

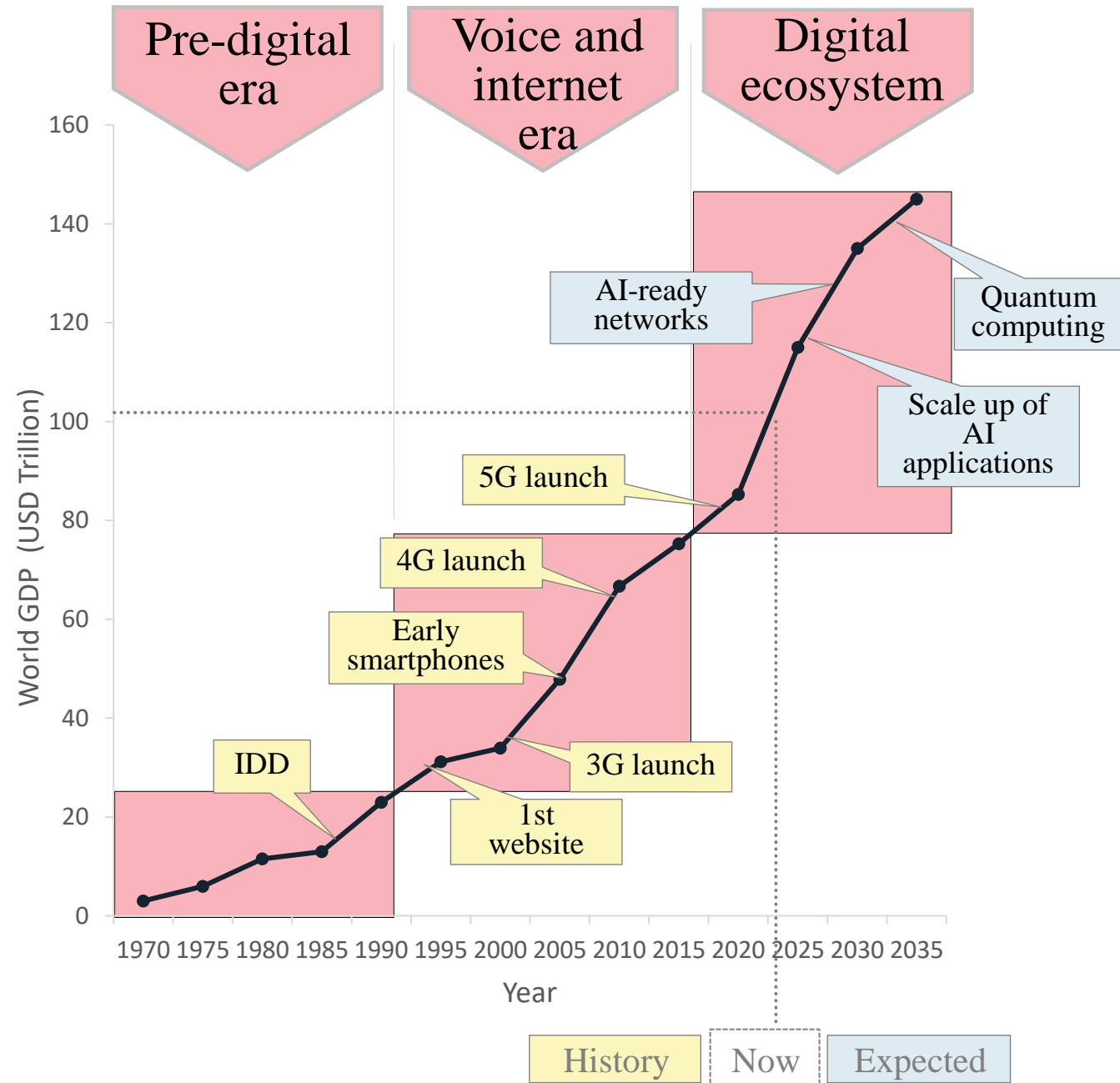
Data Governance and Management: A digital infrastructure and inclusion perspective

