



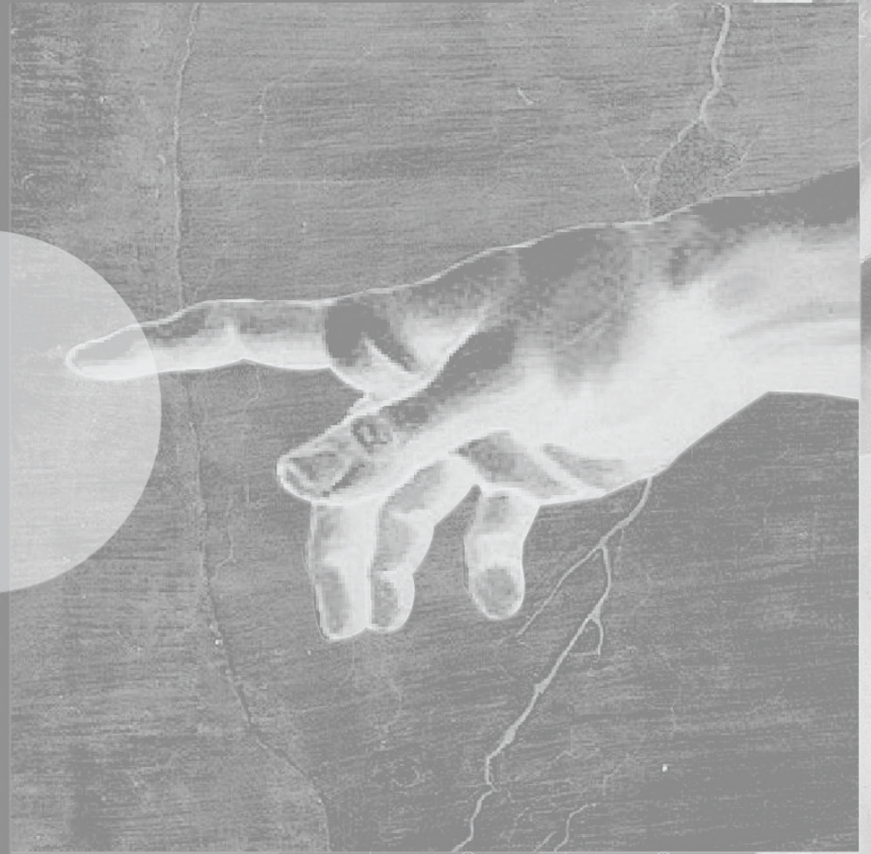
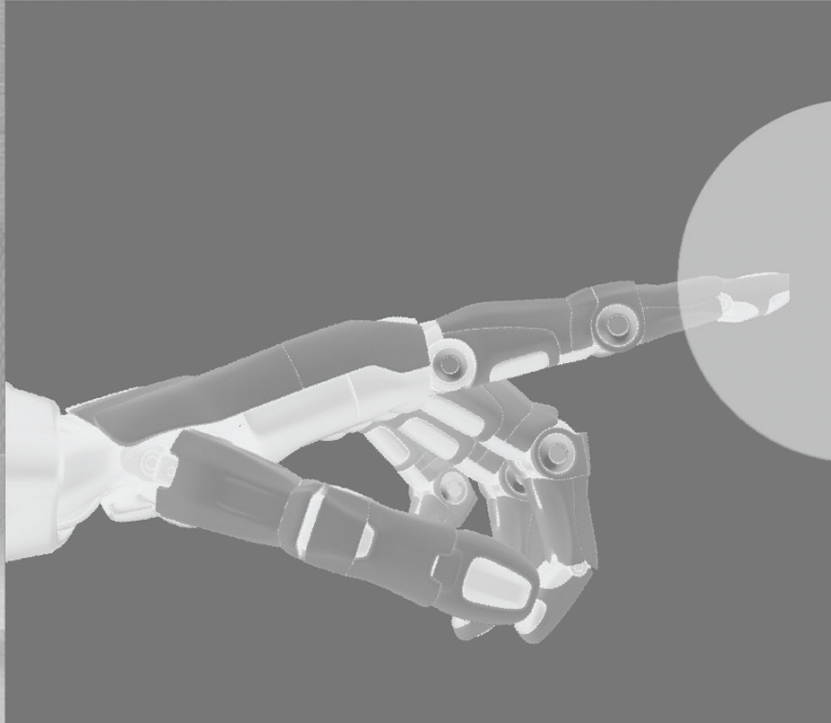
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ARTS INNOVATION RESEARCH

# Innovating Creative Cultures—Arts Tech



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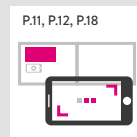
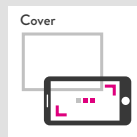
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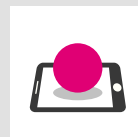
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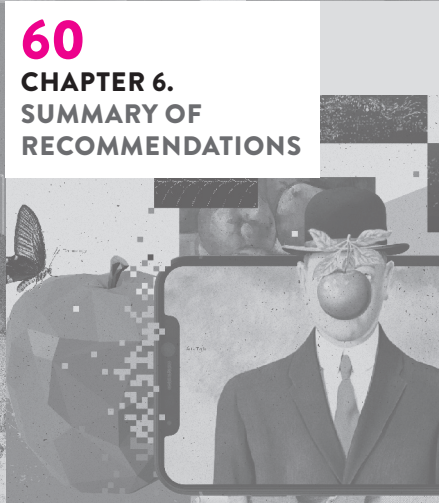
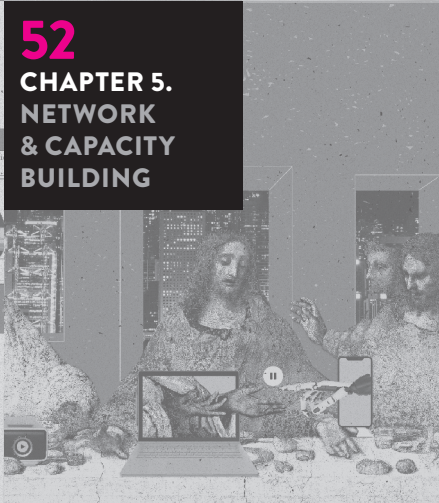
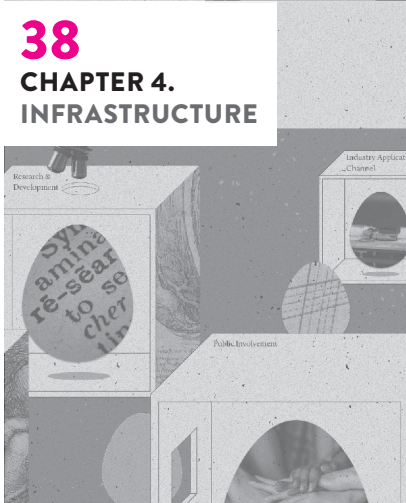
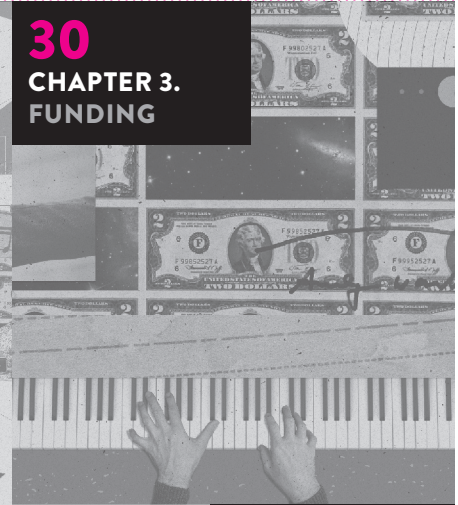
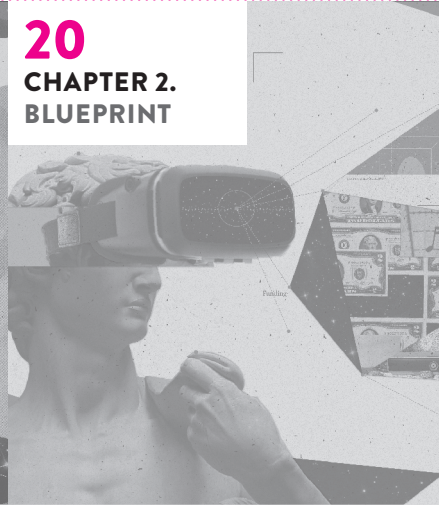
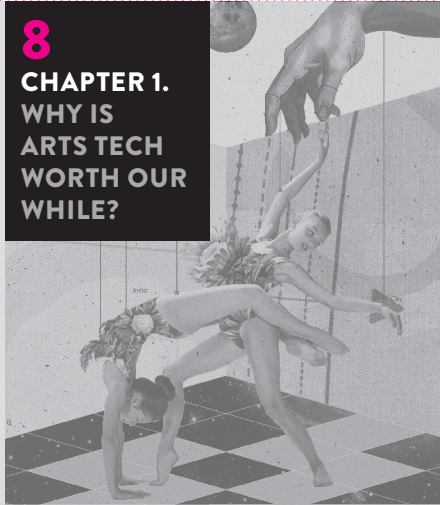
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## EXECUTIVE SUMMARY

### INTRODUCTION

The world is a fast-paced, fast-changing place, with the growing convergence of arts and technology (arts tech) becoming an observable global trend that is disrupting cultural ecosystems worldwide. Economies around the world such as the UK, South Korea, and Taiwan, have all laid out innovative policies in recent years that actively call to action, collaborations and convergences between the two realms.

As a new genre and norm of the future, arts tech can affect, influence, and even revolutionise how people perceive and respond to arts and culture in Hong Kong. The democratisation of technological possibilities has manifested immense opportunities for the arts and creative sectors—new possibilities for artists and the industry, as well as a greater edge for Hong Kong’s position on the global stage—making arts tech a ‘blue ocean’ area waiting to be captured. With value innovation at the crux of what arts tech represents, it is indeed timely and necessary for Hong Kong to seize this window of opportunity to devise farsighted visions and policy plans to push the agenda forward.

### POLICY GAP 1

#### **Lack of cultural blueprint that commits to arts and technology convergence**

There is currently no blueprint or vision in place for the development of digital culture and arts tech convergence in Hong Kong. Without a dedicated and overarching strategic plan, efforts by the industry can only be scattered and piecemeal at best, with little support and coherence from the private sector. This is not only detrimental to the long-term sustainability and viability of the arts and cultural ecosystem, but also to the cross-sector synergies that arts tech could bring.



## RECOMMENDATION 1

### **Devise a cultural blueprint on arts tech that brings cultural and technology sectors to work together, with commitments encompassing funding, infrastructure, and network and capacity building**

We recommend The Government of the Hong Kong Special Administrative Region (the Government) devises a policy blueprint for the development of digital culture and arts tech, as a top-down commitment and a call to action for the arts and technology sectors to work together. As arts tech straddles across the arts, creative, as well as technology sectors, it naturally warrants the involvement of different government bureaux, namely the Home Affairs Bureau (HAB), the Commerce and Economic Development Bureau (CEDB), as well as the Innovation and Technology Bureau (ITB). We recommend the Government appoints a leading bureau that champions this movement, to drive and devise a dedicated blueprint with farsighted goals that commit to ensuring sustainable strategies for arts tech collaborations. Specifically, the blueprint should cover the important policy arenas of funding, infrastructure, and network and capacity building.

## POLICY GAP 2

### **Lack of funding incentive that encourages collaborations between creative and technology organisations**

There is currently no funding dedicated to arts tech in Hong Kong with the mandate of promoting collaboration between arts and technology organisations. While we are able to map out several sources of funding scattered under separate bureaux that accept projects with arts tech elements, none of them are dedicated to supporting the convergence of arts tech or arts tech crossover projects. The absence of such dedicated funding means there is little incentive for arts and technology organisations to partner or work together.

## RECOMMENDATION 2A

### **Broaden the scopes of funding under the Innovation and Technology Fund (ITF) to include projects that inspire innovation and bear creative value**

For the short term, we recommend the ITF diversifies the nature of its supported projects. For instance, the ITF's Technology Voucher Programme (TVP) currently supports projects that use technology to improve 'productivity' or 'business processes' only. We recommend the funding guidelines be broadened, to also include and encourage applications of creative and innovative project and service nature.

## RECOMMENDATION 2B

### **A dedicated arts tech funding for Hong Kong**

Drawing from references of dedicated arts tech funding currently offered in the UK, Taiwan, and South Korea, we recommend, for the longer term the Government establishes a new funding with cross-bureau involvement that is dedicated to supporting cross-sector collaborations between the arts and technology sectors. The funding shall be led by one championing bureau that facilitates collaboration and involvement among other related bureaux, including the HAB, the CEDB, and the ITB. It is also important for the funding to be made eligible to cross-sector applications, covering front-of-house, back-of-house, as well as research and development (R&D) projects. With arts tech a new and untapped genre with much potential for upscaling, we recommend specifically the proposed funding covers both fully-subsidised grants and part-financed schemes to cater to applicants of different levels, who may be in pursuit of projects with different purposes and goals.



### **POLICY GAP 3**

#### **Lack of infrastructure for creative innovation research and testing**

Testing spaces and venues for research, prototyping, and experimentation are needed in order to foster a robust foundation for the flourishing of arts tech in Hong Kong. The current predicament is that such infrastructure is not in place: the ambit of creative culture is not entertained amongst the current five main government-appointed R&D centres in Hong Kong. We have identified two most comparable contenders on arts tech research in Hong Kong—City University of Hong Kong’s School of Creative Media (SCM), and Hong Kong Baptist University’s Creative Media and Practice Research Cluster (CMP). While both champion interdisciplinarity, the former is a school of its own whereas the latter is a cross-departmental research cluster of the university. Both are university-affiliated, which naturally portend to certain limitations, and thus accentuate the discrepancy between what our arts tech infrastructures can offer in Hong Kong and our international counterparts.

### **RECOMMENDATION 3**

#### **Set up creative innovation research infrastructure for testing and experimenting new ideas and hybrids**

We recommend the establishment of a creative innovation research infrastructure in Hong Kong, with five key components that cover the aspects of: 1. Research and Development, 2. Industry Application Channel, 3. Creativity & Innovation Driver, 4. Incubation / Scaling Up, 5. Public Involvement. The existing arts tech infrastructures in Hong Kong, such as those in universities, may be strengthened to cater to more holistic needs of the industry; related institutions may also consider allocating spaces for testing and experimenting within their venues, such as the West Kowloon Cultural District (WKCD) or public museums.

#### **POLICY GAP 4**

##### **Obvious information gap exists between creative and technology sectors**

There is currently no platform that bridges creative professionals with technologists in Hong Kong. While we are able to map out a number of sector-specific directories, most are inactive and unconnected with each other, and only extend their coverage to a limited number of organisations and industries. As a result, information exchanges between arts and technology sectors are limited, bare, and ineffective.

#### **RECOMMENDATION 4**

##### **Fund a digital culture platform that creates a network of expertise, and sharing of best practices**

We recommend a leading bureau funds and sets up a digital culture platform that bears functions of a dynamic and holistic network of information and expertise between the creative and technology sectors. We recommend the platform also offers capacity building initiatives that help raise the sectors' digital maturity. Specifically, the leading bureau shall invite an intermediary to build and run the platform, but take oversight of its utilisation, overall effectiveness, and long-term development, and set farsighted KPIs to maintain regular presence while keeping the platform active and continuous.

## CONCLUSION

The four recommendations set out in this report address the four major policy gaps of blueprint, funding, infrastructure, and network—all of which are detrimental to the development of arts tech, and the aspiration of keeping our cultural ecosystem relevant to the times.

As Hong Kong's first policy recommendation paper that calls to action for the creative and technology sectors to work together, we hope the recommendations in this report can kick-start a conversation across all related parties and government bureaux, so that we can be part of a collective effort that recognises the importance of staying relevant, of innovating arts, and the myriad of new possibilities and opportunities that arts tech could bring, both for the industry and our city at large.



