

# THE GENERATOR

DESIGN REPORT



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ART  
ZONE

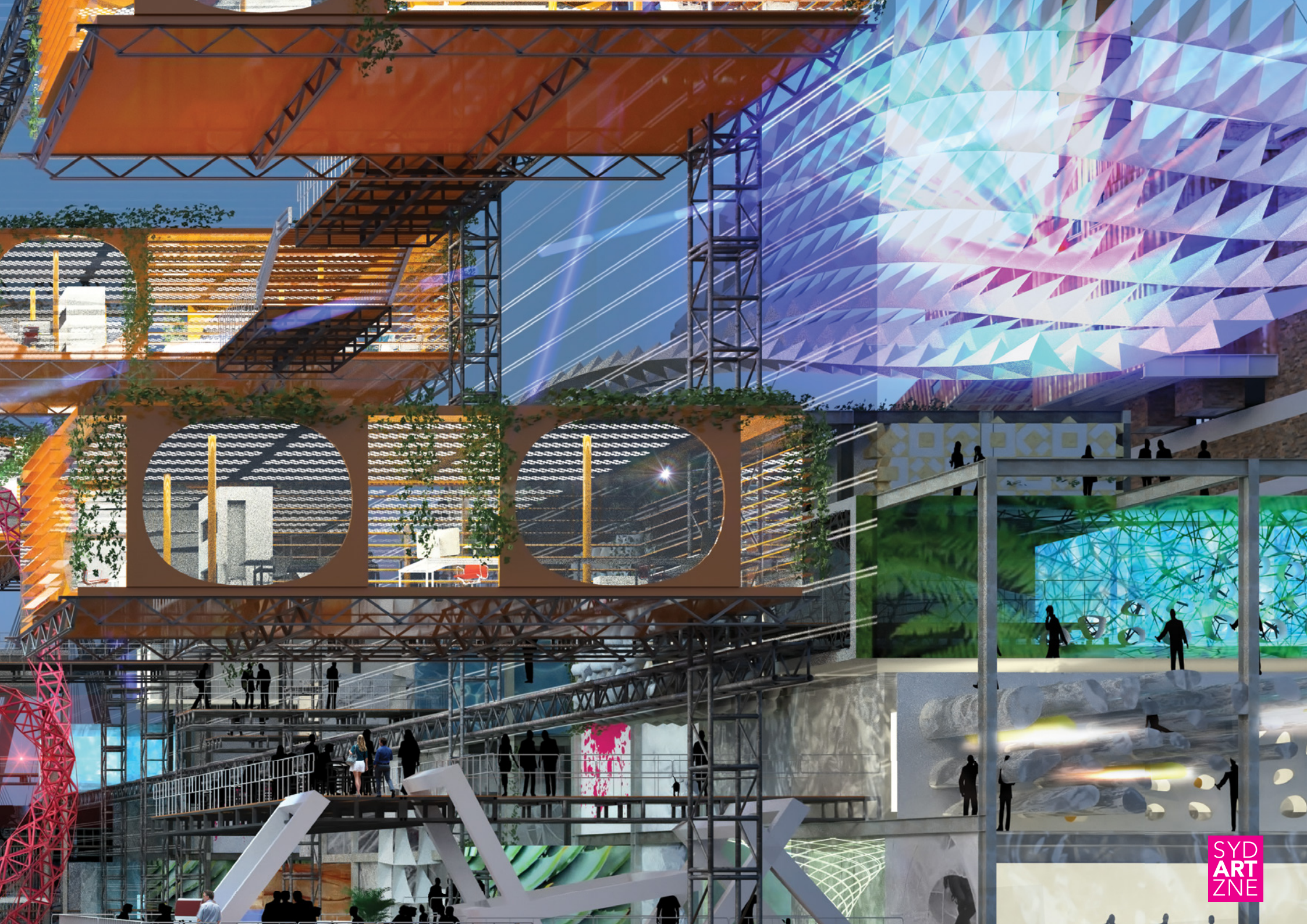
ARTS AND INNOVATION ZONE AT SYDNEY'S WHITE BAY | A PROPOSAL BY SYDNEY ARTS ZONE LIMITED





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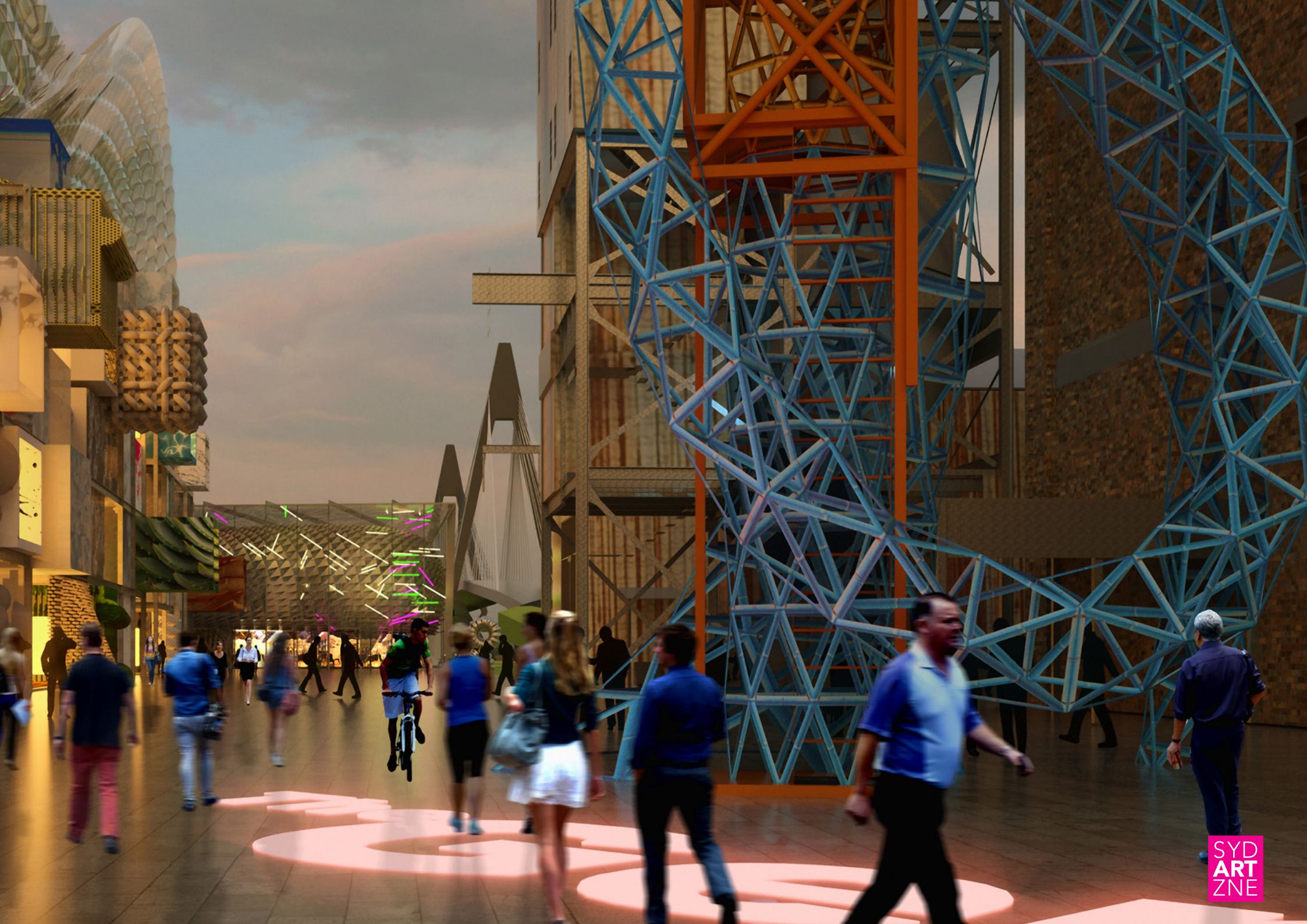
















# THE GENERATOR

## WHAT IS THE GENERATOR?

“The Generator” is a non-conforming tender by Sydney Arts Zone Limited to create a precinct for arts and innovation in and around the White Bay Power Station.

The Generator will be a World First with its dynamic architecture that is spontaneous and self-configuring. It will be a centre for spatial exploration, production and display of technologies and media ecologies through artistic expression. It will be a place that will stimulate creativity in multiple forms and place Sydney front and centre on the global innovation stage.

The Generator will be innovation manifest, a necessary place for contact and interaction between innovators, and local and global communities. It will be an opportunity to be ‘in’ the innovation, to be part of ongoing change and to witness history and to tell its stories.

It is envisaged that The Generator would take the form of a village, approximately 3 Ha adjacent to the White Bay Power Station, space within the old Switch House building and access to the Turbine Hall and Public Spaces around the Power Station.

**THE GENERATOR IS A CENTRE FOR SPATIAL EXPLORATION, PRODUCTION AND DISPLAY OF TECHNOLOGIES AND MEDIA ECOLOGIES THROUGH ARTISTIC EXPRESSION.**

The Generator is a place at the heart of The Bays, adjacent to and partly inside the White Bay Power Station. It is a zone comprising ongoing exploration of the arts, media and technology through production, performance and display.

The Generator is founded on the idea that technological innovation is accelerated when complemented by art. Also, that art is advanced through technologies and the ability to perform and display at a civic scale, in one place.

The Generator is, itself, an ongoing experiment in architectural design and place making, making visible the myriad technological revolutions now occurring.

The Generator asserts that Sydney’s trajectory as an innovative Global City will be more assured if there is a place, accessible to all, where innovation can be witnessed.

The Generator is an essential early component in the DNA of The Bays if its transformation is to signify and to generate innovation.

We offer The Generator as a gift to Sydney.



# A PRECINCT TO GENERATE INNOVATION & CREATIVITY

Innovation is more than just technology. Innovation can occur in any human endeavor. The heart of innovation is creativity. And every human being is creative. The Generator is for everyone.

The Generator is the first precinct in the world that is designed to stimulate and accelerate the process of creativity and innovation. It is designed to lift everyone who visits it to a higher plane of thinking, and to facilitate the type of collisions, interactions, relationships and knowledge spillovers that generate creative insights and innovations.

Moreover, The Generator is designed to adapt to the ever-changing unknown future. It is agile. It constantly kills off and renews its own spaces. It evolves like an organism.

There is no other precinct in the world that can do this.







## THE WORLD'S FIRST FUN PALACE

The Generator will kick-off with the most innovative architectural concept in modern history, the most radical building ever conceived: Cedric Price's Fun Palace.

The Fun Palace is not a conventional 'building' at all, but rather a kind of scaffold or framework, enclosing a socially interactive machine—a 'virtual architecture' merging art and technology—that learns, anticipates and adapts to projected needs.

The Fun Palace is designed to be continuously evolving.

There will be no permanent structures. Nothing is to last more than ten years, some things not even ten days: no concrete stadia, stained and cracking, no legacy of noble contemporary architecture, quickly dating.

The 'areas' are not segregated enclosures. The whole plan is open, but on many levels. So the greatest pleasure of traditional parks is preserved - the pleasure of strolling casually, looking at one or other of these areas or (if this is preferred) settling down to several hours of workplay.

The structures themselves will be capable of changes, renewal and destruction. If any activity defeats its purpose it will be changed. The elimination of the word 'success' is important. The place is a constantly changing experiment.

To facilitate this a giant skeletal framework is created:

Like a Meccano set or garden trellis, within and around which the activities might grow and develop. Enclosures such as theatres, cinemas, restaurants, workshops, rally areas, can be assembled, moved, re-arranged and scrapped continuously.





A pattern of interlocking squares of different sizes -- a 'tartan grid' -- provides both stability and programmatic flexibility. Stairs, elevators, electrical cables, and mechanical ducts are located in the towers, leaving the wide bays free of obstructions.

Overhead gantry cranes travel the entire length of the structure to move modular elements into place.

Pivoting escalators and moving walkways provide internal circulation. A membrane roof suspended from a cable grid covers most of the central space, with operable 'skyblinds' over the central 'rally area'. Between the roof and the ground level foot bays,

floors, walls, and modules can be lifted into place by the overhead cranes. Users can improvise and change their own spaces, using the cranes to assemble prefabricated walls, platforms, floors, stairs, and ceiling modules. The internal structures and elements consist of modular units which can be positioned and relocated anywhere within the overall structure.

Virtually every part of the structure is to be variable, with the overall structural frame being the fixed element.

With digital fabrication and 3D printing, the spaces can be endlessly varied in size, shape and form.

Fun Palace description paraphrased from Stanley Mathews, Technoetic Arts: A Journal of Speculative Research Volume 3 Number 2







# GOVERNANCE

## SYDNEY ARTS ZONE LIMITED

"Sydney Arts Zone Limited" is a gift to the people of New South Wales. It has been established for the purpose of this Request for Proposals as an 'open vehicle', to be populated with personnel selected with the guidance and participation of the NSW Government.

This proposal is non-conforming insofar as it is not a property development proposal that fits within the terms of reference of the Request for Proposals. Rather, it is a cultural idea that we believe is self-sustaining economically and a crucial component of the desired resilience and long-term value of The Bays.

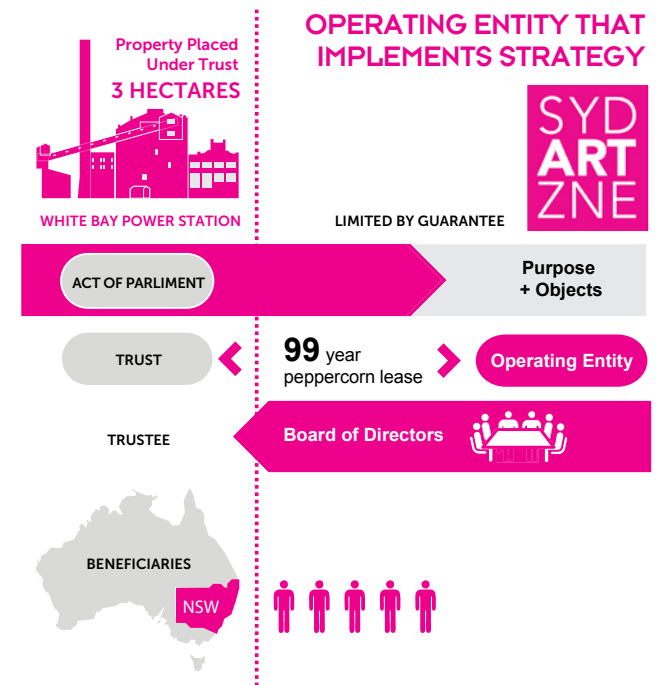
**Meaningful transformation cannot occur through property development alone since the viability of all property development is rooted in demand from existing markets. Economic dependence on the present precludes real innovation.**

We believe that The Generator could be the missing magic ingredient that fires and sustains The Bays as an innovation hub. We believe that The Generator must be an open agenda in terms of creativity, governance and innovation.

We believe that the preferred governance strategy for The Generator is as a not-for-profit organization administered by a Trust.

To this end we have registered 'Sydney Art Zone Limited (SAZ) as a not-for-profit organisation.

"Sydney Arts Zone Limited" (SAZ) is seeking deductible gift recipient status, "DGR". All profits are to be in support of continuation of creative and innovative processes, education, assistance to artists and their display, promotion or manufacture would be placed under a Trust through the process illustrated below.



