

THEATRE  
FOR A NEW  
AUDIENCE

# SUSTAINABLE DEVELOPMENT IN CULTURAL DISTRICTS: A Public Realm Perspective



A CULTURE MILE REPORT

Fig. 1



**GCDN**  
Global Cultural  
Districts Network



# CONTENTS

## PART 1: EXECUTIVE SUMMARY

INTRODUCTION .....	2
CULTURAL DISTRICT LOCATIONS .....	7
CASE STUDY SUMMARY .....	9
KEY LEARNINGS .....	11

## PART 2: CASE STUDIES

NAVY PIER CHICAGO .....	19
QUARTIER DES SPECTACLES MONTREAL .....	21
DOWNTOWN BROOKLYN PARTNERSHIP .....	23
BETTER BANKSIDE .....	25
CULTURE MILE .....	27
7 SQUARE ENDEAVOUR .....	29
ONASSIS STEGI ATHENS .....	31
WEST KOWLOON CULTURAL DISTRICT .....	33
ARTS CENTRE MELBOURNE .....	35
HOTA GOLD COAST .....	37

<b>CREDITS .....</b>	<b>39</b>
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# PART 1 EXECUTIVE SUMMARY

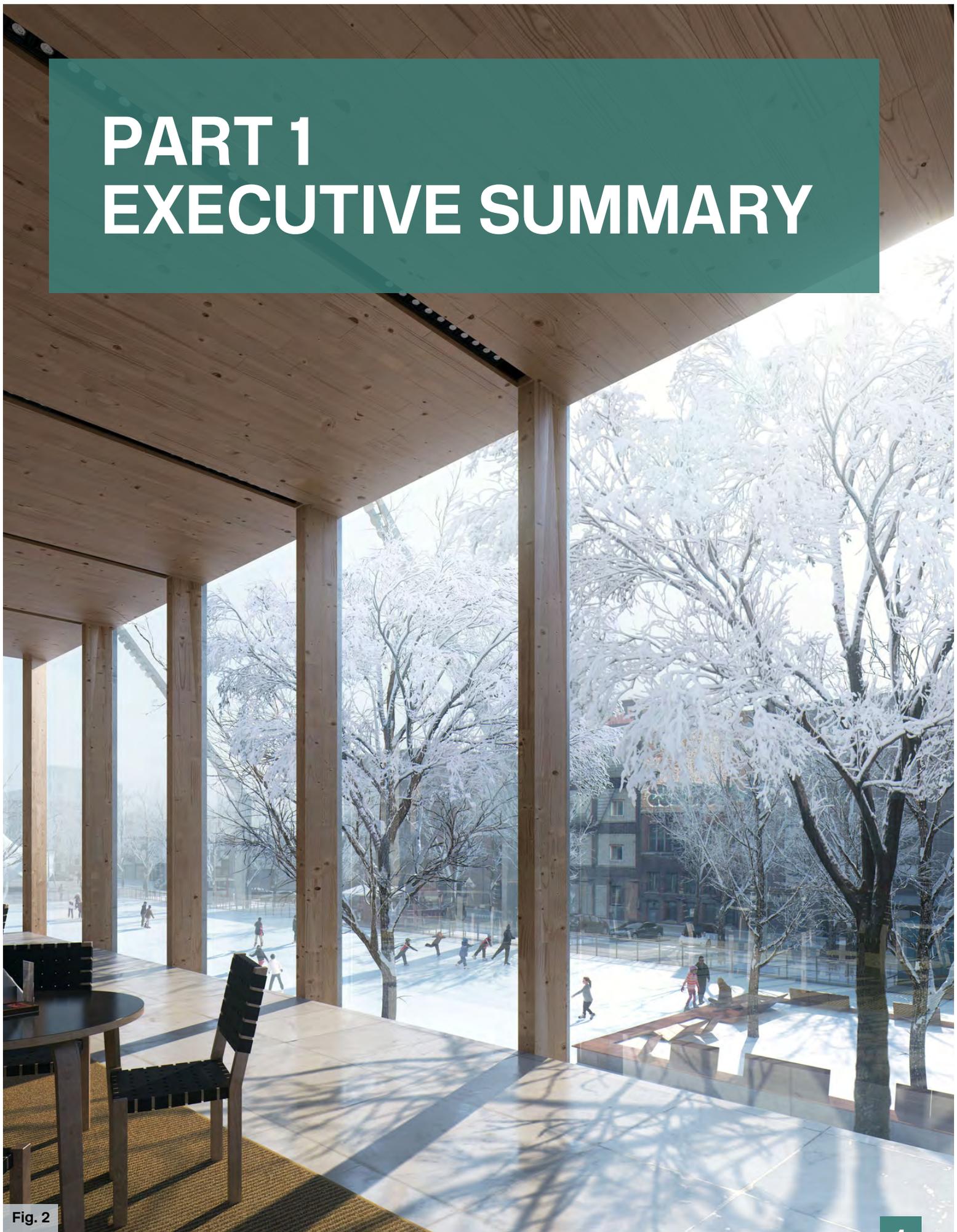


Fig. 2

# INTRODUCTION



Fig. 3

This report is a summary of research undertaken in 2021/22 about sustainability practices in cultural districts across the world. It was commissioned by the City of London Public Realm team, working as one of the key partners in the Culture Mile initiative. The research was undertaken in a context of a renewed focus on sustainability by the City of London Corporation and the Public Realm team, exemplified by the City's new Climate Action Plan alongside the implementation of projects in the City that look to foreground sustainable practices.

## The City Climate Action Plan

In 2020 the City's Climate Action Plan was approved, giving the City's officers a clear remit to include sustainability measures in their practice. The Action Plan has clear targets related to:

- Actions to support the achievement of net zero
- Actions to champion sustainable growth
- Actions to build climate resilience

## Public Realm in the City of London + Smithfield

The City's Public Realm team work to design new public space and are looking for best practice in sustainable public realm design for cultural activity. This work has involved initiating new projects such as materials salvage and reuse; reducing vehicle traffic and increasing planting. It also considers how to balance the land use challenges of cultural institutions (with a need for spaces suitable for cultural activity, such as concerts and outdoor artwork) alongside a need to build in climate change mitigation and resilience.

One major project that is currently being undertaken by the Public Realm team is the transformation of the Smithfield area into a new cultural district. The Smithfield project includes a Strategic Outcome relating specifically to sustainability practices, as follows:

“The public realm is designed to be a leading exemplar for sustainable design, including:

- Applying circular economy principles and minimising whole life environmental impacts, the public realm is sustainable and integrated seamlessly with the local buildings
- Incorporating integrated water management and with urban greening maximised
- Hard and soft landscaping is climate resilient”



Fig. 4

## Purpose of the research

With the publishing of the Climate Action Plan, alongside the work in Smithfield to design public spaces for cultural activity that are exemplars for sustainable design, there is a need to better understand what 'exemplar' looks like. The City's Public Realm team have collaborated with the Global Cultural Districts Network (GCDN) to undertake this research into the issue, looking at examples of cultural districts around the world to understand what is current practice; and what might be best practice.

The research aims were to understand best practice and innovative new ideas that are being undertaken by cultural districts around the world to develop sustainably and to embed climate resilience into cultural districts' practice. The research was also to include a particular focus on public realm projects. Through understanding what are the current practices in this field, we can see how to develop best practice and how to overcome common challenges. The purpose of the research ultimately is practical, to feed into the development of future projects.

During the time of the research, Covid changed the landscape. Now, all districts understand the importance of public space as it came to the fore during lockdowns and as a means for reintroducing people to the city again. As one of the interviewees said – the focus has shifted from having a cultural building as an 'anchor tenant', to having public space itself as an anchor tenant.

## This research report provides:

### Part I:

An Executive Summary of research findings, including: the framework of the research which is the UN's Sustainable Development Goals; the research methodology; the Key Learnings; Challenges; and a summary of Case Study findings

### Part II:

Detailed case study findings, giving an overview of each Cultural District involved in the research, their climate change risk context, and their sustainability practices, with more detailed information covering the context of each District, key learnings, an overview of initiatives undertaken, highlights of interesting projects; and the challenges faced by each District.

### Key Learnings

The report is structured into four Key Learnings that have been used to group the findings of the research. These Learnings are derived from the experiences of the Cultural Districts that were part of the research. They are:

- Public Realm and the Environment
- Planning and Target Setting
- Initiatives and Practices
- Connecting with Wider Society

# How can cultural districts promote sustainable development in our cities?

Cultural institutions play an important role as an 'anchor' in their local places – not just in terms of artistic activity and cultural production and consumption, but also for placemaking, community gathering, and economic development.

But can they also be 'anchors' in their areas for environmental sustainability and climate resilience? And are cultural districts able to harness creativity to bring innovation that supports sustainable development?



Fig. 5

The answers to these questions are complex and depend on limitless factors that are not necessarily in the control of the cultural sector. But one part of the answer is understanding: to understand the problems better; to explore constraints and challenges to positive action; to discover new ways being used to counter the problems; and to learn more about how our peers are tackling the same issues. This report sets out research into the approaches that cultural districts around the world are taking in the field of sustainable development. The research will then hopefully feed into peer-to-peer learning and promote sustainable practices. We hope that this enables cultural districts to learn from each other, and provides inspiration and advice.

In order to create change that supports environmental conservation and sustainable development, the challenges facing cultural districts are numerous. They are both inherent – for example in the practices of touring, or the energy use requirements of staging a performance, or the materials consumed in creating artworks or stage sets; and they are contextual, with cultural districts subject to the same political malaise that effects all sectors.

There are some very positive signs of change within the field. In the UK, the work of Julie's Bicycle has been a real beacon in leading the way in helping cultural organisations face the challenge and alter their practices. New building regulations and planning frameworks have also started to be implemented to push designers, architects and developers to build more sustainable buildings.

## What about the role of public space?

Within the field of cultural activity and cultural districts, the research project is particularly interested in the part that the public realm – our open spaces, streets, and parks – can play in this process. The research highlights circular economy, water and surface treatment aspects, providing readers with information about how case study areas are looking at these critical issues within public space.

This research uses the definition of 'Sustainable Development' from the United Nations, with reference to the report 'Our Common Future: Towards Sustainable Development':

**'Development that meets the needs of the present without compromising the ability of future generations to meet their own needs'**

World Commission for Environment and Development 1987, Brundtland Report, Our Common Future



Fig. 6

## The 'Sustainable Development Goals'

In 2015 the UN General Assembly adopted a resolution that set out a strategy for sustainable development, working towards a set of goals for 2030. These were the 'Sustainable Development Goals' (SDGs): 17 goals, accompanied by 169 specific indicators, that have been agreed by the member states. Many governments, intergovernmental organisations, charities, NGOs, and more now use the SDGs as the basis for setting targets and defining programmes of work.

Sustainable development is a crucial part of the picture in ensuring that cities can contribute to the targets of reducing emissions and limiting global warming. Given the dire predictions of climate change and its impact, the built environment in our cities has needed to respond.

Also in 2015 the Paris Agreement was signed. The Agreement is an international treaty whose goal is to limit global warming with a target to limit global warming to 2°C at most, and preferably 1.5°C. Recent reports from the International Panel on Climate Change (IPCC) have set out startling data that emphasises how important the 1.5°C limit goal is, and how far we are from achieving it.

## The 'Three Pillars' of Sustainability

Sustainable Development is often referred to as having 'three 'pillars', which are:

- Environmental sustainability
- Social sustainability
- Economic sustainability

A UN Resolution in 2015 explained that, 'The [SDGs] are integrated and indivisible and balance the three dimensions of sustainable development' (UN, 2015). For development to be truly sustainable, it must balance the requirements of all three of the pillars.



## Methodology

The Research Lead is Culture Mile, in collaboration with the GCDN, with guidance from the University of Westminster. The participant case study cultural districts are:

- Navy Pier, Chicago, USA
- Quartier des Spectacle, Montreal, Canada
- Downtown Brooklyn Partnership, New York, USA
- Better Bankside, London, England
- Culture Mile, London, England
- 7 Square Endeavour, Rotterdam, Netherlands
- Onassis Stegi, Athens, Greece
- West Kowloon Cultural District, Hong Kong
- Melbourne Arts Precinct, Melbourne, Australia
- Home of the Arts (HOTA), Gold Coast, Australia

The initial research involved a desktop study to give an overview of the field by reviewing online sources for over 50 cultural districts. This provided an insight into the current types of sustainability practices and ambitions, which was compiled into a database. It also gave a sense of the ways that cultural districts were communicating about sustainability and publicising their climate-related initiatives.

A consultation was then undertaken with Ripin Kalra, Senior Fellow, University of Westminster, to refine the list and consider approach, outcomes and potential questions. A draft survey for districts was subsequently created based on this discussion. Through consultation with the GCDN, we compiled a shortlist of cultural districts that represented a range of geographies, approaches, governance structures, and climates, for our case studies. We undertook an approach of semi-structured interviews, with representatives from ten cultural districts for approximately one hour sessions in order to understand best practice in the field.

