

A Yacht Parking Harbour as a Living and Commercial Sea Hub: A Design Proposal with Administrative Integrity

Ir Dr Assoc Professor Samuel Kwok Piu LIP CEng, RPE, RCM, CPE, CBE, FCIBSE, FIMechE, FIE.Aust, FCABE, FHKICA, FCIPHE, MHKIE, MHKICM, MIET, MIFireE, MAIB, MASHRAE, Dr. Wing Cheung TANG MCGI, SMIIM, CMgr, FCMI, FIMA, CPMC, FIMC

Adjunct Professor of Spectrum International University College, Malaysia

DOI: <https://doi.org/10.51244/IJRSI.2026.1307000116>

Received: 20 July 2026; Accepted: 25 July 2026; Published: 31 July 2026

ABSTRACT

The article critically evaluates a holistic design proposal for a government-initiated yacht parking harbour which integrates typhoon shelter functionality with marine commercial and residential functions. The proposal is based on a technical memo and reflective journal produced through a year and a half of site research and design development; it proposes converting the underutilised waterfronts of Hong Kong into productive ‘living and commercial sea hubs’ as an answer to the twin problems of rising land prices and falling youth participation in marine business. The design includes typhoon-resistant breakwater geometry, smart water metering systems, metered temporary parking planks, co-working spaces and an administrative framework to ensure accountability and revenue generation. The proposal is theorised through Kolb’s experiential learning framework suggesting that live-work arrangements on yachts can stimulate the development of entrepreneurial competency through immersive experiential learning. Against the backdrop of contemporary government projects like the Aberdeen Typhoon Shelter expansion and the Hung Hom waterfront redevelopment, this article argues that the administrative structure provides a replicable model for port cities in Asia, especially Hainan and along the Chinese mainland coast. The paper concludes that the integration of living, working and administrative functions in one marine infrastructure is an innovative typology of marine urbanism that can address pressing socio-economic challenges while creating sustainable public revenue.

Keywords: administrative integrity, marine urbanism, sea hub, socio-economic challenges, yacht parking harbour

INTRODUCTION

The Problem of Land Scarcity and Marine Underutilisation

Hong Kong is one of the most densely populated urban [1] agglomerations in the world, with around 7.5 million people inhabiting a land area of just 1,108 sq km. This extreme density has created an unprecedented housing affordability crisis, with median property prices about twenty times median household income—a ratio that severely limits access to adequate housing for younger populations and new entrepreneurs. At the same time, Hong Kong’s territorial waters are 1,647 square kilometres, far more than the land area. But, apart from traditional shipping routes and fishing grounds, these marine areas are still largely unused for residential and commercial purposes.

The spatial mismatch between terrestrial scarcity and marine abundance is both a major challenge and a major opportunity. Hong Kong is home to 263 islands of over 500 square metres and has the longest coastline of any global city - 456 kilometres around the main urban area and 722 kilometres including the islands. The singularity of its geography means the city’s future trajectory of urban development must strategically capitalise on its marine assets. The proposal discussed in this article is a response to this imperative, advocating the transformation of underutilised waterfronts into productive marine assets [2] that combine residential, commercial and recreational uses.

Yacht Tourism and Marine Development Policy

The Hong Kong administration has gradually realised the economic potential of marine tourism and yacht facilities. In the 2024 Policy Address, “yacht tourism” [3] was explicitly cited as a strategic lever to attract high-net-worth visitors and establish Hong Kong as a superyacht destination of choice in Asia. 2025 Policy Address, it was stated, “Hong Kong has 1,180 kilometres of coastline and 263 islands and is well positioned to become a yachting hub in Asia. “We will upgrade the facilities for the yacht industry and promote first-class yacht tourism.”

Specific infrastructure commitments include the provision of approximately 600 yacht berths at the former Lamma Quarry site, the expansion of the Aberdeen Typhoon Shelter [4] and waterfront development projects at Hung Hom Station. The Aberdeen Typhoon Shelter expansion project is now in the analysis and design stage, and will add some 24 hectares of sheltered area, almost doubling the current 26-hectare facility. The expansion is intended to “meet the significant regional demand for protected vessel space in Hong Kong Island South” and to “promote tourism, leisure and recreational opportunities in the Southern District and explore potential future marina development” according to the project documentation. The Hung Hom waterfront development project [5] will be unveiled in April 2025 and includes a 230-metre signature commercial and residential building with world-class yacht berthing facilities for up to 200 vessels. These suggest a strong policy push to integrate marine infrastructure with wider urban development objectives.