## CHAPTER 1

# WHY IS ARTS TECH WORTH OUR WHILE?

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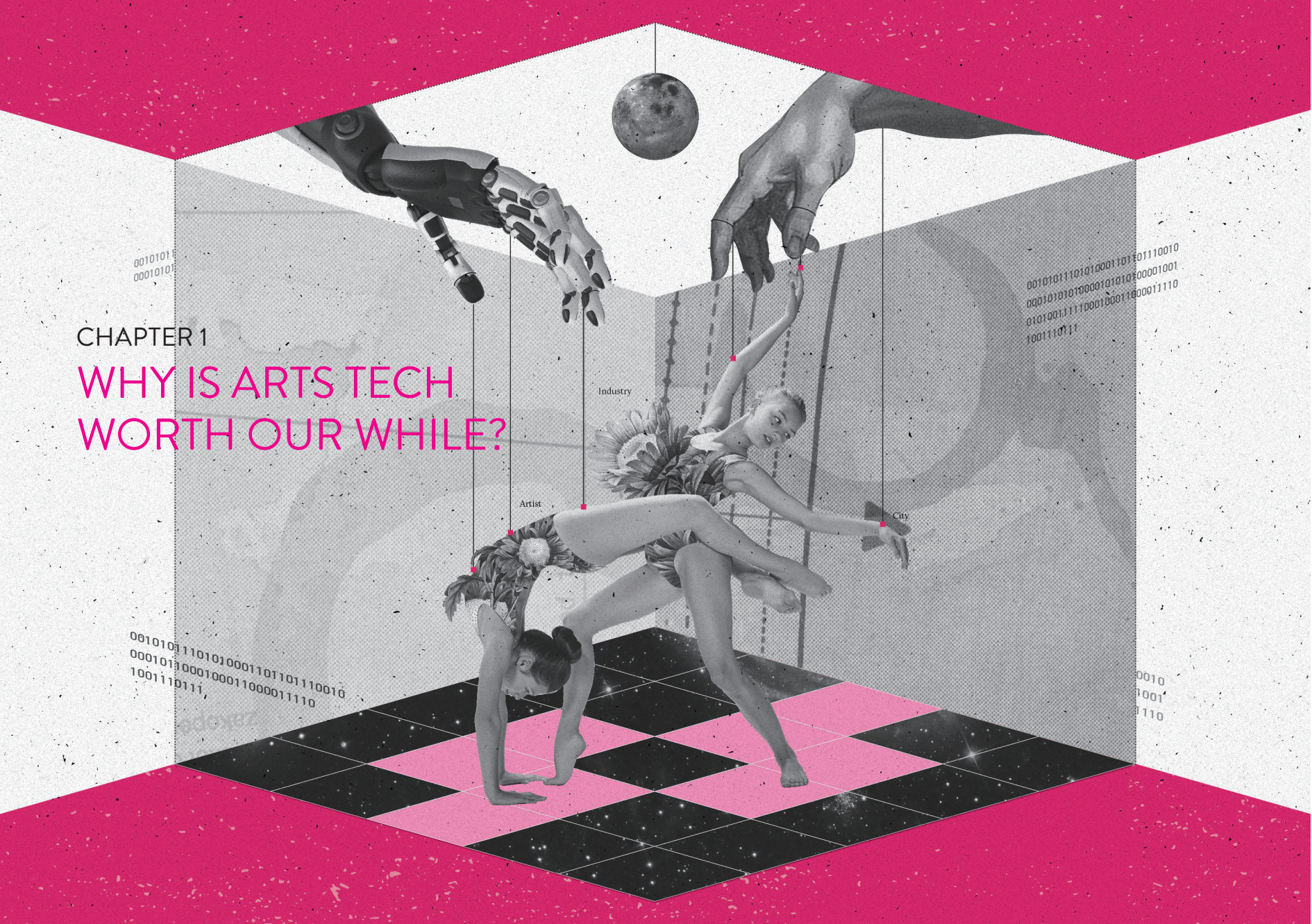
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Industry

Artist

City





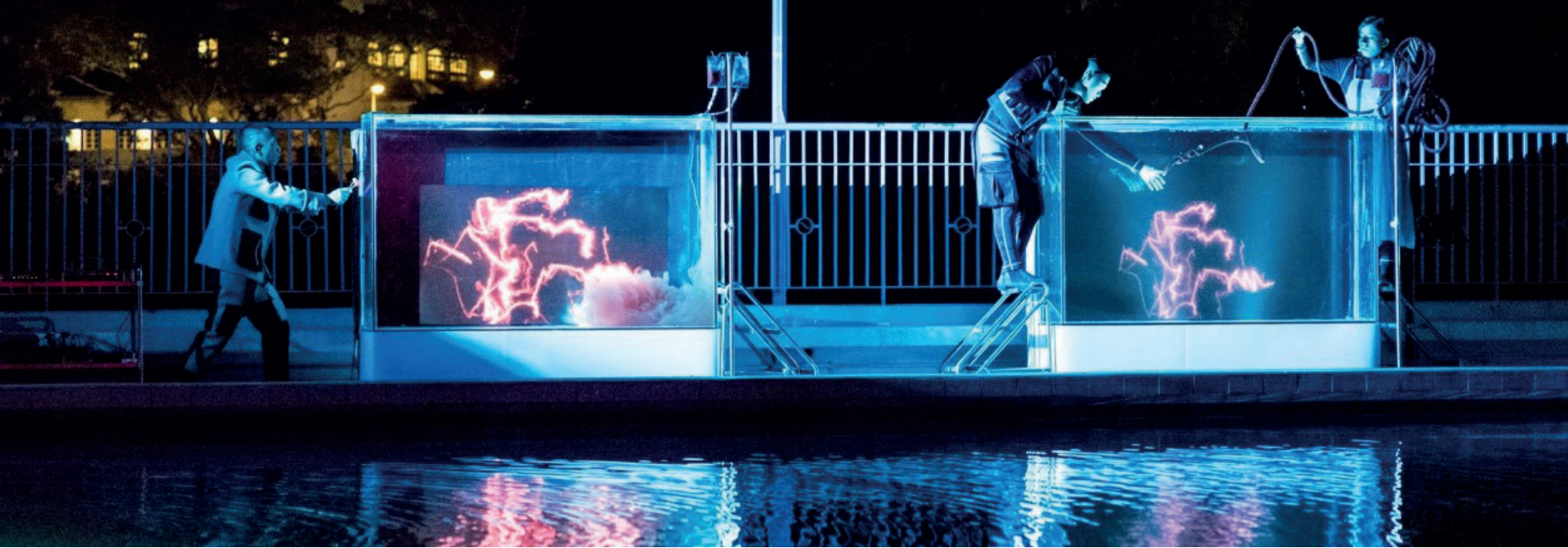
This first chapter discusses why arts tech matters. Looking closely at selected examples of arts tech's various applications and manifestations, we argue that arts tech can directly affect, influence, and even transform the ways in which different people perceive and interact with the notions of arts, and of culture in Hong Kong. Using case studies, this discussion will analyse the implications of arts tech layer by layer, starting from its impact on individual artists, extending to the wider cultural and creative industry, and finally on a city-wide scale.

## TO ARTISTS

To artists, arts tech brings about a myriad of new possibilities. With the democratisation of technological applications, ideas that were once impossible are made possible for artists. The robot that became the world's first A.I. Ink 'artist' to be able to make Chinese *shuimo* landscape paintings is a clear example.<sup>1</sup> The making-of in this creative endeavour goes beyond the pre-conditioned boundaries of art-making: it not only defines a new movement for ink art by foraying into unexplored realms of 'Tech-ink', but also signifies new possibilities that are brought forth by the mindful collaboration between traditional artisanship and modern technology. Thus this gives artists new modes of artistic practice.

Moreover, the convergence of arts and technology has also enabled artists to explore more heuristic practices of expression. Technology has enabled the boundaries that used to divide different art forms to increasingly merge, with many artists now seeking to hybridise their works, challenging past conventions of belonging to one given art form (i.e. visual art, or music for instance).

<sup>1</sup> The robot A.I. Gemini is created by Victor Wong, a Hong Kong artist with a background in physics and electrical engineering. Since its launch in 2019, A.I. Gemini has been widely acclaimed by the international community and media.



Performance view of GayBird's *Emergency Kit & Wishing Pool* (2019), a site-specific work blending music, performance art, and multimedia installation  
Image courtesy of the artist

A successful example of such hybrid is a 'visual-music performance' by Leung Kei-cheuk (GayBird), an active local electronic artist / composer, who set his performance in a swimming pool with dancers, featuring an arrangement of music, video, installations, lighting, as well as other creative technological elements altogether. Innovative applications of technology have thus introduced new practices of expression and new genres of hybridised forms for modern day artists.

Importantly, the use of interactive media also provides new ways of audience engagement and art education. The interactive element has become another recent trend in exhibitions and museums alike. Attaching an interactive element to an artwork instantly makes art appreciation a two-way experience. One good example is *Mountain & Water* by XRT, a work that invites audiences to take part in the co-creation process of a landscape painting.



As the image above illustrates, participants simply need to draw lines and shapes on the monitor (right side of the screen), then the computer will automatically generate an emulation of a *shanshui* painting that is based on the input from the participants.<sup>2</sup> This A.I. installation transforms the passive viewing of visitors into active participation that helps contribute to the evolving of the work itself. As a result, the audiences' roles are reversed, and they become temporary artists in their own right through the interactive elements of arts tech. And so, this new way of audience engagement may carve out new audience demographics for artists, while symbiotically allowing audiences to enter into a direct relationship with art-making which they may not have experienced before.

<sup>2</sup> The machine learning technology that enables this work is Generative Adversarial Network (GAN), which studies over thousands of iconic Chinese landscape paintings from the Song Dynasty to now.



## TO INDUSTRY

Extending beyond the realm of visual art, arts tech applications can also find manifestations on stage in theatre performance settings. Stage effects such as lighting designs and audio-visual systems are obvious channels for arts tech to play a part, however, arts tech can also be applied in other profound ways that carve out new platforms and dimensions for performance for the entire performing industry.



Performance view of Z/Z Twin Lab's *The Hidden Formula–The Heavenly Palace* (2018), a telematic performance experiment that incorporates cutting-edge theatre technology  
Photo: Mak Cheong-wai. Courtesy of Zuni Icosahedron



A remarkable example of such offering is *The Hidden Formula-The Heavenly Palace* by Z/Z Twin Lab, a telematic performance experiment that *simultaneously* took place in Hong Kong Cultural Centre's Studio Theatre and Zurich University of the Arts, using video projections, motion capture, avatars, and live streaming to connect performers, audiences and performance spaces in Zurich, Switzerland and Hong Kong.

As illustrated in the previous page, the performers—though separated by distance, were brought in the same performative space to interact and co-perform with each other contemporaneously. Made possible through technology, this pioneering, cross-cultural collaboration has fundamentally challenged past perceptions of 'space' and 'distance', and pushed back the boundaries of the theatrical artform. In addition, the performances in both cities were also projected on screens at Zurich's *Hauptbahnhof*, Switzerland's largest railway station, adding another intricate dimension to the notion of cross-cultural exchange. The heuristic performance has facilitated the exchange of performance data between cultures, produced new dimensions for cross-culture performance, expanded spaces of

cultural exchange; and most importantly demonstrated that technology can be manipulated in such unprecedented ways to allow interactions among cultures, bodies, technologies and spaces to occur all through a singular performance.

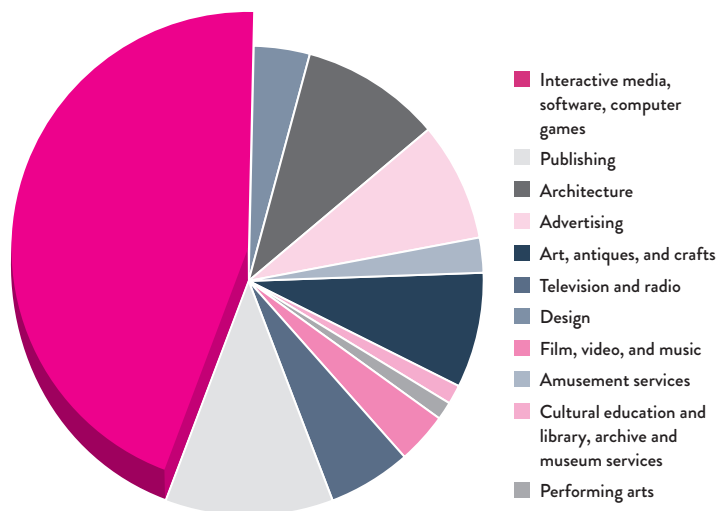
Outside of theatre, there are also various channels wherein arts tech may be applied. For instance, a lot of arts tech possibilities can be rewritten to accommodate the needs of other sectors such as design, architecture, digital entertainment, film industries, e-sports, etc.

Extending beyond the creative industry, the commercial and retail sector have also tapped onto these arts tech opportunities to create new consumer experiences for economic benefits in recent years. Thus, arts tech can even feed into other industry areas, bringing about new opportunities for the cultural and creative industries (CCI), and raising its economic power.

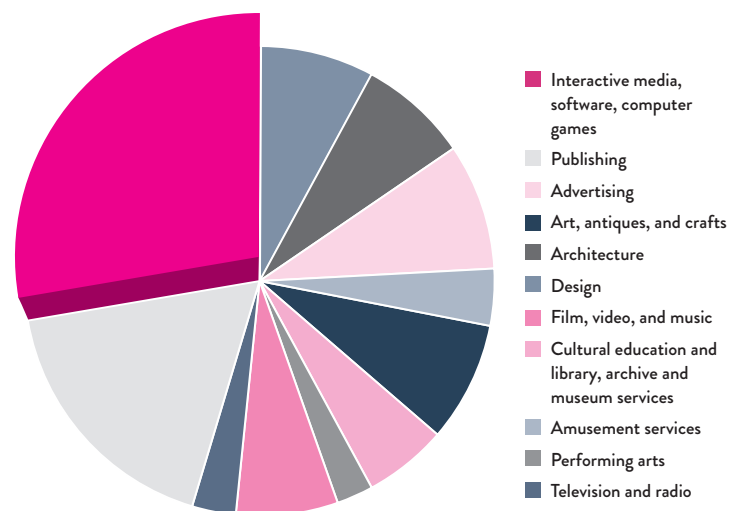
In fact, statistical figures project great potentials for arts tech as a new market to grow, provided talents across the sectors are effectively leveraged.

## Value added and employment figures of the cultural and creative industries (CCI) by component in 2017

**FIGURE 1a**  
**VALUE GENERATED BY THE CCI BY COMPONENT**



**FIGURE 1b**  
**NUMBER OF PERSONS ENGAGED IN THE CCI BY COMPONENT**



Source: Census and Statistics Department

According to the Census and Statistics Department, the Interactive Media, Software, Computer Games sector (IMSCG) constitutes the most significant component domain for CCI among all. The component has contributed the largest portion to both CCI's total value added and total employment in 2017, at 45% (see Figure 1a above) and 28% (see Figure 1b above) respectively.

In fact, in the context of the greater CCI, the CCI's growth in value added as a whole increased from HKD 106,050 million in 2013 to HKD 111,766 million in 2017, attributing to approximately 4.4% of HK's GDP in 2017. Similarly, with employment, the number of people employed in CCI increased from 207,490 in 2013 to 213,400 in 2017, which attributes to 5.6% of the total employment of Hong Kong in 2017. Diving deeper, statistics of sectors within the CCI show that much of the CCI's contribution is attributed to the contribution made by the IMSCG sector. Details to follow below.

