site boundaries with public art and pop-ups strategically located along the approaches to draw and journey visitors to the facility.

#### **7.1.8 Transport & Access**

Well located primary service vehicle access with continuous back-of house located to service the exhibition and auditorium areas. Oversized vehicle access must be possible from nearby roads, including 40' semi-trailer access for use 2-5 times/year for major exhibition loading. For operational support and efficiency (exhibition loading, security) the Museum needs separate serviceability for back of house, visitor and operational goods loading needs. Ideally MAAS would like to reduce the dependency on accessing the site by private vehicles. 24/7 transport access is important for both our staff and visitors, particularly as we increase our before and after hours activities and to ensure a lively and activated environment.

Access via private vehicle is still a key audience need, access for vehicles will be separated from pedestrian access to the site to minimise potential conflict and impact on amenity. Space for safe bus drop off and pick up adjacent to the site is required. Parking for at least 8 buses must be possible in the vicinity without interfering with local traffic flow.

#### **7.1.9 Lifespan**

The Museum is required to be designed for a minimum life of 30 years. The permanent structure comprises those elements that would not normally be subject to replacement or refurbishment over the 30 year life of the building. Items such as services systems and technological control systems should have a normal design life of at least 20 years. The requirement for flexibility and adaptability in the

design, specification and sizing of elements and equipment will be paramount to maximising the building life span.

#### **7.1.10 Quality**

The redevelopment should incorporate spaces, finishes, materials and fittings that are appropriate for a high profile public building with a 30 year minimum design life. The quality and functionality of the refurbishment and extension should meet international museum standards.

Selection of materials and finishes should consider functionality and flexibility, age and weathering.

Selection of engineering services systems should consider flexibility, future proofing and the building design life.

## **7.2 The Site**

### **7.2.1 Site Description**

The property comprises multiple allotments forming an irregular shaped site positioned within the Parramatta CBD, approximately 20 kilometres north-west of Sydney's GPO. The site is situated along the southern riverbank of Parramatta River and is bounded by Wilde Avenue to the east, Phillip Street to the south and Church Street to the west.

Positioned towards the northern fringe of the Parramatta CBD, the site benefits from close proximity to public transport hubs with Parramatta Railway Station located approximately 700 metres south of the site and Parramatta Wharf situated approximately 600 metres east of the site. The property also provides good access to main arterial roads with the M4 Western Motorway located approximately 1.7 kilometres south and Victoria Road approximately 320 metres north of the site.

### **7.2.2 Planning**

The Site is zoned B4 Mixed Use, which permits range of uses permitted with consent, including information and education facilities. The Riverbank Site has applicable height and floor space ratio (FSR) controls, and these are deemed to be well-in-excess of those required to support the development of the New Museum, thereby providing significant flexibility in the design of the built form.

The Riverbank Site is also set back approximately 25 metres from the river, and this is consistent with / less onerous than applicable flood levels – which are the main constraint on the development for the site. The treatment of the interface with the adjoining heritage buildings also needs to be carefully considered, including setbacks to these buildings

Further detail on the **Heritage, Environmental, Access and Civic** needs are noted in the **Functional Design Brief**.

### **7.3 Area Schedule**

The functional allocations of space in the New Museum have been broken down into seven key Functional Types:

- I. Arrivals
- II. Hospitality & Retail
- III. Display
- IV. Research
- V. Education & Access
- VI. Collection Management
- VII. Operations

Each of these spaces has the follow allocation of requirements. A full description of these spaces is found in the Functional Design Brief.

Zone	Space	Area	Clear Height
<b>I Arrivals</b>			
1	Main Foyer	900	8
2	Ticketing/Concierge	200	8
3	Cloaking	50	3
4	First Aid	10	3
5	Offices	50	3
6	Security/Screening	50	3
<b>II Hospitality &amp; Retail Spaces</b>			
1	Primary Retail	400	3
2	Retail Storage	10	3
3	Primary Café	350	3
4	Café Kitchen	100	3
5	Commercial/Events Kitchen	150	3
6	Kitchen Preparation/Storage	20	3
7	Members Lounge	100	5
<b>III Display Spaces</b>			
1	Touring Gallery A	1500	12
2	Touring Gallery A Retail	100	4
3	Touring Gallery A Prep/Store	250	8
4	Touring Gallery A Dock	20	8
5	Touring Gallery B	1500	12
6	Touring Gallery B Retail	100	4
7	Touring Gallery B Prep/Store	250	8
8	Touring Gallery B Dock	20	8
9	Children's Gallery Display	800	6
10	Children's Gallery Activity Space	200	6
11	Parents Lounge	50	3
12	Outdoor Displays	800	-
13	Central Gallery	800	8
14	Central Gallery Technical	20	3
15	Long Term Gallery - Very Tall	700	12
16	Long Term Gallery - Mid Height A	700	8
17	Long Term Gallery - Mid Height B	1000	8
18	Long Term Gallery - Standard Height A	1000	6
19	Long Term Gallery - Standard Height B	1000	6
20	Temporary Gallery A	500	6
21	Temporary Gallery B	500	6
22	Temporary Gallery C	500	6
23	Immersive Experience Gallery	500	6
24	Visible Collection Displays	600	4
<b>IV Research Areas</b>			
1	Centre for STEAM		
2	Centre for Fashion	200	4
3	Library Lounge (Resource Centre)	400	4

