



**Bank of Namibia**

**NATIONAL PAYMENT SYSTEM  
MODERNISATION POSITION**

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## PART A: GENESIS OF THE NATIONAL PAYMENT SYSTEM

The Bank of Namibia (the Bank), in support of the National Payment System (NPS) Vision and Strategy (2021-2025), herein outlines its position on a modernised NPS. The Bank's modernisation approach takes a holistic outlook at the end-to-end payments value chain, from client initiation to clearing and settlement. Essentially, a modernised NPS has the capability to unlock significant economic benefits by promoting efficiency, fostering financial inclusion, enhancing security, and facilitating efficient payments. In addition, a modernised NPS is one that promotes interoperability, contributes to financial stability, and supports the growth of the digital economy, among others, which ultimately translates to a resilient and inclusive financial ecosystem.

The journey towards developing and implementing the NPS Vision and Strategy began over a decade ago, with key milestones achieved in the initial years to modernise the domestic NPS. To this effect, the NPS underwent remarkable changes and continues to embrace innovations and new players supported by a robust legal framework. In line with the Bank's digital transformation agenda to be a regionally and internationally reputable NPS, safeguarding the interests of all stakeholders, this modernisation position aims to detail initiatives that the Bank deem essential to ensure the continued modernisation of the NPS.

*"Run the same race quicker while also running a different race to get ready for the future."*  
**"Governor !Gawaxab"**

