DIGITAL CONNECTIVITY IN PACIFIC ISLAND COUNTRIES – ARE WE CONNECTED?

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Outline

1. Access
2. Uptake
3. Challenges
4. Efforts aimed at ubiquity



Photo: Digicel top-up seller, Buka, Autonomous Region of Bougainville. Source: A H A Watson.

Traditional communic-ation techniques



Photo: Giragir Mahana beating the biggest of his three garamuts. Source: A H A Watson.

In some locations in the Pacific, traditional communication techniques continue to be used daily, such as the use of slit-drums to convey messages to surrounding villages, individual family members and specific clans on Karkar Island in Papua New Guinea (Watson, 2011, pp. 98-101; Watson & Duffield, 2016, pp. 276-77).

» Reference: Watson, A. H. A. (2011). The mobile phone: The new communication drum of Papua New Guinea [Unpublished thesis]. Queensland University of Technology.

» Reference: Watson, A. H. A. & Duffield, L. R. (2016). From garamut to mobile phone: Communication change in rural Papua New Guinea. *Mobile Media and Communication*, 4(2), 270-87. doi.org/10.1177/2050157915622658

Access

ACTIVITY

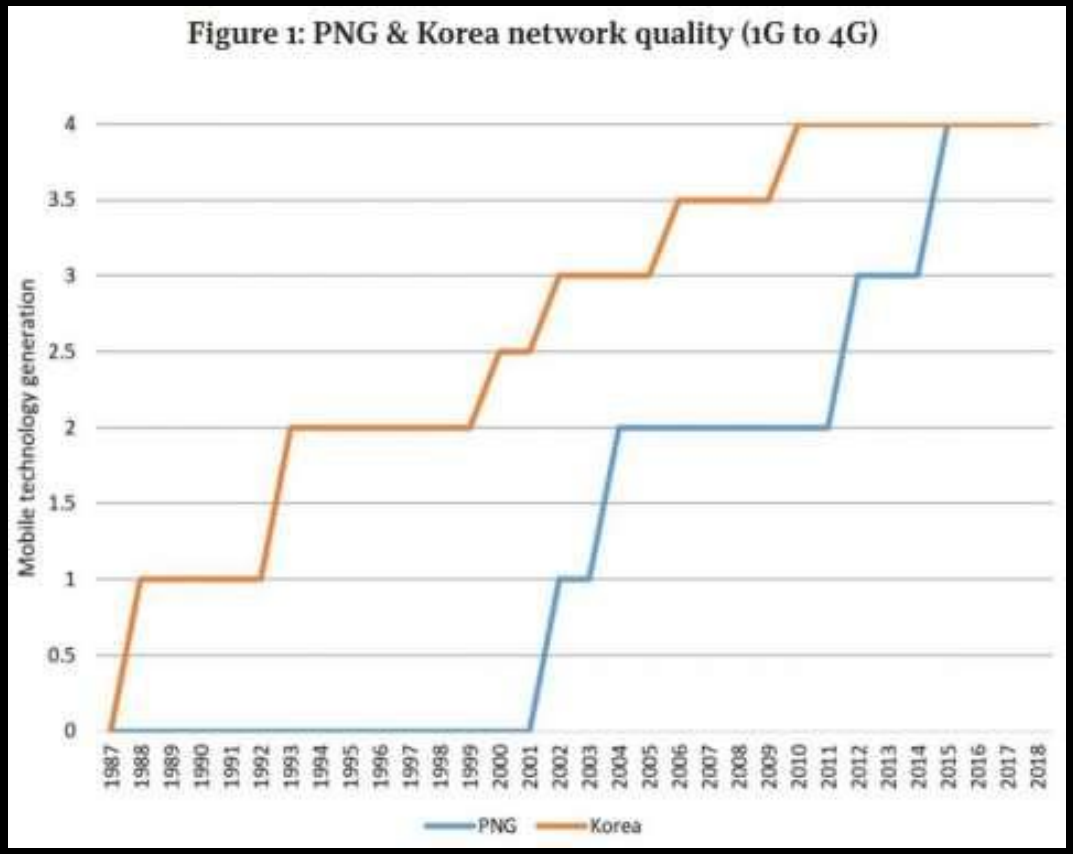
1. Write down the year you first had a mobile telephone.
2. What year did Digicel first begin operations in the Pacific?
3. What year did mobile network coverage extend to the rural areas where most people live in Papua New Guinea?
4. What year did Digicel first begin operations in Nauru?

Access

In the Pacific region, access came late.

Access

In the Pacific region, access came late.



Source: Watson, A. H. A., & Park, K. R. (2019, 13 August). The digital divide between and within countries. https://devpolicy.org/the-digital-divide-between-and-within-countries-20190813/