### Value added and employment figures of the cultural and creative industries (CCI), and the Interactive Media, Software, Computer Game (IMSCG) sector

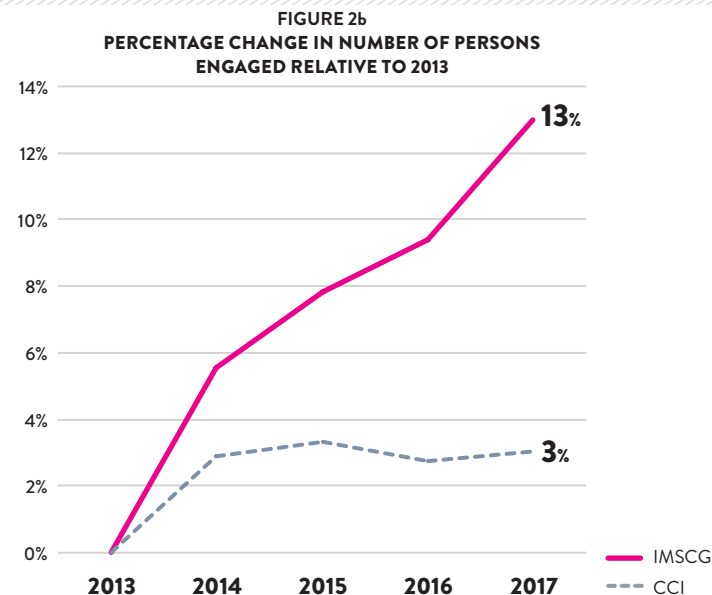
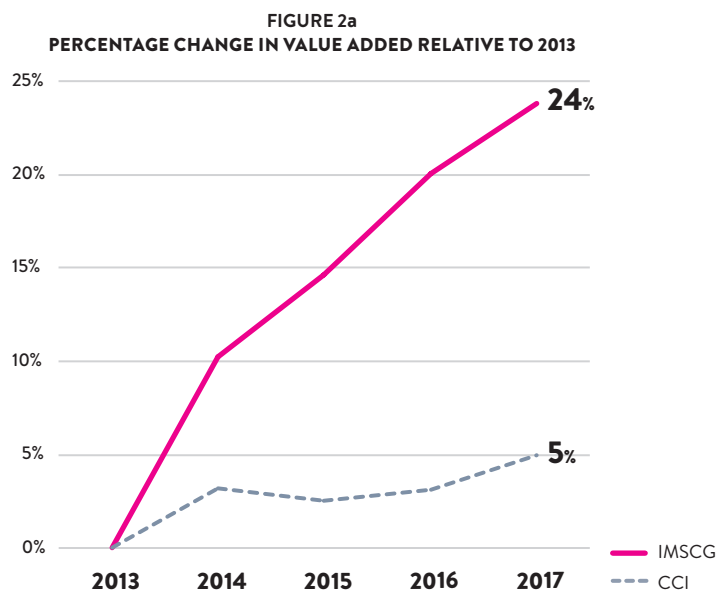




Figure 2a compares the cumulative growth rate of CCI and IMSCG to GDP during 2013-2017, with 2013 as the base year. The figure shows that the cumulative percentage change for IMSCG (pink line) rises every year. Its contribution to GDP rose from HKD 40,265 million to HKD 49,850 million, marking a nearly 24% increase as of 2017 (HKD 9,585 million). The cumulative growth rate of IMSCG over the period significantly outperforms that of CCI (dotted gray line), while the latter records only 5%. The additional contribution brought by IMSCG is HKD 9,585 million, larger than the total CCI increase of HKD 5,716 million, implying again that IMSCG is the main driving force behind CCI's value increase. In other words, **there would not have been any increase in CCI's value added without IMSCG's contribution.**

In terms of employment, Figure 2b illustrates the cumulative percentage change of CCI and IMSCG over the same period, with 2013 as the base year. Similar to that of value added, IMSCG (pink line) shows an increase in employment every year. The number of persons engaged in IMSCG rose from 52,600 in 2013 to 59,240 in 2017, reaching a close-to-13% cumulative increase. IMSCG also has the largest increase in absolute number (6,640 persons), which is, once again, larger than the total new employment of CCI (5,910 persons). **It reifies that the growth of CCI is most largely attributed to the success of IMSCG.**

As such, the growth and success of the IMSCG sector reflects the continued reliance and integration of technology into society.

There is therefore much potential in the future, for the IMSCG sector to leverage its expertise with other sectors within the CCI to create synergies, enabling greater possibilities for technological applications in the whole creative culture industry.

## TO THE CITY

Arts tech is also seen as a vital instrument in promoting cultural soft power for cities around the globe. The first virtual reality (VR) experience of the *Mona Lisa* at the Musée du Louvre in Paris presents a classic example. Upon entering the virtual space, visitors can closely examine the vivid details of Da Vinci's oil painting, and as well, see an animated 3D figure of the *Mona Lisa* brought to life. In this example, the Louvre has demonstrated the effects of immersive technology when applied to a museum exhibit, and what that can do to enhancing audience outreach, the museum's image, as well as the city's cultural soft power.<sup>3</sup> No doubt these new models of engagement can further contribute to maintaining France at its top rank position for soft power for 2019, according to The Soft Power 30 global ranking index.

Closer to us in Asia, teamLab of Japan is the other iconic example that has taken the world by storm through its multi-media and immersive arts tech exhibitions. teamLab is an art collective comprised of artists, programmers, engineers, CG animators, mathematicians, and architects, whose collaborative practice navigate the interdisciplinary world of art and technology.

<sup>3</sup> *Mona Lisa: Beyond the Glass* is powered in partnership with HTC's Vive Arts and VR studio Emissive.

‘teamLab Borderless’ in Tokyo alone attracted 2.3 million visitors within one year of opening, superseding the Van Gogh Museum in the Netherlands as the most visited single-artist museum in 2018. Attracting visitors from over 160 countries and regions around the world, the success of ‘teamLab Borderless’ reflects the popular demand and enthusiastic reception towards multi-media and arts tech endeavours—and more importantly reifies the form to be a significant contributor to Japan’s cultural soft power today, ranked 8<sup>th</sup> globally according to The Soft Power 30 global ranking index in 2019, and top-ranked in Asia.

China is also one of four Asian countries to have made it onto the index, following Japan, South Korea, and Singapore, at rank 27 in the world. Indeed, The Palace Museum in Beijing has actively been seeking to reinvent itself in its appeal to younger generations by incorporating different forms of arts tech. Particularly, it entered into partnership with the Chinese Internet giant Tencent in 2016, and set up Palace Museum-Tencent Innovation Lab, which combines tech platforms such as Tencent Cloud, Tencent AI Lab, A.I Lab, and WeChat with cultural content from the museum to explore new ways of conserving and displaying cultural relics through digital



Interactive digital installation *Universe of Water Particles on a Rock where People Gather* (2018), teamLab Borderless, Tokyo  
Photo: Picturesque Japan / Shutterstock.com

applications. Another successful project that emerged out of the partnership is the Palace Museum x Tencent Next Idea music contest—a contest that promotes new digital music creation inspired by the museum’s painting collection. This innovative outreach programme has attracted 120 million clicks on Weibo (China’s equivalent of Twitter), fully demonstrating how new hybrids crossing between paintings, music, and technology are effective in enhancing people’s perceptions towards Chinese culture and history, as well as China’s cultural soft power.

On this note, Hong Kong’s creative technologists have also curated innovative arts tech experiences that pay homage to the city’s disappearing cityscapes.



Multi-media interactive art work *I Am/Were Here/There #2* culminates different technologies such as extended reality, 3D scanning, immersive technology, artificial intelligence, and machine learning to render recreations of the now-demolished Wedding Card Street in Wanchai. In VR headsets, participants enter into the virtual reality space to watch the cityscape gradually self-destruct. This work blurs the boundaries between past, present, reality, and imagination, and pays tribute to the city's cultural heritage and urban history—a part of Hong Kong that might also appeal to incoming tourists and the like.



Installation view of XRT's interactive virtual reality work *I Am/Were Here/There#2* (2018) at Microwave International New Media Arts Festival

Image courtesy of the artist

“ There is no denying that digital technology is indeed breaking down the silos between cultural, and creative sectors, and blurring the lines between disciplines. ”

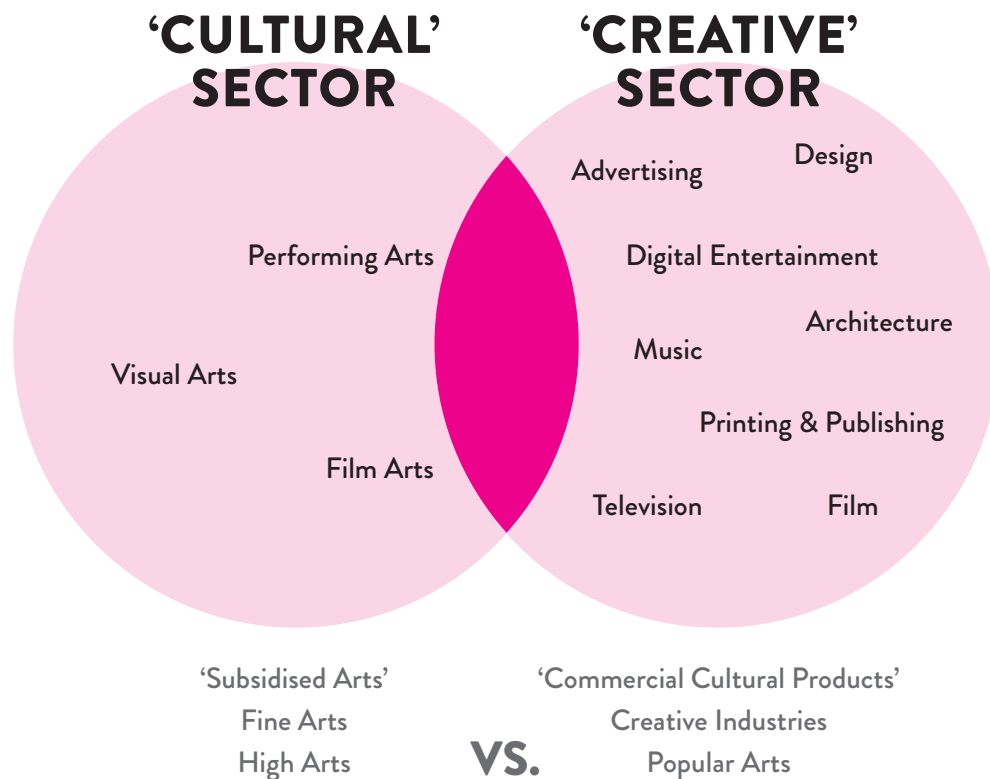
Drawing from all examples above, it is clear that arts tech can present opportunities to artists, the industry as well as the wider city, and has potentials of a new market waiting to be unleashed.

Another key point that can be derived, is the increasingly blurred boundaries between ‘the cultural’ and ‘the creative’ sectors themselves.

Borrowing Ruth Towse’s bold statement from her book, *A Textbook of Cultural Economics*, ‘it was no longer possible to draw the line in any meaningful way between what were once



FIGURE 3> The 'cultural' sector vs. the 'creative' sector



called the “high arts”, and the “popular arts.” Whether we choose to believe this or not, there is no denying that digital technology is indeed breaking down the silos between cultural, and creative sectors, and blurring the lines between disciplines—theatre blends with film; computer programming merges with sculpture; ballet bonds with fashion; gaming headsets enter the spheres of opera, etc. All this points to why it is imperative for policies that reflect the needs (and changes) of society, to be in place.

As this chapter has shown, the prevalence of arts tech is imminent. So new policies of cross-bureau involvement must be formulated, to put a best foot forward in opening up the blue ocean area of arts tech, through facilitating cross-sector synergies that could boost capabilities of arts and creative sectors, while also unleashing the creative potentials of technology.

The second to fifth chapter of the report discuss what these policies are, and how they do it.



## CHAPTER 2

# BLUEPRINT



Funding

Infrastructure

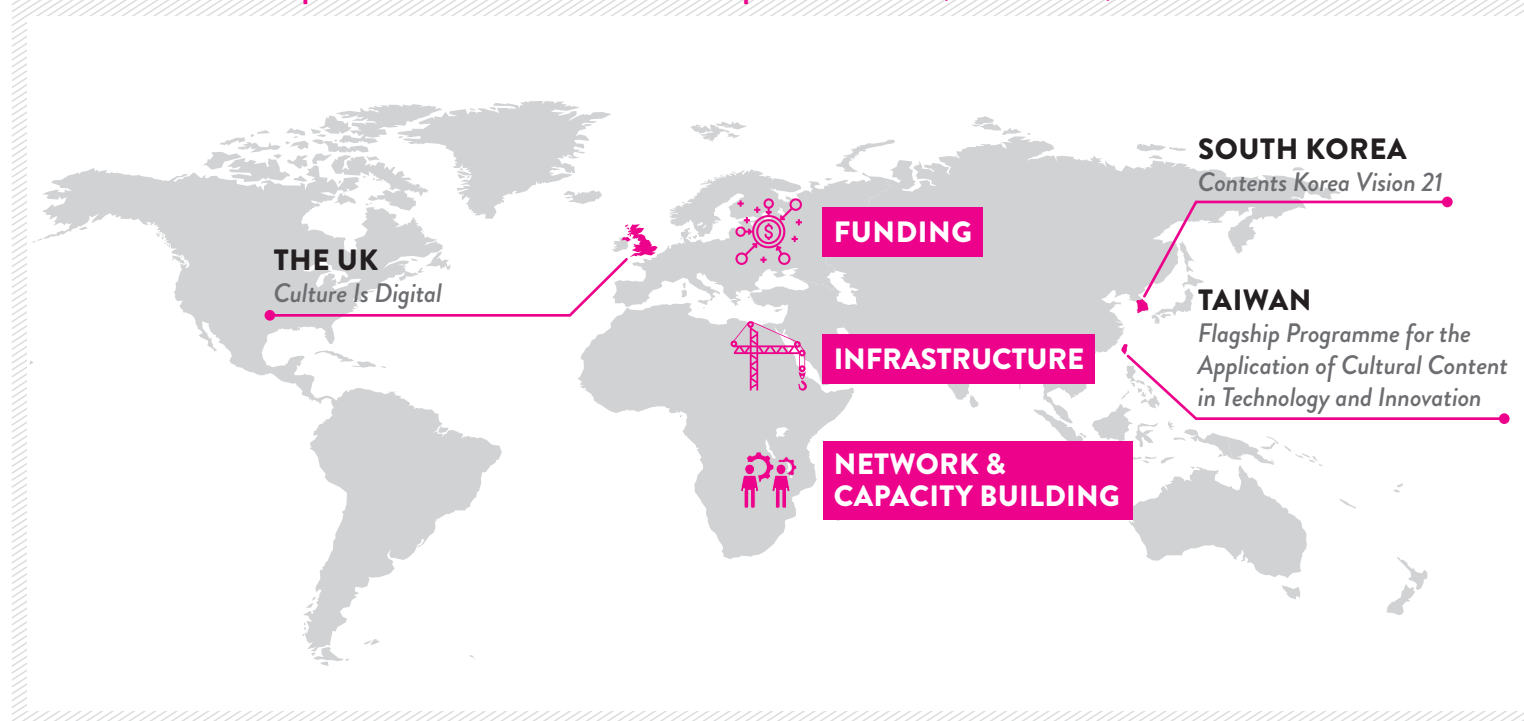
Network  
& Capacity Building

Fadenlauf  
straight grain  
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For all else to fall into place, a blueprint on arts tech must first be devised and implemented. In fact, strategic blueprints for arts tech, delineating a range of political commitments covering policy arenas of funding, infrastructural support, as well as information networks, have been rolled out in the United Kingdom (UK), South Korea, and Taiwan. Commitments laid out for those three policy arenas will be selectively profiled in the chapter below.

