





# **Contents**

Foreword and Disclaimer	03				
Executive Summary	07				
1. The Blueprint Program	10				
1.1 Consultation Process	11				
2. Web3 International Financial Centre	13				
3. Web3 Enabled Market Opportunities for Hong Kong					
3.1 Doubling Down on Open Finance	20				
3.2 Hong Kong as a Place to Raise Capital	22				
3.3 Hong Kong as an Asset and Wealth Management Centre	32				
3.4 Carbon Markets and Impact Investing	35				
3.5 Hong Kong as an International Trade and Supply Chain Finance Centre	38				

4. Key Enablers	42
4.1. Talent	44
4.2. Market Infrastructure	51
4.3. Standards	54
4.4. Regulation	57
4.5. Funding and Economic Contribution	64
5. Action 2030: Towards a Web3-Enabled International Financial Centre	66
Contributors and Acknowledgments	68





# **Foreword and Disclaimer**



**Gary Liu** Chairman Web3 Harbour As the world stands on the cusp of a transformative digital era, Web3 technology is redefining how we interact, transact, and build trust in the digital economy. The decentralised framework that underpins Web3 promises a future of transparency, security, and user empowerment values that align with our commitment to fostering innovation and ethical adoption of blockchain technologies. This paper represents a collaborative effort by leaders, innovators, and stakeholders across the Web3 ecosystem. Through rigorous research and thoughtful discourse, we explore the challenges and opportunities ahead, providing key insights that will guide policymakers, businesses, and individuals in navigating the decentralised landscape.

Our association stands dedicated to advancing Web3 principles, ensuring an equitable and sustainable digital future. We invite you to join us in shaping this new frontier—where decentralisation fosters inclusivity, trust, and boundless possibilities.

On behalf of the Web3 community, we present this paper as a cornerstone for progress and an invitation for collaboration.



#### About Web3 Harbour

Web3 Harbour is a Hong Kongbased industry association dedicated to engaging and representing Web3 builders, investors, users, and business leaders to promote a pro-innovation, pro-collaboration, and truly inclusive environment for the development of the decentralised internet and digital asset economy. Members include startups, traditional conglomerates, investment firms, professional services providers, and tech communities interested in collaborating to address common challenges, advocate for favorable policies, and foster responsible growth in the digital asset sector. The association's core activities convene stakeholders from across sectors for open knowledge-sharing, upskilling, critical discourse, and networking. Learn more at: www.web3harbour.org Disclaimer: This paper is intended for informational purposes only and does not constitute financial, legal, or investment advice. While every effort has been made to ensure accuracy, the views expressed herein are those of the contributors and do not necessarily reflect the official stance of Web3 Harbour Limited or PricewaterhouseCoopers Limited. Readers should conduct their own research and consult relevant professionals before making any decisions related to Web3 technologies.









Peter Brewin

Assets Leader

PwC Hong Kong

#### Dear Readers.

PwC Hong Kong is pleased to support The Hong Kong Web3 Blueprint (The Blueprint) as Web3 Harbour's knowledge partner.

In his 2025/26 Budget Speech, the Financial Secretary announced that the Hong Kong SAR Government will issue a second policy address to "explore how to leverage the advantages of traditional financial services and innovative technologies in the area of virtual assets, enhance security and flexibility of real economy activities, and encourage local and international companies to explore the innovation and application of virtual asset technologies."

We hope that some of the ideas shared in this paper can be considered as part of this new policy initiative. This Blueprint not only explores the tangible benefits of tokenisation and digital assets as applied to the traditional financial system and real economy, but also serves as an actionable roadmap for policymakers, businesses, and innovators to consider.

At PwC our purpose is to build trust in society and to solve important problems. We see supporting initiatives like the Hong Kong Web3 Blueprint as core to this purpose.

PwC has been constantly evolving on how we bring technology and expertise to help our clients create and protect value. Our new brand positioning reflects the role we play for clients: bringing expertise and technology to help them build, sustain and accelerate momentum. By evolving our capabilities and who we are as a business, we can help our clients build the momentum they need to create value, build trust and face the future with optimism.

We invite you to explore this Blueprint as both a vision and a toolkit for Hong Kong's next chapter in financial innovation and leadership.







#### About PwC

At PwC, our purpose is to build trust in society and solve important problems. We're a network of firms in 149 countries with over 370,000 people who are committed to delivering quality in assurance, advisory and tax services. Find out more and tell us what matters to you by visiting us at www.pwc.com.

PwC refers to the PwC network and/ or one or more of its member firms, each of which is a separate legal entity. Please see <u>www.pwc.com/</u> <u>structure</u> for further details.









# **Executive Summary**

The Hong Kong Web3 Blueprint is a program developed by Web3 Harbour to articulate a unified industry voice on how Web3 technologies can help realise the Hong Kong Government's strategic policy objectives. This first volume contributes directly to the government's goal of enhancing Hong Kong's position as an International Financial Centre (IFC), offering concrete perspectives on how blockchain and decentralised systems can support economic growth, innovation, and global competitiveness. Web3 is the decentralised internet where all users can have self-sovereign ownership of their data, identity, and assets. Web3 is empowered by blockchain technology. This report outlines the foundational capabilities of Web3—described as Web3 Superpowers—that have the potential to reshape financial markets. These Superpowers enable a shift towards more efficient, secure, and user-centric financial infrastructure.

#### **The Web3 Superpowers**









#### Strategic Use Cases

To demonstrate the application of these Web3 capabilities in support of financial policy goals, we presented a number of Web3 use cases proposed by the Web3 Blueprint Task Force that aligned with current Hong Kong Government policy objectives and asked them to prioritise these in order of importance:



- 3.5 Stablecoin forex and derivatives markets to support corporate treasurers / cross-border supply chain payments
  - 3.5 Tokenised trade finance receivables
    - 3.2 Tokenised private credit 😑

**N** 

47

4.3

3.9

- 3.3 Creation of Hong Kong blockchain-native fund vehicle
  - 3.2.3 Tokenised IP & data assets
  - 3.1 Decentralised digital identifiers and data portability
    - 3.2.2 Tokenised physical infrastructure
      - 3.5 Supply chain traceability
      - 3.1 Tokenised data markets
      - 3.4 Carbon markets & impact investing
- y
   3.9

   y
   3.8

   y
   3.8

   y
   3.8

   y
   3.5

   y
   3.5
  - Very important Important

100%





#### **Enablers for Implementation**

The report also identifies five critical enablers that require policy and ecosystem support to bring these use cases to life:

Present State	Enablers					Web3 International Financial Hub
Leading IFC, but High Friction and Cost of Doing Business	Talent	Market Infrastructure	Standards	Regulation	Funding & Economic Contribution	Web3 Enabled Market Opportunities for
for Web3 • Top ranked IFC in Global South • Siloed systems • Lack of effective data sharing • Challenges with account opening for different verticals	<ul> <li>Forming &amp; upskilling</li> <li>International attraction</li> <li>Ecosystem integration as catalyst</li> </ul>	<ul> <li>Neutral networks</li> <li>Public infrastructure</li> <li>KYC/AML controls at app level</li> </ul>	<ul> <li>Industry-led standards</li> <li>International compatibility</li> <li>Cross-Chain compatibility</li> </ul>	<ul> <li>Stablecoin and virtual asset regulator resources</li> <li>Clarity</li> <li>Transparency</li> <li>International alignment</li> </ul>	<ul> <li>Growth- oriented schemes</li> <li>More strategic VC markets &amp; angel investor communities</li> </ul>	<ul> <li>Hong Kong</li> <li>Open Finance - Data Products</li> <li>New Capital Markets Pioneer</li> <li>Asset &amp; Wealth Management</li> <li>Carbon Markets &amp; Impact Investing</li> </ul>
<ul> <li>Lack of talent availability</li> </ul>	Private Sector Innovation					International Trade     & Supply Chain
Need for regulatory     harmonisation	Ecosystem Development Funding					Finance

This Blueprint provides the strategic groundwork for building a Web3-enabled financial future for Hong Kong—grounded in local capability, aligned with global opportunity, and powered by open, decentralised systems.

# 1

# **The Blueprint Program**





Web3 Harbour is a member-driven industry association dedicated to championing the development of Web3 in Hong Kong. By offering members a range of activities and forums for collaboration and advocacy, it serves as a vital hub for the Web3 industry. Building on its mission, Web3 Harbour is proud to launch the Hong Kong Web3 Blueprint Program—a comprehensive initiative designed to provide a focal point for industry consultation, foster alignment with government policy, and guide the sustainable growth and furtherance of Web3 both in Hong Kong and globally.

This report is informed by robust community input and sets the stage for future action and collaboration.

## **1.1 Consultation Process**

#### Figure 1. Blueprint consultation process

CREATE	CONSULT	СОММІТ	CONNECT
<ul><li>INDUSTRY EXPERTS</li><li>Report Formation</li><li>Opportunities</li><li>Actions</li></ul>	COMMUNITY • Stakeholder Feedback	ECOSYSTEM • Publish • Promote	<ul> <li>HK GOVERNMENT</li> <li>Chief Executive's Policy Unit</li> <li>Financial Service Development Council</li> <li>Financial Services and the Treasury Bureau</li> <li>Securities &amp; Futures Commission of Hong Kong</li> <li>Hong Kong Monetary Authority</li> </ul>
	2025 Q2	Other regulators and government departments	

Web3 Harbour recognises that collaboration is foundational to building a thriving Web3 ecosystem. To that end, the development of this Blueprint has been guided by an open and inclusive consultation process, designed to gather insights from across the industry and ensure the final report reflects the breadth and diversity of perspectives within the Web3 community.



pwc

Web3 Harbour has engaged stakeholders through a multichannel process that included surveys, targeted feedback sessions, industry roundtables, and community engagements—some of which were held in partnership with key ecosystem partners such as Cyberport. Feedback from these sessions has been directly incorporated into this report, including points of consensus as well as areas of divergence. Select insights are also featured throughout the Blueprint in dedicated breakout boxes, highlighting industry-specific commentary and recommendations.