ADB & PRIF Data X Blue Pacific

23rd October 2024



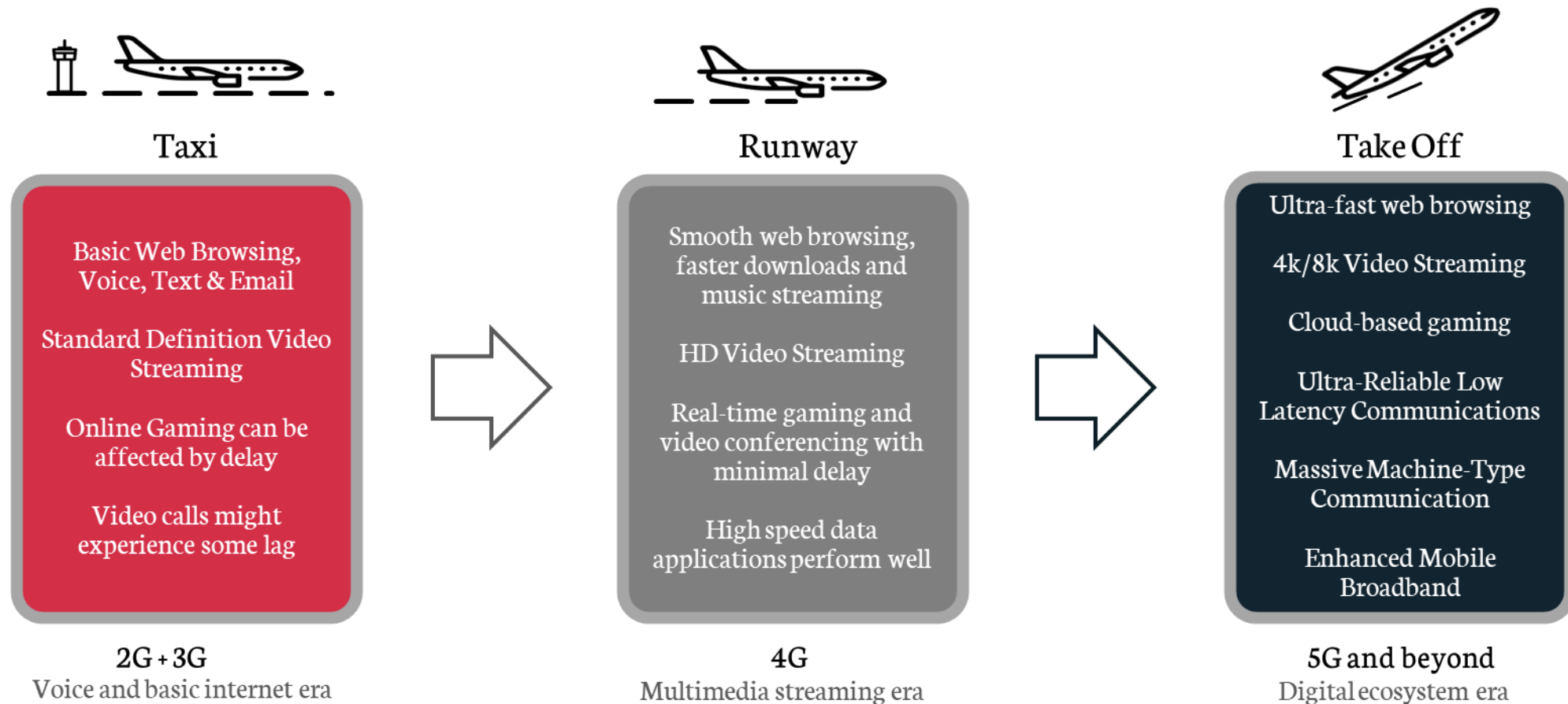
In the last 50 years, mass connectivity has revolutionized growth and facilitated widespread use and adoption... however the journey is not over