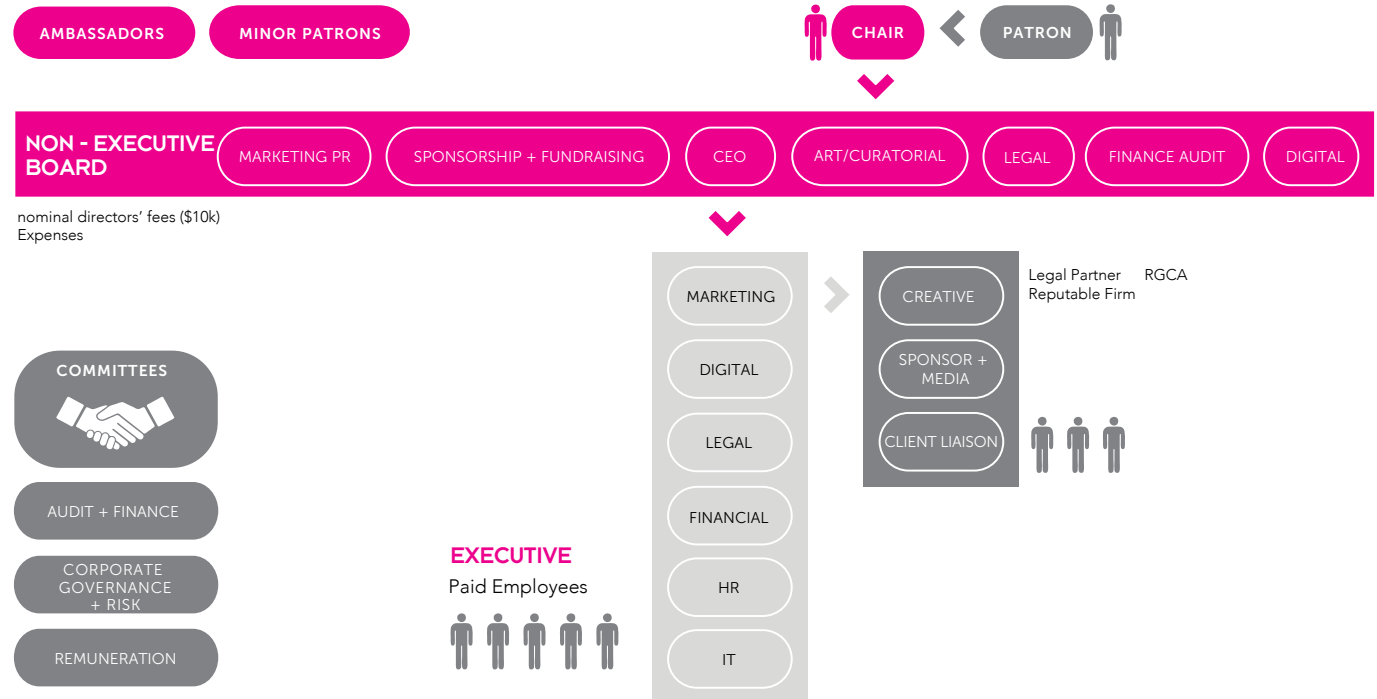


It is envisaged that SAZ will work in partnership with the Trust and be responsible for developing, implementing and monitoring the mission, vision and goals of SAZ. A board of directors will be appointed to oversee key areas such as:

- Marketing
- Asset Management
- Finance
- Sustainability
- Curatorial and Programs
- Audit and Risk

A CEO will be appointed and will report to the Board.

## SYDNEY ARTS ZONE LIMITED





# A NEW CULTURAL ICON. A RADICAL NEW PLACE.

Sydney has the opportunity to create a new cultural icon—as radical as the Opera House, but in harmony with today’s rapid-paced, globalised and highly diversified society—less a wonder of architecture, more a wonder of place.

*“The present is very difficult to see. It takes enormous energy, and most people don’t have enough energy to see anything, let alone the present. That’s why they talk about the future.”*

**Marshall McLuhan**

## THE IMPORTANCE OF CULTURAL LEADERSHIP

During UrbanGrowth’s Call for Ideas in 2015, the Sydney Art Zone was seen as an evolving part of a large-scale transformation of The Bays, occupying the entire 10 Ha around the White Bay Power Station. On the web site we created at the time, we showed an ‘Indicative City’ in order to put our cultural initiative in context.







## WHAT WILL THE GLOBAL ELITE DO WITH THEIR INCREASING INFLUENCE?"

We imagined the Sydney Art Zone as being partly funded as Social Infrastructure through ongoing value capture from the development of The Bays. We still imagine this to be true as The Bays evolves.

Regardless of the pace of renewal or the scale of renewal, we know that a political vision for The Bays will not receive popular support if conceived as property and transport infrastructure in the absence of cultural purpose.

The Generator is a vehicle for capturing and keeping public support through direct engagement. The Generator concept affords agency through its ongoing design and through active participation within its built forms.

## GLOBAL CITY COMPETITION IS ACCELERATING

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***"Creativity doesn't automatically sustain itself over long periods, but requires constant attention to and investment in the economic and social forms that feed the creative impulse."***

Richard Florida

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***"you can keep your tax incentives and highway interchanges; we will relocate where the highly skilled people are."*** Carley Fiorina – CEO, Hewlett-Packard



***"Access to talented and creative people is to modern business what access to coal and iron ore was to steel-making." ... "It determines where companies will choose to locate and grow, and this in turn changes the ways that cities must compete." ... "you can keep your tax incentives and highway interchanges; we will relocate where the highly skilled people are."***

Richard Florida



## SYDNEY IS SLIDING DOWN THE GLOBAL CITY INDEX

In A.T. Kearney's Global Cities Index, Sydney was ranked 9th in 2008, now we are 15th

**The Global Cities Index (GCI) ranks cities against the following criteria:**

- Business activity
- Human capital
- Information exchange
- Cultural experience
- Political engagement

However, on a new ranking, the Global Cities Outlook, we rank 11th.

**The Global Cities Outlook (GCO) ranks cities against the following 4 dimensions:**

- Personal well-being
- Economics
- Innovation
- Governance

Sydney is also ranked among a sub-list of 16 Global Elite Cities, from among the world's Top 25 cities, that appear on both these lists.

Global Cities 2015 points out that "of the four dimensions of leading indicators used in the Outlook, innovation by far has the lowest average score – two thirds lower than the next dimension (economics) and 80 percent behind the leading dimension (personal well-being)."

"Cities big and small are awakening to innovation's power to drive growth. As technology continues to disrupt entire industries – basically changing the way people live – cities that create an environment and buzz that attract and retain entrepreneurs, while also hanging onto their home-grown talent, will be best positioned for future success."

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***"The most intriguing question emerging from this year's study is: What will the Global Elite do with their increasing influence?"***

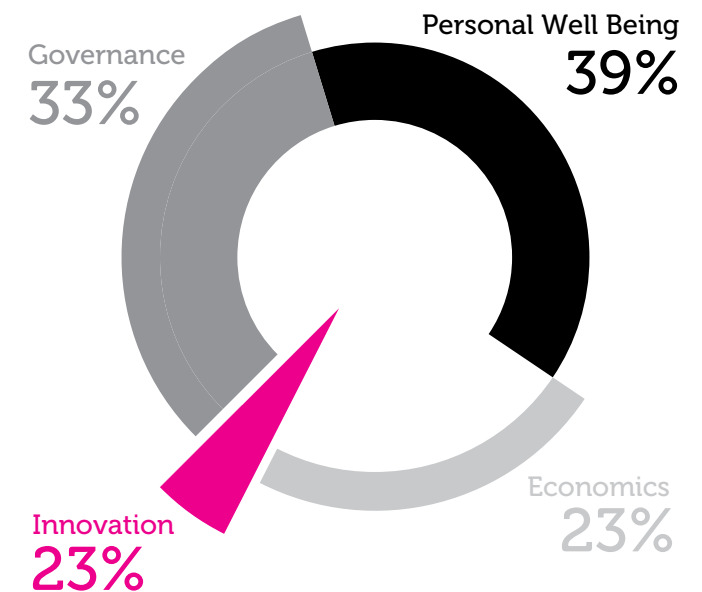


Figure 5 – Proportional Dimensions of Sydney's Global Cities Outlook 2015 – A.T.Kearney – Image Scott Carver

As can be seen in Figure 5, of the four dimensions governing the Global Cities Outlook for Sydney, 'innovation' appears as a conspicuously thin slice in an otherwise fat city.



**THE GENERATOR CONCEPT  
AFFORDS AGENCY THROUGH  
ITS ONGOING DESIGN AND  
THROUGH ACTIVE PARTICIPA-  
TION WITHIN ITS BUILT FORMS.**

The three dimensions of Governance, Economics and Personal Well-being resonate with the idea of a 'liveable' city.

With all of these factors on our side, including the privilege of our geographic setting, how can we explain our lack of innovation? Are we too comfortable? Have we become smug and complacent?

**Will Sydney Harbour and the Opera House prove to be enough to do the heavy lifting in maintaining our global position?**

**Global Liveable Sydney**

**Liveable Global Sydney**

A tandem ranking, The Economist's list of Liveable Cities, ranks Sydney in the world's Top 10. (Currently at No 7)

**Last year, Sydney was the only city on both this list and the Global City Top 10.**

We could therefore claim that Sydney was:

**The only liveable Top 10 global city and, the only global Top10 liveable city**

or:

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***The most liveable global city***

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***The only global liveable city***

Now that the Global Cities Index has defined the new Elite 16 cities, we share the status of being in both rankings as top liveable cities and top global cities with Melbourne and Toronto. However, Melbourne (No 1) and Toronto (No 4) both beat Sydney (No 7) in terms of liveability.

It appears that our competitive destiny lies in innovation.



## WE'VE BEEN HERE BEFORE - SYDNEY OPERA HOUSE

Sydney is at its next crossroads, where we know we must do something, we know the future is all around us, we know it needs to be big and we all agree it must happen. We're just not sure exactly what it is.

We've been there before; we responded by creating the Sydney Opera House.

Deeper than its celebrity, The Sydney Opera House has been acknowledged through its World Heritage listing as having "outstanding universal value", placing it generally among a range of equally famous but very old monuments. The Sydney Opera House received this accolade when it was merely 34 years old, in 2007. To put this in context, the most recent structure with World Heritage listing in North America is the Statue of Liberty, dating from 1886. There is no late 20th Century architecture listed from Europe, Asia or North America.

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***Copycat cities around the world are still trying to emulate the 'iconic' status of the Sydney Opera House.***

The idea of an Opera House for Sydney was taken up with unlikely speed, from a tenuous support base. There was no pre-existing cultural or economic evidence that an opera house would be good for Sydney or Australia.

The Sydney Opera House began as an idea, not as a property deal. Fledgling institutions of the performing arts were given a home in what would soon be the world's most famous building. How did that really happen in Sydney and likely is that today?

Global Cities 2015 points out that "more cities are becoming more global" and "Innovation is going to be a major differentiator in the years ahead – making one city potentially stand out in the future among many dynamic places."

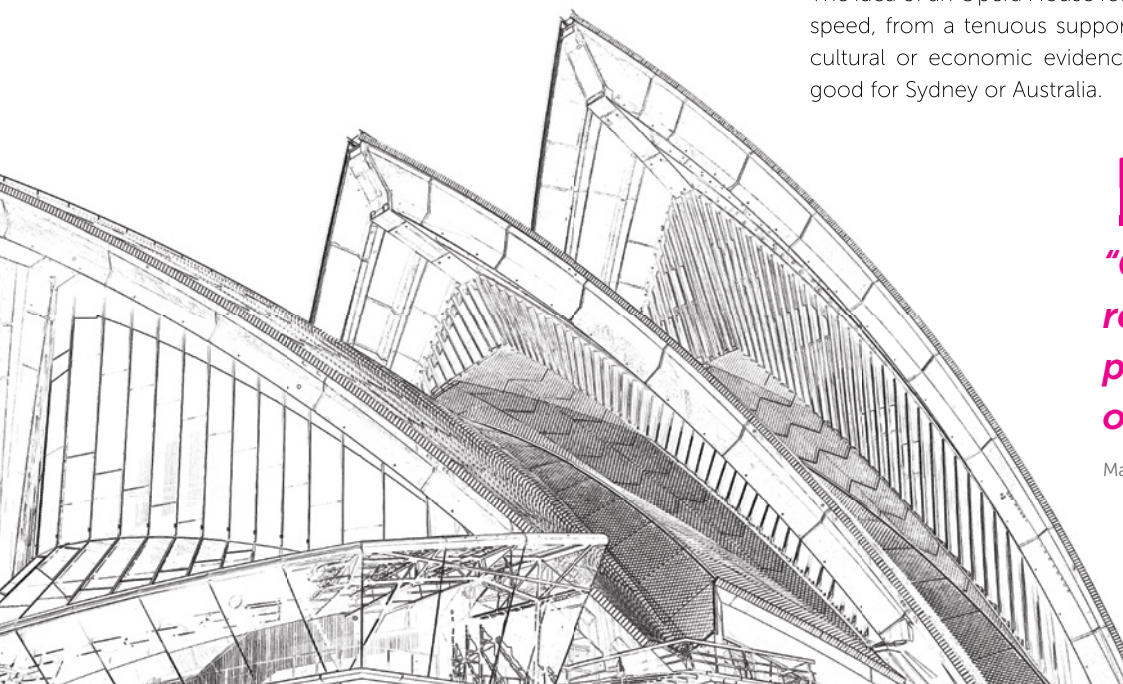
We can see now that Sydney was this "one city" in the late 20th Century. Leading with a cultural initiative, we clawed our way from a provincial, remote economy to the front ranks of highly competitive, culturally significant cities. Having experienced this success, can we now apply our proven capacities in vision, arts and the management of complexity to improve our position, indeed to be the "one city" again?



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***"Our typical response to a disrupting new technology is to recreate the old environment instead of heeding the new opportunities of the new environment. Failure to notice the new opportunities is also failure to understand the new powers.***

Marshall McLuhan





## “THE BEAUTY OF CONGESTION”

Dr Steven Farber has created the ‘Social Interaction Potential’ (SIP) metric to estimate the potential for an individual to participate in face-to-face social activity at any particular location in the city.

This can be coupled with MIT scientist, Wei Pan’s conclusion that “productivity and innovation in urban areas grow at roughly the same rate as population, largely because the greater density of people living in a city increases the opportunities for personal interactions and exposure to different ideas.”

Says Pan: “What really happens when you move to a big city is you get to know a lot of different people, although they are not necessarily your friends. These are the people who bring different ideas, bring different opportunities and meetings with other great people that may help you.”

Both Farber and Pan make a case for ‘connected’ urban density being the foundation for innovation, being a direct consequence of social interaction.

In many ways their research concludes that innovative cities are the ones where social interaction after work is facilitated by density and connectivity.

## SYDNEY’S CONNECTIVITY CHALLENGE

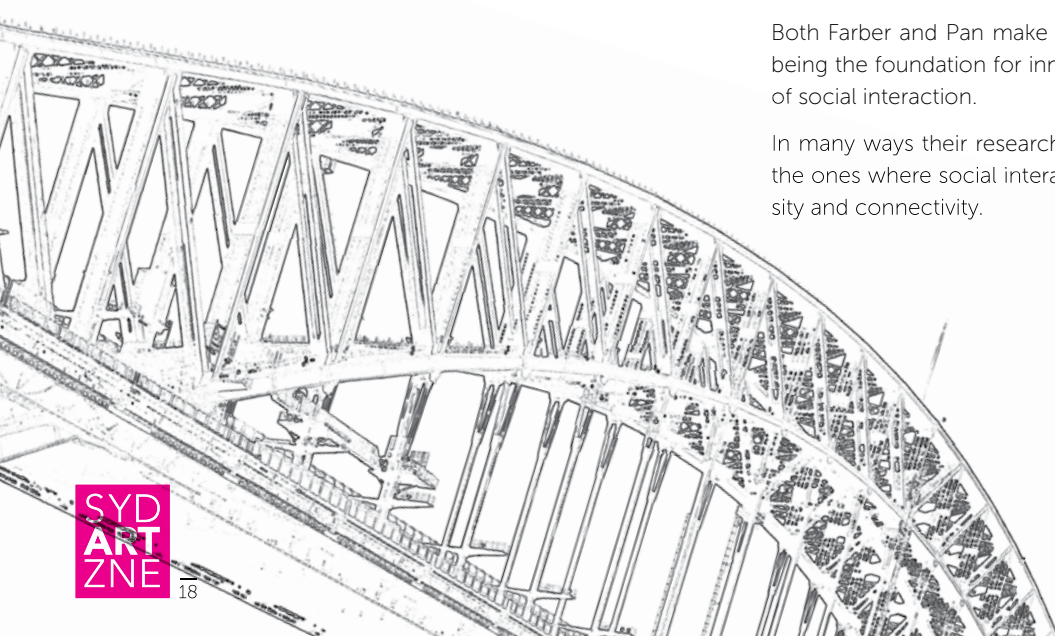
The Bays is poorly served with respect to both density and connectivity.

As a consequence of its history as a port facility, The Bays has few pre-existing pedestrian pathways to it or through it. Worse, it has barriers and fences designed to keep people away.

This absence of historical connectivity means that visitation needs to be induced, fostered by events and marketed as a destination. The Premier’s ambition to create a knowledge hub here can only occur through recognition that the whole of The Bays is a start-up.

Inciting community interest in The Bays enough to generate sustained visitation requires a vision that is exciting and accessible.

The Sydney Opera House proved that paradigm-shifting initiatives demand the support of the whole metropolis. Technology innovation, unless made visible, cannot inspire the necessary belief and engagement.