#### Table 1. Engagement activities

Consultation / Engagement		When	Stakeholders Engaged			
	Survey 1	Q4 2024	Web3 Harbour members and mailing list.			
Survey	Survey 2 - Feedback Paper Response	Q1 2025	Distributed through Web3 Harbour mailing lists, association channels, Feedback Paper response form and Cyberport networ			
	Session 1	13 March 2025	Financial institutions, infrastructure providers, enterprise			
coundtable	Session 2	26 March 2025	blockchain firms, technology platforms, legal and policy experts.			

# 2 Web3 International Financial Centre





The 2024 Policy Address by the Chief Executive articulated the vision for Hong Kong's future, which is outlined through progressive goals to strengthen its position as a global financial centre, foster innovation, and integrate with the Greater Bay Area (GBA). This vision spans economic growth, sustainability, and digital transformation. A key policy objective is to develop Hong Kong as an International Financial Centre. In addition, the Financial Secretary stated in his 2025 budget speech that the HK SAR Government would "soon promulgate a second policy statement on the development of virtual assets to explore how to leverage the advantages of traditional financial services".

The intention of the Web3 Harbour Blueprint Project is to support this by advocating the benefits of including Web3 technologies in the architecture of Hong Kong's International Financial Centre. The first report in the Blueprint program considers this policy objective and will explore and suggest actionable strategies over a five-year period on ways we think Web3 could be integrated into the wider financial ecosystem.

We accept that many of these ideas are untested, and need significant further research and investigation to determine if they are feasible. Our objective in issuing this paper is to share these ideas, stimulate debate among stakeholders (private, academic, and public), and catalyse action. When we refer to a Web3 International Finance Centre, we are referring not only to technologies used to trade, take custody, and transfer assets and data on interoperable blockchain networks but also to the wider concepts of open finance, decentralised ID and new market structures that are made possible with this technology. While virtual assets are an important part of the new financial economy, this Blueprint provides a broader point of view on how the technology can enhance other sectors of the financial market and our economy.

Specifically, blockchain-powered networks have distinct advantages over centralised systems. We refer to these as "Web3 Superpowers."





Introducing the Web3 Superpowers

#### 1. User Ownership, Control and Governance

Users and creators of economic value can truly own their data, digital assets, and identities, enabling transfer and management without intermediaries. Blockchains can also allow individuals or entities to exercise their property rights more effectively by enabling borrowing, lending, pledging or licensing of those assets and efficiently tracking usage by third parties all on the same networks.

#### 2. Immutability with Transparency and Auditability

Tamper-proof records prevent fraud and unauthorised data alterations. Public blockchains allow anyone to verify transactions, increasing accountability and trust.

# 3. Privacy Enhancements and Digital Identity Sovereignty

Advanced cryptography (e.g., zeroknowledge proofs) allows selective data disclosure without compromising privacy. Users manage self-sovereign identities, reducing reliance on thirdparty providers and single sign-on systems that can be compromised.

# 4. Deep Automation and Al Integration

Self-executing agreements reduce dependency on intermediaries, lowering costs and delays. Disintermediation reduces fees for transactions, content distribution, and financial services. Blockchains provide the right economic systems for Al agent-to-agent commerce. Stablecoins provide the means of exchange for these systems.



5. Enhanced Security, Resilience and Reliability of Critical Infrastructure

Distributed infrastructure ensures no single point of failure, enhancing uptime and robustness. Distributed networks reduce vulnerabilities to hacks and breaches common in centralised systems.



Open standards enable seamless interaction between platforms, blockchains, and applications. Permissionless access allows participation regardless of geographic or socioeconomic barriers.



Leveraging on the above Web3 Superpowers, the following outcomes are possible:

#### Potential Outcomes of Applying Web3 Superpowers to Financial Services

- 1. **Real-Time Markets:** 24/7 real-time and instant asset transfer, auditing and trade settlement occurs. This frees up capital, increases efficiency, reduces counterparty risks and benefits user experience.
- 2. Increased Competition and Innovation: Readily available public blockchain network infrastructure, with digital sovereign identity and interoperability of applications and data. This reduces barriers to entry for startups and drives innovation, competition and again benefits user experience.
- 3. **Global Connectivity:** By leveraging international blockchain networks, cross-border connectivity will become standard. This will open up the addressable market for Hong Kong innovators and companies.
- 4. **Cost Efficiency:** Reductions in transaction costs, costs of customer onboarding, and maintenance costs facilitate retailisation and expand access to financial products by making them cheaper to offer to lower income groups.









- 5. **System Integration:** Currently insurance, savings, payments, investing and borrowing all happen in their own siloed environments. Using shared blockchain infrastructure opens up the possibility of connecting each of these financial activities. This could supercharge embedded finance and allow different financial products to be combined to create highly customised products in a cheaper manner.
- 6. **Asset Innovation:** Enhanced digital property rights, real-time execution, programmability, open finance, composability, and cost efficiencies collectively expand the universe of investable assets, unlock new sources of liquidity, and drive innovation in financial products.
- 7. IP and Data Economics:

Transforming how IP and data assets are valued, traded and monetised by enabling markets in these assets where usage (or even micro usage by Al agents) can be accurately tracked, compensated and monetised. 8. Enhanced Regulatory Supervision: Regulators could more effectively monitor and supervise markets in real time by leveraging the transparency and immutability of blockchains, combined with enhanced data access and Al-driven market surveillance.

It is our view that even some of the above outcomes could drive significant economic growth for Hong Kong, provided we take the lead in how these new systems are designed, created, and implemented. Our ability to attract the right capital, liquidity, and talent to come, build, trade, and invest here can further elevate our leadership position in the overall Web3 ecosystem.

# **3** Web3 Enabled Market Opportunities for Hong Kong

mirror\_mod.use\_x = False mirror\_mod.use\_y = False mirror\_mod.use\_y = False mirror\_mod.use\_z = True

rue alse

#selection at the end -add back the deselected mirror modifier object mirror\_ob.select= 1 modifier\_ob.select=1 bpy.context.scene.objects.active = modifier\_ob print("Selected" + str(modifier\_ob)) # modifier ob is the active ob mirror\_ob.select = 0

SUPPORTED BY



#### Which Parts of Our Financial System Should Hong Kong Focus On?

Hong Kong is not the only international financial centre looking to capitalise on these new technologies to attract capital, talent and investors. As a result, substantial investments in technology and operations must be supported by business opportunities of sufficient scale to justify the expenditure.

In line with many of the themes raised in the recent Chief Executive's Policy Address, we suggest prioritising opportunities where Hong Kong already has a competitive advantage or where we have the potential to attract significant investment and deal/ transaction flow. In our view the areas that represent the largest opportunities in Hong Kong for leveraging blockchain technology include:

We expand on some of the opportunities below.







# **3.1 Doubling Down on Open Finance**

Open finance, when conceptualised as the productisation of financial data, is an evolving topic in Hong Kong. Efforts such as Hong Kong's Open Banking strategy have begun to bridge the siloed nature of the financial world with the open data flows of the internet. Notably, given their inherently open and datarich nature, there is a space for Web3 technologies to drive this paradigm forward.

In Hong Kong, Open Banking has been introduced in phases, but full-fledged Open Finance is still evolving. The Hong Kong Monetary Authority (HKMA) has launched initiatives like the Commercial Data Interchange (CDI) to facilitate secure data sharing. Yet, financial data remains fragmented across institutions, limiting innovation and competition. As Hong Kong continues to position itself as a leading digital finance centre, unlocking financial data through Open Finance can drive financial inclusion, competition, and new data-driven business models.

Despite advances in Open Banking, financial data in Hong Kong remains locked within individual institutions. creating inefficiencies in credit assessment, financial planning, and risk management. SMEs, for example, face barriers to financing due to limited access to alternative credit data, while consumers lack consolidated views of their financial health. The inability to aggregate, standardise, and leverage financial data restricts the development of innovative financial products and limits competition among service providers. Moreover, privacy and security concerns around financial data sharing hinder trust and adoption.





#### Open Finance Data Products Enabled by Web3

A Web3-powered Open Finance ecosystem in Hong Kong would establish a decentralised data-sharing framework where individuals and businesses can securely control, share, and monetise their financial data. This future state could look something like this:

- Decentralised Data Portability: Individuals and businesses can access and permission their financial data securely across platforms using self-sovereign identity (SSI) and decentralised identifiers (DIDs).
- Programmable Data Sharing
   Agreements:

Smart contracts enforce datasharing conditions while ensuring compliance with AML/KYC regulations and privacy laws.

- Cross-Industry Interoperability: Integration of financial data with supply chain, insurance, and payments data to create holistic financial profiles for better risk assessment.
- Real-Time Alternative Credit Scoring:

•

•

Al-driven analytics on decentralised data streams could improve credit decisions for SMEs and underserved segments.