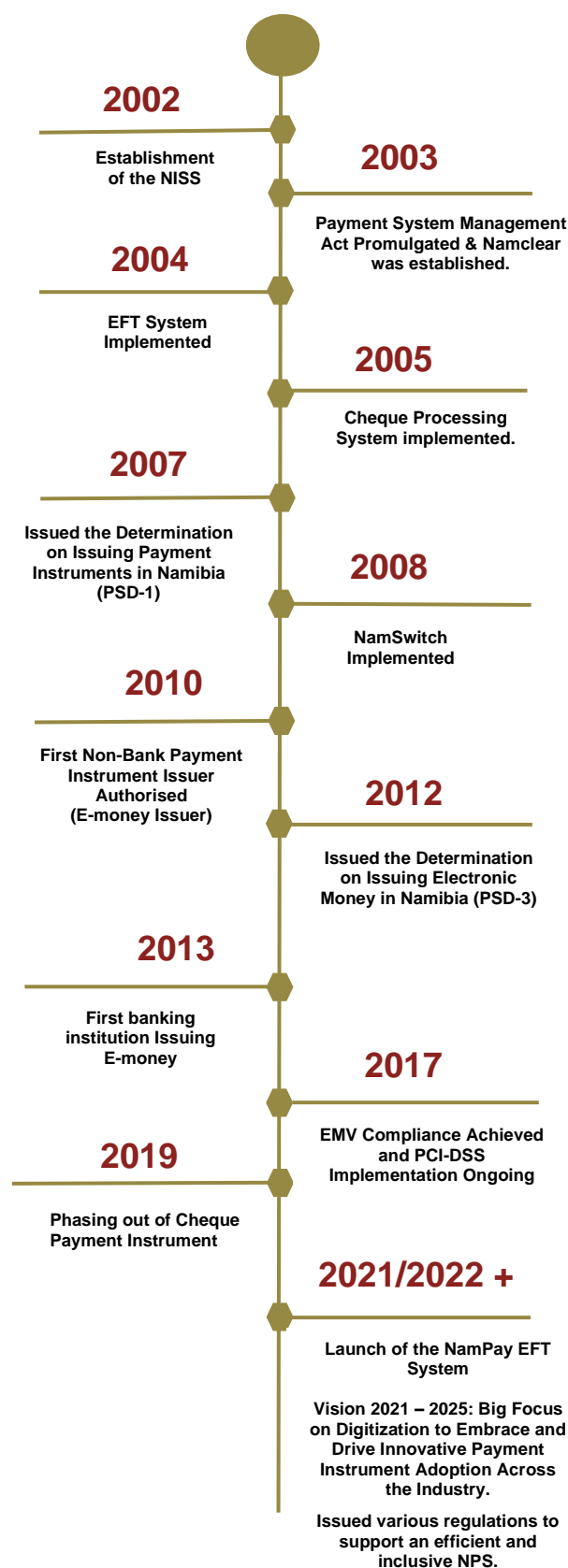


Figure 1: NPS Modernisation Timeline

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## PART B: GUIDING PRINCIPLES FOR A MODERNISED NPS

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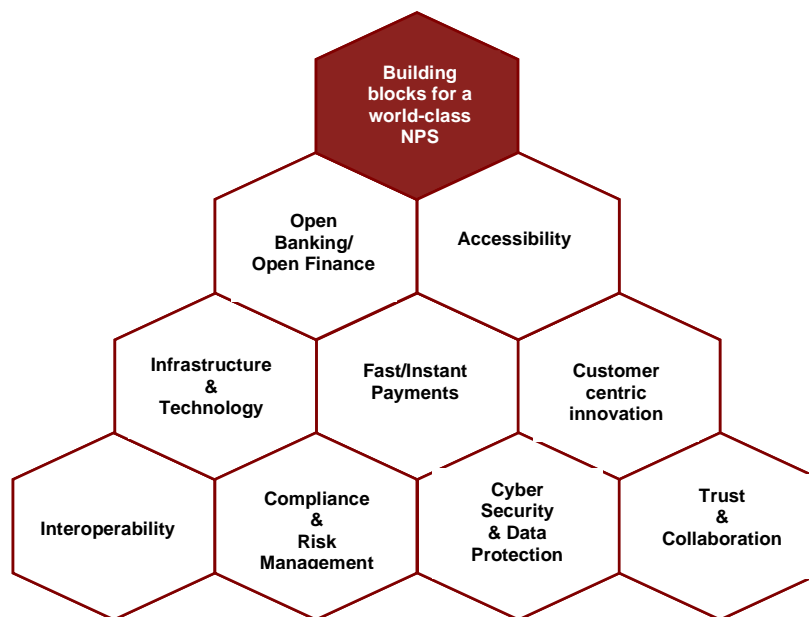
The Bank's Strategic Plan for 2022-2024 and the NPS Vision 2025 envisage greater digital transformation in the NPS, which is paramount in supporting Namibia's economic growth and development. In pursuit of these strategies, it is the Bank's position that a modernised NPS should be guided by the following principles:

- a) Enhanced efficiency:** An NPS that instils trust and confidence in its users by ensuring that digital and electronic payment transactions are convenient, fast, safe, and secure. This includes improving the time it takes to complete a payment transaction or access a payment service, thus making it faster and more convenient for users.
- b) Improved security:** A modernised NPS that employs advanced security measures to safeguard against fraud, data breaches, and cyber threats, to ensure the protection of users' funds and personal information, as well as the overall integrity and stability of the financial system.
- c) Promote financial inclusion:** By making digital payments more accessible and user-friendly, a modern payment system can bring more people into the formal financial sector, particularly those in rural areas and the informal economic sector. Key future drivers to financial inclusion include instant payments, digital identity, cybersecurity, introduction of technology that provides offline payment capability, e-commerce capabilities, effective regulation, collaboration and healthy competition between banks and non-banks, and fit-for-purpose industry standards.
- d) Supports economic growth:** A well-functioning NPS promotes trade, investment, and overall economic activity by facilitating swift and secure transactions between businesses, consumers, and government entities, domestically and cross-border.
- e) Fosters innovation:** A modern payment system should provide a foundation for the efficient and timely development of new financial products and services, and promote competition in the financial sector. Innovative payment solutions should be cost-effective and affordable by the end users.
- f) Aligns to best and appropriate practices:** Improving the NPS ensures that the country can adopt international best practices but simultaneously ensure that such best practices are appropriate and fit-for-purpose for Namibia, enabling efficient and cost-effective cross-border transactions as well as have the capability to withstand external shocks.
- g) Regional and continental integration:** The continued integration of Southern African Development Community (SADC) economies requires efficient and cost-effective payment systems capable of facilitating fund transfers within the region. This is essential to support SADC's trade and investment objectives within and outside the region.
- h) Commitment to transparency:** A transparent and adaptable NPS puts in place mechanisms to gather feedback from a diverse range of system users, including those from rural areas and the informal sectors. These are crucial for ensuring that the modernisation efforts are aligned with the actual needs and expectations of the users, leading to a more inclusive and effective payment system.