## SYDNEY'S CREATIVITY CHALLENGE

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*"the secret to building better, more vibrant locations was not just attracting companies with handouts and tax breaks, but rather building a "people climate" that could attract the diverse human talents that drive true prosperity"*

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*"The places that are the most open-minded gain the deepest economic advantages"*

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*"the driving force of change is the Creative Class—artists and cultural creatives, students, professionals. Although these movements have been propelled by the Internet, by Facebook, Twitter, and other forms of social media, it's important to note that they take shape in space—in real physical places—from Tahir Square to Zucotti Park."*

Richard Florida



*"In a time of high unemployment, when traditional skills can be outsourced or automated, creative skills remain highly sought after and highly valuable. We all want to be part of the Creative Class of programmers, designers, and information workers. The term used to mean artists and writers. Today, it means job stability."*

Marshall McLuhan



## REMIEDIATING THE 'PLACELESSNESS' OF THE BAYS DEMANDS PLACE THINKING OF THE HIGHEST ORDER

# PLACE THINKING

There are many lessons in recent European experiences that The Bays can learn from during a period of rapid change:

"In response to the financial and socio-economic crises of recent years, cities launched large and often expensive urban renewal projects. However, these projects largely did not bring about revitalisation and led instead to the unexpected emergence and proliferation of spaces that were underused, misused or simply not used at all.

Although these renewal projects often resulted in beautifully designed spaces, they were not conceived for and with the local community. Uncared for and subject to daily abuse, these spaces caused city cores to rupture, resulting in fragmented centres and a worrying disconnect between districts, clusters and communities. Neglected or used only as transit areas, these spaces fuelled a vicious circle of decline and fed the unattractiveness of urban North-West Europe."

## SPATIAL ARTISTS

Spatial artists practice from intimate to civic scales, using light, sound, installations and events. At a civic scale this category of Spatial Artists also includes interior designers, landscape architects, architects, urban designers and precinct architects. Channelled through these disciplines, changes in technologies of procurement, display, programming, finance, management and place monitoring are making urban environments more responsive to human needs and aesthetic appetites.

Remediating the 'placelessness' of The Bays demands Place Thinking of the highest order involving, at least, the disciplines listed above.

Spatial Arts and Spatial Design are the natural vehicles for creating a place that anchors The Bays as an innovation hub.

## CONNECTING PEOPLE & PLACES

Central to our thinking for The Generator is the simple idea of connecting people to places. Distinct precincts need to be identified and assessed for their aptitude to host particular activities. Once identified, each place needs to be optimised to a program over time that builds on strengths and successes.

Placemaking is a way of imagining, making and maintaining public places that are valued, and where people feel valued.

## APTITUDE OF PLACES

Places are identifiable at many different scales ranging from a single sidewalk café to the whole CBD. Nevertheless, when evaluat-

ed in terms of the experience economy, we need to understand and think at the scale of walkable precincts with differentiated character and offerings.

Engagement will rely upon a 'discovery' frame of mind being sustained for visitors. This is directly aligned with the 'impulse' frame of mind that is so protected and nurtured in retail environments. This is a different frame of mind to the 'overload' frame of mind that comes with navigating traffic and the logistics of getting around most of Sydney.

This 'discovery' frame of mind is always provisional and is easily interrupted, therefore precincts need to be holistically engaging enough to induce and enhance the quality and depth of dwell time.

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***"Placemaking is a philosophy, not a project"***

(Katherine Loughlin)



## SELF-SUSTAINING ACTIVATION

Collaboration between private-sector entrepreneurs and cultural programmers will be created under a new governance model whereby civic amenity is integral with commercial purpose. Design thinking around visitor engagement will lead to new hybrid solutions for self-sustaining activation.

Socially active public space is the core ambition of healthy city-making. At this point in its development, The Bays needs to be conceived as a demonstration project in itself. Change to the city could attract a global audience. Design Excellence, tuned to place, could deliver a fresh place of pioneering architectural thinking.

## DISTINCT EXPERIENCE ZONES

Activation belongs ultimately to the experience economy and the physical settings of different experiences need to be understood and augmented through time to optimise strengths and to dramatise differences. Physical places can be considered as 'destination infrastructure', as passive attractors that host operational activation.

## POST-MCLUHAN SYDNEY - THE DIGITAL AND THE PHYSICAL

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***"Man in the electronic age has no possible environment except the globe and no possible occupation except information-gathering." (Marshall McLuhan)***

Change is happening in Sydney at a time when the boundaries between the digital and the physical are blurring. There is a rise in demand for the 'authentic' and this is transcending across platforms. The experience economy is expanding through ever-evolving media platforms at the same time as demand grows for deeper meaning in places. The Generator offers a timely opportunity to lead and to innovate, in and around the physical and the virtual.

A balance between cultural and commercial activation can evolve into disruptive ideas that transform The Bays, to mutual benefit. Cultural venues can act as magnets for new affiliated commercial activities, for alliances with existing commercial activities and for incubator enterprises. Culture, creative entrepreneurs, remixes and disruptions could characterize a new precinct.

"The tribalizing power of the new electronic media, the way in which they return us to the unified fields of the old oral cultures, to tribal cohesion and pre-individualistic patterns of thought, is little understood. Tribalism is the sense of the deep bond of family, the closed society as the norm of community." (Marshall McLuhan)

Whereas locality used to be the common tribal ground, McLuhan's 'tribes' are globally connected yet locally hidden, invisible in multicultural and socio-economic complexity. Authentic civic places can play an important role in making local complexity visible through engagement, through the pull of the real.

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***"The role of the artist is to create an Anti-environment as a means of perception and adjustment." (Marshall McLuhan 1964)***

Perhaps 'place' is a necessary respite from the 'digital', McLuhan's anti-environment.

While digital media connects us all as tribes or communities of interest, it is through real human contact that those interests are developed and enhanced. Social connectedness is the purpose of a city. The Generator could provide places for such interaction, places to enjoy, produce and to refine myriad sub-cultural pursuits.

Civic space is the authenticator of digital tribal pursuits; de-pixelated, spatial, tactile and immersive. It feeds our innate need to gather in the physical, our insatiable appetite for connectedness and chance encounter with the unexpected.

Civic space is the neutral gathering place of tribal cyberspace.

Civic space aggregates meaning and depth through the memories of repeated and diverse tribal gatherings.

Civic space is the medium for community significance and cyber space is its content convener and aggregator.



**“THE ROLE OF THE ARTIST IS TO  
CREATE AN ANTI-ENVIRONMENT  
AS A MEANS OF PERCEPTION  
AND ADJUSTMENT.” (MARSHALL  
MCLUHAN 1964)**

Among other disruptive effects of digital technology is the creation of new patterns of work. Highly mobile people with flexible work contracts put new demands on the city's infrastructure. For many who are out and about during the day, the boundaries between work and leisure are blurring and the workplace has become the city itself.

The Generator is an opportunity to lead the thinking on how these changes can benefit a city, to become a place, and a brand, that is collaborative, immersive and engaging.





## FROM PLACE MAKING TO PLACE SUSTAINING

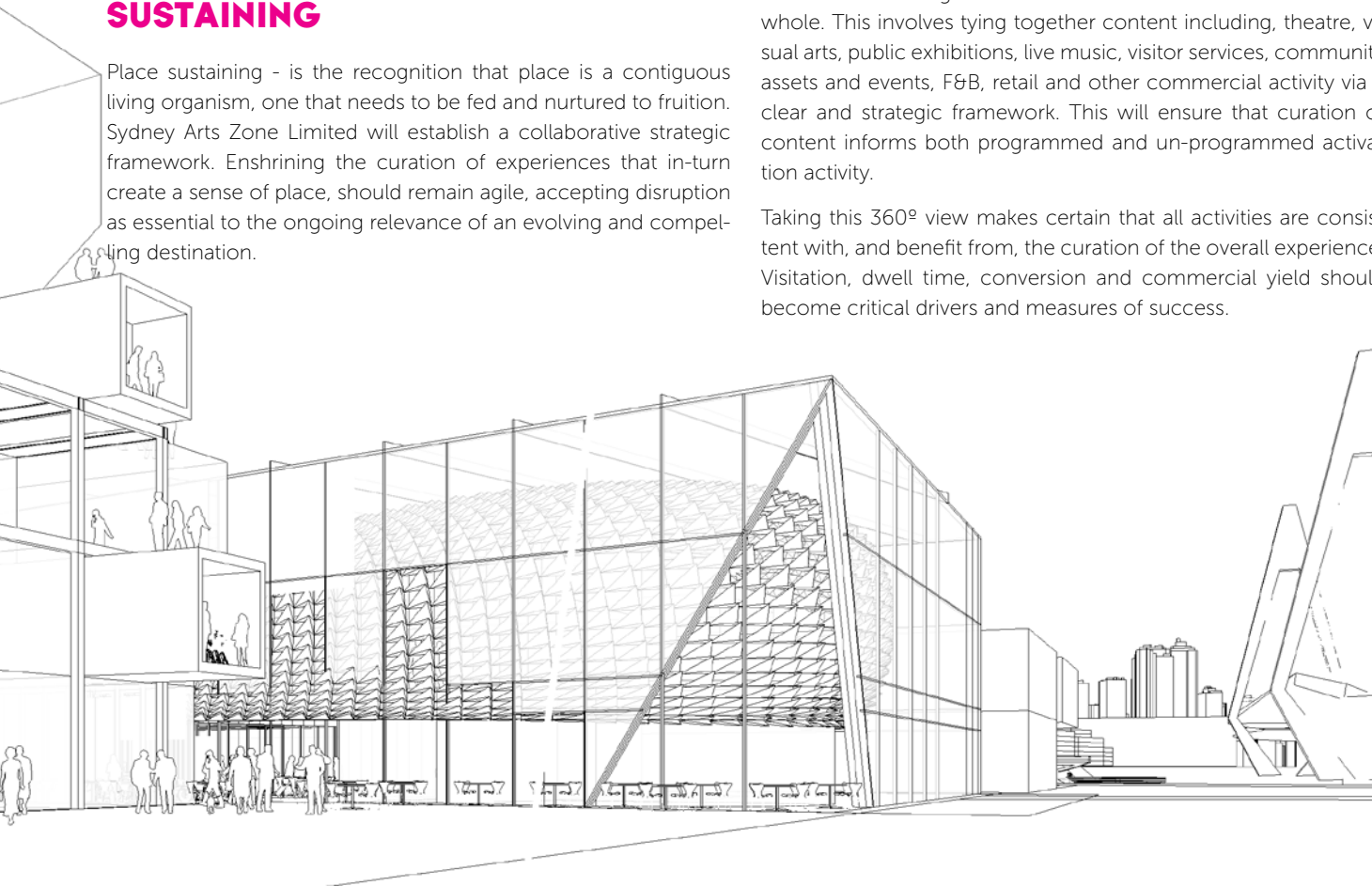
Place sustaining - is the recognition that place is a contiguous living organism, one that needs to be fed and nurtured to fruition. Sydney Arts Zone Limited will establish a collaborative strategic framework. Enshrining the curation of experiences that in-turn create a sense of place, should remain agile, accepting disruption as essential to the ongoing relevance of an evolving and compelling destination.

The success of a precinct, town or city to be sustainably activated will be the integration of all of the elements into a coherent whole. This involves tying together content including, theatre, visual arts, public exhibitions, live music, visitor services, community assets and events, F&B, retail and other commercial activity via a clear and strategic framework. This will ensure that curation of content informs both programmed and un-programmed activation activity.

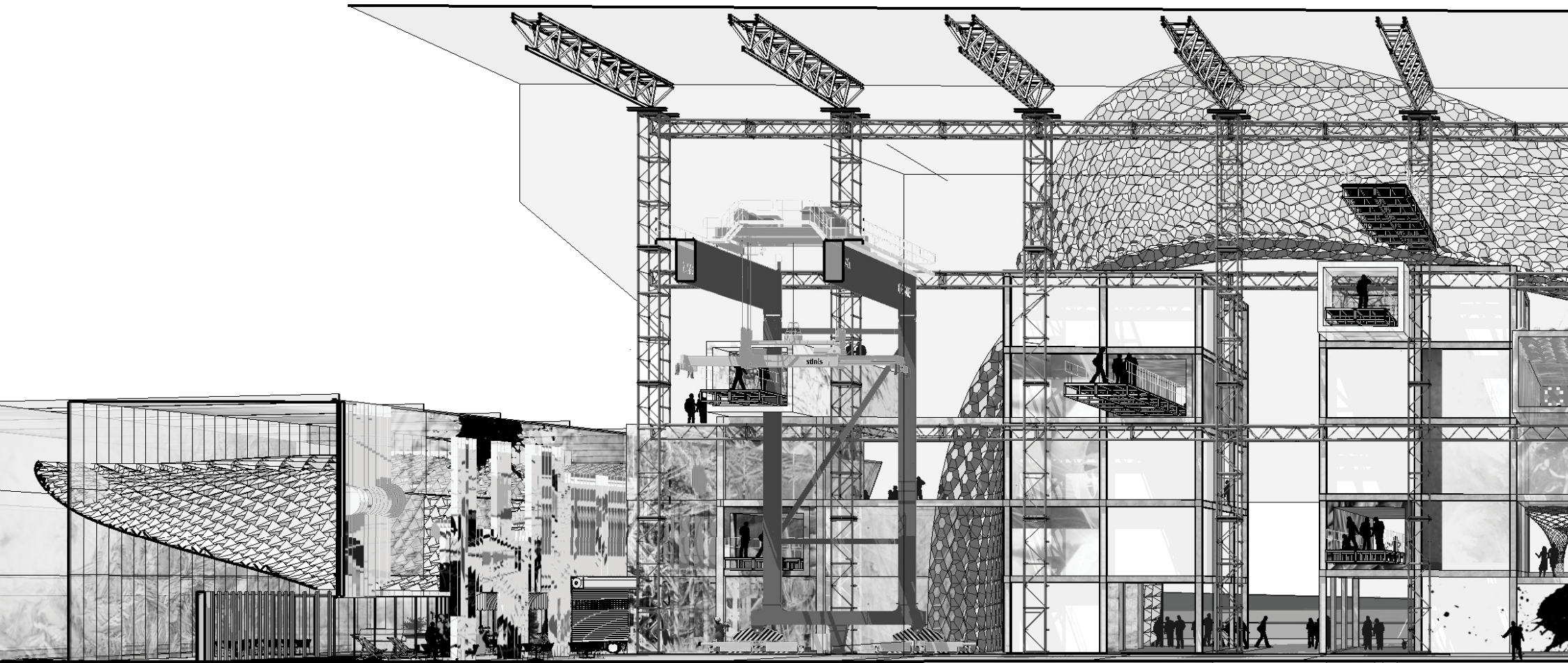
Taking this 360° view makes certain that all activities are consistent with, and benefit from, the curation of the overall experience. Visitation, dwell time, conversion and commercial yield should become critical drivers and measures of success.

It will be essential therefore to integrate, where possible, the activities of adjacent commercial businesses, both within The Bays and in adjacent communities, with the arts institutions, entertainment precincts and community activities to deliver sustainable outcomes. Being able to leverage and cross-promote activities across the breadth of available audiences will maximise engagement, and ensure that the whole of the city benefits.

While programmed entertainment, arts and events will drive significant, periodic, activity, The Generator's ongoing day-to-day vibrancy and activation will depend on the mix, quality and engagement of commercial businesses. Where activation is dependent on commercial activity, this activity must be consistent with the overall brand and must actively engage with, and support, culturally based on-site activities. Therefore careful stakeholder engagement is needed to ensure the value of participation is understood and all goals, activities and outcomes are aligned.