Tokenised Data Markets: Secure marketplaces where users can monetise anonymised financial data insights, fostering new business models and revenue streams for financial institutions and fintech. By leveraging blockchain-based decentralised data networks, Open Finance data products in Hong Kong can create a more transparent and competitive financial ecosystem while addressing privacy and security concerns.

#### Value Benefit

• For Consumers: Greater control over financial data, improved access to personalised financial products, and enhanced security against data misuse.

0

- For SMEs: Improved access to financing through alternative credit data and reduced reliance on traditional banking relationships.
- For Financial Institutions: New revenue streams from tokenised data, improved risk assessment, and enhanced compliance capabilities.
- For Regulators: Better oversight through real-time auditability of datasharing transactions and improved enforcement of data privacy laws.







## 3.2 Hong Kong as a Place To Raise Capital

Hong Kong is well positioned as a leading capital markets centre, particularly as a place where Chinese or international businesses can raise capital from global markets.

As a global financial centre, Hong Kong has developed a mature and sophisticated public markets infrastructure that functions well and has stood the test of time. However, while there are well-trodden routes for companies to raise funds via primary equity and bond issuances, these are expensive and there are funding gaps for early-stage and growth-stage businesses that do not currently have access to capital markets. In the public markets we see the potential for trading to be made more efficient (e.g., 24/7 trading with instant settlement) and the benefits of building programmability into tokenised assets (e.g., allowing tokenised bonds or even potentially tokenised money market funds to be used as collateral within smart contracts).

However, it is within the private assets universe, which often suffer from limited liquidity, high transaction costs and limited access to reliable and real time data, that we see the most significant opportunities for innovation using the Web3 Superpowers identified above, as well as more greenfield opportunities for Hong Kong businesses to build out new financial markets. It is therefore in this category that we focus our proposals in this paper.







As private assets are a wide category it is important for Hong Kong to focus efforts on specific use cases where there is both existing market supply and demand (from Mainland Chinese or overseas issuers / investors) and where Web3 technology provides clear benefits that could give Hong Kong a strategic advantage. Markets only function when there is a minimum level of liquidity and demand. By focusing on specific sectors where there is high potential demand, Hong Kong has a better chance of building up ecosystems, encouraging both the supply side (issuers of digital assets) and demand side (investors) to participate and therefore bootstrapping liquidity.

Examples of sectors where we believe there is potential demand and benefits for Hong Kong to explore are:

- Tokenised Private Credit
- Tokenised Physical Infrastructure (including renewable energy sources)
- IP and Data Assets

In each case, we propose that further market research be conducted and that interested industry players be brought together to explore the opportunities, practical challenges, and blockers in more detail so that they can be shared and fed back to policymakers and regulators.





#### [BREAKOUT] CROSS-BORDER CAPITAL RAISING: KEY TAKEAWAYS FROM INDUSTRY ROUNDTABLE

Participants highlighted Hong Kong's unique position as a bridge between international and Chinese markets. While there was broad consensus on these opportunities, participants noted challenges—particularly the differences in IP laws between Hong Kong and Mainland China and the management of foreign currency restrictions.

Roundtable participants agreed that Hong Kong is well-placed to capitalise on tokenisation across various sectors, including private credit, real-world assets, intellectual property, and data assets. Participants expressed interest in the securitization and subsequent tokenisation of Mainland Chinese underlying assets (or exploring solutions similar to Variable Interest Entity (VIE) structures whereby the tokenisation of economic rights to income streams on Mainland Chinese assets could overcome restrictions on direct foreign ownership). However, they acknowledged significant challenges, particularly regarding legal requirements and capital flow restrictions where innovative solutions would be needed.

Liquidity was also identified as a critical success factor. Several participants emphasized that Hong Kong should leverage its large asset and wealth management sector, access to large offshore RMB and foreign currency capital flows and strong connectivity to traditional banking payment rails to establish liquid markets in certain tokenised assets where there was clear demand.







#### 3.2.1 Tokenised Private Credit

Private credit has seen significant growth globally in the years since the global financial crisis and we expect this to continue to grow in importance as a sector for Hong Kong. In particular, proposed changes to the Hong Kong Unified Fund Exemption regime to include loans and private credit as qualifying investments for the funds tax exemption is expected to lead to significant growth in the private credit funds market in the coming years. This should have a knock-on effect of expanding the available options for non-bank lending in Hong Kong. It will also create new opportunities for banks to better manage their credit and risk exposures via securitisation, and increase the scale of Hong Kong's private credit secondaries markets.

We see benefits for Hong Kong to explore ways in which Web3 technologies such as tokenisation, combined with better access and sharing of data (see the section on Open Finance above) could further enhance the appeal of this market to both increase the ease and availability of credit financing to Hong Kongbased businesses, property owners and consumers, as well as to develop a vibrant credit fund and servicing industry to support this new ecosystem.

Benefits for tokenisation of loans may include:

- More efficient securitisation options with greater transparency of data.
- More efficient loan administration, especially if loan principal drawdown, repayment and interest payments can be settled in a

tokenised form (e.g., tokenised deposits or stablecoins) leading to lower costs.

- More efficient collateral management (especially if security/ charges can also be executed and/ or administered electronically and can interoperate within blockchain networks<sup>1</sup>).
- Ability to offer shorter duration lending than would otherwise be economically feasible;
- Potential to build out a wider secondaries markets for tokenised loan assets.
- Ability to offer and administer the streaming of interest payments (e.g., pay / earn interest in real-time by the second).

<sup>1</sup> A key blocker to this happening at the moment is that many of the Hong Kong government agencies have not yet sufficiently digitised their offerings and still in many cases require wet signatures on paper. There could be significant efficiency savings in areas such as collateral management if, for example, real estate property ownership records, vehicle licenses, stock ownership records etc could be validated and verified on-chain, as well as looking at ways for charges on property assets to be recorded and enforced onchain.





## 3.2.2 Tokenised Physical Infrastructure Investments

This involves exploring new means of raising capital to fund physical infrastructure projects by allowing a token holder to take a direct economic interest in income generating physical infrastructure assets. Examples of such assets could include: EV chargers, power generation (e.g., solar or wind farms), data centres, autonomous vehicles, or even commercial real estate. In addition, Hong Kong would be an ideal venue for developing **Decentralised Physical Infrastructure** Network (DePIN) models that intersect with these tokenised assets and hence provide further depth and liquidity.

The global economy is in the process of a significant transition, which will require massive investment to be put into new forms of infrastructure, including:

- Data centres that can power cloud infrastructure and the AI revolution
- Renewable energy generation and storage
- Charging infrastructure for electric vehicles

There is a need for new and innovative ways to fund many of these new investments in all locations, and Hong Kong should be at the forefront of financing them.





Benefits for tokenisation of Physical Infrastructure Investments may include:

- Ownership of the underlying assets may be distributed widely (e.g., solar electricity can be efficiently generated by small land holders and contributed to electricity grids). Blockchain-based systems that allow multiple unaffiliated parties to interact and work together provide the means to administer these much more efficiently. These systems also allow investors to interact and finance these assets directly and more efficiently.
- In many cases these assets generate yield that can be easily validated and recorded on a blockchain along with other data that investors may be interested in. The immutability, transparency and auditability Superpowers can help build trust by reducing fraud and helping investor confidence.

•

Settlement of payments in tokenised form - for example, if power companies can be convinced to pay for electricity generated from tokenised solar panels using tokenised payments (e.g., stablecoins) - could massively increase the speed at which investors receive returns. This would enable the distribution of returns to investors to be automated with smart contracts splitting returns between operating companies, investors, tax authorities and other participants in real time. Compare this to the alternative of investing via a fund or investing in the equity of a company that makes these investments, which would only make distributions to investors annually after the audit of its accounts and declaration of a dividend.

Automating processes, payments and tax receipts would also significantly reduce administrative costs and therefore increase investor returns.

27 Hong Kong Web3 Blueprint

Contents <





#### 3.2.3 IP and Data Assets

With the mass adoption of AI, the economics of both IP and data are set to be transformed. Hong Kong has an opportunity to create a marketplace where these assets can be owned, protected, verified, monetised, financed and traded. Some examples could be:

 IP owners - whether content creators, copyright holders, or patent holders - need a way to charge AI models for accessing and using their proprietary IP. This could ensure we strike a balance between AI's growth potential and protecting the rights of creators and copyright owners.  Data owners, such as companies, governments, or even individuals, also have opportunities to make their data available to Al agents and other users in exchange for monetary rewards.

In both cases, blockchain-based systems and decentralised networks provide a natural ecosystem for administering and enforcing property rights and an economic system for settling payments at scale (some of which may be very small (e.g., micro payments), cross border and between multiple parties).







SUDDODTED I



The benefits of using blockchain and tokenising such assets could include:

- Web3 technologies provide an efficient means of administering the complex decentralised systems that would be needed to manage large volumes of micropayments derived from Al agents and models paying for access to data and IP.
- Tokenised settlement instruments like stablecoins provide an efficient means of making multiple crossborder micropayments within such systems.
- Tokenising IP or data assets gives asset owners and creators the chance to sell the future rights to their income streams on those assets to investors - creating new classes of investable assets.
- In some cases, transfers of information may be sensitive, for example cases involving trade secrets. Personally Identifiable Information (PII), and restrictions on cross-border data transfers. Privacy preserving technologies (such as zero-knowledge proofs) could be used in such situations to enable investors to invest in the economic returns from such assets and to validate these without actually gaining access to the underlying data or information. More research is needed into how these systems could be built to ensure that IPprotection and data privacy and protection rules in Hong Kong are equipped for dealing with these new economic models, as well as how these would interact in cross-border situations.