Purpose and Scope of This Article

This article presents and discusses a design proposal of a yacht parking harbour with the double function of a typhoon shelter and a commercial maritime hub. The proposal is the result of eighteen months of detailed fieldwork and iterative design development by a specialist in marine urbanism. It provides an integrated scheme that addresses three inter-related objectives: (1) safe, typhoon-resilient anchorage for leisure craft; (2) sustainable revenue streams through well-designed governance structures; and (3) affordable living and working space for small-to-medium enterprises (SMEs) and emerging entrepreneurs.

The paper is organised in seven sections. Section 2 provides a theoretical framework. Kolb’s experiential learning theory is used to conceptualise how living and working in a marine context might facilitate competency development. Section 3 describes the research methodology, design development process and validation framework. Section 4 introduces the design proposal, including the typhoon resilient mandate, the remote administrative structure, and the coastal commercial edifice. Section 5 deals with the administrative framework and the operational mechanisms that allow a simple dock to become a self-sustaining public resource. 6. The proposal is set in the context of current policy developments in Hong Kong and in the wider Asian context. Perspectives of stakeholders and institutional barriers are discussed. Conclusions and recommendations for implementation are presented in Section 7.

THEORETICAL FRAMEWORK

Kolb's Experiential Learning Theory

The theoretical basis of the design proposal is David Kolb’s experiential learning theory [6] that views learning as a process of knowledge creation through transformation of experience. Kolb’s model describes a four-stage cycle of concrete experience, reflective observation, abstract conceptualisation and active experimentation. This framework is of relevance for understanding skill development of persons involved in marine entrepreneurship.

Under this conceptualisation, the ‘yacht parking harbour’ is not only material infrastructure but also an immersive pedagogical space. Entrepreneurs who live and work aboard vessels find themselves in a constant cycle of experience that includes real world activity such as sailing, vessel maintenance and logistical problem solving, reflective thought such as analysing financial outcomes and assessing operational performance, theoretical development including formulation of business plans and identification of market opportunities and finally practical testing such as trialling new products and expansion of operations. Associated with each stage Kolb also identified four learning styles. These are assimilators, convergers, accommodators and divergers. The yacht-centric surroundings are theorised to be particularly fitting for accommodators who “learn better through

practical experiences" and convergers who "learn better when theories and concepts are applied in practical situations."

Competency Development in Marine Contexts

In this proposal, competency is defined as the aggregation of knowledge, skills and attitudes required to carry out professional roles to the desired standards. Marine entrepreneurs need technical skills in vessel operation, maintenance and navigation, business skills in financial management, marketing and client relations, and administrative skills in regulatory compliance, record-keeping and communication.

The concept of "Float and Work" is a simple application of the theory of experience learning. By combining yacht docking areas with freshwater provision, co-working spaces, mail services and courier facilities, this creates an environment where entrepreneurs learn skills through hands-on experience rather than just theoretical instruction. The economic model is instructive: a used yacht can be purchased for around HKD 200,000 and monthly docking fees are HKD 4,000-6,000, as well as a co-working desk for HKD 2,200, effectively securing both a residence and an office. This economic structure encourages learning by doing with real entrepreneurial enterprises, not through academic lessons.

Marine Urbanism and Typological Innovation

The proposal can be placed in wider typological frameworks for the understanding of waterfront development [7]. Recent research has identified three major types of working urban waterfronts: Traditional, Industrial and Hybrid. Traditional working waterfronts support water-dependent uses such as fishing and other marine-related industries, often protected through restrictive zoning regulations. Industrial working waterfronts consist of a combination of heavy and light industrial uses such as construction materials, waste management, storage facilities, and logistics activities. Hybrid working waterfronts are emerging sites with light industry, creative manufacturing and limited commercial or office uses, often promoted as 'innovation districts' or 'maker hubs'.

