



Handbook on Captain-Tech and TakaCapt-Tech Innovations in Labuan IBFC

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01 INTRODUCTION

- 1.1 The rapid development of technology has profoundly reshaped the global financial and insurance landscape, driving new standards of efficiency, transparency and resilience across the sector. Innovations are no longer optional enhancements but have become fundamental drivers of operational efficiency, stronger risk management and improved customer experience. As technological advancements continue to accelerate, market players across the insurance sector are compelled to adapt, evolve and integrate digital solutions into their business models to remain competitive, resilient and responsive to emerging risks and opportunities.
- 1.2 The revised *Guidelines on Captive Insurance Business in Labuan International Business and Financial Centre*, which came into effect on 1 January 2024, provides a clear and modern regulatory framework, capable of supporting the integration of digital tools in operations, governance, and risk management. As part of Labuan FSA's strategic initiatives to spur market innovations and vibrancy, the tech-enabled initiative for captive insurance and captive takaful businesses known as "Captain-Tech and TakaCapt-Tech" have been conceptualised under the theme "Driving Digital Innovation".
- 1.3 For avoidance of doubt, the *Handbook on Captain-Tech and TakaCapt-Tech Innovations in Labuan IBFC* (the Handbook) serves as practical guidance for Labuan captive insurers and Labuan captive takaful operators (hereinafter referred to as "Labuan captives") in embracing digitalisation and evolving risk paradigms. It underscores Labuan IBFC's supportive framework for technology and digital adoption and does not introduce new policies nor replace any laws, guidelines, or circulars issued by Labuan FSA. The concepts outlined in the Handbook are illustrative in nature and are not intended to serve as an exhaustive or prescriptive framework. They aim to enhance industry awareness and readiness in adopting technology-driven practices in a manner consistent with existing laws, regulations and supervisory expectations.

02 CAPTAIN-TECH AND TAKACAPT-TECH INNOVATIONS

2.1 In general, the innovative concept of Captain-Tech and TakaCapt-Tech can be categorised into three main areas:



1. Digitalisation of Business

Labuan captives can leverage technologies such as Artificial Intelligence (AI) and blockchain to enhance efficiency, strengthen risk management, and improve transparency across business processes.



2. Underwriting of Technology-Related Risk

Labuan captives may provide customised coverage for emerging risks such as cyber threats and AI liabilities, thereby addressing protection gaps left by traditional insurers as organisations increasingly rely on digital infrastructure.



3. Digital Currency Denominated Policies and Related Risks

Labuan captives may offer digital currency denominated insurance/takaful policies, limited to Stablecoin for premium collection and claims settlement, while covering emerging risks associated with digital assets.

03 BUSINESS APPLICATIONS AND GLOBAL USE CASES

- 3.1 The application of technology in captive insurance has evolved beyond basic administrative efficiency to become a strategic enabler of innovation, resilience and competitiveness. In line with this evolution, Labuan captives may explore and integrate digital solutions such as digital underwriting, claims automation, data analytics, blockchain applications, and digital assets into their operations. These innovations enable Labuan captives to enhance operational efficiency, manage emerging risks effectively, and position themselves as agile and innovative insurance entities while maintaining sound and prudent business operations.
- 3.2 This section highlights key business applications of Captain-Tech and TakaCapt-Tech, demonstrating how digital innovations are reshaping Labuan captives' operations. Each application is complemented with global use case to illustrate real-world adoption and industry relevance.



Labuan captives can leverage technologies such as AI and blockchain to enhance efficiency, strengthen risk management, and improve transparency across business processes.

Business Applications

Process Automation

Automate claims handling, internal workflows, and reporting to reduce administrative overhead and speed up operations.

Data-Driven Insights and Customised Products

AI can analyse large datasets to forecast claims trends, detect anomalies, and optimise capital allocation. It enables the development of highly customised insurance products tailored to group profiles, improving underwriting precision business strategy.

