



# PAPUA NEW GUINEA

# E-Commerce

# Strategy and

# Roadmap

July 2025



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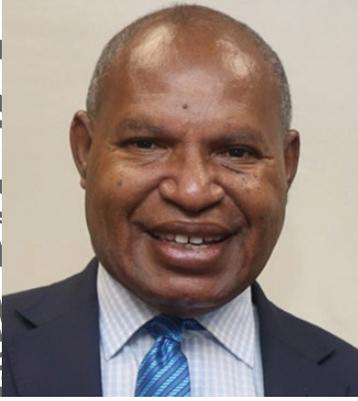
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**Foreword By Hon. Richard Maru  
Bus Tech, MBA, OBE, MP, Minister for  
International Trade and Investment,  
Papua New Guinea**

It is with great pleasure that I present the National E-commerce Strategy for Papua New Guinea. This marks a significant milestone in our nation's journey toward economic growth and digital transformation.

In our increasingly interconnected world, the digital economy has emerged as a powerful driver of growth, innovation, and inclusivity. Papua New Guinea is no exception, and recognizing the potential of e-commerce is crucial to harnessing the opportunities that lie ahead. This strategy was developed to drive growth and socio-economic development as captured in our key overarching strategic policy such as the National Trade Policy 2017-2032 (NTP), PNG's Digital Government Plan (DGP) 2023-2027 and the Medium-Term Development Plan IV 2023-2027 (MTDP IV). The Government is dedicated to realizing this vision, emphasizing e-commerce as a transformative force by investing in ICT infrastructure and capacity-building to stimulate economic expansion through establishing trust, transparency, and security in the digital environment, promote regional economic integration and strengthen international connectivity for our people.

The development of this national strategy represents a collective commitment to modernizing our economy and embracing the digital age. It is designed to provide a clear and comprehensive roadmap for navigating the digital landscape, encouraging entrepreneurship, and facilitating trade and investment more efficiently and at lower cost, both domestically and internationally. In line with our government's broader development agenda, the National E-commerce Strategy will work in synergy with other initiatives and policies, particularly the National Trade Policy and the SME Policy, to maximize the benefits for our citizens and promote sustainable wealth creation.

This strategy outlines a path to bridge the digital divide, enhance our global competitiveness, and stimulate job creation and foreign direct investment. It recognizes the critical role of e-commerce in advancing our economic base and addresses the unique challenges and opportunities presented by the digital age.

As we embark on this journey, we understand that the road ahead may present challenges, but we are resolute in our determination to overcome them. We are committed to fostering an environment of collaboration, innovation, and adaptability to ensure the successful implementation of this policy.

I extend my thanks to all those who have contributed to the creation of this strategy, including our international development partners and the private sector, whose expertise and collaboration have been invaluable.

I am confident that, with the continued support and commitment of all stakeholders, we can realize the tremendous potential of e-commerce to transform our nation and secure a brighter future for our people.

God bless Papua New Guinea.

**Hon. Richard Maru, Bus Tech, MBA, OBE, MP**  
Minister for International Trade and Investment  
Papua New Guinea, July 2025





**Foreword By Richard Yakam**  
**Chief Trade Officer - National Trade Office**  
**Papua New Guinea**

As the Chief Trade Officer of the National Trade Office, I am pleased to present the E-Commerce Strategy and Policy, a crucial document that reflects our commitment to fostering a dynamic and inclusive digital economy. In a world where technology continually reshapes the way we live, work and trade, e-commerce has emerged as a powerful engine for economic growth, innovation, and global connectivity.

The rise of e-commerce presents immense opportunities for businesses for all sizes, enabling them to reach new markets, reduce operational costs, and enhance customer engagement. However, it also brings forth challenges that require strategic oversight, robust policy frameworks, and a commitment to sustainable and equitable growth. Our E-Commerce Strategy and Policy has been developed with these considerations in mind aiming to create an enabling environment where businesses can thrive in the digital landscape while safeguarding consumer rights, promoting fair competition, and ensuring data security.

This strategy outlines our vision for a thriving e-commerce sector that contributes to our nation's economic resilience, inclusivity, and international competitiveness. It sets forth key policy directions that will guide our efforts in enhancing digital infrastructure, supporting small and medium enterprises (SMEs), fostering innovation, and ensuring that our regulatory environment keeps pace with the rapid evolution of e-commerce.

We recognize that collaborations between the public and private sectors is essential to achieving our goals. Therefore, this strategy also emphasizes the importance of partnerships, both domestically and internationally, to build a robust e-commerce ecosystem that benefits all stakeholders. By working together, we can unlock the full potential of e-commerce, driving sustainable growth and prosperity for our nation.

As we move forward, we will continue to engage with industry leaders, innovators, and our global partners to ensure that our e-commerce policies remain relevant, forward-looking, and responsive to the needs of our economy. The National Trade Office remains dedicated to supporting the digital transformation of our trade practices, and I am confident that this strategy will serve as a cornerstone for our ongoing efforts to shape a prosperous digital future.

A handwritten signature in blue ink, appearing to read 'Richard Yakam', written over a dotted line.

**RICHARD YAKAM**

Chief Trade Officer

National Trade Office

## Acknowledgements

The National E-commerce Strategy and Roadmap for Papua New Guinea (PNG) was prepared by a dedicated team including Sven Callebaut and Danny Burrows (co-Team Leaders) Rahul Bhatnagar (international e-commerce expert), Winifred Kula (national private sector expert), Chakriya Bowman (national policy expert), and Zinnia Dawidi (national legal and regulatory expert) from TradeWorthy. The Pacific Islands Forum Secretariat (PIFS) provided comprehensive oversight and direction, under the supervision of Andrea Ibba and the overall guidance of Dr. Andrea Giacomelli. The design and layout were produced by Ms. Jackie Potgieter, from Pandanus Consulting.

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The team is grateful to the representatives of the following government agencies: PNG Customs Service (PNGCS), the Department of Commerce and Industry (DCI), the Department of Foreign Affairs (DFA), the Department of Community Development and Religion (DCDR), the National Institute of Standards and Industrial Technology (NISIT), the Internal Revenue Commission (IRC), the University of Papua New Guinea (UPNG), the Department of Labour and Industrial Relations (DLIR), the Department of Transport (DT), the Department of Information and Communication Technology (DICT), the Department of Justice & Attorney General - Office of State Solicitor (DJAG - OSS), the Tourism Promotion Authority (TPA) and the Bank of PNG (BPNG).

The consultancy team also acknowledges, with gratitude, the inputs of over 50 private sector firms and entrepreneurs who shared their experiences and expectations during the focus group discussions, bilateral meetings and the final validation workshop that took place over the course of the last twelve months in both Port Moresby and Lae.

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## Abbreviations

<b>ADB</b>	Asian Development Bank
<b>AML</b>	Anti-Money Laundering
<b>ASYCUDA</b>	Automated System for Customs Data
<b>APEC</b>	Asia-Pacific Economic Cooperation
<b>AW</b>	ASYCUDA World
<b>BPNG</b>	Bank of Papua New Guinea
<b>BRIDGES</b>	Bridging the Divides with Globally Engineered Software
<b>BSP</b>	Bank South Pacific
<b>CCA</b>	Cybercrime Code Act
<b>CCCA</b>	Independent Consumer and Competition Commission Act
<b>CEFI</b>	Centre for Excellence in Financial Inclusion
<b>CGC</b>	Credit Guarantee Corporation Limited
<b>DCI</b>	Department of Commerce and Industry
<b>DFS</b>	Digital Financial Services
<b>DICT</b>	Department of Information and Communication Technology
<b>DJAG – OSS</b>	Department of Justice & Attorney General – Office of State Solicitor
<b>DPE</b>	Department of Petroleum & Energy
<b>ESCAP</b>	Economic and Social Commission for Asia and the Pacific
<b>ETA</b>	Electronic Transactions Act 2021
<b>FSP</b>	Financial Service Provider
<b>G2B</b>	Government to Business
<b>G2C</b>	Government to Consumer
<b>GPS</b>	Global Positioning System
<b>ICA</b>	Immigration and Citizenship Authority
<b>ICCCA</b>	Independent Consumer and Competition Commission Act 2002
<b>ICCC</b>	Independent Consumer and Competition Commission
<b>ICT</b>	Information and Communication Technology
<b>ICT Cluster</b>	PNG Digital ICT Cluster
<b>IEPL</b>	International Private Leased Circuit
<b>IPA</b>	Investment Promotion Authority
<b>IPG</b>	Internet Payment Gateway
<b>IRC</b>	Internal Revenue Commission
<b>ISP</b>	Internet Service Provider
<b>KATS</b>	Kina Automated Transfer System
<b>KPA</b>	Key Policy Area
<b>KYC</b>	Know-Your-Customer
<b>LEO</b>	Low Earth Orbit
<b>MOHE</b>	Ministry of Higher Education
<b>MNO</b>	Mobile Network Operator
<b>MOU</b>	Memorandum of Understanding
<b>MSME</b>	Micro, Small, and Medium Enterprise
<b>MTDP IV</b>	Medium-Term Development Plan IV
<b>NCSC</b>	National Cybersecurity Centre
<b>NDB</b>	National Development Bank

<b>NDTS</b>	National Digital Transformation Strategy
<b>NEC</b>	National E-commerce Committee
<b>NICTA</b>	National Information & Communications Technology Authority
<b>NTFC</b>	National Trade Facilitation Committee
<b>NSO</b>	National Statistics Office
<b>NTO</b>	National Trade Office
<b>ORE</b>	Operational Readiness for E-commerce
<b>PA</b>	Priority Area
<b>PICs</b>	Pacific Island Countries
<b>PIF</b>	Pacific Islands Forum
<b>PIFS</b>	Pacific Islands Forum Secretariat
<b>PNG</b>	Papua New Guinea
<b>PNGCERT</b>	PNG Computer Emergency Response Team
<b>PNG CIR</b>	PNG Civil and Identity Registry
<b>PNGIPO</b>	PNG Intellectual Property Office
<b>PNGIXP</b>	PNG Internet Exchange Point
<b>PSP</b>	Payment Service Provider
<b>PUDO</b>	Pick Up Drop Off
<b>REPS</b>	Real-Time Electronic Payment System
<b>RPNGC</b>	Royal PNG Constabulary
<b>RSF</b>	Risk Share Facility
<b>SME</b>	Small and Medium-sized Enterprises
<b>SMP</b>	Single Movement Permission
<b>STEM</b>	Science, Technology, Engineering, and Mathematics
<b>SO</b>	Strategic Outputs
<b>TPAC</b>	Trade Policy Advisory Council
<b>UNCITRAL</b>	United Nations Commission on International Trade Law
<b>UNCTAD</b>	United Nations Conference on Trade and Development
<b>UoT</b>	University of Technology
<b>UPNG</b>	University of Papua New Guinea
<b>USA</b>	United States of America
<b>UPU</b>	Universal Postal Union
<b>WTO</b>	World Trade Organization

## Contents

<b>Minister for International Trade, and Investment, Papua New Guinea</b>	<b>3</b>
<b>Chief Trade Officer for International Trade, and Investment, Papua New Guinea</b>	<b>4</b>
<b>Acknowledgements</b>	<b>5</b>
<b>Abbreviations</b>	<b>6</b>
<b>Contents</b>	<b>8</b>
<b>Executive Summary</b>	<b>9</b>
<b>1 SETTING THE SCENE</b>	<b>11</b>
1.1 Digital PNG	12
1.2 E-commerce in PNG	13
1.3 Insights	19
<b>2 STRATEGIC FRAMEWORK - VISION, GOALS AND GUIDING PRINCIPLES</b>	<b>20</b>
2.1 Vision	21
2.2 Impact	21
2.3 Outcomes	21
2.4 Cross-cutting dimensions	23
<b>3 E-COMMERCE STRATEGY MEASURES</b>	<b>25</b>
Priority Area 1: E-commerce Readiness and Strategy Formulation	26
Priority Area 2: ICT Infrastructure and Services	30
Priority Area 3: Trade Logistics and Trade Facilitation	32
Priority Area 4: Legal and Regulatory Framework	35
Priority Area 5: Electronic Payment Solutions	38
Priority Area 6: E-commerce Skill Development	44
Priority Area 7: Access to Finance for E-commerce	47
<b>4 GOVERNANCE</b>	<b>51</b>
<b>5 E-COMMERCE ROADMAP FOR IMPLEMENTATION</b>	<b>56</b>
Priority Area 1: E-commerce Readiness and Strategy Formulation	57
Priority Area 2: ICT Infrastructure and Services	60
Priority Area 3: Trade Logistics and Trade Facilitation	62
Priority Area 4: Legal and Regulatory Framework	65
Priority Area 5: Electronic Payment Solutions	69
Priority Area 6: E-commerce Skill Development	73
Priority Area 7: Access to Finance for E-commerce	76

## EXECUTIVE SUMMARY

### The Strategic Framework

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Papua New Guinea's E-commerce Strategy aims to integrate e-commerce into the national development agenda, fostering economic growth, digital literacy, financial literacy, and the development of Micro, Small, and Medium-sized Enterprises (MSMEs). The strategy acknowledges the interconnectedness of these areas and their collective impact on the success of e-commerce in the country.

Papua New Guinea (PNG) is making progress in developing its e-commerce sector. The Government has developed several policies and strategies to support the growth of e-commerce, and there have been several concrete steps taken to improve access to internet connectivity and digital skills. However, there are still some challenges that need to be addressed, such as the lack of awareness of e-commerce among businesses and consumers, the limited access to affordable and reliable internet services, the complex and outdated regulations for financial service providers, and the lack of consumer protection and data privacy laws.

The strategy envisions making PNG a digital-savvy economy by 2030, with e-commerce creating opportunities for government agencies, businesses, and consumers. It aims to deliver increased economic growth, job creation, improved market access, enhanced consumer choice, reduced poverty and inequality, and more efficient and transparent government operations. Key outcomes include tripling the number and value of online transactions by 2030 compared to 2025, quadrupling digital skills training, and increasing the use of digital payment solutions to 25% of the adult population and 50% of all businesses. These outcomes align with the Pacific Islands Forum Secretariat (PIFS) vision for a resilient and prosperous Pacific.

### E-commerce Strategy Measures

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The Strategy outlines 23 Strategic Outputs delivered through 60 Measures. These measures are designed to accelerate e-commerce development in PNG and are interconnected with various national strategies and policies. These measures are aligned with PNG's broader national development goals and require coordinated implementation across multiple sectors and dimensions. Following the United Nations Conference on Trade and Development (UNCTAD) eTrade for all methodology, these dimensions encompass seven Key Priority Areas (KPA):

- 1. E-commerce Readiness and Strategy Formulation:** This involves embedding e-commerce into the national agenda, establishing ownership and coordination mechanisms for strategy implementation, strengthening public-private dialogue on digital economy matters, and identifying barriers to e-commerce.
- 2. Information and Communication Technologies (ICT) Infrastructure and Services:** Focuses on competitive internet data pricing, introducing innovative technologies for connectivity and power challenges, and enhancing e-government services.
- 3. Trade Logistics and Trade Facilitation:** Aims to improve national transport infrastructure, digitize and harmonize trade procedures, strengthen logistics systems, and enhance postal readiness for e-commerce.
- 4. Legal and Regulatory Framework:** Reviews and develops e-commerce laws in line with international standards and raises awareness of these laws among stakeholders.
- 5. Electronic Payment Solutions:** Promotes the development of identification methods for bank account opening, fosters a regulatory framework for digital payments, and encourages diverse

electronic payment solutions.

6. **E-commerce Skill Development:** Enhances relevant curricula in education institutions and develops mechanisms for skills development and skill accreditation in the tech sector.
7. **Access to Finance for E-commerce:** Focuses on improving access to risk-sharing facilities and blended finance mechanisms and fosters a conducive business environment for alternative financing sources.

Many of the proposed measures inevitably overlap with actions specified in other national strategies and policies. This is to be expected, noting that e-commerce development requires a holistic approach, which involves the concerted implementation of several national initiatives such as those on digital literacy, digital financial literacy, SME development, business and SME development, access to finance, etc.

## Governance

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The PNG's E-commerce Strategy emphasizes the need to create a robust mechanism for inter-agency coordination. Central to this framework is the role of the National E-commerce Committee (NEC), which will be undertaken by the National Trade Facilitation Committee's (NTFC) sub-committee on e-commerce. The NEC, led by senior representatives from various public sector institutions, is responsible for ensuring effective coordination between public and private sectors and civil society in implementing the E-commerce Strategy.

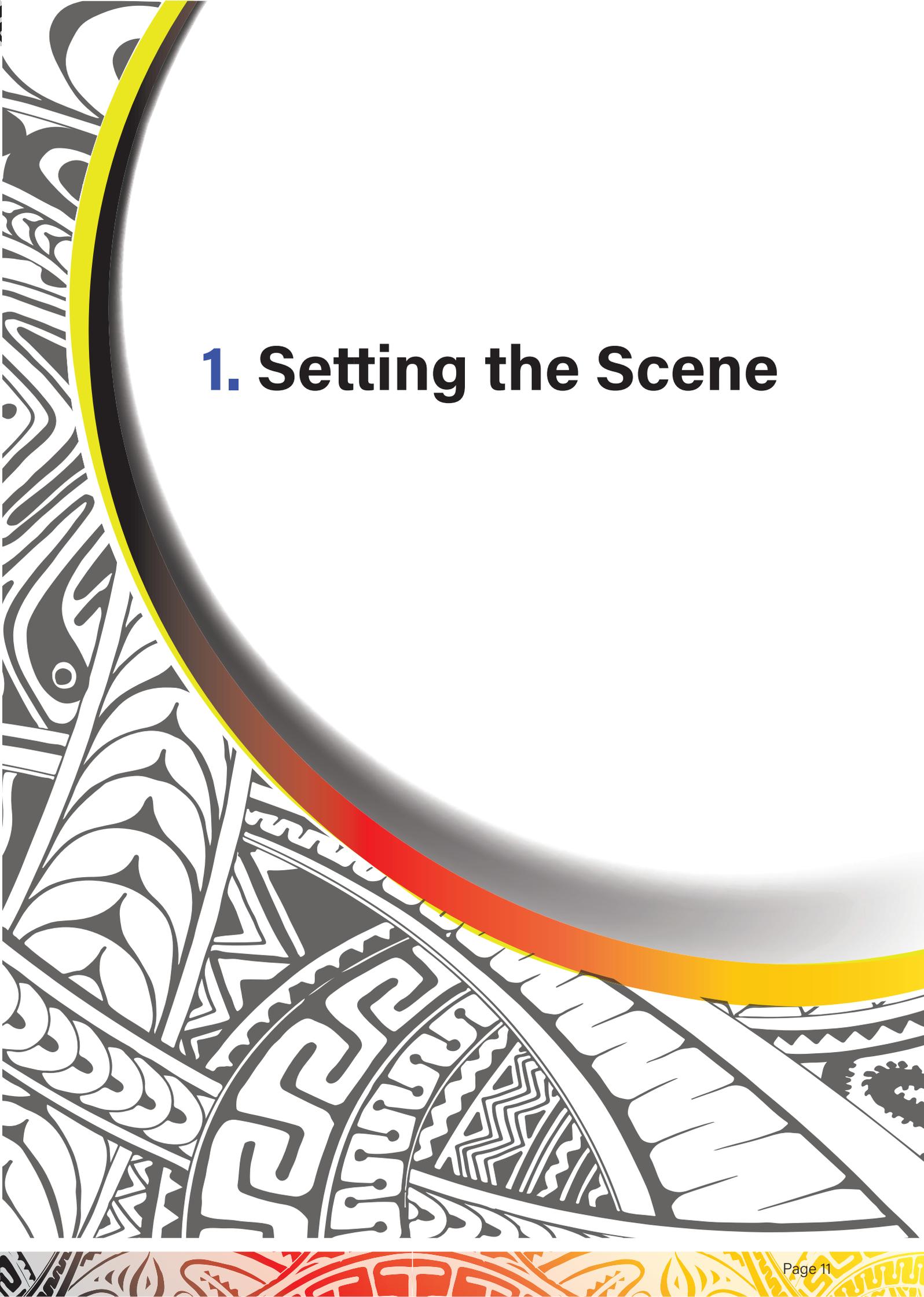
The Committee's primary functions include overseeing domestic and cross-border e-commerce initiatives, with a focus on public-private dialogue. Key public sector members include the Department of Commerce and Industry (DCI), the Department of Information and Communication Technology (DICT), National Trade Office (NTO), and other relevant departments, with private sector representatives and donor partners participating as observers. It is set to meet biannually, reporting its proceedings to the NTFC and subsequently to the ministerial cabinet.