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## PART C: ENABLERS OF A MODERNISED NPS

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**Figure 2: Building blocks for a world-class NPS**

Notwithstanding the notable achievements, the NPS has encountered challenges over the years. The Bank has identified six (6) areas for improvement through a comprehensive assessment of several factors both internationally and the current domestic context, which has informed the various modernisation initiatives identified in this position.

- a)** The NPS is bank-dominated which limits Fintechs and payment service providers (which includes e-money issuers) from accessing customer data to build use cases that will enable innovation, competition and a level playing field.
- b)** The settlement system needs to be more resilient, promote broader access, and facilitate the settlement of faster payments to improve service delivery to its system participants.
- c)** Modernisation of the automated clearing house systems is crucial to enhance security, adaptability, efficiency, and compliance, while promoting innovation and growth in the ever-changing landscape of payment technologies. A modernised automated clearing house should have appropriate research capabilities to develop appropriate use cases that can deepen financial inclusion as well as facilitate innovative customer-centric payment services.
- d)** The NPS is characterised by legacy issues such as rigid payment systems that often experience challenges and limitations to adopt or accommodate new technologies as well as tedious manual interventions, and a lack of straight through processing of payment transactions.
- e)** In Namibia, affordable and efficient financial services remain inaccessible to many, with rural areas and informal sectors heavily dependent on cash. The Bank aims to achieve 100% payment instrument interoperability by 2025 to ensure access and deepen financial inclusion.

- f) There exist barriers to entry for non-banks, such as FinTechs, to offer payment services in collaboration with or in competition with banks. Banks are encouraged to adopt Banking-as-a-Service (BaaS) platforms to enable API integration with licensed non-banks. By adopting BaaS, banks will securely grant non-banks access to their systems and information required to build new and enhance financial services.

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## PART D: THE CURRENT MODERNISATION INITIATIVES

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The strategic initiatives identified in the strategic plan of the Bank and the NPS Vision and Strategy (2021-2025) are the cornerstones of a modernised NPS. By supporting the implementation of these initiatives, it is the Bank's position that a collaborative effort with industry will create a future-fit payments ecosystem that will drive the nation's financial sector forward, ultimately benefiting businesses, consumers, and the economy at large. The Bank has identified critical initiatives which require the industry's collaboration to ensure successful implementation and adoption. These initiatives are demarcated into retail payments, settlement systems, and regulatory reform. In this regard, the Bank considers the following roadmap as critical and requires the NPS industry and the public to support, implement and adopt these initiatives where necessary.

### THE RETAIL PAYMENT ECOSYSTEM

The following initiatives aim to modernise the retail payment ecosystem, promoting financial inclusion, efficiency, competition, innovation, and affordable faster payments in the NPS.

#### **Standardisation of Quick Response (QR) Codes**

On 1 November 2023, the Bank published the *Guidelines on the Standardisation of Quick Response Codes in the National Payment System* to provide guidance around the development and adoption of industry payment QR code specifications. These specifications will in turn assist industry to create payment QR codes that are interoperable, safe, and acceptable by all acquirers within the NPS. The standardisation of payment QR codes simplifies transactions, enhances interoperability, speeds up digital payment adoption, improve security, and fosters innovation. Standardised QR codes offers customers the ability to scan any payment QR code in the market, regardless of the creator, and make payments effortlessly across various platforms offered by different payment service providers, banking institutions, and merchants.