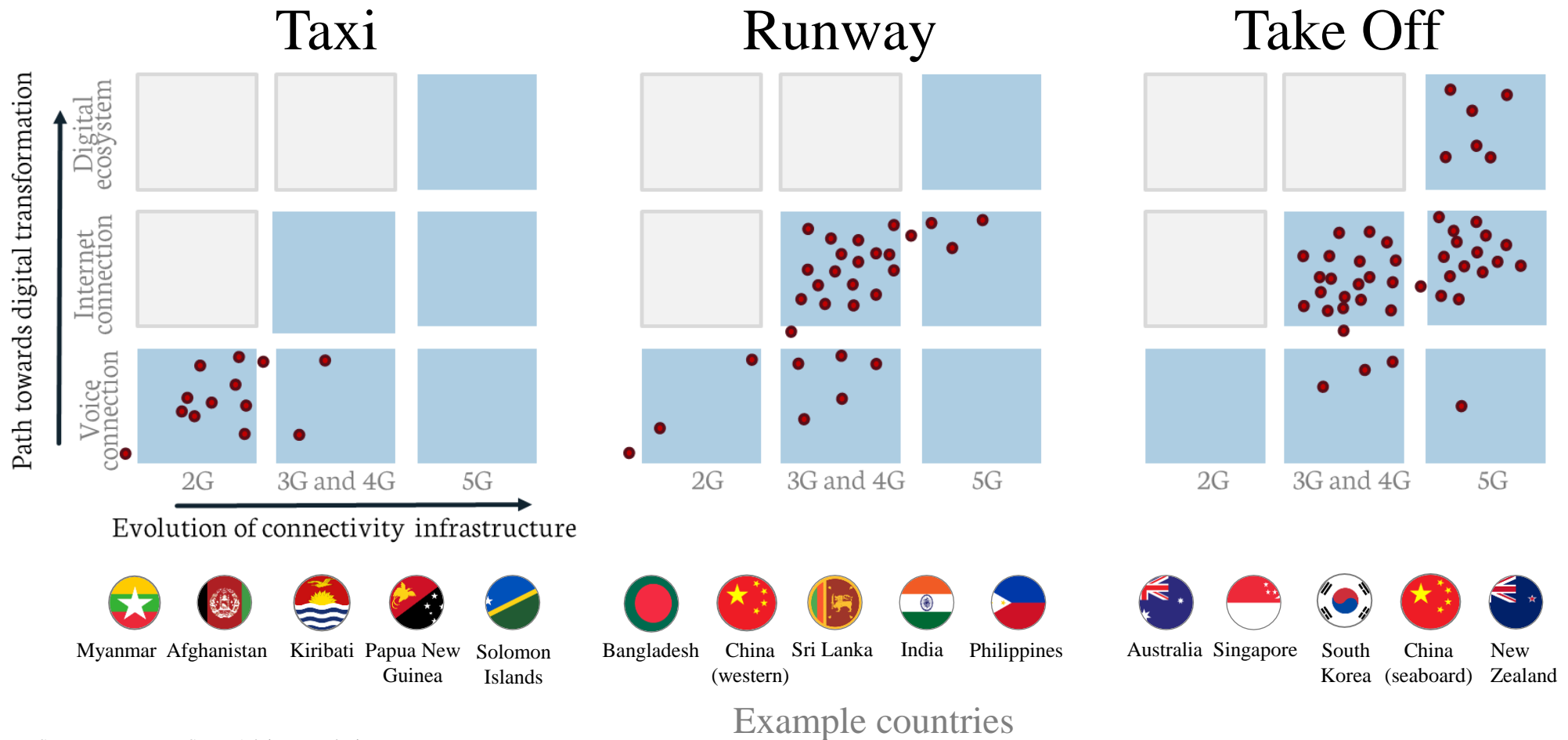
Nations are passing from a pre-digital era to digitisation: we refer to these as Taxi, Runway and Take Off stages