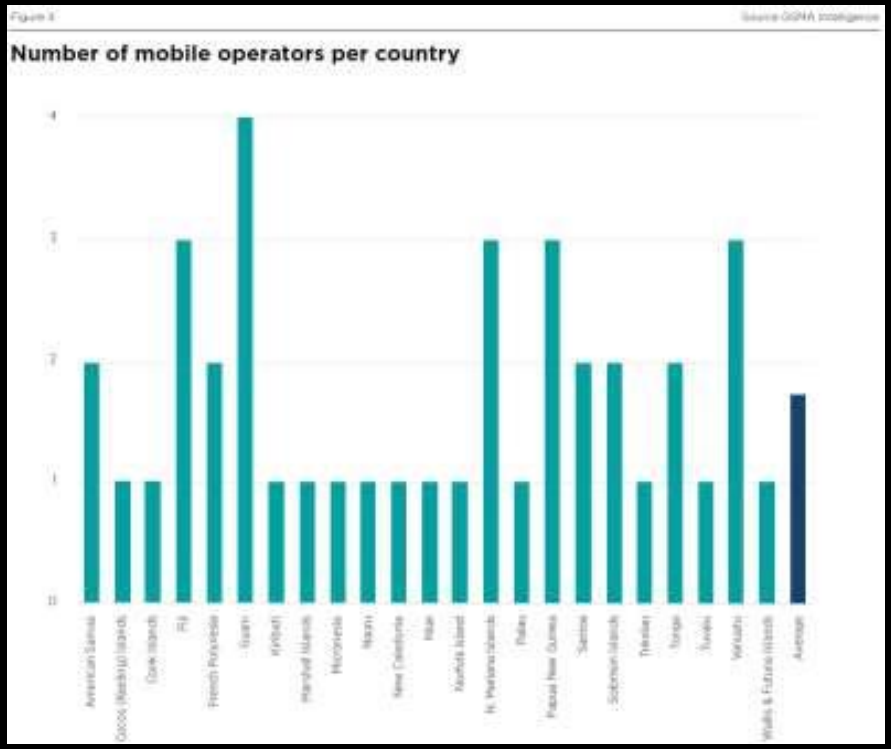
Access

Improvements in terms of access were catalysed by the introduction of competition. For instance, in Samoa (Meese & Chan Mow, 2016) and Papua New Guinea (Watson, 2011, pp. 46-52; see also Watson & Sakai, 2024).

- Reference: Meese, J., & Chan Mow, I. (2016). The regulatory jewel of the South Pacific: Samoa's decade of telecommunications reform. Mobile Media & Communication, 4(3), 295-309. doi:10.1177/2050157916629707
- Reference: Watson, A. H. A. (2011). The mobile phone: The new communication drum of Papua New Guinea [Unpublished thesis]. Queensland University of Technology.
- Reference: Watson, A. H. A., & Sakai, M. (2024, 20 March). Mobile internet prices falling in Papua New Guinea. https://devpolicy.org/mobile-internet-prices-falling-in-papua-new-guinea-20240320/

Access

However, there are still numerous countries with monopolies.



Source: GSMA (2019). The mobile economy: Pacific Islands. London, United Kingdom: https://www.gsma.com/solutions-and-impact/connectivity-for-good/mobile-economy/wp-content/uploads/2020/03/GSMA_MobileEconomy2020_Pacific_Islands.pdf

Access

It remains the case that “access to, and uptake of, telecommunications varies between Pacific Island nations” (Watson & Chan Mow, 2023, p. 1).

» Reference: Watson, A. H. A., & Chan Mow, I. (2023). Telecommunications in the Pacific Islands region. Canberra, Australia: https://nsc.crawford.anu.edu.au/publication/21532/telecommunications-pacific-islands-region

Access

Guam and Northern Mariana Islands have commenced offering fifth-generation (5G) network coverage (GSMA, 2023) “while some populations in the Pacific remain without any network coverage” (Watson & Chan Mow, 2023, p. 2).

- Reference: GSMA (2023). The mobile economy: Pacific Islands. London, United Kingdom: https://www.gsmaintelligence.com/research/the-mobile-economy-pacific-islands-2023
- Reference: Watson, A. H. A., & Chan Mow, I. (2023). Telecommunications in the Pacific Islands region. Canberra, Australia: https://nsc.crawford.anu.edu.au/publication/21532/telecommunications-pacific-islands-region

Access



Photo: Kitava health centre nurse, Milne Bay Province, Papua New Guinea. Source: A H A Watson.

Access

Internet prices vary between countries (UN ESCAP, 2020).



» Reference: UN ESCAP. (2020). Broadband connectivity in Pacific Islands countries. Bangkok, Thailand: https://www.unescap.org/resources/ap-policy-brief-broadband-connectivity-pacific-islands-countries

Access: Internet speeds

Internet speeds vary between countries (Watson & Fox, 2021).

» Reference: Watson, A. H. A., & Fox, R. (2021). Digital divide: Mobile internet speeds in the Pacific. Pacific Journalism Review: Te Koakoa, 27(1 & 2), 215-231. https://doi.org/10.24135/pjr.v27i1and2.1168

Access: Internet speeds

ACTIVITY

Multiple choice.

Which of the cities below had the fastest average mobile data download speed in the 2020 study?

a) Port Moresby

b) Apia

c) Honiara

d) Sydney

Access: Internet speeds

ACTIVITY

Multiple choice.

Which of the places below had the slowest average mobile data download speed in the 2020 study?