#### [BREAKOUT] LEGAL AND STRUCTURAL ISSUES OF BLOCKCHAIN TRANSACTIONS: KEY TAKEAWAYS FROM INDUSTRY ROUNDTABLE

To promote the development of real world asset tokenisation in Hong Kong, issuers and investors need a robust legal framework that supports innovation and accommodates for Web3 technologies. At present, Web3 stakeholders face various legal and structural issues that can be resolved with more clarity from the Hong Kong government and industry regulators:

# 1. Digital Forms of Interests in Land

Currently, the Hong Kong land law regime does not formally recognize digital forms of rights and ownership in property, as the Conveyancing and Property Ordinance (Cap. 219) requires landowners to produce physical title deeds to prove good title to their property. Certain transactions and conveyances affecting land must also be registered with the Hong Kong Land Registry, so there needs to be a mechanism for registering the issuance and transfer of digital assets representing interests in land.



Under the Companies Ordinance (Cap. 622), to become a member of a company, the member's name must be entered on the company's register of members. The member is also generally required to hold physical share certificates issued by the company as proof of title to the shares. At present, the Hong Kong Companies Registry only recognizes physical but not digital forms of register of members and share certificates. Tokenising investor registers and having blockchain as the master source of record is still an open issue.

Moreover, the Companies Ordinance does not currently allow for the fractionalization of shares in a company – each individual share must be issued or transferred as a whole. Hence, the issuance of digital assets representing fractionalized shares may not be valid or effective under Hong Kong law.



The tax implications of Web3 transactions are also unclear. For example, in Hong Kong, the transfer of immovable property or shares may attract stamp duty. Generally, the amount payable is calculated based on the consideration or value of the property or shares. It is unclear how this will be applied to fractionalized digital assets, which creates substantial risk and uncertainty for investors and issuers.



## 4. Lack of On-Chain Settlement Options

To support the use and development of Web3 technologies across different sectors, there needs to be a robust mechanism for settlement of on-chain transactions. To maintain interconnectedness between the existing financial system and the Web3 world, fiat-referenced stablecoins (FRS) would be essential to the ease of onchain settlement.

In 2024, the Hong Kong Monetary Authority (HKMA) launched its stablecoin issuer sandbox, which allows selected participants to conduct testing on their operational plans to issue stablecoin under the proposed regulatory requirements. Recently, in May 2025, the Hong Kong government welcomed the passage of the Stablecoins Ordinance, The Ordinance establishes an HKMA licensing regime for FRS issuers, where only FRS issued by licensed issuers may be offered to retail investors. To protect the interests of investors, licensed stablecoin issuers must also comply with various requirements in areas such as reserve asset management and redemption. While this represents a significant step towards enhancing the security and efficiency of blockchain transactions via on-chain settlement, there is much untrodden ground for FRS issuers to explore and navigate the detailed regulatory requirements to be released by the HKMA.

#### 5. Secondary Market Trading

There are still difficulties with the secondary market trading of tokens. This is due to regulatory restrictions of SFC-authorised fund tokens, as well as the lack of suitable trading venues, as the Hong Kong Stock Exchange (HKEX) does not currently allow the trading of digital tokens. While investors can trade on SFC-licensed virtual asset trading platforms, the limited options for secondary market trading are hindering the expansion of the Hong Kong token market. Allowing and establishing more secondary market trading channels would open up more the role of the Virtual Asset Trading Platform (VATP) community in providing the trading venues for secondary market trading in tokenised securities and other real world assets should be explored.







## 3.3 Hong Kong as an Asset and Wealth Management Centre

As an established and large asset and wealth management centre, Hong Kong can further scale the significant Assets Under Management in the city and benefit from the growth of the tokenised asset universe by offering a diverse and innovative range of products and services to meet the evolving needs and preferences of investors, both institutional and retail. Hong Kong can leverage its strong legal and regulatory framework, its deep pool of talent and expertise, and its connectivity with Mainland China and the rest of the world to attract and retain asset managers, custodians, intermediaries, and platforms that operate in the tokenisation asset space.

While many asset managers are already exploring the tokenisation of funds in Hong Kong, in many cases, they are merely tokenised rights to non-digital fund units. For example, a traditional fund vehicle issues shares/ units, and then tokens are created that give the token holders the economic rights to these shares/units. While this is an understandable first step in developing the market for tokenised funds, these are not likely to result in significant disruption as, in many cases, the benefits (at least from a cost and efficiency perspective) are reduced as tokenisation merely creates an additional set of processes, resulting in duplication.

It is our view that the efficiency gains promised to the asset and wealth management sector from tokenisation will only be truly realised when it is possible and economically viable to bring all aspects of the management of clients' funds into an on-chain environment where they can be managed within the same layer of blockchain and making use of tokenised settlement options. This includes the following:

32 Hong Kong Web3 Blueprint



**Fund Vehicles:** There is a need to have a new blockchain native fund vehicle for Hong Kong. These could pool together assets from a number of customers or instead could be established to hold just a single investor's wallet (e.g., a kind of tokenised, separately managed account or fund of one). Research is needed on the right structure for this, both from a legal perspective and on how optimising such a construct could work from a technological, commercial and operational perspective. We would encourage Hong Kong to take the lead on innovating in this area.

**Settlement:** Subscriptions and redemptions involving tokenised funds or trade settlement for funds investing in tokenised assets need to use stablecoins, central bank digital currencies (CBDCs) or other forms of tokenised bank deposits that can execute in real time and interact with the relevant blockchain network. This significantly reduces the need to reconcile between different ledgers, enabling faster execution and greater efficiency..

**Tokenised Investments:** To date, the investable universe of tokenised assets is extremely limited and primarily consists of cryptocurrencies, some tokenised funds and stablecoins. Progress has been made in Hong Kong on tokenised bonds and we have recently seen the launch of Hong Kong's first tokenised money market funds. However, as a wider variety of capital is raised in tokenised form (see the section on Hong Kong as a Place to Raise Capital), this will create opportunities for the asset and wealth management sector. **Ecosystem Providers:** Building a successful Asset and Wealth Management ecosystem also requires a sophisticated and credible pool of technology-enabled service providers, such as custodians, tokenisation platforms, fund administrators and legal and accounting service providers.









#### Value Benefit

- For Investors: Lower threshold for participation resulting in wider access, greater transparency and greater flexibility. Retailisation, as it becomes easier to invest into customisable portfolios with much lower ticket size and minimum investments.
- For Asset Managers: Greater operational efficiency, ability to innovate with new products, invest in new ways, and attract new investors. For example, tokenised funds have the potential to have use cases outside of just investing (for example, tokenised money market funds could potentially be used as collateral in capital markets trading or even as a means of payment).
- For Fund Administrators/Transfer Agents: Use decentralised identifiers to streamline client onboarding, potential for more automated NAV calculations, and automated settlement. A single source of data could also streamline tax reporting, investor reporting, and administration.
- For Regulators: Enhanced and more efficient oversight, real-time transparency on data.
- For Businesses Looking to Raise Capital: Ensuring a vibrant ecosystem of investors that are able to invest in and take advantage of the opportunities in tokenised assets (see the section on Hong Kong as a Place to Raise Capital).



## **3.4 Carbon Markets and Impact Investing**

Hong Kong is positioning itself as a regional hub for green finance, with government-led initiatives aimed at carbon neutrality and sustainable development. The city's financial sector has seen increasing interest in Environmental, Social, and Governance (ESG) investing, and the development of voluntary carbon markets (VCMs) has gained traction. The HKMA is the leading issuer of green bonds in Asia, while it also leveraged blockchain for the issuance of tokenised green bonds in 2023 and 2024. Further, the government has launched the Digital Bond Grant Scheme (DBGS) to promote digital bond issuance in Hong Kong and cultivate the local digital asset ecosystem. However, the carbon credit market in most regions remains fragmented,

with issues surrounding transparency, standardisation, and accessibility. Investors seeking impact-driven financial products face challenges in verifying the authenticity of carbon credits and measuring real-world sustainability outcomes.

The current carbon credit ecosystem in Hong Kong faces several challenges:

 Lack of Transparency and Verification:

> Carbon credits often lack real-time traceability, leading to concerns over double counting and greenwashing.

Limited Market Liquidity: Carbon credit trading is restricted to centralised registries, making it difficult for smaller investors and businesses to access them. High Transaction and Compliance
 Costs:

Verification and compliance costs are high, making it harder for SMEs and developing markets to participate.

 Limited Integration with Traditional Finance:

Carbon credits are often seen as separate from mainstream financial markets, limiting their adoption in investment portfolios and impactdriven finance products.







#### Web3-Powered Open Finance for Carbon Markets and Impact Investing

A Web3-enabled model can transform Hong Kong's carbon credit market by introducing:

- Tokenised Carbon Credits: Digitising verified carbon credits as blockchain-based tokens, ensuring authenticity and traceability.
- Decentralised Carbon Registries: Creating an open, interoperable registry where carbon credit issuance and retirement are transparently recorded.

Programmable Impact Investing
 Instruments:

Smart contracts enabling automated ESG-linked financial products, such as bonds tied to verifiable emissions reductions.

Real-Time Market Pricing and Liquidity:

A decentralised exchange for carbon credits to improve price discovery and accessibility.

• Self-Sovereign ESG Data: Enabling businesses and investors to track impact data securely through decentralised identity solutions and verifiable credentials.





By leveraging blockchain and open finance mechanisms, carbon markets in Hong Kong can be integrated into mainstream investment portfolios while ensuring environmental integrity.