Supporting the Committee is the E-commerce Implementation Unit (EIU), housed within the NTO. This unit, comprising roles like project manager and M&E specialist, is tasked with coordinating projects, reporting, donor coordination, and monitoring and evaluation. Additionally, the Strategy emphasizes PNG's coordination with the PIFS for regional E-commerce Strategy implementation, highlighting PIFS's role in data collection, resource mobilization, and regional engagement.

## Roadmap

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The final chapter of the strategy outlines the E-commerce Roadmap for Implementation in PNG. The roadmap is designed to implement various measures aligned with the seven KPAs, each with specific budgets, implementing agencies, and targeted indicators for the period 2025 to 2030. It comprehensively covers aspects crucial for the growth of e-commerce in PNG, from infrastructure and legal frameworks to skill development and financing



# 1. Setting the Scene

# 1. Setting the Scene

## 1.1 Digital PNG

PNG's journey toward a digital future and accelerated digital transformation and trade commenced in earnest during its Asia-Pacific Economic Cooperation (APEC) hosting year in 2018. Since then, PNG has made substantial progress, driven primarily by the expansion of mobile broadband networks. According to the International Telecommunication Union (ITU), in 2021, 89% of the population was covered by mobile-cellular networks, 64% by at least 3G mobile networks, and 50% by at least 4G mobile networks. These improvements have significantly enhanced the reliability and performance of digital connectivity in the country. In 2021, the PNG government launched the National Digital Transformation Strategy (NDTS), which aims to accelerate the country's digital transformation. The NDTS includes several government-led initiatives to improve access to digital technologies and services, including:

- Expanding broadband coverage to rural and remote areas
- Developing e-government services
- Promoting digital literacy and skills development
- Supporting the growth of the digital economy

In 2022, the PNG government enacted the Digital Government Act to provide for digital government using ICT and to enable the streamlining, planning, coordination, development and implementation across the whole of government of digital services, digital infrastructure, digital skills and all other aspects of digital government.<sup>1</sup>

In 2023, the government launched the development of the e-government Portal, a one-stop-shop providing citizens with access to a range of online government services, and the third National Financial Inclusion Strategy, which aims to increase access to inclusive financial services, including digital financial services.

While these initiatives are supporting PNG's transition to a more digitally based economy, the country is still in the early stages of its digital transformation, and persistent obstacles to further development of the digital economy remain. In particular:

- **PNG requires a focus on homegrown solutions to advance the digital economy.** The issues in PNG are relatively more complex and entrenched than other PICs. As an example, while customary land issues are a general constraint in the Pacific, the severity is particularly high in PNG and poses formidable challenges in expanding broadband coverage and ensuring safety and reliability of transport/delivery services in the provinces. Solutions will likely require a nuanced understanding of the specific issues that are affecting PNG society and may not always be readily available via international best practices.
- **The base requirement for a high functioning digital economy is affordable high-speed broadband, and sluggish progress in this area is curtailing PNG's digital economy.** The digital transformation agenda of the country has been curtailed due to prevailing high internet data costs and low usage.<sup>2</sup> Despite the arrival of the submarine Coral Sea Cable 2, which has improved internet

<sup>1</sup> Parliament of Papua New Guinea. Act 22A, [https://www.parliament.gov.pg/uploads/acts/22A\\_41.pdf](https://www.parliament.gov.pg/uploads/acts/22A_41.pdf).

<sup>2</sup> The World Bank estimates that only 32% of individuals in PNG were using the internet in 2021 <https://data.worldbank.org/indicator/it.net.user.zs?locations=pg>.

quality and speed, significant cost savings for consumers have not materialized.<sup>3</sup> Consequently, both demand and supply for e-commerce operations, as well as other digital use-cases, remain restricted.

## 1.2 E-commerce in PNG

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The National E-commerce Readiness Assessment report for PNG was developed in 2020. Following the UNCTAD eTrade for all methodology, the report measured PNG's readiness for e-commerce along seven policy areas:

1. E-commerce and Strategy Formulation
2. Information and Communication Technology (ICT) Infrastructure and Services
3. Trade Logistics and Trade Facilitation
4. Legal and Regulatory Framework
5. Electronic Payment Solutions
6. E-commerce Skills Development
7. Access to Finance for E-commerce

Four years and a global pandemic later, the e-commerce ecosystem has improved, notably fostered by recently adopted development policies that mainstreamed digital transformation. This chapter takes stock of progress made since 2020 using the eTrade readiness report roadmap and offers some suggestions of what remains to be done.

### E-commerce Readiness Assessment and Strategy Formulation

Papua New Guinea's Vision 2050, the Development Strategic Plan 2010–2030, the Medium-Term Development Plan IV 2023–2027, the APEC Internet and Digital Economic Roadmap, the PNG Digital Transformation Policy 2020, and the ICT Roadmap 2018 all provide foundational support for enabling e-commerce. The need for a National E-commerce Strategy was underscored during the 2018 APEC hosting year, emphasizing the digital economy's potential to foster development in remote areas and drive financial inclusion.

Recognizing e-commerce as a pivotal component of economic development, the government has initiated comprehensive policies and passed acts to bolster its growth, including the National ICT Sector Roadmap (2018), Digital Government Policy 2020, Digital Government Act 2022, Digital Government Plan 2027, and the Digital Government Strategic Plan 2023–2027.

These frameworks aim to digitize the nation, enhance digital literacy, and improve internet connectivity through key initiatives like the National Broadband Strategy.

Despite these efforts, challenges remain, including limited e-commerce awareness, inadequate internet access, regulatory hurdles, and insufficient consumer protection laws. To address these, the government is integrating e-commerce considerations into broader policies such as the MTDP IV, PNG Vision 2050, and specific trade, manufacturing, and SME policies, underscoring a holistic approach to fostering a digital economy.

Concrete steps taken to support e-commerce growth include:

- Establishing the National Information and Communications Technology Authority (NICTA) to regulate the ICT sector and promote infrastructure development.
- Launching initiatives to improve internet access and connectivity, such as the National Broadband Strategy and the Rural Connectivity Program.
- Investing in digital skills training and development programs.

Additionally, the manufacturing policy, national content policy, and revised SME policy are expected

<sup>3</sup> Devpolicy Blog. No Fall in Mobile Internet Prices in PNG, 2022 <https://devpolicy.org/no-fall-in-mobile-internet-prices-in-png-20220419/>.

to include explicit references to e-commerce, further supporting its growth and integration into the economy.

## ICT Infrastructure and Services

Last mile connectivity remains a challenge in PNG, due to the country's geography and size. Geographic dispersion, coupled with high data costs, remains a major barrier to ICT adoption.

In terms of connectivity, five main developments have taken place in recent years:

- Submarine Cable Connectivity Development: PNG DataCo is spearheading the telecommunications sector's digital transformation. DataCo is responsible for building and upgrading the country's telecommunications infrastructure. Since 2018, DataCo has been building domestic submarine cables to connect 15 coastal centres across north, east, west, and south PNG, encompassing all the islands of New Guinea. DataCo has also expanded its portfolio to include cloud services, data centre infrastructure and services using the Coral Sea cable to connect to Sydney's primary data centres and content providers, and International Ethernet Private Line (IEPL) services for large corporations. DataCo aspires to provide MSMEs a competitive advantage through their cloud solutions and packages and has plans to partner with Vodafone for a 5G rollout to bring fibre and broadband services to all districts.
- Satellite Connectivity Development: The introduction of broadband satellite wholesale providers like Kacific has enabled the emergence of local Internet Service Provider (ISP) start-ups providing satellite services to rural communities. In parallel, there is an emergence of Low Earth Orbit (LEO) satellite services within the PNG market. Early discussions are also underway regarding the potential for a national satellite.
- Adoption of connectivity for banks, large corporations, and multinationals in urban areas: Driven by large-scale technology adoption needs, large corporations, and mobile network operators (MNOs) operating in PNG have made significant investments in their proprietary ICT (network and data centre) infrastructure over the last 5 years. These investments have focused on primary and redundant connectivity links using fibre broadband and satellite broadband connectivity as part of their business continuity strategies.
- In 2022, Vodafone PNG entered the market as the country's third telecommunications company alongside Digicel and Telikom.
- Australia remains the largest investor in PNG's telecommunications sector, with its acquisition of market leader Digicel, followed by Malaysia, the United States of America (USA), Hong Kong, and China.<sup>4</sup> In 2022, Australia's Telstra completed its acquisition of Digicel Pacific for US\$1.6 billion (K\$8.45 billion).<sup>5</sup>

In terms of ICT services, the following progress has been recorded:

### Government to Business

Some progress has been made in online payments for e-government. Recently, critical government departments have brought their services online supported by payment portals through strategic partnerships with Fintech solution providers (software-developer-led, telco-led, bank-led platforms). These developments have been facilitated by the Internet Payment Gateway (IPG) infrastructure for e-commerce offered by the three main commercial banks (Bank of the South Pacific Financial Group, Kina Bank, and Westpac).

Both the Department of Lands & Physical Planning and the Immigration Citizen Authority (ICA) launched their online payment portals in 2020, while the Internal Revenue Commission launched their tax payment portal in 2021. All three were developed by local company Niupay using the Kina Bank payment gateway. In 2022, the Investment Promotion Authority (IPA) upgraded its online registry,

<sup>4</sup> Devpolicy Blog, Australia Buys Digicel Pacific: PNG's Mobile Monopoly, 2021 <https://devpolicy.org/australia-buys-digicel-pacific-pngs-mobile-monopoly-20211026/>.

<sup>5</sup> NASDAQ market information <https://www.nasdaq.com/articles/australias-telstra-completes-digicel-pacific-buyout>.

allowing all its customers nationwide to do payments online. In 2023, the National Trade Office launched Phase 1 of its single window platform developed by a local software company, Agri-Tech Organics (PNG). While it currently does not support payments, this function is planned for future phases.

#### Emerging E-commerce Sector, Fintech, and Telecommunication Sector

PNG's fintech sector is nascent. Bank regulation is restricting smaller players from entering the market, as it is geared toward large international banks rather than innovative small providers. Financial inclusion remains weak, with up to 70% of the population estimated to have no access to financial services.<sup>6</sup> There are few locally developed solutions that can respond to these challenges.

In 2023, the Department of ICT signed a Memorandum of Understanding (MOU) with the PNG Digital ICT Cluster as part of its efforts to increase government online services and engagement with local ICT suppliers. Through the partnership, a cluster policy is in development to grow the number of local IT Small and Medium Enterprises (SMEs) in digital entrepreneurship (specialization in software development, fintech, and ISPs).

#### Trade Logistics and Trade Facilitation

PNG faces significant challenges in its trade logistics infrastructure, including a continued reliance on manual processes, which hinders the development of e-commerce in the country. Nevertheless, the government has made notable strides in recent years to address these challenges.

In 2020, PNG Customs implemented the Automated System for Customs Data (ASYCUDA) World (AW), a digital customs clearance system. AW has helped to reduce border and document processing times by 2–3 days, on average.<sup>7</sup> In addition, the government has developed and implemented new processes aimed at streamlining duty payments, expediting cargo clearance, and transitioning towards a cashless office environment. In 2021, PNG Customs launched the Single Movement Permission (SMP) system, which automates the management of under-bond cargo. The SMP is working towards eliminating paperwork and reducing the application processing time, with the hope that it will lead to a complete elimination of paperwork and reduce the average application processing time.

The Government has also made investments in upgrading the transportation infrastructure in PNG. For example, in 2023, Lae Airport was upgraded from domestic to international status. This upgrade is expected to reduce airfreight costs and improve connectivity for e-commerce businesses in PNG.

Despite the progress that has been made, there are still some trade logistics and trade facilitation challenges that need to be addressed in PNG. For example, the government should continue to leverage the functionalities of ASYCUDA World, develop a trade facilitation roadmap with innovation schemes such as a higher de-minis customs value and streamlined procedures, and adopt the Framework Agreement for Cross-Border Paperless Trade in Asia and the Pacific.

#### Legal and Regulatory Framework

PNG has made significant progress in developing the legal and regulatory framework for e-commerce since 2020. The following are some of the key developments:

- **Electronic Transactions Act 2021:** This Act provides the legal recognition of electronic transactions in PNG, including electronic contracts, electronic signatures, and the conclusion of contracts using electronically automated message systems.
- **Amendments to Cybercrime Code Act 2016:** This Act proscribes offences committed using electronic devices, such as hacking, online fraud, identity theft, and forgery. Amendments to this Act are currently before the Office of the State Solicitor, and PNG is expected to accede to the Budapest Convention on Cybercrime soon.
- **Cybersecurity Policy 2021:** This Policy was endorsed by the National Executive Council in 2021. One of its objectives is to implement measures for the protection of critical ICT infrastructure.

<sup>6</sup> National Financial Inclusion Strategy 2023 - 2027 <https://www.thecefi.org/wp-content/uploads/2023/05/National-Financial-Inclusion-Strategy-2023-2027.pdf>.  
<sup>7</sup> ASYCUDA. Papua New Guinea Profile <https://pacific.asycuda.org/?portfolio=papua-new-guinea>.

- Financial Consumer Protection Bill 2023: This Bill is currently in draft form and is intended to protect consumers of financial services from unfair treatment by financial institutions. Its enactment will further reinforce consumer protection generally and on the online markets.
- National Data Governance & Protection Policy (3rd Draft): this Policy was recently circulated for comments. It aims to provide clear guidelines on how data should be collected, stored, processed, and used, and to protect personal data and privacy rights of citizens.
- Review of the National Payments Systems Act 2013: This Act enables the regulated use of online payment systems in PNG. Now outdated, it is being reviewed and strengthened.

In addition to these specific laws and policies, there are a few other existing laws that are relevant to e-commerce, such as the National Information and Communication Technology Act 2009, the Independent Consumer and Competition Commission Act 2002, the Trade and Investment Act 2009 and the Digital Government Act 2022.

While PNG has made significant progress in developing the legal and regulatory framework for e-commerce, there are still some gaps that need to be addressed. For example, the Electronic Transactions Act 2021 does not apply to deeds signed by companies or documents that require signatory witnessing. These are typically used by banks and financial institutions and are regulated by the Bank of Papua New Guinea (BPNG). Additionally, the Independent Consumer and Competition Commission Act 2002 does not specifically accord protection for online consumers and merchants.

Despite these gaps, the progress that PNG has made in developing the legal and regulatory framework for e-commerce is encouraging. Particularly, the enactment of the Electronic Transactions Act 2021 and the development of the National Data Governance & Protection Policy are significant steps forward.

### Electronic Payment Solutions

The development of electronic payment solutions for e-commerce is an area in which PNG has made significant progress in recent years. Main challenges yet to be addressed are barriers to entry for smaller payment service providers (PSP), lack of access to international payment gateways, and regulatory frameworks.

The following are some of the key developments:

- Establishment of a national payment switch: The Retail Electronic Payment System (REPS), which was launched in 2019, has enabled interoperable digital financial services and reduced the cost of electronic payments. As of 2023, six financial institutions, including commercial banks, micro banks, and a savings and loans society, are connected to REPS. REPS Phase II is currently underway and will provide additional services seeking to onboard smaller financial institutions, including microfinance providers.
- Increased use of domestic debit cards: The use of domestic debit cards has increased exponentially in recent years, with the number of transactions reaching 28.6 million in 2023, a significant rise from 4.3 million in 2019.<sup>8</sup>
- Approval of the first digital identification fintech for banking: In 2023, BPNG approved the first digital identification fintech for banking, Digizen. Provision of a digital identity is expected to make it easier for people to open bank accounts and access financial services. BPNG is now working on a framework and policies to guide the entry of other digital identity service providers.
- Government support for electronic payments: The Government is shifting towards electronic payment options and has discontinued private sector cheques as of December 2023 (with an extension to July 2024).<sup>9</sup> The Government has also passed the Electronic Transactions Act 2021 and the Digital Government Act 2022.
- In 2021, Digicel's CellMoni began a series of partnerships with microbanks and institutions to

<sup>8</sup> Bank of Papua New Guinea. National Switch Statistics, Total Transaction Volume <https://www.bankpng.gov.pg/payment-system/national-switch-statistics/>.

<sup>9</sup> Bank South Pacific, <https://www.bsp.com.pg/payments/>.

improve financial inclusion. For example, CellMoni partnered with MiBank to allow the bank's clients to repay their loans or contribute to their saving by using Digicel's e-wallet; and with Water PNG to allow citizens to pay their water bills online. CellMoni also has partnerships with Mama Bank, the United Nations Capital Development Fund, Nasfund, as well as Post PNG for its CellMoni agency.

However, challenges remain. The barriers to entry for smaller PSPs are still high and there are licensing and regulatory barriers and uncertainty that needs resolution. Phase 2 of REPS, which will support smaller providers, has not yet started.

The National Payments System Act 2013 is considered to be excessive and a disincentive to innovation and investment. BPNG's control of licensing and access to financial service providers is also seen as a barrier to entry for new players. The Bank of Papua New Guinea's Sandbox is being upgraded to facilitate such providers with a view to modifying entry requirements to spur innovation.

PNG is unable to receive payments through international non-bank payment gateways such as PayPal and Stripe, though limited online payments services through firms such as Wise are available.<sup>10</sup> This makes it difficult for e-commerce businesses in PNG to accept payments from international customers cheaply and effectively. It is a significant and ongoing barrier to e-commerce with high value developed economies.

### **E-commerce Skills Development**

PNG has made significant progress in developing e-commerce skills since 2020. In 2020, the Department of Education's National Schools of Excellence Policy was launched, which focuses on Science, Technology, Engineering, and Mathematics (STEM) education. In 2021, six national high schools were converted to Schools of Excellence, and in 2023, the first batch of students graduated. In 2023, sixty-two pioneer students were selected to attend prestigious universities in the United States (55) and Australia (7).<sup>11</sup>

In 2023, the Department of ICT signed a 5-year MOU with the PNG Digital ICT Cluster (ICT Cluster) to support the implementation of the government's main objectives on digital government and digital economy. The ICT Cluster will establish and operate the National ICT Incubation Centre and provide innovation-focused business events, training, and access to finance opportunities. Founding members of the PNG Digital ICT Cluster are pioneer computer science graduates from University of Technology and pioneers of the Department of Education Top-up (talent) system launched in 1994.

The Department of Education has worked with partners to strengthen and integrate e-commerce curricula in higher education institutions, combining management, entrepreneurship, and STEM (ICT) elements. International academic collaborations, such as that with the academic community (University of Technology and University of Papua New Guinea) "Bridging the Divides with Globally Engineered Software" (BRIDGES) program, have helped bring STEM and software engineering skills to PNG higher education institutions. In 2023, the BRIDGES program expanded to include collaborations with universities in Australia, China and Japan.

Despite these developments, there are still challenges to be addressed: courses and degrees at the intersection of management, entrepreneurship, and ICT are in their infancy, and course quality varies due to the lack of industry accreditation.

Education alone cannot create a more digitally driven business environment. Innovation requires dedicated business and tech incubators and accelerators, with shared infrastructure fostering collaboration and a culture of experimentation. While some co-working spaces exist, they lack strong support or financial viability.

<sup>10</sup> PayPal is only available in PNG for sending money and paying for goods online, but not for receiving payments: <https://www.paypal-community.com/t5/PayPal-Basics-Archives/Is-Paypal-used-in-Papua-New-Guinea/m-p/1729546/highlight/true>.

<sup>11</sup> Minister's speech to Parliament as reported by DICT <https://www.ict.gov.pg/pioneer-students-selected-from-national-schools-of-excellence-selected-to-attend-u-s-a-australia-universities/>.