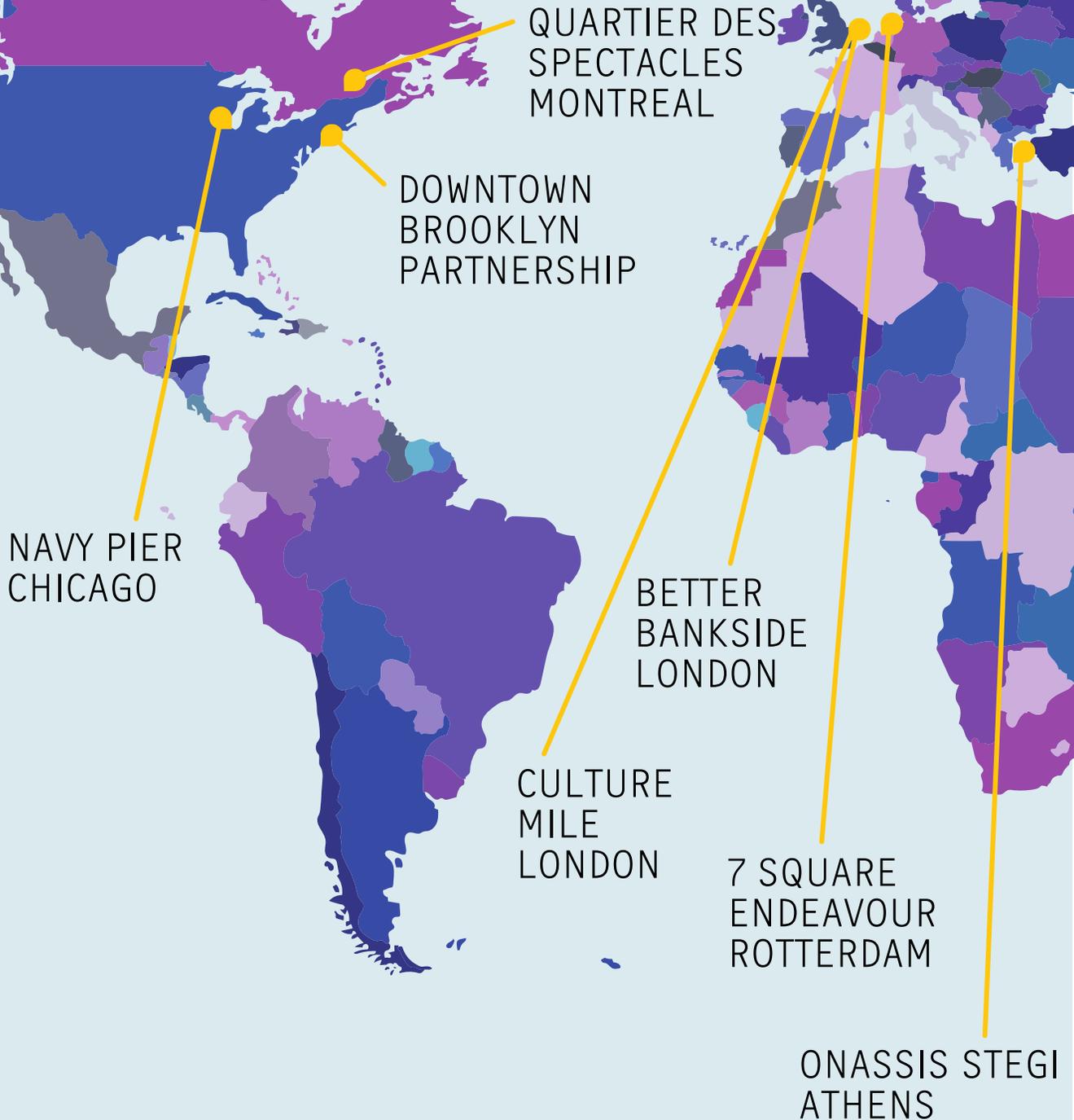
The semi-structured interviews covered topics that ranged from: strategic planning and target setting, risks and vulnerabilities, internal and external motivations for sustainability measures, governance, decision-making and agency, initiatives, funding and costs, partnerships, constraints and challenges, target setting and plans for the future.

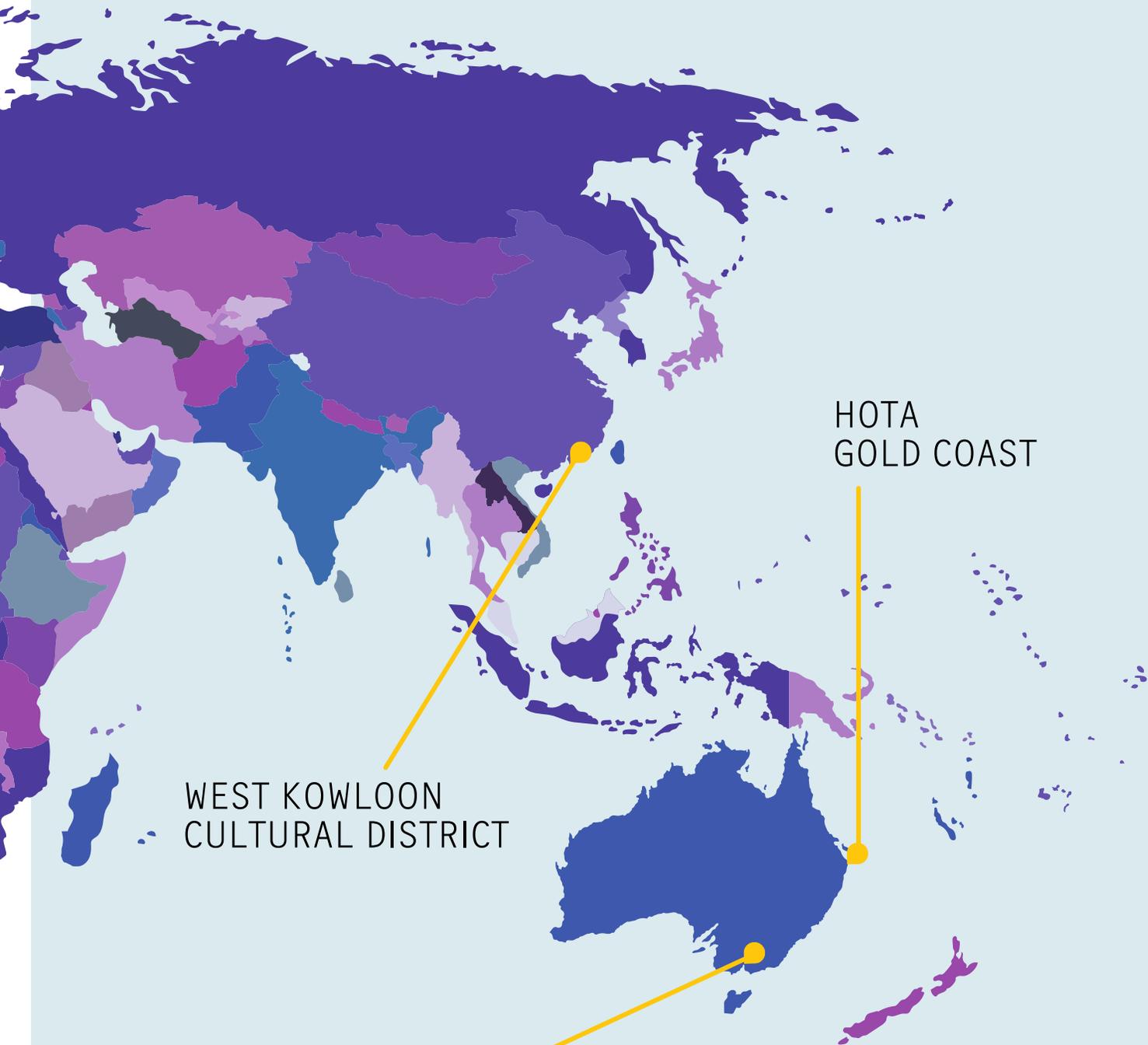
The data collected was anecdotal and qualitative in the main. We then analysed the responses and present them in this report, along with some key learnings coming from the research that may be used for future sustainable development practices.



Fig. 7

# CULTURAL DISTRICT LOCATIONS





WEST KOWLOON  
CULTURAL DISTRICT

HOTA  
GOLD COAST

MELBOURNE ARTS  
PRECINCT

# CASE STUDY SUMMARY

The cultural districts that are part of this research all have very different social, political and geographic contexts, and are facing different threats from climate change. They are also all on different stages in the journey towards a more sustainable existence. The key points that were raised by each Case Study area are given in the summary below, with full details of each area in the 'Part II: Case Studies' section of this report.

## Navy Pier Chicago

Key areas of discussion with Navy Pier, Chicago included:

- The importance of taking a long term approach
- Sustainability as part of the mission to provide service to the community
- The importance of finance and costs, including as a challenges and constraint
- Looking to the future, and the importance of local leadership
- Measures put in place in the public realm, including climate change mitigation

## Better Bankside

Key areas of discussion with Better Bankside, London included:

- Relationships with local stakeholders and partnerships
- A focus on streets and outdoor spaces
- The 'Urban Forest' initiative for greening the local area
- The political, economic and contextual challenges faced by the district
- The 'Business Climate Challenge' that engaged local businesses in improving their sustainability practices

## Quartier des Spectacles, Montreal

Key areas of discussion with Quartier des Spectacles, Montreal included:

- Building new public space and outdoor activities that engage people on environmental issues
- The importance of communications and storytelling, and the role the cultural sector has in this
- Projects that include elements of research and monitoring
- The role of programming

## Downtown Brooklyn Partnership

Key areas of discussion with the Downtown Brooklyn Partnership, New York included:

- Activities in the public realm
- Advocacy for active travel
- Transitioning to clean energy use
- The importance of governance and strategy
- Detail relating to key challenges and constraints to transitioning to sustainable practices
- Covid measures that support sustainability outcomes



Fig. 8

## Home of the Arts (HOTA) , Gold Coast

Key areas of discussion with Home of the Arts, Gold Coast included:

- A focus on the limits, constraints and challenges to transitioning to sustainable practices
- Natural environment, lifestyle and geographic context
- Grassroots approaches to sustainability
- The role of Strategic Planning and hopes for the future
- The impact of Covid on use of public space

## 7 Square Endeavour, Rotterdam

Key areas of discussion with 7 Square Endeavour, Rotterdam included:

- The story of how the district made the commitment to sustainability over ten years ago, and the work that has taken place over this time
- Adopting a Radical Mindset and Approach
- The importance of leadership
- How to integrate buildings, public space, systems and infrastructure

## West Kowloon Cultural District

Key areas of discussion with West Kowloon Cultural District, Hong Kong, included:

- Sustainability in a context of masterplanning and major projects
- The role of Certification
- Public Realm measures
- Use of data and monitoring
- Benchmarking against other areas and practices, including outside of the cultural sector

## Onassis Stegi, Athens

Key areas of discussion with Onassis Stegi, Athens included:

- The importance of target setting and reporting
- Partnership work in the local public realm
- Challenges to moving towards sustainable outcomes
- Looking to the future and what is required over the coming years

## Culture Mile, London

Key areas of discussion with Culture Mile, London included:

- Retrofitting and Reuse as a sustainability strategy
- Collaborations with non Cultural Partners such as business partners
- Strategic support throughout the organisation
- Programming & Communities that foregrounds sustainability
- Using a 3 Pillars Approach to activity

## Arts Centre Melbourne

Key areas of discussion with the Arts Centre, Melbourne included:

- The need for a fundamental shift in practices to transition to sustainability
- Local empowerment
- Working with an aging building and engineering challenges
- Public realm in the context of local partnership working (through the 'MAPCO' partnership initiative)

## CASE STUDY SUMMARY CONTINUED

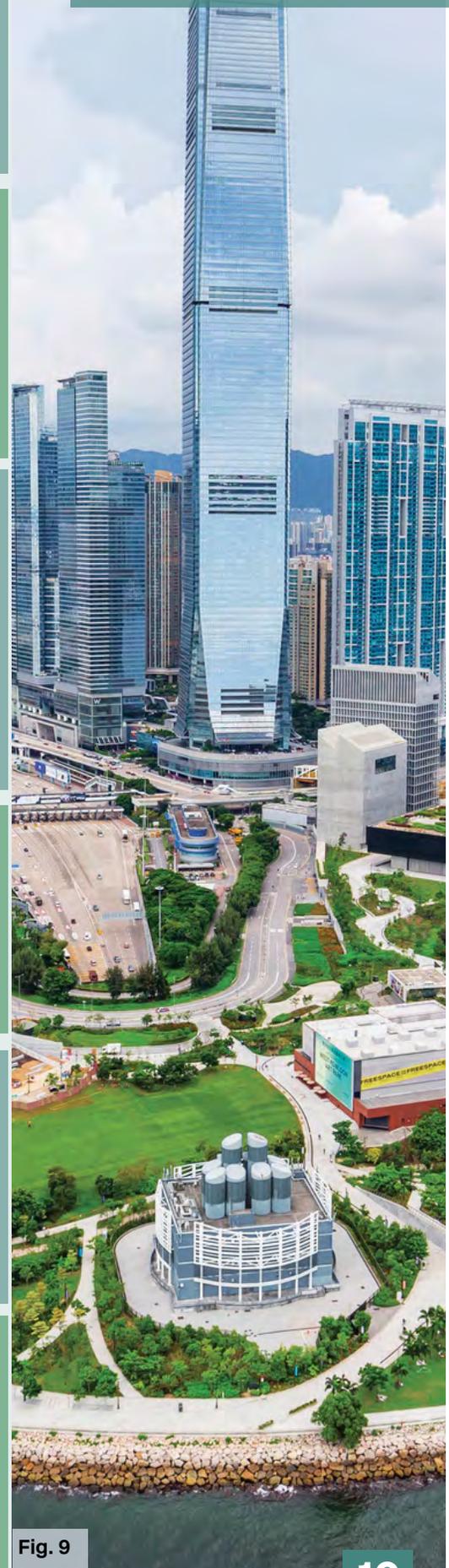


Fig. 9

# KEY LEARNINGS



Fig. 10

The majority of the districts identified a sense of responsibility to enact measures for climate change mitigation; with the different districts at varying points along the journey. Most of the districts were well underway in operational changes, often driven by staff initiative; and retrofitting of the buildings in the district to reduce energy use. Some of the districts also had strategic targets for sustainability or climate actions plans in place, which guided their work.