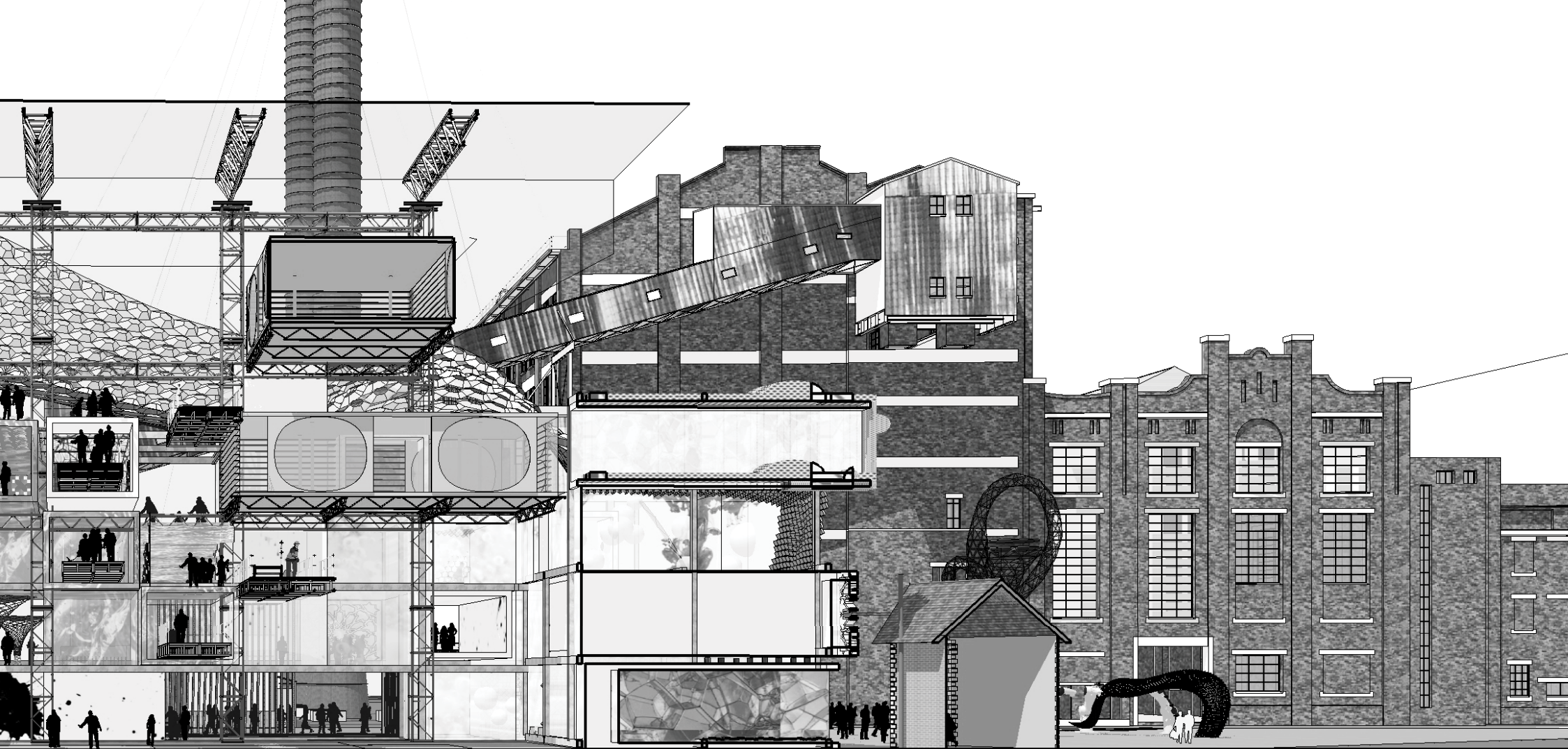


# THE GENERATOR AS A PLACE

**The Generator, manifesting innovation as a 'place', serves powerful purposes:**

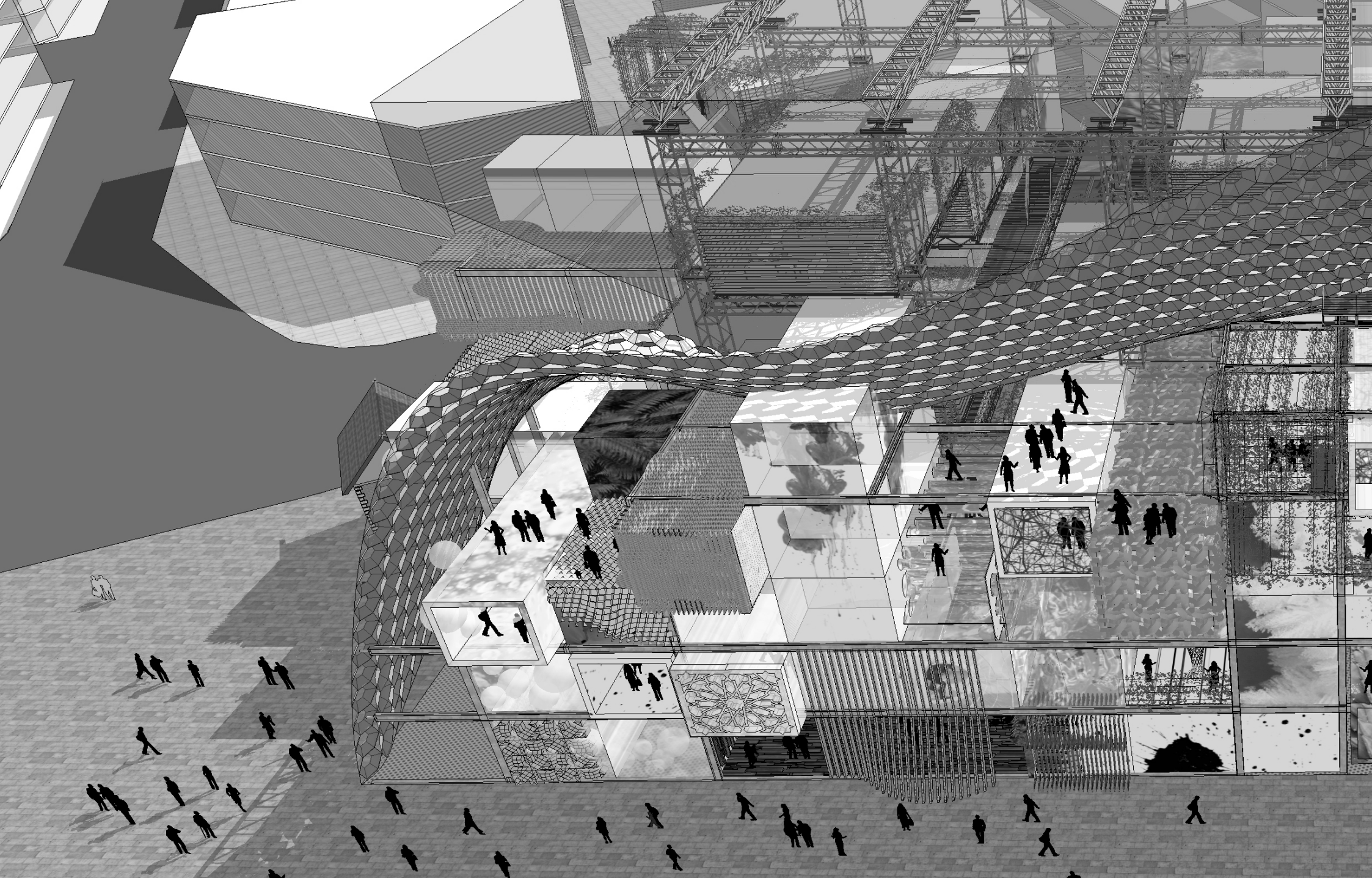
1. Creates the environment for social interaction between innovators;
2. Innovative Spatial Artists are the natural authors of The Generator as an environment for social interaction;
3. By being authored from within the expanding sub-culture of innovators The Generator creates necessary 'buy-in' from that community;
4. Creates an evolving 'brand' for Sydney, which will earn and maintain traction with local and global communities. It evidences and broadcasts ongoing innovation initiatives;



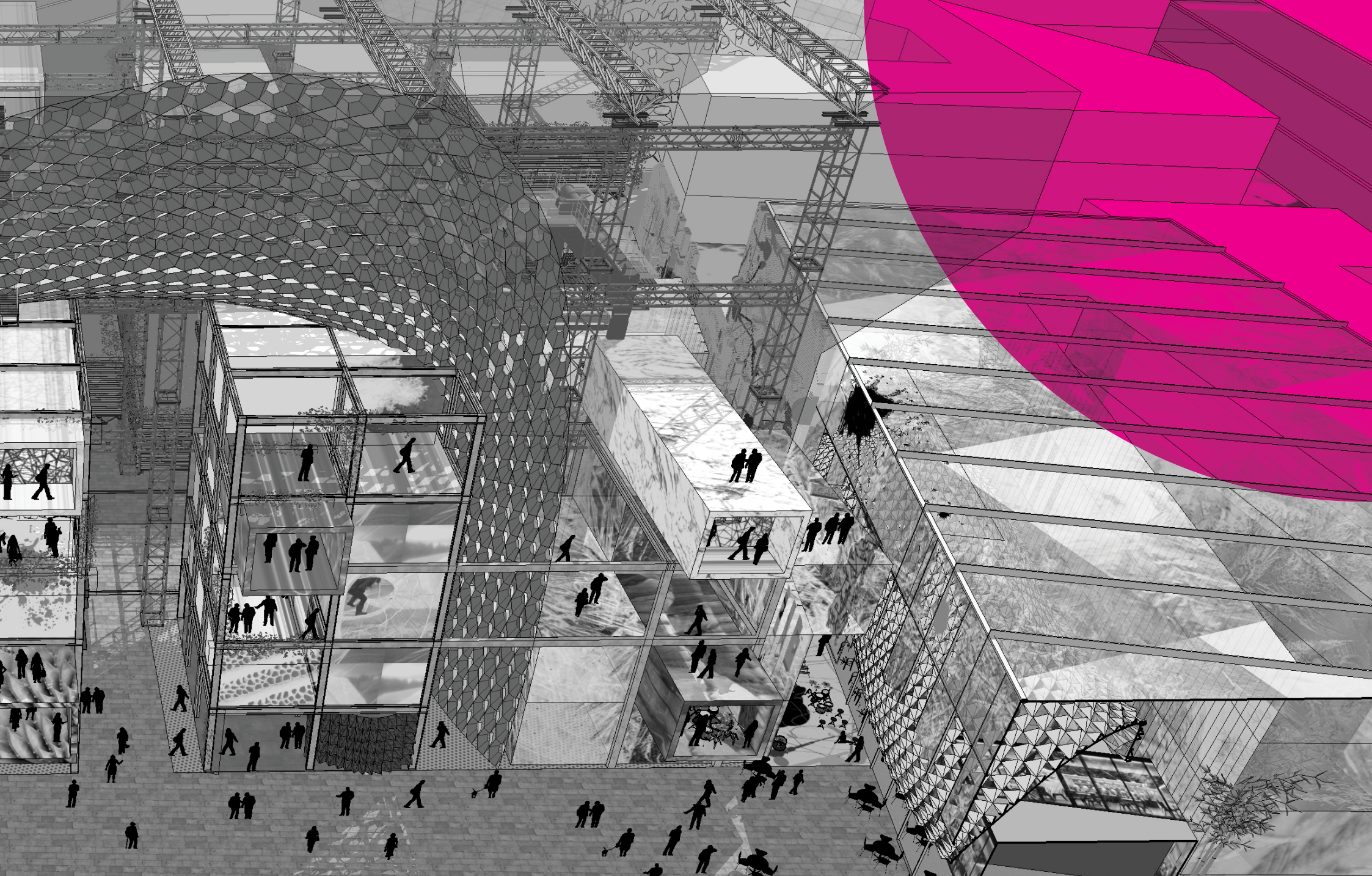


5. Has the potential to overcome connectivity barriers through sheer force of its meaning and its challenging aesthetic presence. Uniquely, Spatial Arts and Spatial Design can make innovation visible;
6. Has an innate aptitude for staging, commencing with light, cheap start-up ideas and consolidating through time as The Bays develops and evolves;
7. Creates a venue for myriad emerging visual and spatial art forms that require large spaces for fabrication, performance and expression, including public spaces;
8. Engages Sydney's spatial artists, such as architects, who are practiced in the fusion between science, technology, engineering, maths and the arts and are already part of frontier media and technology ecologies;
9. Forces a metro-Sydney perspective. Economic activity is the main measure of global city rankings, yet we should remember that Sydney's CBD, while its brand dominates a global share of mind, only accounts for 23% of the economy of Greater Sydney. The Bays project must be compelling enough to engage the entire population of metropolitan Sydney;
10. The Generator, as the cultural paradigm presented by The Bays, will be the window through which most people can relate to the place.