#### **Value Benefit**

- For Investors: Greater transparency and confidence in ESG investments with real-time carbon credit tracking.
- For Businesses: Lower costs for compliance and verification, expanding access to carbon markets.
- For Regulators: Enhanced oversight of carbon trading and improved alignment with global sustainability standards.
- For Hong Kong's Green Finance Centre Strategy: Strengthening Hong Kong's position as a leader in sustainable finance and attracting global ESG-focused capital.



## 3.5 Hong Kong as an International Trade and Supply Chain Finance Centre

Hong Kong is a premier global trade hub, serving as a gateway for international commerce between China and the world. With a highly developed financial infrastructure, extensive trade networks, and proximity to major global supply chains, the city plays a crucial role in international trade finance. Despite advances in digital trade initiatives, trade finance remains heavily reliant on manual processes, paper-based documentation, and legacy banking systems. Inefficiencies in cross-border payments, financing, and compliance processes can create friction, leading to delays, increased costs, and reduced accessibility, particularly for SMEs.

The current trade finance ecosystem faces several key challenges:

Inefficient Cross-Border
Transactions:

Payments and settlements are time and cost ineffective due to reliance on correspondent banking networks and multiple intermediaries.

Limited Access to Trade Finance for SMEs:

Smaller businesses struggle to secure financing due to a lack of transparency in supply chain data and restrictive credit assessments.  Fragmented and Paper-Based Documentation:

Trade finance operations rely on manual document verification, leading to inefficiencies and fraud risks.

**Supply Chain Opacity:** The lack of real-time traceability in global supply chains makes it difficult to verify the authenticity and ethical sourcing of goods.





#### Web3-Powered Trade Finance and Supply Chain Infrastructure

A Web3-enabled Open Finance framework can enhance Hong Kong's role as a trade finance centre by introducing:

- Tokenised Trade Assets: Digitising trade finance instruments such as letters of credit, bills of lading, and invoices as blockchain-based tokens to improve liquidity and automate settlements.
- Decentralised Trade Finance Platforms:

Enabling peer-to-peer financing for SMEs using smart contracts, reducing dependency on traditional banking institutions.

- Interoperable Cross-Border Payment Networks: Leveraging stablecoins and blockchain-based payment rails for real-time, low-cost multicurrency cross-border transactions.
- Supply Chain Traceability: Utilizing blockchain for end-toend visibility in supply chains, ensuring product authenticity, ethical sourcing, and regulatory compliance.
- Automated Compliance and Risk Management:

Integrating decentralised identity (DID) solutions and AI-driven compliance tools to streamline AML/KYC verification and sanctions screening.





By deploying blockchain and Distributed Ledger Technology (DLT) solutions, Hong Kong can modernise trade finance, making it more efficient, accessible, and secure for global businesses.



#### **Value Benefit**

- For Businesses and SMEs: Faster access to financing, reduced transaction costs, and improved trust in trade relationships.
- For Financial Institutions: Lower operational risks, enhanced compliance automation, and increased market participation. Opportunities to build out new service offerings to support the needs of corporate treasurers (for example stablecoin-to-stablecoin foreign exchange as well as tokenised derivatives (e.g., stablecoin currency futures, etc. markets to help companies to hedge interest rate and foreign exchange risks associated with financing supply chains.
- For Regulators: Greater transparency in trade flows, real-time compliance tracking, and reduced financial crime risks.
- For Hong Kong's Trade Hub Strategy: Strengthening Hong Kong's position as a leading trade finance centre and fostering economic growth through digital trade solutions and services to support corporate treasurers.





SUPPORTED BY

#### [BREAKOUT] SURVEY USE CASE IMPORTANCE

To demonstrate the application of these Web3 capabilities in support of financial policy goals, we presented the use cases presented in this report to industry participants and asked them to prioritise these in order of importance:

Each of these represents an opportunity to strengthen Hong Kong's position as a digital-first financial centre and would warrant more in-depth research involving the relevant industry participants in order to deliver on some actionable policy recommendations. We recognise that a degree of prioritisation is needed and therefore focus should be on those deemed by market participants to be of most immediate value.



3.2.3 - Tokenised IP & data assets 🚦

3.1 - Decentralised digital identifiers and data portability

3.2.2 - Tokenised physical infrastructure

3.5 - Supply chain traceability

3.1 - Tokenised data markets

₽

20%

Very important

40%

0%

3.4 - Carbon markets & impact investing



Important

80%

100%

60%







In order to transition to this future state in financial markets and realise the market opportunities in Section 3, there are a number of policy decisions and initiatives that are needed to support the needs of private enterprise. These are set out in the infographic below and we explore many of these in more detail below.

Present State	Enablers					Web3 International Financial Hub
Leading IFC, but High Friction and Cost of Doing Business	Talent	Market Infrastructure	Standards	Regulation	Funding & Economic Contribution	Web3 Enabled Market Opportunities for
for Web3 • Top ranked IFC in Global South • Siloed systems • Lack of effective data sharing • Challenges with account opening for different verticals	<ul> <li>Forming &amp; upskilling</li> <li>International attraction</li> <li>Ecosystem integration as catalyst</li> </ul>	<ul> <li>Neutral networks</li> <li>Public infrastructure</li> <li>KYC/AML controls at app level</li> </ul>	<ul> <li>Industry-led standards</li> <li>International compatibility</li> <li>Cross-Chain compatibility</li> </ul>	<ul> <li>Stablecoin and virtual asset regulator resources</li> <li>Clarity</li> <li>Transparency</li> <li>International alignment</li> </ul>	<ul> <li>Growth- oriented schemes</li> <li>More strategic VC markets &amp; angel investor communities</li> </ul>	Hong Kong • Open Finance - Data Products • New Capital Markets Pioneer • Asset & Wealth Management • Carbon Markets & Impact Investing
Lack of talent     availability	Private Sector Innovation					<ul> <li>International Trade &amp; Supply Chain</li> </ul>
Need for regulatory harmonisation	Ecosystem Development Funding					Finance

#### Figure 3. Key components for a Web3 enabled financial centre



## 4.1. Talent

The future of Web3 cannot rely on infrastructure and regulations alone. Hong Kong should invest in human talent through educational programs, skills development, and talent attraction initiatives focused on Web3 technologies. This talent should be capable of driving innovation, sustaining growth, and attracting funding and investment. The money goes where the talent is. So where does the talent go and stay?

## Growing Web3-Native Domestic Talent:

 While managerial and financial expertise remain important, an emphasis should be on developers and technology engineers who can develop decentralised applications, blockchain protocols, and Web3 infrastructure.

- Talent segments to consider
  include: smart contract developers,
  blockchain core engineers, full-stack
  Web3 developers, infrastructure
  and Development Operations
  (DevOps) engineers, technical
  product managers for Web3, data
  scientists and analysts for Web3,
  cybersecurity and compliance
  experts, legal and policy experts for
  Web3.
- In addition, Hong Kong should also upskill its abundant workforce in traditional financial services, including executives and compliance specialists, necessary for adoption and integration with TradFi institutions.











#### The Role of Academia:

- Academic institutions serve as a cornerstone for talent development.
- Local universities such as HKUST,
   HKU and PolyU are starting to offer
   more blockchain and fintech-centric
   curricula, which is a great first step.
   There is an opportunity for more,
   including upskilling the faculty staff
   and recruiting foreign experts with
   real-world experiences in Web3.
- Enhance collaboration and global exchange through incentives for professors and researchers to specialise in Web3, global exchange programs, collaboration with incubators, and establishment of interoperability labs.

Enable flexible learning paths to accommodate different career trajectories. This should include offering decentralised learning and credentialing through fractionalised curriculum offerings, allowing students to curate their personalised educational paths.

#### **New Talent Acquisition:**

- A strong inflow of Web3 talent is crucial to Hong Kong's competitiveness. However, with the global demand for blockchain developers and Web3 professionals surging, Hong Kong should implement bold strategies to attract top-tier talent.
  - Establish a Web3 Talent Visa Program to attract skilled blockchain developers.





- Partner with global universities for exchange programs focused on blockchain research.
- Partner with global universities for internship programs for international students to work in blockchain and Web3 companies in Hong Kong.
- Develop government-backed Web3 scholarships for students pursuing blockchain and cryptorelated degrees.
- Develop talent retention strategies, including competitive compensation and career development opportunities.

#### Upskill Existing Talent:

- As Web3 technologies evolve, Hong Kong should ensure that its existing workforce can transition into new digital and decentralised roles.
- Examples of actions could include blockchain-based credentialing for Web3 certifications, corporate training programs, public-private Web3 training initiatives promoting Web3 transition for professionals, hackathons and Web3 coding bootcamps.







#### [BREAKOUT] ROUNDTABLE DISCUSSION: SETTING STANDARDS

Industry participants highlighted the need to establish technical standards in Web3, particularly for enterprise and banking-grade solutions. The highly technical nature of Web3 implementations—often dealing with critical financial infrastructure, smart contracts, and cryptographic security makes it difficult for non-technical stakeholders to independently validate deliverables. This places a high degree of trust and responsibility on engineers to uphold rigorous development practices and risk management measures. The discussion underscored the importance of ethical and defensive coding practices, particularly in a sector known for its fast-moving, experimental nature. Unlike traditional enterprise software, Web3 deployments often interact with immutable, high-value financial systems, where vulnerabilities or defects can lead to permanent losses and systemic risks. Key concerns raised included quality control and validation testing in mission-critical deployments, as well as security best practices for managing sensitive elements such as private keys and cryptographic signing processes.