A common theme with many of the districts was the desire to move further and faster on the journey towards a more sustainable existence, through a fundamental shift in practices. Real action is required that moves beyond the 'low hanging fruit' – the initiatives that have largely been enacted to date – to a truly sustainable existence that plans for the future in a responsible and holistic manner and that tackles the challenges head on. This would include measures that meet a net zero target, for example.



**Of all the areas researched, the case study furthest along this journey, is 7 Square Endeavour (below).**



Fig. 11

The following pages summarise the data gathered from the Case Study areas, categorised into four 'Learnings', as well as the Key Challenges to shifting to a more sustainable existence that were highlighted by the respondents.

### 01. Planning + Target Setting

A number of Case Study cultural districts spoke of the importance of planning and setting ambitious targets for their organisations, along with transparent and accountable reporting and monitoring of progress.

### 02. Connecting with Wider Society

Cultural Districts have a unique opportunity through storytelling to connect with society in a way that confronts the challenges of climate change and advocates for ambitious sustainability practices.

01.

02.

03.

04.

### Public Realm + Environment

Case Study respondents spoke of the importance of public realm which had come even more to the fore during Covid. Public realm, planting and outdoor programming have a role to play in providing space for people outdoors, but also in providing environmental sustainability benefits such as increased biodiversity and water management.

### Initiatives + Practices

A wide range of initiatives are being introduced across the different Case Study areas. These range from major construction projects to empowering staff green teams to recycling initiatives and programming that highlights climate change.



# Public Realm + Environment

## Key Data

8 districts advocated mass transit and active travel

8 districts stressed the importance of public realm

7 districts stressed the role public space played during Covid

5 districts discussed landscape design e.g. native, indigenous, appropriate

## Findings

**Public realm must be valued and put to use. It is an open forum where people can socialise and exchange. All the districts interviewed emphasised the value of public space and they stressed the part it plays in the sustainability of a place. In particular:**

- The total amount of green space and planting should be increased
- Integration of services and shared infrastructure between public realm and buildings allowing for shared services and greater efficiencies
- Active travel should be advocated and a freight and deliveries strategy should be in place. Partnership with the local municipality is to be pursued. Once vehicles are reduced, there should be a strategy for opportunities to transform areas that once were vehicle-dominated into green open space
- A balancing act needs to be performed between spaces for activity and programming, and quiet open space
- Collecting of data and monitoring of the spaces, e.g. on air quality, wind, water, biodiversity should be undertaken
- Design spaces in an appropriate manner for their own environment, understanding (for example) the need for appropriate planting schemes, levels of shade, and how water moves through the site
- Resilience planning should be linked closely with the design of the public realm. Ensure a resilience plan is in place that responds to key risks and vulnerabilities – including social and economic risks as well as environmental ones. Ensure new spaces and related buildings are designed with climate change and increased risks in mind
- For capital works it is essential that sustainability measures are integrated at all stages and that ‘value engineering’ processes do not take away sustainability measures



Fig. 12



# Planning + Target Setting

## Key Data

6 districts spoke of building regulations as important in adopting green measures

6 districts use data for planning and monitoring public space and environment

5 districts stated that greater leadership is needed

4 districts have strategic targets in place; 3 are currently putting targets together and for 1 it is a future aspiration

3 districts stressed the importance of measurable targets

2 use SDGs or a 3 pillars approach

## Findings

**Bold strategic planning should be put into place, backed up by specific targets and monitoring of data related to these targets. Sustainability needs to be fundamental to organisational leadership. Strategic planning on sustainability matters should be embedded holistically across the organisation and reflected in practices and staff responsibilities. In particular:**

- A Sustainability Strategy should be approved, or sustainability should be a major part of the organisation's overall strategic plan
- Targets for the organisation to be set that are ambitious; and the reporting to them must be: accountable, transparent, accurate
- Monitor progression towards net zero through assessment
- Transparency in general should be a principle, and used as a tool. For example, if you can't get a green supplier, make that known and advocate for change.
- Embed local, green, and sustainable principles into procurement strategies. Where possible, be smart about joining up with others to make purchases more energy efficient
- Ensure programming is sustainable, considering touring practices and materials usage and reuse, especially for new installations
- Measure value and show this to people, publicise achievements



Fig. 13



# Initiatives + Practices

## Key Data

2 districts spoke about measures that are spearheaded and owned by staff

3 districts discussed implementing 'quick wins'

3 districts gave using local suppliers as a sustainability measure

1 district cited difficulty with finding green suppliers

## Findings

Each of the districts spoke of the efforts of their staff, and how staff led the way in promoting sustainability initiatives. This grassroots activity is crucial to move to more sustainable practices. Similarly, so is learning from each other and being inspired by the places that are more advanced on the journey. 7 Square Endeavour in Rotterdam has a different approach, tone and spirit – this can act as an aspiration for the rest. To foster this spirit, harnessing the goodwill of proactive staff is essential, as is:

- Communication, peer to peer learning, and support for learning activity
- Embedding values into the organisation at all levels, so that when good staff leave the emphasis that they brought does not go too. Sustainability should be filtered into the organisation in a way that strategic, organisational, systemic, not based on goodwill of individuals alone
- Training for staff is essential and can be accompanied by sustainability KPIs that relate to staff roles
- Empowering staff to act in a more sustainable way ensuring there is space for staff to bring new ideas to management
- Create a forum for staff, such as a sustainability working group



Fig. 14



# Connecting with Wider Society

## Key Data

5 districts are working on local green projects with partners

3 districts see it as their role to engage with partners on climate change

6 noted that the local government has green targets

6 districts gave expectations of stakeholders as important

2 districts said more support from the municipality is needed

2 districts have good support from their city

1 cited problems resulting from short political cycles

3 of the districts have climate change related programming

## Findings

Many districts expressed a need for change to be grounded in the local community, and to be enacted via partnerships across many different levels, including with suppliers, local governments, and artistic partners. A number of districts spoke about both their frustrations about wider context, but also understood their own role as an advocate for change within society. The cultural sector has a role to play here:

- As an advocate for sustainability in a context wider than themselves, by understanding the impact that culture can have on society, and by actively pushing for change in the fields of politics and the private sector and more
- As a place for bringing together ideas and exchange within the community to develop thinking about climate change solutions
- As a leader in the field, to show by example how to create change, how to influence and how to change hearts and minds
- As a means for creating a voice and a tool for wider society
- As a facilitator for the local community, who need to be a part of operations as local guardians of the environment, and people who can best ensure that work is socially sustainable
- Through partnerships, including with local organisations and community groups, politics, businesses, suppliers, as well as artists and practitioners.



Fig. 15

# Key challenges

Despite the differences in context between the Case Studies, there were a number of challenges and constraints in common (cited by 2 or more Districts) that were identified in reaching the goal of a fundamental shift in activity. They are summarised on this page.

## Funding

Lack of funding was the most commonly cited challenge, including for climate related artistic programming, for ongoing maintenance works, and for major capital works when sustainability measures are 'value engineered' out.

## Lack of wider support

There was a common theme of a need for ambition, leadership and big decisions. Political context is a major challenge as it is often short termist.

## Lack of agency

There are difficulties outside of the districts' control, where they are not the decision maker. These include: a lack of green suppliers; problems of decarbonising transport; clashes of local priorities with national strategies; land use problems that result in no space in cities for cycle storage, freight consolidation and waste recycling. There is also limited local infrastructure, with often very few options available for energy, transport, waste management.

## Lack of targets

There are limits on achievements if there are not strong targets in place, and that measures need to be more compulsory. National policies are not yet stringent enough. The real challenge is the substantial step change required, not just an update or two. Districts need to be better at stating expectations with partners, suppliers, contractors.

## Spatial + engineering challenges

4 districts stated there is limited space for green infrastructure; in addition challenges of utilities below ground, and structural challenges of old buildings were cited.



Fig. 16

## How to meet the challenges

**It is clear that the huge step-change would require significant funding, with a large investment over time. Districts stated the following possible means for overcoming the challenges:**

- Having ambition, leadership, a big vision, courage
- Target setting
- Using all levels of governance
- Local partnerships, working at a local scale not as individuals
- Procurement strategies that target renewables
- Storytelling about transition, connecting people to the challenges
- Giving incentives
- Having patience
- Working in a holistic way, joining buildings with public space
- Putting sustainability KPIs into staff job descriptions

# PART 2 CASE STUDIES



Fig. 17

# NAVY PIER CHICAGO

## Introduction

Navy Pier, Chicago USA, is a visitor attraction hosting arts activity, entertainment, expos, food and drink on a waterfront location. It is a non profit organisation whose remit is to maintain and redevelop the pier, with 50 75 FTE staff and from 50 300 seasonal workers. The pier comprises a hotel, multiple outdoor stages, a convention space, museum, and many different retail, hospitality and leisure offers. It receives around 9m visitors per year and puts on a programme of over 250 public events.

Navy Pier celebrated its centenary 10 years ago, and having celebrated the first 100 years of the site, the organisation then defined the priorities for the next 100 years. In this process, sustainability was absolutely fundamental. The main aim for Navy Pier is to serve its community, and to engage with them, to make their experience fun. This is how the sustainability approach should work too, as it allows the pier to have a life long into the future. The Pier s tenants are independent and a future programme for the Pier may be to form a committee of tenants to consider energy initiatives across the whole site.

## Sustainability, Climate Change and Resilience Planning

The Pier has a lakeside location, and a number of waterfront-related climate risks were identified, such as water level rises in the lake and risks to the beaches. Extreme heat and extremely cold temperatures are also risks for the area, with the city's vulnerability demonstrated when extreme cold effectively closed the city for a period of days in 2019. The representative from the Pier also recognised Covid as a climate-related event. Similar to the conversation with Rotterdam, the representative from Chicago clearly understood the challenges presented by climate change, was realistic, and acknowledged that there is more to be done.

In terms of sustainability measures, the Pier's efforts are focused on the areas of: water and waste management; energy use; transportation; and the experience of visitors of the local environment. One aim was to consider how to use resources more efficiently. It was stated that the organisation was at a relatively early stage along the journey. Despite this, the organisation has made a number of positive steps, such as appointing a sustainability manager in the Fall of 2018, and works closely with tenants on the issue.



Fig. 18

Motivations to act sustainably derive largely from internal considerations, coming from a sense of duty to meet the local community's needs. There are some requirements that come from the city government for energy reporting and benchmarking, and the city has stated it is prioritising sustainability. There is no external funding to be had, however financial considerations are important because some sustainability measures can be cost-saving and drive efficiencies. Global frameworks for sustainability are important reference points, but the organisation does not formally report on these.

When it comes to public realm, the Pier is active in improving the sustainability of the site where it can (the roads in the area are managed by the city rather than the Pier). There is green space on site that is managed by the Pier, and artistic programming in the public spaces. Whilst there has been outdoor programming onsite for many years, Covid saw a shift in that people became more consistently to see the outdoor space as a destination in itself, including for activities like outdoor movies or yoga in the park. The team use data to manage and monitor water on the site to understand the effect that planting native trees had on water. Projects related to public spaces that aim to improve sustainability outcomes include:

- Development projects and strategies to improve storm water management and biodiversity
- Permeable pavers installed on sidewalks
- Redesigned outdoor space to bring in more trees and greening
- Development of empty spaces with increased planting
- Encouraging active travel and reduction in vehicles through: better signage for walkers and cyclists; bikesharing programmes; Rideshare and drop-off areas; live information about parking to reduce idling and emissions
- Stormwater management systems and stormwater used for irrigation
- Use of recycled concrete and locally sourced aggregate
- Tree tubs with local trees and native planting
- Social seating areas made from reclaimed wood and recycled steel



Fig. 19

## Key themes and learnings

### Taking a long-term approach

It was clear that climate change is seen as a crucial issue when planning for the longevity of the site. The approach of Navy Pier placed the current situation in historical and temporal context, celebrating the past 100 years of the site, whilst considering this longevity as a reason for working towards the next 100 years.

### Service to the community

The district aims to orientate itself towards its communities, and providing service to the community is a priority with sustainability is a way of meeting the needs of the community. Sustainability is also linked to visitors' experience of the site, and engaging with those visitors should be done in a fun and engaging way. Programming is a key part of this, and it can be effective in changing people's perceptions on these topics. It is the organisations' role to bring the tenants on board and engage with the public, in a way that feels uplifting.