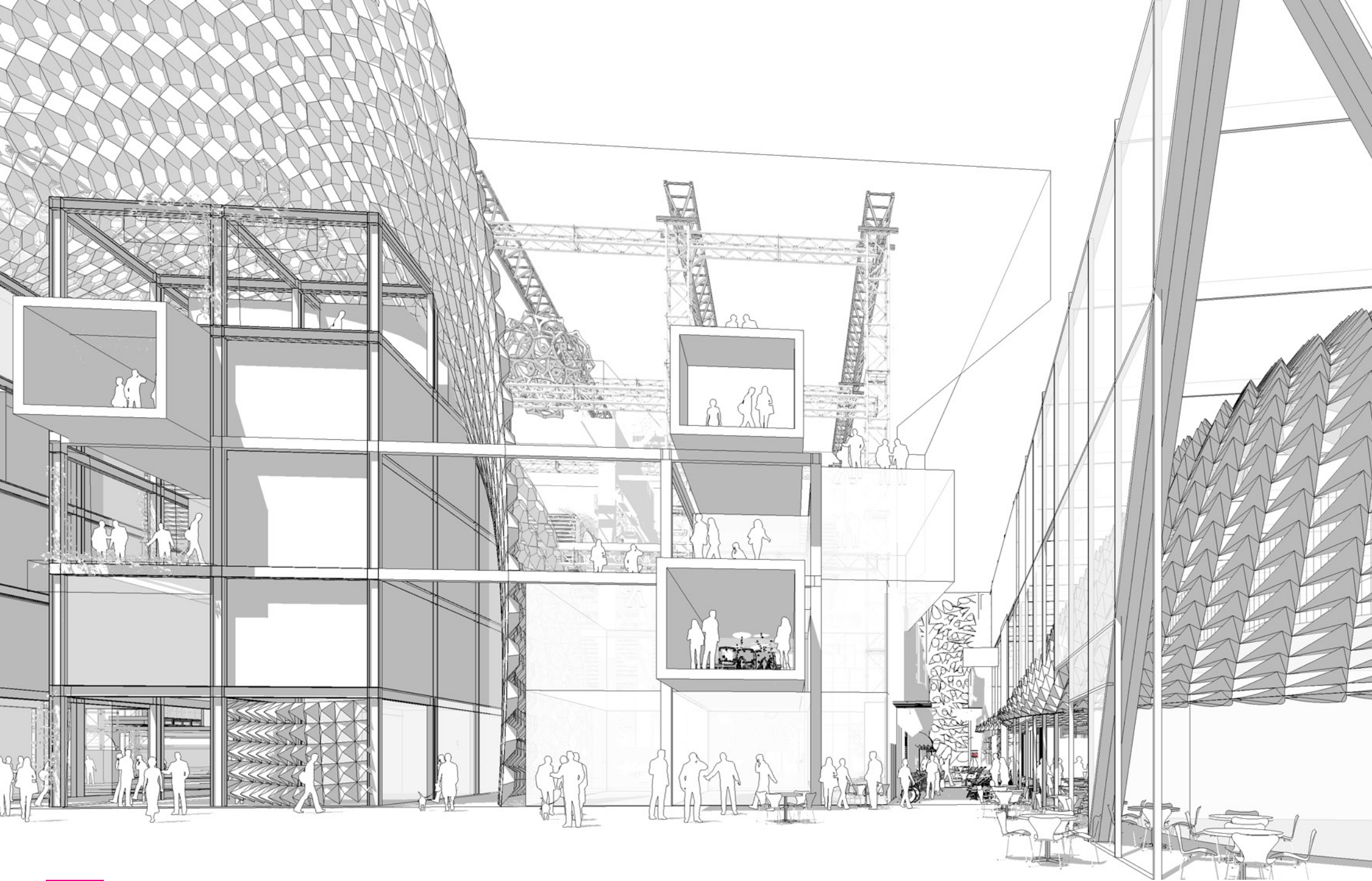




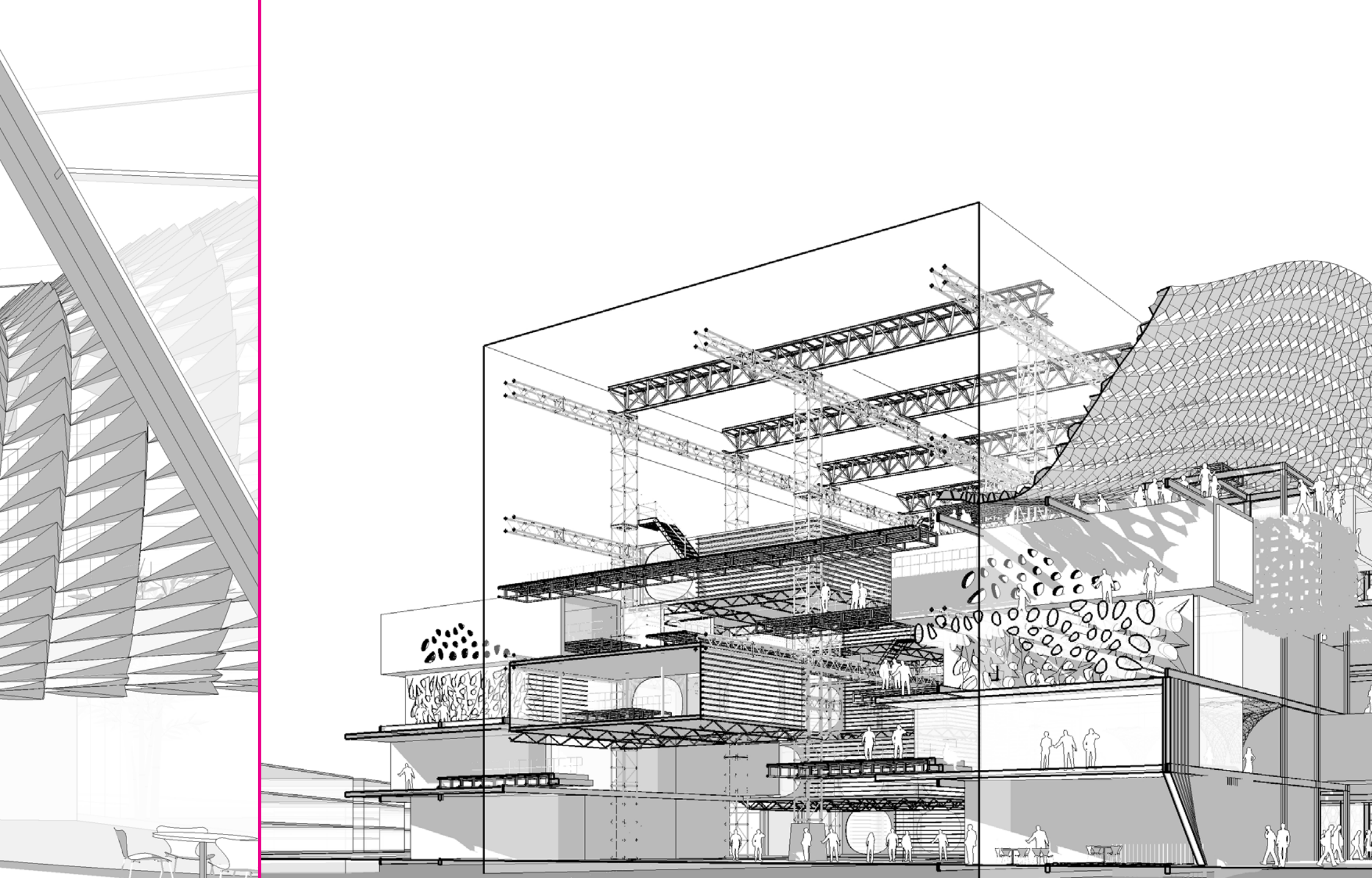




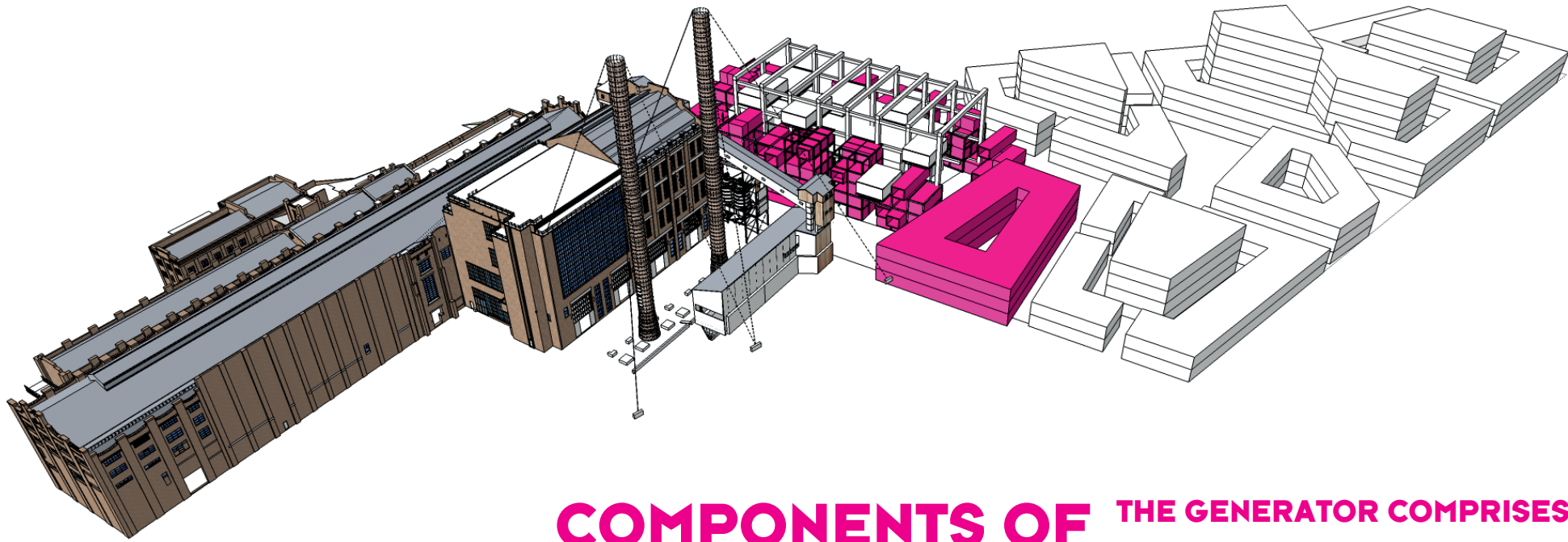




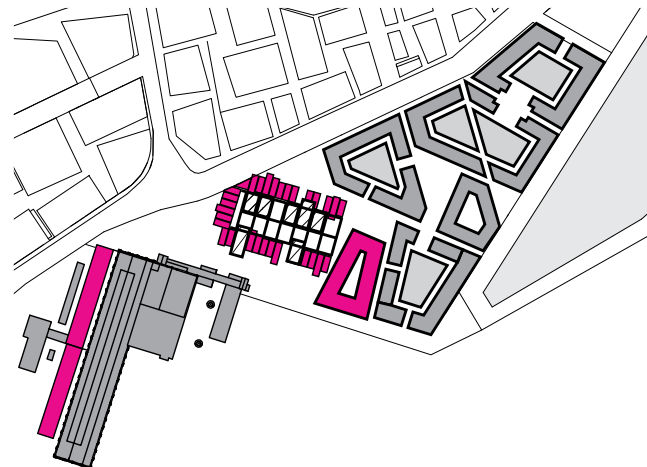






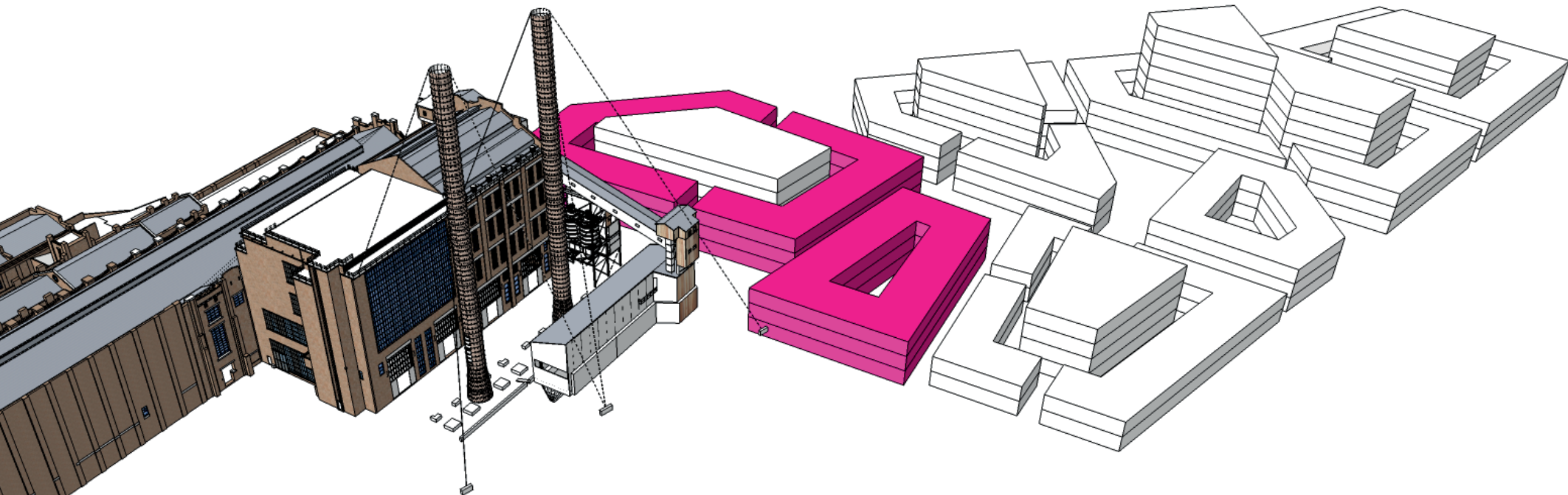


## COMPONENTS OF THE GENERATOR COMPRISES:



- A 3 Hectare village, developed over time, which accommodates production studios, workshops, exhibition spaces, accommodation, cafes & bars forming a network of laneways and public spaces. Each block of the village will accommodate facilities specialised around particular art forms and technologies;
- Space within the Switch House of the White Bay Power Station for the display of large-scale multi-disciplinary arts and creative installations;
- Access to the Turbine Hall within the Power Station for the staging of art events and installations;
- Access to public open space between The Generator and the Power Station for the staging of events and the display of large-scale works.

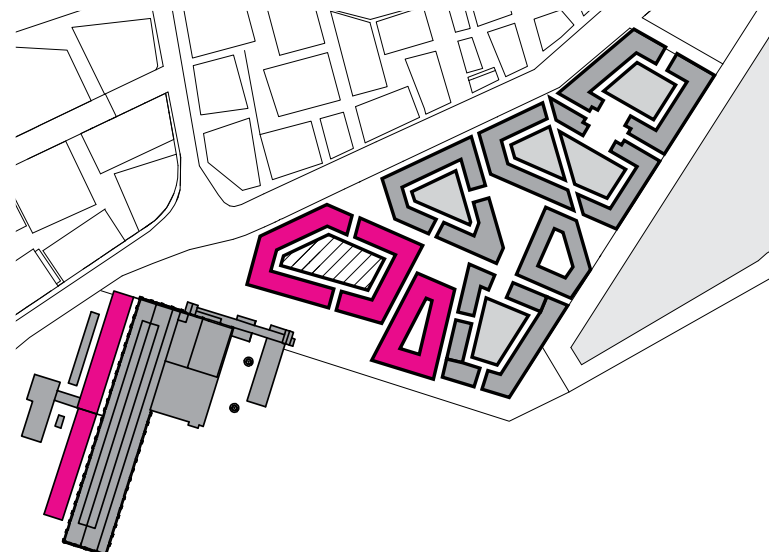




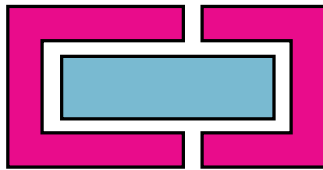
## STAGE 1 OF THE GENERATOR

**Stage 1 comprises two blocks of the village and creation of spaces within the Switch House:**

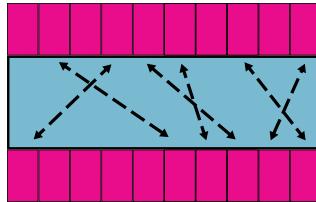
- Block 1 contains a large central production 'shed'. It is equipped with lifting gantries, moveable platforms and mechanical and electrical services designed to accommodate rolling programs of experimentation;
- The shed is surrounded by a variety of 'ideator modules' designed and built by sponsors and patrons to showcase their particular art and technology agendas, with different types of multi-level access to the shed behind;
- Block 2 contains art-driven bars, cafes and performance spaces and forms The Generators first prototypical laneway;
- The contiguous and inter-connected spaces of the Switch House provide opportunities to weave narratives across science, art, technology and history, and across time and space, leading the visitor from past to present to future and back again. The emphasis of the Switch House will be on display rather than production.



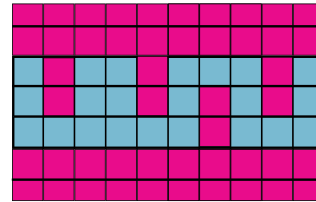




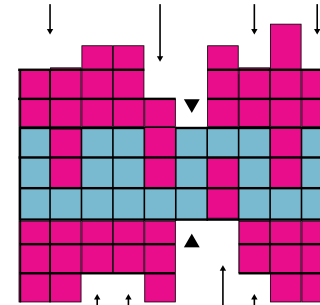
**Block**



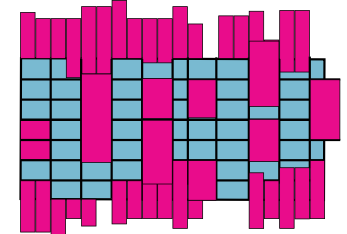
**Work Units build out Interaction Space**



**Construction adds Units as Interfaces**



**Surface adapting to Surrounding**

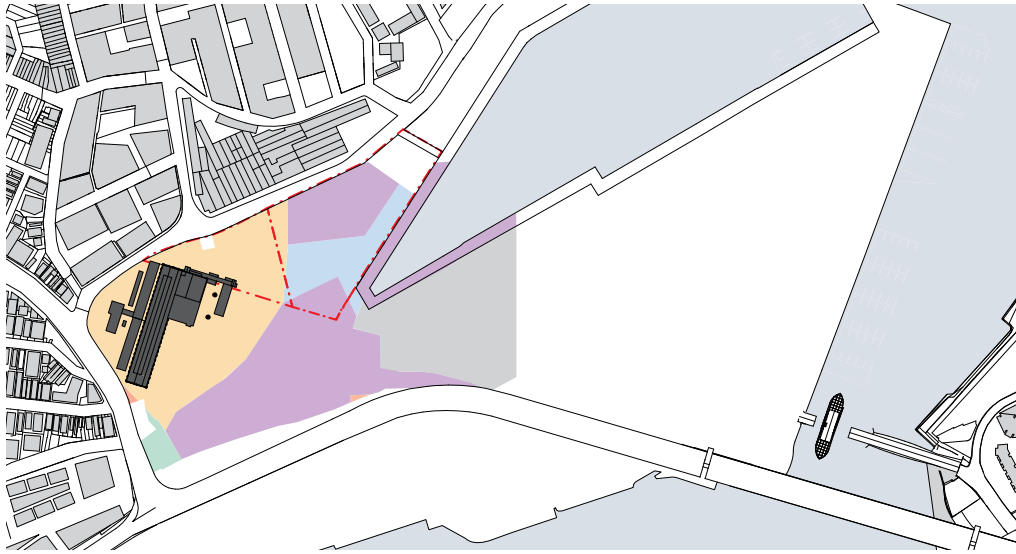


**Creative Zone**

## **TENSION BETWEEN PRODUCTION AND ENGAGEMENT**

The Generator will evolve architectural forms around the tension between production and engagement, various forms arising from the need to create innovative ideas and the potential for large numbers of people to witness them. These patterns embrace and dramatise the blurring boundaries between work and leisure.