## Access to Finance

In PNG, e-commerce businesses continue to face challenges in accessing finance due to limited availability of digital financial services, stringent lending criteria by traditional banks, high interest rates, and a general lack of awareness and understanding of e-commerce potential among financial institutions.

Additionally, infrastructural inadequacies and regulatory constraints further complicate access to funding.

Several government and private sector-led initiatives have been trialled, including:

- With the Asian Development Bank (ADB) support, BPNG established a Risk Share Facility (RSF) operational from 2015 to 2021. The facility aimed to offset losses incurred by microfinance institutions when lending to micro-entrepreneurs. During this period, microfinance institutions were weak and lacked sustainability or market share. The RSF signed partnerships with 9 Financial Service Providers (FSP) and provided guarantees for around 4,000 loans, covering a portfolio of K72 million. The RSF was successful in expanding the outreach and sustainability of the microfinance providers it collaborated with.
- In 2020, the government allocated K200 million for SME loans, with K100 million going to the Bank South Pacific (BSP) Financial Group and K80 million to the National Development Bank (NDB). Within the NDB allocation, K40 million was designated for MSME agriculture, K24 million for youth and small business enterprise loans, K8 million for women in business loans, and K8 million for Bougainville enterprises. However, there is little information available on the distribution of these loans, and the lending process has been sluggish.
- In 2022, BPNG launched the Credit Guarantee Corporation Limited (CGC) to support the government's policy to develop and grow SMEs. The CGC will provide guarantees to ten FSPs for SMEs that lack the full requirements to qualify for loans.<sup>12</sup>
- The Securities Commission Bill was amendment in 2023, enabling the development of capital markets, facilitating the creation of investment platforms for capital raising and investments, including crowdfunding initiatives.
- The SME Corporation, mandated by the SME Act 2014 to promote and develop Micro, Small, and Medium Enterprises (MSME) in PNG, jointly launched the Highlands Regional MSME Business Incubator centre in Jiwaka Province in 2023. The incubator is a specialized incubator for agro-industry development, particularly the production of sweet potato. The project aims to add commercial value to the food crop, promote income and employment opportunities, and promote business creation across the sweet potato supply and value chain.
- The BPNG, through its Centre for Excellence in Financial Inclusion (CEFI) and development partners, launched the Green Finance Policy in 2023. The policy aims to increase the flow of national and international funds and investments into businesses, projects, and initiatives that promote green and sustainable industries, financial inclusion, and climate change adaptation and migration.

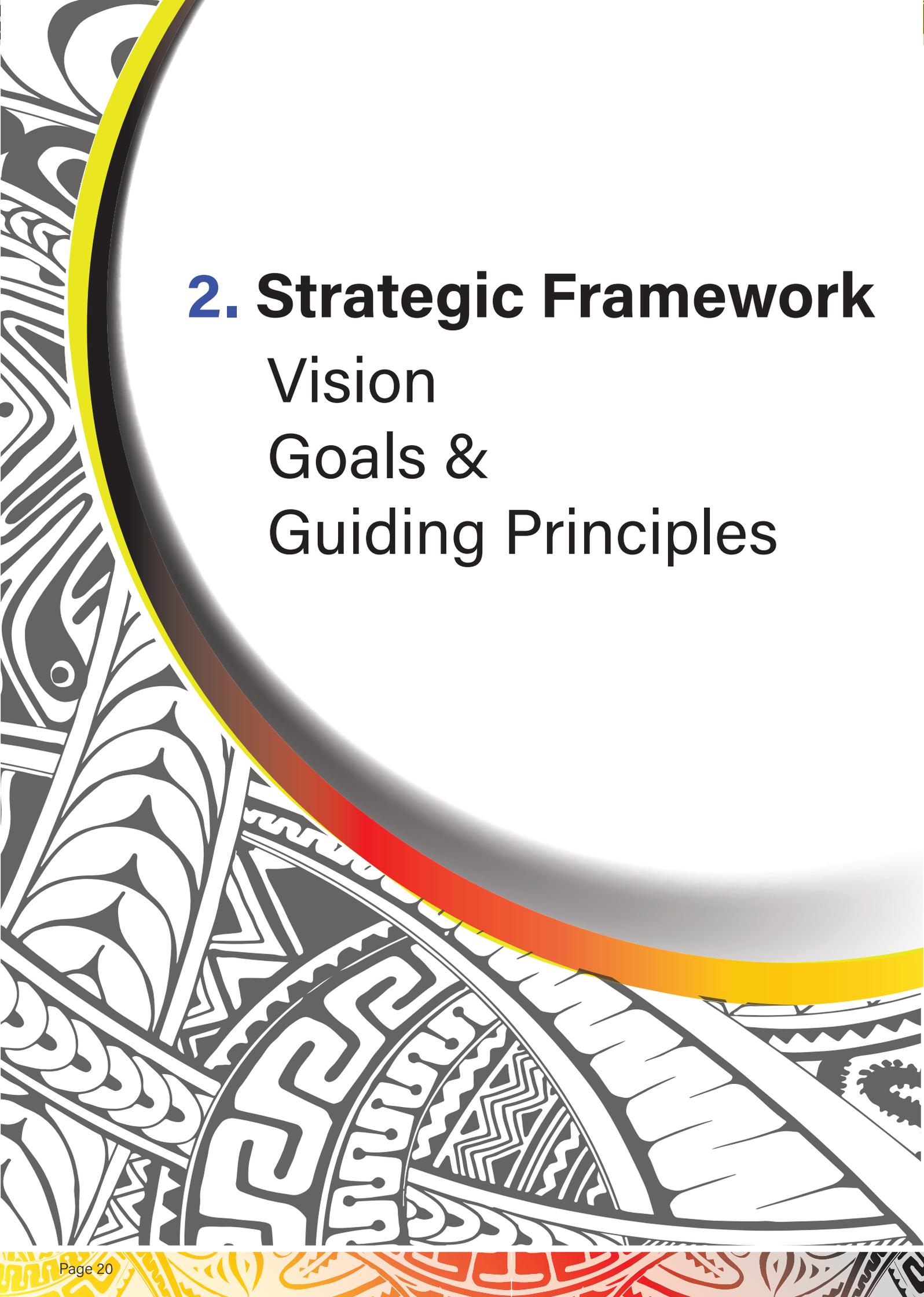
Despite the progress made, there are still some challenges that need to be addressed to improve access to finance for e-commerce businesses, such as the lack of awareness of financing options among e-commerce businesses, the lack of collateral among e-commerce businesses, the high interest rates on loans and the complex loan application processes. Addressing these challenges can improve access to finance for e-commerce businesses and support the growth of the e-commerce sector.

<sup>12</sup> The Credit Guarantee Corporation (CGC) differs from the Risk Sharing Facility (RSF) of the Asian Development Bank (ADB) in its structure and scope. The CGC provides direct guarantees to financial institutions to encourage lending to SMEs. In contrast, the RSF is a broader initiative that offers partial credit guarantees to reduce the risk exposure of financial institutions lending to underserved sectors, including SMEs, infrastructure, and green projects. The RSF aims to leverage private sector resources and expertise, while the CGC focuses specifically on SME development within PNG (source: ADB and BPNG).

The successful implementation of the PNG E-commerce Strategy hinges on addressing several critical challenges across its seven priority areas. Identifying and understanding these challenges is essential to develop targeted solutions that will drive the growth and sustainability of e-commerce in Papua New Guinea. The following are the key challenges faced in each of the priority areas:

- **E-commerce Readiness and Strategy Formulation:** Limited integration of e-commerce into national policies and insufficient coordination among agencies hinder the overall strategic growth of e-commerce in PNG.
- **ICT Infrastructure and Services:** High internet data costs and low penetration rates, especially in remote areas, restrict the widespread adoption of digital services necessary for e-commerce.
- **Trade Logistics and Trade Facilitation:** Inadequate logistics infrastructure and reliance on manual processes create significant barriers to efficient e-commerce operations, affecting both domestic and international trade.
- **Legal and Regulatory Framework:** Outdated and insufficient legal frameworks fail to adequately protect consumers and businesses, thereby reducing trust and hindering the growth of e-commerce.
- **Electronic Payment Solutions:** High barriers to entry for new payment service providers and lack of access to international payment gateways limit the development and adoption of diverse and secure digital payment methods.
- **E-commerce Skill Development:** Limited digital and e-commerce skills among the population, particularly in rural areas, reduce the ability of businesses and individuals to engage effectively in e-commerce activities.
- **Access to Finance for E-commerce:** Stringent lending criteria, high-interest rates, and a lack of awareness of financing options make it difficult for e-commerce businesses to secure the necessary funding for growth and innovation.

Addressing these challenges is paramount to unlocking the full potential of e-commerce in PNG. By developing targeted strategies and fostering collaboration among stakeholders, PNG can overcome these barriers and create a thriving e-commerce ecosystem that supports economic growth, innovation, and inclusion across the nation.



## **2. Strategic Framework**

Vision

Goals &

Guiding Principles

## 2. Strategic Framework - Vision, Goals & Guiding Principles

The strategy and roadmap serve as foundational elements to accelerate Papua New Guinea's (PNG) digital transformation. By fostering an environment conducive to e-commerce, the strategy aims to enable government, businesses, and consumers to benefit from online trade, both domestically and internationally.

### 2.1 Vision

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The proposed vision is as follows:

*“By 2030, Papua New Guinea is a digital-savvy economy where e-commerce is growing and creating opportunities for government agencies, businesses, and consumers.”*

### 2.2 Impact

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The implementation of the strategy and roadmap will contribute to creating positive impacts that are conducive to the strategy's vision:

- *Increased economic growth and job creation.*
- *Improved market access and competitiveness for businesses*
- *Enhanced consumer choice and convenience*
- *Reduced poverty and inequality*
- *Increased government efficiency and transparency*

### 2.3 Outcomes

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#### 2.3.1 Overarching Outcomes

The overarching outcomes of this strategy are as follows:

***Overarching Outcome 1: E-commerce Usage Among Consumers.***

By 2030, the number of Papua New Guinean consumers transacting on e-commerce websites and the value of their online transactions will have tripled compared to 2025.

***Overarching Outcome 2: E-commerce Tools Adoption by Businesses.***

By 2030, the number of Papua New Guinean businesses selling on e-commerce websites and the value of their online sales will have tripled compared to 2025.

***Overarching Outcome 3: Digital Readiness Improvement.***

By 2030, the number of Papua New Guinean students and businesses having been trained in digital skills and knowledge will have quadrupled compared to 2025.

***Overarching Outcome 4: Expansion of Digital Payment Solutions.***

By 2030, 40% of the adult population and 80% of all registered businesses will have used digital payment solutions.

### 2.3.2 Priority area outcomes

**VISION: By 2030, Papua New Guinea is a digital-savvy economy where e-commerce is growing and creating opportunities for government agencies, businesses, and consumers.**

Overarching Outcomes	Policy Area	Thematic Outcomes
<b>E-commerce Tools Adoption by Businesses</b>	PA 1: E-commerce Readiness and Strategy Formulation	By 2030, Papua New Guinea's national development plans and policies will be aligned with the country's e-commerce strategy and will include specific targets and timelines for achieving the goals of the strategy.
<b>E-commerce Usage Among Consumers</b>	PA 2: ICT Infrastructure and Services	By 2030, Papua New Guinea has a reliable and affordable broadband network that covers the entire country, and access to mobile internet services is widespread and affordable.
<b>E-commerce Tools Adoption by Businesses</b>	PA 3: Trade Logistics and Trade Facilitation	By 2030, Papua New Guinea has an efficient trade logistics system that supports the growth of e-commerce, and trade facilitation measures have been implemented to reduce the cost and time of cross-border trade.
<b>E-commerce Usage Among Consumers</b>	PA 4: Legal and Regulatory Framework	By 2030, Papua New Guinea has a comprehensive and up-to-date legal and regulatory framework aligned with international standards that supports e-commerce and protects consumers and businesses.
<b>Expansion of Digital Payment Solutions</b>	PA 5: Electronic Payment Solutions	By 20230 safe and affordable electronic payment solutions are available to businesses and consumers in Papua New Guinea.
<b>Digital Readiness Improvement</b>	PA 6: E-commerce Skill Development	By 2030, most formal businesses and consumers in Papua New Guinea have access to the digital skills and knowledge they need to participate in e-commerce.
<b>E-commerce Tools Adoption by Businesses</b>	PA 7: Access to Finance for E-commerce	By 2030, businesses in Papua New Guinea have easy access to affordable financing to support their e-commerce activities.

## 2.4 Cross-cutting dimensions

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The cross-cutting dimensions of Papua New Guinea's (PNG) national e-commerce strategy address two pivotal areas that are instrumental for the country's holistic economic advancement: the empowerment of women entrepreneurs and the conceptualization of data as a tradable commodity within the digital marketplace.

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A comprehensive overview and justification for prioritizing women's empowerment and the development of a data economy as critical components of PNG's national e-commerce strategy are provided below. It encapsulates the Government's resolve to create an inclusive, innovative, and data-empowered e-commerce landscape that leverages the unique strengths and addresses the specific challenges within the country.**a. Women entrepreneurs**

Women's participation in e-commerce not only enhances economic diversity but also fosters societal inclusivity and empowerment. Despite facing challenges like digital divides, limited access to financial services, and entrenched gender roles, the rising internet usage among women signals a promising shift towards greater economic participation and independence. E-commerce emerges as a powerful instrument for women, allowing them to transcend traditional barriers and leverage opportunities for innovation, job creation, and financial self-reliance.

According to a 2022 report by the World Bank, the proportion of women using the internet in PNG has increased from 20% in 2019 to 35% in 2022, driving the expansion of e-commerce in the country.<sup>13</sup> The report highlights the positive impact of e-commerce on women's lives in PNG, showcasing how it enables them to boost their incomes, generate employment opportunities, and increase their access to education and training. These outcomes are instrumental in breaking down traditional barriers and enabling women to realize their full potential by providing them with the means to achieve economic independence, amplify their voice and influence within their communities, pursue professional growth, and actively participate in societal development.

Challenges faced by women in participating in e-commerce are many:

- Digital divide: Women have lower access to digital devices and the internet compared to men, which limits their ability to engage in e-commerce activities.
- Societal expectations: Traditional roles and societal norms can restrict women's involvement in business and entrepreneurship, including e-commerce.
- Limited access to financial services: While lack of banking, credit, and digital payment solutions affects entrepreneurs in general, women often face additional barriers such as gender bias in financial institutions and lower financial literacy rates.
- Geographic barriers: Women in rural areas face challenges accessing markets due to geographic isolation and inadequate logistics. Although men in rural areas also face these issues, women often have less mobility and fewer opportunities to overcome these barriers due to societal norms and responsibilities.
- Insufficient training programs: There's a need for more comprehensive digital literacy and e-commerce skills training for women to bridge the digital divide and enhance their participation in the digital economy.

### **b. How to view “data” as a “tradable good” in the context of e-commerce in PNG**

Data has value and, as such, is a tradable asset, meaning that it is possible to establish a data economy within PNG's e-commerce ecosystem. This approach recognizes the untapped value of data generated by businesses and consumers alike, proposing a model where data is not only collected and analysed but also traded as a commodity. For example, businesses can collect and sell data about their customers, such as their demographics, purchase history, and browsing behaviour. This data can be valuable to other businesses, such as marketing agencies and advertising companies.

<sup>13</sup> World Bank (2022), World Development Report 2022: Finance for an Equitable Recovery <https://www.worldbank.org/en/publication/wdr2022>.



Businesses can also collect and sell data about their products and services, such as product reviews and ratings. This data can be valuable to other businesses and consumers alike.

The vision for a data-driven e-commerce sector in PNG involves enhancing digital infrastructure, promoting skill development in data analytics, and adhering to international data exchange standards.

Many people in PNG are not aware of the value of their data or how it can be used to benefit them and their communities. Education and outreach initiatives can help to increase awareness and understanding of the data economy. Besides education, there is a need to establish supportive regulations aiming to secure a transparent regulatory framework that fosters a conducive environment for businesses to invest in data-driven products and services. The regulatory framework should prioritize safeguarding individuals' privacy and security while also allowing businesses to innovate and grow.

To pave the way for PNG's participation in the data economy, a concerted effort to enhance digital infrastructure and services is critical. This foundational step ensures that both businesses and consumers are equipped with the essential tools and resources for active engagement in the digital realm. Alongside infrastructure development, there's a pressing need to bolster skill development within the data sector. By nurturing a workforce proficient in developing and utilizing data, PNG can secure a competitive edge in the global data landscape. Moreover, aligning with international standards for data sharing and exchange is pivotal. Such alignment not only streamlines domestic and cross-border data trading for businesses but also elevates PNG's stature on the international stage, ensuring seamless integration into the global data economy.

This national e-commerce strategy, when implemented, could unfold as a beacon for the data economy in PNG, with targeted measures designed to catalyse growth and innovation. These measures include funding research and development within the data sector and establishing a data governance body tasked with steering the strategic direction and implementation of data economy initiatives.

Collaboration between the government and the private sector will be essential in recognizing data as a tradable commodity within the e-commerce framework. For instance, the government could launch a data marketplace, providing a platform for businesses to trade data efficiently, thereby fostering an ecosystem where data-driven insights and innovation flourish. Additionally, financial backing for businesses at the forefront of developing data-centric products and services would spur growth and diversification in PNG's data economy.

On the other side of the partnership, the private sector is poised to play a crucial role in education and capacity building. By developing comprehensive educational and training programs, businesses and consumers can gain a deeper understanding of the data economy and how to engage with it effectively. The Government's role extends to incentivizing investment in data analytics and data-driven decision-making, further anchoring the significance of data in strategic business processes, as well as ensuring the privacy and data rights of citizens are protected. Moreover, the private sector's commitment to establishing ethical guidelines for data collection, usage, and sharing is essential in fostering trust, ensuring data privacy, and laying the groundwork for a robust and ethical data economy in PNG.

This collaborative and multifaceted approach not only positions PNG to leverage the opportunities presented by the data economy but also addresses the challenges head-on, setting the stage for a future where digital innovation and data literacy are cornerstones of national growth and development.



# **3. E-Commerce Strategy Measures**

## 3. E - Commerce

# Strategy Measures

There are 23 Strategic Outputs (SO) to be delivered through the implementation of 60 Measures (M).

The Area-Level Outcomes will be realized through the attainment of several strategic outputs in the seven key Priority Areas:

- E-commerce Readiness and Strategy Formulation
- ICT Infrastructure and Services
- Trade Logistics and Trade Facilitation
- Legal and Regulatory Framework
- Electronic Payment Solutions
- E-commerce Skill Development
- Access to Finance for E-commerce

This chapter outlines the strategic outputs and related measures in each of the seven key Priority Areas. Some of the measures proposed in this chapter will inevitably overlap with and complement the actions specified in other national strategies, plans and visions. This reinforces the need to integrate e-commerce if we are to create the critical mass needed catalyse digital transformation. E-commerce is an enabler of digital transformation; a holistic approach, incorporating regulation and policy, eGovernment, digital and financial literacy, and skills development is needed if PNG is to benefit from a digital future truly and inclusively.

### Priority Area 1: E-commerce Readiness and Strategy Formulation

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This priority area has four Strategic Outputs:

#### **Strategic Output 1.1: E-commerce tenets are embedded into the national development agenda.**

E-commerce is a cross-cutting issue and is increasingly driving economic growth. It needs to be integrated into policies and legislation that cover critical sectors. Effective regulation and oversight can help avoid the negative consequences of a small but growing market, particularly the development of monopolies and the establishment of barriers to entry. Positive and supportive measures can be introduced to spur creativity, innovation and inclusion in the sector.

#### **Strategic Output 1.2: Ownership and coordination mechanisms for National E-commerce Strategy implementation are established, leveraging current national and regional arrangements.**

To ensure effective integration of e-commerce into policy and legislations, coordination mechanisms are required for both whole-of-government coordination and enhanced visibility of e-commerce. In particular, the National E-Commerce Committee will foster interagency coordination and engage with the private sector to incorporate their perspectives into the long-term growth strategy for e-commerce in PNG. The sub-committee on E-commerce -currently dormant but due to be revitalized- under the National Trade Facilitation Committee will fulfill this role.