Operational Transparency via Blockchain Products

Blockchain-enabled ledgers provide secure, real-time visibility into financial and operational data across the organisation, reducing fraud and improving trust.

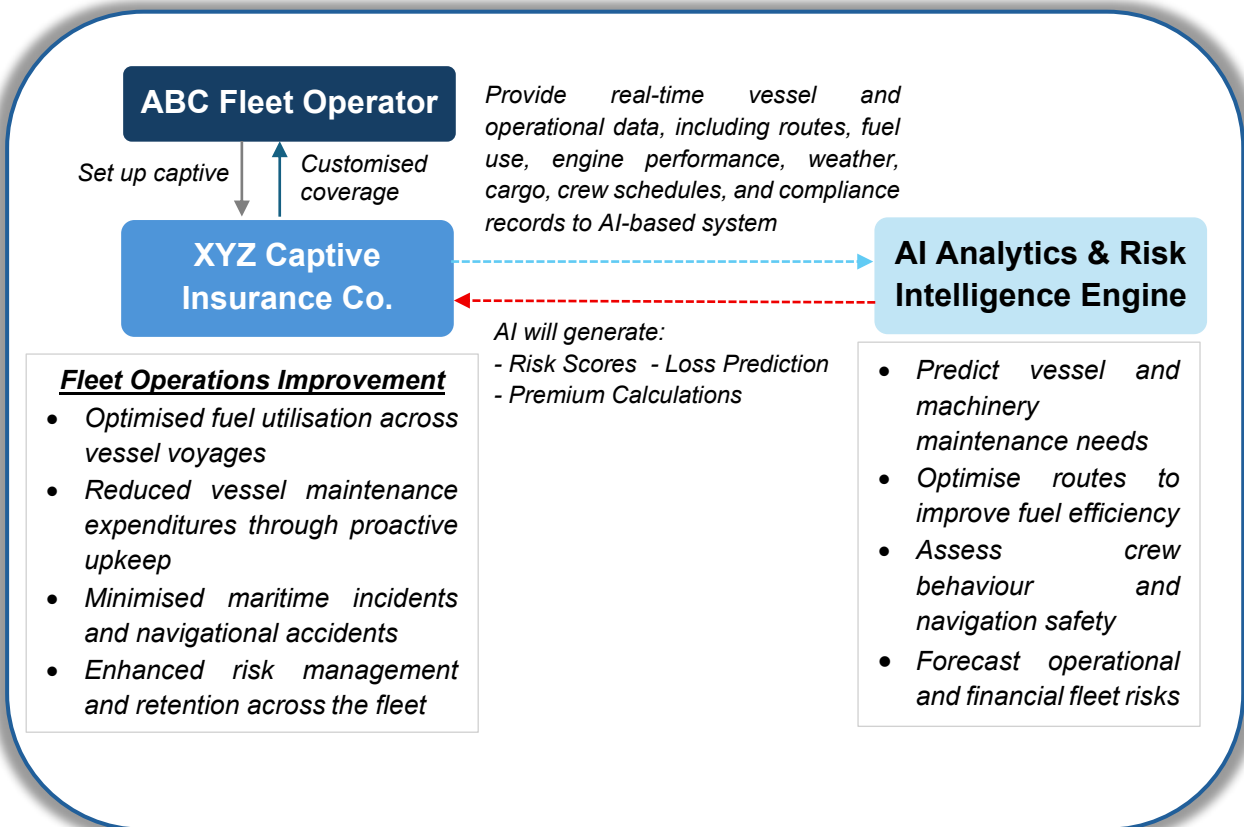
Global Use Cases

- (i) A captive insurance company developed a blockchain-based prototype for a multinational captive insurance programme that enables real-time visibility of policies, premiums, and claims. The digital platform automates renewals, speeds up settlements, and enhances auditability by using a secure distributed ledger.
- (ii) A company introduced an AI driven captive model for fleet operators. The system integrates real-time data relating to routing, maintenance, safety,

and finance resulted in lower fuel and maintenance costs, fewer accidents, and improved risk retention performance.