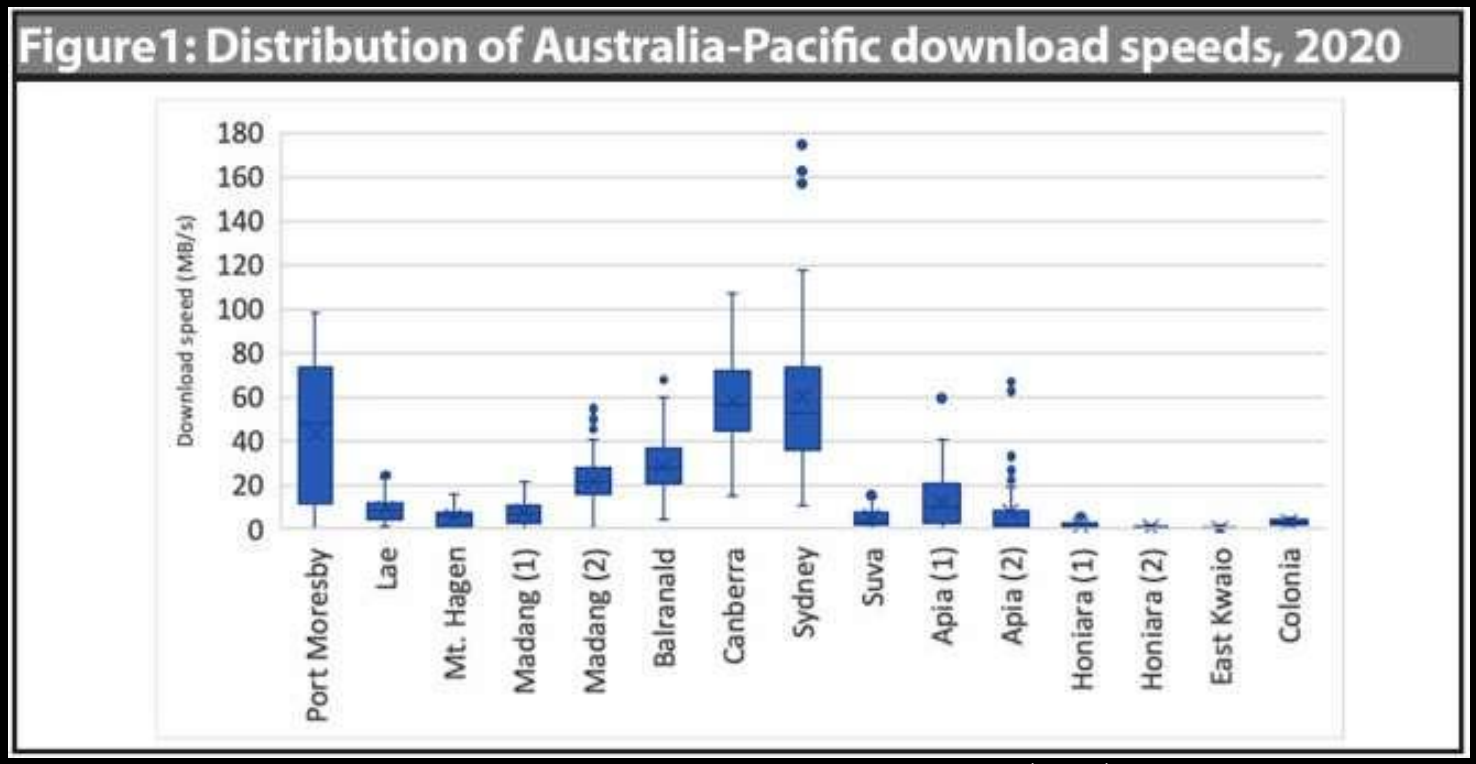
a) Balranald (country Australia)

b) Suva

c) East Kwaio (rural Solomon Islands)

d) Colonia (Yap state, FSM)

Access: Internet speeds



» Reference: Watson, A. H. A., & Fox, R. (2021). Digital divide: Mobile internet speeds in the Pacific. Pacific Journalism Review: Te Koakoa, 27(1 & 2), 215-231. https://doi.org/10.24135/pjr.v27i1and2.1168

Access

The number of undersea internet cables per country differs (Watson, 2022).

» Reference: Watson, A. H. A. (2022). The Limited Communication Cables for Pacific Island Countries. Asia-Pacific Journal of Ocean Law and Policy, 7, 151–155. doi:10.1163/24519391-07010012

Access

The number of undersea internet cables per country differs (Watson, 2022).

TABLE 1 International undersea cables for Pacific Island countries

	Current situation	Situation including planned cables
PICs with no cable	Kiribati, Nauru, Norfolk Island, Pitcairn Islands, Tokelau, Tuvalu	Norfolk Island, Pitcairn Islands, Tuvalu
PICs with one cable	Cook Islands, Marshall Islands, New Caledonia, Niue, Palau, Solomon Islands, Tonga, Vanuatu, Wallis and Futuna	Cook Islands, Marshall Islands, Nauru, Niue, Solomon Islands, Tokelau, Tonga, Vanuatu, Wallis and Futuna
PICs with two cables	American Samoa, Commonwealth of the Northern Mariana Islands, FSM, French Polynesia, Papua New Guinea	American Samoa, Commonwealth of the Northern Mariana Islands, FSM, French Polynesia, Kiribati, New Caledonia, Palau, Papua New Guinea
PICs with more than two cables	Fiji, Guam, Hawai'i, Samoa	Fiji, Guam, Hawai'i, Samoa

» Reference: Watson, A. H. A. (2022). The Limited Communication Cables for Pacific Island Countries. Asia-Pacific Journal of Ocean Law and Policy, 7, 151–155. doi:10.1163/24519391-07010012

Access

Much cable development activity.