FIGURE 4> Cultural blueprints with a focus on arts tech development in the UK, South Korea, and Taiwan





## DIGITAL CULTURE BLUEPRINT IN THE UK

Born out of the Culture White Paper, the *Culture Is Digital* blueprint launched in 2018 is the UK's first report of its kind to call cultural and technology sectors to work together. The blueprint aims to drive audience engagement, boost capability of the arts sector, as well as unleash the creative potentials of technology.

Under the enforcement of the blueprint, a lot of policy commitments are laid out. A selection of these commitments are parsed in the three categories of funding, infrastructure and networks as below:

- **FUNDING:** The blueprint has prompted a variety of funding schemes targeted at promoting arts tech convergence (refer to Chapter 3 for more details). Moreover, the blueprint has also made it mandatory for a third of all national portfolio organisations funded by Arts Council England (ACE) to develop their own digital policy plans.<sup>4</sup>
- **INFRASTRUCTURE:** The blueprint has also provided greater opportunities for cultural organisations to set up experimental spaces for tech-testing. In compliance with that, the Royal Opera House will set up a new 'Audience Labs' department which experiments with immersive technology to open up new experiences for audiences. The Labs will work with diverse talents across culture and technology to develop new skill sets, placing the Royal Opera House at the forefront of the arts tech movement. The National Gallery has also partnered with data company, Nesta, to create 'Innovation Lab', with aims to enhance visitor experience and create new content through technology, as well as close collaborations with the academic sector.
- **NETWORK & CAPACITY BUILDING:** ACE has commissioned £1.1 million to set up the Digital Culture Network, a network of expertise and sharing of best practices across England, with the mission to create synergies and facilitate partnerships between the arts and technology sectors. The blueprint has also stipulated that three leaders in creative technology within the sector will share R&D prototypes, technical assets and innovation support to cultural partners (refer to Chapter 5).<sup>5</sup>

<sup>4</sup> The policy stipulated that all national portfolio organisations funded by ACE receiving GBP 250,000 per annum or more must develop their own digital policy plans—this accounts for 280 out of 840 organisations.

<sup>5</sup> These three leaders are The Royal Shakespeare Company, BBC, and Arts and Humanities Research Council.

## ARTS TECH BLUEPRINTS IN TAIWAN AND SOUTH KOREA

In Asia, both Taiwan and South Korea have similarly developed strategic plans for arts tech development. Even though Taiwan had not issued a ‘blueprint’ for arts tech in the strictest sense, their latest cultural policies are seen to place prominent emphases on arts tech as an area of high priority. In 2017 for instance,

Taiwan’s Ministry of Culture issued the *Flagship Programme for the Application of Cultural Content in Technology and Innovation* and named it as one of seven action items on the Cultural Policy Agenda, as shown in Table 1 below.

TABLE 1 > **Taiwan’s cultural policy agenda**

| SEVEN ACTION ITEMS                                    | KEY PROGRAMMES ON THE AGENDA                                                                                                                                                                                                                              |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Building a cultural finance structural system      | <ul style="list-style-type: none"> <li>• Cultural content investment programme</li> <li>• Cross-disciplinary audio-visual and financial talents nurturing programme</li> <li>• Professional investment facilitating office</li> </ul>                     |
| 2. Strengthening the development of IP content        | <ul style="list-style-type: none"> <li>• High-definition television content promotion programme</li> <li>• Cross-disciplinary new media content production programme</li> </ul>                                                                           |
| <b>3. Speeding up cultural technology application</b> | <ul style="list-style-type: none"> <li>• <b>Flagship Programme for the Application of Cultural Content in Technology and Innovation</b></li> <li>• Integrating virtual and physical rendering in cultural and creative innovation projects</li> </ul>     |
| 4. Amendment and update of regulations                | <ul style="list-style-type: none"> <li>• Platform of supervision and support (in partnership with National Communications Commission)</li> <li>• Amendment of ‘Public Media Regulations’ (previously known as ‘Public Television Regulations’)</li> </ul> |
| 5. Infrastructure for content production              | <ul style="list-style-type: none"> <li>• Promoting regional multimedia development</li> <li>• Promoting a one-stop international audio-visual production ecosystem</li> </ul>                                                                             |
| 6. Export of brands for international market          | <ul style="list-style-type: none"> <li>• Drafting strategy on public media and international broadcasting channel</li> </ul>                                                                                                                              |
| 7. Setting up Cultural Content Policy Bureau          | <ul style="list-style-type: none"> <li>• Taiwan Creative Content Agency (TAICCA) to draft new regulations</li> </ul>                                                                                                                                      |

Source: The Ministry of Culture, Taiwan

As for South Korea, its policy planning for developing arts tech roots way back to 2001, when its Ministry of Culture, Sport and Tourism (MCST) (formerly known as the Ministry of Culture and Tourism) decreed the *Contents Korea Vision 21*, a blueprint that laid out a new vision for the cultural contents industries, and importantly, upon which the Korean Creative Content Agency (KOCCA) (formerly known as the Korea Culture and Content Agency) was founded.<sup>6</sup> KOCCA is an agency that serves as the dedicated arts tech incubator under MCST with funding capability to support development specific to the ecosystem of culture and technology in South Korea, covering support in R&D, incubation, industry application, IP creation, and overseas exportation. It appears that KOCCA has since stayed loyal to its founding missions.

A selection of policy commitments from the two blueprints above are further elaborated using the same three categories of funding, infrastructure, and networks:

- **FUNDING:**

- In Taiwan, targeted funding is offered under the blueprint to translate local cultural materials into intellectual properties through innovative processes that leverage digital technology and cross-disciplinary integration (refer to Chapter 3).
- In South Korea, the Culture Archetype Project was conceived under the blueprint, where a sum of KRW 100 billion (approx. HKD 647 million) was invested into KOCCA to support arts tech development.

- **INFRASTRUCTURE:**

- In Taiwan, innovation labs and test spaces for experimenting were set up, such as Huashan Creative Park 2.0, IP Content Lab, Audio Visual Lab, etc.
- The South Korean government increased investment in cultural infrastructure by designating venues that purposed to provide cultural partners with greater opportunities for testing, prototyping, showcasing, and public education purposes (i.e. KOCCA's multi-content testbed and Infinite Imagination Rooms in science museums) (refer to Chapter 4).

- **NETWORK & CAPACITY BUILDING:**

- For Taiwan, a cross-bureau culture x technology working platform for drafting joint policies on culture x technology was set up in partnership with the Ministry of Science and Technology.
- In South Korea, a web platform ([www.culturecontent.com](http://www.culturecontent.com)) had been set up in July 2004 to publicise and share the prototypes and pilot materials for further content creation. Ties between universities, cultural, and science sectors were also strengthened to enhance tri-sector partnerships, and to maintain a well-connected network and information loop.

<sup>6</sup> The Korea Culture and Content Agency integrated with other organisations such as the Korean Broadcasting Institute and the Korean Game Agency to form the Korea Creative Content Agency (KOCCA) in 2009.



All the information above points to the difference strategic plans can make towards long-term development of industries and sectors. As mapped out, economies such as the UK, Taiwan, and South Korea are seen to be reaping the benefits brought about by their arts tech policies. And a large part attributes to the fact that they had devised an overarching, farsighted blueprint to guide and navigate the space, which naturally makes it inviting for industry players to develop confidence in the agenda and participate.

The discrepancy becomes very obvious, however, when we study the scope for Hong Kong, where no comparable blueprint or vision for arts tech is currently in place. Under this circumstance, even the committed institutions and cluster circles within the sector can only take self-initiatives to carry out their own programmes for arts tech. But without a dedicated strategic plan, these efforts are mostly piecemeal, at best. We profile some efforts shown towards arts tech from the main cluster groups of public museums, the West Kowloon Cultural District Authority (WKCD), and the private sector.

Indeed, in recent years, the Leisure and Cultural Services Department (LCSD)'s public museums have observably shown an increasing interest in incorporating different interactive technologies into exhibitions. For instance, one of the featured exhibitions for the reopening of the Hong Kong Museum of Art is an interactive exhibition named 'The Breath of Landscape', with artworks that explore the theme of nature and landscape using various technological

**FIGURE 5> Piecemeal efforts on arts tech by the local arts sector**



elements. Meanwhile, the 'Digital Dunhuang' exhibition in 2018 by the Hong Kong Heritage Museum as well as 'Eternal Life' exhibition in 2017 organised by the Hong Kong Science Museum display an awareness of adapting to the global trend of arts and technology collaboration. These interactive multi-media exhibitions are often supported by official museum mobile apps and digital guided tours to provide a more comprehensive experience.

As one of the largest cultural institutions in Hong Kong, the WKCD has an influential role in promoting arts tech convergence as well as public education. Dedicated institutions such as M+ have designated curatorial teams that

focus on digital programmes and moving images. There is also an LED façade on the museum building for displaying moving image works.



A museum of visual culture and part of the West Kowloon Cultural District, M+ (middle) features an LED façade for the display of moving image works

The forthcoming Hong Kong Palace Museum at the WKCD will also have an entire gallery dedicated to new media and digital art, to showcase digital and interactive media work. At the WKCD's Performing Arts Department, a research lab (Tech Box) is currently undergoing planning; in partnership with the Hong Kong Academy for Performing Arts (HKAPA), Tech Box aims to internalise and mainstream the latest developments of technology in arts applications, and build a direct link between academy-trained students and the industry. Moreover, a platform with a specific focus on engendering cross-cultural, arts tech collaborations is also underway in partnership with the Goethe-Institut Hong Kong, which lines up artists from Germany and across Asia to meet in Hong Kong for collaborations that anchor on technology and creativity.<sup>7</sup> Beyond programme-curating, the WKCD is also currently looking into the possibilities of building data warehouses that inform visitor behaviour and analytics.

Apart from the above, the private sector and other industry players have also contributed significantly. Festivals such as Sónar & Sónar MarketLab, Microwave, Lumieres Light Festival, and Hong Kong Arts Centre ifva Festival are the dominant driving forces behind cultural technology innovation for the city. Galleries focused on arts tech such as The Osage Gallery and Videotage, incubation platforms such as Design Trust's Futures Studio and the Centre for Heritage, Arts and Textile (CHAT)

by The Mills, as well as commercial online recourses such as Niio's moving images all reflect passion and confidence from the industry towards arts tech development in the future.

Nonetheless, with no overarching blueprint in place, any future effort in driving arts tech development in the future will only (continue to) be piecemeal, at best. Without a commonly-shared direction, practitioners receive no incentive to be a part of the campaign, and would naturally place lower priority for it when allocating resources. At the moment, efforts on exploring arts tech across the arts and cultural sectors are incoherent—largely relying on the self-initiatives of each institution for something to happen.

“ With no overarching blueprint in place, any future effort in driving arts tech development in the future will only be piecemeal, at best. ”

<sup>7</sup> This project is funded by the Goethe Institut's International Coproduction Fund.



## RECOMMENDATION 1

### **Devise a cultural blueprint on arts tech that brings cultural and technology sectors to work together, with commitments encompassing funding, infrastructure, and network and capacity building**

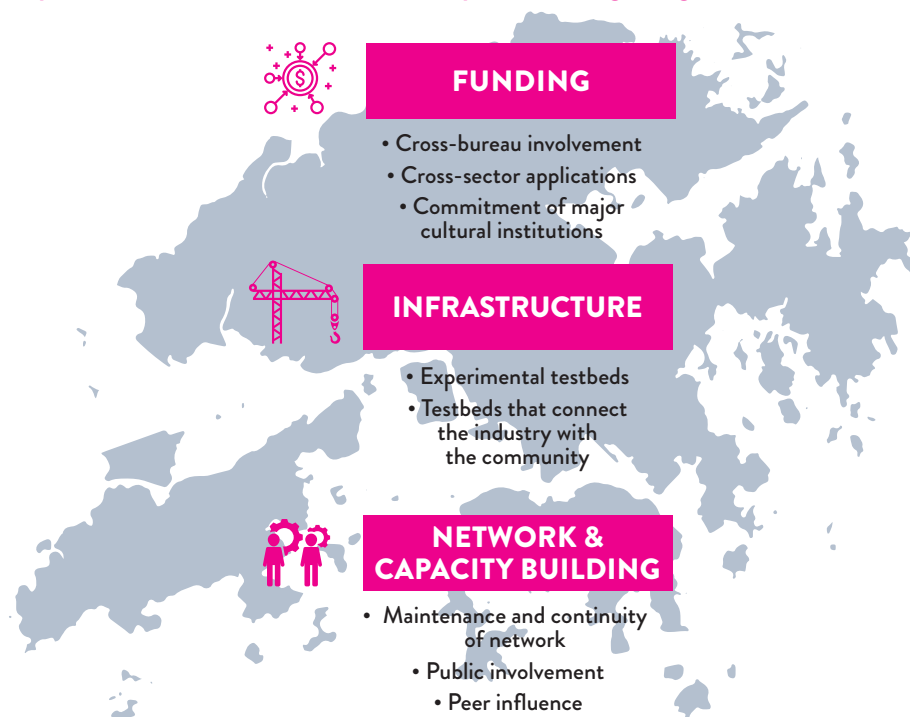
With growing interest and commitment shown towards arts x technology and digital culture across the world, Hong Kong should seize this window of opportunity to once and for all consolidate its many scattered talents, by first devising a policy blueprint for digital culture and arts tech development, so as to define a plan wherein all players within the creative, and technology sectors can work together under the policy and create synergies. This would in turn enable greater private sector support (specific for arts tech, this could refer to the digital entertainment and gaming sectors) in helping to drive and fuel the movement. The potential knock-on effects instigated from an initial well-structured blueprint can be significant to the industry's long-term development.

As arts tech straddles across the arts, creative, as well as technology sectors, it naturally warrants involvements from different government bureaux, namely the Home Affairs Bureau (HAB), the Commerce and Economic Development Bureau (CEDB), as well as the Innovation and Technology Bureau (ITB).

**WE RECOMMEND** the Government decides on a leading bureau that champions this movement, and devises an arts tech blueprint that commits to ensuring sustainable strategies for arts tech collaborations.

Based on the blueprints studied above, **WE RECOMMEND** the arts tech blueprint covers at least, the important policy arenas of funding, infrastructure, and network and capacity building.

FIGURE 6> Proposed elements for an arts tech blueprint in Hong Kong



Considerations concerning these three policy arenas shall be further elaborated in the chapters that ensue.



#

## CHAPTER 3

# FUNDING





Funding incentives are a requisite to policymaking and key features in policy blueprints. In Hong Kong, there is no dedicated arts tech funding that encourages the collaboration between arts and technology sectors. However, in Taiwan, South Korea, and the UK, there are indeed dedicated arts tech funding schemes in place, with aims to foster cross-sector collaborations and create synergies between the two sectors.

Below, we list out six arts tech funding schemes of different nature from these economies: three from Taiwan, one from South Korea, and two from the UK. The examples we profile here are by no means exhaustive.