- (iii) A consortium consolidated its global insurance information into the digital platform, replacing spreadsheets and fragmented systems. This integration significantly improved data accessibility and reduced audit preparation time from two days to less than twenty minutes.

Scenario A



Scenario A shows how a fleet operator works with its captive insurance company and an AI analytics engine to improve fleet performance. The fleet operator first sends real-time vessel and operational data to its captive insurer. The captive then feeds this information into an AI analytics engine, which processes the data and generates insights such as risk scores, premium calculations, and loss predictions. These AI insights are returned to the captive and used to support better decision-making and risk management. As a result, the fleet operator benefits from improved operations, including more efficient fuel use, reduced maintenance costs, fewer incidents, and stronger overall risk management across the fleet.

2 Underwriting of Technology-Related Risks

Labuan captives may provide customised coverage for emerging risks such as cyber threats and AI liabilities, thereby addressing protection gaps left by traditional insurers as organisations increasingly rely on digital infrastructure.

Business Applications

Cyber Risk Coverage

Protection against financial losses from cyber-attacks, data breaches, or other cyber-related incidents.

AI Liability Protection

Coverage for losses arising from AI system errors, bias, or malfunctions that lead to operational, reputational, or regulatory impacts.

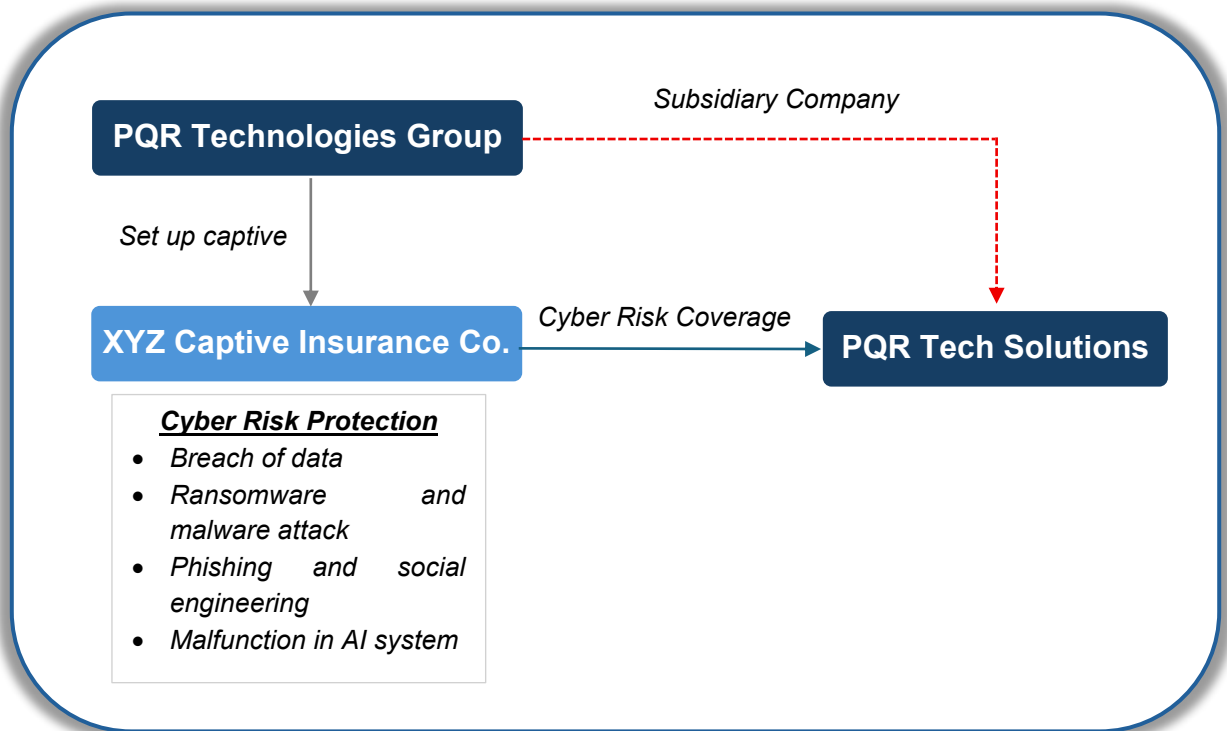
Digital Infrastructure Risk

Coverage for losses caused by disruptions or failures in cloud services, networks, or software systems that impact business operations.