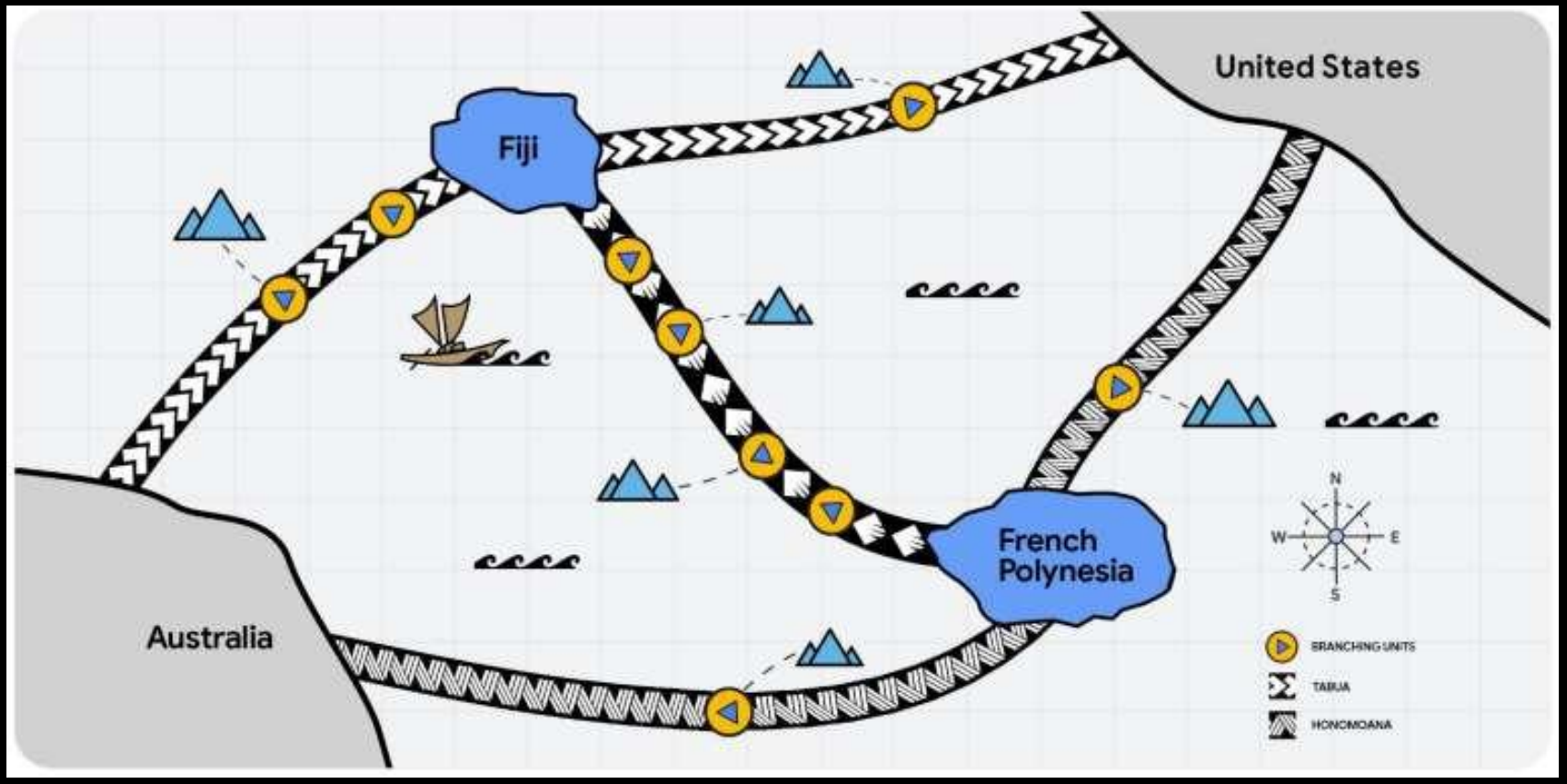


Image: Cable plan (November 2023). Source: Google.

Access

Much cable development activity.