Technological features of pre-digital to digitised eras of connectivity



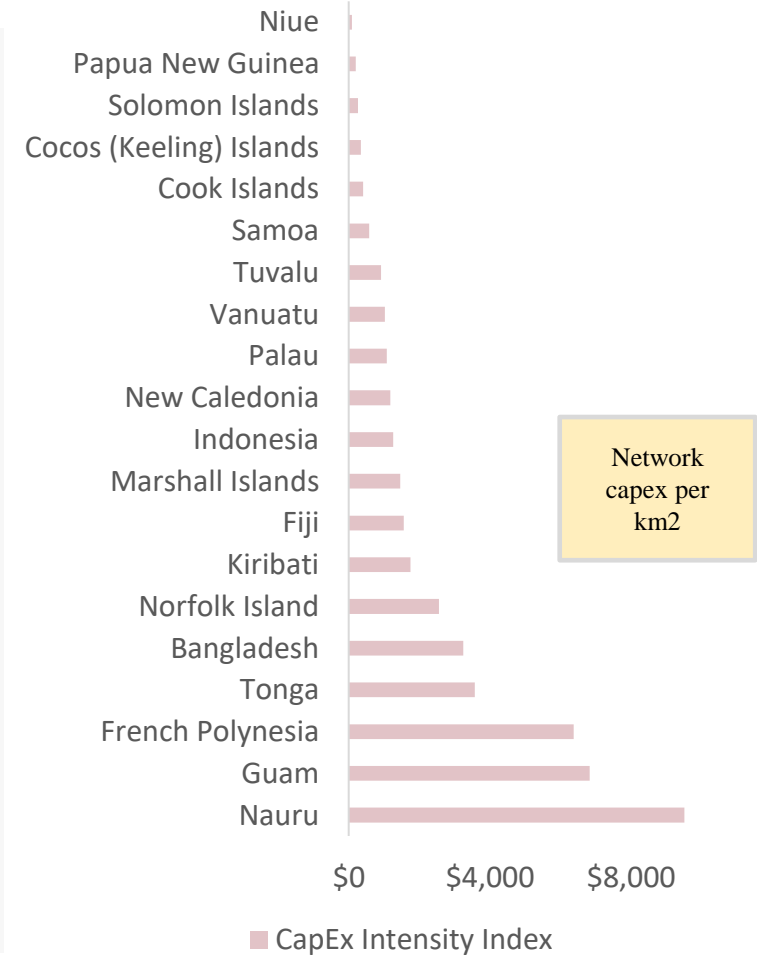
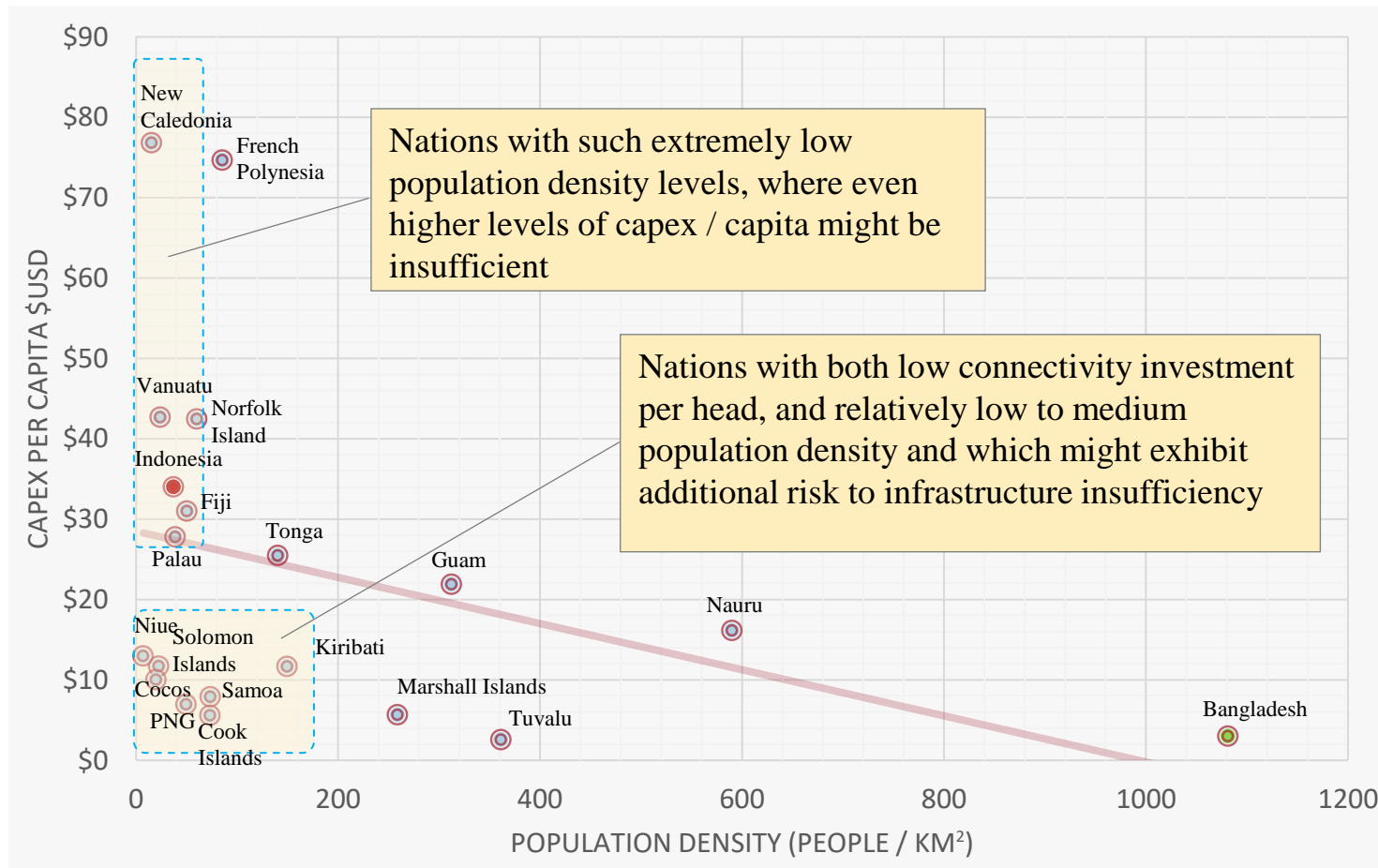
Most developing nations are still on the taxiway or runway for digitisation; inclusion policy must target those left behind



Source: IMF, Long Street Advisors analysis



Connectivity investment across the Pacific increases as population density drops, but not sufficiently enough for inclusion