#### **Strategic Output 1.3: Public-Private dialogue on digital economy matters, including e-commerce and innovation, is strengthened.**

Public-private coordination and dialogue are essential for the growth of the sector. The Digital Commerce Association, convened by the Bank of Papua New Guinea in 2018, brings together key e-commerce stakeholders and ensures that proposed initiatives have broad stakeholder support

and understanding.<sup>14</sup> This association can be reinvigorated to take on sector monitoring roles, such as monitoring pricing, service usage, etc., alongside its public-private coordination role. Innovation should be singled out for focused work, given the lack of an innovation hub, incubator, or other feeder process for the Bank of PNG's Regulatory Sandbox.

**Strategic Output 1.4: Barriers to entry for new and innovative providers within the e-commerce ecosystem are lowered.**

Restrictive regulations, complicated legislation, licensing issues, monopolistic business practices, and barriers to entry all make it hard to create a good business environment for e-commerce. To fix these problems, to support innovative solutions and improving financial inclusion are needed, especially in remote and rural areas of Papua New Guinea. Overcoming these barriers requires collaboration among the government, businesses, and civil society.

The Measures associated with each of these Strategic Outputs are listed in the table and described further below:

Measure Description	Measure Justification
<b>SO 1.1: E-commerce tenets are embedded into the national development agenda.</b>	
<p><b>Measure 1.1.1</b></p> <p>Ensure e-commerce is embedded in future national development policies as a key engine of growth and economic diversification.</p>	<p>Embedding e-commerce into national economic policies ensures that e-commerce is recognized as a driving force for economic expansion, job creation, and diversification of revenue streams and that the benefits of digital innovation are maximized as new initiatives are rolled out.</p>
<p><b>Measure 1.1.2</b></p> <p>Strengthen coordination on digital identity between agencies (PNG CIR, Bank of PNG, Department of ICT).</p>	<p>Many government agencies are independently exploring options for digital identity. Various systems, each using different parameters, are being introduced by commercial banks, the Immigration and Citizenship Authority, PNG CIR and the Department of Education, with more in consideration. Coordination is essential to ensure a consistent and globally accepted digital identity framework for both government and the private sector.</p>
<p><b>Measure 1.1.3</b></p> <p>Improve national statistics for measuring e-commerce transactions and the strength of the digital economy.</p>	<p>Accurate and readily available data on e-commerce transactions (volumes and value) will contribute to effective policy decision making and facilitate PNG's engagement in regional and multilateral agreements. It will also support the entrance of new participants in the digital economy through better understanding the size and strength of the market. It is recommended for the National Trade Office and PNG Customs to partner with the National Statistical Office on the data collection with assistance from regional and international agencies if needed. Existing statistics on e-commerce related indicators are freely available on the Pacific E-commerce Database on the Pacific E-commerce Portal and on the Pacific Data Hub.<sup>15 16</sup></p>

14 Pacific E-commerce Initiative <https://pacificcommerce.org>.

15 Pacific E-commerce Database <https://pacificcommerce.org/e-commerce-statistics/>.

16 Pacific Data Hub <https://pacificdata.org/>.

## SO 1.2: Ownership and coordination mechanisms for e-commerce strategy implementation are established, leveraging current national and regional arrangements.

### Measure 1.2.1

Revitalize the sub-committee on e-commerce to serve as the National E-commerce Committee and focus on leading the PNG National E-commerce Strategy implementation and stewarding long term growth of e-commerce in PNG.

An interministerial governance and coordination mechanism is critical for ensuring smooth National E-commerce Committee implementation as well as shepherding long term e-commerce growth in PNG. This role is played by a National E-commerce Committee which can either be established or an existing and appropriate mechanism that can be leveraged to play this role. In PNG, the sub-committee on E-commerce, established under the ambit of the NTFC will serve as the National E-commerce Committee. As this sub-committee is currently dormant, it will need to be revitalized.

### Measure 1.2.2

The National Trade Office becomes a member of the National ICT Steering Committee.

The National Trade Office is not a member of the National ICT Steering Committee, led by the Department of ICT, which oversees government coordination of the technology sector. The National Trade Office's participation will ensure the integration of trade and e-commerce into new policy measures and enhance visibility when designing measures to support ICT development.

## SO 1.3: Public-Private Dialogue on digital economy matters, including e-commerce and innovation, is strengthened.

### Measure 1.3.1

Revitalise the Digital Commerce Association to serve as the national platform for public-private dialogue on e-commerce.

The Digital Commerce Association was established in 2017 as a public-private association led by the Bank of PNG. It aims to advance e-commerce practices and standards in PNG while facilitating public-private collaboration on strategy, policy and legislation. However, the onset of COVID-19 led to the Association's suspension, which has yet to be lifted despite the growing necessity for such a forum. As financial service providers increasingly shift away from cash and cease issuing cheques, there is a pressing need to reconvene the Association. Revitalising it as the national platform for information sharing, capacity development and policy dialogue in the e-commerce sector would ensure a unified and coherent approach to e-commerce development in the country.

### Measure 1.3.2

Establish regular consultation forums between National Trade Office and the ICT Clusters formed by the industry, and jointly host an annual conference to raise the profile of ICT careers and business.

The development of domestic skills for e-commerce is crucial if the sector is to grow and innovate in PNG. The PNG ICT Clusters play an important role in convening expertise in the technology industry and encouraging participation and upskilling in the ICT sector, with a particular focus on inclusion of women and girls. Regular engagement between the National Trade Office and the ICT Clusters will prioritise support for capacity development and skill-building initiatives outlined in the Strategy, with a focus on empowering women and girls through advocacy and outreach efforts.

### Measure 1.3.3

Foster meaningful engagement with civil society to promote inclusive e-commerce and identify and address barriers to entry for people with disability and other vulnerable groups. This engagement may be through the Digital Commerce Association, ICT Cluster consultations, National E-commerce Committee or another platform.

E-commerce can provide opportunities for people with disabilities to engage more fully in business and employment enabling remote work and facilitated access to goods and service. Fostering collaboration with civil society and disability sector representatives will ensure their needs are factored in policy and infrastructure development, prioritising measures to enhance their participation. This inclusive approach will ultimately benefit the economy by expanding opportunities for often marginalised individuals.

## SO 1.4: Barriers to entry for new and innovative providers in the e-commerce ecosystem are lowered.

### Measure 1.4.1

The National E-commerce Committee to commission a baseline report identifying barriers to entry in the e-commerce sector and to annually monitor the progress against it.

Information on barriers to enter in the e-commerce ecosystem is needed to identify issues and solutions. A baseline report can outline key barriers, enabling the Government to take further action and measure progress against the baseline. These reports can be presented at selected forums such as the National E-commerce Committee and the Digital Commerce Association. Regular reporting on the status of e-commerce in the country should raise awareness, promote competition, and facilitate the entry of new actors into the PNG market.

### Measure 1.4.2

Broaden the Regulatory Sandbox to provide support for innovation in e-commerce beyond financial services.

While the BPNG Regulatory Sandbox allows new financial services products to be tested prior to a national roll-out, it is geared toward finalized products that require a short period of supervised live market testing prior to offering the products to the public. The current focus of the Sandbox is on financial services regulations, and products require a licensed financial institution to partner with them before they can enter the Sandbox. This limits the breadth of innovation that can be tested and restricts many new entrants from participating as financial institutions are proving unwilling to partner with new and untested products and providers. The Sandbox should be broadened to serve as an innovation hub, with the current Regulatory Sandbox to become just one component of a broader program of support for financial services innovation.

## Priority Area 2: ICT Infrastructure and Services

This priority area has three Strategic Outputs:

### **Strategic Output 2.1: Competitive and affordable internet data pricing is realized, while ensuring quality of service.**

PNG has relatively low internet and mobile phone penetration, with an estimated 32% of the population with internet access and 48% with mobile phone access in 2021.<sup>17</sup> While internet service has improved since the introduction of the Coral Sea Cable II, particularly with regards to speed, data prices remain among the highest in the Pacific. Internet penetration does not fare well in relative terms with only 50% of the population covered by 4G services in 2021, and smartphone adoption remains among the lowest in the region.<sup>18</sup> Several barriers to competition exist including the lack of tower sharing, number portability and effective universal service requirements.<sup>19</sup>

### **Strategic Output 2.2: Innovative technologies that support connectivity and mitigate lack of reliable power are introduced in the market.**

Outdated legislation and low electricity penetration by the sole retail power provider, PNG Power Ltd., has left PNG with inconsistent, unreliable power, subject to frequent interruptions, fluctuations and other issues affecting its reliability and consistency. In 2021, only 21% of the population had access to electricity.<sup>20</sup> The existing monopoly in urban power provision leaves no legal alternatives, and legislation currently prohibits self-generation of power, meaning that solar solutions, for example, cannot be adopted by businesses. With updated legislation and promotion of innovative technologies, there is potential to reduce or eliminate dependence on external power supplies and grids. This in turn will improve connectivity and allow more people to access online and mobile services more frequently.

### **Strategic Output 2.3: E-government services are actively contributing to increased efficiency of Government to Business (G2B) and Government to Citizen (G2C) services and increased trust in digital solutions.**

Citizens are wary of government transactions due to historical issues with record-keeping in many departments. E-government provides certainty, brings service to people living in remote areas and enables improved transparency and record-keeping. Government agencies with revenue centres should be strongly encouraged to move to online processing to both improve services and build trust and confidence in digital transactions. An added benefit would be increased trust in the Government's provision of services, as well as expanding their reach.

The Measures associated with each of these Strategic Outputs are listed in the table and described further below:

Measure Description	Measure Justification
<b>SO 2.1: Competitive and affordable internet data pricing is realized, while ensuring quality of service.</b>	
<b>Measure 2.1.1</b>  Review the requirement for the National Information and Communications Technology Authority (NICTA) to license all internet providers, particularly those operating extra-territorially.	Increasingly, internet services will be supplied by offshore global providers who do not own local operating companies. NICTA's licensing regime has the potential to act as a disincentive for these operators, particularly the ones who provide niche or small-market services.

<sup>17</sup> World Bank, 2021 <https://data.worldbank.org/indicator/it.net.user.zs?locations=pg> and <https://data.worldbank.org/indicator/IT.CEL.SETS.P2?locations=PG>.

<sup>18</sup> UNCTAD, 2022, Digital Infrastructure and ICT Uses in the Pacific [https://unctad.org/system/files/official-document/dticcdc2022d4\\_ch2\\_en.pdf](https://unctad.org/system/files/official-document/dticcdc2022d4_ch2_en.pdf).

<sup>19</sup> PNG Digital Transformation Policy 2020.

<sup>20</sup> World Bank, 2021 <https://data.worldbank.org/indicator/EG.ELC.ACCS.ZS?locations=PG>.

### Measure 2.1.2

Implement measures to improve competition and remote area services including a regulatory framework that supports tower sharing and mobile number portability.

While recommended in other policy reviews, PNG is yet to implement measures to allow basic services such as number portability and sharing of key infrastructure, particularly where it is subsidized by government or private entities.<sup>21</sup> Measures such as number portability will introduce competition, and tower sharing will reduce the costs for new entrants, both lowering barriers to entry and increasing competition in the sector.

## SO 2.2: Innovative technologies to address connectivity and power challenges are introduced in the market.

### Measure 2.2.1

Revise the *Electricity Industry Act 2002* to remove the need for a license for businesses and citizens to generate their own power to encourage installation of renewable energy solutions and move off-grid to improve reliability and cost of power.

The widespread lack of access to affordable and reliable power throughout the country has reduced incentives for businesses to digitize. Power outages frequently cause damage to equipment, which is extremely costly to repair and replace outside the two major urban centres. These factors contribute to the limited uptake of online business and digital service provision. By allowing businesses to provide their own power, which is currently prohibited under the Act, would ensure reliable power and incentivise technology upgrades for online product usage and online customer service provision.

### Measure 2.2.2

Work with development partners including the International Finance Corporation (IFC), the World Bank and the Asian Development Bank to accelerate pilot projects for small-scale community power generation and transmission.

By facilitating amendments to existing legislation and regulations, and aiding development partners in navigating bureaucratic roadblocks, the government can expedite the introduction of cheaper and more reliable power provision. This, in turn, will promote increased use of digital services.

## SO 2.3: E-government services are actively contributing to increased efficiency of G2B and G2C services and increased trust in digital solutions.

### Measure 2.3.1

Support the implementation of the *Digital Government Act* and the *Digital Plan 2023-2027* to fast-track digital government services.

The Digital Government Act and the Digital Plan set out the necessary actions to be taken to provide low-cost and efficient government services to business and citizens. Support for the implementation of these actions will expedite the introduction of these government services and lower barriers to access.

### Measure 2.3.2

Identify cost-effective ways to provide digital services to Government, including using diversified (including offshore) and efficient third-party transaction services.

Given PNG's small ICT market size for service providers, there's a risk of monopoly or duopoly emerging, as seen in other sectors. The Government should consider introducing wider competition in the market to ensure cost-effective and efficient services for business and citizens. This can be done by working with international partners and drawing on experience from peer countries.

## Priority Area 3: Trade Logistics and Trade Facilitation

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This priority area has three Strategic Outputs:

### **Strategic Output 3.1: Trade procedures relevant to cross-border e-commerce are digitized and harmonized across PNG.**

Efficient, transparent, and harmonized trade procedures (customs) are essential to fostering a seamless digital trading environment. The establishment of a comprehensive national trade portal, leading to a digitalized National Single Window, is a critical step toward significantly reducing customs clearing times and trade barriers. Implementing the customs electronic single window and the rollout of ASYCUDA World modules will ensure streamlined customs operations, while PNG's proposed accession to international conventions like the United Nations Treaty on Paperless Trade exemplifies the commitment to aligning with global standards further reducing costs and processing times. At present, PNG shows varying levels of implementation across different measures, such as electronic applications for customs refunds, an automated customs system, internet connectivity for trade-related agencies, e-payment options for customs duties, and electronic submission systems for cargo manifests and trade documents, indicating a progressive but partial adoption of digital trade facilitation solutions compared to other Pacific Islands, and Small Islands Developing States (SIDS) groups<sup>22</sup>

### **Strategic Output 3.2: Logistics systems relevant to e-commerce are strengthened and cost-effective.**

E-commerce thrives when goods can be exchanged efficiently and economically. PNG's unique geographical challenges underscore the importance of a robust transport and logistics infrastructure. The nation's unique topographical challenges, combined with underdeveloped infrastructure, pose significant barriers to efficient trade and e-commerce logistics. Overcoming these barriers involves investing in technology for improved first-mile and last mile delivery such as addressing systems and similar geo-code systems, fostering Public-Private Partnerships, and promoting e-commerce logistics hubs. By strengthening logistics, particularly in remote areas, e-commerce can be more accessible, promoting economic inclusivity and supporting local SMEs. The development of logistics hubs and the adoption of advanced supply chain technologies can create job opportunities and demand new skill sets, contributing to human capital development.

### **Strategic Output 3.3: Postal readiness for e-commerce has improved.**

National small package logistics services are essential to create opportunities for trade, particularly in remote areas. Leveraging its extensive network and established reputation, Post PNG stands as a competitive player in bolstering the e-commerce sector, with its ability to penetrate both bustling urban hubs and the most secluded areas. If endowed with public trust and credibility, it can effectively bridge the urban-rural divide. To harness these competitive advantages, Post PNG's enhancement for e-commerce necessitates multifaceted support: strategic investments in digital infrastructure, capacity-building initiatives for operational efficacy, and technology integration to elevate service quality. This support will fortify its digital and logistical capabilities, ensuring Post PNG evolves into a cornerstone of a thriving, inclusive e-commerce ecosystem. Alternative providers, such as DHL and Air Niugini Cargo Services, are also operating, and competition can create greater opportunities for cost-effective delivery in high-transaction hubs. However, it is crucial that government or partner support for Post PNG does not skew market competition in its favour, ensuring a fair and competitive market environment.

<sup>22</sup> United Nations, 2023, UN Global Survey on Digital and Sustainable Trade Facilitation <https://www.unfssurvey.org/economy?id=PNG>.

The Measures associated with each of these Strategic Outputs are listed in the table and described further below:

Measure Description	Measure Justification
<b>SO 3.1: Trade procedures relevant to cross-border e-commerce are digitized and harmonized across PNG.</b>	
<p><b>Measure 3.1.1</b></p> <p>Expand the functionality and integration of the ASYCUDA World system across all border crossings.</p>	<p>Upgrading and fully integrating the ASYCUDA World system is fundamental to streamline customs management and facilitate faster transaction processing. Improved functionality will lead to increased efficiency in data handling, reduced paperwork, and overall decrease in cargo clearance times, contributing to a faster and more dynamic trade sector and stimulating economic activity.</p>
<p><b>Measure 3.1.2</b></p> <p>Establish a comprehensive electronic single window system to serve as a one-stop digital platform for all trade facilitation services.</p>	<p>Lack of interoperable and centralized systems, different regulatory regimes, requirements and rules to follow slow down or pose barriers to trade. An electronic single window will serve as a catalyst for seamless trade, allowing stakeholders to lodge standardized information and documents with a single-entry point to fulfill all import, export, and transit-related regulatory requirements. This measure will substantially cut down on red tape, lower trade costs, and enhance the overall ease of doing business, thereby propelling PNG's e-commerce environment to new heights of efficiency and competitiveness.</p>
<p><b>Measure 3.1.3</b></p> <p>Facilitate accession to and/or ratification of the United Nation Economic and Social Commission for Asia and the Pacific (UNESCAP) Framework Agreement on Cross-Border Paperless Trade in Asia and Pacific.</p>	<p>Cross-border paperless trade has significant potential for reducing trade costs and boosting trade in the Asia-Pacific region. The Framework Agreement on Facilitation of Cross-border Paperless Trade in Asia and the Pacific, a UN treaty, aims at accelerating the implementation of digital trade facilitation measures for trade and development. Adoption of global standards will not only streamline trade procedures but also showcase PNG's dedication to modern trade practices. This alignment with international paperless trade norms will smooth interactions with global partners and reinforce PNG's standing in the international trade community.</p>
<b>SO 3.2: Logistics systems relevant to e-commerce are strengthened and cost-effective.</b>	
<p><b>Measure 3.2.1</b></p> <p>Establish dedicated e-commerce logistics hubs in key urban centres (POM and LAE) to facilitate efficient ordering processing and distribution.</p>	<p>In PNG, logistical challenges, including inadequate transportation infrastructure, long delivery times, and unreliable last-mile delivery services, are major obstacles to the growth of the e-commerce sector. E-commerce logistics hubs can resolve current logistical inefficiencies by improving the processing and distribution of goods. These hubs could also integrate with strategic transport networks and Special Economic Zones, enhancing order fulfilment speeds, cutting costs, and elevating customer satisfaction.</p>

### **Measure 3.2.2**

Invest in technology to improve delivery systems, including geo-coding for accurate addressing and customer service enhancements.

It is rare for logistics SMEs to use technology that assists them with their supply chain management needs. Supporting adoption of advanced supply chain management software and providing data analytics training to logistics SMEs would improve efficiency and scale up operations. Partnering with Post PNG presents an opportunity to address last-mile delivery challenges through technological solutions (see S.O. 3.3).

### **Measure 3.2.3**

Develop and implement an integrated security strategy for cargo transport, encompassing real-time monitoring systems, secure cargo protocols, and dedicated enforcement units.

The scarcity of secure and reliable road and sea cargo transport options disproportionately shifts the burden to air freight, inflating logistical costs and hindering e-commerce. Prevalent security concerns, including theft, piracy, and counterfeiting, necessitate stringent protective measures. A robust security strategy aiming to safeguard goods in transit would reduce reliance on costly air transport by providing safer alternatives and foster a secure environment for e-commerce. This approach would enhance confidence among e-commerce businesses and consumers, leading to increased e-commerce adoption by consumers and businesses alike.