### Challenges and constraints: finance

Funding was cited as the key constraint to undertaking more sustainability activity. For example, solar energy was a greater (immediate) cost to non-renewable energy, as it required a capital outlay and there is no funding for this – nor is there currently the space required. One of the achievements cited by the Pier representative was that they have managed to do a lot without spending too much. Whilst cost can be a constraint, sustainability was able to bring in cost saving, for example when it led to reduced energy costs.

### The future: importance of local leadership

The Pier is not politically a major figure in the city and has not got a great deal of additional capacity, but nonetheless it feels it has a role to play as a leader in the field of sustainability and climate change measures. Bringing tenants on board will be a crucial next step, as will more consistent communications with the public.



FUNDING IS ALWAYS THE PROBLEM. WE'VE BEEN ABLE TO DO A LOT WITH VERY LITTLE SO FAR, BUT THAT ONLY LASTS FOR SO LONG. AT SOME POINT YOU NEED TO REALLY MAKE AN INVESTMENT IN ORDER TO MAKE A BIG CHANGE.



## Green Initiatives

Examples of the sustainability initiatives Navy Pier Chicago is undertaking include:

- Energy use audits and reductions, including through retrofitting (e.g. LEDs)
- Improved recycling rates
- Changing procurement practices
- Communication with staffing, e.g. during Earth Month challenge
- Installation of beehives and green roofs, and communications around this
- Partnership with the One Earth Film Festival
- Has a 30 year sustainable masterplan, with target areas being: energy, water, waste, transportation and community.
- Sustainability advisory group and sustainability working group comprised of civic leaders, sustainability experts, environmental professionals, non profit board members and staff.

For construction projects:

- LEED where possible, or implementation of LEED standards
- Looking at energy efficiency
- Recycling of construction materials and waste
- The sustainable SITES initiative achieved a gold rating on this new accreditation system.
- Receives incentives from DCEO's ENERGY NOW initiative to retrofit and install new equipment

# QUARTIER DES SPECTACLES MONTREAL

## Introduction

The Quartier des Spectacles (QdS), Montreal Canada, is a 1k sq. area in the downtown which programmes 40 festivals across the year and contains 80 cultural venues including 30 performance halls, 100 shows a month, 8 public spaces, 5 art schools, 1 universities and 4 projection walls. The QdS team manage 9 public spaces in the area and have 30 full time staff and up to 70 casual or seasonal staff. The organisation is funded by City administration to provide artistic activity for the district, and receives other income from service contracts from events organisations and from in house productions.

The Board is the decision making authority for the organisation and has the responsibility for sustainability. The organisation is also implementing a number of measures due to decisions made at the operational level. There is some central government funding available for sustainability measures, and some funding related to Covid and the push to return to the downtown area post lockdown; this included funding for greening projects. It was noted that funding is more forthcoming for capital projects than maintenance; and shorter term measures more than longer term, scaled up measures.

## Sustainability, Climate Change and Resilience Planning

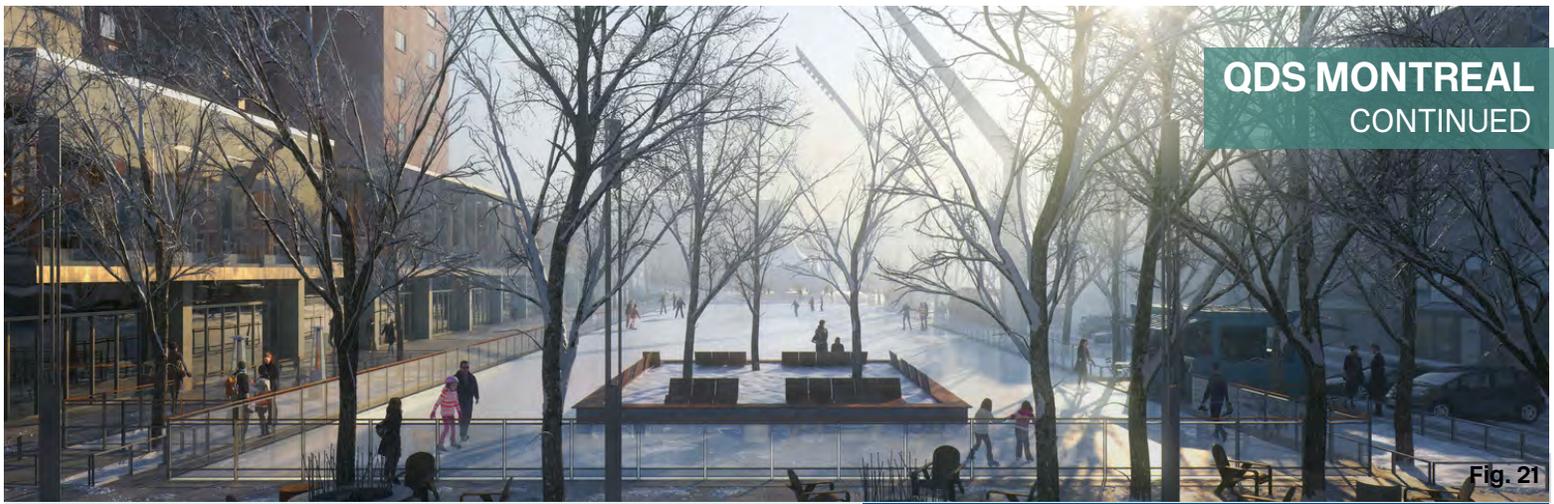
The city of Montreal faces a number of climate change-related risks, including rises in temperatures and increased rain. It is vulnerable to extreme heat in the summer and the urban heat island effect, as well as warmer, wetter days in both the summer and the winter. These changes affect the plans for programming in outdoor spaces in the district.



Climate change risk and sustainability measures are now a priority for the district, and feature in the next Strategic Plan for 2022-26 as one of the top priorities. The motivations for this are both internal – from staff and partners in the district; and related to external expectations, from the city and government, stakeholders, and the general public. The City of Montreal have a Climate Plan with specific goals, and there are national requirements for construction projects on issues such as water recovery, geothermal energy, heating and cooling systems. These have been included in the new building that has been designed for the latest public space to open in the district.

QdS recognises the professional responsibilities it has to make changes that meet the challenges of climate change, although it was acknowledged that the organisation is at the beginning of this journey. There were a number of challenges to be overcome that were identified. At the minute sustainability initiatives lie largely with the operations teams and projects; in future there should be a shift to Board-level engagement and ambitious goals. The main challenge is vision and goals, with a need to set ambitious goals and to have a clear, strong, statement about sustainability. Another challenge is active travel, with a specific local issue being a closure of a local subway station.

Despite this context of challenges, QdS has many ideas for future activities. There was a stress on the potential for partnerships, networking, and peer-to-peer learning with cultural districts on this point, such as: sharing goals, workshops and events about sustainability; and creating strong strategic partnerships. Partnerships should also be a method for working closely with local residents on green issues. It was stated that projects and initiatives needed to be more data-driven in the future, with evaluation and measuring combining with clear planning. Training was needed for the team. To make a real impact, sustainability should be included in all actions.



## Key themes and learnings

### Public space

The organisation manage and maintain publicly-owned spaces on behalf of the city. In the summer some roads are closed and programming takes place on those sites. QdS also build new public spaces, leading on the design of these spaces. The team work with greening programming partners for activity and design in the public spaces. The last public space to be built in the area, Esplanade Tranquille, has recently been launched. One space, Emilie-Gamelin, hosts urban greening and agriculture workshops, and has an installation for butterflies. Covid meant that the city tasked QdS with the remit of animating public spaces and using public realm to bring people back to the centre of town.

There is also a network of green roofs in the area, and new buildings are integrated into this network of green spaces. Engagement is a key part of programming relating to environmentalism in the spaces, with workshops and education activities about planting, identifying species, tips on plant care, and information on the benefits of trees.

### Communications + storytelling

The communication of sustainability projects and their purpose is an important part of the puzzle for Montreal. Targets should be transparent and visible to partners and to the public. Clear incentives to act are also important, as is behavioural research, to start to change habits. There is a real need for a narrative to change behaviour and habits, and storytelling about that transition is crucial. Environmental information should be made fun and informative.

### Programming

As a major part of the QdS role is artistic programming, this is crucial to thinking about the environment in the area. Key considerations include climate change, and the fact that outdoor programming is starting to be affected by the changes in weather, especially in winter. It was also noted that programming should be considered in the context of the changing demographic of the area which increasingly has more residents who need green open spaces for quiet as well as activity; there must be a good balance which may challenge the current mixed use narrative of the area. The means for this is to work much more closely with local residents in partnership.

## Research

**QdS undertakes research in partnership with Higher Education to innovate and to understand the benefits of measures. Two such research projects are:**

- A partnership with the non profit organisation Urban Agricultural Lab to investigate the network of green roofs and spaces to monitor urban agriculture, to understand what the herbs need to grow in a downtown context, via collection of live data
- Research into the benefits of the Urban Forest potted trees project in a partnership with a university, exploring the impact that the trees are having on heat levels, health and wellbeing, sound, and air quality. Data will be collected both before and after the implementation to properly understand impact. The research work is to understand how greening adds to resilience, wellbeing, and which trees are most appropriate for this task.

## Green Initiatives

**Examples of the sustainability initiatives QdS Montreal is undertaking include:**

- Trees planted in pots 84 in total. These are additional greening and also Hostile Vehicle Mitigation (HVM) measures to improve safety
- Green procurement and competitions for contractors, designers, suppliers which include requirements on issues such as recycling, sustainable materials, use of local suppliers
- Work with an Events Organiser partner to run workshops for organisations in the district about working in a sustainable manner
- Drinking water stations
- Recycling bins
- Plans to have composting facilities onsite
- Centre for sustainable development looking at new construction methods
- Focus on environmental crafts in arts programming
- Organising environmentally friendly festivals and events
- Created a platform for people to be able to share environmental tips for the home.

# DOWNTOWN BROOKLYN PARTNERSHIP

## Introduction

The Downtown Brooklyn Partnership is a business advocacy group that is an umbrella organisation of three Business Improvement Districts (BIDs) in downtown Brooklyn. The area includes organisation such as the Brooklyn Academy of Music (BAM), Mark Morris Dance Group, and the Museum of Contemporary African Diasporan Art (MoCADA).

The Partnership does not have agency in terms of owning or managing cultural buildings or organisations in the area; instead these organisations are members of the BIDs. The Partnership is responsible for managing the outdoor public space around the cultural buildings and it runs the outdoor programming in these spaces, including a calendar of community events. Its remit includes the management of four public plazas and streets, and cleansing in the area, and it is a leading voice on improving streetscape.

The Partnership is motivated to act in a sustainable manner due to the existential point of acknowledging the importance of climate change and its threats. The Partnership does not set its own specific sustainability targets, rather it has a sense of commitment within the organisation. The issue of costs was not a factor in terms of motivation, and it was noted that sustainability measures are often not cheaper to implement.

## Sustainability, Climate Change and Resilience Planning

The experience of Hurricane Sandy and the effect this had on New Yorkers loomed large when discussing risk management and climate resilience. After Sandy the city of New York has agreed a plan with sustainability a significant part. Risks that were identified by the Partnership tended to be disaster risks, such as flooding, extreme weather, storms ("nor-easters" in local parlance), and the effects of extreme weather events on transit systems in the city. The Partnership made it clear that the local community is well aware of the real risks of climate change and other environmental concerns and local support and awareness was forthcoming. A further challenge – and a focus for activity – was air quality in the area.



**Three areas of focus were identified by the Partnership, which were:**

### Public realm

This was identified as a huge priority. Measures have been put in place that include additional green landscaping for the purpose of both public enjoyment and to provide facility for storm-water runoff. The Partnership operates a block-by-block approach, making incremental improvements. An example initiative is the planting of 1,000 new trees. With additional greening measures comes a focus on increased biodiversity. There is ambition to increase the green tree canopy and green infrastructure in the area, which is achieved through a programme of planting, redesigning underperforming parks and open space, resulting in adding four miles of green infrastructure. A large study on public realm is currently underway which will include recommendations for further improvements.

### Active travel

The second key area of focus is to promote a shift from car usage to mass transit and active travel. The Partnership takes on responsibility of promoting the use of mass transit, cycling, and walking over car use. The knock-on effect of these measures is to reduce the numbers of cars on the road and parking in the area, which means that space previously taken by vehicles can be transformed into new public plazas and new open spaces are created. On this issue the Partnership is also advocating for cycle routes, cycle parking, and new busways with the City government, and the reduction in lax regulations on placard parking in the area.

### Clean energy

Thirdly, the Partnership highlighted the work they are doing as strong advocates of clean energy with building owners in the BIDs, and there were some successes in this work with all-electric buildings recently built.



## DOWNTOWN BROOKLYN PARTNERSHIP CONTINUED

Fig. 23

### Key themes and learnings

#### Governance + strategy

Downtown Brooklyn is a partnership-led organisation with this community the basis for governance and decision-making. The Partnership clearly expressed a sense of responsibility over climate change and related issues, understanding that this is a collective sense from the membership, who were highly aware of the issues and had signed up to the mitigation measures that are being implemented across the district. Alongside the community of members, a relationship with the City government is also crucial.

#### Public realm in Brooklyn

Downtown Brooklyn focused heavily on public realm, and has within its remit the responsibility for managing the streets and cleansing in the areas around the cultural venues. One of the key achievements cited by the Partnership was its success in making the streets cleaner and greener, and getting great feedback from the public and the membership for this work.