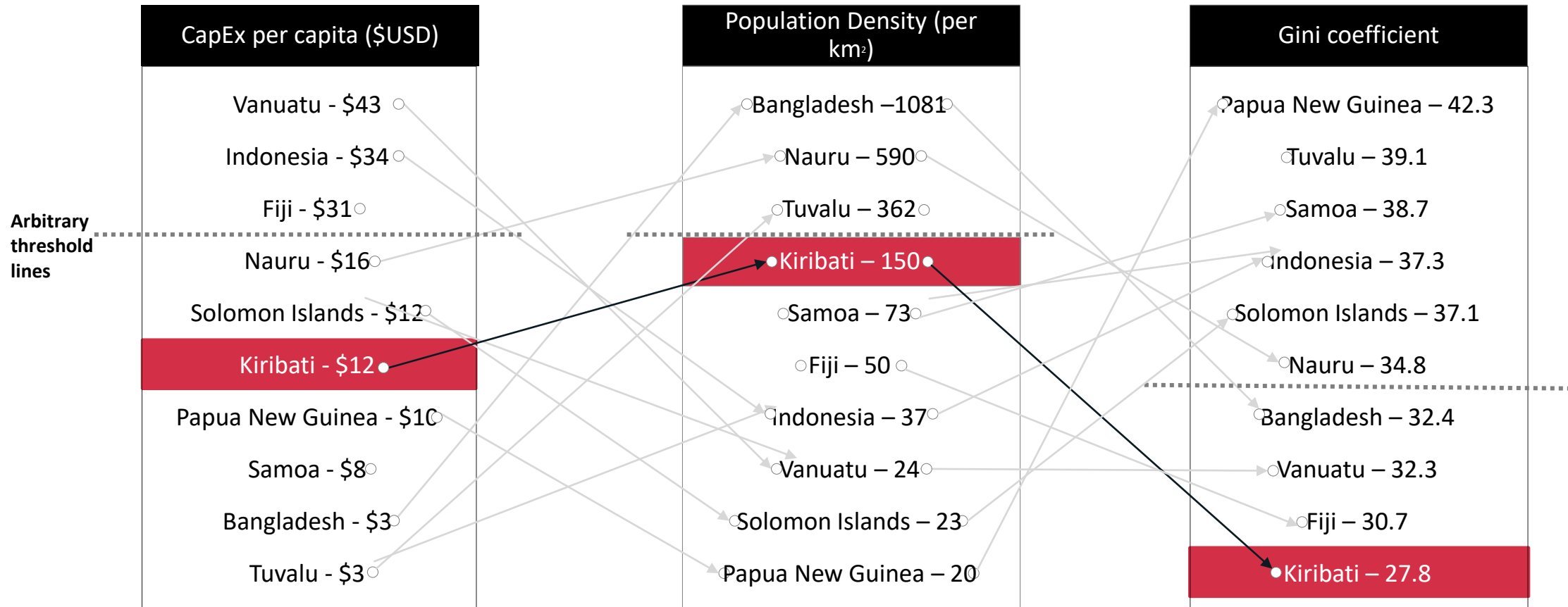


Note: CapEx intensity index calculated as CapEx per capita * population density. Data based on 2010-2023.

Source: GSMA Intelligence, Long Street Advisors analysis INTERNAL. This information is accessible to ADB Management and Staff. It may be shared outside ADB with appropriate permission.



Some Pacific citizens might face a “triple whammy” of low population density, low network investment per head and poor income distribution