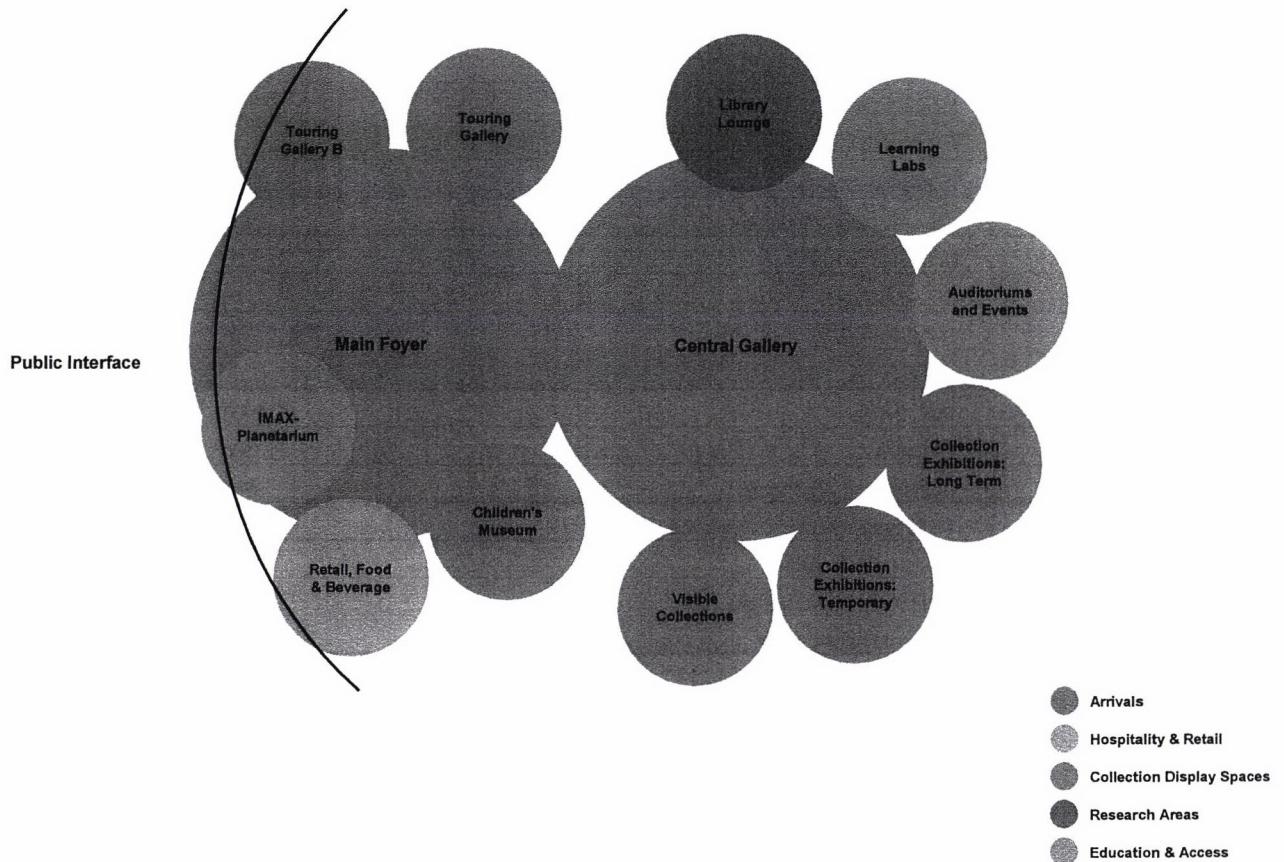
<b>V Education &amp; Access Spaces</b>			
1 Learning Labs	1200	4	
2 Residents Offices	200	4	
3 Education Arrivals inc Cloaking	200	4	
4 IMAX/Planetarium	470	20	
5 IMAX/Planetarium Foyer	50	6	
6 Auditorium A	630	8	
7 Auditorium B	350	8	
8 Auditoriums Foyer	400	6	
9 Auditoriums Technical	130	4	
10 Production/Live Studio	250	6	
11 Meeting/Event Rooms	100	4	
<b>VI Collection Management Spaces</b>			
1 Collection Storage	3600	4	
2 Conservation Workshop	200	4	
3 Photo/Video Studio	20	6	
4 Collection Lift			
5 Collections Dock	25	6	
<b>VII Operations</b>			
1 Staff Offices	1900	4	
2 Executive	100	4	
3 Construction Workshop	500	4	
4 Technology/Electrical Workshop	200	4	
5 Workshops Storage	250	4	
6 Exhibition Furniture Store	200	4	
7 General Loading Dock	200	4	
8 General Goods Store	50	4	

## 7.4 Key Functions of Spaces

The full breakdown of needs and requirements for each space is provided in the **Functional Design Brief** and is outlined above the **Vision**.

## 7.5 Adjacency Diagram

The key relationships between the main areas is shown in the following diagram.



A full set of adjacencies for key flow paths of Visitors, Staff, Goods and Collection Items is provided in the **Functional Design Brief**.