The proposed yacht docking facility does not fall squarely into any of these three categories. It shares characteristics with Hybrid working waterfronts (multi-functionality, collaborative public-private ventures, employment generation with place-making) but goes beyond them by adding residential accommodation, typhoon shelter potential and broad governance structures. This suggests the emergence of a fourth typology: the 'Living Sea Hub', which integrates residential, commercial and administrative functions within a single maritime environment.

This typological innovation is resonant with wider academic debates on waterfront regeneration. Today's approaches range from the complete transformation into neoliberal urban environments for consumption to more nuanced planning practices that fit port-related functions within mixed-use areas. One example of the latter strategy is the yacht docking harbour initiative, which brings back maritime activities but combines them with commercial and residential uses. As one urban design study notes, successful waterfront development requires "limited vehicular access" and "a safe, all-connecting and pedestrian orientated route along the water's edge which will double up as a flexible space for both community interaction and activity".

RESEARCH METHODOLOGY

Design Development Process

The design proposal emerged from an iterative process of multiple methodological approaches over eighteen months:

(a) Site inspection and visual assessment – The researcher conducted multiple site inspections, covering areas beyond the Shun Tak Pier, to assess existing marine facilities, pedestrian traffic patterns and waterfront utilisation patterns. These visits informed the spatial arrangement of the remote administrative structure and coastal edifice, and the siting of the elevated pedestrian bridge connecting them.

(b) Reflective journaling – The researcher kept a reflective journal noting design decisions, administrative observations and cost benefit analyses. This journal was the benchmark for the rationale behind certain design features such as the smart water metering system and metered temporary parking planks.

(c) Expert review – The proposal is based on the researcher's previous studies on the dynamics of breakwaters [8] that have established engineering principles for the typhoon-resistant directive.

(d) Policy document analysis – The researcher reviewed the current government policy documents such as the 2024 and 2025 Policy Addresses, Environmental Impact Assessment report of the Aberdeen Typhoon Shelter Expansion [9], Marine Department Technical Circulars and the Blue Economy White Paper of the Hainan Free Trade Port Office.

Validation Framework

The proposal is assessed according to the following 4 criteria:

(a) Typhoon Resilience – The design shall ensure the safety of vessels in severe weather conditions including storms of Super Typhoon-level. This criterion is evaluated in the light of recognised principles of breakwater engineering and the previous studies of the researcher.

(b) Administrative Integrity – The framework should comprise transparent, accountable and profit-making administrative mechanisms. This is reflected in operational standards such as check-in procedures, zone pricing, water metering, plank parking enforcement, co-working management and typhoon protocols.

(c) Social impact – The design must take into account affordable housing, access for SMEs and youth entrepreneurship. This is evaluated by comparing the costs and benefits of living on a yacht versus living on land.

(d) Replicability – the design should be transferable to other port cities. This is measured by measuring the flexibility of the administrative structure in different regulatory environment.

Study Limitations

The proposal is still at the ideation stage and has a number of major limitations:

(a) No empirical evidence – The proposal lacks case studies of existing liveaboard communities, site-specific engineering feasibility studies, and stakeholder interviews or surveys. The methodology needs elaboration of the initial cost benefit analysis for a 300-berth harbour producing 28–35 million HKD per annum.

(b) Geographical limitation – The proposal is mainly based on Hong Kong context, with little attention paid to adaptation to different port city settings.

(c) No environmental appraisal provided – The proposal does not provide a comprehensive environmental impact assessment, which is required for projects involving reclamation of more than 5 hectares or for designing typhoon shelters for more than 30 vessels.

(d) Inadequate stakeholder analysis – The proposal does not systematically consider the interests, concerns and impacts on key stakeholders including government agencies, yacht owners, SME operators, environmental groups and local communities.