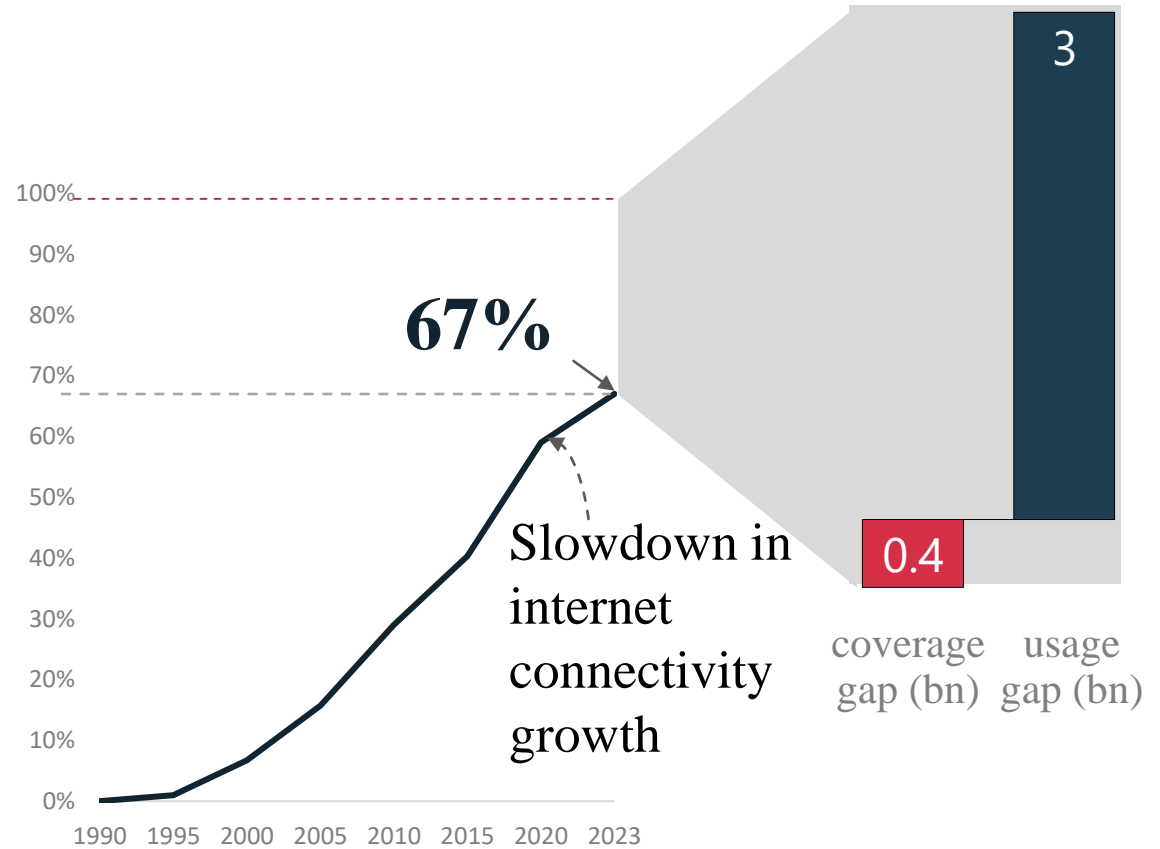


Note: Data based on 2010-23; Gini coefficient for nations is measured in multiple years but is assumed to be relatively stable over time

Source: GSMA Intelligence, World Bank, Long Street Advisors analysis. This information is accessible to ADB Management and Staff. It may be shared outside ADB with appropriate permission.

Globally, there is work to do democratise data access and empower individuals with equal opportunity

Individuals using the internet, world 1990-2023, % share of world population



To service future data demand and build modern networks, significant investment is required

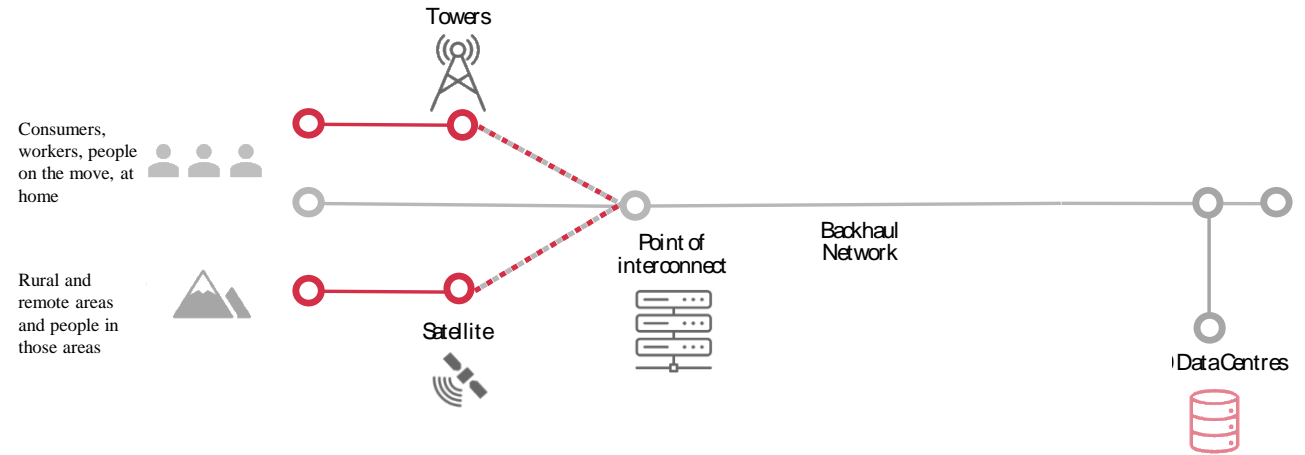
Asia Pacific digital infrastructure gaps USD, next decade