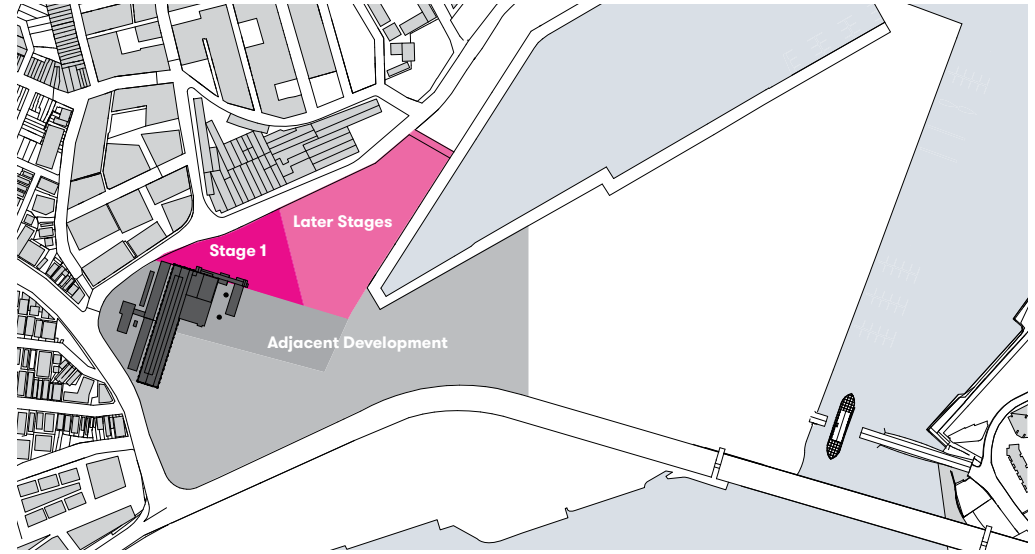




## PREFERRED LOCATION OF THE GENERATOR

The preferred location of The Generator village does not comply with the staging zones prescribed by the UrbanGrowth RFP. The site shown is desirable for the following reasons:

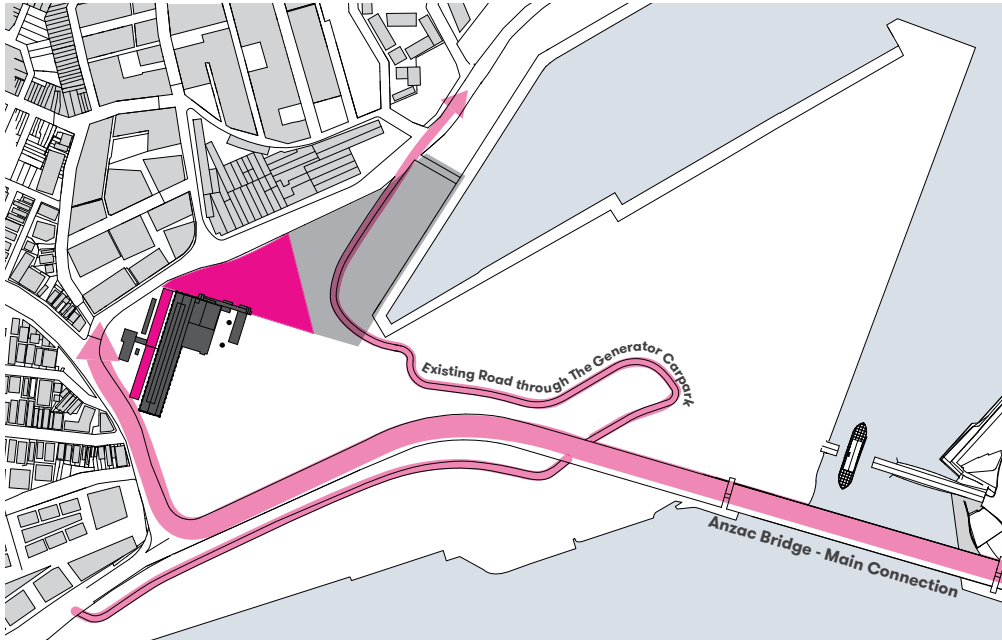
- It presents public frontages to Rozelle, the waterfront of White Bay and the spaces opening up to adjacent development;
- It creates a public arrival forecourt at Robert Street between The Generator and the Power Station, thereby establishing civic purpose from the very beginning of The Bays transformation;



## STAGING

The Generator can be staged in concert with the pace of development of The Bays:

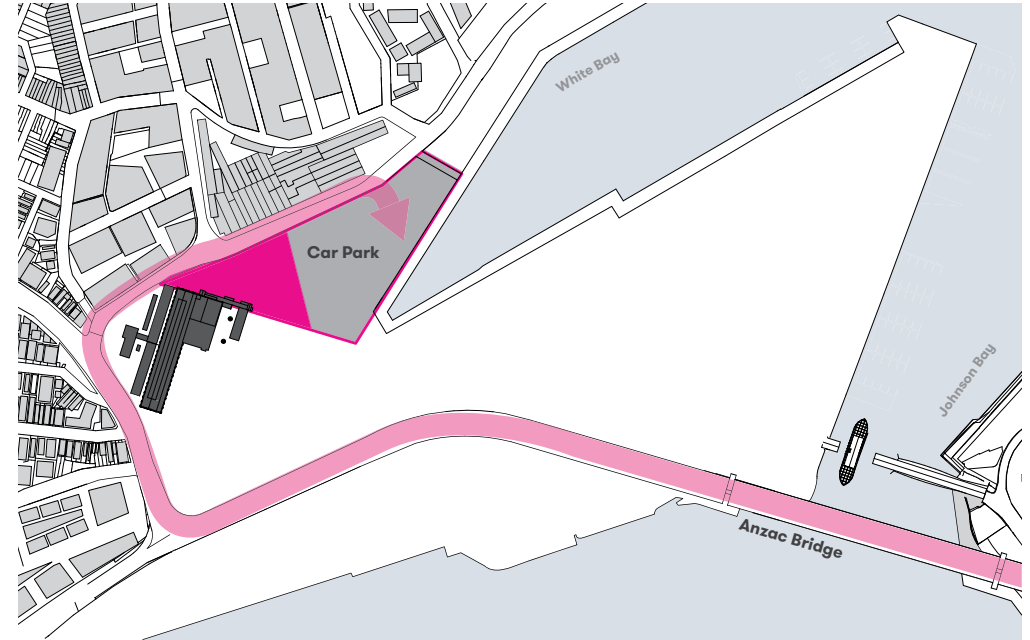
- Art installations and events can be modest in scale yet high in impact, establishing early brand presence for The Bays around potent cultural and technological concepts;
- Sydney Arts Zone Limited imagines substantial corporate development adjacent around the Power Station, with open public space connecting and mediating neighbouring entities;
- The Generator will be a natural social gathering place for innovative corporations that participate in early development of The Bays. The Generator will offer open access to the whole city in ways that facilities 'on campus' cannot.



## INTERIM ACCESS

**Staging of The Generator will allow uninterrupted access for Sydney Ports along the Balmain Foreshore to the Overseas Passenger Terminal.**

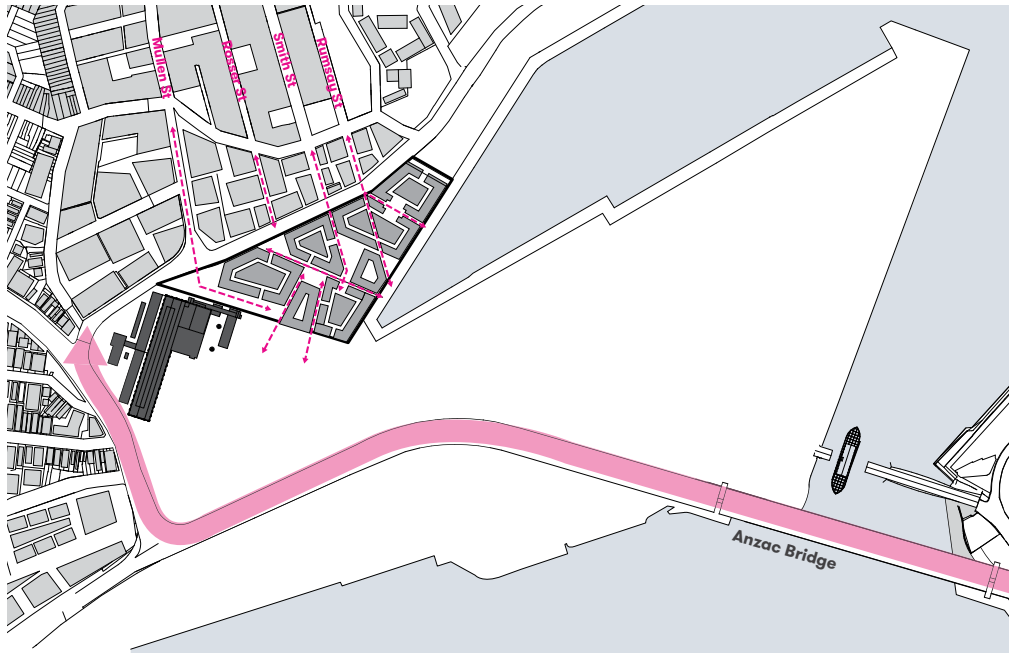
It is envisaged that land adjacent to Stage 1 of The Generator will be needed for car parking and public transport drop-off until improvements are made to transport infrastructure for The Bays;



## MIDTERM ACCESS

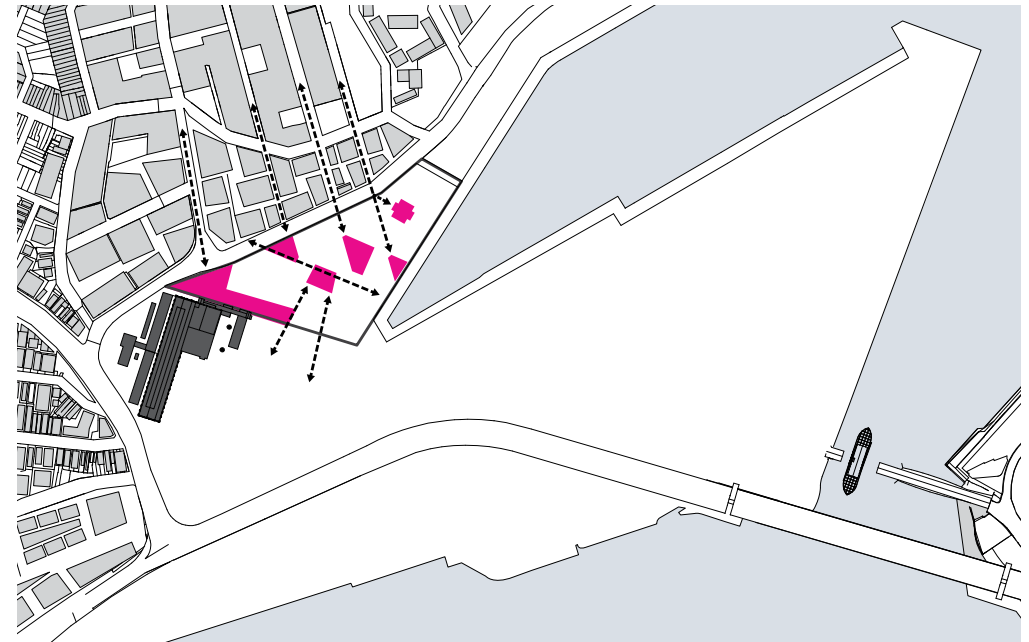
Separate to access via lands within The Bays, Robert Street will serve an important function as a front door to the Power Station Precinct, including The Generator.





## FUTURE INTEGRATION WITH ROZELLE

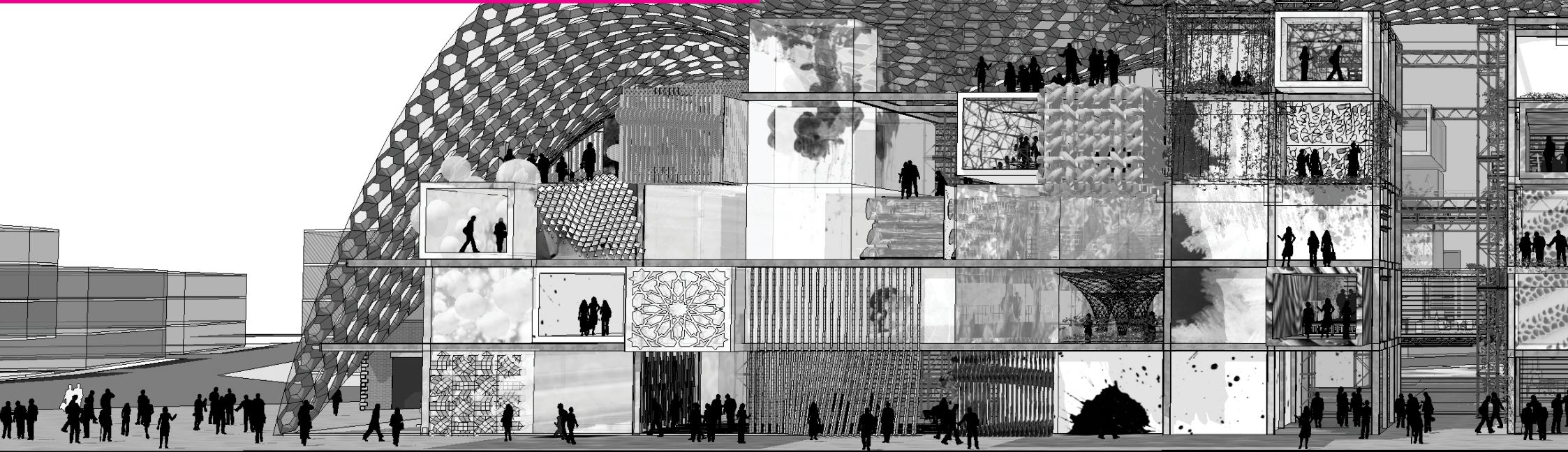
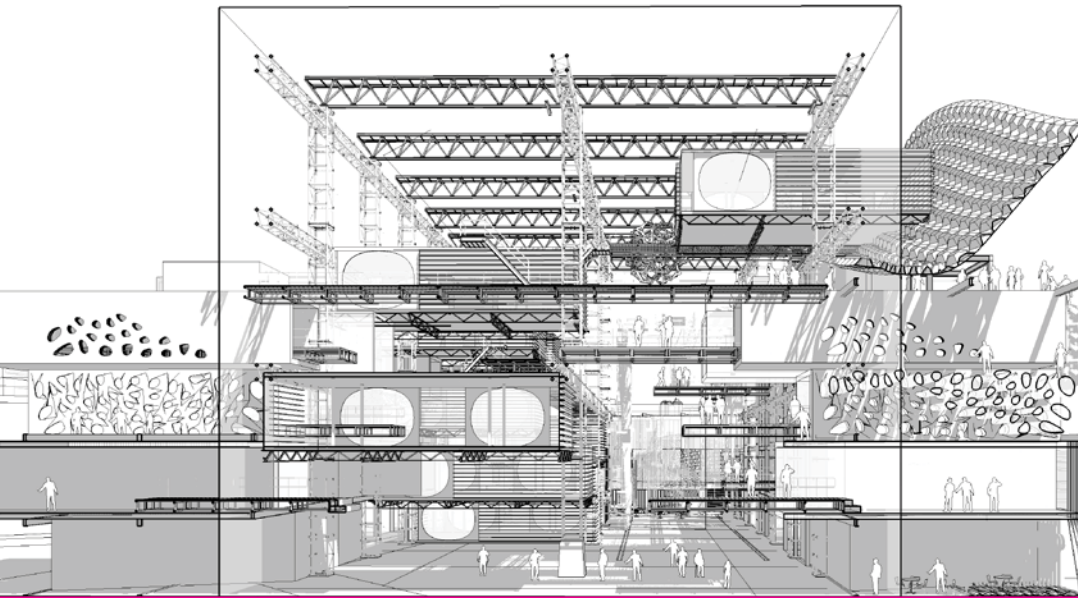
It is anticipated that The Generator will act as a catalyst for sympathetic venues and services on private land adjacent in Rozelle. The Generator will have its streets and laneways structured to connect naturally with the movement patterns of Rozelle.



## CONNECTED PUBLIC SPACES

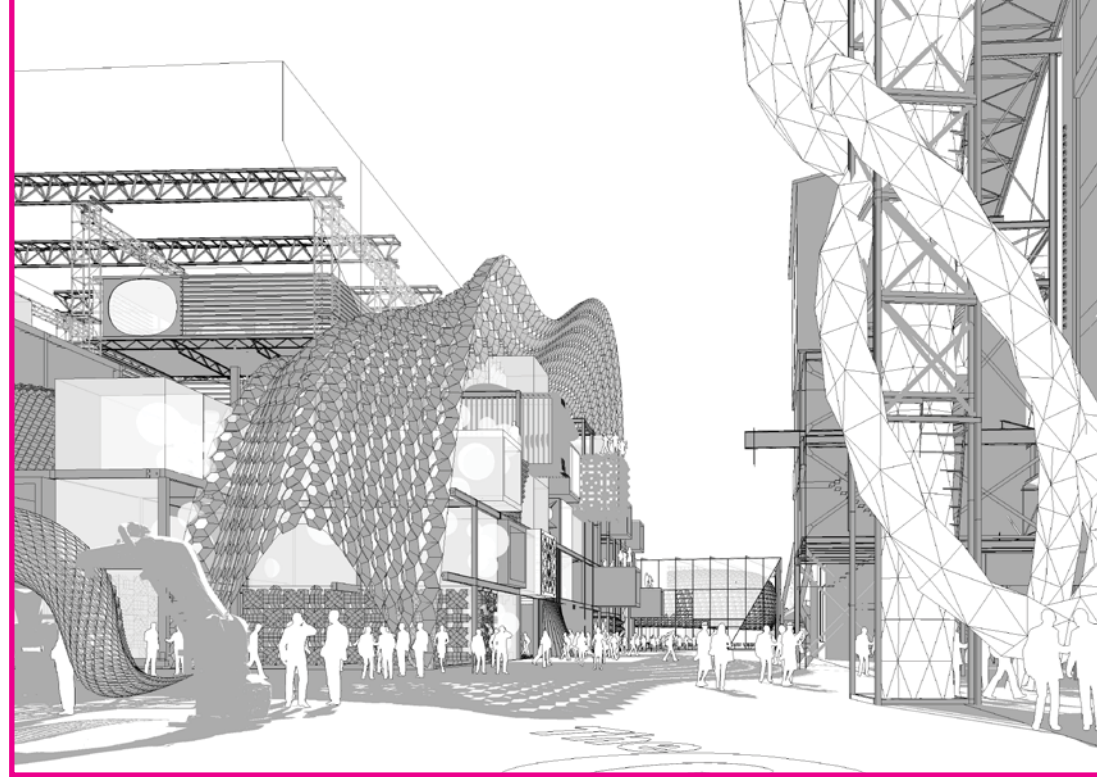
Carefully scaled public squares and crossroads will tie the various functions of The Generator together and provide exciting, as well as restful, places for visitors and participants to mix and to dwell.