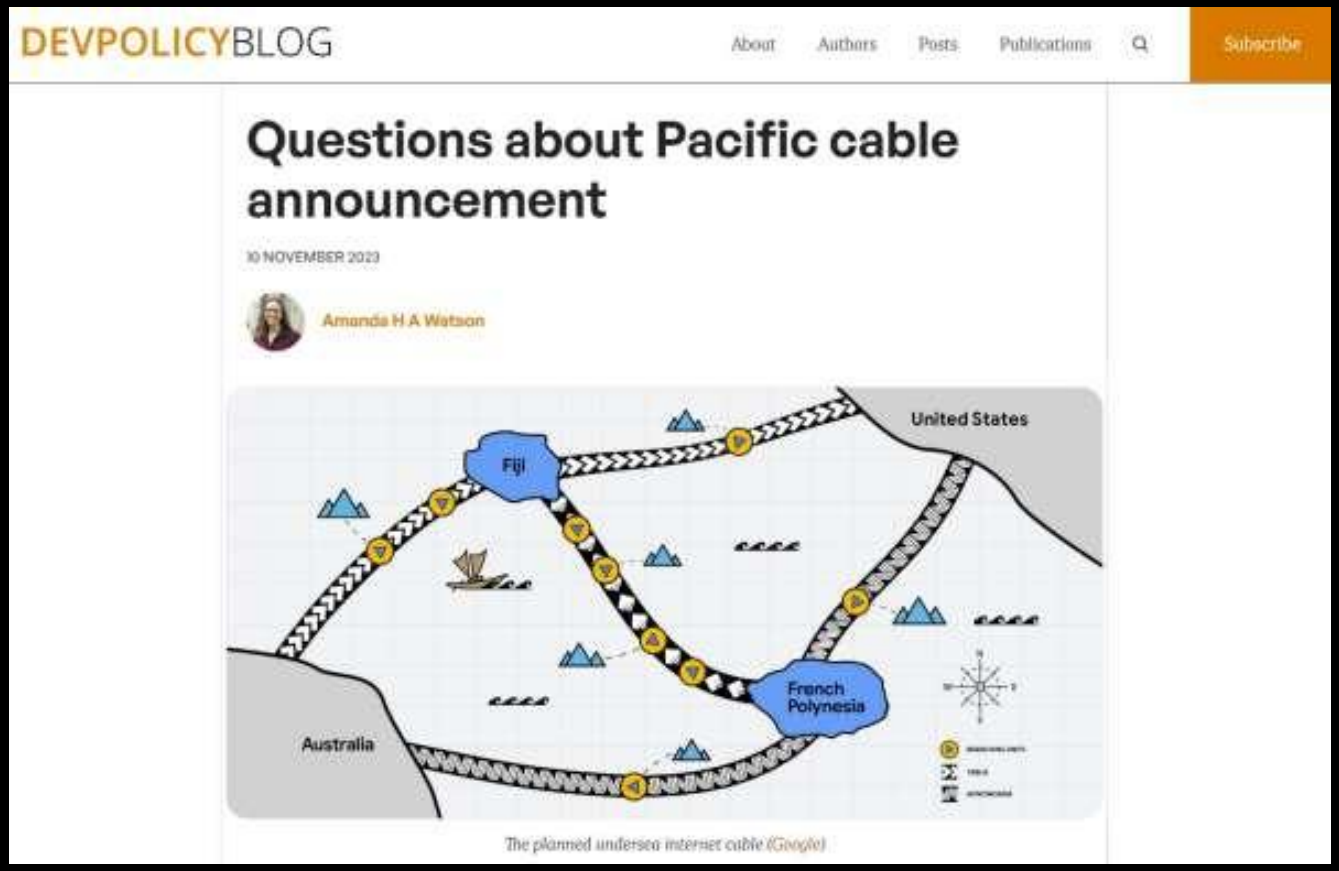


Image: Top of https://devpolicy.org/questions-about-pacific-cable-announcement-20231110/

Access

Much cable development activity.

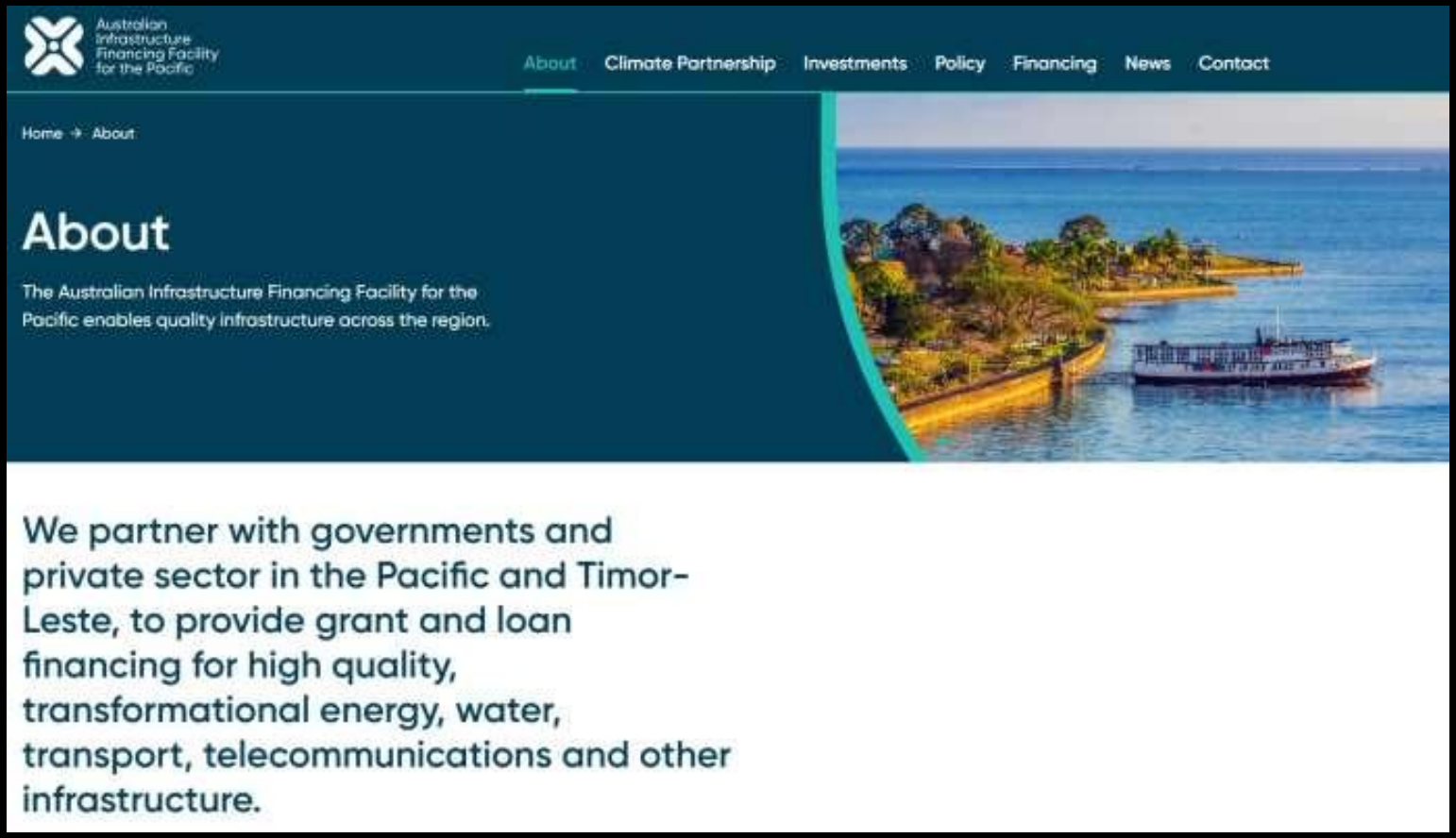


Image: The ‘about’ page on the AIFFP website

Access: Starlink

Starlink is increasing internet access in some parts of the Pacific.



Photo: Wantok (Starlink authorised reseller) sign in Tonga. Source: A H A Watson.