Although the responsibility for managing the streets lies with the Partnership, improvements must be undertaken through collaborative working, with local organisations, the City government, and the Parks and Recreation Department. Other partnerships that provide value are those with contractors and suppliers, such as the suppliers of solar-panel bins that have been installed in the area. The district also uses data in relation to planning public realm measures, including: traffic and pedestrian data; air quality data; and an inventory of trees and planting.

#### Challenges + constraints

No urban environment is without its challenges and Brooklyn identified a number of physical challenges such as the presence of underground utilities and lack of space that mean greening and planting is difficult. This has been seen with the installation of bioswales, which was not as extensive as originally intended due to the presence of infrastructure below ground.

There were also political challenges identified where it was felt that greater political and practical support from the City was required. This is a common theme that was noted across the interviewed districts. Lastly, a sense of frustration was expressed about effectiveness, and whether the measures that are being undertaken now are going to have a big enough impact to really mitigate the true impacts of climate change. Again, this was a theme expressed regularly in the research project across many of the districts.

### Covid Measures

The Downtown Brooklyn Partnership had undertaken a number of initiatives to respond quickly to the context of Covid. These included:

- Changing car park space into parks; which in turn expanded the public realm
- Installing new parklets
- Reducing car use
- An Open Restaurant programme which expanded dining and hospitality space out into roads and parking spaces
- Closing streets to create more walking spaces

### Green Initiatives

Examples of the sustainability initiatives the Partnership is undertaking include:

- Programming relating to sustainability is a focus. Examples include Earth Day celebrations, Bike New York programme, cycle awareness training, and artists work on environment issues.
- Recycling is promoted within district and in the office
- A push for pedestrian focused streets and active travel
- Cleansing
- Regular community events relating to sustainability
- Increasing green spaces, planting, and redesign of parks
- Streetscape practices focus on increased greening and biodiversity
- Partnership with the department of sanitation on composting outreach

# BETTER BANKSIDE

## Introduction

Located on the river in South London, Better Bankside is a Business Improvement District (BID), established originally in 2000 and with BID status since 2005. The BID is a non profit company and its membership includes 1000 businesses in the local area who pay the annual BID levy. The site of Bankside is a mixed area with businesses and arts organisations, around 7,000 residents and c.70,000 workers as well as millions of visitors. Governance of the BID is a board of members and local stakeholders that sets the strategy for the organisation. In addition there are theme groups comprising of members which design the programme of activities. The organisation's activities are highly collaborative with many projects being partnership based.



Fig. 24

## Sustainability, Climate Change and Resilience Planning

The main climate change risk in the area was identified as flood risk, due to the riverside location and rainfall. The BID has winter weather plans in place and has hosted events around flood risk for the business community, which aim to promote resilience and business continuity for members.

Sustainability has been an issue on the agenda for many years, and BIDs have long been advocates for measures such as reducing traffic, increasing active travel and improving streetscape. The 'co-benefits' of sustainability initiatives for high street environments are well established. There is a 5 Year Climate Action Plan in place, and in 2019 members approved, via a ballot, to adopt a '3 Pillars' approach to sustainability practices. The impetus for this focus comes from the members, who emphasise sustainability as an issue. In this, reputation is a key factor. The member businesses have aspirations and the vision they articulate goes into the planning process for the BID, for example the Tate Gallery has targets to achieve zero carbon. In addition there is motivation provided by external bodies, in the form of the Greater London Authority (GLA), the transport authority (Transport for London, TfL) and the local council (Southwark) who all have sustainability-related targets. These bodies also have funding available related to these targets that the BID can draw on, for example the GLA 'Good Growth' grant funded works for the development of railway arch space to house facilities for an active travel hub and low emissions street cleansing, and there was TFL funding for a green logistics and freight consolidation pilot scheme.

## Green Initiatives

Examples of the sustainability initiatives Better Bankside is undertaking include:

- Street design and street cleaning take the climate change agenda into account
- Procurement strategy for low emission waste facilities introduced; resulted in a contractor who exceeded compliance with the Ultra Low Emissions Zone
- Use of local supply chains
- Make choices to not partner with, or accept resources from, organisations that do not share the same values on this issue
- Climate Action Plan approved, which includes measures on efficient energy usage, waste, biodiversity
- The GLA business climate challenge (see box)
- Programming including walking and cycling initiatives, e.g. Dr Bike services for people in the area
- Subsidies for cargo bikes for members
- An arts project in partnership with the Tate Modern where young people curated an exhibition in the railway arches about climate change, to start conversations in the lead up to the COP26 summit
- Street clean up events
- Tree planting
- Use of pilot scheme approaches that have gone well
- Cycle parking and cycle lanes installed
- SUDs in the public realm

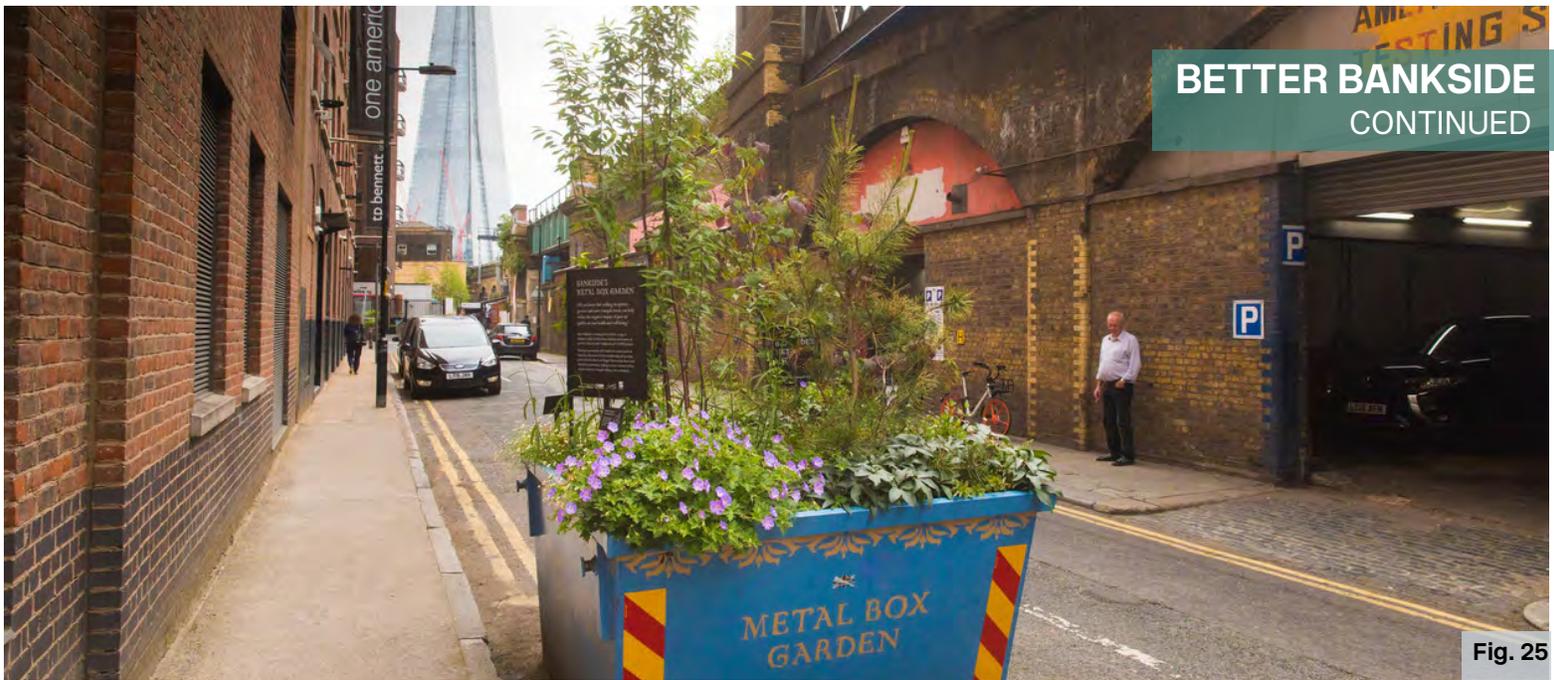


Fig. 25

## Key themes and learnings

### Stakeholders + partnerships

As a BID, Bankside operates in a manner that places partnerships at the forefront, and many of the projects are collective efforts. Incentives and leadership comes from the members, and the BID staff are good at marshalling support. There is a high level of stakeholder buy-in for the work. The BID also stated that learning from others is key, for example learning from the TfL partnership. There is also an aspiration for partnerships between different sectors, with the cultural sector teaming up with the technical on matters of sustainability (for example). Grassroots projects include engagement, for example during street tidy-up sessions.

### Streets + spaces

The BID focuses a great deal of energy on public realm and streets in its area. The organisation sees Bankside as a campus of buildings and spaces, and sees those public spaces as collaborative areas. As such there is a large focus on schemes to reduce vehicular traffic, such as promotion of active travel, cycling facilities, a freight strategy, waste schemes, and more. This has meant the introduction of progressive transport schemes such as the Low Traffic Neighbourhood scheme (LTN) which reduces through traffic significantly, which the BID campaigned directly for and assisted in resolving issues related to its implementation. It has also meant low traffic focuses on street design too, with a 'Healthy Streets' approach to design implemented that focuses on more space for pedestrians and more facilities, better air quality and increased planting and activity. It was also noted that public space was key to getting people back into the city during and after Covid, to the extent that the representative we spoke to declared that, "Public Space is the new Anchor Tenant".

### Urban forest

A significant means for working towards a sustainable future is the 'Urban Forest' initiative, which is the strategy for the improvement of the public realm in the area. Once the transport schemes are implemented, there is more space on the ground that can be given back over to people. The Urban Forest scheme includes increasing the level of space for people and for planting in the area, and an improvement of air quality, making the area better to walk in better connected.

## GLA Business Climate Challenge

This was a pilot scheme in collaboration with the GLA. The 19 participant businesses committed to a 10% energy savings obligation. A consultant was appointed to provide businesses with an energy data review, looking at issues such as energy expenditure, temperature, HVAC system, efficiency. A sizeable report was given to each, with a Display Energy Certificate (DEC) rating, along with clear guidance on getting better ratings and the payback periods for each measure outlined. Being part of the scheme meant a public recognition of efforts and contributions, which enhances the businesses reputations, indeed other businesses saw what was going on and wanted to take part. After the successful completion of the pilot, the GLA are rolling out the scheme across London, with Better Bankside selected as a partner for round two.

### Challenges faced

The BID has a Climate Action Plan, and a net zero aim. There was a sense that a number of constraints existed which presented real challenges to meeting these goals. Like a number of other districts, a key constraint was the gap between local ambitions and national policy, whereby national policy on many areas was not allowing for radical change. An example of this is the way that transport policies are set by national government in a country that is wedded to car ownership, and this clearly works against a local policy that aims to massively reduce car journeys and to decarbonise transport. Waste was another challenge, in particular the land use policies around waste consolidation and the deregulation of the waste industry which does not allow for proper integrated, local and sustainable services. Short-term occupancy in the area was also described as an issue in a context where there is no incentive for landlords to upgrade buildings to meet better sustainability targets.

# CULTURE MILE LONDON

## Introduction

Culture Mile is a partnership project between the City of London Corporation, Barbican Centre, Museum of London, Guildhall School of Music and Drama, and the London Symphony Orchestra. The district which houses these partners covers roughly one square kilometre in the City of London.

There are only a small number of FTE staff for Culture Mile, but the team can draw on expertise of the partners on a project by project basis. The decision making structure involves a Culture Mile manager, with decisions approved by a board, and policies and major projects approved through the established governance processes of the partners. Development of the initiative has been phased: the first phase saw the founding partners establish the area and activity; a second phase is now underway as Culture Mile is supporting the emergence of a new BID in the area in 2023. Strands of activity such as the learning programme, the public realm work will remain with the partnership after the BID formation.

## Sustainability, Climate Change and Resilience Planning

Culture Mile is located in an area of flood risk, and the City has identified flooding, higher rainfall, and the risks of the Urban Heat Island effect as key environmental risks related to climate change. In addition, the City takes a 3 Pillars approach to risk, being concerned with economic and social sustainability as well as environmental.

Sustainability measures are a priority, and the City has a Climate Action Strategy that is targeting Net Zero, sustainable growth, and climate resilience, and there are procurement guidelines that include sustainability considerations, e.g. on local suppliers and reuse of materials. There is Member-level political support for net zero, and initiatives are also driven by staff, for example the waste team looks at implementing recycling drives and circular economy measures. There is a procurement strategy in place that includes sustainability measures for suppliers. Within projects, the creation of KPIs for sustainability are tools to ensure decision making is based on realistic and measurable objectives; although there are not any sustainability related KPIs currently for Culture Mile.