THE YACHT PARKING HARBOUR DESIGN

The Typhoon-Resilient Mandate

The design proposal's guiding principle is that all parking sea areas, not only marinas, should be configured as typhoon refuges. This principle is a response to the vulnerability of Hong Kong to tropical cyclones and to the

vulnerability of marine infrastructure [10] to severe weather phenomena. “We have been working to strengthen our marine infrastructure following the devastating Super Typhoon Mangkhut in 2018 which took 474 vessels and salvaged 110, and damage to the Aberdeen Typhoon Shelter breakwaters caused by Super Typhoon Saola in 2025.

The design configuration is based on research conducted by the researcher on breakwater dynamics. The port is protected by a natural shelter reinforced with wave-dampening caissons and a raised perimeter berm designed to repel strong surges and high winds. This is the key to the feasibility of the proposal: safety is the basis for all fee collection and administrative activities.

This instruction is consistent with current government infrastructure initiatives. The expansion project of the Aberdeen Typhoon Shelter involves construction of new breakwaters in accordance with the latest version of the Port Works Design Manual [11] considering the historical storm surges and wind speeds as confirmed by extensive three-dimensional wave physical model tests. The project’s Environmental Impact Assessment states that the expansion “intends to meet the strong regional demand for sheltered vessel space in Hong Kong Island South” while “promoting tourism, leisure and recreation opportunities in the Southern District”.

The Administrative Hub on the Water

The design features a two-storey building at the end of the basin beyond the existing Shun Tak Pier. This structure is the nerve centre for governance, with offices, a small supermarket, café and restaurant and the administration that turns a simple dock into a public resource that makes money.

(a) Smart payment for freshwater provision – The design is inspired by electric vehicle charging stations. At sea level, the design includes freshwater taps with flow meters, Octopus card readers and mobile app interfaces (QR codes). The system identifies individual yacht owners and bills for the litres used. This “no waste” principle has both ecological and managerial aims, the latter ensuring that unauthorised water extraction stops where payment is mandatory and verifiable. Facility management can carry out weekly consumption audits as per the requirements of Technical Circular No. 7/2026 [12] of the Marine Department on smart water metering for maritime vessels.

(b) Temporary parking meter boards – The transition plank is a new administrative feature, like the Shun Tak turbojet walkway, or Macau pier gangways. Yachts can moor for a short while and the owners can get to the land through an elevated pedestrian bridge. These planks are akin to roadside parking meters, with digital displays, hourly rates and time limits. A small camera linked to the central facility management system watches over each plank. Yacht owners get SMS notification 10 minutes before expiry. This system “creates sustainable income and avoids monopolisation of key access points”.

(c) Shared workspaces and entrepreneurial support – The stand-alone building offers rentable workstations, conference rooms, computers, fax machines and telephones. Correspondence and packages for yacht residents are received and forwarded by a facility management person (or external operator) with domestic and international delivery through a courier counter. This framework operationalises the “Float and Work” principle, enabling activities such as software consulting and small trading activities.

The Commercial Anchor

The coastal structure is scaled to Shun Tak Centre and connected to it by a raised pedestrian bridge. It will cater for larger grocery stores, more cafes, restaurants, a fitness centre and, importantly, conventional office space. For SMEs that have outgrown co-working capabilities, this is a natural progression path from a yacht home-office to a fully staffed business operation.” The seaside building could be a hotel for yacht tourists [13], which would provide a financial basis for harbour maintenance.

The design also includes a private swimming area close to the yacht docking zone for additional revenue. Entry fees are taken at barriers or through wristbands (more administrative consolidation). Revenue streams include

vessel leases and a thriving restaurant. All activities are channelled into a centralised harbour management dashboard which tracks occupancy levels, water sales, parking usage and tourist spending.

This combination of revenue-producing amenities and yacht mooring facilities is well proven. As was stated at the Second Reading of the Brighton Marina Bill in 1967: 'There are a few marinas that have been built in this country that have no revenue producing aspects whatsoever, and the result is that small yacht owners are paying exorbitant rates for berthing space, because the return on investment must come solely from the slips for yachts'. The Brighton Marina was originally planned as a self-financing scheme based on yacht berths but has now extended to include hotels, residential services and leisure facilities. This is a lesson which can be applied directly to the present proposal.

THE ADMINISTRATIVE BACKBONE

Core Administrative Systems

What is unique about this design is the overall governance structure to keep the harbour orderly, accountable and self-sustaining.