## **SO 3.3: Postal readiness for e-commerce has improved.**

### **Measure 3.3.1**

Upgrade Post PNG's capabilities to deliver e-commerce services to international standards as per the Universal Postal Union (UPU)'s Operational Readiness for E-commerce (ORE) guidelines.

Aligning Post PNG with the UPU's Operational Readiness for E-commerce (ORE) guidelines is essential to enhance its capacity to handle e-commerce transactions efficiently. Currently, Post PNG faces several inefficiencies, including outdated infrastructure, slow delivery times, and negative public perception. These issues hinder its ability to compete in a fast-paced digital and technological environment and reduce trust among e-commerce operators and consumers. The UPU's ORE programme, focusing on operational readiness, provides a structured approach to improve the efficiency and reliability of postal services. This programme, along with the UPU's Digital Readiness for E-commerce (DRE) and Payment Readiness for E-commerce (PRE) programmes, aims to enhance the strategic, operational, and digital capabilities of postal operators. Implementing these standards will help Post PNG gain public trust, compete effectively, and offer cost-effective delivery solutions.

### Measure 3.3.2

Adopt home addressing systems incorporating UPU standard S42 or alternative geocode systems to facilitate last-mile delivery.

Currently, PNG lacks a comprehensive physical addressing system, which significantly hampers reliable delivery services, especially in rural and remote areas. In urban areas, the addressing system is either incomplete or inconsistent, further complicating logistics and last-mile delivery. This gap in infrastructure affects the efficiency and accuracy of postal and delivery services, creating barriers for e-commerce growth and access to services. Developing a physical addressing and postal code system is essential to improve e-commerce readiness by facilitating traceability and ensuring accurate and timely deliveries. By adopting an international addressing standard such as the UPU S42, PNG can achieve several benefits. Additionally, digital alternatives to a physical addressing system, such as geocode systems, can be explored to complement traditional methods.

### Measures 3.3.3

Collaborate with e-commerce merchants to expand existing city-based facilities into an extensive network of Pickup/Drop-off (PUDO) points, leveraging Global Positioning System (GPS) for precise mapping.

By providing a reliable alternative to door-to-door delivery, PUDO points are a strategic response to the challenge of last-mile delivery in PNG. They may be the only cost-effective method of remote-area delivery given PNG's geography and extensive customary land ownership. These facilities will significantly improve the accessibility of e-commerce services, especially in remote areas, facilitating consumer engagement and improving the online shopping experience.

## Priority Area 4: Legal and Regulatory Framework

This priority area has three Strategic Outputs:

### **Strategic Output 4.1: Review, develop and adopt an e-commerce regulatory framework aligned to international standards.**

An integrated core regulatory framework for e-commerce, aligned to international standards, is essential to enable a conducive environment for e-commerce. This Strategic Output identifies several measures to address gaps within existing legislation such as the Electronic Transaction Act (ETA), as well as areas concerning personal data protection, consumer protection and cybercrime. A robust e-commerce ecosystem thrives not only on a legal and regulatory framework specific to e-commerce but is equally dependent on laws adjacent to the core regulatory framework outlined.

### **Strategic Output 4.2: Domestic agency capacity on e-commerce matters, and coordination and cooperation with international organizations, are improved.**

A thorough assessment of the resourcing needs and priorities of the lead agency for e-commerce (the National Trade Office) is the focus of this Strategic Output. The assessment will also identify opportunities to strengthen engagement between the broader range of PNG agencies which oversee specific aspects of the e-commerce ecosystem and counterpart international organizations.

### **Strategic Output 4.3: Awareness of e-commerce related laws and regulations among consumers, merchants, and other stakeholder groups on current and upcoming legislation is raised.**

Stakeholder consultations identified a low level of awareness of e-commerce rights and responsibilities. This Strategic Output will support a promotional campaign to raise awareness using traditional and new media of e-commerce rights and responsibilities. It will also bolster awareness of the e-commerce regulatory framework among key educational institutions.

The Measures associated with each of these Strategic Outputs are listed in the table and described further below:

Measure Description	Measure Justification
<b>SO 4.1 An e-commerce regulatory framework aligned to international standards is adopted.</b>	
<p><b>Measure 4.1.1</b></p> <p>Close the Functional Gaps in the <i>Electronic Transactions Act 2021</i>.</p>	<p>The adoption of the ETA does not yet fully support online transactions and specifically excludes certain types of documents including some in the banking sector. Certain documents such as deeds still require a physical witness signature. A rapid review of the ETA's functionality may identify additional gaps to be addressed by way of amendment, implementing regulations or other regulatory mechanisms.</p>
<p><b>Measure 4.1.2</b></p> <p>Modernize the regulatory framework for Personal Data Protection, by enacting laws in line with international standards, and adopt the <i>Financial Consumer Protection Bill 2023</i>.</p>	<p>PNG does not currently have specific laws for the regulation or protection of personal data.<sup>23</sup> A new regulatory framework for personal data protection aligned with international standards will raise consumer confidence in use of e-commerce tools. Adoption of a Personal Data Protection regulatory framework will require review of the <i>Protection of Private Communications Act 1973</i> and likely adoption of a new law specifically to regulate personal data protection, in line with international standards that cater to current technology and modes of communication. The <i>Financial Consumer Protection Bill</i> incorporates some basic protection for personal data in the financial sector.</p>
<p><b>Measure 4.1.3</b></p> <p>Strengthen the protection of consumers in online markets through a new regulatory regime.</p>	<p>Relevant legislation does not provide ample protection for the online or offline consumer and competition sector, although various enabling provisions for the development of such laws exist. Whilst it is preferable that an overall consumer protection law is adopted as a priority, as an interim approach, this measure can support the Independent Consumer and Competition Commission (ICCC) to develop regulations under the <i>Independent Consumer and Competition Commission Act 2002</i> (ICCCA) to address online consumer risks, such as misleading and deceptive conduct, transparency, and disclosure of information, etc. The approach should be aligned to international standards and could draw on provisions from the <i>Financial Consumer Protection Bill 2023</i>.<sup>24</sup> This would also extend to the <i>National Information and Communication Technology Act 2009</i> (NICTA) that enables NICTA to develop regulations for the protection of consumers and regulation of competition amongst service providers within the telecommunications and ICT sector. The <i>Financial Consumer Protection Bill 2023</i>, which entails the protection of customers/consumers of financial institutions, should be adopted without delay.</p>

<sup>23</sup> At present, the only relevant existing legislation which provides some form of protection is the *Protection of Private Communications Act 1973* though its protection for private communications is outdated. The *Financial Consumer Protection Bill 2023* also accords limited data protection for customers of financial institutions.

<sup>24</sup> With appropriate direction and leadership, substantive laws on Consumer Protection (online and offline) could be developed within 3 – 5 years.

#### **Measure 4.1.4**

Strengthen the implementation of the Cybercrime Code Act 2016, by facilitating and supporting PNG's accession to the Budapest Convention on Cybercrime; and review the CCA's alignment with the Convention and similar international standards.

Full implementation and or enforcement of the CCA is very much dependent on cooperation through accession to regional and international legislation. Accession can also avail regional and international support in the form of training and up-skilling of law enforcement personnel and agencies. A review of the CCA itself against the Budapest Convention, and similar international cybercrime frameworks, may lead to updates to align with international standards.

### **SO 4.2: Domestic agency capacity on e-commerce matters and coordination, and cooperation with international organizations, are improved.**

#### **Measure 4.2.1**

Complete a Rapid Needs Assessment of the National Trade Office that covers (i) an evaluation of governing legislation, (ii) human resource gaps, and (iii) training and access to technical resources.

A Rapid Needs Assessment for the National Trade Office will establish the basis for addressing key gaps and supporting its critical role in facilitating a thriving e-commerce ecosystem in PNG. Many agencies established within the Government have been found to lack the necessary structure or adequate authority or powers to perform their mandated functions and responsibilities. Capacity issues (including human resource and training deficits) are also significant challenges identified for specialist agencies. The Rapid Needs Assessment of the National Trade Office should cover (i) adequacy of existing governing legislation to ensure that the National Trade Office is authorized and empowered to direct, facilitate, implement and if need be, enforce e-commerce/trade laws, (ii) the National Trade Office human resources gaps to cover its mandate and proper functioning, with a view to increasing its technical skills and capability, and (iii) adequacy of training and access to technical resources to support its functions.

### Measure 4.2.2

Establish and or strengthen regional and international coordination between relevant PNG, regional and international stakeholders.

The gaps in the PNG legal and regulatory framework for e-commerce and implications for domestic and cross-border application would benefit from support of regional and international partners and agencies. PNG can work closely with international organizations to improve local protection and ensure future regulations match international standards. Relevant PNG agencies include the ICCC, NICTA, the National Cybersecurity Centre (NCSC), PNG Computer Emergency Response Team (PNGCERT), PNG Internet Exchange Point (PNGIXP), BPNG, the Royal PNG Constabulary (RPNGC), Internal Revenue Commission (IRC) and Customs, PNG Intellectual Property Office (PNGIPO) and regional and or international stakeholders including, the World Trade Organization (WTO), the World Intellectual Property Organization (WIPO), Interpol, regional and international cybersecurity agencies, etc. In practical terms, this measure could be implemented through a stock take of existing institutional links and technical cooperation, to identify priorities for strengthening. This measure could also support closer partnering with PIFS to benefit from its E-commerce Rules Program for policymakers.

### SO 4.3: Awareness of e-commerce related laws and regulations among consumers, merchants, and other stakeholder groups on current and upcoming legislation is raised.

#### Measure 4.3.1

The National Trade Office to lead a promotional campaign to create awareness of the regulatory framework for e-commerce for consumer and other stakeholder groups.

A promotional campaign, potentially using SMS, social media, and other accessible platforms, will increase awareness of government support for transitioning to online commerce tools. This aims to boost confidence in the regulatory framework and enhance consumer and business protections, aligning with a key recommendation from the 2020 assessment to promote the benefits of the ETA.

## Priority Area 5: Electronic Payment Solutions

This priority area has five Strategic Outputs:

### Strategic Output 5.1: Access to domestic and cross-border electronic payment options is expanded.

A key concern raised by the private sector –particularly exporters– is the overall lack of options to receive cross-border payments. There is no universal International Payment Gateway (IPG) available which can allow companies to link directly with their websites, and they are unable to receive payments via third party Payment Service Providers (PSPs).<sup>25</sup> Access to payment gateways is expected to significantly benefit MSMEs, particularly those in the services sector in the short term, as they are moderately ready to export but have been unable to access payment solutions via international marketplaces or accept payments via their own websites. Similarly, on the domestic payments front, the lack of local payment gateways prevents sellers to accept funds in Kina, leading to costly conversion fees with Visa-based card payments. Implementing local payment gateways would make digital payments more affordable for both consumers and merchants, thereby contributing to uptake of digital payment methods.

<sup>25</sup> Some banks do offer their own IPGs, though integration is complex and can be difficult for MSMEs to achieve cost-effectiveness.

### **Strategic Output 5.2: A digital ID and authentication framework to support the national payment systems framework is developed.**

Digital IDs are commonly used to authenticate individuals in online transactions, enabling secure access to banking services and facilitating digital payments. The lack of a uniform digital ID in PNG hinders consumer identification for banking and digital payment purposes, while the rugged geography and lack of Know-Your-Customer (KYC) options provides challenges to rural uptake of digital solutions, as well as broader digital financial inclusion. This strategic output seeks to improve the levels of trust and compliance by advocating for the development of a national digital ID and ID authentication framework. This will directly support e-commerce development by accurately verifying identities of consumers and merchants via KYC processes. This will also support the Anti-Money Laundering (AML) agenda.

### **Strategic Output 5.3: The regulatory framework for digital payments is enhanced leading to increased interoperability and innovation.**

PNG's regulatory framework for digital payments should enhance seamless interoperability between various payment platforms and systems, expanding choices for consumers and merchants while supporting the national financial inclusion agenda. To achieve this, discussions on national payments need to be more inclusive, allowing smaller and non-traditional payment providers to actively engage, especially in discussions concerning REPS. The framework should also result in a revamped sandbox and licensing mechanism, encouraging innovation through start-ups and the introduction of user-friendly payment and broader fintech solutions. Presently, several small fintech firms seek to join the sandbox. However, due to the stringent conditions outlined in the National Payment Systems Act 2013, these firms are redirected from the sandbox and asked to apply for a PSP permit, which they are unable to obtain. Identical capital requirements for both large and small firms effectively preclude the possibility for smaller firms to obtain the necessary permits. Another consequence of the permit challenges is that fintech firms cannot join the REPS without first obtaining licensing from BPNG. Given the challenge, entry for smaller firms into the REPS becomes practically impossible.

This has significant implications: the entry barriers stemming from high capital requirements for permits means that these wallets will be unable to join the REPS. Consequently, wallet holders will be restricted to settling transactions within the provider's network, limiting them to agents and cash-in-cash-out points associated with that wallet provider. They will not be able to use ATMs or agents of other payment services, such as banks, for withdrawals. This situation leads to limited options for users and poses significant challenges to the financial inclusion agenda, particularly in

remote areas where establishing financial service access points is difficult, and interoperability is crucial. Additionally, the addressable market for small wallet providers and other small fintech firms becomes constrained, as consumers may avoid these services, thereby degrading the overall business environment for innovation and investments in this space.

### **Strategic Output 5.4: The national digital financial inclusion and cashless payments agenda is accelerated.**

In 2019, approximately 75% of Papua New Guineans did not have access to formal financial services.<sup>26</sup> By promoting diverse electronic payment solutions, PNG can accelerate financial inclusion and provide unbanked and underbanked populations with greater access to essential financial services. While the bank-led model dominates in PNG, it is essential to explore and support alternative models, including telco-led solutions such as mobile wallets, which have the potential to reach a larger and underserved percentage of the population than traditional solutions, especially in rural areas. Although at a nascent stage, the mobile money and mobile financial industry in PNG is promising and can resolve rural access to financial services, thereby contributing to e-commerce uptake.

### **Strategic Output 5.5: Diverse partnerships within the electronic payments space are fostered.**

There is limited innovation currently in the electronic payments space in PNG. Besides recent progress on interoperability led by the central bank, and the introduction of wallets, no significant actors in the fintech area have emerged, and this space remains dominated by traditional players

26 The National Research Institute, 2022, Enhancing Financial Inclusion of Informal Economy Through Mobile Money in Papua New Guinea: [https://pngnri.org/images/Publications/Spotlight\\_Vol16\\_Iss2\\_Enhancing\\_financial\\_inclusion\\_of\\_informal\\_economy\\_through\\_mobile\\_money\\_in\\_Papua\\_New\\_Guinea.pdf](https://pngnri.org/images/Publications/Spotlight_Vol16_Iss2_Enhancing_financial_inclusion_of_informal_economy_through_mobile_money_in_Papua_New_Guinea.pdf).

such as commercial banks. Collaboration among various stakeholders, including financial institutions, e-commerce businesses, information technology firms, and fintech operators, will drive the development of new financial products and services that are more accessible to consumers, and more targeted to the needs and context of PNG. These partnerships enhance innovation, facilitate the integration of various payment systems, and improve financial inclusion. By leveraging diverse expertise and resources, PNG can strengthen its payments ecosystem, promote economic growth, and ensure broader participation in the digital economy.

The Measures associated with each of these Strategic Outputs are listed in the table and described further below:

Measure Description	Measure Justification
<b>Strategic Output 5.1: Access to domestic and cross-border electronic payment options is expanded.</b>	
<p><b>Measure 5.1.1</b></p> <p>Increase participation of third-party Payment Service Providers (PSPs), such as PayPal and Wise, in the PNG market, and remove bottlenecks that are limiting MSMEs adoption of cross-border payment solutions.</p>	<p>There is a need to promote PNG as a destination for international PSPs. The private sector has specifically highlighted the case of PayPal, which presently allows for purchasing products from overseas but does not support receiving funds from overseas. This challenge has directly impacted PNG start-ups, which are unable to sell goods and services through international platforms (such as eBay, Redbubble, Etsy, Fiverr and freelancing.com).</p>
<p><b>Measure 5.1.2</b></p> <p>Encourage the development of Application Programming Interfaces (APIs) for existing payment solutions offered by commercial banks and mobile wallets. Then, create plugins that enable the connection of various local payment solutions to websites.</p>	<p>APIs enable connectivity between merchant websites and payment solutions, such as those offered by commercial banks or mobile wallet operators. These connections are crucial for converting static merchant websites to dynamic e-shops. As the number of payment options grows, plugins can be developed for use by e-commerce firms. This approach makes it both affordable and technically simple for businesses to integrate diverse payment methods into their online platforms through a single plugin, rather than expending resources to integrate different payment solutions separately. To facilitate this, fintech actors can be incentivized to develop these solutions.</p>

## SO 5.2: The digital ID and authentication framework is developed in support of the national payment systems framework.

### Measure 5.2.1

Accelerate focus on developing a digital ID and authentication framework and reduce fragmentation among the various ongoing national initiatives related to identification.

There is an urgent need to develop the overall digital ID and ID authentication framework to accurately verify identities. This would have important use cases for e-commerce, including reducing risk of frauds, and vetting merchants before accepting them on marketplaces. Currently, there is no unified digital identification framework in the country. While the cybersecurity policy, data government policy and *Digital Government Act* all contain elements of digital identity, there is no overarching framework for digital identity that is driving coherence. This lack of a unified framework impacts the ability of consumers to move seamlessly between financial institutions or telecom services. Digital ID is a key building block in this regard.

### Measure 5.2.2:

Simplify/clarify Know-Your-Customer requirements based on type of payment options.

There is a need to delineate KYC requirements specific to type of payment services, and in some cases, simplification is necessary. For example, in the case of mobile wallets, the account opening requirements are very stringent, almost equivalent to those for bank accounts. This creates a significant disincentive for consumers and merchants to join.

### Measure 5.2.3

Introduce mobile number portability to boost telco competition, enhance mobile banking access, drive financial inclusion in underserved areas, stimulate e-commerce, and support AML/CTF compliance.

Number portability refers to the ability of a mobile phone user to retain their existing phone number when switching from one mobile network operator to another. This is an essential feature for mobile banking as it allows users to keep using their current phone number for receiving and making transactions, even if they change their mobile service provider. Enabling this feature will serve as a means of driving financial inclusion, especially in areas underserved by traditional banks, and stimulate e-commerce. It will also support compliance with AML/CTF measures.

## SO 5.3: The regulatory framework for digital payments is enhanced leading to increased interoperability and innovation.

### Measure 5.3.1

Ease the regulatory requirements for fintech start-ups to ensure fair competition with larger, more established financial service providers.

This measure seeks to reduce barriers to entry for small, innovative start-ups, and providers of alternative payment solutions. The *National Payments System Act 2013* establishes the National Payments System (NPS) and empowers the Central Bank to regulate and oversee it. The Act categorizes both major commercial banks and smaller start-up players as payment service providers (PSPs) and applies the same strict standards. However, smaller players are unable to meet the requirements, such as the capital requirement for applying and receiving PSP permits.

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**Measure 5.3.2**

Review licensing of operators involved in electronic payment services and implement corresponding recommendations.

PSP, fintech companies and Electronic Money Institutions (EMI) have distinct needs and features, yet in PNG, they fall under a single license which involves identical capital, documentary requirements. Apart from lending inefficiency to the applications process, this can also act as a barrier to entry for smaller firms to obtain necessary permits. Separating them could enhance innovation, improve governance, and foster growth within each distinct license categories, while ensuring appropriate risk mitigation and management.

**Measure 5.3.3**

Revise scope and standard operating procedures related to the Regulatory Sandbox to support a broader range of fintech solutions that improve financial inclusion and e-commerce.

This measure seeks to enable smaller fintech players to enter the PNG market. In terms of the scope of the sandbox, it is necessary to actively identify and promote fintech solutions that are a priority for the national electronic payments system infrastructure. For example, the incentivization of API and plugin payment solutions, which is the focus of Measure 5.1.2. The standard operating procedures need to be revised because they are not fit-for-purpose currently for supporting smaller fintech firms. An example discussed earlier is the situation faced by smaller payment services firms. These companies are discouraged from entering the sandbox and are instead advised to obtain a PSP license from BPNG. It is perceived that the current sandbox is friendly to local providers and SMEs, but it can be enhanced and integrated to allow for international players. The proposed review should come first before changes can be made.