**TABLE 2 > Six selected arts tech funding schemes from Taiwan, South Korea, and the UK**

|   | ECONOMY     | FUNDING BODY                                                                                   | ARTS TECH FUNDING SCHEME                                                                                                                                                                                                                                                                                                                                                                                                            |
|---|-------------|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | TAIWAN      | Ministry of Culture                                                                            | <b>The Performing Arts and Technology Cross-sector Innovation Subsidy<sup>8</sup></b> <ul style="list-style-type: none"> <li>• Open to both non-profit and for-profit arts organisations</li> <li>• Approx. TWD 1.7 million per project (HKD 0.4 million)</li> </ul>                                                                                                                                                                |
| 2 | TAIWAN      | Ministry of Culture                                                                            | <b>Flagship Programme for the Application of Cultural Content in Technology and Innovation<sup>9</sup></b> <ul style="list-style-type: none"> <li>• Open to arts organisations and tech companies to apply for either front-end or back-end arts tech projects respectively</li> <li>• Approx. TWD 4.5 million per project (HKD 1.2 million)</li> </ul>                                                                             |
| 3 | TAIWAN      | Ministry of Culture                                                                            | <b>The Arts and Technology: Creative Innovation and Counselling Project</b> <ul style="list-style-type: none"> <li>• Commissioned tech company Dimension+ as tech-consultant to provide feasibility and technical guidance to arts sector<sup>10</sup></li> <li>• TWD 450,000 per project (HKD 116,000)</li> </ul>                                                                                                                  |
| 4 | SOUTH KOREA | Korea Creative Content Agency (KOCCA), under the Ministry of Culture, Sport and Tourism (MCST) | <b>KOCCA</b> is the South Korean government's dedicated arts tech incubator that offers short and long-term arts tech support through the issuance of grants based on grant assessments conducted by KOCCA's in-house technical consultants <ul style="list-style-type: none"> <li>• For both non-profit and for-profit arts organisations</li> <li>• KRW 200–300 million per project (HKD 1.3–1.9 million)<sup>11</sup></li> </ul> |

<sup>8</sup> Funded 77 projects since 2010 with a sum equivalent to approx. TWD 129.3 million (HKD 33.3 million).

<sup>9</sup> Funded 89 organisations since 2017 (52 front-end and 37 back-end) with a sum equivalent to approx. TWD 402.7 million (HKD 103.8 million).

<sup>10</sup> Dimension+ offers grant funding to successful arts tech projects submitted by non-profit and for-profit arts organisations, and arranges experimentation and showcase opportunities for those projects.

<sup>11</sup> Available information as of 2006.

|   | ECONOMY | FUNDING BODY                                                                                                                            | ARTS TECH FUNDING SCHEME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---|---------|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5 | UK      | The Heritage Fund, accountable to Parliament via Department of Digital, Culture, Media & Sport (DCMS) <sup>12</sup>                     | <b>Digital Campaign Funding—Tranche 2<sup>13</sup></b> <ul style="list-style-type: none"> <li>• For tech or other innovation organisations to apply, so as to offer free consulting to small heritage organisations and help them increase their digital skills</li> <li>• Ranged between GBP 10,000–250,000 per project (HKD 100,000–2.4 million)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 6 | UK      | The United Kingdom Research and Innovation (UKRI), sponsored by the Department for Business, Energy & Industrial Strategy <sup>14</sup> | <b>Audience of the Future Challenge</b> <ul style="list-style-type: none"> <li>• Open to co-project applications across creative and technology sectors</li> <li>• Total funding: GBP 33 million (HKD 316 million)</li> </ul> <p>Key Programmes:</p> <ul style="list-style-type: none"> <li>• <b>Future Demonstrators Programme<sup>15</sup></b> <ul style="list-style-type: none"> <li>&gt; Funds industry-led consortia to create and develop new, highly immersive technologies to improve visitor experiences, and test them with large audiences</li> </ul> </li> <li>• <b>Immersive Technology Investment Accelerator<sup>16</sup></b> <ul style="list-style-type: none"> <li>&gt; Involves Innovate UK and eleven investor partners to offer grant funding and venture capital investment in early-stage projects that must be ‘Knowledge Transfer Partnerships’ with a view to commercialisation (and not purely generate research outcomes)</li> </ul> </li> </ul> |

Note: The figures in HKD are approximate values generated based on the currency exchange rate at the time of publishing.

Most notably, we can see that more than one government ministry in the UK has demonstrated commitment towards pushing the arts tech agenda forward. This joint political effort underscores the priority the UK government has placed towards promoting arts tech convergence, lending a good point of reference for Hong Kong.

Table 3 further summarises the information above, and delineates by economy, the eligibility of applicants to the different schemes of arts tech funding.

<sup>12</sup> The Heritage Fund is a non-departmental public body accountable to Parliament via the Department for DCMS. Although it is not a government department, the DCMS issues financial and policy directions to the organisation, which reports to Parliament through the Department. Decisions about individual applications and policies are entirely independent of the government.

<sup>13</sup> The total available funding under this tranche is GBP 0.25 million (approx. HKD 2.4 million) across all grants.

<sup>14</sup> UKRI is a quasi-autonomous non-governmental organisation of the UK that directs research and innovation funding, funded through the science budget of the Department for Business, Energy & Industrial Strategy (BEIS). The Audience of the Future Challenge Fund falls under UKRI's Industrial Strategy.

<sup>15</sup> A case example is Royal Shakespeare Company's 'Immersive Performances of the Future Project', which involved 15 specialist organisations from theatre, music, video production, gaming and research, to stream live performances to people's mobile phones and extended reality headsets (A grant of approx. GBP 3.9 million was approved, equivalent to HKD 37.3 million).

<sup>16</sup> A case example is MOSTYN Gallery's 'CANVAS', which adopts human-centred design approaches to better understand how audiences behave when engaged in cultural experiences, and how to better meet their needs.

TABLE 3 &gt; Different schemes of arts tech funding by economy

| Economy            | Applicant Eligibility         |                               |                |            |
|--------------------|-------------------------------|-------------------------------|----------------|------------|
|                    | Non-profit arts organisations | For-profit arts organisations | Tech companies | Co-project |
| <b>TAIWAN</b>      | ✓                             | ✓                             | ✓              | —          |
| <b>SOUTH KOREA</b> | ✓                             | ✓                             | —              | —          |
| <b>UK</b>          | ✓                             | ✓                             | ✓              | ✓          |
| <b>HONG KONG</b>   | ✗                             | ✗                             | ✗              | ✗          |

As shown above, most of the arts tech funding in these economies cover parties across the arts and technology sectors. South Korea's targeted funding is eligible to arts organisations of both non-profit and for-profit in nature, while funding in Taiwan and the UK are also open for tech companies to apply. It is worth mentioning that the UK also has an arts tech funding option that accommodates 'co-project' applications, where arts and technology organisations submit a proposal together on collaborative projects.

For Hong Kong, however, there is no dedicated arts tech funding of comparable depth and breadth. An accurate description would be that there are a few grants from separate bureaux which accept arts or tech organisations to conduct projects with (the occasional) arts tech elements. Nonetheless these grants bear no mandate for arts and technology to cross-over, and seem to miss the point for arts and tech sector convergence. These include grants offered at the Hong Kong Arts Development Council (HKADC) under the HAB, CreateHK under CEDB, and the Innovation and Technology Fund (ITF) under ITB, which are profiled in Table 4 below.



TABLE 4 > **Three selected funding schemes in Hong Kong**

| FUNDING BODY | GRANT AND GRANT OBJECTIVE                                                                                                                                                                                                                                                                    | GRANT OUTCOMES & ANALYSES                                                                                                                                                                                                                                                                                                                                                     |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| HKADC        | <b>Year Grant (Film and Media Arts) (FMA)</b><br><br>To provide financial support and nurture the thriving development of local professional arts organisations and artists of the FMA sector annually                                                                                       | <ul style="list-style-type: none"> <li>• Only one out of five successful grantees from 2016-19 is involved in the ‘arts tech’ category</li> <li>• Non-profit arts organisations only</li> </ul>                                                                                                                                                                               |
|              | <b>Project Grant (FMA)</b><br><br>To provide two rounds of project-based grants a year for projects belonging to FMA sector                                                                                                                                                                  | <ul style="list-style-type: none"> <li>• From January to July 2019, FMA projects were allocated the largest proportion of funding out of all other art forms<sup>17</sup></li> <li>• From January to July 2019, FMA projects received the most funding per project: an average of HKD 250,000 per media arts project</li> <li>• Non-profit arts organisations only</li> </ul> |
| CREATEHK     | <b>CreateSmart Initiative (non-design stream)</b><br><br>One of two streams (design vs. non-design) under the CreateSmart Initiative that aims to provide financial support to projects conducive to the development of local creative industries                                            | <ul style="list-style-type: none"> <li>• Of the 32 projects approved from 2018 to January 2020, 11 contained potential arts tech elements—of those, 8 came from the Digital Entertainment sector<sup>18</sup></li> <li>• Eligible to locally registered institutions<sup>19</sup></li> </ul>                                                                                  |
| ITF          | <b>Technology Voucher Programme (TVP)</b><br><br>TVP is one of many funding programmes under the ITF with aims to subsidise local small and medium enterprises (SMEs) ‘in using technological services and solutions to improve productivity, upgrade or transform their business processes’ | <ul style="list-style-type: none"> <li>• As of January 2020, out of 300 successful applications, only 13% came from the CCI—of those, most are ‘applied tech’ projects concerned with improvements made towards ERP systems</li> <li>• Eligible to local SMEs</li> </ul>                                                                                                      |

<sup>17</sup> From January to July 2017, FMA projects received the largest proportion of funding (HKD 3 million) out of all other art forms including visual arts, literary arts, xiqu, drama, dance, music, and cross-disciplinary arts, which account for 19% of the total funding for the HKADC’s ‘Project Grants’, excluding the ‘Cultural Exchange Grant’.

<sup>18</sup> The average grant amount per project is approx. HKD 3.8 million.

<sup>19</sup> These include local academic institutes, industry support organisations, trade and industry associations, professional bodies, research institutes and companies.

“ It is clear that the three profiled funding schemes in Hong Kong fundamentally bear no mandate for cross-sector arts tech collaborations. ”

Drawing from the information above, it is clear that the three profiled funding schemes in Hong Kong fundamentally bear no mandate for cross-sector arts tech collaborations.

While schemes as shown under the HKADC and CreateHK may currently accommodate projects that bear arts tech relevance, they do not match the arts tech funding as illustrated above from other economies, with articulate goals that incentivise active arts tech partnerships and co-projects. The same can be said for ITF's TVP; even though it is named the 'innovation and technology' fund, guidelines for creativity or innovation appear to have been omitted, again accentuating the discrepancy between funding schemes we have in Hong Kong, versus those of our international counterparts that specifically drive arts and tech innovation.

## RECOMMENDATION 2A (SHORT-TERM)

### Broaden the scopes of funding under the ITF's schemes

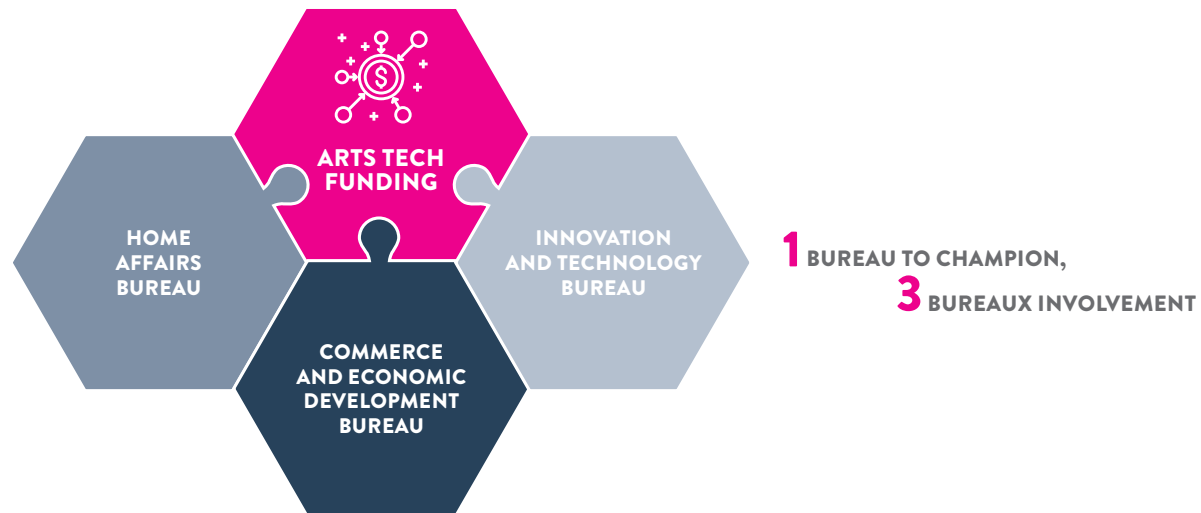
For the short term, **WE RECOMMEND** the project scopes and guidelines for the ITF's programmes, such as the Technology Voucher Programme be widened, so as to also include and encourage applications that bear creativity and innovative value from enterprises across the sectors. This would introduce greater diversity into the portfolio of projects supported by the ITF, strengthening the 'innovative' element of the fund.

## RECOMMENDATION 2B (LONGER TERM)

### A dedicated arts tech funding for Hong Kong

As previously mentioned, arts tech straddles across the jurisdictions of three bureaux in Hong Kong, and as part of a longer-term recommendation, we submit for the Government to establish a new arts tech funding with cross-bureau involvement, for cross-sector collaborations between arts and tech sectors.

FIGURE 7> A proposed new arts tech funding led by one bureau, with three bureaux involvement





## Organisation

**WE RECOMMEND** this funding be led by one championing bureau which facilitates collaboration and involvement among other related bureaux, including the HAB, the CEDB, and the ITB.

## Funding Scope & Eligibility

**WE RECOMMEND** the scope of arts tech projects eligible be clearly-defined, and shall include both front-end and back-end projects, with a focus on how to carve out future audiences through technology. The funding shall be open to cross-sector applications, eligible to arts organisations (both non-profit and for-profit), as well as tech companies to encourage co-project ideas and collaborative partnerships. R&D projects may also be entertained.

## Funding Options

With reference to the Hong Kong Film Development Council's current 'subsidy ladder' model, **WE RECOMMEND** the proposed arts tech funding similarly covers both fully-subsidised grants and part-financed schemes, to cater for applicants of different levels who may be in pursuit of projects with different purposes and goals. It is expected that the fully-subsidised grants will attract applications of smaller scale that are more experimental in nature, while the part-financed schemes will welcome more ambitious endeavours and proposals that are in view of commercialisation.