Global Use Case

- (i) A group of corporations established a captive insurance company, dedicated entirely to cyber risk. The captive provides cyber insurance protection and promotes collaboration among its members with shared threat intelligence.
- (ii) An AI company established a captive insurance company to manage emerging AI liabilities, due to difficulties in obtaining commercial insurance coverage for such risks including operational, regulatory, and liability exposures associated with AI systems.

Scenario B



Scenario B shows how a parent technology group uses its captive insurer to cover cyber risks faced by its subsidiary. PQR Technologies Group owns PQR Tech Solutions and channels the subsidiary's cyber risk exposures to its group's owned captives, XYZ Captive Insurance Co. This coverage protects the subsidiary against risks such as data breaches, ransomware or malware attacks, phishing attempts, and failures in AI systems. The flow demonstrates how a group structure can use captive insurance to manage and insure in-house cyber risks more effectively.

3 Digital Currency Denominated Policies and Related Risks

Labuan captives may offer digital currency denominated insurance/takaful policies, limited to Stablecoin¹, for premium collection and claims settlement, while covering emerging risks associated with digital assets.

Business Applications

Premium and Claims in Digital Currency (Limited to Stablecoin)

Use digital currency as a means of payments for insurance premiums and claims.

Coverage for Digital Assets

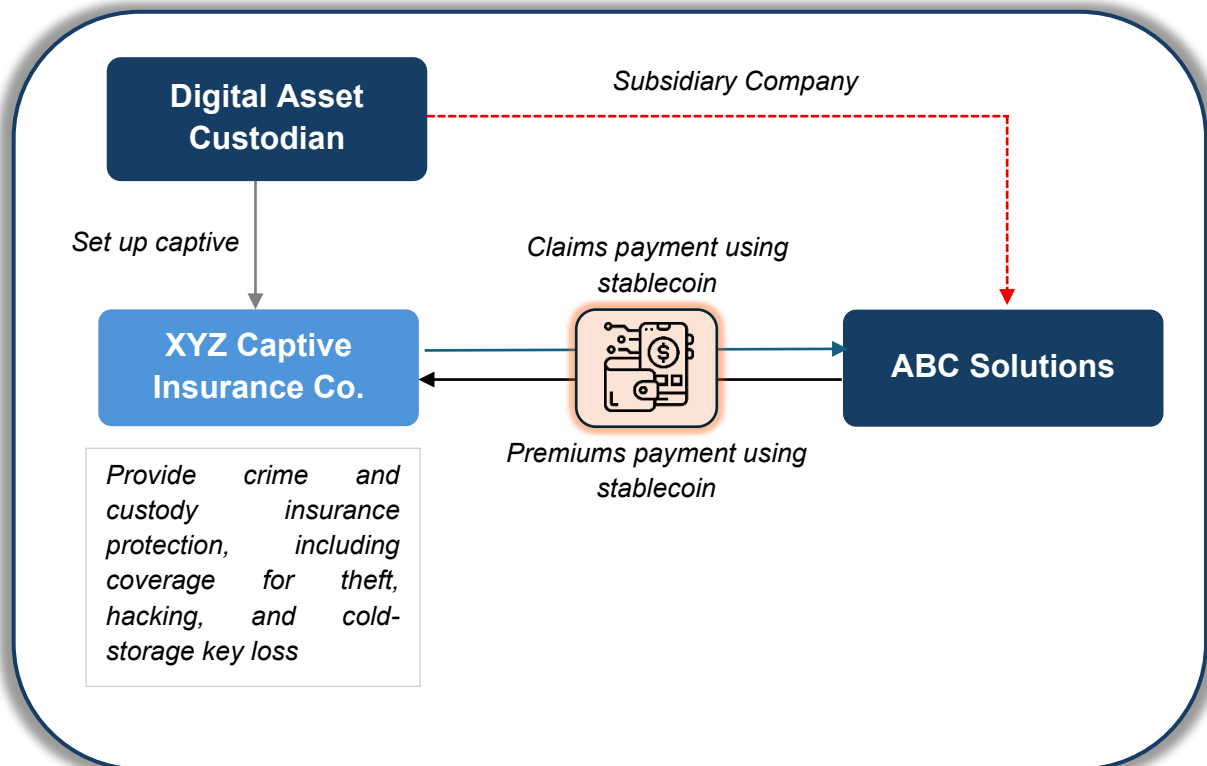
Provide protection through crime and custody policies, including coverage for theft, hacking, and cold-storage key loss.