Australia
\$15bn

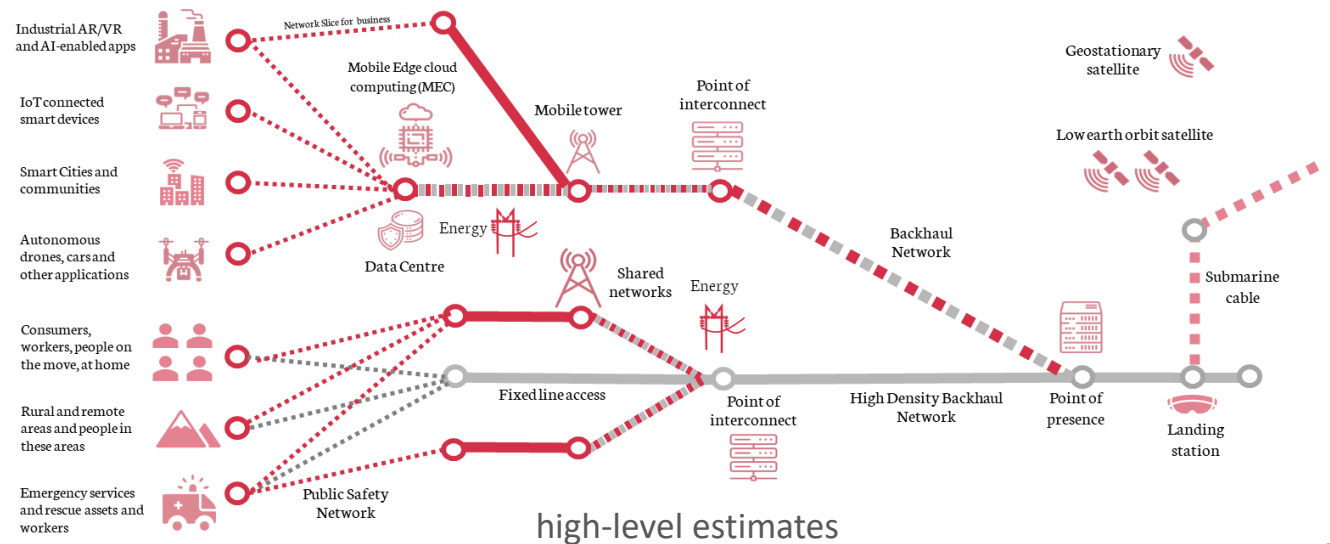
S/SEA developing
\$150bn



Past: Basic Internet Connectivity



Future: Advanced Internet Connectivity

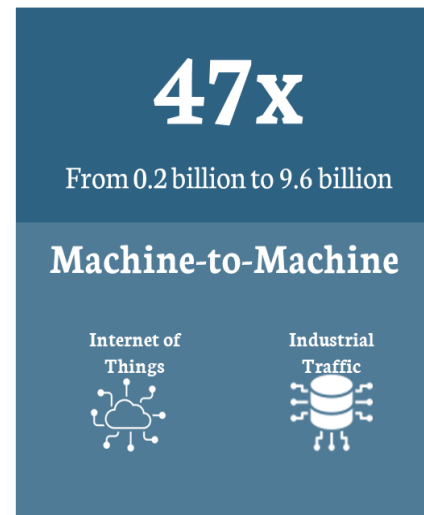




Looking forward, AI will create new data complexity, as well as unprecedented pressure on energy systems

Increased Network Complexity (in GB)

Energy



Increased energy requirements as AI demand surges



The compute power required for AI is doubling every 100 days.



ChatGPT based search could increase electricity demand by **10 terawatt-hours a year**