- (a) Check-in and registration – All yachts entering the harbour have to go through a control gate with an AIS reader and a camera. Transient users pay a deposit; permanent berth holders pay monthly by bank transfer.
- (b) Zone pricing – Inner basins with greater protection have a 20% premium to outer rows. Mooring buoys are colour-coded to indicate payment status.
- (c) Water station billing – Taps detect users through Octopus card or registered mobile number. Bills are calculated per litre and shown live. Water shut off for nonpayment (interim).
- (d) Enforcement of Plank parking regulation – Electronic meters provide a 10-minute grace period. Failure to complete the process within the specified time will result in a surcharge of 150% of the hourly rate. After 2 hours of overtime without pay, the yacht is taken to a designated area to be held (pay to get it back).
- (e) Co-working management – A digital platform (or physical kiosk) for desk booking, meeting room rental and mail storage and courier services. The management company adds a 15% service charge.
- (f) Typhoon protocol – Once the T3 signal is raised, all temporary parking patrons shall vacate the planks and proceed to designated long-term parking. Unused metered time isn't refunded, but weather credits are applied to future parking, to encourage compliance.
- (g) Revenue dashboard – Daily water sales, parking charges, co-working revenue and tourist zone entrance fees are summarised and all information is available to government auditors

Revenue Generation and Financial Sustainability

The governance framework is designed to generate sustainable streams of income. The researcher's financial analysis shows that a 300-berth harbour would generate annual income of between HKD 28 million and HKD 35 million after operating costs, through parking fees, sales of water, rentals of co-working spaces, entry fees to a tourist zone and commercial leases.

The revenue model is validated by international examples. A similar aim is stated in the Caernarfon Harbour Trust's Strategic Plan 2024-29 [14]: "To create income by providing leisure craft moorings for visiting and residential vessels, letting property for commercial enterprise and letting land for parking vehicles, provision of marine services, and collection of harbour dues thereby balancing income with expenditure as far as is reasonably practicable". The Trust's financial accountability aims are 'to maximise income from residential and visitor moorings' and 'to develop property holdings and make acquisitions in line with business objectives'.

For example, the Anchorage Harbour Management Plan of the Tweed Shire Council provides “for a vessel berth fee collection system that establishes an equitable fee for use and generates a revenue stream for the maintenance and refurbishment of harbour amenities” [15]. The Council acknowledges that “if a cost recovery framework is not adopted then ratepayers will ultimately be subsidising the ongoing maintenance and replacement of vessel berths and associated amenities by the Council... for the private benefit of berth licensees”. This principle of user pay for harbour maintenance is intrinsically linked to the proposed governance model.

Portability and Replication

The necessary quality of the administrative structure is mobility. This model can be implemented on a large scale in Haikou, Hainan Island surrounded by water, with free-trade port rules, the researcher said in a presentation in Haikou. China is a very big land mass and has a long coastline. The administrative structures (digital water meters, metered planks, co-working rentals) are designed for easy transfer.

This portability is especially important considering the rapid development of yacht tourism infrastructure in the region. Yacht tourism is a focus of the Hainan Free Trade Port Office’s [16] 2026 White Paper on the Blue Economy, with Sanya leading the sector. Official reports have said that “Sanya is the first city in the country to carry out local legislation on water tourism”, with “the total number of registered yachts in the resort city reaching 1,367, with 230 being newly registered annually”. Sanya yachts sailed 161,100 times in 2023, attracting 1.08 million tourists, up by 67.22% and 82.84% respectively. This administrative framework could accelerate implementation by providing a tried-and-true management model that can be adapted to local regulatory environments.

DISCUSSION

The Yacht Parking Harbour as a New Typology

The design proposal combines a number of functions in one infrastructure: typhoon refuge, marina, residential area, commercial complex and administrative centre. What the researcher calls a “novel typology of marine urbanism”. This is not just a geographical or managerial integration, but intelligent systems that ensure accountability and revenue generation.