#### **Implementation of an Instant Payment Solution**

The Bank intends to introduce an instant payment solution with the objective of enhancing financial inclusion, particularly in rural areas and the informal sectors of Namibia by making payment services accessible, fast, and affordable. The instant payment solution will promote interoperability among banks and FinTechs, encompassing payment cards and e-money wallets, providing users with seamless fund routing options and the ability to make any type of payments or transfer to a recipient from any bank or e-money issuer. The Bank's intention is not to replace existing banking channels or products but to introduce a platform-based solution that empowers banks and FinTechs to offer accessible, affordable, and swift payment services to users within the domestic payment system, including rural areas and the informal sector.

## **Adoption of Open Banking/Open Finance in Namibia**

On 31 October 2022, the Bank issued the *Position Paper on the Feasibility and Adoption of Open Banking within the Namibian Financial Sector* (Position Paper). Overall, this Position Paper communicated the Bank's intention to mandate Open Banking during 2024 through a regulation that will include standards on consumer protection, data protection, and cybersecurity. The Payments Association of Namibia (PAN) established an Open Banking Forum to facilitate the adoption of Open Banking in Namibia. To ensure the successful creation of an Open Banking and Open Finance ecosystem, the Bank has issued a request for proposal to obtain the services of a consultant to assist the industry to develop technical standards for Open Banking/Open Finance and to further identify the most appropriate method/system to introduce Open Banking in Namibia. Open Banking/Open Finance has the potential to modernise the payment system, broaden service offerings, and improve customer convenience. Common use cases include comparisons of savings and current accounts, the provision of customised financial services, instant payment solutions, account aggregation, personal financial management services, easier access to credit, credit score assessments, insurance services and affordability checks, among others.

## **THE SETTLEMENT SYSTEM**

The Namibia Interbank Settlement System (NISS) is a designated Financial Market Infrastructure (FMI) owned and operated by the Bank. The NISS facilitates the settlement of high-value single transactions and low-value interbank transactions. The implementation of the NISS in 2002 introduced a paradigm shift in the interbank market and customer payment services in Namibia. The Bank recognises the continuous need to modernise the settlement system to keep abreast with technological advancements and payment innovations, increased consumer demands, and ensure that the system is secure and robust, and meets international requirements. As a response to these needs, the NISS is currently migrating to the ISO20022 standard as an upgrade to enhance operational resilience and strengthen risk management controls, among others. In addition to the envisaged upgrades to further modernise and ensure that the RTGS remains resilient and modern, there is a need for exploration in alternate settlement mechanisms, and options to host and operate an RTGS. The ability of recent technologies such as Blockchain and alternate messaging standards that can facilitate RTGS payments need to be explored in pursuit of modernising the RTGS ecosystem.

## **REGULATORY REFORM**

### **Payment System Management Act**

The *Payment System Management Act (Act 14 of 2023)* (PSM Act) was promulgated on 28 July 2023 and became effective on 09 August 2023. The PSM Act aims to strengthen the Bank's powers to oversee and regulate the NPS. In line with the PSM Act, payment service providers previously licensed and regulated by PAN are now under the direct supervision and oversight of the Bank. In terms of section 10 of the PSM Act, the Bank is responsible for licensing, regulating, and overseeing payment service providers which include, e-money issuers, payment instrument issuers, payment facilitators and third-party payment providers. PAN will continue to exist and maintain its role as an advisory association, and a collaborative platform for its members within the NPS, as outlined in section 5 of the PSM Act.