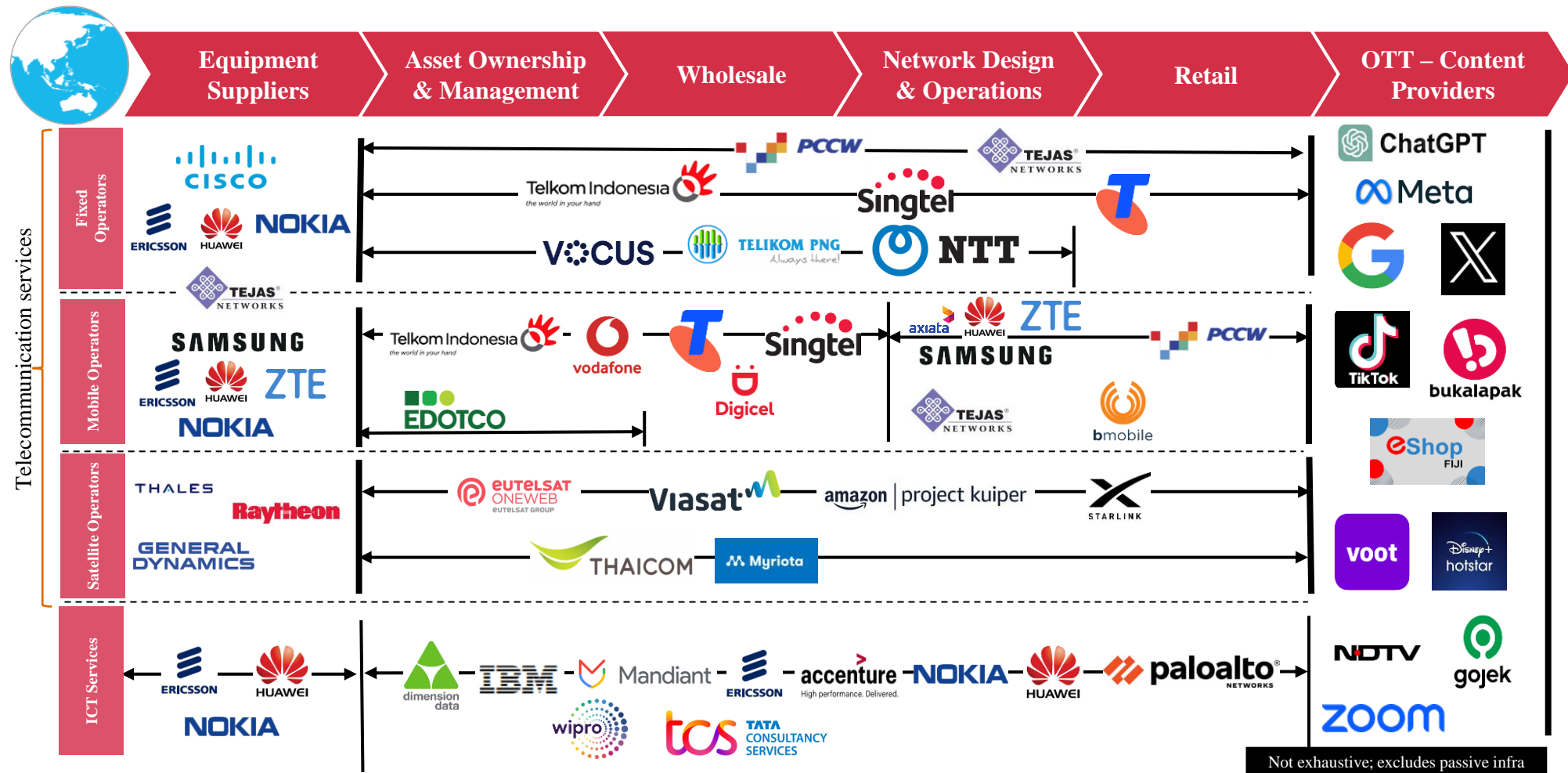


Globally, the **demand for water for AI could reach half the UK's water demand by 2027**

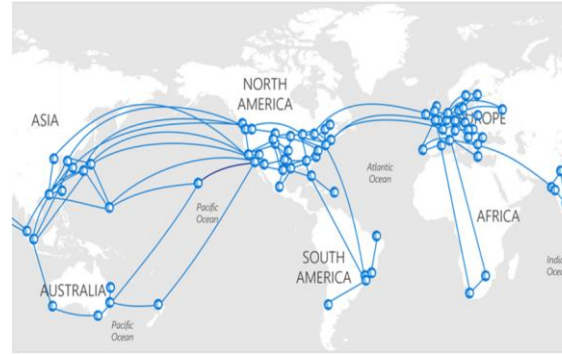


By 2027 AI servers could use between 85 to 134 terawatt hours annually, similar to Argentina or Sweden's usage in a year

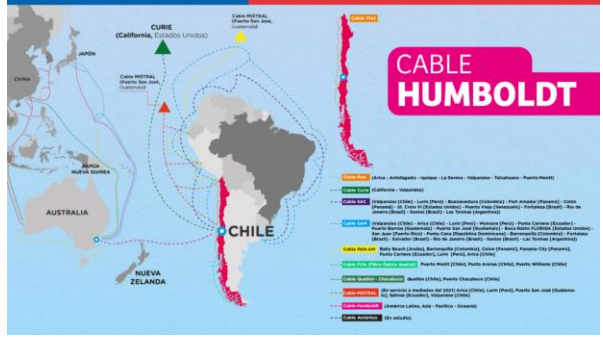
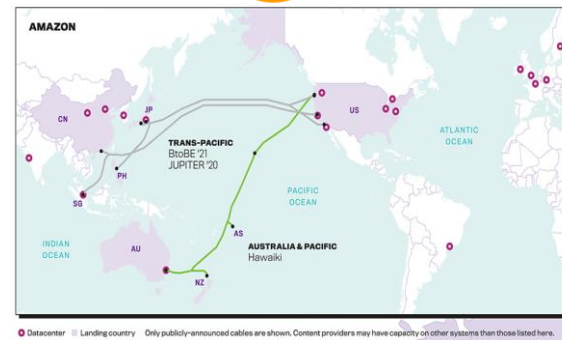
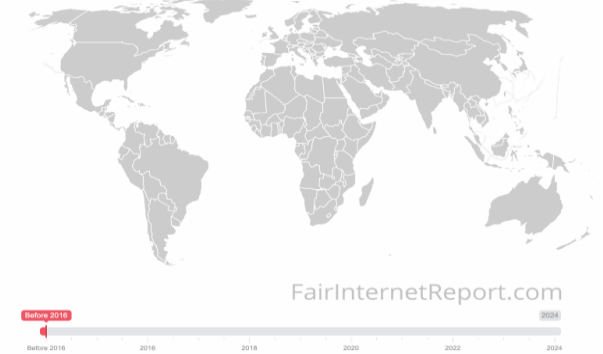
The fragmented nature of digital infrastructure poses data governance, regulation and standards challenges



Pacific Islands are especially exposed to data governance risks due to reliance on submarine cables and satellite connectivity



○ Datacenter locations & owned routes



GEO and LEO satellite connected maritime vessels



Digital infrastructure lies at the heart of digitisation and data transmission and is necessary (but not sufficient)



Economy

Digital connectivity is essential to a **productive** and competitive economy



Society

Digital connectivity is essential to **including** all people



Government

Digital connectivity is essential for government services to be **accessible**



Nation

Digital connectivity is essential to **safeguard** freedoms and national security

Thank You



LONG STREET
— ADVISORS —