## 7.6 Visitor Journey Paths

The following example visitor journeys encompass the types of experiences that would be typical for key audience groupings to illustrate their likely utilisation of the differing Museum offers.

Audience	Persona/Example
General Adult Visitor – Exhibitions	Penny
General Adult Visitor – Events	Arul
Family Group – Local/Sydney	Peter
Tourists – Interstate	Jess and Sam
Tourists - International	The Zheng Family
School Group – Primary	Sydney Primary School
School Group - Secondary	Sydney High School
Tertiary Education Group	UTS Fashion Students
Events	Engineers Australia Conference
Museum Staff	Silma

It should be noted that this is a highly simplified version of visitor behaviour. Museum visitors are much more diverse and their expectations and experiences would vary significantly.

### 7.6.1 General Adult Visitor - Exhibitions - Penny

Penny lives in Randwick. She catches takes the Lightrail to Central, and then takes the express train to Parramatta Station. While on the train, she starts exploring what she may do during her visit on her phone. A short walk down through Parramatta Square and she arrives at the Museum from the Philip St Entrance.

She enters the Museum, and walks to the **Foyer** through the **Central Gallery** experiencing a large installation of sports uniforms, equipment and designs which had been installed to coincide with the 2024 Olympic Games. In the **Foyer** Penny orientates using an app or by asking one of the Museum's staff members for assistance on what to see and do on the day. She uses the **Amenities** and **Cloak Room** to check her bag prior to commencing her Museum visit.

Penny has come to see the **Collection Highlights** and **Temporary Exhibitions**. She moves from the **Foyer** through to the **Central Gallery** on her way to the **Permanent** and **Temporary** galleries. She spends an hour viewing two of these galleries. She stops for lunch at the **Café** and after using the **Amenities** she returns to view the other two **Permanent Galleries**.

Penny comes back another day to view the special exhibition in the **Touring Gallery**. On the way there she stops to look at her favourite display in the **Visible Collection Display** prior to entering the **Touring Gallery** to view the special exhibition, at the end of the exhibition she exits through the **Touring Gallery Retail Shop** and after using the amenities, goes to the **Museum Café** for coffee and cake. Collecting her bags from cloaking before exiting via the **Museum Shop**.

### 7.6.2 General Adult Visitor - Events - Arul

Arul works in Castle Hill, he finishes work, and drives to the Museum. Parking in a carpark just outside the CBD, he catches the Lightrail one or two stops to the Museum, gets off on Church St, and wanders along the river to the Museum. It's Sydney Design Festival, and one of Arul's favourite designers is giving a talk before the launch of a new film. Arul has pre-purchased tickets online.

He arrives at the Riverbank entrance, and walks through the **Foyer** through the **Central Gallery** experiencing an innovative architectural installation created by Marc Newson for the Sydney Design Festival.

Arul arrives and is directed by Museum staff to the **Main Auditorium** via the lifts. Once there he uses the **Amenities** and purchases a wine from the bar set up in the **Auditorium Breakout Area** and enjoys the views of the River as the sun begins to set. He taps his phone to check into the talk event (60 minutes) and afterwards departs via the lifts through the **Main Foyer**. After the talk, he joins the group in the **Foyer** heading for the **Planetarium**.

Last time he was here, it was to see a mainstream film, but tonight a special film has been created for the Festival. He purchases a snack from the **Planetarium Bar**. While he is waiting he views the **Visible Collection Display** in the Planetarium foyer and read about what's on and coming up at the Museum. He meets friends and lines up to see the film. After the 1.5 hour film is finished they depart via the dedicated Planetarium exit, Arul returns to the car and drives home.

#### **7.6.3 Family Group – Peter**

Peter lives in Penrith with his two children. They regularly attend the Museum and are members. Peter brings his 4 year old Alex in to participate in the **MAAS:Minis** program aimed at pre-schoolers. They book this online weekly. They catch the train from Penrith to Parramatta, and walk from the station to the Museum.

They walk through the **Central Gallery** and **Main Foyer** where they use the **Amenities** and drop off their bags and pram at the **Cloak Room** prior to meeting the Museum staff in the foyer. They are taken to the **Permanent Galleries** for the start of the program. After twenty minutes they move into the **Learning Labs** to participate in a hands on learning program. After the hour long program, Peter joins the other parents and children at the **Museum Café** to have coffee and snacks. After the café trip they walk through the **Central Gallery** looking at their favourite things and arrive at the **Main Foyer** to use the **Amenities** and collect their bags and pram prior to exiting via Horwood Place.

Another day, Peter and his two children visit the **Children's Gallery**. They arrive via Horwood place at the **Main Foyer** entry and walk through the **Central Gallery** using the lifts to get to the **Children's Gallery**. They purchase tickets and arrange for their bags and pram to be placed in the **Cloak Room**. They then enter and look at the permanent interactives and displays, participating in the special activity program of the day. After an hour, they collect their bags for the snacks they brought with them, and sit in the **Parents Room** to have a twenty minute break before heading back out to explore the outside area and to climb all over the new **Temporary Installation**. They then collect their bags from cloaking and use the amenities. After over two hours in the Children's Gallery they depart the Museum back to the Station.