Global Use Case

- (i) A captive insurance company offers digital currency-denominated insurance products for its group's risk coverage, where all premiums and claims are denominated and settled entirely in digital currency.
- (ii) A digital currency exchange and custodian, for example, established a captive insurance company to provide insurance coverage for its stored digital assets.
- (iii) A digital currency exchange has a crime insurance policy to protect the platform against breaches, theft, or loss of the digital currency held in its storage systems.

¹ This refers to the definition of "Stablecoin" provided in *the Admissibility Framework for Digital Currencies* issued by Labuan FSA.

Scenario C



Scenario C illustrates how a Digital Asset Custodian uses its captive insurer to protect the digital assets operation of its subsidiary, ABC Solutions. The subsidiary pays insurance premiums using Stablecoin, though Digital Asset Wallet, to XYZ Captive Insurance Co. In return, the captive provides coverage for digital asset risks through crime and custody policies. If a covered incident occurs such as theft, hacking, or loss of cold-storage keys, the captive pays the claims using Stablecoin to ABC Solutions. This structure shows how a captive can support digital-asset-focused businesses by enabling both premium and claim transactions to be settled in digital currency, in line with the business nature of the company.

04 REGULATORY ENGAGEMENT

- 4.1 Labuan captives intending to offer insurance/takaful policies denominated in stablecoin shall engage with Labuan FSA at an early stage (via bpu@labuanfsa.gov.my and licensing@labuanfsa.gov.my) to discuss the proposed business plan prior to the establishment of the captive or the conduct of such business. In addition, the Handbook should be read together with the *Circular on Innovative Financial Services in the Labuan International Business and Financial Centre*.
- 4.2 As Labuan captives embrace digital innovations, they must ensure that appropriate safeguards are in place, including strong governance, comprehensive risk management and cybersecurity controls, effective AML/CFT measures, and robust business continuity arrangements.

05 CONCLUSION

- 5.1 The Handbook serves as a practical guide for Labuan captives to venture into digital space. As Labuan captives continues to evolve, Labuan IBFC remains committed to fostering a progressive yet sound environment that supports responsible innovation. Through ongoing collaboration between industry players and Labuan FSA, Labuan captives will be well-positioned to explore and adopt emerging technologies that enhance value creation, strengthen governance, and promote sustainable and resilient growth. In doing so, the sector can contribute meaningfully to Malaysia's aspiration to reinforce its standing as a leading international financial centre.

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DISCLAIMER

The Handbook on Captain-Tech and TakaCapt-Tech Innovations in Labuan IBFC provides a general and illustrative overview of potential applications within the captive insurance landscape. It is not intended to be exhaustive and may be revised or updated as necessary. The information contained in the Handbook does not constitute advice or recommendation, nor should it be regarded as a substitute for obtaining independent legal, regulatory, or professional guidance. Nothing in this document alters or diminishes any statutory or other obligations applicable to any person under existing laws and regulatory requirements.