This typology answers several contemporary urban challenges at once. It offers essential docking facilities for the burgeoning recreational boat fleet – which, as submissions to the Legislative Council pointed out, grew by 120% between 2007 and 2022, versus just 7% for local commercial vessels. Provides affordable living and working environments for SMEs and emerging entrepreneurs. It creates lasting public income without the government bearing a heavy cost. It brings life to neglected waterfronts as public gathering places.

The typological innovation fits in with broader trends in waterfront development. Contemporary approaches are moving further away from the ‘port out, city in’ paradigm that characterised earlier developments and are moving towards more sophisticated planning practices that embed port related functions within mixed use areas. The yacht docking harbour project is an example of the latter, re-introducing maritime activities but in harmony with commercial and residential uses. One urban design study reminds us that successful waterfront programming is a balancing of functions which “remain in demand most likely because no matter the changing function, people will remain a constant”.

Alignment with Policy Directions

The proposal is highly consistent with the Government’s “Invigorating Island South” initiative announced in the 2020 Policy Address to transform the Southern District into “a place full of vibrancy, energy and dynamism for people to work, live, innovate and enjoy leisure”. Under this initiative, a flagship project, the Aberdeen Typhoon Shelter expansion, aims to “meet the significant regional demand for protected vessel space in Hong Kong Island South” and promote “tourism, leisure and recreational activities in the Southern District”.

The proposal also ties into the government's "yacht economy" plan which includes easing up on regulations for incoming yachts, setting up a Dynamic Yacht Monitoring System and negotiating with Guangdong province on "northbound vessels" and "southbound vessels" arrangements. The Hong Kong Boating Industry Association has welcomed the developments, with its Chairman Lawrence Chow saying: "It's been almost two decades since the last new marina was built in Hong Kong. "The four development sites identified in Hong Kong will help to further develop the boating industry and serve local community."

Addressing Institutional Challenges

The proposal also deals with the institutional barriers that have to be overcome. The Legislative Council Subcommittee on Typhoon Shelters has pinpointed a fundamental issue of institutional accountability. "The Marine Department's primary responsibility is to ensure safety of vessels and marine navigation, but it has no role in promoting recreational boating and storage of equipment. It is not responsible for the effective promotion of marine-related recreation, sports and tourism. Leisure and Cultural Services Department offers facilities for education and training in water sports but does not provide facilities for community ownership of boats and water sports gear. With the advancement of the recreational marine sector, the question is who is in charge?"

The proposal's detailed administrative architecture – specifying responsibilities, financial mechanisms and accountability pathways – provides a roadmap for untangling this institutional fragmentation. The governance model can break down institutional silos and establish clear accountability by integrating Marine Department oversight (safety and navigation) with commercial management (co-working, retail, tourism) and transparent revenue reporting.

Stakeholder Perspectives and Concerns

The implementation of the yacht docking harbour initiative involves collaboration with several stakeholders, all with their own interests and concerns.

(a) Government Agencies – The Marine Department, for safety and navigation; the Development Bureau, for land use planning; a Tourism Commission (or equivalent), for marketing the facility to global travellers; and the Environmental Protection Department, for assessing ecological impacts;

(b) Yacht owners – Potential users may be worried about availability of docks, costs, security and facilities. The affordability focusses of the proposal – monthly parking fees ranging between HKD 4,000 and 6,000 – would appeal to younger, less affluent yacht owners who might otherwise find themselves priced out of the market.

(c) SME Entrepreneurs – The "Float and Work" concept would be attractive to entrepreneurs looking for affordable office and residential space. The co-working facilities and postal management services are designed to meet the basic commercial needs.

(d) Environment organisations – Concerns on water quality, marine ecosystem and ecological impacts of increased yacht activities should be addressed through comprehensive environmental impact assessment as demonstrated by the Aberdeen Typhoon Shelter expansion project.

(e) Immediate Residents – Auditory disturbances, aesthetic effects and competition for waterfront access need careful management through thoughtful design and community engagement.

Limitations and Future Research Directions

The administrative structure is quite comprehensive. The design proposal is still in the conceptual stage, and there are some limitations that should be mentioned:

(a) Cost-benefit ambiguity – Financial projections are indicative only and detailed financial modelling to include sensitivity analysis is required. The harbour's projected annual revenue of HKD 28-35 million is dependent on occupancy rates and fee structures that may not be realisable.