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**Measure 5.3.4**

Explore reducing the Know-Your-Customer requirements for mobile money users to improve uptake for these services.

The KYC requirements for consumers to open a mobile wallet account is similar to that of a bank account and are considered onerous by mobile wallet operators and consumers. The value proposition for consumers to invest in a mobile money account is reduced for this reason. There is an important need to “right-size” the KYC requirements for mobile money, similar to successful practices followed in other countries.

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**Measure 5.3.5**

Introduce sliding scale licensing fee structure and financial competency requirements of the *Banks and Financial Institutions Act 2000* to make the landscape more conducive to the entry of smaller providers of online payments systems.

Feedback from stakeholder consultations for the Strategy has highlighted the need to relax the current BPNG licensing regime, which has disproportionately hindered smaller enterprises' market entry due their limited financial resources and regulatory expertise. The goal is to encourage more innovation within online payments systems services. A review of the *Banks and Financial Institutions Act 2000* would support this measure and identify opportunities to reduce license fees and financial competency requirements, facilitating smaller providers' entry into the market and fostering competition.

## SO 5.4: The national digital financial inclusion and cashless payments agenda is accelerated.

### Measure 5.4.1

Conduct a study to review use cases and options for developing a cashless ecosystem in PNG's context, drawing on the experiences of countries in the broader Pacific and South-East Asia Region. The study would serve as a guide for BPNG and other stakeholders.

There is a need to identify use cases for mobile money that can support user uptake and the development of a cashless economy. In PNG, mobile wallet holders primarily use cash-in/cash-out locations for withdrawing cash, which is the main use-case. In countries like Fiji, 100% of Covid-19 and current social payments were executed via mobile wallets and government salaries can be paid via wallets. In contrast, in PNG, Government-to-Business (G2B) and Government-to-Consumers (G2C) use cases for mobile money have not been well explored. It is necessary to establish use cases for end-to-end cashless processes tailored to PNG's contexts and development needs, as well as its political, social and economic realities. This will help reduce dependency on agents and physical networks for the first and last mile of transactions.

### Measure 5.4.2

Strengthen the National Payments Council to promote financial inclusion, by ensuring diversity and inclusivity themes are integrated in the governance mechanism and committee composition, and continuous monitoring of the payment system performance.

In PNG, the dominant bank-led model has limited the representation of successful telecom-led models and fintech innovations in the development of the national payments system. To address this limited representation, the National Payments Council should be expanded to include telecom-led payment providers like mobile wallets. By doing so, fintech and telecom companies, offering wallet and payment services, can effectively advocate for their interests in Phase 2 of REPS.

### Measure 5.4.3

Strengthen and expand agent networks to serve as key pillars for e-commerce and financial inclusion in rural areas.

The measure proposes allowing agent networks to serve as access points and as pick-up and drop-off points for e-commerce parcels. Access points for Digital Financial Services (DFS) in PNG include bank branches and agents, ATMs, EFT POS devices and Payment Service Provider (PSP) agents. These access points enable customers in rural areas to have access to financial services such as deposits, withdrawals, money transfers, top-up services, and bill payments (e.g., water, electricity) via their mobile phones. Their prominent positioning with local communities could also enable them to serve as e-commerce logistics and payments points.

### Measure 5.4.4

Add Post PNG SMK and other mobile providers in BPNG's mobile money and mobile financial services data.

Postal services are essential actors for e-commerce due to their universal coverage mandate and presence in hinterland. The domestic remittance solution (SMK) offered by Post PNG should be factored BPNG's mobile money and mobile financial services data, as it is currently not reported.

## SO 5.5: Diverse partnerships are fostered within the electronic payments space.

### Measure 5.5.1

Create national and regional digital innovation centres with backing from global financial institutions and e-commerce companies, including their technology providers (such as FinTech, Digital ID, Software as a Service, Cloud Computing, and Data Hosting). This measure will also explore alignment with the SME parks that are planned to be established in rural areas by the SME Corporation.

PNG faces significant challenges in fostering innovation, particularly in the fintech and financial services sectors. There is a lack of infrastructure and support for developing new financial technologies, which limits the growth of non-banking financial institutions and hampers the overall economic development. This situation is exacerbated by structural challenges unique to PNG, such as geographic isolation and limited access to advanced digital solutions. This measure is necessary for catalysing innovation within the fintech and financial services sector, which will ultimately support economic growth and overcome infrastructural and structural challenges unique to PNG. It is a forward-looking and ambitious vision to nurture the development of new fintech solutions aimed at solving various business and development challenges.

### Measure 5.5.2

Launch promotional campaigns on digital payments.

Consumers in PNG prefer cash transactions due to mistrust of financial institutions and fear of online fraud. Many are sceptical about digital payments due to security and privacy concerns. A national campaign highlighting the benefits and addressing the risks of online transactions can help change public perceptions. This campaign requires collaboration among stakeholders to provide a unified message on digital payments, advocating for clear and consistent regulations to ensure a secure environment for both consumers and businesses. The messages should be clear and simple: e-payment solutions reduce cash handling and increase efficiency, making transactions more secure and convenient.

## Priority Area 6: E-commerce Skill Development

This priority area has three Strategic Outputs:

### Strategic output 6.1: Skills-mismatch between academia and industry (on e-commerce skills) is reduced.

As the e-commerce sector matures, it will be necessary to reduce the prevailing industry-academic skills mismatch issues. The current academic landscape lacks specialized courses that bring together the essentials of e-commerce: management, entrepreneurship, and ICT. As it currently stands, this disconnect is likely to hinder the transition of graduates into e-commerce roles. Updating curricula and providing certificate-level courses aligned with the demands of the digital economy would produce a workforce ready to innovate and lead in the e-commerce space. Activities under this strategic output will also aim to reduce the broad skills-divide between urban areas and the hinterland. There is also an important need to expose primary and secondary school students to practical and relevant IT skills from an early age to equip them with the foundational knowledge that they will need

to navigate, participate in, and ultimately drive the e-commerce ecosystem. This will require relevant upgrades not only to primary and secondary school curricula but also provision of hardware and software so students can be exposed to the practical aspects of IT education.

**Strategic Output 6.2: The national innovation and/or start-up ecosystem to strengthen tech start-ups and e-commerce business ventures is enhanced.**

Fostering a robust ecosystem in both urban and rural areas is essential for tech start-ups and e-commerce ventures to thrive. A thriving national innovation ecosystem serves as the foundation for e-commerce companies, supporting them from ideation to scalability. The existing innovation builder ecosystem, which includes nascent national ICT incubators (DICT and NICTA UAS program), University of Technology (UoT) and University of PNG (UPNG), as well as the SME Corporation incubators in the provinces, will be strengthened to achieve this goal.

**Strategic Output 6.3: Digital literacy and digital upskilling are enhanced for all.**

A good foundational understanding of digital tools and concepts is essential for establishing a solid base for sustained digital growth and inclusivity. Enhancing digital literacy ensures that individuals (and especially women in rural areas), businesses and disadvantaged communities can confidently navigate the digital realm, access services, and partake in the digital economy. Furthermore, investing in widespread digital upskilling ensures that PNG workforce will be adaptable to future developments and able to evolve with technological advancements.

The Measures associated with each of these Strategic Outputs are listed in the table and described further below:

Measure Description	Measure Justification
<b>SO 6.1: Skills mismatch between academia and industry (on e-commerce skills) is reduced.</b>	
<p><b>Measure 6.1.1</b></p> <p>Upgrade primary and secondary school curricula and technical resources at the schools' levels to increase students' digital readiness upon graduation.</p>	<p>Delivering quality primary and secondary education in PNG faces technical and financial challenges. These include inadequately equipped classrooms, a shortage of qualified teachers for digital skills, and deficient basic facilities. Many schools lack access to technology, hindering teachers from integrating digital skills into their teaching methods. Numerous students lack access to computers or reliable internet connections at home, limiting their learning opportunities. This is exacerbated by the fact that many teachers lack proficiency in digital tools and the confidence to use them effectively in the classroom. Updating primary and secondary school curricula can mitigate some of these issues by preparing students on current IT related topics and exposing them to both theory and practical learning.</p>

### Measure 6.1.2

Develop and enhance e-commerce centric curricula in tertiary institutions, combining IT, management, and entrepreneurship.

The lack of adequate digital skills among students, including those in universities, poses a barrier to their adaptation to the digital economy and limits their employability or entrepreneurial potential. One contributing factor is the absence of courses in the current academic curriculum that focus on essential skills for e-commerce, coupled with a lack of teaching proficiency in this area. While the University of PNG (UPNG) and Divine Word University have introduced management and business courses, there is a notable lack of degrees at the intersection of management, IT and/or entrepreneurship. To address this gap, introducing twinning programs, engaging with international partners, and implementing technology upskilling initiatives could be part of the solution.

### Measures 6.1.3

Foster a partnership between the government, academia and the nascent software engineering industry to collaborate on the development of software engineering skills.

This measure aims to create a partnership through a public-private discussion platform to address software development issues specific to PNG's unique context. PNG faces distinct challenges, such as diverse languages, inaccessible geography, and internet connectivity problems, making off-the-shelf solutions impractical for most of the population. The discussions resulting from this partnership will help reduce skill mismatches in the IT sector and enhance its agility, enabling the development of software products tailored to PNG's market needs.

## SO 6.2 The national innovation and/or start-up ecosystem to strengthen tech start-ups and e-commerce business ventures is enhanced.

### Measure 6.2.1

Strengthen national ICT incubators<sup>27</sup> (such as DICT and NICTA UAS program, University of Technology) to support e-commerce businesses, partnering with digital business clusters and accelerators to establish a national ecosystem.

In countries where large companies and "bridge makers" have shaped ecosystems to foster entrepreneurship, young entrepreneurs have emerged as a key job creator. Although PNG's wealth traditionally stems from natural resources, the rise of the digital economy presents lucrative avenues to harness its human capital. ICT incubators play a crucial role in this endeavour by providing shared infrastructure, incubation programs, mentorship opportunities, and access to markets and investors, thereby supporting and strengthening the entrepreneurial ecosystem.

<sup>27</sup> An ICT incubator is a specialized facility or program designed to support the development and growth of startup companies in the field of Information and Communication Technology (ICT). These incubators provide various resources and services to help entrepreneurs and startups overcome the challenges of early-stage development and increase their chances of success.

### Measure 6.2.2

Partner with the PIFS E-Biz Plus program or similar initiatives to nurture the SMEs ecosystem.

Small businesses face challenges transitioning from traditional to online operations. Limited information about the benefits of online business and a lack of capacity to explore available options and suitable models contribute to this difficulty. Additionally, factors such as limited digital and financial literacy, as well as capital constraints, exacerbate the situation. Exploring regional or international initiatives could address these issues. For instance, the PIFS E-Biz Plus program supports small Pacific businesses by providing e-commerce toolkits, training workshops on e-commerce fundamentals, tailored coaching, e-commerce grants, and access to a regional community of peers (the eCove Community).

## SO 6.3: Digital literacy and digital upskilling are enhanced for all.

### Measure 6.3.1:

Conduct a digital skills gaps assessment on vulnerable groups, with a focus on rural and remote populations, and women and girls. The study should propose recommendations to address the gaps identified.

Skills gaps, including digital skills, are pronounced, especially among vulnerable and marginalized groups and those in rural and remote areas. Conducting a digital skills gap assessment targeting these groups could reveal specific measures needed to enhance their skills. A workforce equipped with relevant digital skills is crucial for driving e-commerce growth in PNG, leading to economic development and job opportunities. Enhanced digital literacy among vulnerable groups, including rural and remote populations, as well as women and girls, will improve employability and enable participation in the digital economy.

## Priority Area 7: Access to Finance for E-commerce

This priority area has two Strategic Outputs:

### Strategic Output 7.1: Access to risk sharing facilities and blended finance mechanisms for e-commerce operations has improved.

To propel the e-commerce landscape in PNG forward, enhancing access to risk-sharing facilities and blended finance mechanisms is paramount. This encompasses creating start-up grants, offering low-interest loans, and fostering partnerships with financial institutions to introduce products specifically designed for SMEs and e-commerce service providers. By restructuring SME funding channels for wider and more effective allocation and realigning credit guarantee schemes with green and manufacturing policies, PNG can ensure a conducive environment for e-commerce ventures. Leveraging blended finance tools from development banks and UN agencies can de-risk investments, catalysing sustainable development within the digital economy.

### Strategic Output 7.2: An innovative and conducive business environment for alternative sources of financing for e-commerce ventures is fostered.

The unique needs of e-commerce businesses in PNG involve, among others, access to flexible financing options, support for business training, and opportunities for community-supported financial models. Addressing them involves partnering with microfinance institutions to streamline loan applications and offer business training, thereby fostering entrepreneurship in various regions. Introducing crowdfunding platforms as a viable financing route underscores the democratization of capital raising for e-commerce start-ups. Moreover, promoting PNG's e-commerce potential through strategic partnerships with ecosystem builders, such as hosting investor events and pitching competitions, creates opportunities for financing without solely relying on venture capital, thereby

focusing on grassroots and community-supported financial models.

The Measures associated with each of these Strategic Outputs are listed in the table and described further below:

Measure Description	Measure Justification
<b>SO 7.1: Access to risk sharing facilities and blended finance mechanisms for e-commerce operations has improved.</b>	
<b>Measure 7.1.1</b>  Launch a start-up grant program tailored for e-commerce SMEs, including tech start-ups and service providers. There must be conditions and criteria set in place prior to grant disbursement. The grant process has to be made transparent.	Due to high perceived risks and low creditworthiness, businesses in PNG face significant challenges in securing capital from conventional financing sources to initiate or expand e-commerce ventures, particularly SMEs. One solution involves offering grant programs that include training and coaching among other support mechanisms. These programs could be facilitated by the Credit Guarantee Corporation through existing providers like microfinance institutions or the National Development Bank. By nurturing start-ups with specialized financial products and enhancing SME creditworthiness through training and mentoring, broader financial inclusion and sectoral expansion can be achieved. This might ultimately foster innovation, economic growth, and job creation in the digital sector.
<b>Measure 7.1.2</b>  Provide low-interest loans tailored for e-commerce SMEs, including tech start-ups and service providers.	Access to capital is a major hurdle for SMEs in PNG, particularly for those looking to enter or expand in the e-commerce sector. Traditional financing sources often perceive these businesses as high-risk and thus are reluctant to provide loans. Offering low-interest rate loans can help address this issue by making capital more accessible to SMEs. These loans could be facilitated by the Credit Guarantee Corporation through existing financial providers such as microfinance institutions or the National Development Bank. By providing SMEs with affordable financing options, we can drive innovation, economic growth, and job creation in the digital sector, ensuring wider financial inclusion and sectoral expansion.

### Measure 7.1.3

Investigate blended finance instruments from development banks, superfunds and UN agencies to mitigate private sector investment risks in e-commerce.

Private sector investment in e-commerce in PNG is often hindered by high perceived risks and uncertain returns, which limit the growth and expansion of this sector. To address this issue, blended finance instruments can be employed to mitigate these investment risks. Blended finance combines public and private resources to lower the investment risk for private sector participants, thereby encouraging their involvement. International development banks and UN agencies, such as The United Nations Industrial Development Organization (UNIDO), the United Nations Capital Development Fund (UNCDF), can play a crucial role in facilitating these blended finance options. Sponsors should come on board to provide assistance/support. Profiles to be uploaded onto UNIDO's digital investment profiling system (dips). By capitalizing on international blended finance options, PNG can attract broader private sector engagement in e-commerce, fostering a more dynamic and inclusive digital economy.

## SO 7.2: An innovative and conducive business environment for alternative sources of financing for e-commerce ventures is fostered.

### Measure 7.2.1

Work with microfinance institutions to streamline loan application processes.

Microfinance institutions in PNG have traditionally focused on agriculture support, which has limited their reach and impact on other sectors of the economy. This narrow focus means that many potential entrepreneurs in sectors such as e-commerce and technology are unable to access the necessary financial support to start or grow their businesses. To mitigate this issue, expanding microfinance services to include support for innovation and other sectors is essential. This could encourage regional economic diversification, promote e-commerce penetration, and expand the customer base of microfinance institutions.

### Measure 7.2.2

Establish a policy and/or regulatory framework for crowdfunding, opening the way for a novel funding avenue for e-commerce start-ups.

Currently, there is no legal or regulatory framework in PNG that enables crowdfunding. The lack of such framework prevents entrepreneurs and e-commerce start-ups from accessing a potentially valuable source of funding, limiting the financial options available to new businesses and stifling innovation and growth in the e-commerce sector. Embedding crowdfunding within the legal framework can enable a community-backed financing model, diversifying capital sources for budding e-commerce ventures. This will help diversify capital sources and provide more opportunities for entrepreneurs.

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**Measure 7.2.3**

Promote PNG's e-commerce potential through collaboration with ecosystem builders, arranging investor events and pitching competitions, including with venture capital.

Venture capital in PNG holds limited yet increasing importance. Local start-ups often struggle to attract investment due limited visibility and connections with potential investors. There is also a need for improved understanding and preparation in areas such as deal generation and screening, due diligence and valuation, and investment monitoring and exit strategies. Collaboration with ecosystem builders and organizing investor events and pitching competitions can address these challenges. By connecting local start-ups with global venture capital, this initiative will spotlight PNG's e-commerce innovation, thereby attracting international investment and fostering partnerships.

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# 4. Governance

## 4. Governance

In Papua New Guinea's strategic transition towards a comprehensive e-commerce framework, the establishment of a robust governance mechanism is essential. This mechanism should facilitate inter-agency coordination between public sector institutions on matters pertaining to e-commerce development in the country and ensures alignment with the broader national development agenda. A National E-commerce Committee (NEC) will provide this high-level oversight and management. This committee will be tasked with ensuring robust coordination and collaboration between the public, private sectors, and civil society throughout the design and implementation phases of PNG National E-commerce Strategy. This structure is also necessary to ensure a coherent focus on both domestic and cross-border e-commerce; while the National Trade Office is mandated for WTO related e-commerce discussions, there is no institutional lead for domestic e-commerce. The cross-portfolio structure will contribute to bridging this gap.

### National E-commerce Committee - Functions and Management

The National Trade Facilitation Committee's (NTFC) sub-committee on e-commerce - which is currently in a dormant state- is designated to fulfil the role of the NEC. The sub-committee has been assigned the mandate for governing on e-commerce issues, despite its current inactive status. Rather than establishing a new structure, activating and resourcing this existing one is deemed more suitable to avoid redundancy and mitigate funding constraints.

NTFC, known for its oversight of the Trade Facilitation Agreement obligations, is well placed to house NEC. Presided over by the Chief Commissioner of PNG Customs and co-chaired by the Chief Trade Officer of the National Trade Office, NTFC benefits from a comprehensive representation of public sector institutions relevant to trade and trade-facilitation.<sup>28</sup> The efficiency of NEC is directly tied to the resourcing, governance, and operationalization of NTFC.

NEC will comprise of senior representatives from key public sector institutions and will be chaired by NTO Chief Trade Officer (CTO) or his/her alternative (at the Divisional Heads level).<sup>29</sup> Key member institutions will include the following:

1. National Trade Office (NTO)
2. Department of Commerce and Industry (DCI),
3. Department of ICT (DICT),
4. SME Corporation,
5. Bank of PNG,
6. PNG Customs,
7. Internal Revenue Commission (IRC),
8. Post PNG,
9. Ministry of Higher Education (MOHE),
10. Department of National Planning and Monitoring
11. Department of Treasury

Public-private dialogue will be a key priority. Relevant donor partners and private sector representatives (particularly PNG Business Council and PNG Digital ICT Cluster Group) will be invited as observers.

<sup>28</sup> The NTFC consists of 24 public sector institutions that have a bearing on trade and trade facilitation matters.

<sup>29</sup> To ensure strategy efficacy, the committee's membership will comprise of senior officials - such as permanent secretaries or equivalent roles - of the various institutions.