In traditional engineering disciplines, professional frameworks typically involve university-level ethics courses, industry certifications, and chartered status that require continuous education and mentorship. Applying similar structures to Web3 would provide a clear pathway for skill validation and accountability, ensuring that those working on critical Web3 applications adhere to established security, quality, and ethical standards.



Ultimately, setting standards for the Web3 technical workforce will be critical for mainstream adoption, particularly as financial institutions and enterprises seek to integrate blockchain technologies into regulated environments. Establishing a recognised system of accountability and regulatory oversight will not only enhance trust in Web3 solutions but also help attract and retain top-tier talent in Hong Kong's evolving digital economy.





#### Attracting Prominent Web3 Companies:

- Prominent Web3 companies would open up high-quality employment opportunities by attracting talent and expertise to drive cutting-edge innovation.
- Web3 unicorns and high-potential startups will not only accelerate capital inflows and drive institutional adoption, but also attract domestic and international talent, ultimately driving Hong Kong's local Web3 ecosystem to scale internationally.
- Leading blockchain firms enhance knowledge transfer by bringing expertise in scalable blockchain solutions, tokenomics, and cryptographic security, helping upskill local talent and academic institutions.

- Actions to be taken to incentivise global Web3 firms to set up headquarters in Hong Kong:
  - Offer tax and infrastructure benefits to blockchain startups.
  - Offer regulatory sandboxes, and dedicated business zones to attract blockchain companies.
  - Streamline licensing for Web3 enterprises: Provide clear regulatory guidelines for DeFi, NFTs, stablecoins, and DAOs, reducing uncertainty for blockchain startups.







#### [BREAKOUT] TALENT - INDUSTRY FEEDBACK

Feedback on talent as an enabler was collected through the Feedback Paper response survey. The importance rating for each of the key topics is presented in the figure.

Respondents most strongly agreed with the need to improve Hong Kong brand recognition and further funding and regulatory support for innovative ventures.

#### Figure 4. Survey results for importance of factors impacting talent development







#### Talent Development and Retention: Community Feedback

Stakeholders emphasized that attracting international talent and upskilling local professionals requires a more coordinated and practical approach. Key recommendations included developing governmentbacked accelerator and internship programs, improving visa access, and expanding blockchain education within universities and legal training institutions. There was strong support for simplified visa schemes—such as talent exchanges, mutual recognition programs, and nomad visas—to attract skilled Web3 professionals. Stakeholders also highlighted the need to streamline immigration pathways for talent from Mainland China and broaden access for young professionals with relevant skills.

On the local front, feedback called for greater government support for internships and job placement, especially for startups that may lack the resources to run programs independently. Suggestions included tuition subsidies for coding bootcamps, collaboration with blockchain foundations, and university-industry partnerships that enable students to work on real Web3 projects. Skill development priorities focused on smart contract development, blockchain security, compliance, and financial applications of Web3, alongside legal and regulatory education. Broader competencies such as risk management, and problemsolving were also seen as essential for a resilient workforce.

Public-private partnerships were viewed as critical to building scalable talent pathways. Respondents recommended initiatives such as standardised certification, hackathons, and tax incentives for companies hiring and training junior staff. Some also pointed to the broader importance of long-term incentives in helping young professionals build sustainable careers in Hong Kong's Web3 sector.







## 4.2. Market Infrastructure

Building the necessary market infrastructure for Web3 finance requires both structural and technical blueprints. The market blueprint defines the structure and mechanics of the financial ecosystem, ensuring that participants can interact efficiently. Meanwhile, the technical blueprint lays out the network architecture needed to support decentralised, interoperable, and secure financial applications. Together, these components form the foundation for Hong Kong's Web3 transformation and ensure its continued leadership in global finance.

#### Market Architecture:

 Longstanding inefficiencies and challenges in financial markets are driving interest in Web3 adoption. Including: fragmentation of data systems, liquidity, assets and users, and transparency and trust deficits.

- Despite significant advances in traditional centralised financial systems and API-driven architectures, Web3 is required to fully deliver the vision of open finance.
- Web3 solutions will deliver the open, neutral financial infrastructure required for the next generation of financial infrastructure.

#### **Network Architecture:**

 The base layer of this new infrastructure should be neutral, like the protocol layer in the internet. Therefore public permissionless blockchains have a key role.

- Implementation of regulatory requirements such as AML/KYC checks can be achieved at the application level (DApps) or interface level (custodians, Web2 interfaces), much as they are implemented on the internet today. Other lower-level implementations include the use of token whitelists and force transfer functions, however they introduce new trust assumptions and cyber attack vectors.
- The Hong Kong government should encourage users of public networks to contribute to the security and availability of said networks through operating network nodes.





#### [BREAKOUT] ELEMENTS OF A DEFI TECHNOLOGY FRAMEWORK

The Crypto Council for Innovation has proposed a model for regulating decentralised finance in their report "Key Elements of an Effective DeFi Framework".

Applying this framework to wider finance uses of Web3 technology a similar approach results. Regulatory controls in Web3 should be applied primarily at the application layer, where mechanisms such as KYC-linked wallets, token recovery systems, and decentralised identity (DID) solutions can be integrated without undermining the core principles of user ownership and decentralization.





This approach promotes risk mitigation while avoiding excessive centralization or fragmentation. In contrast, imposing controls at the interface or network infrastructure layers—such as restricting access to wallets or limiting node operation to "trusted" entities—could compromise selfcustody, increase systemic risk, and fragment the market due to conflicts between jurisdictional requirements. Instead, regulators should support the adoption of open protocols and public permissionless networks to preserve interoperability and innovation across jurisdictions.



#### [BREAKOUT] MARKET INFRASTRUCTURE - INDUSTRY FEEDBACK

Feedback from stakeholders highlighted several persistent challenges limiting the integration of blockchain technologies into Hong Kong's financial system. Chief among these was inadequate banking support for digital asset firms. Many companies continue to face barriers when opening accounts, accessing basic services, or securing cooperation from financial institutions. This lack of integration was widely seen as a structural bottleneck for the industry. Regulatory delays were also identified as a critical issue, particularly the long lead times for licensing approvals. While stakeholders acknowledged the importance of rigorous standards, they called for faster and more predictable licensing processes to reduce uncertainty for market participants.

The reluctance of traditional financial institutions to adopt blockchain solutions was attributed to both limited technical understanding and insufficient regulatory incentives. Some pointed to a lack of buy-in from established institutions, as well as the failure of key financial market infrastructures to embrace blockchain at scale. When asked about areas for immediate improvement, stakeholders emphasised the need to prioritise reforms in banking access, settlement systems, and crossborder payment infrastructure. There was strong support for developing stablecoin-based payment and settlement systems, enabling fully on-chain financial workflows, and promoting interoperability between jurisdictions.

In addition, stakeholders recommended closer alignment with Mainland China in areas such as capital flows, identity frameworks, and regulated digital asset infrastructure. Strategic development of repurchase, collateral, and liquidity mechanisms for tokenised assets was also seen as a key enabler for broader institutional adoption. Targeted feedback further highlighted the need for clear guidance on Hong Kong's blockchain infrastructure strategy. Respondents urged policymakers to define the appropriate balance between public and private blockchains, and to articulate a roadmap that supports both enterprise and open network use cases.





## 4.3. Standards

Standards and Interoperability stand as cornerstones to facilitate seamless communication and interaction among various blockchain networks and enterprise applications. They are essential for fostering innovation, enhancing user experience, and ensuring regulatory compliance. To ensure Hong Kong is an international standards leader in the digital assets industry, there are several key elements for it to engage in.

#### Being a Leader in International Regulatory Standards:

•

- To effectively promote interoperability, Hong Kong should continue to engage with key organisations that focus on Web3 standards, including The International Organization of Securities Commissions (IOSCO), the Financial Stability Board (FSB), and the Financial Action Task Force (FATF), as they are pivotal in shaping the global regulatory landscape for digital assets.
- Web3 development cannot operate in isolation. Hong Kong should therefore participate in international regulatory sandboxes.
- Digital asset markets are global and, in many cases, fragmented. For this reason, it's important to take decisive steps to ensure that liquidity can be shared between Hong Kong and suitable regulated overseas trading venues and exchanges.
- Hong Kong should take the lead on initiatives around mutual recognition of tokenised assets to ensure that Hong Kong tokenised investment products, funds, and other assets are recognised internationally.





#### **Asset Tokenisation and Stablecoins:**

- The broad adoption of tokenisation and stablecoin standards is crucial for enhancing interoperability in Hong Kong's Web3 ecosystem, particularly for cross-border payment, settlement and real world asset (RWA) use cases.
- Establishing clear standards facilitates the adoption and integration of tokenised assets and stablecoins into global payment systems, effectively solidifying Hong Kong's position to be a super connector among global economies.
- Hong Kong should work closely with global partners to establish standardised messaging formats similar to those used in the SWIFT system, as they are essential for ensuring consistency and clarity in cross-border stablecoin transactions.
- By leading efforts in tokenisation and stablecoin standards, Hong Kong can create a secure environment conducive to international trade and become a global digital foreign exchange (FX) trading centre.

#### **Decentralised Identity Solutions:**

- Encouraging the use of decentralised identity solutions is vital for allowing users to maintain control over their personal data while interacting across various platforms.
- This approach enhances user control over personal information and significantly improves security by eliminating single points of failure associated with traditional identity management systems.
- The implementation of decentralised identity (DID) solutions not only enhances user experience but also promotes standardisation across services within the Hong Kong Web3 ecosystem.