Fig. 27

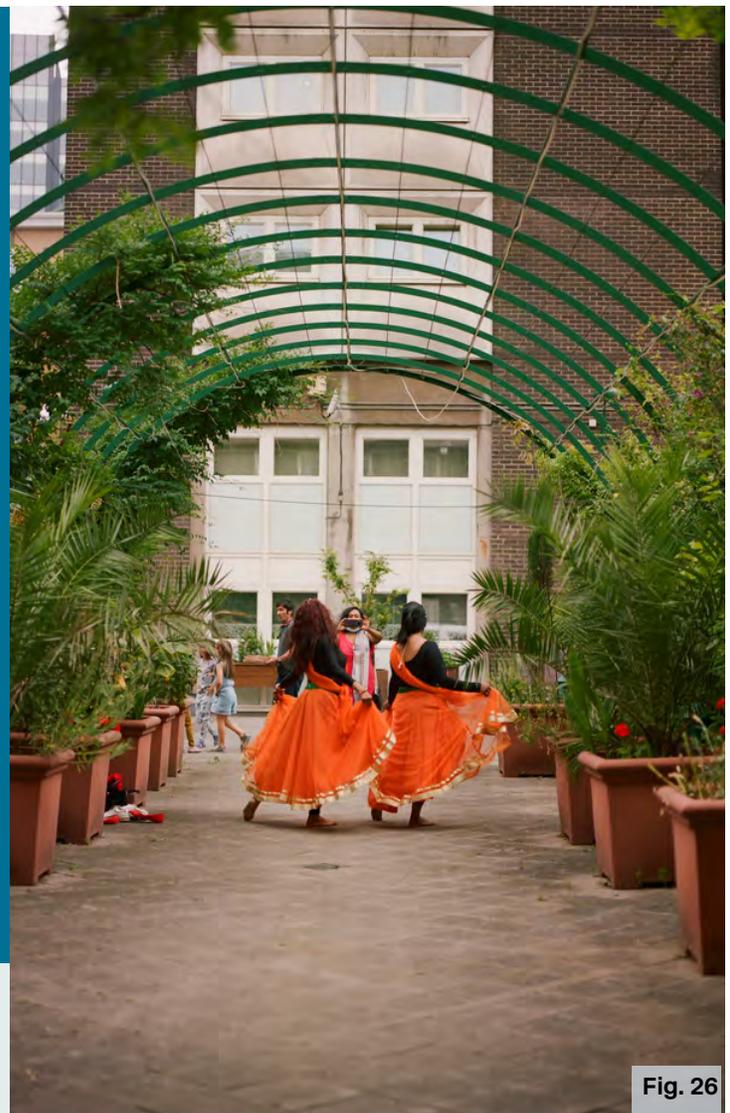


Fig. 26

## Green Initiatives

Examples of the sustainability initiatives Culture Mile is undertaking include:

- A major capital works project for the renewal of the Barbican Centre has begun which includes aims to improve the sustainability of the Centre.
- An experimental scheme that saw London's first Zero Emissions Street in Beech Street
- Repairs and replacement measures to city buildings over a number of years that include measures to improve energy efficiency
- CHP heating and cooling systems
- The Smithfield Public Realm project has workstreams related to environmental sustainability, including: encouraging active travel; materials recycle; street closures and reduction of traffic pollution
- Partners are looking at the carbon footprint of touring
- A key area of programming, such as through running a weekly artist led learning & craft project in a local café called Carbon Smart City & will be bringing green family workshops to a sustainability themed May Day event
- Local residents work as part of community led Friends group to improve the green spaces.
- The public realm team works with University partners to monitor projects including before and after data for water management

## Key themes and learnings

### Retrofitting and Reuse

A number of major projects in Culture Mile are using a circular economy approach, and aiming to reuse materials and retrofit old buildings. The Museum of London is moving to a new location that is a currently existing building, rather than demolish and build new. The Smithfield project includes objectives for being an 'exemplar' in sustainable design including circular economy principles. This includes an initiative to reuse granite setts in the building of new public realm. The Barbican Renewal project will see the listed building given a new lease of life with improved sustainability outcomes and the City has a stated ambition to redevelop the East and West Market buildings at Smithfield into a site of creative industries and food production.

### Collaborations with Non-Cultural Partners

An aim of Culture Mile is to connect culture with business. There is a 'thread of concern' about the sustainability agenda through the work of the partners, which includes businesses in the area. Sustainable Environment will feature as part of the BID to enable local businesses to prioritise planetary health and take collective action in response to the climate emergency. There are funds available via the Culture Mile business partnership for demonstration projects and events which include projects with sustainability as a concern. 'Sustainability Sessions' were facilitated workshops for the business community to identify innovative collective actions and long-term goals for the future BID's climate action plan. The 'Gaia's Garden' project (see feature box) was an externally-funded initiative that was a partnership of a local developer with creative programmers, brokered by Culture Mile.

### Strategic support

The City has a series of high-level, strategic statements and policies around sustainability that support the work of Culture Mile. These include a Transport Strategy that targets active travel and a reduction in vehicles, the Climate Action Strategy, and a new Circular Economy Strategy is being drafted. In addition a number of fundamental approaches have been taken, such as a shift to renewable energy sources and the use of a Central Heat and Power (CHP) system in the area.

### Programming & Communities

Culture Mile understands that there is a bold story to be told around culture and sustainability, with the cultural sector as the storyteller. Programming within the partners has included artistic and project-based responses to climate change. The Culture Mile communities team prioritise respecting limits of the planet, communities, ourselves, and aim to work with care and integrity, at appropriate scale and considering long-term consequences of actions. 'Sustainability' as a theme for work comes directly from the communities Culture Mile works with, and the programme aims to set up infrastructures which allow the ideas and interests of local people to be explored and developed. There is also a collaboration between the City and the Foundation for Future London at East Bank that is concerned with diversity and inclusivity in outdoor spaces, looking at the social sustainability of public spaces as democratic and welcoming sites.

### The 3 Pillars Approach

As well as the environmental and socially sustainable measures outlined above, the City, as a global financial hub, is concerned with economic sustainability. This permeates through the work of Culture Mile, which looks to connect closely with local businesses and focuses on bringing investment to the area, and brokering partnerships that allow for creative activity to take place and to be long-lasting.

### Gaia's Garden

Gaia's Garden was a meanwhile community urban garden that opened to the public in July 2021, situated on Holborn Viaduct. The garden was built and programmed by creatives and volunteers, creating a new vibrant, inclusive, grassroots space that enabled communities to engage with sustainable practices and reconnect after lockdown. Culture Mile brokered the relationship between the creatives and the real estate company who provided the derelict space to transform.

Gaia's Garden is a good example of cross-sector collaboration to reach wider audiences and develop sustainable spaces. The dynamic sustainability focussed programming enabled meaningful community engagement and greater awareness of climate issues in addition to providing much needed green space during Covid restrictions.



Fig. 28

# 7 SQUARE ENDEAVOUR

## Introduction

7 Square Endeavour in Rotterdam, Netherlands is unique in the districts that took part in this report in a number of ways. Firstly, it is not one but two organisations working together, one of which is entirely devoted to sustainability; and secondly, it is much further along the journey towards a sustainable existence than the others, having been working for 12 years on the sustainability programme. The first organisation is an association for programming a public square in Rotterdam with cultural organisations around the square and other members such as the city and the market. The square itself is the roof of an underground car park and the organisations around it include a theatre, church, cinema, café, concert hall, school of the arts, and film festival offices. The second organisations is a group of the same organisations that manage the sustainability aspects of the square.

In terms of governance and decision making, the municipality owns the buildings and the square, and the decision making group is a Steering Group of partners that act as a board and have a mandate from their organisations. The partners were described as a 'Coalition of the willing', and they have an agreed statement of intent. The Chairman is a partner from the energy sector. A programme team manage the projects, which are implemented by the partner organisations. The motivations of the organisations are ultimately social, as they wanted to create better spaces for people. A key part of the activity is to ensure that sustainability measures are not simply 'greenwashing', but instead are holistic, integrated and fundamentally embedded into everything the organisation does.

## Green Initiatives

Examples of the sustainability initiatives 7 Square Endeavour is undertaking include:

- A cyclic/ circular economy approach to rainwater; so rainwater is collected drained into a tank, and is used to water the green rooftops. Water from the tank can be used in times of drought. It then can go back into the ground or to the river without needing to use the city's drainage system
- There is increased biodiversity through a green rooftops scheme
- Redevelopment of the square: added greenery; bicycle parking in the car park; pedestrianised the square; added trees
- Received a subsidy for an energy programme from the city on the basis that we make a blueprint for our experience elsewhere
- Partners in the major project to redevelop the square in conjunction with the city's project to mend the leaking roof of the car park
- Series of green rooftops on local buildings
- Executing the energy plan



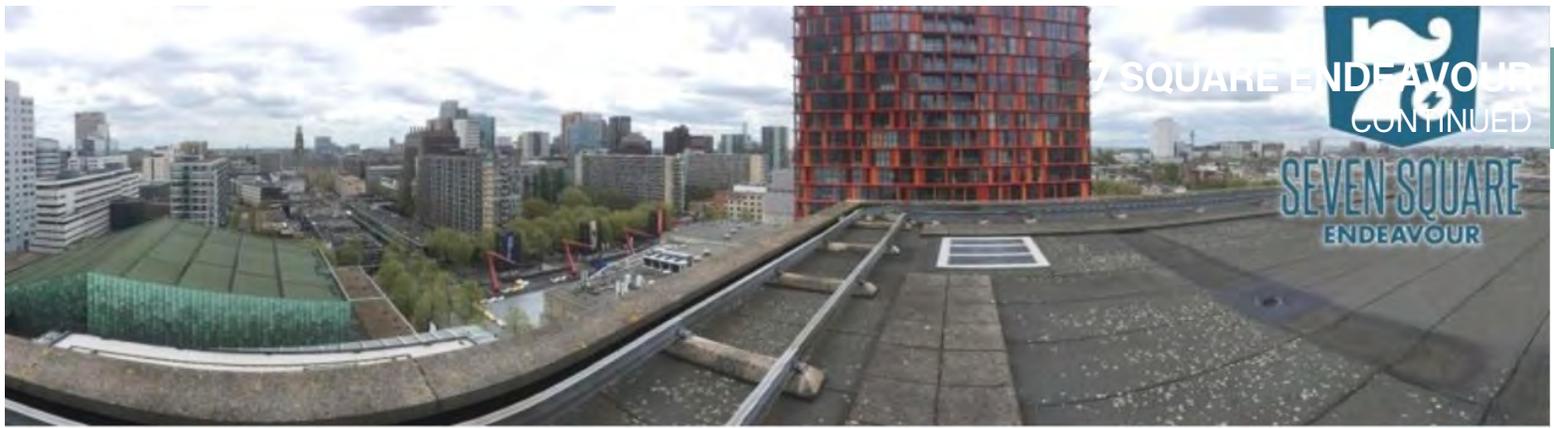
Fig. 29

## Sustainability, Climate Change and Resilience Planning

The key risks identified by the organisation relate to flooding and rain. The risk of extreme rainwater was demonstrated in 2014 when a level of rain fell that had previously been predicted for 2040. Risk of flooding is further exacerbated by the fact that drainage is at capacity and there is a lot of hard landscaping in the area. An additional related risk is the effects of warming of the climate.

The key driver in sustainability measures is that the cultural organisation wants to contribute to the local community, and sustainability is a key way to do this. It was noted that international targets such as the Paris Agreement are less of a factor: although they have been translated into national goals by the Dutch government, they target reductions in emissions by 2030 which is seen as too late by 7 Square Endeavour. The representatives from Rotterdam instead said that their approach is more grassroots from the partners, and that cultural districts have a different role to play as they are not motivated by profit ('they have not got skin in the game'). They can also reach out and engage with others. Once this first set of partners was established, commercial partners joined later; they saw the commercial and reputational value of the programme. Constraints to the programme include shifting public opinions, and politics, as well as the physical constraints of space itself.

The public space is the heart of the district and of the environmental programme. When the team started it was a mess, and the organisations got tougher to attempt to improve it. The city agreed to fund the project once they saw that the organisations were serious and would also put resources in. As the programme grew, bigger issues were tackled. Opportunities are taken when they come along to scale-up projects and make them more sustainable. The redevelopment of the square now will include measures such as adding greenery; bicycle parking in the car park; pedestrianisation of the square; and planting new trees. In addition new energy infrastructure was built in to 'future-proof' the site, so that digging up the street is avoided when access is needed to the utilities.



## Key themes and learnings

### Adopting a radical mindset + approach

It was clear that 7 Square Endeavour had completely embedded sustainability into all thinking, in a holistic manner. The mindset was to prioritise sustainability across all activity. The team stated that they were able to do this because they were not profit-driven, and worked in a grassroots manner. They felt they are able to be the 'conscience' of the programme. They also stressed the importance of 'co-creation' and ownership within the programme.

The district is at a very different point in the 'step-change' from making small initiatives to a fundamental shift in thinking; indeed this idea of a 'step-change' is almost irrelevant as the district has been doing things differently altogether from its origins. They estimated that small measures could only reach 20% reduction in CO<sub>2</sub>, so ambition had to be comprehensive. They have had a sustainability approach embedded from the outset, with an entire organisation just for sustainability. In this work a key motivation is to maintain interest among members over time, and engage with people as old members leave and new ones come in.

### Leadership & Partnership

The team stressed that leadership involved gaining stakeholder buy-in, and creating partnerships with key players in academia, industry, and government so that the initiative has partners with agency and profile. These included TU Delft and the national waterboard. Importance was placed on being able to act – and lead – on matters when windows of opportunity were seen, for example when the roof was leaking a project was initiated to repair it, the team saw an opportunity: they undertook research about how to make this sustainable and how to integrate that into the wider project. After canvassing local opinion the initiative became city-driven, and was taken on as a part of the repair works.