# THE GENE





# RATOR AT WORK



# THE GENERATOR AT WORK

In the 1960's, the influential architect and teacher, Cedric Price conceived of the Fun Palace as a response to the threat of automation:



*"Automation is coming. More and more, machines do our work for us. There is going to be yet more time left over, yet more human energy unconsumed. The problem which faces us is far more than that of the 'increased leisure' to which our politicians and educators so innocently refer. This is to underestimate the future. The fact is that as machines take over more of the drudgery, work and leisure are increasingly irrelevant concepts. The distinction between them breaks down. We need, and we have a right, to enjoy the totality of our lives. We must start discovering now how to do so."*

Cedric Price - Draft of Fun Palace pamphlet - circa 1964

**Today, with the meteoric rise of artificial intelligence, these fears are re-surfacing:**

*"Semi-intelligent autonomous systems will march into our society in the next two to three years"*

*"Advances in artificial intelligence will soon lead to robots that are capable of nearly everything humans do, threatening tens of millions of jobs in the coming 30 years"*

*"Can the global economy adapt to greater than 50 percent unemployment?"*

*"We need to start thinking very seriously: What will humans do when machines can do almost everything? We have to re-define the meaning of good life without work."*

-AAAS (American Association for the Advancement of Science)  
Annual Meeting - Feb 14 2016





**“SEMI-INTELLIGENT  
AUTONOMOUS SYSTEMS  
WILL MARCH INTO OUR  
SOCIETY IN THE NEXT  
TWO TO THREE YEARS”**

***“In today’s economy, creativity is pervasive and ongoing: it drives the incremental improvements in products and processes that keep them viable just as much as it does their original invention. Moreover, technological and economic creativity are nurtured by and interact with artistic and cultural creativity.***

***This kind of interplay is evident in the rise of whole new industries, from computer graphics to digital music and animation. Creativity also requires a social and economic environment that can nurture its many forms.” - Richard Florida***

## THE INTERSECTION OF SCIENCE, TECHNOLOGY, ENGINEERING, ART AND MATHEMATICS.

***“Creativity—the ability to create meaningful new forms,” as Webster’s dictionary puts it—has become the decisive source of competitive advantage.”*** Richard Florida

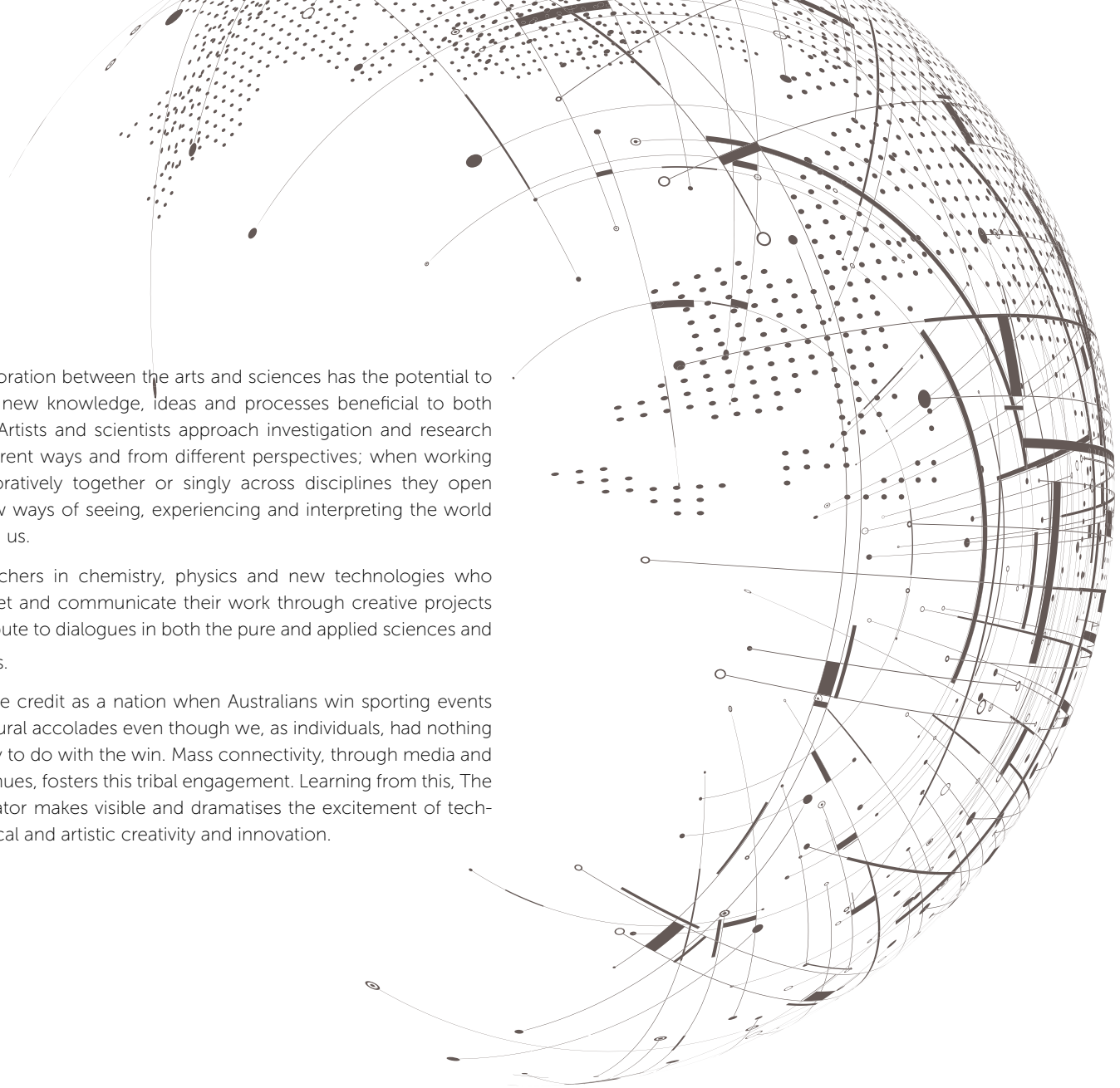
***“Prosperity in the Creative Age turns on human potential. It can only be fully realized when each and every worker is recognized and empowered as a source of creativity—when their talents are nurtured, their passions harnessed, and they are appropriately rewarded for their contributions.”***

Richard Florida

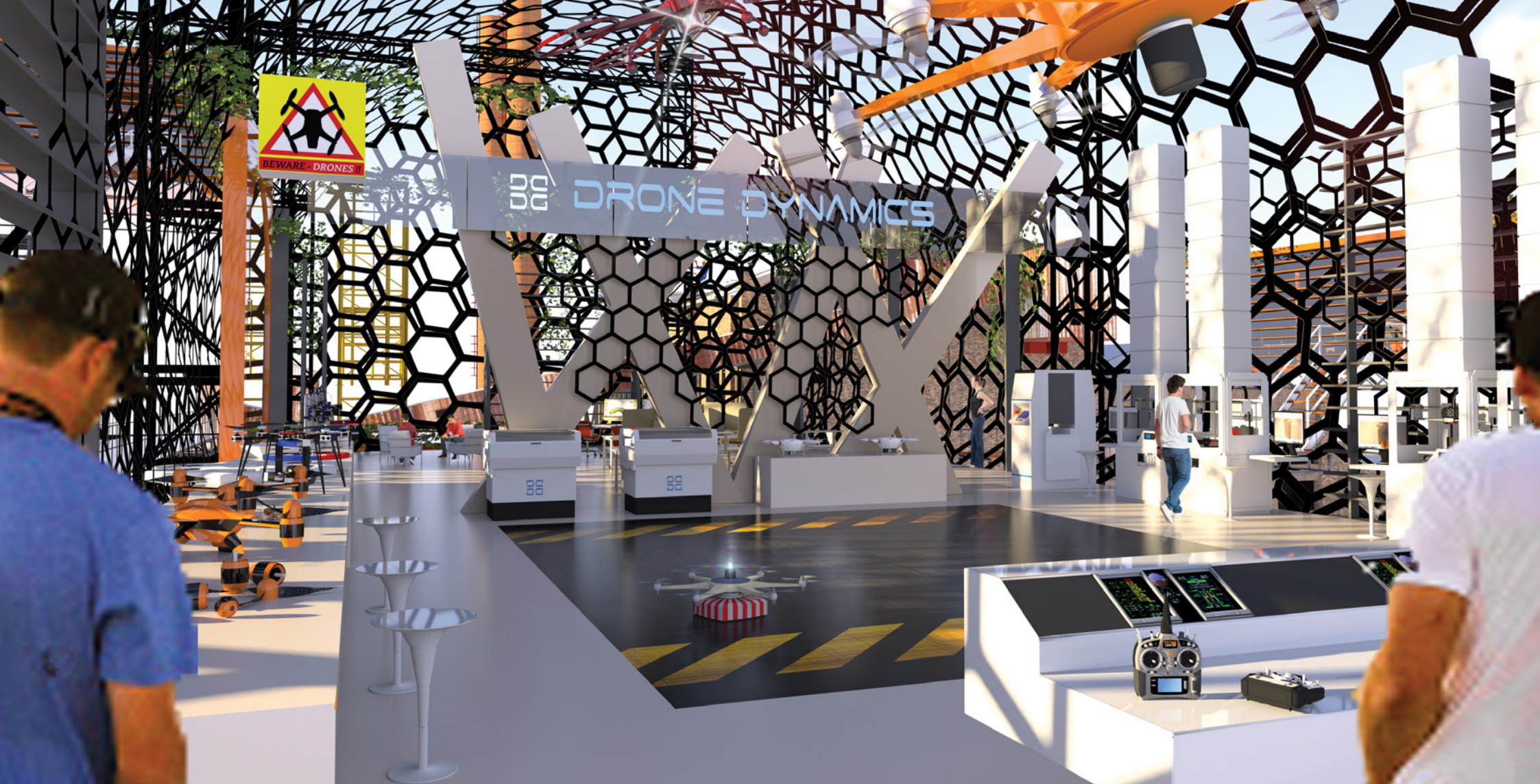
Collaboration between the arts and sciences has the potential to create new knowledge, ideas and processes beneficial to both fields. Artists and scientists approach investigation and research in different ways and from different perspectives; when working collaboratively together or singly across disciplines they open up new ways of seeing, experiencing and interpreting the world around us.

Researchers in chemistry, physics and new technologies who interpret and communicate their work through creative projects contribute to dialogues in both the pure and applied sciences and the arts.

We take credit as a nation when Australians win sporting events or cultural accolades even though we, as individuals, had nothing directly to do with the win. Mass connectivity, through media and live venues, fosters this tribal engagement. Learning from this, The Generator makes visible and dramatises the excitement of technological and artistic creativity and innovation.







## THE PRODUCTION SHEDS

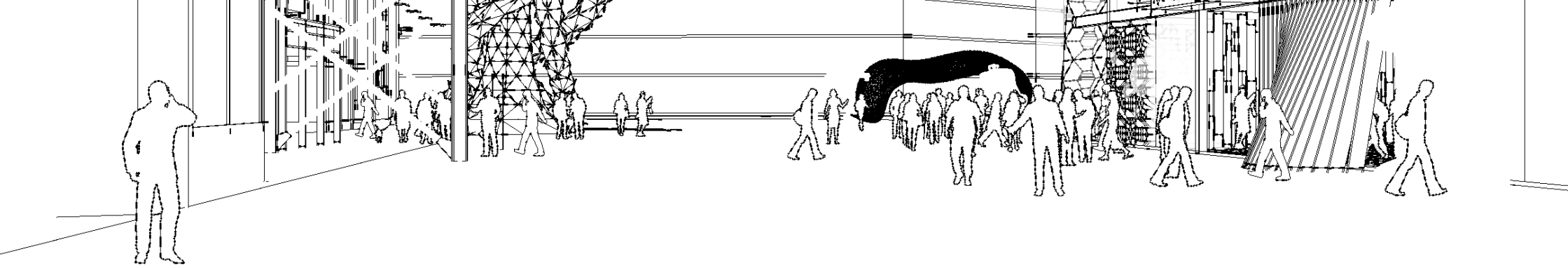
New production 'sheds' will provide specialised facilities for technological and artistic innovation. Access to high quality contemporary tools such as 3-D printers, robots, clean space, fast computers, digital recording studios, lighting and projectors will accelerate experimentation.

Selected outputs from the production spaces will insinuate themselves into the physical fabric of The Generator and into the displays and events that it hosts.

Stage 1 features a multi-functional production space that prototypes ideas for future stages. As The Generator evolves, new production spaces will be created as new forms of innovation arise.

The aggregation of different forms of production will characterise the different precincts and spaces between the buildings.

The production spaces will be purely functional with emphasis on the specialised needs of different media, access to services and safety. They will generally be no-go zones for the general public except to view proceedings.



## THE SPONSORED 'IDEATOR MODULES'

**Around the production sheds, 'ideator modules' will mediate between production and engagement, at the same time forming the streets and public squares of The Generator village.**

Institutions and benefactors wishing to be part of the innovation trajectory of The Generator will sponsor the ideator modules. Participation will happen at a variety of scales ranging from a single space to a row of modules.

The design of the ideator modules will reflect the intent of the sponsor within the spirit of The Generator mission. Challenging, unprecedented architectural forms and streetscapes will emerge.

### Current and emerging fabrication technologies include:

- Interactive 3D printing
- Interactive material
- Responsive material
- Cyber-physical making Micro 3D printing
- Bone & Organ 3D printing
- Programming material
- Glass 3D printing
- Clay 3D printing
- 3D printing musical shapes
- Mophospaces
- Construction & Morphogenesis
- Silk worm weaving and printing
- Spider weaving and printing
- Self assembling material
- Granular material
- Interactive evolutionary computation (IEC)
- Generative growth and evolutionary computation
- Augmented reality
- Membrane morphology
- Computational Design and Automotive
- Material Gestalt
- Robotic Fabrication Systems
- Interactive robotic live control
- Multi Robot assemblies
- Stigmergic accretion - polymer deposition
- Timber Veneer Laminate Robotic Sewing
- Magnetic architecture
- Fluid form structure
- Geometry optimisation
- Robotic sculpting & drilling
- Parametric robot control
- Fabrication of gestural forms
- Hygroscopic timber tectonics
- Performative wood
- Fibrous tectonics
- Dynamic & interactive tectonics
- Concrete 3D printing
- Macro fabrication & digital materials
- Music and Form





Workshop spaces or Ideation Labs will house 'Creative-in-Residence' projects - artists, physicists, software developers etc. who work in a cross-disciplinary way between science, technology and creative spheres. Developed in partnership with ANAT (Australian Network for Art and Technology) and the CSIRO and universities - UTS, UNSW and Sydney University - these may include artist and scientist collaborations across digital media, augmented reality, robotics and artificial intelligence.