Another day, its Peter's older child Stef's 10th birthday, as special treat Peter books a party at the Museum for 10 of Stef's friends in the **Immersive Experience**. They arrive through the **Foyer** and **Central Gallery**, and after using the **Amenities** and **Cloakroom**, they line up with their friends. They spend the next 20 minutes transported to another world: in this case the International Space Station – where they float around with astronauts, learn what experiments are being conducted, and finally splashdown to Earth. They leave the Immersive Experience with their official "I've been to Space" certificate, and head to the **Museum Café** where they have a private space to have a "space" themed lunch together.

#### **7.6.4 Tourist Interstate – Jess & Sam**

Jess and Sam have come to look at the Museum having heard about it back home. They are staying in central Sydney, so they choose to travel via Ferry from Barangaroo. Arriving via ferry they walk up to the Museum via the Riverbank and spend some time looking and photographing the **Iconic Building**.

Stepping into the **Central Gallery** they look at the current installation and large object displays. They then enter the **Main Foyer** to look at what's on today. Talking to the Museum staff they discover that there is a Volunteer's highlights tour. This tour takes in objects from the **Permanent Galleries** and **Visible Collection Displays** stopping at key objects. After the hour long tour they explore the food offerings at the Museum and decide to eat at the **Museum Café** on the Riverbank. After lunch they see that there is an exhibition from the V&A collection they'd like to see so they use the lifts to access the **Temporary Gallery** and wander through the exhibition for about 40 minutes, and purchase something from the **Museum Shop**. Once they have seen the exhibition they walk around the top floor to view the **Central Gallery** from above and then leave via the lift closest the Riverbank to depart via the Riverbank exit so they can catch the ferry back to Sydney.

#### 7.6.5 Tourist International – The Zheng Family

The Zheng family of four are on holidays from China and looking for something to do with their children aged 3 and 5 when it is rather wetter than they had imagined Sydney would be. After reading reviews online, they decide to visit the **Children's Gallery**. They are staying in central Sydney, and decide to travel via the Ferry and walk up to the Museum's riverbank entrance via the stairs.

Here they explore the **Central Gallery** for thirty minutes before taking the lift to the **Children's Gallery**. They purchase tickets at the **Children's Gallery**. They spend two hours playing and looking at the object displays, with a rest and refresh of 20 minutes in the **Parent's Room**. They then ask for information about where to eat in the Museum and are directed to the **Museum Café** where they eat lunch.

After a play outside they return to go to the **Main Foyer** through the **Central Gallery** to purchase tickets for the **Immersive Experience**. They are excited to see that they can experience a 20 minute immersive presentation showing how the Opera House and Sydney Harbour Bridge had been built, and could listen to the experience in Cantonese. Whilst the children are in the experience one parent explores the **Visible Collection Displays** that are located nearby. After the Immersive Experience they explore the **Museum Shop** to pick up some souvenirs, and depart the Museum via the Riverbank exit to catch the Ferry back to Sydney.

#### 7.6.6 School Group – Sydney Primary School

Arriving via bus the school group of 30 primary school children are dropped off at the **Bus Zone** located at the **Education Arrivals**. They are greeted by Museum staff who brief them on what they will do today and what is expected of them. After the briefing they are given 20 mins to eat their morning tea and check their bags in the **Education Cloak Room**.

Museum educators then take them into the Museum to discover the technological innovations that led to the Industrial Revolution by examining significant artefacts in the MAAS collection in the **Permanent Galleries**. They then return to the **Learning Labs** where they partake in a fun hands on demonstration/activity of how factories work. After the hands on experience they break for lunch in the **Education Arrivals**. They then split into two groups to go through the **Permanent Galleries** and **Central Gallery** on an hour long self-guided trail that highlights many aspects of the making of the modern world.

They then return to the **Educational Arrivals** where they collect their bags from the **Education cloaking** and are collected by their bus waiting in the **Bus Zone**.

Another day, after they arrive via bus, a Museum educator will provide a learner orientation giving them a structured framework for their visit. The museum educators take them to the **Planetarium** where they watch a 30min show on the dark universe. They are then collected and returned to the **Education Arrivals** where they collect their bags and eat their lunch. After using the **Amenities** and returning their bags to the **Education Cloaking** they are then given free-range to explore the Museum's **Permanent and Temporary Gallery** spaces. After an hour and half of self-directed

discovery they return to **Education Arrivals** where they collect their bags with assistance of Museum staff and are collected by their bus waiting in the **Bus Zone**.

#### 7.6.7 School Group – Sydney High School

HSC Design and Technology students visit a highlights exhibition the Museum is holding for two weeks of presentations and workshops for Year 11/12 students from schools in NSW. Each day over 100 students come to participate.

Students variously arrive via bus or train to the Museum. Museum staff are located at the **Main Foyer** to direct all students to the **Education Arrivals** where they leave their bags. Those arriving by bus are dropped off at the **Bus Zone** or **Education Arrivals** directly. They are then directed to the **Main Auditorium** where they are given a 45 min presentation by a guest speaker.