## CHAPTER 4

# INFRASTRUCTURE



Research &  
Development



Industry Application  
Channel



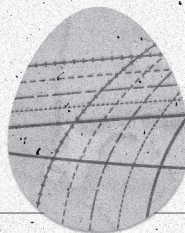
Creativity & Innovation Driver



Public Involvement



Incubation / Scaling up

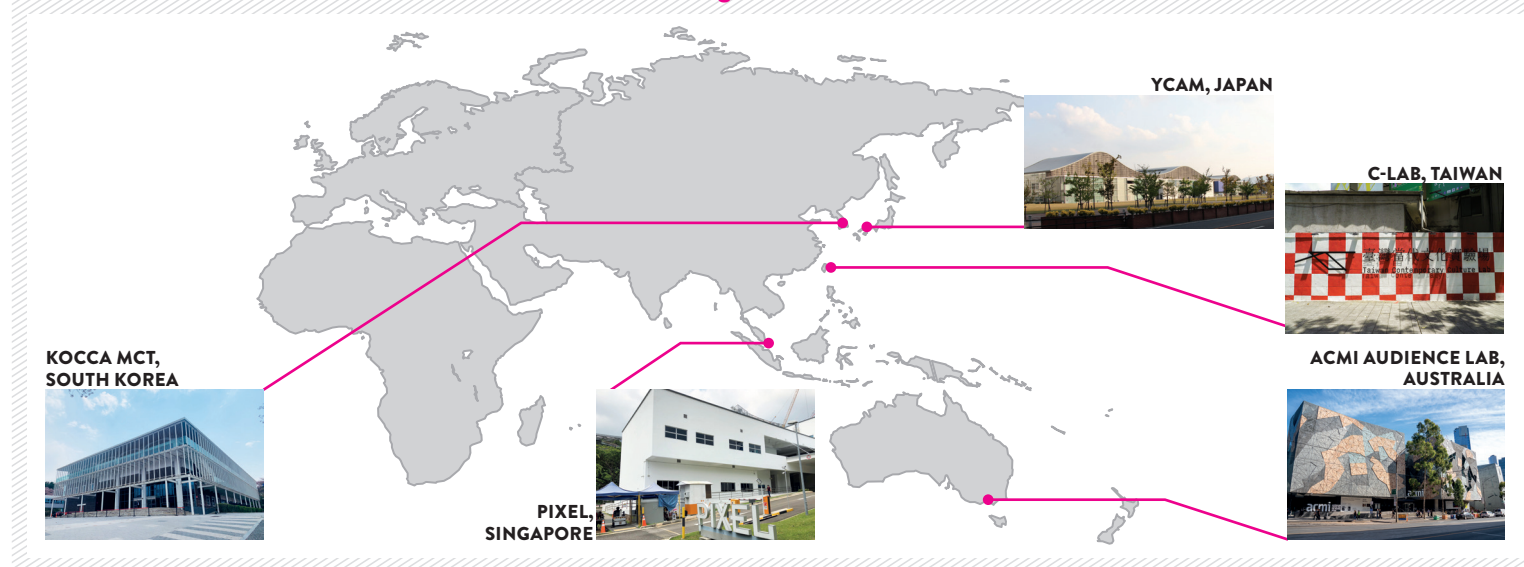




Aside from funding, the development and pushing forward of arts tech will also depend critically on targeted and well-supported infrastructures that are in place. The current predicament is that there is currently no dedicated space for arts tech R&D in Hong Kong. The five main government-appointed R&D centres cover the Automotive, Logistics, Integrated Circuits and FinTech, Nano-tech, and Textiles industries only; the ambit of creative cultures is not entertained, let alone arts tech R&D.<sup>20</sup>

However, looking beyond Hong Kong, there are indeed government-initiated arts tech testing grounds that exist around the world. Below, we present five case studies of arts tech infrastructures from Taiwan, Japan, Singapore, South Korea, and Australia respectively.

**FIGURE 8 > Case studies of arts tech infrastructures in the region**



<sup>20</sup> Hong Kong's five R&D centres are: the Automotive Parts and Accessory Systems (APAS); Logistics and Supply Chain MultiTech R&D Centre (LSCM); Applied Science and Technology Research Institute Company Limited (ASTRI); Nano and Advanced Materials Institute Limited (NAMI); and the Hong Kong Research Institute of Textiles and Apparel (HKRITA).

To tighten the parameters of this exercise, we have streamlined the prominent features from these case studies into five main themes. They cover components related to:

**1. RESEARCH & DEVELOPMENT**

A hub for generating rigorous research, containing cutting-edge, tech-supported facilities led by its own qualified researchers.

**2. INDUSTRY APPLICATION CHANNEL**

Programmes are curated to be grounded and relevant to the industry. As an entity, the infrastructure should serve as a channel through which new products, prototypes, and ideas may be tested and applied to industry, and then evaluated efficiently.

**3. CREATIVITY & INNOVATION DRIVER**

Emphasis should be placed on supporting projects with promise in driving creativity and innovative value. Co-project models and co-working spaces may be considered to maximise opportunities for cross-fertilisation between different knowledge arenas, in so doing, engendering new hybrids and ideas.

**4. INCUBATION / SCALING UP**

Incubation support offered with a view to help businesses scale up and branch out.

**5. PUBLIC INVOLVEMENT**

Bears a mandate to drive public education and awareness towards arts tech development in the community.

The infrastructure oughts to show commitment towards building a sustainable ecosystem surrounding arts tech for the industry, and maintain a regular, dynamic presence in the community.

Many of the arts tech infrastructures profiled below contain many, if not all of these components. Features corresponding to the five components are indicated in parentheses where appropriate, for easy reference.



## CASE STUDY 1

## TAIWAN CONTEMPORARY CULTURE LAB

With the promotion of ‘cultural innovation’ and ‘cultural experimentation’ as two of its key missions, Taiwan’s Contemporary Culture Lab (C-LAB) serves as a physical base and matchmaking platform for innovative ideas, bringing into the same space, cultural professionals as well as technologists **(R&D components)**.<sup>21</sup> Its commitment in calling to action, more collaborations between these two sectors, C-LAB’s projects aim at catalysing integration and exchange between different knowledge arenas, and are experimental, interdisciplinary and co-project based **(creativity & innovation driver)**. There are different platforms set up to attract and gather the right people to the right projects. The Contemporary Art Platform for instance specifically seeks to match up creative and technical talents to collaborate in co-projects of cross-disciplinary nature, and the Audio/Visual Media Platform which focuses on experimental media art, partners with Taiwan’s Ministry of Science and Technology, which in turn facilitates and supports the applications of the media cultural products into the industry **(industry application channel)**.



Image courtesy of Taiwan Contemporary Culture Lab

C-LAB’s programmes and arts tech offerings are diverse and all-rounded. Aside from the aforementioned, C-LAB also provides infrastructural support through various themed laboratories, culture venues, educational workshops, co-working spaces as well as an urban aesthetic park for public involvement and participation **(public involvement)**.

<sup>21</sup> C-LAB was established in 2018 under the executive planning of the Taiwan Living Arts Foundation and affiliated with the Ministry of Culture.

## CASE STUDY 2

# YAMAGUCHI CENTER FOR ARTS AND MEDIA

The Yamaguchi Center for Arts and Media (YCAM) in Japan is another example of a government-supported infrastructure dedicated to arts tech R&D.<sup>22</sup> YCAM experiments with media technology as its prime focus, and explores ways to apply it into fields of contemporary art, performing arts and public art education (**public involvement**). It considers itself a media laboratory that interlinks media art and society, through workshops, lectures, research, exhibitions, and in-house residency programmes (**industry application channel**).

Most notable about YCAM is the YCAM InterLab—an internal team of cultural technologists and researchers, who are responsible for localising the latest research and developments on media technology, as well as to open up collaborations between artists, engineers, and researchers for all of YCAM's commissioned works (**R&D components**). At the same time, YCAM InterLab also places strong emphases on



YCAM by timtak @ flickr

building networks between like-minded experts—it has formed a network out of specialists from the technical departments of different cultural institutions, to ensure more opportunities for effective exchange and for best practice to be shared.

<sup>22</sup> YCAM was established in 2003 by the Yamaguchi Prefecture Government.

## CASE STUDY 3

### PIXEL

Singapore's PIXEL is an incubation space for endeavours that hybridise the realms of media, design and technology **(creativity & innovation driver)**.<sup>23</sup> PIXEL's facilities include production studios, immersive experience labs, user-testing labs, co-working and meeting spaces—all of which are accessible to its current 22 incubatees **(R&D components)**. PIXEL also seeks to be the bridge that links business ideas from its incubatees with industry corporates **(industry application channel)**. For instance, PIXEL has rolled out a mentorship programme, in which experts from private sector media companies can offer coaching to their mentees, through workshops and training sessions, and covering a wide range of areas including design thinking, user interface/user experience, immersive experiences, digital storytelling, content creation, and games, etc. A most successful incubatee of PIXEL is MeshMinds, now a leading creative technology studio in Singapore, that specialises in blending arts with Virtual and Augmented Reality (VR and AR) **(incubation / scaling up component)**.

<sup>23</sup> PIXEL was established in 2016 by the Infocomm Media Development Authority (IMDA).



MeshMinds is also the first creative technology studio in Asia to become a member of the Apple Consultants Network—a network that provides training to professionals on how to integrate digital media in a classroom or museum-based environment, thus reinforcing the high position it holds in the wider arts tech community internationally.



## CASE STUDY 4

### KOCCA'S MULTI CONTENT TESTBED

As mentioned in Chapter 2, the Korea Creative Content Agency (KOCCA) is regarded as the South Korean government's dedicated arts tech incubator and agency, in charge of governing cultural content. Under the ambit of the MCST, KOCCA has initiated various forward-looking projects with farsighted goals to further sharpen the competitive edge of the Korean cultural content industry: the Multi Content Testbed (MCT) is merely one example.

KOCCA's MCT prides itself as one of the most advanced testing grounds in South Korea, forming part of a four-storey building over an area of 2700m<sup>2</sup> on which a black box theatre, a big stage (Stage 66), as well as another small stage (Box 66) are built and installed. As its name suggests, the MCT primarily serves as a testbed to experiment cutting-edge stage innovations in the performance setting (**R&D components**). To ensure these facilities receive maximal utilisation, the MCT currently supports 20 arts and cultural enterprises with businesses that involve in multi-content performance testing, etc (**industry application channel**). Apart from providing infrastructural support, MCT also helps groom these enterprises to develop



their own sustainable business models by providing them with the relevant consultation, and assisting their PR material production, media day launch, meet-up sessions as well as organising investment seminars (**incubation / scaling up component**). All in all, the facilities and support offered by the MCT plays a part to incentivise the Korean cultural and creative sector by exploring more enterprising business models that leverage on technology to drive ground-breaking works underpinned by technology-based multi-content.

## CASE STUDY 5

# AUSTRALIAN CENTRE FOR THE MOVING IMAGE'S AUDIENCE LAB

The Australian Centre for the Moving Image (ACMI) is one of the most representative examples of museums combining the showcase of different media of moving image, including but not limited to film, television, videogames, digital culture and art. Recently, ACMI partnered with the Royal Melbourne Institute of Technology (RMIT) to set up the new ACMI x RMIT Audience Lab. Launching in mid-2020, the Lab will act as a prototype testing ground for moving image and mixed-reality artists, videogame developers as well as film and TV makers. This initiative will also provide co-working and collaborative spaces **(creativity & innovation driver)** that are complemented with incubation capabilities so as to ensure scaling up support where necessary for successful prototypes **(incubation / scaling up component)**. The Audience Lab will aim to develop and prototype new technologies that can track audience behaviour while they are moving around the museum **(R&D components)**—the data from which can all contribute to

more effectively informing the museum's strategies on audience engagement going forward **(industry application channel)**. With the Audience Lab expected to lie at the heart of the museum itself, this makes prototype testing much more efficient and targeted. At the same time, the visitors in the museum can also be made more aware of the R&D that goes on within the museum—an effective way of driving public education **(public involvement)**.



Photo: Suthikait Teerawattanaphan / Shutterstock.com

Unlike our international counterparts as profiled above, Hong Kong has yet to offer a dedicated space for arts tech R&D and experimentation. While this is true, the efforts and aspirations from two local universities in Hong Kong should be profiled as they are the two most comparable contenders that arguably constitute arts tech research that Hong Kong can offer.

The first is City University of Hong Kong (CityU)'s School of Creative Media (SCM) and the second is Hong Kong Baptist University (HKBU)'s Creative Media and Practice Research Cluster (CMP). Although both of them are set out to be part of Hong Kong's strongest arts tech research infrastructures, their fundamentally different structures make their purposes and missions, in parity, nuanced. While both champion interdisciplinarity, the former is a school of its own led by its own faculty members, whereas the latter is a cross-departmental research cluster of the university made up of researchers specifically hired for the cluster. Details on both of these institutions are provided in the following pages.

The first example is CityU's SCM, one of Hong Kong's most prominent institutions that nurture and support up-and-coming creative media professionals.



School of Creative Media, City University of Hong Kong





Established in 1998, the SCM is one of Hong Kong's first schools that is committed to the interdisciplinary models of pedagogy across the fields of computer science, fine arts, visual design, creative writing, cultural studies, and digital technology. The SCM's Centre for Applied Computing and Interactive Media (ACIM) is most reputed for its predominant function as a research hub and platform that holds different research areas together, including areas of computational science and engineering, data visualisation, digital humanities, new media technology, and the creative arts. There are currently five Team Research Fellowships and two Individual Research Fellowships at ACIM, conducting different R&D projects of arts tech nature.

The other example is the CMP at HKBU. As one of HKBU's three interdisciplinary research clusters, the CMP was launched in 2018 with a mandate to serve as an engine for social development through the promotion of radical innovations and convergences between creative media, traditional art crafts, and digital technology.<sup>24</sup> With interdisciplinarity at the core of the CMP's practice, all its research programmes and activities are geared towards the bringing of arts and technologies together to transform society in substantial and positive ways. A new building complex, unofficially referred to as HKBU 'Creative Hub', is currently under construction and will house the interdisciplinary research cluster when construction is complete around 2023–2024.<sup>25</sup> The image on the subsequent page is a digital rendering of the building.

<sup>24</sup> HKBU launched three interdisciplinary research clusters as part of the University's Institutional Strategic Plan 2018-2028: 1. Creative Media/Practice; 2. Health and Drug Discovery; 3. Data Analytics and Artificial Intelligence.

<sup>25</sup> Core components that make up the Creative Hub include the CMP, The Academy of Music, Professional Recording Studio Complex, and a Living and Learning Community.



A digital rendering of the Creative Hub, Hong Kong Baptist University, which, when completed, will house the Creative Media and Practice Research Cluster  
Courtesy of Hong Kong Baptist University

These are exciting developments for Hong Kong for the future, but instead of playing ‘catch-up’, it is useful to make note of the functions and components of successful arts tech infrastructures around the world, so as to ensure Hong Kong’s offerings will not pale in comparison but rather, add something new to the table.

Table 5 summarises the functions and purposes of all the infrastructures profiled above, including the two from Hong Kong.

TABLE 5 > **A summary of our case study infrastructures**

| Infrastructure                                      | R&D COMPONENTS  |                         | INDUSTRY APPLICATION CHANNEL | CREATIVITY & INNOVATION DRIVER | INCUBATION / SCALING UP COMPONENTS | PUBLIC INVOLVEMENT |                  |
|-----------------------------------------------------|-----------------|-------------------------|------------------------------|--------------------------------|------------------------------------|--------------------|------------------|
|                                                     | Own researchers | Tech-supported facility | Own programmes               | Co-project & co-work           | Incubation / scaling up            | Public access      | Public education |
| C-LAB, TAIWAN                                       | ✓               | ✓                       | ✓                            | ✓                              | ✗                                  | ✓                  | ✓                |
| YCAM, JAPAN                                         | ✓               | ✓                       | ✓                            | ✗                              | ✗                                  | ✓                  | ✓                |
| PIXEL, SINGAPORE                                    | ✗               | ✓                       | ✓                            | ✓                              | ✓                                  | ✓                  | ✗                |
| KOCCA MCT, SOUTH KOREA                              | ✓               | ✓                       | ✓                            | ✗                              | ✓                                  | ✓                  | ✗                |
| ACMI AUDIENCE LAB, AUSTRALIA                        | ✓               | ✓                       | ✓                            | ✓                              | ✓                                  | ✓                  | ✓                |
| <b>HONG KONG</b>                                    |                 |                         |                              |                                |                                    |                    |                  |
| CityU's School of Creative Media                    | ✗               | ✓                       | ✗                            | ✓                              | ✗                                  | ✗                  | ✗                |
| HKBU's Creative Media and Practice Research Cluster | ✓               | ✗                       | ✗                            | ✓                              | ✗                                  | ✗                  | ✗                |



Even though the profiles and areas of focus for each infrastructure are nuanced and may vary, we are able to notice that the infrastructural support in Hong Kong pale in comparison to those of our international counterparts, particularly in the aspects of ‘industry application’, ‘scaling up’ support, and ‘public involvement’. Granted these facilities are within university grounds, certain limitations as evidenced above are understood and expected. We look forward to seeing the contributions of HKBU’s Creativity Hub, which will hopefully fulfil all these areas.<sup>26</sup>

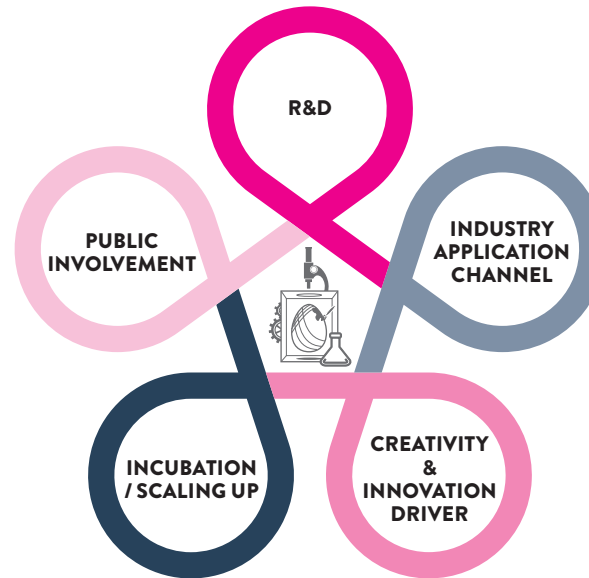
<sup>26</sup> Some key features of the new complex include an Augmented Creativity Lab, a White-Box Experiment Space, a Volumetric Photogrammetry VR and AR Lab, as well as an Industry Incubation Centre with co-working spaces and studios, etc. The ‘Creative Hub’ also hopes to be community-driven with close ties to the public.