Ideator modules might comprise galleries, meeting places, technology pods and accommodation for visiting ideators, artists and experts, as well as functions yet to be imagined. These might encompass:

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**All sorts of convergent retailers: a tattoo parlor specialising in electric ink and LED piercings; a boutique e-liquid and vape supplier; micro beer breweries and coffee roasters, DIY robot and drone suppliers, 3D printing booths, maker-part vending machines, wearable technology vendors ...**

---

**Pop-up showrooms for international exhibitors---a 24x7x365 expo: the latest virtual reality and 360 degree camera gear, biometric patches, autonomous vehicles, service robots, electronic devices, aging reversal technologies ...**

---

**Entertainment: virtual reality theatres, live music and performance venues, dance clubs and live holographic events | links to international events ...**

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**Design and Arts: studios, residencies, pop-up artist-run galleries and handmade or creative retail for local contemporary designers, makers and artists. Space for street artists, paste-up crews and projection mappers to exploit and populate the environment.**

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**The ideator modules will engage with technology to enhance and shape the environment:**

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**Using data science, AI and analytics to dynamically shape the environment such as using sentiment analysis from visitor's social media feeds to shape tenancy, with certain modules opening and closing according to the profile of the crowd, perhaps chill-out areas might open like flowers when a critical mass of SnapChat accounts are active on site ....**

---

**Using weather forecasting algorithms to configure the outer structures to optimise for conditions, opening up on fine days and 'growing' shelters on wet days ...**

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**Using AI to determine the best performance acts to invite based on demographic cross-matching with other cities ...**

## STREET LEVEL

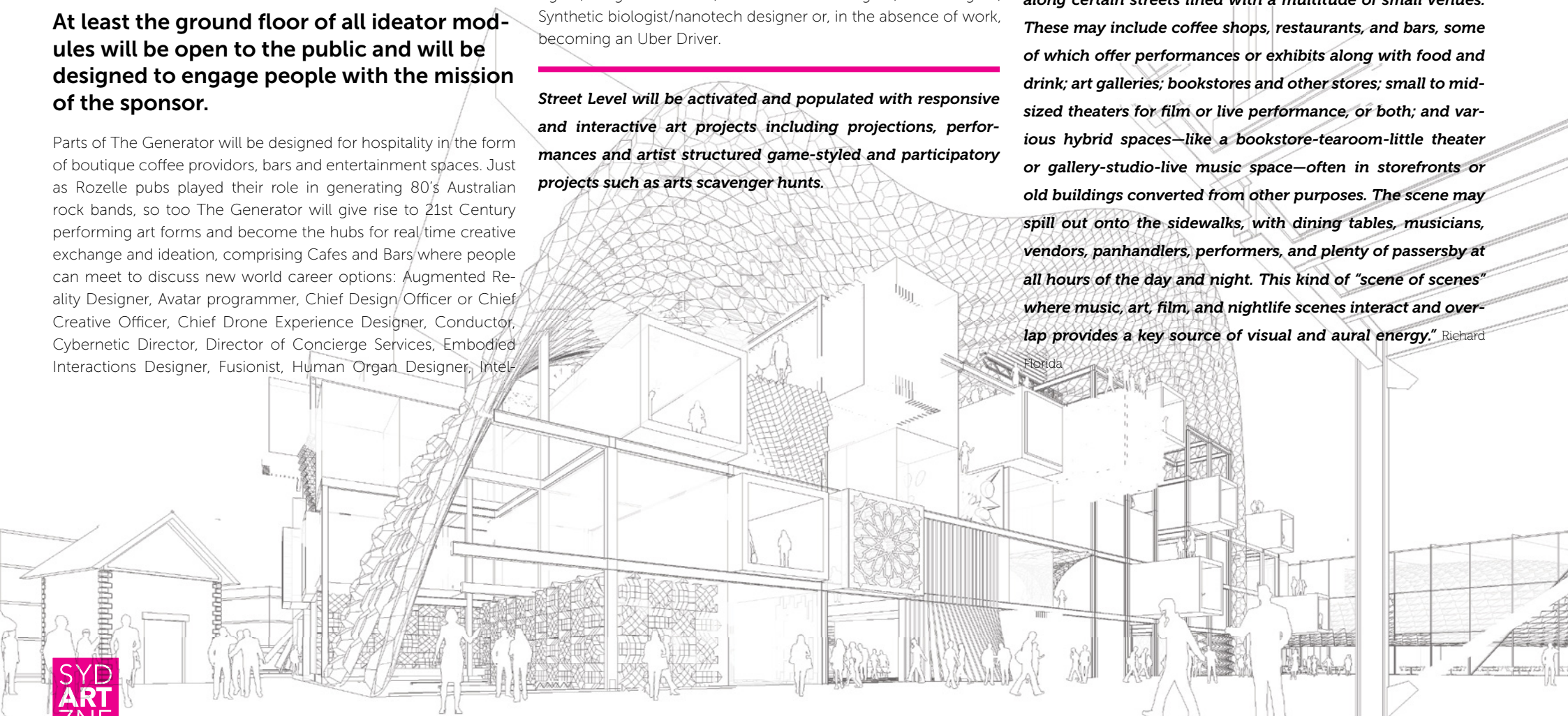
**At least the ground floor of all ideator modules will be open to the public and will be designed to engage people with the mission of the sponsor.**

Parts of The Generator will be designed for hospitality in the form of boutique coffee providers, bars and entertainment spaces. Just as Rozelle pubs played their role in generating 80's Australian rock bands, so too The Generator will give rise to 21st Century performing art forms and become the hubs for real time creative exchange and ideation, comprising Cafes and Bars where people can meet to discuss new world career options: Augmented Reality Designer, Avatar programmer, Chief Design Officer or Chief Creative Officer, Chief Drone Experience Designer, Conductor, Cybernetic Director, Director of Concierge Services, Embodied Interactions Designer, Fusionist, Human Organ Designer, Intel-

ligent System Designer, Interventionist, Machine-Learning Designer, Program Director, Real-time 3-D Designer, Sim Designer, Synthetic biologist/nanotech designer or, in the absence of work, becoming an Uber Driver.

**Street Level will be activated and populated with responsive and interactive art projects including projections, performances and artist structured game-styled and participatory projects such as arts scavenger hunts.**

***"The culture is called street level because it tends to cluster along certain streets lined with a multitude of small venues. These may include coffee shops, restaurants, and bars, some of which offer performances or exhibits along with food and drink; art galleries; bookstores and other stores; small to mid-sized theaters for film or live performance, or both; and various hybrid spaces—like a bookstore-tearoom-little theater or gallery-studio-live music space—often in storefronts or old buildings converted from other purposes. The scene may spill out onto the sidewalks, with dining tables, musicians, vendors, panhandlers, performers, and plenty of passersby at all hours of the day and night. This kind of "scene of scenes" where music, art, film, and nightlife scenes interact and overlap provides a key source of visual and aural energy."*** Richard Florida











## THE STREETS AND SQUARES

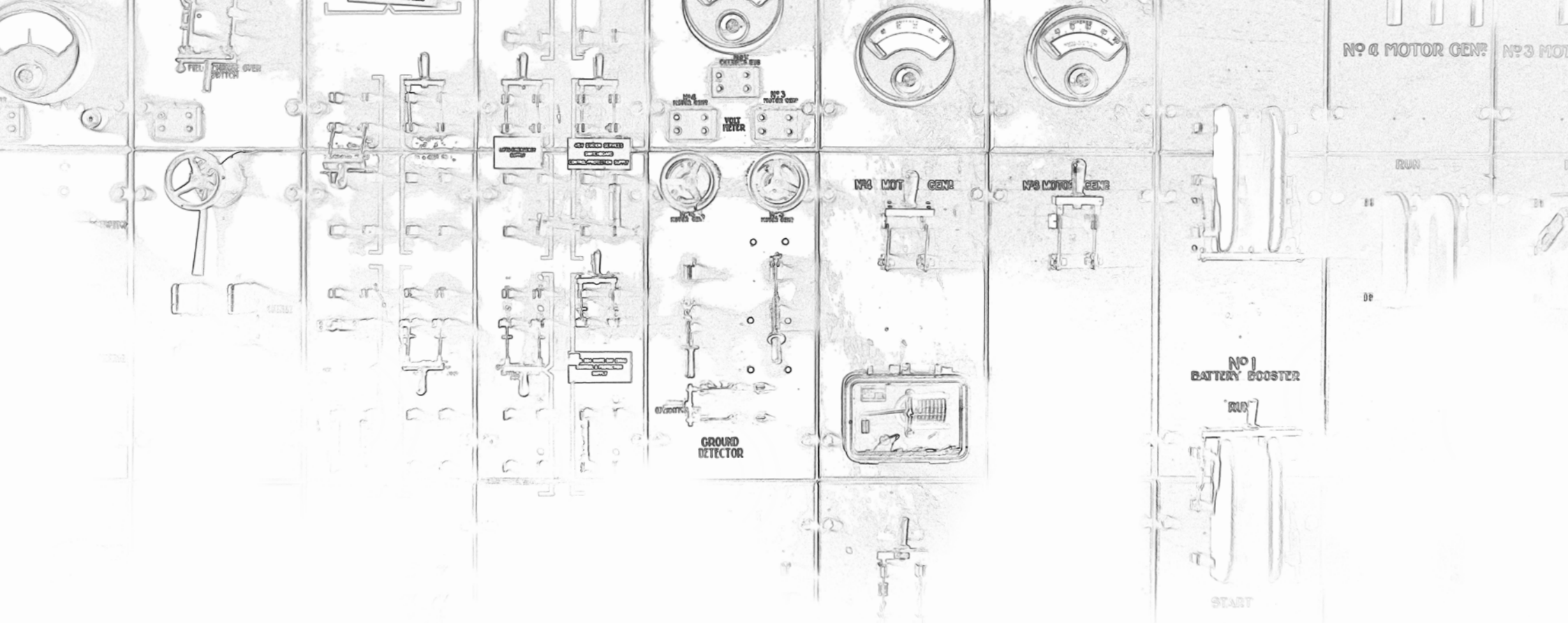
The public pedestrian pathways and squares that interconnect The Generator are the social incubator spaces so vital for sustained innovation. These spaces, as places, are the most important drivers of The Bays and are the core purpose of The Generator.

Innovative business models will put curated cultural activation in catalytic co-location with commercially driven activation. Programmed activation will be partly designed to foster self-sustaining activation.

***“Although creativity is often viewed as an individual phenomenon, it is an inescapably social process.”*** Richard Florida

***“Creativity flourishes best in a unique kind of social environment: one that is stable enough to allow for continuity of effort, yet diverse and broad-minded enough to nourish creativity in all its subversive forms.”*** Richard Florida





## THE SWITCH HOUSE SPACES

The Switch House provides a rare opportunity to create contemporary spaces for learning, creative engagement and recreation while also celebrating the buildings' unique past. The Switch House will supplement the use of the Turbine Hall as Sydney's largest and most extraordinary site for the display of large-scale multi-disciplinary arts events and installations, rivaling Cockatoo Island as the key site for immersive contemporary art experiences. The Switch House will provide viewing platforms onto the Turbine Hall for visitors to gain unique perspectives onto installations.

In overview, The Switch House's historic spaces will be celebrated and preserved behind glazed panels; 'white cube' galleries and 'black boxes' for light works, digital projections and gameified environments will be inserted seamlessly into heritage rooms; and Atelier's or open studio's will provide for leading exhibiting artists, researchers, scientists, game and software developers – creative innovators from all spheres – to work and share their thinking with visitors. This might even include a Philosopher- or Thinker-in-residence Program.



On the top floor of the building the original Switch Room provides the canvas for a unique coloured light and sound installation such as recently created by James Turrell for the Guggenheim Museum, while redundant office spaces provide for Sydney's newest pop-up cocktail bar. In other places false walls and partitions will preserve heritage surfaces and create purpose built spaces for performance as well as seminar, video conferencing, digital and real time learning spaces. Boutique café spaces and designer/maker focused pop-up shops will also enhance the visitor experience.

White Cubes - interconnecting gallery spaces - will showcase contemporary art with a focus on art installations that occupy the intersection of arts, science and technologies and engage audiences with abstract concepts in playful and provocative ways. These could include projects that explore light, space and perception, and engage physically with the visitor in interactive installations such as by James Turrell and Olafur Eliasson.

Black Box spaces will show the work of creative practitioners working in digital media and encompassing video, sound, gaming, virtual and augmented reality whose studio practice also encompasses commercial projects in product design and development, and marketing, as well as purely creative projects. Their work demonstrates the ways in which purely creative explorations can translate to market-oriented, real-world product solutions.

The Ideation Labs, providing additional programs to those offered by the Generator's sponsored 'Ideator Modules', will provide dynamic, hands on experiences for children, students and adults. These programs will focus on creative interaction with exhibiting artists and thinkers in residence including creative approaches to computer programming, gaming and technology development, science and creative making activities and will be led by scientists, artists and programmers among others.





Social opportunities to share ideas in creative ways such as TED type talks events and Pecha Kucha nights will reactivate the Recreation room. The Switch House will be a porous space that allows visitors and expert innovators to explore the creative bleed across disciplines and share their outcomes.

We will partner with The Biennale of Sydney, Sydney Festival, Art Month Sydney and Art and About to activate the Generator with major interactive art projects by Australian and international artists, designers and architects.



*The Ideation Labs, providing additional programs to those offered by the Generator's sponsored 'Ideator Modules', will provide dynamic, hands on experiences for children, students and adults.*



# THE TURBINE HALL

## THE TURBINE HALL

Sydney Arts Zone Limited anticipates that the Turbine Hall and perhaps the Boiler House will become public places as part of the greater rehabilitation of the White Bay Power Station. The Generator will become an active user of these spaces for installations,

festivals and events. These large spaces are perfect for the presentation of emerging art forms that happen at a civic scale such as Olafur Eliasson's "Weather Project".

Such creative practitioners include English artist Nina Canell, who interrogates the elemental force of electrical currents and other invisible physical energies; Australian scientist and artist Joyce

Hinterding who explores energy, polarity, magnetism and sound; and Canadian architect/artist Phillip Beesley, whose immersive, responsive artificial environments reference artificial intelligence, advanced mechanics and robotics. All contribute to global creative and cultural capital as well as leading research projects with commercial applications.



## THE BAYS PUBLIC DOMAIN AND WATERWAYS

The Generator, as a founding initiative of The Bays and its leading cultural initiative, will generate events and installations in the form of festivals, performances in the public spaces and across the waterways that connect The Bays as a precinct.

The Generator is ideally located for the formative years of The Bays regeneration as well for the long term. The White Bay Passenger Terminal and its proximity to historic Balmain and Rozelle suggest ongoing compatibility with local and tourism interests.





# THE GENERATOR

## NOTES

This submission was a group collaboration prepared for Sydney Arts Zone as a non-conforming Tender response to the Urban-Growth NSW Request for Proposals for the development of the White Bay Power Station precinct. February 2016.

As a cultural initiative, The Generator concept developed by Sydney Arts Zone Limited does not fit readily within the property development format required by the RFP.

Nevertheless, the RFP is the only available conduit for communication concepts to government and Sydney Arts Zone Limited trusts that this document is accepted in the spirit of collaboration necessary for meaningful, socially resilient rejuvenation of The Bays precinct at this important crossroads in Sydney's growth.



**A SPECIAL THANKS TO THE PROJECT CONTRIBUTORS:**

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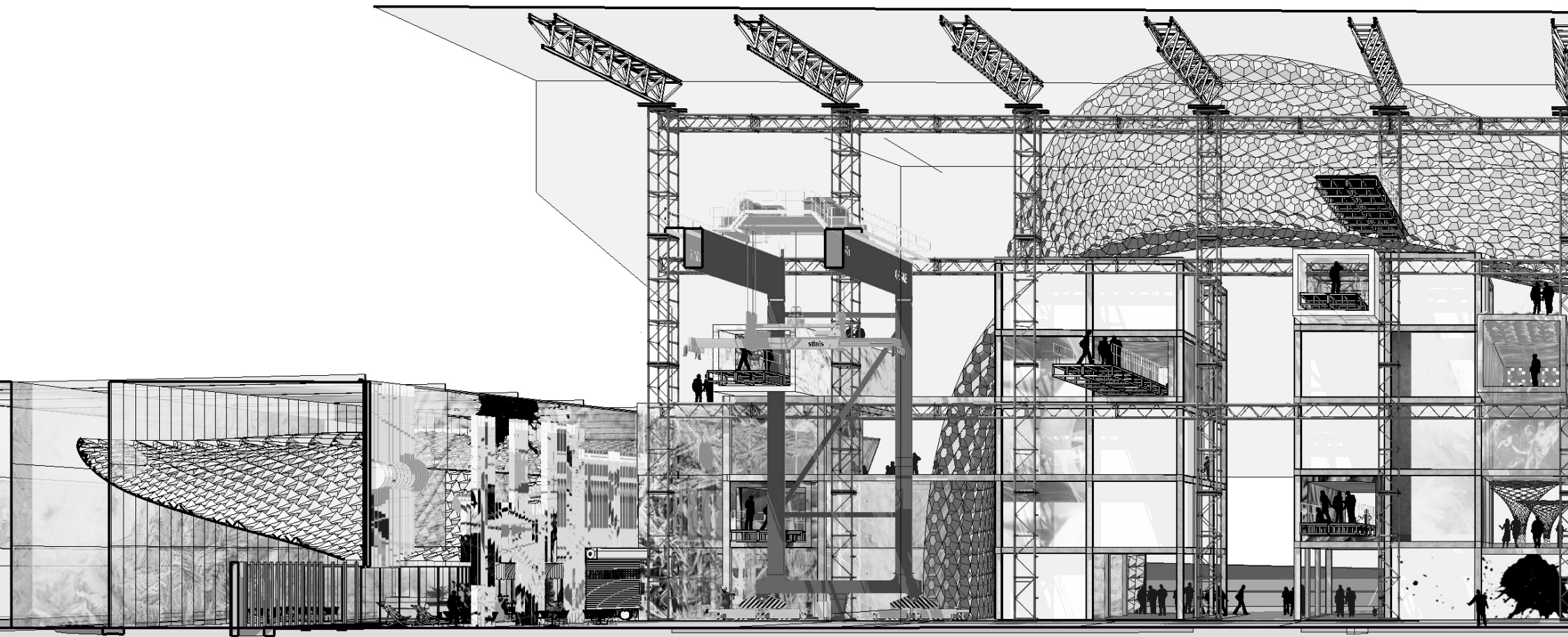
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**RATOOR**









# THE **GENERATOR**

ARTS AND INNOVATION ZONE AT SYDNEY'S WHITE BAY | A PROPOSAL BY SYDNEY ARTS ZONE LIMITED