Following the introduction of the PSM Act, the Bank has embarked on a journey of revising its regulatory framework to ensure alignment of all regulations (Determinations, Directives etc.) with the new law. The Bank has revised the *Determination on Issuing of a Payment Instrument in*



*Namibia* (PSD-1) to incorporate the authorisation process of payment service providers, and the *Determination on the Issuance of Electronic Money in Namibia* (PSD-3) to accommodate interoperable wallets and enable the provision of various payment services on wallets, among other objectives. Furthermore, the PSM Act introduces noteworthy changes regarding the authorisation of system participants to access and participate in payment systems. Consequently, the *Determination on the Criteria for Authorisation of Participants in the Clearing and Settlement Systems* (PSD-6) will undergo an amendment to stipulate the licensing requirements of system operators and the onboarding process of system participants in clearing and settlement systems.

### **Automated Regulatory Reporting System**

Since February 2023, regulatory institutions have been able to use the Bank's automated regulatory reporting system to make regulatory and supervisory submissions, replacing the previous manual submission process. This system provides an effective, reliable, and scalable manner to detect and address potential risks and non-compliance issues in near real-time against the submitted data. Additionally, this system also facilitates automated compliance monitoring and the ongoing identification and reporting of prudential issues to ensure regulatory compliance. The system allows for online submission of various types of license applications, replacing the previous hardcopy and email-based application process. Since its inception, the system has made regulatory reporting more efficient for the industry and improved offsite monitoring and analysis for the regulator. The Bank will continue to enhance the system to ensure that it is user friendly and fit-for-purpose.

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## **PART E: FUTURISTIC VIEW**

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The Bank is mindful of the ongoing modernisation efforts in the domestic, regional, and international payments landscape. Acknowledging the challenges outlined earlier, the Bank advocates for the exploration and support of various opportunities within the payments industry to advance the domestic NPS. This forward-thinking approach aims to keep the NPS at the forefront of emerging trends and technologies, fostering an environment that facilitates the evolution of payments while ensuring the safety, efficiency, and effectiveness of the NPS. Additionally, the Bank encourages active engagements with the industry to discuss their payments modernisation agendas for the Bank to provide regulatory guidance and support. By adopting a forward-looking perspective, the ongoing modernisation efforts can be synergised to create a domestic payment ecosystem that is proactive, innovative, and adaptable to change. To this effect, the Bank strongly encourages industry participants to consider and explore the following digital innovation opportunities in the payments ecosystem, and this list is by no means exhaustive:

### **RETAIL PAYMENTS**

#### **Biometric Payments**

The adoption and integration of biometric authentication methods, such as fingerprint or facial recognition, into retail payment systems not only enhances security but also improves the user experience. These methods provide a convenient and secure way for customers to authorise transactions.

## **Contactless Payments**

With the aim of enhancing speed and convenience, contactless payment methods, including near-field communication (NFC) technology and QR codes, have gained popularity. These methods enable customers to make payments with a simple tap or scan of their devices. The industry is encouraged to research and adopt more contactless payment methods to improve the customer experience and speed up the payment process. It is, however, crucial that the industry ensures ongoing customer education to promote digital financial literacy among all Namibian citizens.

## **Social Media Commerce and Payment Platforms**

"Social commerce" refers to the direct sale of products or services on social media platforms such as Facebook, Instagram, Pinterest, and TikTok, etc. Instead of redirecting the customers to a company's website, it allows the customers to instantly make a purchase on the social media platform. The integration of payments into social media and messaging apps is an evolving field, with social networking sites and payment service providers constantly innovating and collaborating to offer improved solutions and user experiences. Examples include WhatsApp Pay, Apple Pay, WeChat Pay, Facebook Pay, TikTok Payment, and Instagram Checkout, among others.

## **Request to Pay**

Request to Pay is currently in the spotlight of the banking and payments industry. It is a 'pull payment' initiated by the payee to request a specific payment from the payer through a digital request on their mobile device. The payer can then respond by approving a real-time credit transfer, rejecting the request, making a partial payment, or requesting for more time. Request to Pay stands out from legacy pull payment mechanisms by employing a one-time authorisation model that does not necessitate setting up mandates in advance. This innovative approach is considered the next evolution in real-time digital payments, enabling corporates, merchants, billers, and individuals to pull payments from end customers. Request to Pay can be built on top of the instant payment rails or as an overlay scheme that is payment rail agnostic.