#### [BREAKOUT] STANDARDS -INDUSTRY FEEDBACK

Industry stakeholders expressed a clear need for stronger and more consistent standards to support the growth and credibility of Hong Kong's Web3 ecosystem. Feedback focused on two key areas: market standards and technology standards.

On the market side, participants called for clearer frameworks across stablecoins, custody, institutional trading, and cross-border settlement. These were viewed as foundational to increasing trust and driving institutional adoption. There was particular interest in establishing standardised approaches to tokenisation—especially for real-world assets (RWAs)—to ensure global interoperability and regulatory clarity. Stakeholders also encouraged the development of a unified regulatory framework for tokenised instruments, drawing comparisons to established financial directives in traditional markets. Standardization in digital identity systems was highlighted as another critical need, especially for enabling trusted peer-to-peer interactions and compliant onboarding processes.

From a technology perspective, cybersecurity emerged as a top concern. Respondents stressed the importance of expanding standards beyond hot wallets to include cold wallets and asset transitions between storage environments. Additional priorities included smart contract auditing, blockchain interoperability, and formal guidance around decentralised identity (DID) and verifiable credentials. Emerging technologies such as zero-knowledge proofs were seen as promising but underutilised due to a lack of standardization in their use for identity verification and compliance. Stakeholders also emphasized the need for clear standards around staking, wallet architecture, and the integration of Web3 systems with traditional financial infrastructure.

To support Hong Kong's leadership in shaping global digital asset standards, respondents advocated for more active participation in international regulatory bodies and technical working groups. They also recommended establishing a local task force dedicated to aligning with best practices and enabling real-world experimentation in areas such as KYC, asset custody, and data protection.







## 4.4. Regulation

The year 2025 will be remembered as a watershed for the global digital assets sector. Major reforms in the US and other markets will draw many traditional institutions from the sidelines, freeing up capital and liquidity and enabling rapid growth across the Web3 sector. At the same time, the world is undergoing major realignments in global trade patterns. These changes present a clear opportunity for Hong Kong to position itself as a global Web3 hub, leveraging its existing status as a global financial and trading centre, its abundance of high-quality human capital, and its stable legal and regulatory foundation built on the common law.

Efforts to enhance Hong Kong's Web3 regulatory and legal framework should be informed by key ideas and objectives such as:

- Cryptocurrencies are a borderless asset class. Market fragmentation and localisation are contrary to the Web3 value proposition and the inherent nature of digital assets. To capitalise on the opportunities presented by Web3, Hong Kong should not lose sight of the international context when designing the regulatory framework.
- Virtual asset businesses must have a pathway to profitability and commercial viability. To enable this, Hong Kong needs proportional, risk-based regulation which fosters growth and innovation while balancing an appropriate level of investor protection for user groups that need it. This also requires open communication with industry on implementation timelines to provide market participants with confidence

and certainty as to how and when the regulatory regime will develop, enabling business planning.

Hong Kong should play a leading role on the international stage. Hong Kong's tier 1 regulators should be visible and active participants in standard-setting bodies and openly engage with industry. Hong Kong should strive to be at the forefront of developing asset-appropriate risk management and cybersecurity standards.

57 Hong Kong Web3 Blueprint

Contents <



The Securities and Futures Commission's five-pillar <u>"ASPIRe"</u> <u>roadmap</u> and <u>circular</u> on staking services and the Financial Services & the Treasury Bureau and HKMA's ongoing work to implement a stablecoin licensing regime in Hong Kong now that the Stablecoin Ordinance has been passed. We look forward to the Hong Kong government's forthcoming second policy statement on VAs, as previewed by Financial Secretary Paul Chan at the 2025 Hong Kong Web3 Festival. Further to these initiatives, we recommend that the Hong Kong government prioritise the following:

Implementation Timeline: The SFC's "ASIPRe" roadmap speaks to measures that, if implemented at pace, could materially advance the development of Hong Kong's VA market. While the roadmap represents the SFC's commitments, VA service providers now need an indicative timeline for implementation and the provision of more detailed guidance on key risks and requirements, to allow them to plan for future investments. Custody:

Proposals for a comprehensive VA custody license are welcome. We recommend the licensing scheme should cover both VAs and other tokenised assets. The scheme should also be risk-based, distinguishing between the risks associated with different types of VAs and other assets such as tokenised real-world assets. Rules for Tokenised Assets:

Tokenisation promises to unlock tremendous value from a broad range of assets including investment products, private credit, intellectual property and data, payment assets, and a variety of real world assets such as real property and commodities. Generally speaking, the existing legal and regulatory regimes establish clear parameters for types of tokenised assets and methods of trading that are within the regulatory perimeter, with assets and trading methods falling outside the regulatory perimeter being unregulated.





Where industry identifies gaps or uncertainties in how or when the regulatory perimeter applies to tokenised assets or trading methods, whether through exchanges or open, decentralised mechanisms built on blockchain technologies, we ask that the Hong Kong government and regulators work with the private sector to make clarifications or issue guidelines expeditiously so that uncertainty does not become a blocker to innovation or adoption.



#### Passporting:

Virtual Assets are a global asset class. For this reason, the Hong Kong government should explore the possibility of international passporting of VA service providers and stablecoins that are licensed in equivalent jurisdictions and provide clear guidance on which international regimes are considered equivalent for the purpose of VArelated licensing in Hong Kong. The benefits of passporting include greater liquidity and transaction flows, deepening Hong Kong's connectivity to equivalent jurisdictions and key trading partners.

Similarly, by providing clear guidance on international regulatory regimes that are deemed equivalent, the benefits of global liquidity and connectivity can be brought to Hong Kong and its users expeditiously and efficiently.

To take one example, passporting of foreign-issued stablecoins could position Hong Kong as a regional hub for blockchain-enabled international settlements, affirming Hong Kong's status as China's preeminent gateway for trade and commerce. Professional Investor Rules: The existing professional investor definition is based on net worth in defined asset classes, which does not include VA. The outcome is counterintuitive - investors that have significant net worth in traditional assets such as stocks and bonds. (but potentially limited or no VA experience) are within the definition and have access to a broader range of VA services and instruments. Yet many Web3 professionals who are very knowledgeable and experienced with Web3 and VA and have material net worth denominated in VA, are not within



the professional investor definition and are therefore only able to access a very limited range of products and services. We urge the Hong Kong government to consider broadening the standard to be inclusive of VA assets.

Related to this, we also recommend that regulators in Hong Kong expedite further easing of product and service restrictions for appropriately licensed intermediaries. We propose combining regulatory sandboxes with a focus on corporate professional investors and institutional professional investors to enable expansion of the regulatory perimeter and drive growth while still mitigating risk.  Using Public-Private Partnerships for Greater Impact:

We recommend that the Hong Kong government leverage publicprivate partnerships, including the existing Task Force on Promoting Web3 Development, to promote coordination and ownership amongst the various agencies and to leverage deep industry knowledge and resources. Such partnerships can drive strategies including:

Continuously evaluating Hong Kong's Web3 regime against the latest global regulatory developments and standards and encouraging regulators to undertake measures to ensure that Hong Kong's regime remains at all times at least consistent





with, if not ahead of, those of other leading Web3 international financial centres.

- Working with existing bodies such as Cyberport, InvestHK, and the Office for Attracting Strategic Enterprises (OASES) to create a single window for Web3 players seeking assistance in navigating various government initiatives to maximize the use of licensing, regulatory sandboxes, talent development schemes, and Web3 grants and subsidies. While Hong Kong has many resources for startups and other players, it risks falling behind competitors whose governments offer a "one stop shop" for market entrants.
- Providing forums for private and public sector engagement to promote knowledge sharing, identification of shared priorities, and the development of Web3 expertise and familiarity across all relevant government agencies. This must be done both locally and globally.
- We support the Hong Kong
  regulators' continued
  participation in key international
  standard-setting bodies such as
  the International Organization
  of Securities Commissions
  (IOSCO), Financial Stability
  Board (FSB), International Swaps
  and Derivatives Association
  (ISDA), and Financial Action Task
  Force (FATF). It would be good

to see Hong Kong more actively participate in international sandboxes and cross-border payment initiatives with strategically important trading partners (in some cases Hong Kong's experiences could be very usefully shared).





#### [BREAKOUT] MODERNIZING HONG KONG LAWS FOR A WEB3 FUTURE

Much of Hong Kong's legislation was enacted prior to the digital age. In some cases, these laws have outdated requirements, such as wet ink signing of documents, that act as blockers to digital innovation. We recommend that the Hong Kong government collaborate with the private sector to conduct a project to identify surgical amendments that could be made to key ordinances that are creating bottlenecks or blockers to innovation that are not aligned with policy intent. Further, to facilitate bringing VA projects and activities onshore into Hong Kong, we recommend that the Hong Kong government consider introducing new forms of legal entities allowing for digitally native ownership registers that are suitable for the purpose of establishing decentralised autonomous organisations (DAOs) as well as tokenised funds and tokenised assets.



#### [BREAKOUT] PARTNERING WITH TRADITIONAL FINANCE FOR WEB3 GROWTH

Tomorrow's leading Web3 international financial centres will be those that successfully cultivate mutually supporting partnerships between emerging Web3 players and traditional institutions. We applaud the Hong Kong government's efforts to encourage traditional financial institutions to support the development of Hong Kong's Web3 sector. Unfortunately, many Web3 companies continue to report difficulty obtaining basic services such as deposit and payment accounts.