Access: Starlink

Starlink authorised resellers and retailers in the Pacific region

Country	Status	Resellers	Retailers
Fiji	Launched	Digicel Fiji, Lightspeed Fiji, Telecom Fiji and Vodafone Fiji	Network Sharks, Post Fiji and Vinod Patel
Samoa	Launched	Digicel Samoa, Vodafone Samoa	Bluebird Lumber and Hardware and Computer Services Limited
Solomon Islands	Launched	SATSOL Limited	—
Tonga	Launched	Digicel Tonga, TokoWireless Ltd (WanTok Tonga), Tonga Communication Corporation	—
Vanuatu	Launched	Digicel Vanuatu, Pacific Link Vanuatu, Pacific Networks, Vodafone Vanuatu and WanTok Network Limited	Computer World and Stanley Imports

Figure: Top part of table by Watson and Chand.

Source: https://theconversation.com/starlink-is-transforming-pacific-internet-access-but-in-some-countries-its-still-illegal-257905

Access: Starlink

Starlink authorised resellers and retailers in the Pacific region

Country	Status	Resellers	Retailers
Cook Islands, Federated States of Micronesia (FSM), Kiribati, Nauru, Republic of Marshall Islands and Tuvalu	Government approved	—	—
French Polynesia, New Caledonia, Niue, Palau and Papua New Guinea	Not officially launched	—	—

Figure: Bottom part of table by Watson and Chand.

Source: https://theconversation.com/starlink-is-transforming-pacific-internet-access-but-in-some-countries-its-still-illegal-257905

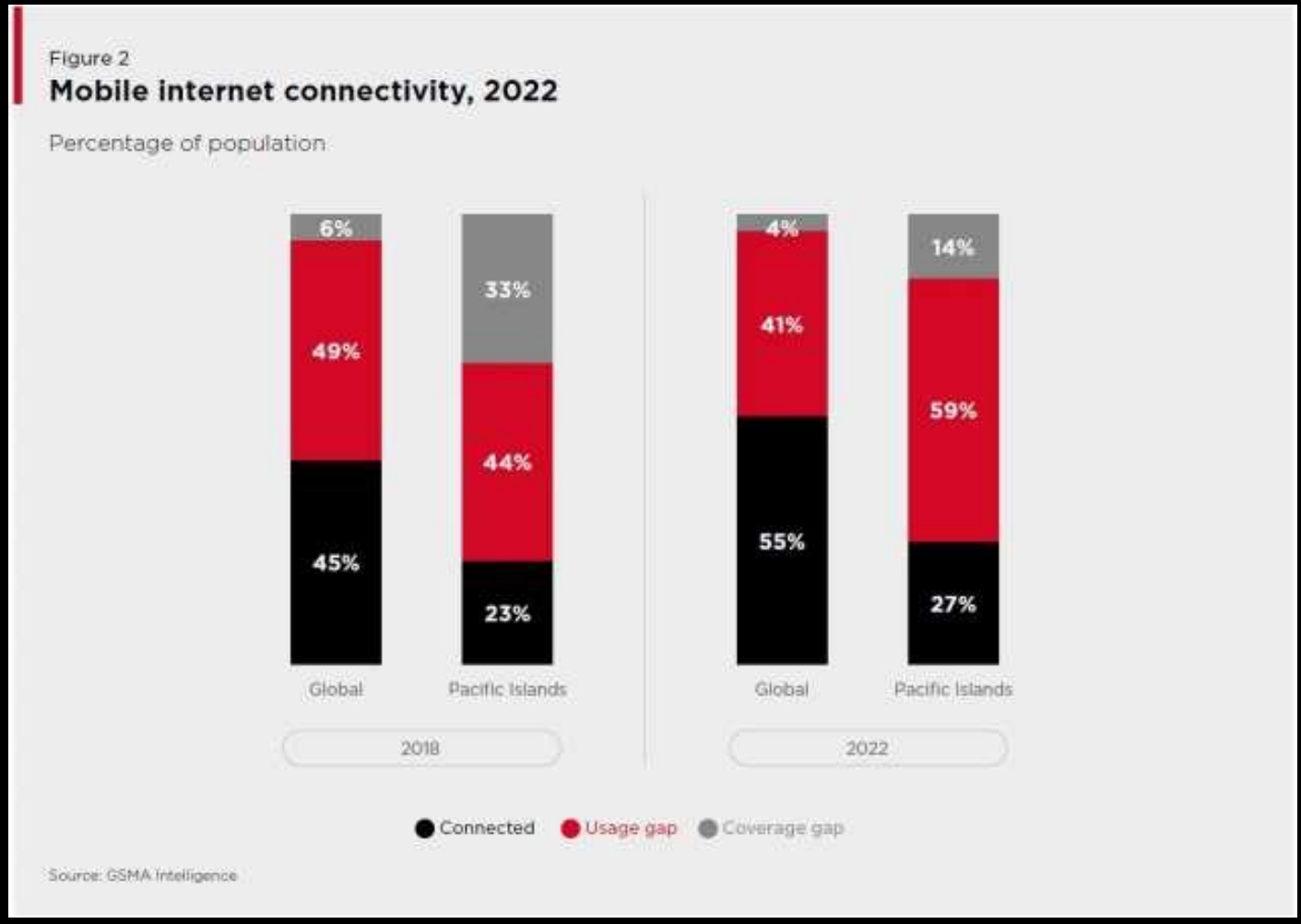
Questions?

Uptake

In the Pacific region, “uptake of mobile telephones varies greatly, from less than 30 per cent of the population in Federated States of Micronesia and Tuvalu to more than 70 per cent in American Samoa, Fiji, Guam, Niue and Palau” (Watson & Chan Mow, 2023, p. 2).