## **Open Finance**

Open Banking is a primary approach to broader customer data sharing initiatives such as Open Finance. Open Finance is an extension of Open Banking, which broadens access beyond the banking sector, enhancing the consumer experience by fostering the development of innovative financial products and services through the sharing of consumer data. This encompasses loans, consumer credit, investments, pensions, and various other offerings.

## **SETTLEMENT AND CLEARING**

### **Integration of Digital Assets**

The increasing acceptance of digital assets such as stable coins and tokenized deposits will eventually require trade clearing and settlement systems to perform the delivery of digital assets to buyers and the payment of funds to sellers. Existing clearing and settlement systems are therefore required to understand the enhancements required to be able to clear and settle digital asset transaction. Furthermore, it is essential to explore the potential for processing Central Bank Digital Currency transactions.

### **Modernised Clearing Operations**

Automated clearing houses should proactively ensure that their operating environments are responsive to the modernised payments ecosystem needs and should have the capability to scale



quick, while maintaining resilience and cost-effectiveness. This encompasses the capacity to process instant payments and integrate FinTechs into their clearing operations. Furthermore, the domestic clearing house is encouraged to adopt capabilities of facilitating regional payments. The establishment of a research arm within clearing operations is recommended to engage in proactive exploratory research to modernise the clearing and payments ecosystem. Additionally, domestic clearing capabilities should explore relevant use cases that align with the objectives of the NPS Vision and Strategy.

### **Automation and Artificial Intelligence (AI)**

Payments AI leverages machine learning (ML) algorithms, predictive analytics, natural language processing, and other cutting-edge AI technologies to streamline, automate, oversee, and safeguard digital transactions. Rather than replacing human intervention, the focus is on augmenting and automating processes to enhance both efficiency and accuracy. Within the realm of AI, ML, which is a subset, encompasses algorithms capable of learning from data and conducting predictive data analysis. In the payments sector, these algorithms are commonly employed for tasks such as fraud detection, forecasting consumer spending patterns, and optimizing transaction processes. For instance, AI can be used to enhance fraud detection systems by considering several factors like total spending, transaction location, and the identity of the business involved to detect anomalies or fraud. Unusual spending patterns, transactions in unfamiliar areas, or with unknown vendors trigger red flags, leading to further investigation. AI driven algorithms play a crucial role in accurately identifying and flagging genuine irregularities, using large sets of digital transaction data to prevent potential fraudulent transactions. These algorithms, employed in e-commerce and digital payment industries, safeguard user accounts from hacking attempts. The Bank is however cognizant of some of the risks that could potentially emanate from the use of AI in the payments ecosystem. These potential AI-related emerging risks will be closely monitored, and regulatory guidance will be issued as might be required in the future.

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## **PART F: FORWARD-LOOKING STRATEGIC OBJECTIVES**

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The National Payments Strategy (2022-2025) sets out the vision and strategic initiatives agreed upon with the industry to adopt and promote activities that will elevate the domestic payments ecosystem to world class. In an effort to supplement the initiatives in the current Strategy and remain forward thinking, the Bank has identified additional forward-looking strategic focus areas for consideration and inclusion in future NPS Strategies.

- a) Building trust in digital payments:** Trust means that a payments system ensures timely and reliable payments between payers and beneficiaries. While technological efficiency is crucial, trust is equally essential in a payment ecosystem. Trust, in the context of payments, revolves around the certainty and reliability of payment systems and channels by the payment service providers, users and merchants. It means a payer can be confident that a payment will promptly and securely reach the intended payee. Additionally, trust between payment service providers (banks and non-banks) will go a long way in advancing digital payments.
- b) Promoting Digital KYC and Identity:** The introduction of increased digital identity usage can reduce compliance costs and meet Know Your Customer (KYC) requirements. There is a focus on heightened vigilance to combat fraud and cyberattacks, adopting best practice standards. The intent is to collaborate with industry and government agencies to integrate

digital identity into electronic KYC systems. This integration is anticipated to enhance trust, secure customer identification and verification, and strengthen Anti-Money Laundering/Combating the Financing of Terrorism (AML/CFT) oversight.