We recommend that the Hong Kong government undertake further efforts to assist banks and other institutions to better understand and assess prospective customers in the Web3 sector. Examples could be agreeing standardised processes to help banks assess source of funds for new-tobank corporate customers and also to provide guidance to applicants on the types and standards of information that are expected to help streamline the process.

We also encourage more adoption of decentralised identity solutions for secure and streamlined KYC verification. These efforts can be further supported through knowledge sharing opportunities directed at financial institutions as well as their Hong Kongbased legal and compliance service providers.



#### [BREAKOUT] REGULATIONS -INDUSTRY FEEDBACK

Stakeholders highlighted a strong desire for regulatory clarity, faster processes, and more inclusive frameworks to support the sustainable growth of Web3 in Hong Kong. A recurring concern was the slow pace of setting up a licensing regime for virtual asset trading platforms, custodians, and stablecoin issuers, particularly as other jurisdictions move swiftly to capture market share. Many called for streamlined, timely licensing procedures to enhance competitiveness and certainty for market entrants. The existing Professional Investor (PI) regime was identified as a significant barrier to market participation. Industry participants suggested that the current wealth-based criteria exclude experienced individuals who are active in the sector.

Several stakeholders recommended expanding regulatory frameworks for digital assets in everyday financial use cases. These included permitting the use of stablecoins for transaction settlement and account funding, modernizing remote onboarding procedures, and recognizing digital assets in broader wealth verification processes. Such changes were seen as essential for aligning regulatory frameworks with the operational needs of international Web3 businesses. Participants also expressed support for regulatory tiering to accommodate different business models and levels of risk, drawing inspiration from international examples. Areas such as token listing rules, derivatives, custody, and liquidity provisioning were seen as in need of more flexible, innovationfriendly oversight.

Regarding stakeholder engagement, respondents stressed the importance of maintaining open dialogue through structured mechanisms such as roundtables, working groups, public consultations, and pilot programs. Greater public–private collaboration was seen as vital to ensure that regulatory frameworks remain adaptive and grounded in real-world use cases. Targeted feedback further emphasized the strategic opportunity for Hong Kong to influence regional regulatory standards through leadership in supervision and compliance. Enhanced cross-border regulatory collaboration and active participation in international standard-setting bodies were viewed as critical to reinforcing Hong Kong's role as a trusted digital asset hub.





pwc

mirror object to mirror mirror mod.mirror\_object Peration == "MIRROR\_X": Peration == "MIRROR\_X": Peration == "MIRROR\_X": Peration == "MIRROR\_Y": Peration == "Peration == Topological == Topol

election at the end -add \_ob.select= 1 er\_ob.select=1 ntext.scene.objects.actin "Selected" + str(modifient irror\_ob.select = 0 bpy.context.selected\_ob nta.objects[one.name].selected\_objected\_objec

## int("please select exactle

OPERATOR CLASSES -----

## 4.5. Funding and Economic Contribution

For the development of a Web3 International Financial Centre, Hong Kong offers a unique combination of access to capital, talent, and a supportive business environment. The city's financial ecosystem needs to provide unparalleled opportunities for blockchain startups to connect with investors, build partnerships, and scale their operations. Leading global and regional financial institutions based in Hong Kong offer an established network for collaboration and innovation.

#### Key Ideas:

- The Web3 community is a relatively young industry with its unique needs (e.g., access to talent pool, strategic funding, etc.).
- Apart from support from Cyberport or the Science and Technology Park, there is limited support available for foreign enterprises / entrepreneurs without substantial existing partners to establish their Hong Kong footprint as the gateway into the Asian market.
- Other funding schemes, such as the Branding, Upgrading and Domestic Sales (BUD) Fund, have been well received by many businesses and offer larger sums on a matching basis. If similar schemes that are growth-oriented can be developed

or broadened to serve the Web3 sector, we trust it will aid the onshoring of complementary businesses to Hong Kong and grow as a collective network.

- In combination with the investment into Web3 it is important to also track the impact of these investments on economic growth in Hong Kong.
- Providing additional resources to regulators to streamline licensing approvals and reviewing processes to increase efficiency would likely have a significant positive effect on attracting business to Hong Kong and in reducing the investment runway needed for startups in Hong Kong.





#### [BREAKOUT] FUNDING AND ECONOMIC CONTRIBUTION -INDUSTRY FEEDBACK

Stakeholders expressed broad support for a diversified funding approach to accelerate Web3 innovation in Hong Kong. While there was recognition of the value of government grants particularly for foundational research and public goods and services—many emphasized that scalable impact would come from stronger engagement with private capital and strategic partnerships.

Joint public-private partnerships were seen as the most effective model for aligning innovation incentives with infrastructure development. These partnerships were considered especially valuable for enabling integration with public systems, fostering industry– government collaboration, and attracting institutional investors to the Web3 ecosystem.

Venture capital incentives were also highlighted as a priority. Stakeholders noted that Hong Kong could enhance its competitiveness by encouraging private investment through targeted tax benefits, co-investment schemes, or matching funds. Doing so would help drive job creation, support startup growth, and position Hong Kong as a preferred destination for Web3 founders and operators.

In terms of grant design, respondents advocated for funding models that are agile, milestone-based, and tied to business outcomes. Flexibility and speed were viewed as key, particularly for early-stage ventures navigating uncertain market conditions. There was also support for directing funding toward university research, talent development, and pilot programs that build local technical and commercial capacity.

Overall, the feedback underscored that funding mechanisms should be structured not only to support innovation, but also to ensure that economic value generated by Web3 activity is retained and reinvested in the Hong Kong ecosystem.



# Action 2030: Towards a Web3-Enabled International Financial Centre

mirror\_mod.use\_x = False mirror\_mod.use\_y = False mirror\_mod.use\_z = True

#selection at the end -add back the deselected mirror modifier object mirror\_ob.select= 1 modifier\_ob.select=1 bpy.context.scene.objects.active = modifier\_ob print("Selected" + str(modifier\_ob)) # modifier ob is the active ob mirror\_ob.select = 0

5



The Action 2030 plan outlines the strategic areas for Hong Kong to realise its vision as a global Web3 International Financial Centre. Insights from the Blueprint will shape the Action 2030 roadmap, which includes industry feedback and key recommendations.

#### Get involved!

We invite you to join the conversation:

- Share your insights and feedback via email to <u>blueprint@web3harbour.</u> org.
- Follow updates on our website at <u>www.web3harbour.org</u> or scan the QR code.
- Join one of the Blueprint's industrylevel task forces to develop and implement tactical actions based on the Blueprint's recommendations.

## The Hong Kong Web3 Blueprint is more than a roadmap—it's a dialogue.

We call on startups, enterprises, policymakers and investors to join us in shaping the future of Web3 in Hong Kong.

Together, we can build a resilient, inclusive, and globally competitive Web3 ecosystem that cements Hong Kong's position as a leader in digital finance and blockchain innovation.

Let's co-create the future!



# **Contributors and Acknowledgments**

The Hong Kong Web3 Blueprint stands as a testament to the power of collaboration in shaping Hong Kong's Web3 future. It is the result of the collective expertise and efforts of numerous stakeholders committed to positioning Hong Kong as a global hub for innovation and digital assets. Web3 Harbour would like to thank the following contributors and partners for their dedication to align industry insights and actions with policy development.





#### Lead authors

#### **Project Leadership**

Lincoln Innes Special Projects Team, Web3 Harbour

Peter Brewin Partner and Digital Assets Leader, PwC

#### Anna Gates

Head of Compliance APAC, Galaxy Digital

#### Joy Lam

Head of Global Regulatory and APAC Legal, Binance

**Karena Belin** Co-Founder and CEO, WHub

**Nick Turner Global Sanctions Lead Counsel, Binance** 

Sean Lee Co-Founder, IDA

**Jeffrey Tchui** Head of APAC Ecosystem, Hedera Foundation Executive Director, Web3 Harbour

**Syed Musheer Ahmed** Founder, FinStep Asia

#### Contributors

Adrian Clevenot Founder and CEO, Alinea Advisory

Angelina Kwan Managing Director, Stratford Finance Limited

**David Guan** Regional Ecosystem Lead, APAC, The Hashgraph Association

Jamii Quoc General Counsel, Animoca Brands John Cahill Chief Operating Officer, Asia, Galaxy Digital

**Kathy Brewin** Head of Association, Web3 Harbour

**Nelson McKey** Director, SYNDKT

**Tiena Sekharan** Independent Consultant







#### Web3 Harbour Directors and Advisory Committee Members

**Gary Liu** Co-founder and CEO, Terminal 3

Lawrence Chu Co-founder and CEO, IDA

Angelina Kwan Managing Director, Stratford Finance Limited

Ben Wong CEO, Riverchain

**Edith Yeung** General Partner, Race Capital Karena Belin Co-Founder and CEO, WHub

**Kristi Swartz** Partner, DLA Piper

**Minh Do** COO, Animoca Brands

**Peter Brewin** Partner and Digital Assets Leader, PwC Hong Kong

#### **Observers and Special Partners**

**King Leung** 

Global Head of Financial Services, Fintech, and Sustainability, Invest Hong Kong

**Pauline Fan** Senior Vice President (Fintech and Web3), Invest Hong Kong

Rachel Lee Director of Web3 & Fintech Development, Hong Kong Cyberport Management Company Limited

**HK Consulting Club** The University of Hong Kong Business School







SUPPORTED BY