(b) Environmental impact – there is no full environmental impact assessment for the proposal. The Aberdeen Typhoon Shelter expansion project is subject to the requirements of the Environmental Impact Assessment Ordinance, including for reclamation of an area exceeding 5 hectares and typhoon shelters for more than 30 vessels. The environmental impact assessment (EIA) for the Aberdeen project demonstrates the breadth of assessment required, including “air quality impact, noise impact, water quality impact, waste management implications, marine ecological impact, fisheries impact, landscape and visual impact and cultural heritage impact”.

(c) Engineering viability – The proposal does not consider the complex engineering challenges associated with the integration of underground spaces with yacht harbour infrastructure.

(d) Regulatory hurdles – Implementation would need to go through regulatory frameworks including Protection of the Harbour Ordinance, Environmental Impact Assessment Ordinance and Marine Parks Ordinance.

Future research should overcome these limitations by using complex financial modelling with sensitivity analysis, comprehensive environmental impact assessments, engineering feasibility studies considering the site conditions, stakeholder analysis identifying potential partners and barriers to implementation and benchmarking against international examples including the Brighton Marina project.

CONCLUSION AND RECOMMENDATIONS

Summary of Findings

This article has introduced and critically analysed a design proposal for a yacht docking harbour that doubles as a typhoon refuge and commercial maritime centre. The proposal is a culmination of eighteen months of iterative design evolution. The proposal champions an integrated concept of typhoon-resistant infrastructure, intelligent governance frameworks, economical residential and commercial spaces, and sustainable revenue generation.

The proposal is based on Kolb’s theory of experiential learning and assumes the yacht setting as a way to develop entrepreneurial competency through immersion. This is consistent with existing government projects such as the extension of Aberdeen Typhoon Shelter and the development of the Hung Hom waterfront. It has specific features including intelligent water metering, metered temporary parking platforms, collaborative workspaces, and a full administrative structure.

Contributions to Knowledge and Practice

The proposal develops the theory and practice of marine urbanism in different ways. First, it introduces a new typology of marine infrastructure (the Living Sea Hub) that brings together residential, commercial and administrative functions into a single entity, going beyond the existing categories of Traditional, Industrial and Hybrid working waterfronts. Secondly, it shows how smart administrative structures can lead to accountability and revenue generation and at the same time, increase user satisfaction, using international examples from the UK and Australia. Third, it offers a model that can be duplicated by port cities across Asia, especially in Hainan and along the coast of the Chinese mainland, which face similar problems of land scarcity and a rising demand for maritime leisure activities.

Recommendations for Implementation

Based on the analysis, the following recommendations are proposed for policymakers and practitioners:

(a) Policy Integration – The proposal should be integrated with the current government initiatives including the Invigorating Island South programme and the Yacht Tourism Strategy [17]. The expansion of the Aberdeen Typhoon Shelter is an immediate opportunity for scaling up the administrative structure.

(b) Public-Private Partnership – The proposal is compatible with a public-private partnership model, where the government provides basic infrastructure (breakwaters, land access) and the private sector develops and operates

administrative systems (smart metering, co-working, retail). As the Brighton Marina case shows, private development under government supervision and profit-sharing arrangements can produce economical yacht docking with public benefits.

(c) Phased Implementation – Administrative systems can be implemented in phases, beginning with check-in and registration, and then adding water metering, plank parking enforcement and co-working administration. This allows for phased education and adjustment with less initial expenditure.

(d) Stakeholder Involvement – Successful implementation involves collaboration with a range of stakeholders including Marine Department, Harbourfront Commission, yacht owners, SME entrepreneurs and local communities. The proposals have clearly defined administrative responsibilities and transparent revenue dashboard which will boost confidence among stakeholders.

(e) International Collaboration – The flexibility of the proposal suggests opportunities for international collaboration, particularly with Hainan and other Chinese port cities. A network for knowledge sharing can speed up implementation and enable mutual learning.