## RECOMMENDATION 3

### Set up creative innovation research infrastructure for testing and experimenting new ideas and hybrids

Given the discrepancy that lies between Hong Kong and others in terms of contribution or offering, **WE RECOMMEND** a creative innovation research infrastructure be set up in Hong Kong with the aforementioned five components that cover the aspects of: 1. Research and Development, 2. Industry Application Channel, 3. Creativity & Innovation Driver, 4. Incubation / Scaling up, and 5. Public Involvement.

FIGURE 9> Five key components to a creative innovation research infrastructure



**WE RECOMMEND** the existing arts tech research infrastructures in Hong Kong, such as the School of Creative Media at City University of Hong Kong and the Creative Media and Practice Research Cluster at Hong Kong Baptist University, expand and strengthen their service offerings, such that they are more accessible, experimental, and industry-driven. We would suggest the upcoming arts tech lab in The Open University of Hong Kong to similarly take on these considerations.

**AND / OR**

**WE RECOMMEND** a new R&D research facility be set up, dedicated to servicing the cultural and creative industries, which includes a mandate that promotes arts tech collaborations and innovative projects that catalyse integration and exchange across different disciplines.

**AND / OR**

**WE RECOMMEND** cultural institutions in Hong Kong, such as the West Kowloon Cultural District, public museums, and other arts spaces, to commit to including spaces for testing and experimenting within their venues. The joint, consolidated effort will not only contribute towards fostering a more receptive and experimental-friendly environment for general arts and cultural appreciation in Hong Kong, but would as well make the institutions themselves appear more unique and exciting.



## CHAPTER 5

# NETWORK & CAPACITY BUILDING

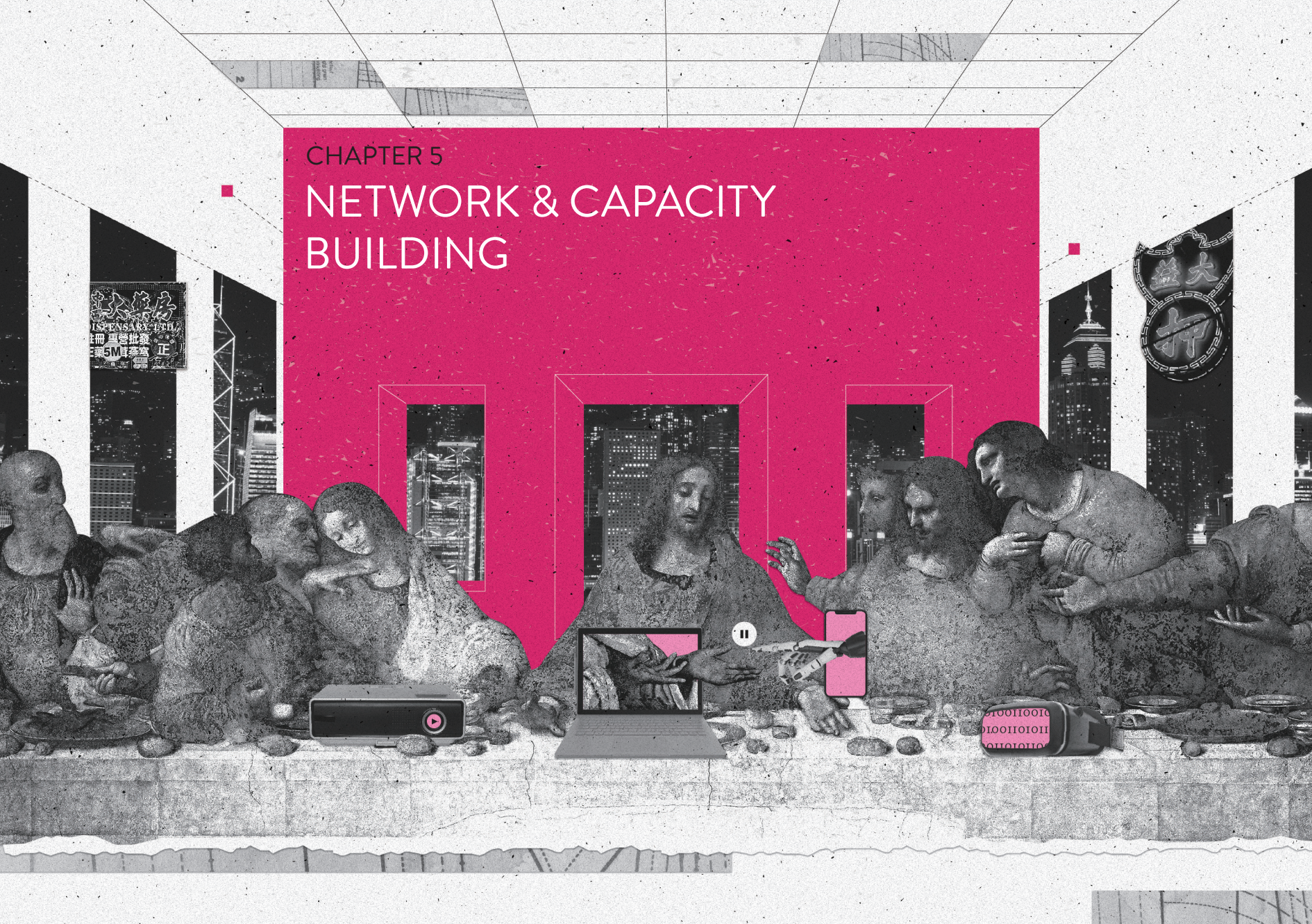
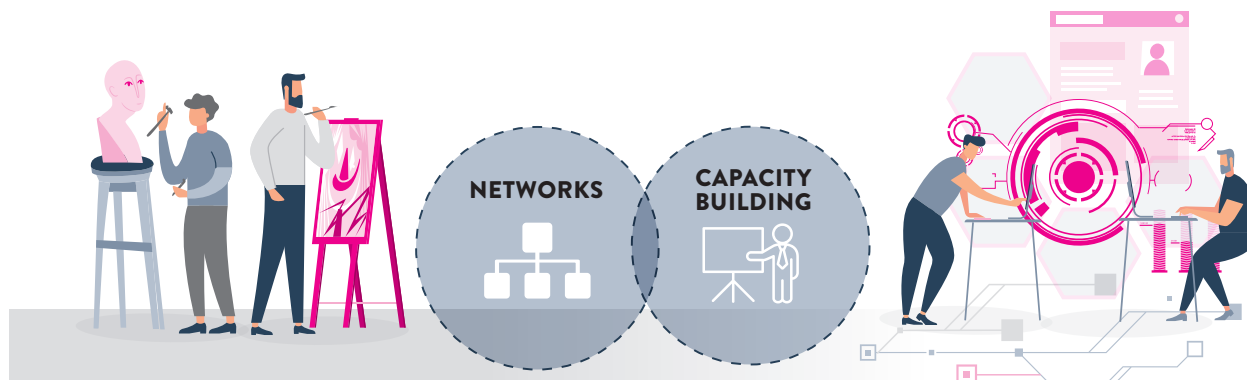




FIGURE 10 > **Information gap between the arts and technology sectors**

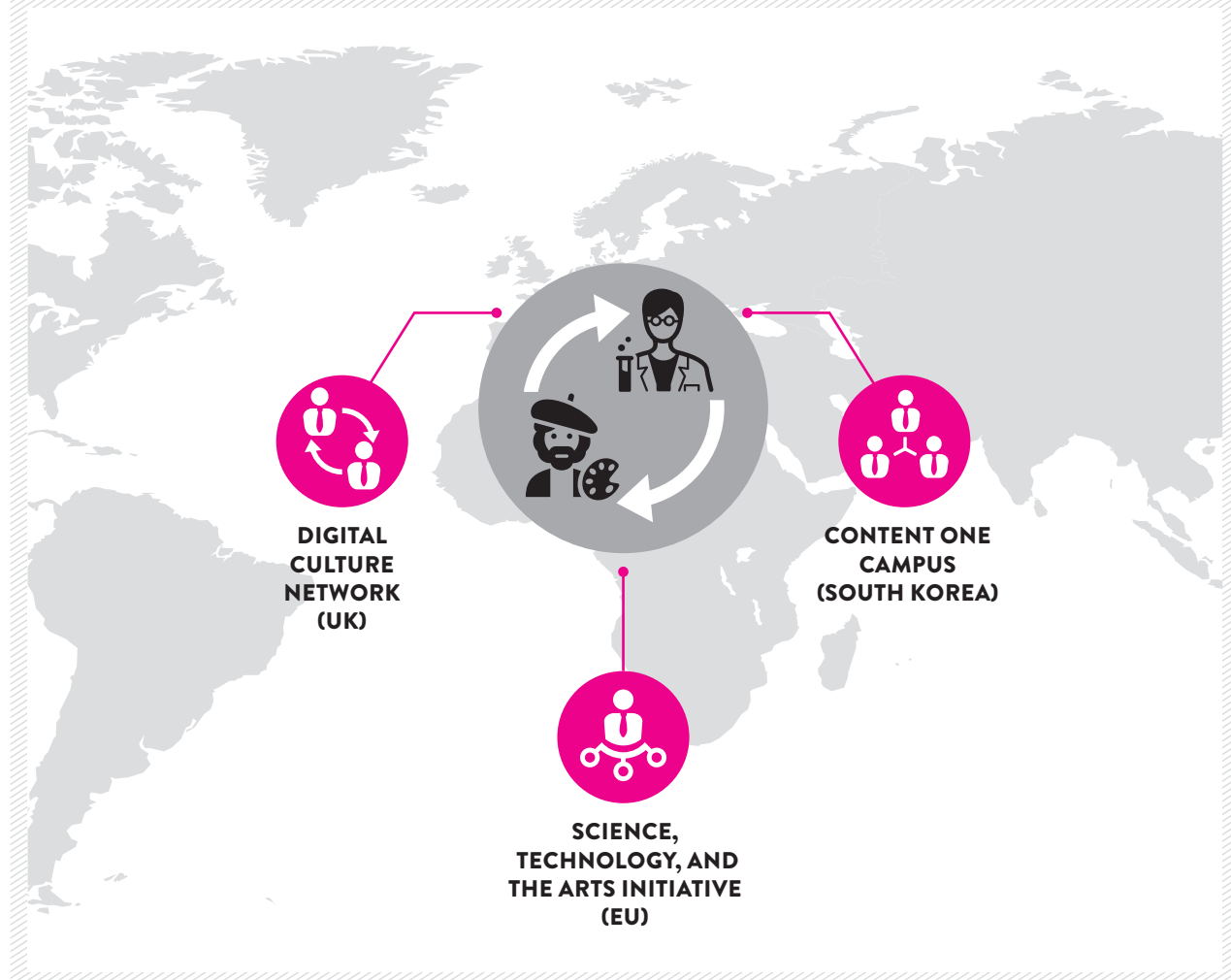


Apart from the gaps of funding and infrastructure, active networks that bridge different parties together must also be in place. From the research and stakeholder engagements we have conducted, we are aware of the clear information gap that exists between the arts and technology sectors.

At the moment, we observe that it is common practice for creative technologists to almost always return to their alumni circles (such as City University of Hong Kong's SCM) to seek out collaborators—and it is as common for those outside the circle to be acquainted with someone from within, who would facilitate introductions and make referrals in this way.

While these organically-formed connections have their appeal and merit, substantive networks and platforms with specific goals geared towards bringing creative and technological forces together may be considered. This is indeed happening around the world, with different countries having established dedicated networks with the aims to converging exactly those from the arts and technology sectors.

FIGURE 11 > **Networks that fill the information gap between arts and technology sectors around the world**



**EXAMPLE 1****DIGITAL CULTURE NETWORK IN THE UK**

In the UK, GBP 1.1 million is invested into the setting up of the Digital Culture Network (the Network). Commissioned by the ACE, the Network functions primarily to leverage and consolidate industry expertise between arts and technology sectors, and facilitates partnerships and collaboration between them.

The Network, however, serves more than pure networking. It is also a platform on which best practice, and support for capacity building can be offered. Most notably, the Network is led by nine ‘Tech Champions’, who are digital specialists across different areas of expertise, evenly distributed across the country to provide on-hand guidance and training for arts and cultural organisations who may not have had the expertise and resources to think about arts tech in ways like these before.<sup>27</sup>

Other than that, the UK has also developed benchmarking tools to enhance and strengthen sector-wide digital capacity. These include the Digital Maturity Index (the Index) and the Digital Culture Code (the Code).<sup>28</sup>

The Index is essentially a self-help tool that allows organisations to assess how mature they are in their use of digital technology, while the Code offers guiding principles to help organisations enhance their own levels and practices of digital maturity. With a standardised scale for measurement, users can check their digital indexes and compare their ‘scores’ with other cultural partners across the board. They can also tailor their digital development plans accordingly, to areas that need particular improvement. Therefore, while these tools may strengthen organisations’ capacity building competence, they also in turn contribute towards fostering a more mature and tech-savvy creative and culture sector at large.<sup>29</sup>

<sup>27</sup> The Nine Tech Champions specialise in areas including data analytics, website design, digital marketing, social media, online customer relationship management, and search engine optimisation, etc.

<sup>28</sup> The Digital Maturity Index and the Digital Culture Code are developed by ACE and the Heritage Fund, designed and built by a partnership led by the Audience Agency, Culture 24, The Space, University of Leicester and Creative Coop, with GBP 200,000 funding from the DCMS.

<sup>29</sup> The following aspects are taken into account in the Digital Index: overall strategy and governance, specific arts, cultural, and heritage activities, as well as general activities such as digital skills development and operations.

As such, the UK’s Digital Culture Network and its other related capacity building initiatives provide good reference for us in Hong Kong. The UK model not only fills the apparent gap between the once distinct arts and technology sectors, but also has the functions of a propeller that both motivates and supports the whole sector on the adapting to, and internalising of technology, as part of the nation’s cultural vision to keep their cultural assets ‘tech-savvy’ and relevant to the times.



## EXAMPLE 2

### CONTENT ONE CAMPUS IN SOUTH KOREA

Launched in 2018, Content One Campus is a new brainchild of the MCST and KOCCA. It considers itself a network of intelligence that consolidates and joins up expertise from stakeholders across all the major theatres of operation which include universities, private businesses, research institutions, and regional government bodies.

What makes Content One Campus unique is its apparent focus on bridging creatives and technologists through collaborative project processes and training, as well as its emphasis on driving more effective industry-academic relations. For example, in the first round of pilot projects of 2018, Content One Campus had put together Korea National University of Arts (university),

Mania Mid Co., Ltd (business), and CJ Future Management Institute (research institute) to collaborate on a VR Immersive Theatre product that converged animation with holography and stage production. Another successful pilot from the same batch brought together Sangmyung University Cheonan (university) and Znode Co., Ltd (business) to collaborate in a performance that organically combined animation, projection mapping, holographic video projection.