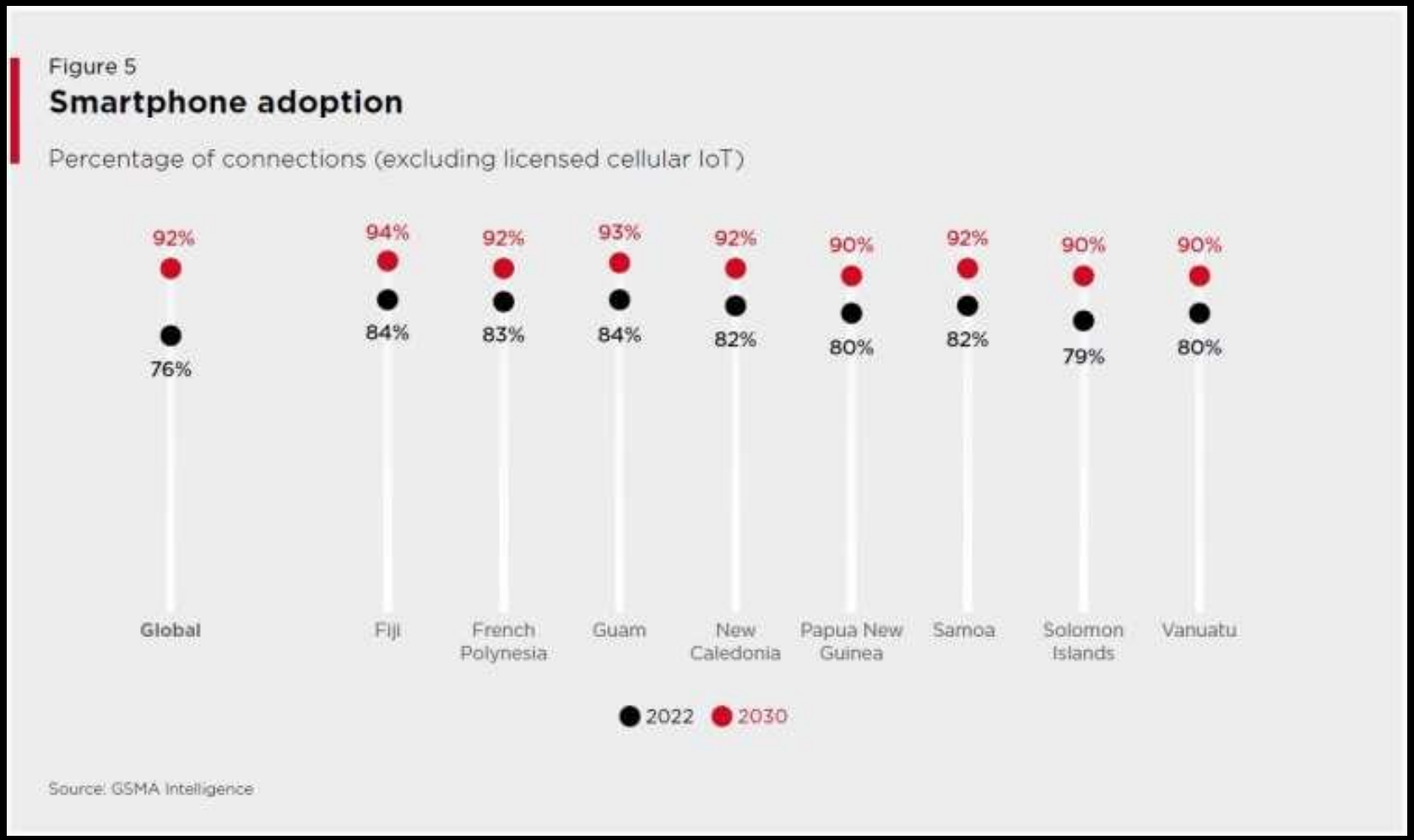
» Reference: Watson, A. H. A., & Chan Mow, I. (2023). Telecommunications in the Pacific Islands region. Canberra, Australia: https://nsc.crawford.anu.edu.au/publication/21532/telecommunications-pacific-islands-region