Museum staff then split them into groups of three – one heads to the **Temporary Gallery** space to view the exhibition, the second moves to the **Small Auditorium** for a workshop lead by an industry specialist and the third heads to the **Learning Labs** and **Resident Offices** to meet and greet our resident artist and participate in a hands on design lab. Once they have completed this hour long session they are rotated so that they all participate in each offering. Dispersed in the day is a break for lunch in both the **Educational Arrivals** and the **Auditorium Breakout**. For those not able to attend the on-site programs **Video conferencing** is set up in the **Production Studio** where the guest speaker presents directly to the schools and has a Q&A session. Once the day is complete the students collect their bags from the **Educational Arrivals** and depart via the Bus Zone or through the **Main Foyer** to Parramatta Station.

#### 7.6.8 Tertiary – UTS Fashion Students

A group of Fashion students have booked in to see the Touring Gallery exhibition and one of the current temporary exhibitions and have a tour by the exhibition team and curator. They arrive via Train, to the **Main Foyer** where they collect their pre-booked group tickets and wait for the Museum staff to arrive. Whilst they are waiting they use the **Amenities** and leave their bags at **Cloaking**. The Museum staff then take them to the **Small Auditorium** where they do a 30 minute presentation on the highlights of the Museum's Fashion Collection. They are then taken for an hour long tour by the curator and exhibition team around the **Temporary Galleries** and the **Centre for Fashion**. Once finished they break for lunch, collecting their bags from cloaking and using the amenities, some eat at the **Museum Café**, some eat food they have brought themselves on the Riverbank.

After lunch they return via the **Central Gallery** to the **Main Foyer** to cloak their bags and then walk to the **Touring Gallery** for a self-guided tour of the **Special exhibition**. They spend one hour in the exhibition and then depart via the **Touring Gallery Shop**.

Finally, a resident textile artist who is working from the **Resident Offices** brings the group of students in to see the progress of their work. They are taken into the **Learning Labs** where they are given a presentation by the resident artist who then takes them on a thirty minute tour of the **Resident Offices**.

#### 7.6.9 Events – Engineers Australia Conference

Engineers Australia are having their annual conference at the Museum. They are staying in hotels around Parramatta, and some travel via the Ferry and Train.

The night prior to the main conference they host a gala dinner, which takes over the entire **Central Gallery** and **Foyer** for 500 people. There are speeches and an award presentation. For their two day conference they have booked out the **Main and Small Auditoriums**, the **Auditorium Breakout** area and the **Meeting Rooms**.

As part of the conference, Museum staff will also take attendees on tours of the **Visible Collection Displays** and **Permanent Galleries**. The conference closing event is a cocktail party including a special viewing of the **Special Exhibition** in the **Touring Hall**. For all these events they enter via the Main Foyer and are directed by Museum staff to where they are meant to be. In break times they are free to roam the **Permanent and Temporary Galleries** and **Central Gallery**. They organisers of the conference have access to **Office Spaces**.

#### 7.6.10 Museum Staff – Silma

Silma lives in Newington, and catches the Lightrail to work every day. She works as a Visitor Services team member, and helps visitors when they arrive, sells tickets to programs and events, and loves to work on evening events when the Museum comes to life after dark.

Silma arrives via the **Staff Entrance**, and uses the **Staff Amenities** to change into her uniform. She starts the day in the **Staff Offices** checking messages, and then meets all the other staff working front of house today for the daily briefing in the **Small Auditorium**. After opening, she greets several school groups, deals with a child who has tripped over in the **First Aid Room**, and spends the afternoon on the **Information Desk** helping visitors and selling tickets to the **Planetarium**.

Silma's partner works in central Sydney – so they often meet after work in the **Museum Café** for a light snack and a drink at the end of the day before heading home.

## **7.7 Audience / Space Utilisation Matrix**

The following matrix showing likely space utilisation by audience type

## **8. Appendix A – About Powerhouse Museum**

### **8.1 Powerhouse Museum**

Located in the old Ultimo Power Station building adjacent to Darling Harbour, the Powerhouse Museum is MAAS' flagship venue. Its unique and diverse collection spans science, technology, design and decorative arts, engineering, architecture, health and medicine, fashion and contemporary culture.

The Powerhouse's core function is to demonstrate how technology, engineering, science and design impact Australia and the world through a program of temporary exhibitions, festivals and programs that complement a range of permanent galleries.

The Museum holds broad community appeal given the practical, technological and educative nature of its exhibits and is a source of much affection due to its accessible and interactive content.

A strong emphasis is placed upon learning and creativity through education, research, learning programs, the research library and workshops. Powerhouse staff are dedicated to engaging with children and learning programs to align with educational curriculum. A series of dedicated education spaces: labs, classrooms, breakout spaces and theatres are used for these programs.

With a strong focus on creativity and curiosity, a range of 12 permanent exhibitions at the Powerhouse is complemented by a changing program of temporary exhibitions and displays, regular tours and demonstrations, performances, workshops, forums and other special events.

As a State collecting institution MAAS is responsible for the preservation and maintenance of the collection in their care for the peoples of New South Wales. The site provides the significant storage and back of house operations for collection care, workshops and is the primary site for museum staff.

### **8.2 A Brief History**

The Museum was first conceived as the Technological, Industrial and Sanitary Museum in the grounds of the Botanic Gardens following the overwhelming success of the 1879 Sydney International Exhibition. Unfortunately, in 1882 before the new museum could open its doors, its Garden Palace home was burnt to the ground.