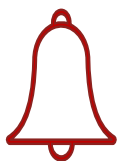
- c) Consumer and merchant protection for digital payments:** Create a comprehensive industry-wide consumer protection framework for digital payments. Such a framework should cover various aspects, including data privacy, securing customer identification, establishing efficient mechanisms for timely complaint resolution, defining procedures for handling complaints, ensuring effective dispute resolution, and providing clarity on liability and compensation as needed.
- d) Facilitate efficient government payments:** Introduce and promote payment initiatives to assist government policy objectives and stimulating economic activity. The Bank in collaboration with the payments industry should work towards introducing payment services that will improve the delivery of public services through the provision of affordable and accessible payment infrastructure. Furthermore, the Bank and industry should support the Government's national digital strategy to achieve a digital economy by introducing affordable digital payment services and conducting financial literacy campaigns through collaboration and partnerships.
- e) Boost trade through regional and cross-border payments:** Support regional and cross-border payment initiatives that intend to enhance Namibian trade in the region and international. Embrace the participation of non-banks and FinTechs in regional payment systems. The industry is encouraged to collaborate to ensure fit for purpose payment rails are developed with the Common Monetary Area (CMA), and SADC. Consideration should also be given to identifying alternative financial messaging networks to transmit financial transactions within the region to reduce cost to end users, promote regional integration and safeguard financial integrity.

**It is important to emphasise that the modernisation initiatives outlined herein are not exhaustive but serve to stimulate thinking and innovations that the Bank deems relevant to modernise and digitise the financial sector. The industry is urged to remain open to introducing innovative solutions that enhance the payments landscape, while upholding robust risk management and regulatory compliance practices. Consequently, industry participants are strongly encouraged to incorporate these initiatives, among others, into their strategic payments modernisation agendas, and open dialogue with the Bank for regulatory guidance.**

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## PART G: CALL FOR ACTION

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The modernisation of the NPS necessitates support and cooperation from industry participants, the public, and relevant stakeholders. Furthermore, modernisation relies on collaboration, enabling laws and regulations, as well as sufficient resources and infrastructure to ensure the successful adoption and implementation of the initiatives. Consequently, both the NPS industry, the public and relevant stakeholders are strongly encouraged to:

1. Fully support the modernisation initiatives in the NPS to ensure a modernised, safe, and efficient NPS.
2. Continuously engage the Bank to keep abreast and ensure regulatory compliance.
3. Use the Automated Regulatory Reporting System for submissions and applications to the Bank to optimise processes.
4. Have due regard to all the revised payments regulatory frameworks and engage the Bank proactively to ensure that the regulations remain fit for purpose, while ensuring optimal risk management within the NPS.
5. Engage the Bank on any regulations that restricts the introduction of an innovative payment solution aimed at modernising the NPS.
6. Enable and maintain an inclusive environment that allows banks and FinTechs to coexist in offering payment services. Deliberate and superfluous barriers to entry inhibiting FinTechs from integrating with banking institutions and existing payment systems is strongly discouraged.
7. Engage customers regarding the development of relevant and customer-centric solutions that are efficient and reasonably priced. The industry is strongly encouraged to incorporate regular digital financial literacy initiatives as part of their modernisation agendas.
8. The Bank in collaboration with the industry participants must gain a deeper understanding of the role of AI in the NPS, including comprehending the benefits, opportunities, and risks associated with AI-driven innovations.

All enquiries related to this communique must be forwarded to:

**Director: National Payment System, Exchange Control and Virtual Asset Supervision**

Bank of Namibia

Tel: +264 (61) 283 5111

[oversight.policydivision@bon.com.na](mailto:oversight.policydivision@bon.com.na)