## The Rotterdam Story

Given that the square has an embedded approach to sustainability, a short summary of that story is given here:

- The organisation realised in 2009 that if you want to make a building 100% green it is impossible without the including the area around the building. It needed a local scale.
- They were inspired by Imagine 2020, a programme at London, and the work of Julie s Bicycle.
- They instigated the second organisation, which they could do because the first existed already they already had the association of different organisations
- The first year of the process was all planning, the team did not start implementation until the second year. This planning phase was crucial: all projects later came from this strategic, holistic, approach.
- In the second year, three strategies were set out, all with their own projects attached, covering the fields of water, energy and spatial planning.
- All principles and projects for the first 5 years were defined and partners to own them set out
- Being a theatre, they were able to inspire people. Big steps were taken up front and there were high stakes at the beginning. This meant that later, significant companies and organisations got in touch with us to ask us to join as it served their reputations to be involved with a front runner project

### Integration of buildings, public space, systems, infrastructure

The concept of integration is fundamental to the project, which takes a holistic approach to the site. The origins of the programme were in realising that buildings could not be sustainable on their own and that the public space needed to be integrated into thinking. It developed to include a network of green roofs and a circular approach to water. This includes making sure that infrastructure is future-proofed, for example in the way that utilities channels were provided to avoid future digging up of the site.

# ONASSIS STEGI ATHENS

## Introduction

Onassis Stegi is an arts centre in Athens, Greece, comprising theatre auditoria and workspaces, exhibition hall and open space. It is a non profit division of the Onassis Foundation, and has c.130 FTE and around 30 seasonal employees. The mission of the organisation is to provide cultural content and to improve quality of life in their local community. The programming is contemporary and reflects locally relevant issues, and aims to be accessible through pricing policy, education activity, and outdoor programming. Governance is formed by a Board and management, who are pushing for greater involvement of sustainability measures in practices at Stegi.



Fig. 31

## Green Initiatives

Examples of the sustainability initiatives Onassis Stegi is undertaking include:

- Programming including collaborations, e.g. with Julie's Bicycle (an organisation that promotes sustainable practices in the cultural sector)
- Implementing a green procurement policy
- Switching energy supplier
- Working through technical requirements with artists, e.g. waste, energy consumption
- Looking to gradually reduce overseas touring, so to reduce emissions for flights
- During Covid, a digital programming climate culture talks series online
- Sustainability symposium, which examines the role the culture sector can play for environmental sustainability
- A cross departmental team has been set up of volunteers to implement the sustainability programme



Fig. 32

## Sustainability, Climate Change and Resilience Planning

Like other cultural organisations we spoke to, a key risk that was identified was reputational risk. As in Greece in general, it was stated that the environmental risks of climate change are now becoming well understood. Although summers were hot in Greece this had not been considered a risk to this date.

The motivations are largely internal, as there are no specific targets set by the government or guidance for the cultural sector. Stegi does see the climate crisis as the key issue facing society today and so set out actions to achieve around waste, emissions, and communicating issues to stakeholders and audiences. This was largely a management decision. Cost efficiencies were not a factor, and it was noted that sustainability measures can be expensive.

Sustainability had been at the forefront since a sustainability programme was agreed 4 years ago, with guidance from Julie's Bicycle. The types of measures that are being put in place include sustainability roles within job descriptions for staff, and establishing green KPIs and monitoring for these. The representative we talked to spoke about the importance of reporting data related to green measures. The framing of measures was taken from the UN SDGs and therefore integrated social and economic sustainability with environmental sustainability. It was acknowledged that there is much more still to be done in terms of achieving a sustainable approach.



YOU HAVE TO START BY BUILDING A MOVEMENT INTERNALLY IF THERE IS TO BE ANY CHANCE OF GETTING ANYWHERE BECAUSE THINGS DEPEND ON PEOPLE, OUTPUTS DEPEND ON PEOPLE AND THEY HAVE TO REALLY FEEL THAT IT IS AN ISSUE





Fig. 33

## Key themes and learnings

### Target setting + reporting

The issue of setting targets, reporting and accountability for meeting the targets was discussed throughout the interview. The organisation was entering into a period of setting a full sustainability strategy, framed by a '3 pillars' approach. Internal target setting was seen as being the crucial next step and highly important for responsible governance. Clear KPIs are due to be established to assist the organisation with meeting targets. The organisation is receiving external guidance to build the KPIs (including global datasets) and establishing ways of accurately collating the correct datasets for these purposes. Targets should be measurable and quantifiable data should be feasible to be collected for monitoring purposes. The concepts of accountability, accuracy, and transparency were all raised and seen as crucial to this process. There was a sense that this moment now of target setting was a moment of progress and of a push towards a greater goal on sustainability measures for the organisation.

### Challenges

As with the majority of the districts in this study, Onassis Stegi described a number of challenges; although it was noted that further challenges would no doubt become apparent as tougher targets are imposed. A political point was made, that sustainability not as highly valued as economic prosperity – something that is clearly a challenge for most places. A more specific challenge to Greece and Athens is the limits to green infrastructure and green suppliers that have been experienced by the organisation. There was, until very recently, very few green suppliers and limited choice in terms of waste disposal, energy, and there are also limits to the extent of public transport available.

## Public Realm

Onassis Stegi was an interesting example for public realm, as it does not own public spaces, and so its work to improve its local area is done in partnership exclusively. The initiatives it is working on for the public realm include:

- A project to improve a local freeway area that is being undertaken by a network of local organisations. The freeway is key space locally that is 4k long and dissects the city
- Greening and planting projects including a green roofs initiative
- Undertake programming such as exhibitions in local green spaces
- Taking an active role in local public spaces, and making improvements to them such as local basketball courts
- Works in partnership with municipality on projects

### Looking to the future

Moving forward the organisation is looking to progress a sustainability agenda that includes a programme of refurbishment of the spaces within the building to be greener and more efficient, and an effort to undertake more collaborations with external organisations on this matter. Questions were asked about touring practices such as use of airlines and trucks and how these might be adapted to become greener in a context where public transport is not necessarily a viable alternative.

The City of Athens have appointed a 'heat' officer to look at climate change, and this is seen as a good catalyst for improvement within the local context. The EU green deal was also cited as relevant context for the organisation. Overall, there was optimism about the organisation's ability to adapt.

# WEST KOWLOON CULTURAL DISTRICT

## Introduction

The West Kowloon Cultural District is a 40 hectare reclamation site in Hong Kong. The site includes performance arts venues, theatres, tea house, the M+ Gallery, Hong Kong Palace Museum, cinemas, food and beverage, and accessible open spaces including the Art Park with an outdoor arts pavilion. The district is unique in the case studies included in this report as it is an entirely new site, indeed as reclaimed land the area was part of the harbour in the 1990s. The buildings for the cultural district are being constructed simultaneously to the infrastructure to the area, with railways, plant, vehicle access and more underneath the site being built. In some cases the rooftops of the railway tunnels are directly below the building work for the cultural district. This context is a highly complex major project that in itself presents a risk to the programme as a whole.

The site was designed first via a masterplan that was created in 2012, which set out a vision for the district including the waterfront, city, and park. The cultural district and public spaces are the above ground focus, with vehicles and deliveries underground. This geographical context of a local railway station and ferry landing means the district has good accessibility via public transport.

In terms of governance, the district is run by an authority set up by the government with a high degree of autonomy. The capital works to develop the district are fully funded by the government, and for the ongoing costs the district needs to be self-sustaining financially, with a business model of commercial development being used to fund cultural activity.



Fig. 34

## Sustainability, Climate Change and Resilience Planning

There were a number of environmental risks identified for the site, largely relating to the geography of a coastal site in a context of climate change. The risks include rising sea water levels, surges, and flooding. The cultural site is built above sea level, but the infrastructure is built below this so may be more vulnerable to water-based natural events. In response a number of risk mitigation measures have been included such as seawalls and studies looking into flood protection. Capital building related risks, such as delays, construction issues, site complexities, and capital finances were also highlighted. The district representatives also highlighted a risk of lack of funding – common to most of the districts we spoke to.

The district prioritised sustainability in a number of ways, for example through working towards buildings standards for sustainable design, such as gold awards in the Hong Kong system 'BEAM plus'. It is a member of a Green Building Council, whereby the project is registered with the society's building department and measured by them. There is a major incentive in Hong Kong to receive BEAM certification because the city awards Gross Floor Area (GFA) concessions based on this, which means the commercial side becomes much more attractive to developers. In turn this means that sustainability measures are highly incentivised in Hong Kong.

Alongside these targets and measures that are being met, it was also noted that the Hong Kong government had set target of carbon neutral by 2050. There is also a high level of public expectation to act sustainably. Internally, there is a working group on sustainability that considers these matters. The site benefits from extremely good connectivity, so can be accessed by rail or boat to facilitate a mass transit rather than car use.

Constraints to meeting sustainability goals included specific conditions required by cultural districts, such as the need for the M+ gallery to be a climate-controlled space, so requiring the use of air conditioning, which makes energy standards difficult to meet. Funding is a huge challenge, and there is a gap in terms of the funding available and that required for sustainability measures. It was noted that value engineering is an issue, whereby sustainability projects can be scaled back or taken out when cost savings are required.



Fig. 35

### Key themes and learnings

#### Certification

West Kowloon district is being built in an era when sustainability is a key watchword for capital projects. A key focus of the conversation was about certification and ensuring that building work meets recognised standards for sustainability which ensure that internationally-recognised targets are being met and monitored. Hong Kong has a certification system called BEAM Plus that includes measures such as water, energy, facilities management and has a community element; and the West Kowloon development is targeting gold awards in all the buildings. Interestingly, the district is also part of a pilot scheme for a Neighbourhood-wide BEAM certification, which is now being expanded across Hong Kong. Examples of the types of design measures put in place include: creating shading to improve microclimates; greening; solar panels and solar thermal water; building in the use of rainwater for irrigation; district cooling system.

#### Public realm

Public realm is absolutely key to the district, not least through the Art Park, which programmes work that brings the park to life. The open spaces in the district amount to 23 hectares of open space, and they welcome 16,000 people per day. This type of outdoor space had not existed in Hong Kong before so it is a new facility for residents. Notably, the Park was the only venue open for people during Covid, which really emphasises just how valuable these spaces are for social ends. The technical details of the design of the park and its planting were discussed, including the use of different grasses, planting, and species and the effects of these (e.g. to provide habitats and biodiversity) and their relative successes. The original turf that had been laid needed to be re-laid after high footfall meant it became degraded; now there is a balance of hard and soft landscaping and the grassed areas are being more actively cultivated, including choosing different species and closing certain areas at certain times. This balance between hard landscaping required for large volumes of foot traffic and the desirability of grass and planting is a challenge for many cultural districts. Over 3,000 trees have been planted, although it was noted that it is early to comment on their success. The park is also used for water retention and is part of the city's drainage system.

#### Data + monitoring

Alongside energy standards, West Kowloon was also interested in other forms of data monitoring, and is working with the city to set up an onsite observatory for data collection which can be useful for the whole city. Data that is collected includes the indoor temperatures, outdoor wind conditions, humidity levels and more, with climatic conditions of particular importance given the site's coastal location. The site uses BEMS technology to monitor and control conditions. It was also noted that further work on KPIs specifically looking at sustainability in a comprehensive way are required for the future, such as targets around waste, water and utilities. Some additional sustainable infrastructure is being retro-fitted into the site, such as solar panels. A contract for ESG reporting was about to be awarded.

#### Benchmarking

The representatives from West Kowloon recommended in particular that benchmarking should be undertaken against other districts and plans that are the best in terms of sustainability across the world generally- not just against other cultural districts. Other sectors where there have been excellent examples of well-designed spaces, parks, and masterplans, such as the tech sector, are the places that the district is keen to measure itself against to learn from the best from a range of sectors. It is also important to benchmark against campus environments or neighbourhoods, understanding that the task is not just to run a cultural building or set of buildings, but a whole area.