Following the success of the pilot scheme, Content One Campus continued to run in 2019, and has forged together 14 new collaborative groups throughout South Korea, from Seoul to Jeju.

From this, we can derive that it is imperative for successful networks to establish intricate ties with industry, research institutions, as well as universities, so as to ensure that the information loop that is being formed is comprehensive, holistic, dynamic, and self-sustainable.

## EXAMPLE 3

### SCIENCE, TECHNOLOGY, AND THE ARTS INITIATIVE IN THE EUROPEAN UNION

The European Commission has also set up the Science, Technology, and the Arts (STARTS) Initiative, which is a network that encourages cross-collaboration among practitioners from those three disciplines. Notably, the STARTS Initiative runs residency programmes that bring artists into technology institutions, and scientists and technologists into studios of artists.

## HOW HONG KONG COMPARES IN TERMS OF NETWORKS

There are no comparable networks of this nature, vision and depth in Hong Kong. We were able to map out several directories from scattered sources, as illustrated in Figure 12 below, but these directories are largely undynamic and inactive with little effect towards encouraging cross-sector collaboration. Moreover, it appears there is no complete set of directories for the CCI at large, with some sectors missing.

FIGURE 12> **Current networks within the cultural and creative industries in Hong Kong**



As shown in Figure 12, the HKADC offers two online directories, namely the Hong Kong Performing Arts Directory and the Hong Kong Visual Arts Practitioners Directory, both of which enable interested parties to search up information on local visual and performing arts practitioners and arts groups, and make further contact. Some, but not all, of the other sectors within CCI also organised directories for their own. These include a Film Production Directory by CreateHK, a Design Directory by Hong Kong Design Centre, a Fashion Industry Directory by Hong Kong Apparel Society Limited, an Architectural Practices Directory by the Hong Kong Institute of Architects, a Digital Entertainment Directory by the Hong Kong Digital Entertainment Association, and a Tech Companies' Directory by the Hong Kong Science and Technology Park, etc.

Despite a seemingly abundant array of directories, the resources are scattered from siloed sectors with little linkage and collaboration between each platform. Apart from the network of alumnae from CityU's SCM—commonly referred as the single-most active 'network' amongst arts tech practitioners in Hong Kong today, the rest appear to be largely inactive, and do little towards cultivating better-guided, cross-disciplinary collaborations between arts and technology professionals.

## RECOMMENDATION 4

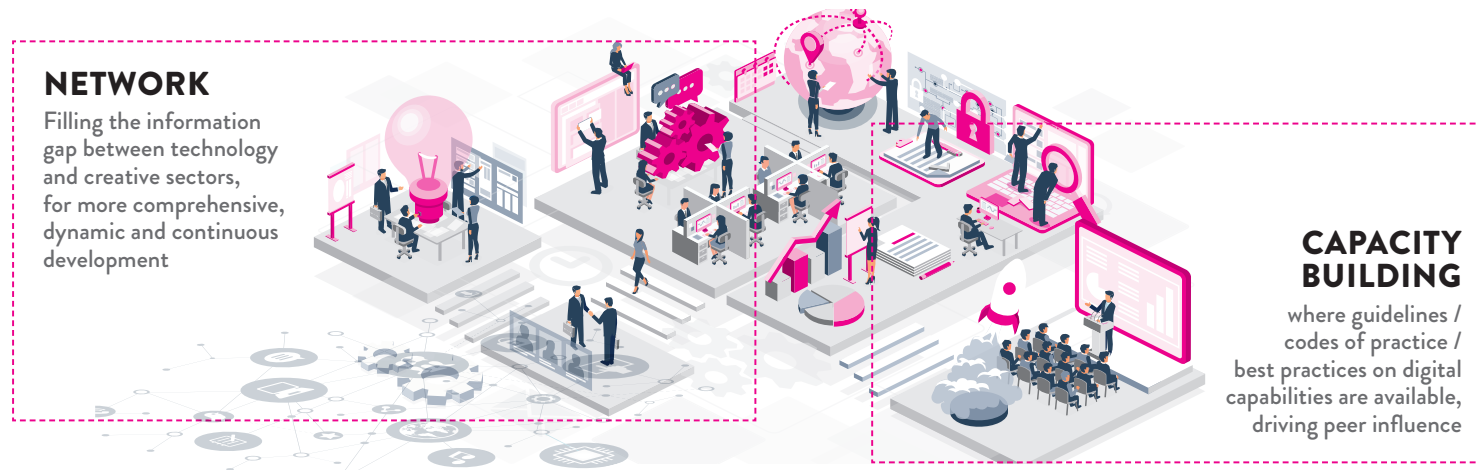
### **Fund a digital culture platform that creates a network of expertise and sharing of best practices**

**WE RECOMMEND** the setting up of a digital culture platform for Hong Kong that calls to action, creative circles and technologists to work and synergise together (see Figure 13).

Drawing from the UK's Digital Culture Network above, we believe the platform shall fulfil both networking functions, as well as offer capacity building initiatives that help and guide the industry. And in reference to South Korea's Content One Campus, it is imperative for this platform to establish close ties with universities, businesses, as well as the industry to ensure that the platform is part of a dynamic and comprehensive information loop that can sustain and stay active.



FIGURE 13 > A proposed digital culture platform with two functions be set up



The specifics regarding this recommendation are delineated below:

**WE RECOMMEND** a leading bureau funds the platform with functions of a dynamic and holistic network of information and expertise; offering capacity building initiatives specifically geared towards driving peer influence on enhancing the sectors' digital maturity.

- The leading bureau shall invite an intermediary to build and run this platform, but take oversight of its' utilisation, overall effectiveness, and long-term development.
- The leading bureau shall set farsighted goals, with KPIs to maintain regular presence and keep the platform active and continuous, through events and other initiatives that involve public engagement.
- This platform shall complement, and form good links with Recommendation 3's creative innovation research infrastructure as part of one holistic network, such that talents and information from within the infrastructure can flow outwards through this network, keeping the industry dynamic and up-to-date with newest developments.





CHAPTER 6

# SUMMARY OF RECOMMENDATIONS



## A summary of recommendations corresponding to each policy gap:

| POLICY GAPS                            | RECOMMENDATIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | OBJECTIVES                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>BLUEPRINT</b>                       | 1. Devise a cultural blueprint on arts tech to bring cultural and technology sectors to work together, covering commitments across funding, infrastructure, and network and capacity building.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | A top-down commitment and call to action to create greater opportunities for arts and technology sectors to work together, with farsighted goals to ensure these cross-sector collaborations can be continuous and sustainable.                                                                                                                                                  |
| <b>FUNDING</b>                         | <p>2A. Enlarge the project scopes under Innovation and Technology Fund's schemes, such as Technology Voucher Programme, to include and encourage applications that bear creativity and innovative value from enterprises across the sectors.</p> <p>2B. A new funding for arts tech projects:</p> <ul style="list-style-type: none"> <li>• Championed by a leading bureau, with cross-bureau involvement (Home Affairs Bureau, Commerce and Economic Development Bureau, Innovation and Technology Bureau)</li> <li>• Eligible to cross-sector applications, covering front-end / back-end / R&amp;D projects</li> <li>• To cover both fully-subsidised grants and part-financed schemes to cater applicants of different levels</li> </ul> | <p>Introduce greater diversity into the portfolio of projects supported by the Innovation and Technology Fund, strengthening the 'innovative' element of the fund.</p> <p>Establish Hong Kong's first dedicated funding for arts tech convergence to provide greater incentive for practitioners across the arts and technology sectors to work together and create synergy.</p> |
| <b>INFRASTRUCTURE</b>                  | <p>3. Set up a creative innovation research infrastructure for testing and experimenting new ideas and hybrids:</p> <ul style="list-style-type: none"> <li>• To cover the five aspects of 1. Research and Development, 2. Industry Application Channel, 3. Creativity &amp; Innovation Driver, 4. Incubation / Scaling up, and 5. Public Involvement</li> <li>• To strengthen existing arts tech infrastructures at Hong Kong's universities</li> <li>• To allocate testing spaces in the West Kowloon Cultural District and public museums</li> </ul>                                                                                                                                                                                      | Strengthen Hong Kong's position as a global arts city and hub of popular culture by dedicating spaces and testbeds for experimentation and ground-breaking new ideas.                                                                                                                                                                                                            |
| <b>NETWORK &amp; CAPACITY BUILDING</b> | <p>4. Fund a digital culture platform that creates a network of expertise and sharing of best practices:</p> <ul style="list-style-type: none"> <li>• Leading bureau to invite intermediary to build and run it</li> <li>• Leading bureau to set KPIs and take general oversight of its effectiveness and long-term development</li> <li>• To complement and stay well-connected to the infrastructure in Recommendation 3 as part of a holistic and well-informed digital culture ecosystem</li> </ul>                                                                                                                                                                                                                                     | Filling the information gap between the creative and technology sectors will symbiotically boost the capacities of the cultural and creative sectors, and unleash the creative potentials of the technology sector, expanding and strengthening Hong Kong's creative and innovative power.                                                                                       |



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### KEY ADVISORS

**MR BERNARD CHARNWUT CHAN, GBS, JP**

President, Asia Financial Holdings Limited and Asia Insurance Company Limited; Vice-Chairman, Our Hong Kong Foundation; Convenor, Executive Council of HKSARG

**PROF ANTHONY Y.H. FUNG**

Co-Director of Hong Kong Institute of Asia-Pacific Studies, The Chinese University of Hong Kong

### REPORT ADVISORS

**MR MAURICE LEE, BBS, JP**

Partner, Maurice W M Lee Solicitors

**PROF ERIC YIM, JP**

Chairman, Hong Kong Design Centre

**MR MATHIAS WOO**

Co-Artistic Director cum Executive Director, Zuni Icosahedron

**MR DANNY YUNG**

Founding Member and Co-Artistic Director, Zuni Icosahedron

### STAKEHOLDERS

**PROF RICHARD WILLIAM ALLEN**

Dean, School of Creative Media and Chair Professor of Film and Media Art, City University of Hong Kong

**PROF MAURICE BENAYOUN**

Professor, School of Creative Media, City University of Hong Kong



**MS FLORENCE S. F. CHAN**

Chairlady, Performing Industry Associations  
(Hong Kong) Limited

**MR KIN-BUN CHAN, MH**

Company Consultant,  
Hong Kong Repertory Theatre

**PROF WING-WAH CHAN, JP**

Chairman of Composers and Authors Society of  
Hong Kong; Vice-President (Academic),  
Centennial College

**MR WAI HING CHEUNG**

Senior Partner, Woo Kwan Lee & Lo

**MS SUSANNA CHIU, MH, JP**

Director, Li & Fung Development (China) Limited

**MR SAI-HO CHOI**

Electronic Musician and Audio-Visual Artist

**MR DANIEL CHONG**

General Manager, Innovation and Technology,  
West Kowloon Cultural District Authority

**MS WHITNEY FERRARE**

Founder, Palladio Projects

**MR DATA FOK**

Co-Founder and Chief Operating Officer,  
Achiever Big Data Limited

**MR JAY FORSTER**

Co-Founder and Artistic Director,  
Clockenflap Music & Arts Festival,  
Magnetic Asia Limited; Curator, Sónar + D Hong Kong

**MS ALISON M. FRIEDMAN**

Artistic Director, Performing Arts,  
West Kowloon Cultural District Authority

**DR AMIC GARFIELD HO**

Assistant Professor, School of Arts and Social  
Sciences, The Open University of Hong Kong

**MR GEORGE HUANG**

Co-Founder, IOIO Creative

**MS LISA HUI**

Vice Chairlady, Performing Industry Associations  
(Hong Kong) Limited

**MS JEONGOK JO**

Manager and Contents Curator, Korean Cultural Center  
Hong Kong, Consulate General of the Republic of Korea

**DR WILLIAM LAI**

Assistant Professor, School of Arts and Social Sciences,  
The Open University of Hong Kong

**MR HANG-ON LAU**

Member, Advisory Committee on Arts Development

**MS ANGEL LEUNG**

Programmes Manager, Videotage

**MR KEI-CHEUK LEUNG (GAYBIRD)**

Multidisciplinary Artist, Composer and Electronic Musician

**DR WILLIAM LEUNG, SBS, JP**

Former Council Chairman,  
The Hong Kong Academy for Performing Arts

**MS AGNES LIN**

Founder and Director, Osage Art Foundation

**MR TEDDY LO**

Visual Artist, Lighting Designer and Founder, Ledartist

**MR KEE HONG LOW**

Head of Theatre, Performing Arts,  
West Kowloon Cultural District Authority

**PROF FREDRIC MAO, BBS**

Founder and Director, Performing Arts Asia

**DR PETER A.C. NELSON**

Assistant Professor, Academy of Visual Arts,  
Hong Kong Baptist University

**DR LOUIS NG**

Museum Director, Hong Kong Palace Museum,  
West Kowloon Cultural District Authority

**PROF LOUIS NIXON**

Professor and Director, Academy of Visual Arts,  
Hong Kong Baptist University

**MR STÉPHANE NOËL**

Artistic and Executive Director, Materialise

**MR JONGTAEK PARK**

Director, Korean Cultural Center in Hong Kong,  
Consulate General of the Republic of Korea

**MR DAVID CHUN-YEE PONG, JP**

Executive Director, Shiu Wing Steel Limited

**PROF JOHNNY M. POON**

Acting Associate Vice-President (Research);  
Dr HS Hung Endowed Professor in Music; Head of  
Department of Music, Faculty of Arts; Convenor,  
Creative Media/Practice Research Cluster,  
Hong Kong Baptist University

**PROF JEFFREY SHAW**

Endowed Chair Professor of Media Art, School  
of Creative Media; Director, Center for Applied  
Computing and Interactive Media (ACIM),  
City University of Hong Kong

**MR RON SIU**

Co-Founder, IOIO Creative

**MR BILLY TAM**

Director, Thomas Chow Architects Limited

**MR PAUL TAM**

Executive Director, Performing Arts,  
West Kowloon Cultural District Authority

**PROF SUN MUN TSENG**

Adjunct Professor, Hong Kong Institute of Education

**MR PATRICK TU**

CEO and Co-Founder, Dayta AI Limited

**MR JOHN WONG**

CEO and Co-Founder, dontbelieveinstyle

**MR JOSEPH WONG**

Assistant Manager, Strategic Partnership,  
Hong Kong Science and Technology Park

**DR RAPHAEL WONG**

Associate Curator, Hong Kong Palace Museum,  
West Kowloon Cultural District Authority

**MR VICTOR WONG**

Film Director for Visual Effects,  
Multimedia Producer and Creator of A.I. Gemini

**MS HANSOL WOO**

Manager and Exhibition Curator,  
Korean Cultural Center in Hong Kong,  
Consulate General of the Republic of Korea

**MS MARISA YIU**

Co-Founder and Executive Director,  
Design Trust

**MR LOUIS YU**

Former Executive Director, Performing Arts,  
West Kowloon Cultural District Authority

**DR ROYCE YUEN, JP**

Co-Founder and Co-CEO,  
MaLogic Holdings Limited

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## **AUTHORS**

### **MR STEPHEN WONG**

Deputy Executive Director and  
Head of Public Policy Institute,  
Our Hong Kong Foundation

### **MR KENNY SHUI**

Assistant Research Director and  
Head of Economic Development,  
Our Hong Kong Foundation

### **MS HELEN SO**

Researcher,  
Our Hong Kong Foundation

### **MS CAROLINE NGAN**

Assistant Researcher,  
Our Hong Kong Foundation

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OUR HONG KONG FOUNDATION LIMITED

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