A temporary home was found in the Agricultural Hall on the Domain. It was during this period that the process of building the collection began, two notable acquisitions were New South Wales' first train, Loco No 1, and a steam engine made by Boulton and Watt in 1785. Within two years, the Museum had outgrown the Agricultural Hall and by 1888 attendance was declining as the cramped nature of the building meant that many objects could not be viewed.

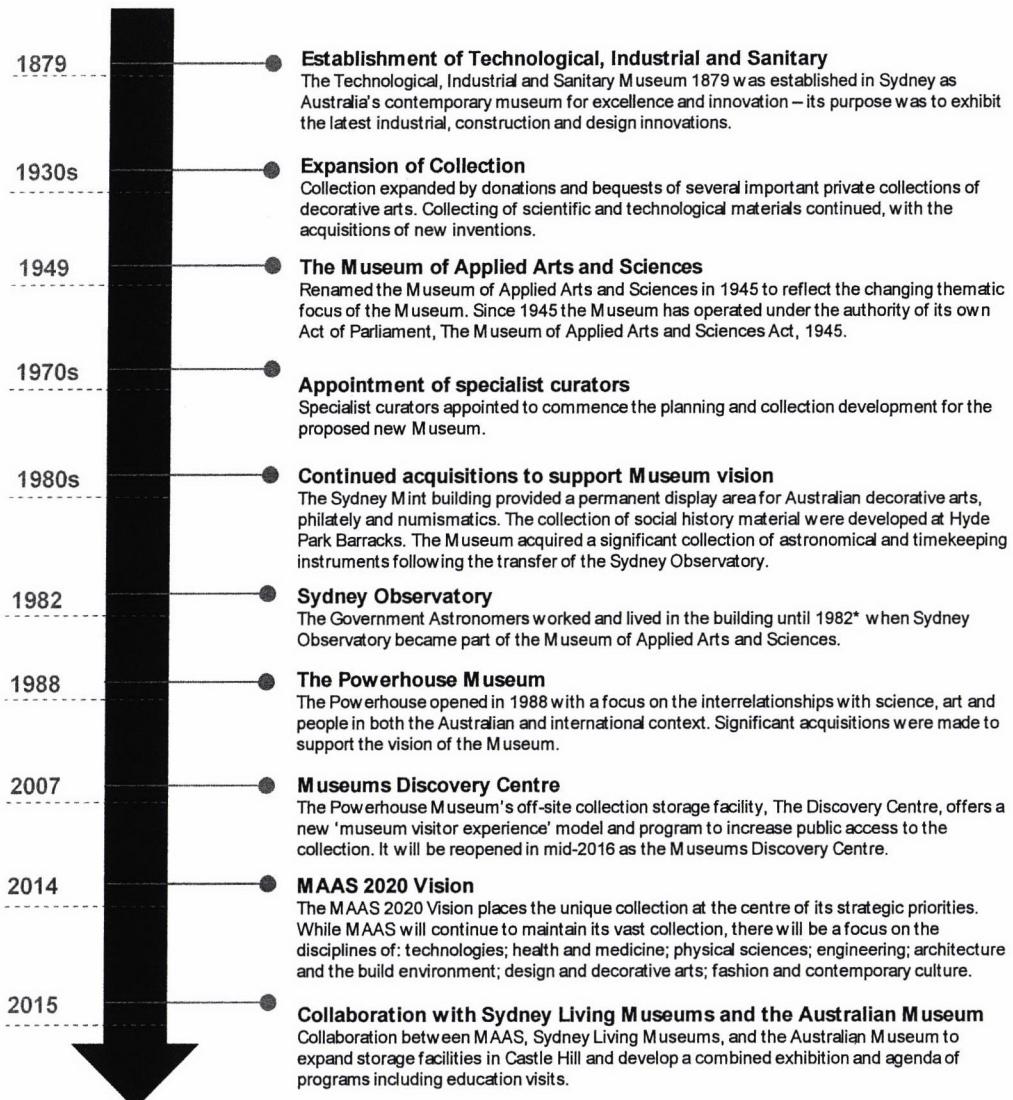
In 1893 the newly renamed Technological Museum moved to a dedicated building in Harris Street, Ultimo, beside the Sydney Technical College.

In 1945 the institution was renamed the Museum of Technology and Applied Science, which was changed to the Museum of Applied Arts and Sciences, in 1950. By the 1970s the collection had begun to outgrow the site and in 1979 the NSW Government announced that the Museum would move to the adapted Ultimo Power station site in Harris Street.

In 1988 the Powerhouse Museum opened to the public as the MAAS flagship facility and has continued the long history of providing rich and diverse exhibitions and programming that provide a comprehensive insight into the diversity of the country.

MAAS also incorporates Sydney Observatory, a heritage site overlooking Sydney Harbour, which functions as a museum of astronomy and a place where visitors can view the southern sky and stars.

In 2007 the Museum launched the Powerhouse Discovery Centre: Collection Stores at Castle Hill which, following a global recognition of the need to provide greater access to heritage collections, allows visitors to access around 50,000 items of the collection in storage and also learn about its care and maintenance.