### Green Initiatives

Examples of the sustainability initiatives West Kowloon is undertaking include:

- Bike hire scheme
- Water bottle fountain
- Energy savings
- Use of solar energy
- Use of raw materials
- BEMS tracking energy use and waste data
- Awarding a contract specifically for Environmental, Social and Governance (ESG)
- Have an internal working group on sustainability
- Programming about sustainability includes performing arts and community activities, an educational programme and a commercial programme

# ARTS CENTRE MELBOURNE

## Introduction

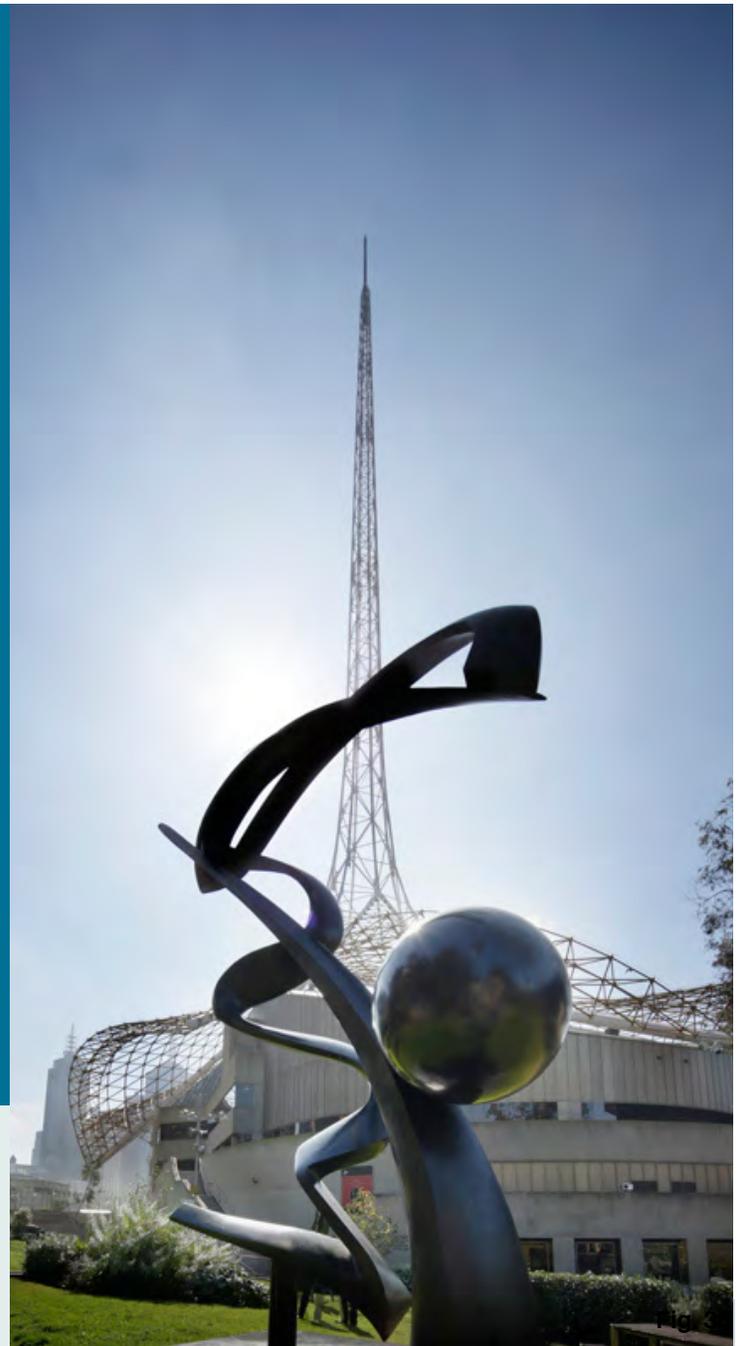
Arts Centre Melbourne is a campus of three venues, in a 40 year old building on the banks of the Yarra River. The Theatres building has three auditoria, along with the music hall (the Hamer Hall) and the Music Bowl, an outdoor music venue in the botanic gardens. The arts centre includes four resident companies, and a range of arts are performed including theatre, opera, dance, ballet. The purpose of the performing arts centre is to make arts accessible for the people of the State of Victoria. This is established in an Act. The architecture of the centre presents a challenge as it is built 2/3 underground, in a bed of ground near a river and so is not particularly stable; any large capital works therefore need to be enacted in this complex environment.

The National Gallery of Victoria is next door, which shares plant and electricity with the arts centre governed by an MoU. Alongside the governance of the individual institutions, there is a governance layer for the wider the Arts Centre Melbourne area, called 'MAPCO'. Outside of the precinct there is a number of smaller other theatre and arts spaces nearby in a secondary 'outer ring' of arts venues, although there is not a formal governance arrangement with these, but rather a set of partners to engage with.

## Sustainability, Climate Change and Resilience Planning

Under its transformational 'Reimagining Arts Centre Melbourne' project the organisation has set a target of reaching net zero. Climate change and environmental sustainability form an important part of the operations at Melbourne. The 'Reimagining Project' – a major capital works programme is looking at changes across the campus that incorporates the precinct's sustainability goals and will bring significant benefits. The centre has also implemented energy and resource saving measures with short- and medium-term payback periods. These include an energy audit, refitting plant and equipment, and the comprehensive use of LED lighting. It was noted that these measures are now largely completed and a move to more significant measures is the next step.

Motivations to act sustainably come from both internal and external sources. The use of targets is an important motivating factor for the centre, which is actively targeting zero in emissions, i.e. carbon neutral operations. There is state-wide impetus for sustainability as well, with a 'Creative State' strategy and the Whole of Victorian Government emissions reduction pledge.



The State government provides funding that can be channelled to sustainability projects. Decision-making on sustainability issues comes through channels such as the decisions on procurement guidance, and a new energy contract is due for procurement soon with proportion of energy from renewables a key part. The Arts Centre Melbourne is also experiencing an increased awareness and demand from promoters, hirers and performing partners to achieve environmentally sustainable performances.

“ WHAT WE ARE MOVING TO IS A SUBSTANTIAL STEP-CHANGE, SO WE'RE NOT JUST TALKING ABOUT AN UPGRADE OR TWO, WE'RE TALKING ABOUT A VISION THAT WILL DELIVER A COHESIVE ARTS PRECINCT ”



Fig. 37

## Key themes and learnings

### Fundamental shift in practices

A number of the districts we spoke to were considering a shift from a phase of sustainability measures that are easier to achieve, to a fundamental rethinking of priorities. Melbourne is a particularly good example of this, in that it is at exactly that point of the step-change moment with its new 'Reimagining Project' of capital works with targets/ KPIs attached. It was stated that ambitious targets in particular are required for this type of move. The capital works include sizeable civil engineering that are being funded by the Victorian State Government.

Essential to the masterplan for the precinct is the vision that extends beyond the term of political cycles, recognising that the ambitions for the precinct will be delivered over the next decade. Leadership at all levels is critical to this path, along with collaborative partnership between the arts agencies, State Government and ultimately the relationship with the people of Victoria and the many visitors the precinct attracts.

### Local empowerment

An essential ingredient to the delivery of sustainable outcomes is local empowerment, and grassroots efforts of a more sustainable cultural district. Melbourne acknowledges the importance of First Nations ownership, of engagement by staff and local people, and the use of local suppliers as all being important in the community-led dimension of sustainability practices.

### Public Realm & MAPCO

The Melbourne Arts Centre had joined up with local cultural organisations to create the Melbourne Arts Precinct (MAPCO), so sustainable measures can be implemented on a larger scale, taking in the local context. The MAPCO redevelopment is based on bringing the whole local area together, knitting the buildings together through public space across a 18,500sq m area. This will have natural areas with indigenous landscape. The masterplan includes measures like joint central plant services for the different buildings across the area which will deliver efficiencies and reduce consumption. It means a development of increased public realm, which will stress increased greening and planting and a change of use developing roads into public spaces.

## Green Initiatives

Examples of the sustainability initiatives Melbourne Arts Precinct is undertaking include:

- Sustainable KPIs part of the Reimagining capital project
- Targeting 5\* in Green building star ratings
- A precinct wide plan for the public realm. Currently the area is part roads, part public space, and the overall aim is to consolidate and knit together these buildings
- Masterplan shows these knitted together with an indigenous landscape
- Lots of public open space, areas to be activated. Working with an architect on the masterplan currently.
- Have a green team of volunteers in the organisation who enact initiatives, e.g. on biodegradable packaging, removal of single use plastic, maximising recycling, some water initiatives
- Work with a First Nations business to supply recycling paper
- Other initiatives run via the facilities team, e.g. more efficient building services through use of BEMS

# HOTA GOLD COAST

## Introduction

Home of the Arts (HOTA) is a cultural precinct of 17 hectares in the city of Gold Coast, Australia. It comprises an arts centre, gallery and outdoor stage within parkland, surrounded by the Nerang River. Built originally in the 1970s and 80s, there is now a masterplan for the building of the wider precinct area, a process which began in 2012 and now is in the capital works phase. The outdoor stage was opened in 2018 and a new pedestrian bridge development followed that was in place in 2020, along with a new HOTA Gallery in 2021.

The organisation HOTA is a local government controlled and funded entity, owned by the City of Gold Coast, and the regional government buildings are on a site next door. The organisation has a board that is autonomous, appointed by the city and a management team, and these three layers form the governance structure and are the decision makers for sustainability and climate related matters. The representative we interviewed also described a need for there to be greater ability to empower staff when it comes to sustainability measures.

HOTA sees sustainability as a key part of their responsibility, particularly because one of the organisation's five core values is that of 'citizenship', and ultimately climate change measures are enacted to contribute to the community. There are passionate team members who are driving the agenda, for example a hospitality staff member being a keen advocate for recycling, and team members championing the end of single use plastics. In a wider context, the City of Gold Coast has a good Ocean Beaches Strategy which demonstrates the emphasis the city is placing on its environment. However, it was also clear that HOTA is relatively at the start of the journey towards a sustainable existence.



Fig. 38

“ THE THINGS THAT WE HAVE MANAGED TO IMPLEMENT AS AN INSTITUTION [...] HAVE REALLY BEEN A CONSEQUENCE OF SOME PASSIONATE TEAM MEMBERS WHO HAVE REALLY DRIVEN THE AGENDA ”

## Sustainability, Climate Change and Resilience Planning

The risks identified for this area were environmental, in that the site is coastal so susceptible to coastal-related environmental risks, and built within parkland; and also reputational, with a key issue being that audiences and communities want a focus on sustainability and failure to do this would constitute a threat. The city as a whole is reliant on the natural beauty of its environment, and lifestyle, tourism and hospitality are the focus of the city's economy. The site of HOTA is in parkland and has views of the lake, beaches and rainforest. Climate change therefore poses a risk to this entire economy if it threatens the natural environment in Gold Coast. An emphasis was placed on HOTA being at the start of the journey in terms of large-scale thinking and action on sustainable development. A new Strategic Plan for 2021- 2024 has been approved and focuses on sustainability, demonstrating awareness of the issue and a commitment to it for the future.

## Green Initiatives

Examples of the sustainability initiatives HOTA is undertaking include:

- With the City there is a focus on active travel
- Creation of a green bridge to create a pedestrian link with the local mass transit system for easy non car access
- Bike storage facilities
- Sustainability professional development days for teachers
- Programming related to climate change is limited, but there are some examples such as an Environmental impact doctest



Fig. 39



Fig. 40

## Key themes and learnings

### Limits, constraints + challenges

There was a realism to the conversation with HOTA, an understanding of the challenges that were being faced and the constraints that limit large-scale action on sustainability, which is something that was echoed by a number of the organisations we spoke to. Challenges include a lack of resources, a lack of staffing, and a lack of space. It was stressed that staff are already working to capacity – a common theme in arts organisations. The organisation does not receive funding from any external sources for sustainability initiatives. There was also a conversation about lack of autonomy and lack of agency (with the site and buildings being city-owned) that could lead to frustrations and a limit to how ambitions could be realised.

Another challenge is a disconnect between policies and aims of the organisation, and those of suppliers or contractors who might work to different standards, for example the waste contractor whose practices are not as pro-recycling as the team at HOTA are advocating for. Design had also been highlighted as an area for improvement, for example in the design of the public realm which had a planting scheme that was not successful and needed replanting; or design of the gallery that has not included solar power and is heavily reliant on air conditioning, which in turn creates a financial burden due to energy costs. Decision-making processes are crucial in these contexts; but so are more structural issues like better, stronger legislation that is serious about climate change. It was acknowledged that systemic change was really needed to meet the challenges of climate change, but that policies and processes in place: in HOTA; Gold Coast; and wider, may not yet be in place to facilitate this.

### Natural environment, lifestyle + geographic context

For Gold Coast the city's USP is about natural beauty and a good lifestyle. The city's strategy and its competitiveness relate to this. For example, the city has an Ocean Beach Strategy. HOTA is not just a collection of buildings but open spaces too, and the importance of these was demonstrated during Covid when the public used these spaces as recreational areas. The organisation recognises the importance of conservation and in particular the fact that the land has Traditional Custodians from the indigenous communities in the area, so works with indigenous communities on land conservation approaches and design. There was concern expressed about extreme heat in the open spaces, with areas of shade being rare and this may have a negative impact on audiences during outdoor concerts and events.

### 'Grassroots' approaches

At HOTA, sustainability measures had largely been bottom-up so far, coming from the staff who are enthusiastic and drive the agenda. Staff members like the café manager have enacted steps like recycling and reduction in single use plastics. A next step is to create a step-change that also brings in strategic top-down leadership too; and empower staff to be able to bring in further measures.

### Strategic plan + the future

Despite the various challenges and constraints, it is clear that there is a movement now to focus more specifically on sustainability at HOTA. There is a much greater sense of understanding the challenges ahead now. There have been lessons learned on public space, design, building design, and planting schemes. A new Strategic Plan is coming in and is the focus.

Design of the new performing arts centre is key, this will move to design phase soon. HOTA must work with indigenous communities and go back to the land to conserve it, understand it and learn how to live on it sustainably. In the future, more support from the city is needed for sustainability measures, and stronger legislation is required with clear targets and clear rules about issues such as design and construction.

## Covid

**Covid had a huge impact on HOTA, not least in the use of the open spaces in the district:**

- The site has an outdoor stage, so this could be used and it meant HOTA was one of the first venues to reopen
- Socially distanced events were held outdoors
- Recreational use of the site for other means grew in this time, meaning new visitors as people used the spaces for outdoor exercise
- However, Covid did slow some progress, for example reusable cups are no longer used and the pandemic saw the return of single use plastics

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