Civil society actors may also have an observer role. Meetings will be conducted at least twice a year, and the committee's proceedings and outcomes will be reported to the Minister for Trade, which will be responsible for updating the cabinet.

The committee will maintain linkages with several existing working groups and active institutions such as the sub-committee on single window, PNG Digital ICT Cluster group, Centre for Excellence in Financial Inclusion (CEFI), PNG MSME Council, PNG Business Council.

### **E-commerce Implementation Unit**

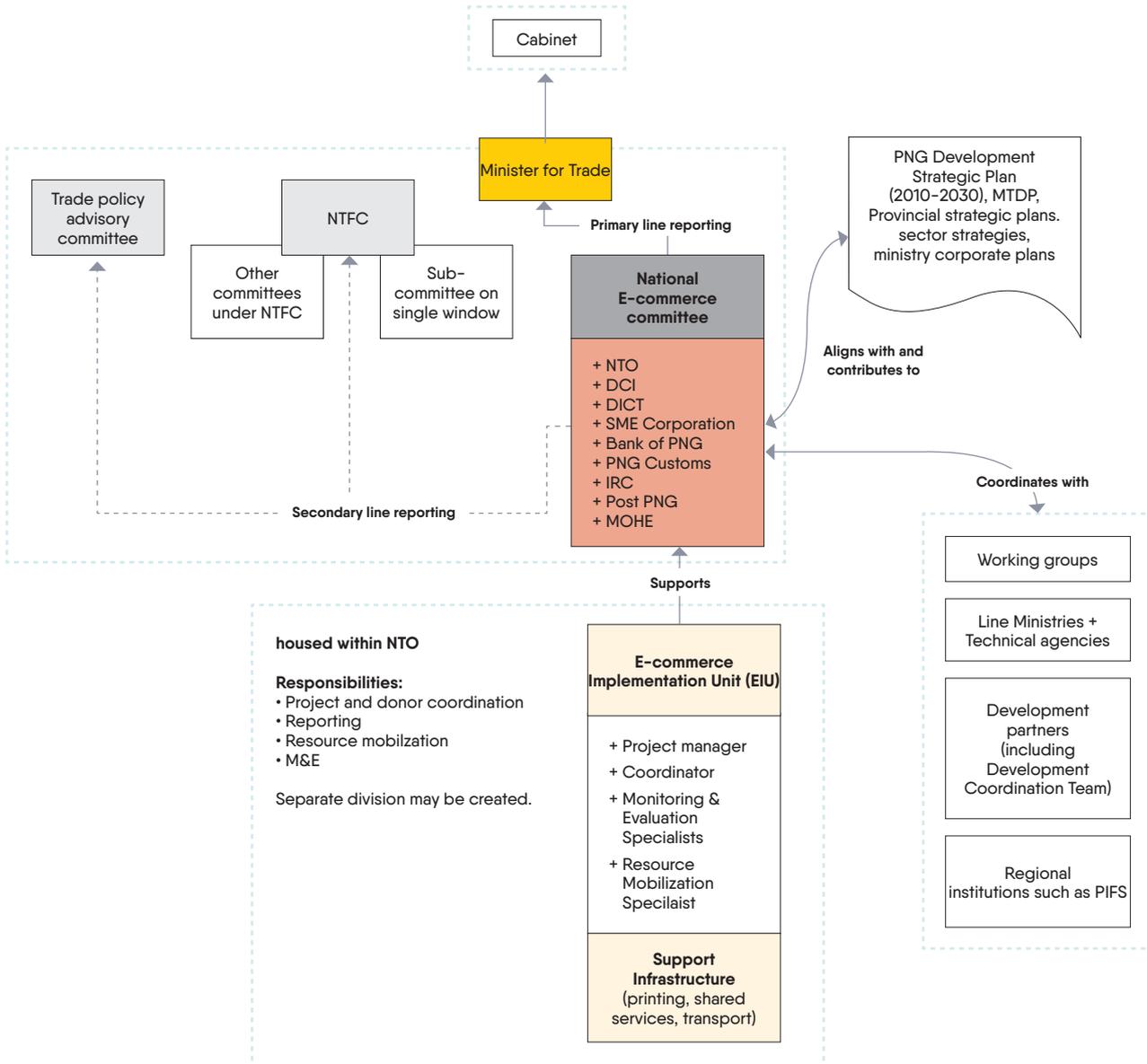
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NEC will be supported by a secretariat, tentatively termed as the E-commerce Implementation Unit (EIU) (see Figure 1: Schematic of proposed governance mechanism). EIU will be housed within NTO, and will comprise of roles including project manager, coordinator, M&E specialist, and resource mobilization specialist. The project manager will head the EIU and manage the other roles.

- The Project Manager leads the EIU ensuring that the Strategy implementation is tracked, targets are met within the specified timelines, agencies are supported in securing budgets for implementation and initiatives are aligned with the Strategy.
- The Coordinator oversees the overall implementation of the Strategy and acts as liaison among stakeholders, facilitating communication and workflow between NEC, relevant bodies, and external partners.
- The Monitoring & Evaluation (M&E) Specialist tracks the Strategy's implementation progress against its targets, assesses impact, and provides data-driven insights for continuous improvement.
- The Resource Mobilization Specialist identifies and secures financial and non-financial resources, fostering partnerships and stakeholder engagement to support Strategy's implementation.

A separate division within NTO may be established to drive e-commerce specific initiatives and house the EIU. Funding for the EIU could be sourced from the national budget, development partner assistance or a combination of both. To ensure the sustained fulfillment of its responsibilities, funding for the first two years will be secured at the outset.

Figure 1: Schematic of proposed governance mechanism.



### Coordination with the Pacific Islands Forum Secretariat

As the regional agency mandated to lead on trade-related matters, PIFS is coordinating implementation of the Pacific Regional E-commerce Strategy and Roadmap (Regional Strategy) and serves as the Secretariat of the Pacific E-commerce Committee. PNG will engage actively with the following PIFS initiatives.

#### Pacific E-commerce Committee

The regional committee, established in 2022 to oversee the implementation of the Regional Strategy, comprises representatives from Forum Island Countries as members, along with representatives from private sector organizations and development partners as observers. PNG participates as a member of this committee. Chaired by the PIFS Secretary-General, the committee is assisted by the PIFS E-commerce Unit for administrative support.

Instructed by the committee, the PIFS E-commerce Unit developed a monitoring and evaluation system to monitor progress on the Regional Strategy’s implementation.<sup>30</sup> PNG could explore the applicability of this system to track the implementation progress of its National Strategy.

30 The infographics produced by the M&E system can be found on the Progress page of the Pacific E-commerce Portal: <https://pacificcommerce.org/progress-overallstrategy/>.

## Pacific E-commerce Portal

To coordinate and support the implementation of the Regional Strategy, PIFS manages the Pacific E-commerce Portal which is an information repository on e-commerce in the Pacific.<sup>31</sup> Through the Portal, PIFS enables Pacific countries to access Pacific e-commerce data, online training material and other resources for negotiators and small businesses (eCove Community), e-commerce reports, strategies, assessments and much more. Working with the Pacific Community, PIFS has established and nurtures the Pacific E-commerce Database, which is a data repository containing over 50 indicators on e-commerce enabling environment which can help Pacific policymakers, such as NTO, with decision-making.<sup>32</sup>

## Regional support products

Following approval of this strategy, PNG could leverage PIFS' regional tools offered to support its implementation. Support includes the PIFS E-commerce Rules Plus program, which provides courses and learning material to Pacific policymakers to equip them to engage in negotiations and legislations on the digital economy;<sup>33</sup> the PIFS E-Biz Plus program, which supports Pacific MSMEs in their transition to selling online;<sup>34</sup> and the eCove Community, which offers Pacific policymakers and businesses an online platform to find e-commerce training resources and interact with their peers. PIFS can also assist Forum Member Countries with build capacity for monitoring and evaluating their national strategies implementation and running their national e-commerce committees.

## Coordination with other international organizations and development partners

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NTO will be liaising directly on behalf of the PNG E-Commerce Committee with other partners apart from PIFS to enhance PNG's participation and to take full advantage of opportunities that will support the implementation of this policy. A list of development partners active on e-commerce in the Pacific can be found on the Program page of the Pacific E-commerce Portal.<sup>35</sup>

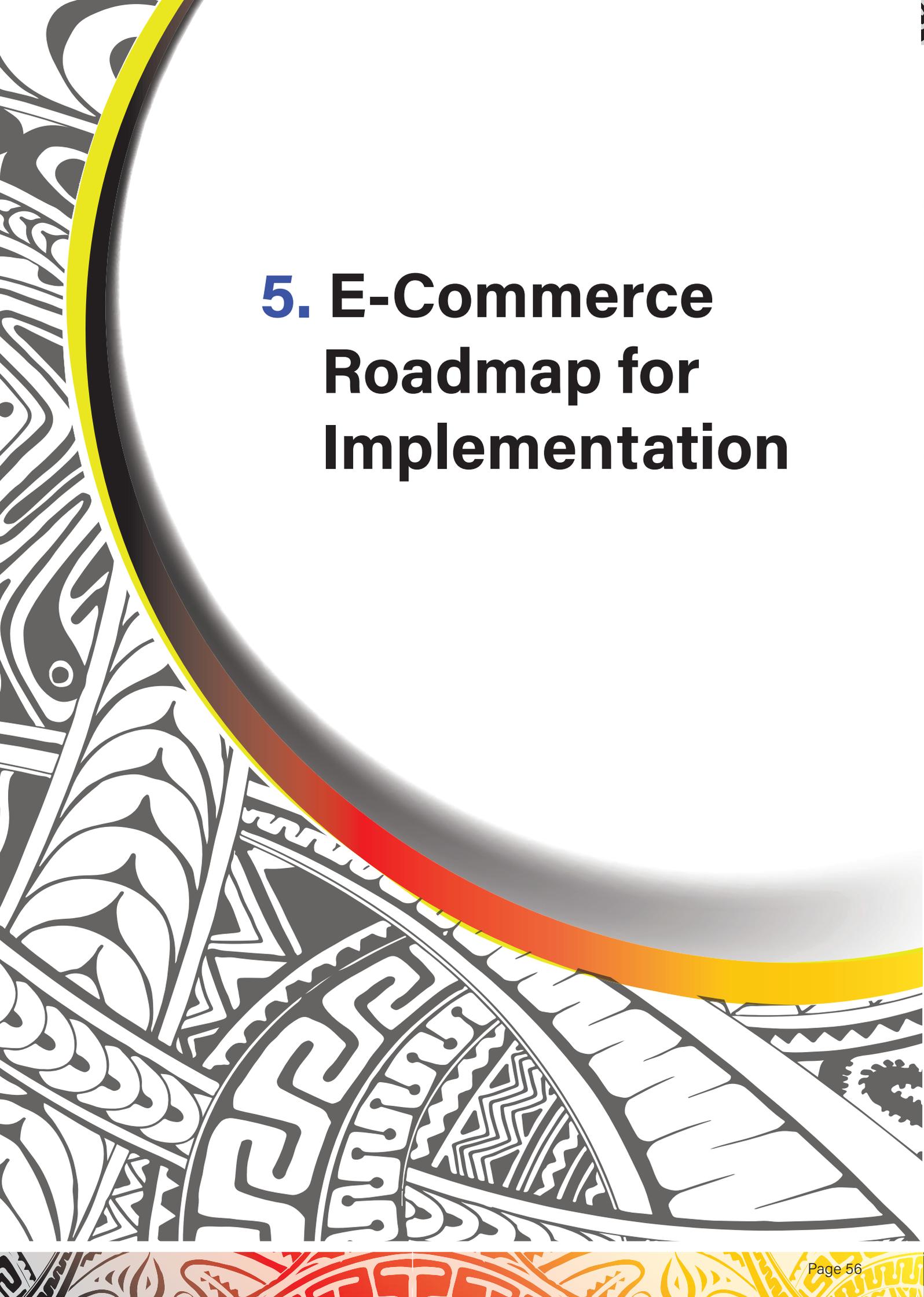
31 <https://pacificcommerce.org/>.

32 <https://pacificcommerce.org/ecommerce-statistics/>.

33 <https://pacificcommerce.org/pei-program/pifs-e-commerce-rules-plus/>.

34 <https://pacificcommerce.org/pei-program/pifs-e-biz-plus/>.

35 <https://pacificcommerce.org/programs/>.



# **5. E-Commerce Roadmap for Implementation**

## 5. E-Commerce Roadmap for Implementation

The Strategy will be implemented through a series of Measures related to the Priority Areas. The table below details the timeline, tentative costing, and roles and responsibilities for the implementation of the Strategy.

### Priority Area 1: E-commerce Readiness and Strategy Formulation

No.	Measure	Budget (in PGK)	Main Implementing Agency(ies) <sup>36</sup>	Indicator	Baseline 2025	Target 2030
<b>SO 1.1: E-commerce tenets are embedded into the national development agenda.</b>						
1.1.1	Ensure e-commerce is embedded in future national development policies as a key engine of growth and economic diversification.	N/A	NTO*, Treasury, Department of National Planning and Monitoring, Department of ICT, Bank of PNG	Number of Government policies with a reference to e-commerce, including statistics and targets (where relevant)	To be determined by NTO	At least two Government policies developed or revised/updated since 2025
1.1.2	Strengthen coordination on digital identity between agencies (PNG CIR, Bank of PNG, Department of ICT).	N/A	Department of ICT*, Bank of PNG, PNG CIR, NTO	Establishment of a Digital Identity Reference Group (or similar body)	N/A	Digital Identity Reference Group (or similar body) established

1.1.3	Improve national statistics for measuring e-commerce transactions and the strength of the digital economy.	100,000	NSO*, Treasury, Bank of PNG, PNG Business Council	Statistics describing PNG e-commerce sector and transactions are included in PNG Budget and Bank of PNG annual reporting	No separate reporting-e-commerce sector or transactions in national statistics	Basic reporting on e-commerce sector (e.g. number of participants, enabling environment) and transactions (volume and value) made available in national statistics
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**SO 1.2: Ownership and coordination mechanisms for e-commerce strategy implementation are established, leveraging current national and regional arrangements.**

1.2.1	Revitalise the sub-committee on e-commerce to serve as the National E-commerce Committee and focus on leading PNG National E-commerce strategy implementation and stewarding long term growth of e-commerce in PNG.	N/A	NTO, Department of ICT*, other member departments, Bank of PNG, NTO	Status of NEC	NEC is dormant	At least two meetings annually
1.2.1	The National Trade Office becomes a member of the Government's ICT Steering Committee.	N/A	Department of ICT*, NTO	NTO is formalised as a member of the ICT Steering Committee. For example, the TOR of the committee is amended to add NTO	NTO not yet a member	NTO is a member

**SO 1.3: Public-Private Dialogue on digital economy matters, including e-commerce and innovation, is strengthened.**

1.3.1	Revitalise the Digital Commerce Association to serve as the national platform for public-private dialogue on e-commerce.	N/A	Bank of PNG*, other members	Number of meetings of Digital Commerce Association per year	Zero	At least three meetings per year
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1.3.2	Establish regular consultation forums between the National Trade Office, the Department of ICT and the ICT Clusters formed by the industry, and jointly host an annual conference to raise the profile of ICT careers and business.	250,000	NTO*, Department of ICT, ICT Clusters, NICTA	Number of regular consultation forums and Annual Conference	No regular consultations forums  No Annual Conference	At least three regular consultations per year  Holding of an Annual Conference
1.3.3	Foster meaningful engagement with civil society to promote inclusive e-commerce and identify and address barriers to entry for people living with disability. This may be through the Digital Commerce Association, ICT Cluster consultations, National E-commerce Committee or another platform.	25,000	NTO*, Bank of PNG, Department of ICT	Participation of civil society groups to national e-commerce platforms (the Digital Commerce Association, ICT Cluster consultations, NEC)	No formalised participation in meetings by civil society groups	At least two meetings with participation by civil society groups per year by end 2030

**SO 1.4: Barriers to entry for new and innovative providers within the e-commerce ecosystem are lowered.**

1.4.1	The National E-commerce Committee to commission a baseline report identifying barriers to entry in the e-commerce sector and to annually monitor the progress against it.	150,000	NTO*, NEC	Report on barriers to entry into the e-commerce sector	No report	Report completed and widely circulated; at least 50% of measures proposed in the report are implemented or under implementation
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1.4.2	Broaden the regulatory sandbox to provide support for innovation in e-commerce beyond financial services.	100,000	Bank of PNG*, NTO, Digital Commerce Association	Regulatory Sandbox extends to projects outside of financial services	No projects beyond financial services	At least 3 projects outside of financial services are facilitated through the Regulatory Sandbox
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## Priority Area 2: ICT Infrastructure and Services

No.	Measure	Budget (in PGK)	Main Implementing Agency(ies) <sup>37</sup>	Indicator	Baseline 2025	Target 2030
<b>SO 2.1: Competitive and affordable internet data pricing is realized, while ensuring quality of service.</b>						
2.1.1	Review the requirement for the National Information and Communications Technology Authority (NICTA) to license all internet providers, particularly those operating extra-territorially.	150,000	NICTA*, NTO, Department of ICT	Report status	To be undertaken	Report completed, disseminated, and actions recommended are implemented or substantially implemented
2.1.2	Implement measures to improve competition and remote area services including a regulatory framework that supports tower sharing and mobile number portability.	200,000	Department of ICT*, NICTA, NTO, Independent Consumer and Competition Commission (ICCC), PNG Business Council	Tower sharing and number portability (regulatory status)	Regulatory framework does not readily support tower sharing and number portability	Regulatory framework readily supporting tower sharing and number portability

<sup>37</sup> Asterisk (\*) denotes the lead agency.

**SO 2.2: Innovative technologies that support connectivity and mitigate lack of reliable power are introduced in the market.**

2.2.1	Revise the <i>Electricity Industry Act 2002</i> to remove the need for a license for businesses and citizens to generate their own power to encourage installation of renewable energy solutions and move off-grid to improve reliability and cost of power.	N/A	National Energy Authority*, NTO	Status of the revision of the <i>Electricity Industry Act</i>	<i>Electricity Industry Act</i> not revised	<i>Electricity Industry Act</i> revised and approved by Parliament
2.2.2	Work with development partners including International Finance Corporation (IFC), the World Bank and the Asian Development Bank (ADB) to accelerate pilot projects for small-scale community power generation and transmission.	N/A	NTO*, DPE	Number of small-scale community power generation and transmission projects	To be determined	At least a doubling of projects from baseline

**SO 2.3: E-government services are actively contributing to increased efficiency of Government-to-Business (G2B) and Government-to-Citizen (G2C) services and increased trust in digital solutions.**

2.3.1	Support the implementation of the <i>Digital Government Act</i> and the Digital Plan 2023–2027 to fast-track digital government services.	N/A	NTO*, Department of ICT, Bank of PNG, other Government entities	Brief on alignment between <i>Digital Government Act</i> , Digital Plan and NTO activities under the E-commerce Strategy and Roadmap	Brief not started	Brief completed and circulated widely, including to members of ICT Steering Committee
2.3.2	Identify affordable ways to provide digital services to Government, including using diversified (including offshore) and efficient third-party transaction services.	50,000	Bank of PNG (*), Department of Finance, Department of ICT, NICTA, NTO	Review of government procurement rules to ensure a broader set of potential service providers for Government digital services	Review not started	Review of procurement rules completed, and recommendations implemented or substantially implemented

### Priority Area 3: Trade Logistics and Trade Facilitation

No.	Measure	Budget (in PGK)	Main Implementing Agency(ies) <sup>38</sup>	Indicator	Baseline 2025	Target 2030
<b>SO 3.1: Trade procedures relevant to cross-border e-commerce are digitized and harmonized across PNG.</b>						
3.1.1	Expand the functionality and integration of the ASYCUDA World system across all border crossings.	150,000 <sup>39</sup>	PNG Customs*, PNG Ports	Number of border posts across PNG at which ASYCUDA World is functioning	To be determined	ASYCUDA World to be functioning at more than 75% of all border posts
3.1.2	Establish a comprehensive electronic single window system to serve as a one-stop digital platform for all trade facilitation services.	500,000	PNG Customs*	Percentage of customs forms digitalized	Current level of digitalization (to be determined through baseline report from PNG Customs)	TBD until the report is produced
3.1.3	Facilitate accession to and/or ratification of the United Nation Economic and Social Commission for Asia and the Pacific (UNESCAP) Framework Agreement on Cross-Border Paperless Trade in Asia and Pacific.	50,000	NTO*	Status of accession to the United Nations Treaty on Paperless Trade	Not acceded	Successfully acceded

<sup>38</sup> Asterisk (\*) denotes the lead agency.