## **9. Appendix B – Audiences**

A vast majority of residents in NSW and Greater Metropolitan Sydney participate in various forms of arts and culture, from visiting museums and art galleries, to attending musical theatre, concerts, and cinematic productions. In 2014, around 3.2 million people were estimated to have participated in arts and culture in Greater Metropolitan Sydney, representing a participation rate of about 91 per cent.

In 2015-16 MAAS' overall visitation was up by 25% compared with 2014-15.

MAAS saw over 730,000 onsite visits in 2015-16 which was 28% higher than 2014-15. This was driven by strong attendance at Powerhouse Museum most of the year, and steady growth in Sydney Observatory visitation since December 2015. The Powerhouse Museum visits were up 33% compared with 2014-15. This was driven by improved accessibility to the Museum through the introduction of the Free Kids Policy which supported growth in lower cost family visits.

At present the decision to relocate the Museum to Parramatta remains an unpopular one with communities local to the Powerhouse. The Willingness to Pay study showed that few of these groups would be willing to travel to Parramatta to visit the New Museum. This however, may be more representative of their affinity with the current institution and a perceived sense of loss at its closure than the attraction and potential of a New Museum.

Historically there has been a marked difference in participation and funding between Western Sydney and other areas of Greater Metropolitan Sydney, with around 56 per cent of people participating in arts and culture estimated to reside outside of Western Sydney. Investment in arts and cultural infrastructure in Western Sydney identified by the NSW Government has the potential to stimulate and enable additional engagement with arts and culture in the region, contribute to urban development and renewal, and build on the already-rich local cultural landscape. Through this projected investment it is reasonably anticipated that the arts and culture participation rate in Western Sydney would achieve parity with the Greater Metropolitan Sydney.

Based upon the visitor projections completed by SGS Economics, the opening of the New Museum will result in an increase of 20 and 10 percent during the first and second year of operation, prior to the normalisation of visitation in the years beyond that. Beyond the opening boom, the challenge for the New Museum will be to maintain momentum and create a consistent visitation.

Through the move alone, the New Museum will attract a new audience base drawn from Parramatta and its surrounds, with the right communications in support of the relocation and careful handling of the closure of the current site there is opportunity to divert sections of the Powerhouse's existing audience base.

## 10. Appendix C – The MAAS Collection

The Museum ‘holds in Trust’ for the people of New South Wales an invaluable collection, representing over a century of industry, innovation and social progress. There are well over 500,000 items in the Museum’s collection, which is in high demand with active regional, national and international loan and touring programs. As Australia’s only museum of arts and science, MAAS holds the nation’s largest and most significant collection of science, technological and design advancement. This extraordinary collection is unique in placing Australia on the global stage to tell the remarkable story of human ingenuity.

The Museum is acknowledged internationally for the calibre of its collection, scholarship and exhibitions. The collection spans Australian and international history, science, technology, design, industry, decorative arts, music, transport and space exploration. It is home to the material heritage and stories of Australia’s diverse communities and cultures, providing insights into Australian history and society.

The collection lies at the core of Museum business, enabling it to fulfil both its mission to be ‘a catalyst for creative expression and curious minds,’ and its vision: ‘to be the leading Museum of applied arts and sciences; inspiring communities and transforming our world.’ Through collecting, preserving and documenting Australian material culture and its global context, the Museum advances our understanding and valuing of the past, inspires creativity and innovation, and increases our ability to respond to present and future challenges.

Awe-inspiring and priceless, the collection includes world-icons deemed by their intrinsic value, historic association, spiritual significance or rarity to be Australian or international treasures, for example: the first computer, the earliest steam engine, Babbage’s Difference Engine, the Enigma Machine, the Apple 1 and an extraordinary collection of transportation and space history including the Catalina flying boat.

Icons of Australia’s nationhood include: great explorers Shackleton, Mawson, Scott and Flinders, the State’s first locomotive, first wool samples, and early colonial and convict history. Our medical pioneers are represented through Florey and Cochlear along-side modern medical innovation CSL and ResMed. Rare prototypes and inventions are represented through the flight test models of aeronautical pioneer Lawrence Hargraves, Jørn Utzon’s wind test models for the iconic Sydney Opera House and modern day explorer Dick Smith.

Contemporary innovation is a hallmark of the collection through design icon Mark Newson, fashion houses: Dinnigan, Dior, Chanel, Prada, as well as technological pioneers Steve Jobs, Braun and Olivetti and Australia’s artistic craftsmanship is demonstrated through a priceless collection of jewellery, ceramics and furniture.

The collection is revered for its breadth and diversity. The Museum facilitates an extensive program of international loans and provides constant access for industry, learning and student inspiration. The MAAS collection provides a unique and prestigious opportunity for NSW to showcase design and innovation to local and international audiences, as well as industry and intergenerational learning.

Collecting since 1880, MAAS has an unrivalled and iconic collection. The Museum’s applied arts and sciences remit makes it unique in Australia, the envy of institutions internationally and an extraordinary educational and public resource. Its disciplines reflect the strengths of the collection and support important economic sectors, often described as ‘sweet spots’ in Australia’s and Sydney’s economy as well as the increasingly important tertiary education market. The MAAS collection encompasses eight disciplines:

- Health & Medicine,
- Physical Sciences,
- Fashion,
- Design and Decorative Arts,
- Architecture and the Built Environment,
- Engineering,
- Technology and
- Contemporary Culture.