Closing Reflection

The proposal embodies a vision that, if implemented, could generate a new category of marine urbanism to solve Hong Kong's urgent socio-economic problems while harnessing the city's extensive marine resources. "Frustrated by the price of land and the inefficiency of ferry terminals, this design has the potential to create a new category of marine urbanism," reflects the researcher. The convergence of personal passion, policy consistency and administrative creativity suggests that the yacht parking harbour project is a feasible and repeatable model for transforming city waterfronts into vibrant residential and commercial marine complexes [18].

REFERENCES

1. Wang, Y., Fan, Y., & Yang, Z. (2022). Challenges, experience, and prospects of urban renewal in high-density cities: A review for Hong Kong. *Land*, 11(12), 2248.
2. Akerele, T. M., & Owoigbe, K. V. (2025). Geoinformatics and Smart Marine Asset Management: Technological Advancements, Economic Impact, Environmental Benefits, and Strategic Decision-Making in Africa's Oil & Gas Sector. *International Journal of Research Publication and Reviews*, 6(7), 1841-1849.
3. Choi, E. Y., Jang, W. Y., & Park, T. H. (2025). Key attributes driving yacht tourism: Exploring tourist preferences through conjoint analysis. *Sustainability*, 17(8), 3336.
4. Shen, W. Y. T. (2021). What is the Relationship Between Heavy Metal Concentrations (Mercury, Lead, Tin, Cadmium) in the Aberdeen Typhoon Shelter (Hong Kong) and the Antifouling Paints Used on Different Boats in the Area?. In *AGU Fall Meeting Abstracts* (Vol. 2021, pp. ED45B-0743).
5. Li, A. M. (2025). Visions of public and private mobility: the Kowloon railway terminus in Hong Kong. *Urban History*, 52(1), 141-158.
6. Devi, M. K., & Thendral, M. S. (2023). Using Kolb's Experiential Learning Theory to Improve Student Learning in Theory Course. *Journal of Engineering Education Transformations*, 37(1), 70-81.
7. Uzumcuoglu, D., & Polay, M. (2023). Enhancing urban waterfront development: A groundbreaking framework for fostering creativity. *GeoJournal*, 88(6), 6091-6104.
8. Zhang, Z., Tao, A., Wu, Q., & Xie, Y. (2024). Wave to the dynamic response of the ballast floating breakwater. *Ocean Engineering*, 305, 117915.
9. Civil Engineering and Development Department. (2022). *Expansion of Aberdeen Typhoon Shelter*. Hong Kong: Government Printer.
10. Spanier, R., & Kuenzer, C. (2024). Marine infrastructure detection with satellite data—A review. *Remote Sensing*, 16(10), 1675.
11. Civil Engineering and Development Department. (2026). *Port Works Design Manual*. Hong Kong: Government Printer.

12. Marine Department. (2026). Fender Replacement Works at Peng Chau Transfer Facility. Marine Department Notice No. 7/2026.
13. Yao, Y., Li, Z., Zhou, X., & Parmak, M. (2023). Yachting tourism consumption potential and its influencing factors: Considering 12 coastal cities in China as examples. *Sustainability*, 15(16), 12490.
14. Caernarfon Harbour Trust. (2024). Caernarfon Harbour Trust Strategic Plan 2024 -2029. Retrieved from <https://www.caernarfonharbour.org.uk/wp-content/uploads/Caernarfon-Harbour-Trust-Strategic-Plan-2024.pdf>
15. Tweed Shire Council. (2023). Draft Anchorage Harbour Management Plan. Retrieved from <https://www.yoursaytweed.com.au/projects/anchorageisland>
16. Mathlouthi, N., Haider, A., Khan, A., & Ahmad, N. (2025). The role of Hainan Free Trade Port in shaping China's WTO commitments and international trade policies. *China and WTO Review*, 11(1), 71-82.
17. Rao, A. S., Maheshwari, A., & Jasrotia, A. (2025). Luxury Yacht Tourism in Fragile Environments: Sustainability & Resilience Strategies for Indian Islands. *Tourism*, 73(3), 592-597.
18. Yang, J. H., Yang, J. Y., & Chang, Y. (2026). Toward sustainable development in the ocean: A framework for blue economy marine spatial planning. *Sustainable Development*, 34, 456-469.