<sup>39</sup> Budget is to support establishment of Baseline.

**SO 3.2: Logistics systems relevant to e-commerce are strengthened and cost-effective.**

3.2.1	Establish dedicated e-commerce logistics hubs in key urban centres (POM and LAE) to facilitate efficient ordering processing and distribution.	N/A	NTO*, DCI, SME Corporation, KCH, Post PNG, DICT, PNG Digital ICT Cluster	Establishment of e-commerce logistics hubs	No e-commerce logistics hubs	At least four e-commerce logistics hubs are established, supported and operational, in Port Moresby, Lae, Hagen, & Rabaul
3.2.2	Invest in technology to improve delivery systems, including geo-coding for accurate addressing and customer service enhancements.	500,000	NTO*, DCI, SME Corporation, KCH, Post PNG, DICT, PNG Digital ICT Cluster	Funds invested in PNG-focused technologically driven delivery systems, including geo-coding for accurate addressing in start-ups or new initiatives	No funds invested	At least PGK 500,000 is invested
3.2.3	Develop and implement an integrated security strategy for cargo transport, encompassing real-time monitoring systems, secure cargo protocols, and dedicated enforcement units.	100,000	PNG Customs*, Logistics Providers	Development and implementation of an integrated security strategy for cargo	Strategy not yet undertaken	Strategy completed and measures implemented or substantially implemented

**SO 3.3: Postal readiness for e-commerce has improved.**

3.3.1	Upgrade Post PNG's capabilities to deliver e-commerce services to international standards as per the Universal Postal Union's Operational Readiness for E-commerce (ORE) guidelines.	TBC	Post PNG*	Development of a strategy for Post PNG's capabilities readiness to deliver e-commerce services	Strategy not yet undertaken	Strategy completed and measures implemented as per UPU ORE
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3.3.2	Adopt home addressing systems incorporating UPU standard S42 or alternative geocode systems to facilitate last-mile delivery.	1,500,000	Post PNG*, UPU	Baseline Assessment determining (1) the percentage of the 10 largest cities in PNG (by population) having mail delivered at home, either using a physical addressing in line with UPU Standard S42 or alternative geocode system and (2) the percent of population of top 10 cities in PNG (by population) having mail delivered at home	Baseline Assessment not conducted yet	Completion of Baseline Assessment (with the measure to be adopted following baseline assessment)
3.3.3	Collaborate with e-commerce merchants to expand existing city-based facilities into an extensive network of Pickup/Drop-off (PUDO) points, leveraging GPS for precise mapping.	1,500,000	Post PNG*, e-commerce merchants and entrepreneurs SME Corporation, ICT Cluster	Number of operational Pickup/Drop-off points	Current number of PUDO points (To be determined by a study)	Double the number of PUDO points from baseline. (No change as per comments from NTO." For now, let's agree that the PUDO target is well within range"

## Priority Area 4: Legal and Regulatory Framework

No.	Measure	Budget (in PGK)	Main Implementing Agency(ies) <sup>40</sup>	Indicator	Baseline 2025	Target 2030
<b>SO 4.1: Review, develop and adopt an e-commerce regulatory framework aligned to international standards.</b>						
4.1.1	Close the Functional Gaps in the <i>Electronic Transactions Act 2021</i> (ETA).	250,000	NTO*, Department of Justice and Attorney General (DJAG), Banks and Financial Institutions, Private Sector stakeholders including law firms	Number of functional gaps addressed (determined by a rapid review) Number of documents excluded under the ETA	Number of functional gaps (TBD from the baseline review) Number of documents requiring physical signature (from the baseline review)	All functional gaps identified are addressed All documents identified do not require physical signature

<sup>40</sup> Asterisk (\*) denotes the lead agency.

4.1.2	Modernize regulatory framework for Personal Data Protection, by enacting laws in line with international standards, and adopt the <i>Financial Consumer Protection Bill 2023</i> .	300,000	DJAG*, DICT, NICTA	<p>Status of legislation regulating Personal Data Protection, aligned to international standards</p> <p>Status of laws that govern personal data protection in the context of financial services (aligned with provisions in the <i>Financial Consumer Protection Bill 2023</i>)</p>	<p>No legislation specifically for Personal Data Protection, aligned to international standards</p> <p>No laws that govern personal data protection in the context of financial services</p>	<p>Parliament's enactment of legislation for Personal Data Protection, aligned to international standards</p> <p>Adoption of laws that govern personal data protection in the context of financial services</p>
4.1.3	Strengthen the protection of consumers in online markets through a new regulatory regime.	300,000	DJAG*, NICTA, ICC	Status of legislation that strengthen protection of online consumers, in line with international standards <sup>41</sup>	<p>No specific legislation for online consumer protection</p> <p>No overarching Consumer Protection law</p>	Legislation for consumer protection in line with international standards, including for online consumers, approved by Parliament

<sup>41</sup> The preference remains for an overall consumer protection law (including application to e-commerce) to be adopted as a priority.

4.1.4	Strengthen the implementation of the <i>Cybercrime Code Act 2016 (CCA)</i> , by facilitating and supporting PNG's accession to the <i>Budapest Convention on Cybercrime</i> ; and review the CCA's alignment with the Convention and similar international standards.	100,000	DJAG*, RPNGC, DICT	Accession to the Budapest Convention on Cybercrime  Alignment of CCA with Budapest Convention	Pending process for accession to the Budapest Convention on Cybercrime  Level of alignment between CCA and Budapest Convention not yet assessed	Parliamentary endorsement of accession to the Budapest Convention  Amendments to the CCA enacted to fill gaps identified in a review between the CCA and the Budapest Convention
<b>SO 4.2: Domestic agency capacity on e-commerce matters, and coordination and cooperation with international organizations, are improved</b>						
4.2.1	Complete a Rapid Needs Assessment of the National Trade Office that covers (i) an evaluation of governing legislation, (ii) human resource gaps, and (iii) training and access to technical resources.	300,000	NTO*	Status of Rapid Needs Assessment  Extent to which Rapid Needs Assessment has been implemented	No Rapid Needs Assessment  No Rapid Needs Assessment recommendations have been implemented	Completion of Rapid Needs Assessment  All or substantially all recommendations of the Rapid Needs Assessment have been implemented

4.2.2	Establish and or strengthen regional and international coordination between relevant PNG, regional and international stakeholders.	300,000	NTO*, DJAG, ICCC, NICTA, DICT, BPNG, RPNGC, PNGIPO, IRC, PNG Customs	Stock take of existing institutional links and technical cooperation, to identify priorities for strengthening  Extent to which priorities identified have been implemented	No stock take undertaken  No stock take priorities have been implemented	Completion of a stock take  All or substantially all priorities identified in the stock take have been implemented
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**SO 4.3: Awareness of e-commerce related laws and regulations among consumers, merchants, and other stakeholder groups on current and upcoming legislation is raised.**

4.3.1	The National Trade Office to lead promotional campaigns to create awareness on regulatory framework for e-commerce for consumer and other stakeholder groups.	200,000	NTO*, ICCC	Number of social media campaigns on the e-commerce regulatory framework in PNG	No social media or similar campaigns on the e-commerce regulatory framework	At least two campaigns (through social media or otherwise) raising awareness of the regulatory framework for e-commerce to raise business and consumer confidence
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## Priority Area 5: Electronic Payment Solutions

No.	Measure	Budget (in PGK)	Main Implementing Agency(ies) <sup>42</sup>	Indicator	Baseline 2025	Target 2030
<b>SO 5.1: Access to domestic and cross-border electronic payment options is expanded.</b>						
5.1.1	Increase participation of third-party Payment Service Providers (PSPs), such as PayPal and Wise, in the PNG market, and remove bottlenecks that are limiting MSMEs adoption of cross-border payment solutions.	N/A	NTO*, DICT, BPNG, Treasury, Commercial Banks	Number of third-party PSPs operating in PNG	Zero	Eight
5.1.2	Encourage the development of APIs for existing payment solutions offered by commercial banks and mobile wallets. Then, create plugins that enable the connection of various local payment solutions to websites.	500,000	DICT*, BPNG, National Payments Council	Number of APIs developed and in use by SMEs to connect to commercial banks	One	Six
<b>SO 5.2: The digital ID and authentication framework is developed in support of the national payment systems framework.</b>						
5.2.1	Accelerate focus on developing a digital Id and authentication framework and reduce fragmentation among the various ongoing national initiatives related to identification.	500,000	BPNG, DICT*, DataCo, NID, PNG National Identification Project (PNG NID), regulated financial institutions	Number of banks/institutions that accept Digital ID to meet KYC requirements <sup>43</sup>  Establishment of a national framework for digital identity and e-KYC	Zero  Zero	All commercial banks and at least four microfinance banks accept digital ID to meet KYC requirements  A national framework for e-identity and e-KYC is in place

<sup>42</sup> Asterisk (\*) denotes the lead agency.

<sup>43</sup> FASU has recently issued guidance on use of e-identity for KYC.

5.2.2	Simplify/clarify Know-Your-Customer requirements based on type of payment options.		BPNG*	Level of specificity of KYC requirements based on types of payment services	Uniform KYC requirements for all payment services	KYC requirements are specific to type of payment services
5.2.3	Introduce mobile number portability to boost telco competition, enhance mobile banking access, drive financial inclusion in underserved areas, stimulate e-commerce, and support AML/CTF compliance.	N/A	NICTA*, BPNG, DataCo,	Status of mobile number portability in Papua New Guinea	Mobile number portability is not in place	Mobile number portability is allowed and implemented by mobile network operators

**SO 5.3: The regulatory framework for digital payments is enhanced leading to increased interoperability and innovation.**

5.3.1	Ease the regulatory requirements for fintech start-ups to ensure fair competition with larger, more established financial service providers.	N/A	BPNG*	Number of non-bank regulated financial institutions licensed and operating	Zero	More than one new non-bank regulated financial institution is licensed and operating
5.3.2	Review licensing of operators involved in electronic payment services and implement corresponding recommendations.	150,000	BPNG*, NTO	Status of independent review of licensing for operators involved in electronic payments services	Not started	Review is completed and disseminated

5.3.3	Revise scope and standard operating procedures related to the Regulatory Sandbox to support a broader range of fintech solutions that improve financial inclusion and e-commerce.	150,000	BPNG*	Status of independent review of the Regulatory Sandbox Implementation of recommendations	Not started  Not implemented	Independent review is completed and disseminated  All or substantially all recommendations are implemented
5.3.4	Explore reducing the Know-Your-Customer requirements for mobile money users to improve uptake for these services.	150,000	BPNG*	Status of review of KYC minimum requirements	Not started	Review is completed and disseminated
5.3.5	Introduce sliding scale licensing fee structure and financial competency requirements of the Banks and Financial Institutions Act 2000 to make the landscape more conducive to the entry of smaller providers of online payments systems.	150,000	BPNG*	Status of review of the Act and recommendations made for a revised and updated Act, including table of fees <sup>44</sup>  Act updated as per recommendations from review	Not started  No	Review completed  Yes

#### SO 5.4: The national digital financial inclusion and cashless payments agenda is accelerated.

5.4.1	Conduct a study to review use cases and options for developing a cashless ecosystem in PNG's context, drawing on the experiences of countries in the broader Pacific and South-East Asia Region. The study would serve as a guide for BPNG and other stakeholders.	500,000	BPNG*, CEFI, NTO	Status of study on Options and Use-Cases for cashless ecosystem in PNG	Not started	Study completed and results published
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5.4.2	Strengthen the National Payments Council to promote financial inclusion, by ensuring diversity and inclusivity themes are integrated in the governance mechanism and committee composition, and continuous monitoring of the payment system performance.	N/A	BPNG*, National Payment Council, NTO	National Payments Council allows participation of non-bank financial service providers, including those not using REPS or KATS	National Payment Council membership limited to a specific group of regulated financial institutions	National Payment Council is open to all regulated financial institutions, including those not using REPS or KATS
5.4.3	Strengthen and expand agent networks to serve as key pillars for e-commerce and financial inclusion in rural areas.	600,000	BPNG*, regulated financial institutions	Number of agents that are engaged as E-commerce nodes (pick-up/drop-off locations)	Zero	TBD
5.4.4	Add Post PNG SMK and other mobile providers in BPNG's mobile money and mobile financial services data.	N/A	BPNG*	Status of Post PNG's SMK inclusion in BPNG reporting	Post PNG SMK is not included in data collection and reporting	Post PNG SMK is included in data collection and reporting

**SO 5.5: Diverse partnerships are fostered within the electronic payments space.**

5.5.1	Create national and regional digital innovation centres with backing from global financial institutions and e-commerce companies, including their technology providers (such as FinTech, Digital ID, Software as a Service, Cloud Computing, and Data Hosting). This measure will also explore alignment with the SME parks that are planned to be established in rural areas by the SME Corporation.	20,000,000 over four years for inception, pilot and establishment, with 5,000,000 per year after that for 3-5 centres	NTO*, DNPM, DICT, BPNG CEFI, NICTA, DataCo	Establishment of digital innovation centres	Zero	At least two digital centres are established, supported and operational
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5.5.2	Launch promotional campaigns on digital payments.	150,000	BPNG*, NTO, NICTA, Centre for Excellence in Financial Inclusion (CEFI)	Number of awareness (social media) campaigns on digital payments	No awareness campaigns on digital payments	At least one campaign (through social media or otherwise) raising awareness of digital payments
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### Priority Area 6: E-commerce Skill Development

No.	Measure	Budget (in PGK)	Main Implementing Agency(ies) <sup>45</sup>	Indicator	Baseline 2025	Target 2030
<b>SO 6.1: Skills-mismatch between academia and industry (on e-commerce skills) is reduced.</b>						
6.1.1	Upgrade primary and secondary school curricula and technical resources at the schools' levels to increase students' digital readiness upon graduation.	200,000	Dept Education*, DHERST, Science & Technology Secretariat, NICTA, PNG Digital ICT Cluster, Chamber of Commerce, UNPNG, Colleges and Universities	Status of strategy to incorporate digital readiness into the primary and secondary school curricula	Not started	Strategy is adopted by Dept of Education, and implementation has commenced

<sup>45</sup> Asterisk (\*) denotes the lead agency.

6.1.2	Develop and enhance e-commerce centric curricula in tertiary institutions, combining IT, management, and entrepreneurship.	400,000	DHERST*, Dept Education, Digital ICT Cluster, Chamber of Commerce	Status of strategy to develop and offer e-commerce related programs (including degree programs) at higher education institutions in PNG  Strategy implementation	Not started  No higher education institutions are implementing the Strategy	Strategy is adopted by DHERST  Implementation of the Strategy by at least 2 higher education institutions in PNG has commenced
6.1.3	Foster a partnership between the government, academia and the nascent software engineering industry to collaborate on the development of software engineering skills.	500,000	NTO*, Dept Education, DHERST, Science & Technology Secretariat, PNG Digital ICT Cluster, Teachers Representatives, Student Representatives	Status of a PPPD platform	No platform	PPPD platform exists and meets at least twice annually

**SO 6.2: The national innovation and/or start-up ecosystem to strengthen tech start-ups and e-commerce business ventures is enhanced.**

6.2.1	Strengthen national ICT incubators (such as DICT and NICTA UAS program, University of Technology) and CEFIs (FinTech Incubator) to support e-commerce businesses, partnering with digital business clusters and accelerators to establish a national ecosystem.	3,000,000	BPNG, CEFI*, DICT*, NICTA, Dept Education, DHERST, Science & Technology Secretariat, Digital ICT Cluster, Chamber of Commerce	Increase in intake and graduation from National ICT incubators	2025 intake as baseline  2025 graduation rate as baseline	Increase annual intake by 20% year-on-year  Increase annual graduation by 20% year-on-year
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6.2.2	Partner with the PIFS E-Biz Plus program or similar initiatives to nurture the SMEs ecosystem.	300,000	NTO*	Development and dissemination of PIFS E-commerce Business Toolkits for PNG  Number of MSEMs benefitting from training, mentoring and coaching schemes; and small grants scheme	No PIFS E-commerce Business Toolkits yet developed  Zero	At least four sectoral PIFS E-commerce Business Toolkits are developed and disseminated  At least 20 MSME beneficiaries supported by PIFS-related mentoring schemes and small grants scheme
<b>SO 6.3: Digital literacy and digital upskilling are enhanced for all.</b>						
6.3.1	Assess skills gaps among vulnerable groups, with a focus on rural/remote populations and women/girls. The study should set targets for addressing gaps identified.	200,000	NTO*, DICT, NICTA, Dept Education, DHERST, Science & Technology, BPNG, CEFI, Private Sector Representatives	Status of study on digital skills and digital literacy gaps among rural/remote populations and women/girls  Targets to closing digital skills/digital literacy gaps set among targeted groups	Not started  No targets yet established	Study undertaken and results published  Targets for closing digital skills/digital literacy gaps set among targeted groups

## Priority Area 7: Access to Finance for E-commerce

No.	Measure	Budget (in PGK)	Main Implementing Agency(ies) <sup>46</sup>	Indicator	Baseline 2025	Target 2030
<b>SO 7.1: Access to risk sharing facilities and blended finance mechanisms for e-commerce operations has improved.</b>						
7.1.1	Launch a start-up grant program and provide low-interest loans tailored for e-commerce SMEs, including tech start-ups and service providers. There must be conditions and criteria set in place prior to grant disbursement. The grant process has to be made transparent.	2,000,000	NDB*, Commercial Banks, BPNG, Credit Guarantee Corporation	Number of tech start-ups and e-commerce MSMEs that receive MSME grants and loans from a national start-up grant program	Zero	A minimum of 25 start-ups supported until end 2030
7.1.2	Provide low-interest loans tailored for e-commerce SMEs, including tech start-ups and service providers.	N/A	NDB*, Commercial Banks	Number of banks offering low-interest loans for e-commerce and start-ups	Zero	At least three commercial banks provide low-interest loans for e-commerce and start-ups
7.1.3	Investigate blended finance instruments from development banks, superfunds and UN agencies to mitigate private sector investment risks in e-commerce.	50,000	BPNG*, NTO, DICT, CEFI, SME Corporation	Status of study on current volume/ value of blended finance for e-commerce projects in PNG	Zero	Study on volume/ value of blended finance for e-commerce projects in PNG is completed and disseminated

<sup>46</sup> Asterisk (\*) denotes the lead agency.

**SO 7.2: An innovative and conducive business environment for alternative sources of financing for e-commerce ventures is fostered.**

7.2.1	Work with microfinance institutions to streamline loan application processes.	1,400,000	BPNG*, NTO, DICT, CEFI, SME Corporation, Digital ICT Cluster	Number of microfinance institutions that have received loan application streamlining support	Zero	At least five microfinance institutions in PNG have received support/training to streamline loan application processes
7.2.2	Establish a policy and/or regulatory framework for crowdfunding, opening the way for a novel funding avenue for e-commerce start-ups.	TBC	BPNG*, DJAG NTO, DICT, CEFI, SME Corporation, Securities Commission, PNGX	Status of crowdfunding regulatory framework	No policy or regulatory framework exists	Policy or law to open the way for crowdfunding in PNG is in force
7.2.3	Highlight PNG's e-commerce potential through collaboration with ecosystem builders, arranging investor events and pitching competitions, including with venture capital.	1,400,000	NTO*, BPNG, DICT, CEFI, SME Corporation, PNG Business Council PNG Digital ICT Cluster	Number of start-up and angel investor events.  Number of Venture Capital investors involved	Zero  Zero	Once annually, for a total of 5 by 2030  At least 10% of investors at investor events are Venture Capital firms/ individuals

Ministry of International Trade and Investment



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