The MAAS collection was valued in FY14/15 at \$324M.



## **11. Appendix D – Sponsors, Stakeholders and Project Delivery**

### **11.1 MAAS Trustees**

The MAAS Board of Trustees has stewardship of MAAS and exercise the powers conferred by the MAAS Act. The Board of Trustees has been guided by two primary objectives in relation to the New Museum project and as custodians of the collection. The first is a commitment to deliver a world class museum, enabled by adequate capital and operational funding. This represents a unique challenge, to reimagine a museum of applied arts and sciences that responds to the changing technologies, learning environments and lifestyle trends of the twenty first century.

The second is a commitment to maintain and enhance the MAAS Collection. The hybrid nature of this collection, spanning the applied arts and sciences and making connections between sciences and materials technologies on the one hand, and design and innovation on the other, is unique among Australian collecting institutions. Museums are defined by their collections, rather than their buildings, and the Board of Trustees is committed to enhancing a collection which tells a story of human creativity, ingenuity and innovation.

### **11.2 Department of Justice**

Arts NSW sits within the Department of Justice Cluster. Arts NSW is responsible for administering Government's Arts & Cultural policy and supports the impetus for the creation and consumption of artistic endeavours and cultural experiences in NSW.

Other key NSW Government agencies to the Project;

- **The NSW Premier and the Department of Premier and Cabinet.** The New Museum Project stands as one of the Premier's key election promises. This and the Premier's dual role as Minister for Western Sydney ensure that DPC remain critically involved in the Project's development.
- **NSW Treasury** manages the State Governments high profile high risk infrastructure projects and is particularly focused on pursuing optimum outcomes with regard to costs, quality and time.

### **11.3 Other Key Stakeholders**

Beyond the Government relationships, the Museum has a number of strategic partners, both formal and informal, who contribute to the success of the Museum. These include:

- Key donors
- Members
- Artists, curators and private lenders
- Commercial Partners and Sponsors
- Other Peer Museums and Galleries

The continued development of these existing partnerships and the exploration and development of new partnership opportunities will be critical to the success and future development of the Museum operations.

### **11.4 Project Governance & Delivery Mechanisms**

A full description of the Project Governance model can be found in the Business Case.



## 12. Appendix E – Mapping Mandate to Functional Design Brief

MUSEUM OF APPLIED ARTS AND SCIENCES ACT 1945	New Museum Vision	MAAS Strategic Plan Project Strategic Commitments	MAAS Activities	Spatial Requirements
(a) the control and management of the Museum;			• Administration	• Offices • Meeting rooms
(b) the maintenance and administration of the Museum in such manner as will effectively minister to the needs and demands of the community in any or all branches of applied science and art and the development of industry by:	Social Connection	Sustainability: Supporting long term relevance	• Eating • Retail • Meeting • Community Gathering • Entry/Ticketing • Events	• Cafe • Restaurant • Kitchens • Museum shop • Retail storage • First aid • Arrivals hall • Cloaking • Function space • Auditoriums • Planetarium • Touring gallery A • Loading docks • Touring hall preparation spaces • Workshops • Central gallery • Main galleries • Visible collection • Main galleries • Collections store • Conservation workshop • Goods storage • Planetarium • Auditoriums • The Ideas Lab (learning labs) • Resident offices • Resource centre (library) • Education arrivals • Production studio
(i) the display of selected objects arranged to illustrate the industrial advance of civilisation and the development of inventions and manufactures,	Experience & Wonder	Curiosity: New ways to see the world	• Exhibits • Presentations • Film • Collections • Sound	
(ii) the promotion of craftsmanship and artistic taste by illustrating the history and development of the applied arts,	Experience & Wonder	Creativity: the application of skill and imagination	• Collection • Storage and Warehouse (Logistics) • Conservation	
(iii) lectures, broadcasts, films, publications and other educational means,	Research Hub Innovation Lab	Audience Engagement	• Teaching • Learning <ul style="list-style-type: none"> <li>◦ Formal</li> <li>◦ Informal</li> </ul> • Presentations <ul style="list-style-type: none"> <li>◦ Film</li> <li>◦ Collections</li> </ul>	

	Social Connection		o Sound	o Children's gallery
(iv) scientific research, for the development of the natural resources and manufacturing industries of New South Wales.	Research Hub  Innovation Lab	Fostering Australia's knowledge economy	◦ Research ◦ Workshops & Studies (Creating)	◦ Auditoriums ◦ The Ideas Lab (learning labs) ◦ Resident offices ◦ Resource centre (library)
v) any other means necessary or desirable for the development of the natural resources and manufacturing industries of New South Wales.	Research Hub  Innovation Lab	Collaboration: Working and communicating in partnerships	◦ Collaboration/incubators ◦ Industry Events ◦ Showcases	◦ Auditoriums ◦ The Ideas Lab (learning labs) ◦ Resident offices ◦ Resource centre (library) ◦ Cafe ◦ Restaurant ◦ Kitchens