

Ubiquity and broadband in small island developing states and territories

Ewan Sutherland



Introduction

- ▶ Characteristics of small island states and territories
- ▶ Scalability of global best practice
- ▶ The limits of mobile markets
- ▶ Methods to reach universal access
- ▶ Broadband
- ▶ Conclusions

Definition

- ▶ Small Island Developing States:
 - Independent states
 - Territories and possessions of:
 - Netherlands
 - France
 - United Kingdom and
 - United States of America
- ▶ You have seen them in the movies:
 - South Pacific
 - Robinson Crusoe
 - Mutiny on the Bounty
 - Pirates of the Caribbean

Small islands – physical environment

- ▶ Many were created by vulcanism:
 - Continuing activity
 - Mount Eyjafjallajökull
- ▶ Earthquakes and *Tsunami*
- ▶ Subject to extremes of weather:
 - Hurricanes, tropical cyclones and typhoons
- ▶ Climate change:
 - More powerful hurricanes
 - Rising sea level
 - Recent evidence shows many islands are growing

Small islands – economies

- ▶ Small economies:
 - Subject to economic shocks
- ▶ Dependent on one or two of:
 - Agriculture
 - Fishing
 - Financial services
 - Tourism:
 - Associated construction
- ▶ Lack of economies of scale:
 - Markets
 - Government institutions:
 - Parliament and Ministry
 - Competition and regulatory authorities
 - Statistical agency

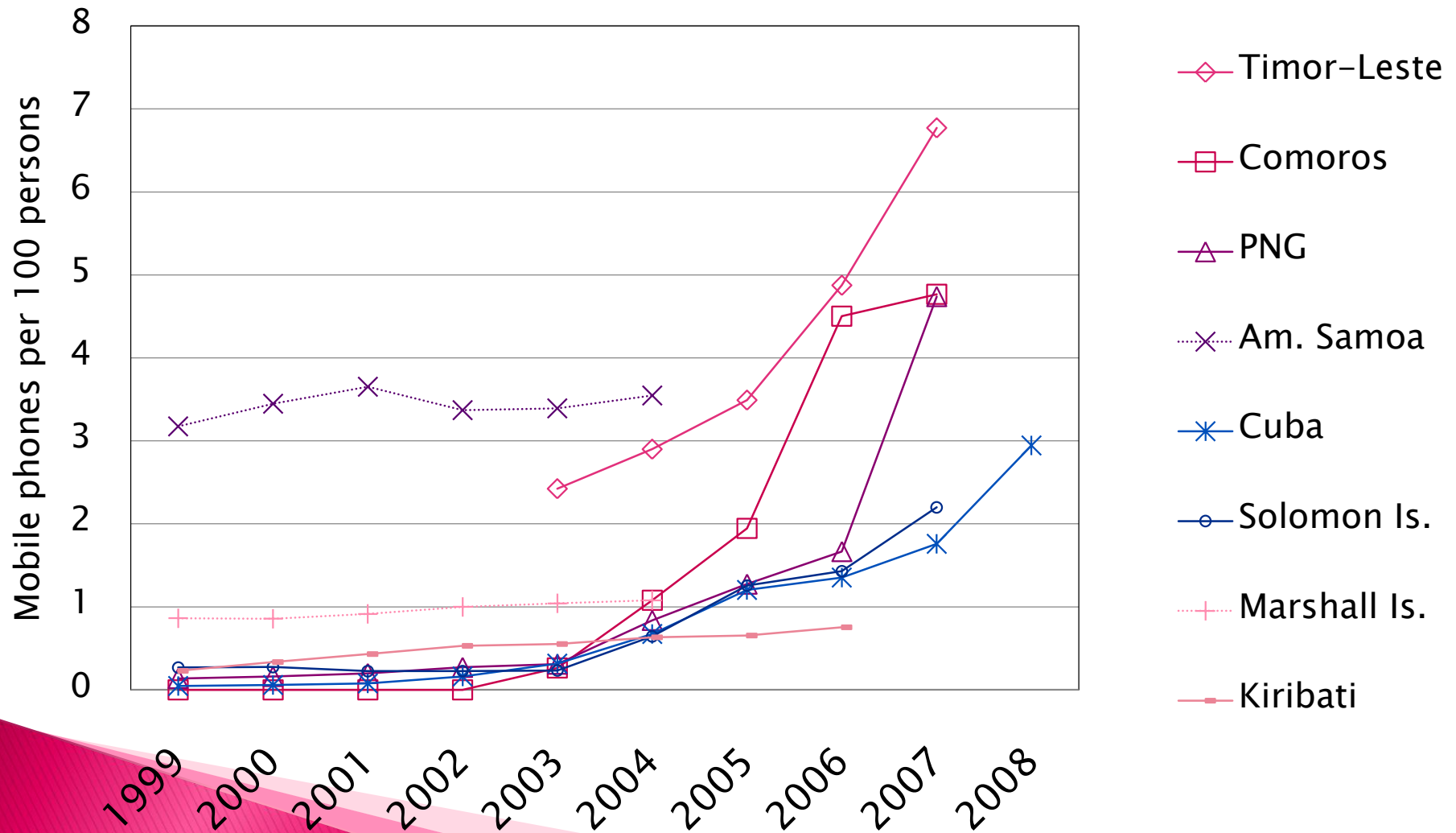
Do best practices scale down?