Uptake



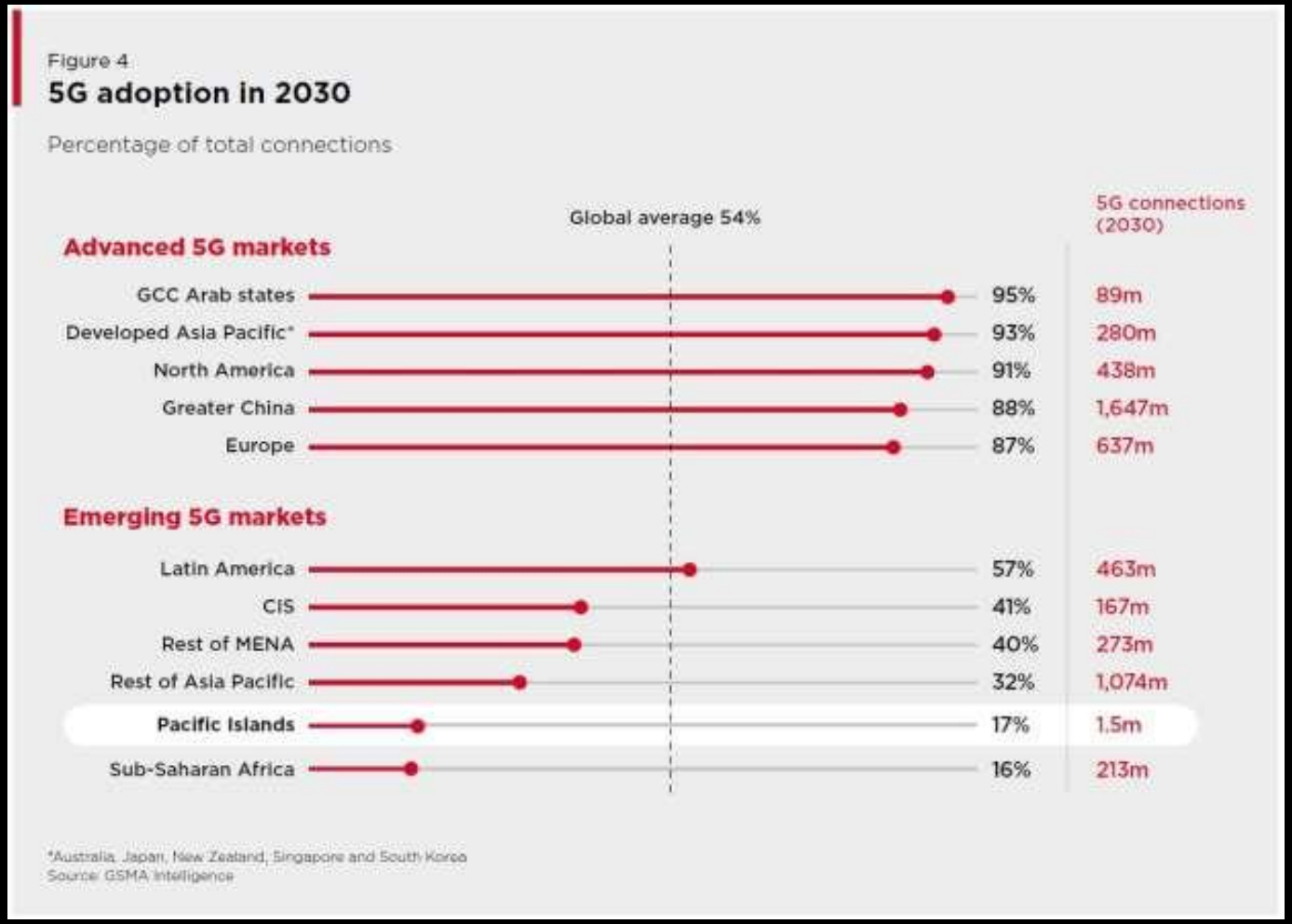
Source: GSMA (2023). The mobile economy: Pacific Islands. London, United Kingdom: https://www.gsmaintelligence.com/research/the-mobile-economy-pacific-islands-2023

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Source: GSMA (2023). The mobile economy: Pacific Islands. London, United Kingdom: https://www.gsmaintelligence.com/research/the-mobile-economy-pacific-islands-2023

Uptake



Source: GSMA (2023). The mobile economy: Pacific Islands. London, United Kingdom: https://www.gsmaintelligence.com/research/the-mobile-economy-pacific-islands-2023

Challenges

"Three main challenges for digital connectivity in the Pacific Islands region are cyberattacks, natural disasters, and cable protection" (Watson & Chan Mow, 2023, p. 1).

» Reference: Watson, A. H. A., & Chan Mow, I. (2023). Telecommunications in the Pacific Islands region. Canberra, Australia: https://nsc.crawford.anu.edu.au/publication/21532/telecommunications-pacific-islands-region

Challenges

Electricity access is another key challenge, especially in Melanesia.



Photo: Children waiting for a solar charger to work, Madang Province, Papua New Guinea. Source: A H A Watson.



Photo: Using a solar charger, Milne Bay Province, Papua New Guinea. Source: A H A Watson.

Challenges



Photo: Huawei headquarters in Suva, Fiji.
Source: A H A Watson.

Huawei technology is in widespread use throughout the Pacific.

There are differing views about whether this presents a challenge.

Efforts aimed at ubiquity

Efforts are being made to strive for ubiquity of access (PIF, 2022; PITA, 2023; Watson & Chan Mow, 2023).

- Reference: Pacific Islands Forum. (2022). 2050 Strategy for the Blue Pacific Continent. Suva, Fiji: https://www.forumsec.org/2050strategy/
- Reference: PITA. (2023, 2 June). Never a dull moment at PITA 27. Suva, Fiji: https://www.pita.org.fj/news/opportunities-never-dull-at-pita-27/
- Reference: Watson, A. H. A., & Chan Mow, I. (2023). Telecommunications in the Pacific Islands region. Canberra, Australia: https://nsc.crawford.anu.edu.au/publication/21532/telecommunications-pacific-islands-region

Efforts aimed at ubiquity

A key aim of the Pacific Islands Forum's strategic plan is "to ensure a well-connected region" (PIF, 2022, p. 10).

» Reference: Pacific Islands Forum. (2022). 2050 Strategy for the Blue Pacific Continent. Suva, Fiji: https://www.forumsec.org/2050strategy/

Efforts aimed at ubiquity

At present, “more could be done to achieve ubiquity and resilience” (Watson & Chan Mow, 2023, p. 1).

» Reference: Watson, A. H. A., & Chan Mow, I. (2023). Telecommunications in the Pacific Islands region. Canberra, Australia: https://nsc.crawford.anu.edu.au/publication/21532/telecommunications-pacific-islands-region

Efforts aimed at ubiquity

And what could be done with that?



Photo: Telecommunication tower in Tonga. Source: A H A Watson.

Efforts aimed at ubiquity

And what vulnerabilities would that present?



Photo: Our Telekom billboard in Kirakira, Makira-Ulawa Province, Solomon Islands. Source: Richard Eves.

THANK YOU

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