- ▶ Governance:
 - Small, tight-knit island elite
- ▶ Markets:
 - How well do they work?
- ▶ Regulation:
 - Does a micro-ladder of investment exist?
- ▶ Statistics:
 - Can we describe conditions of demand and supply?
- ▶ Technology:
 - What are the unit costs?

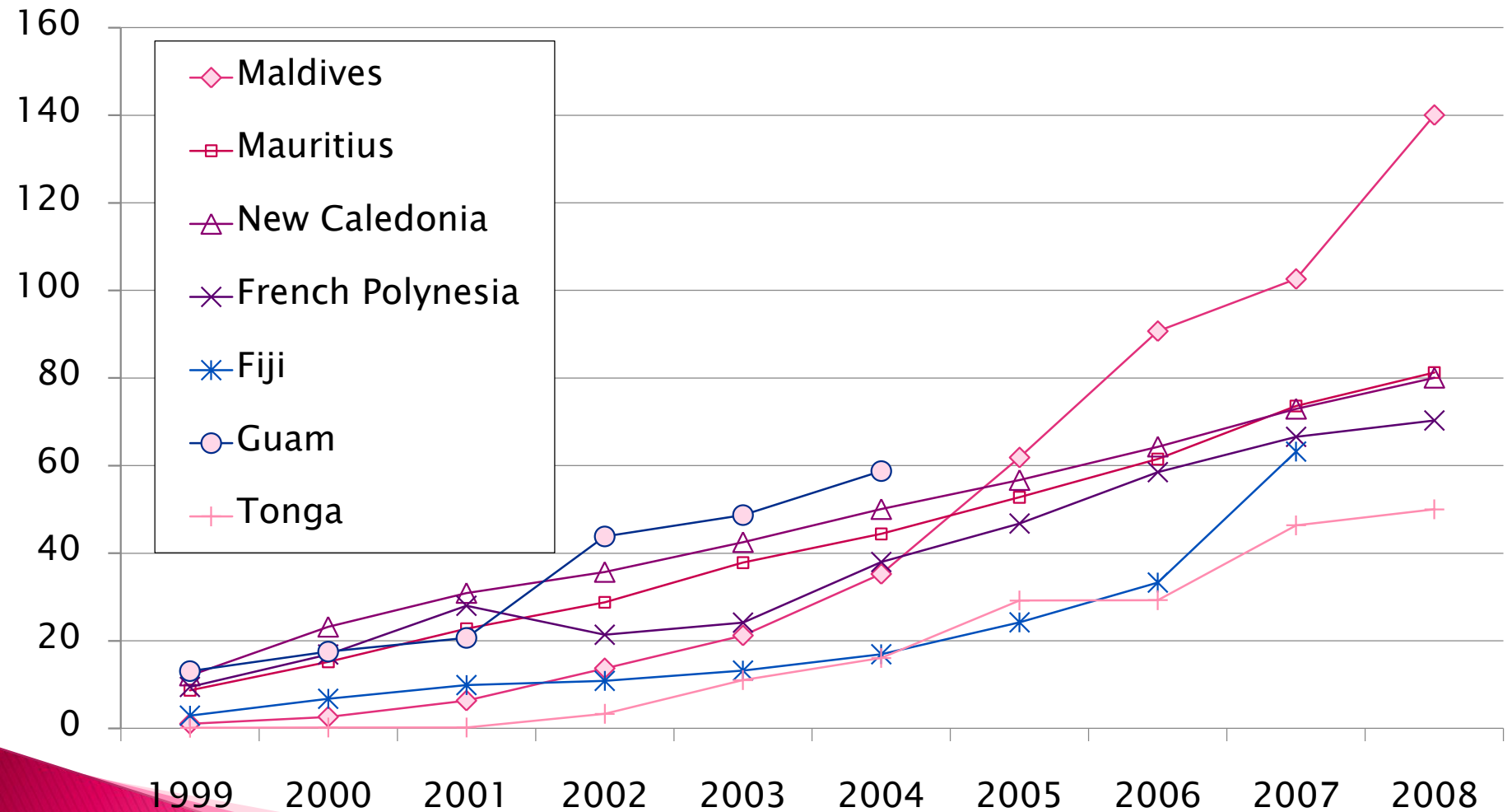
Universal service policies

- ▶ Access deficit charges (ADCs)
- ▶ Increased interconnection rates
- ▶ Facilities sharing
- ▶ National roaming
- ▶ Licence obligations
- ▶ Rural licences
- ▶ Reverse auctions
- ▶ Telecentres
- ▶ Anchor tenants
- ▶ Low user tariffs
- ▶ End-user subsidies for poor and/or disabled

Poorest performing SIDS



Highest mobile teledensities



Broadband

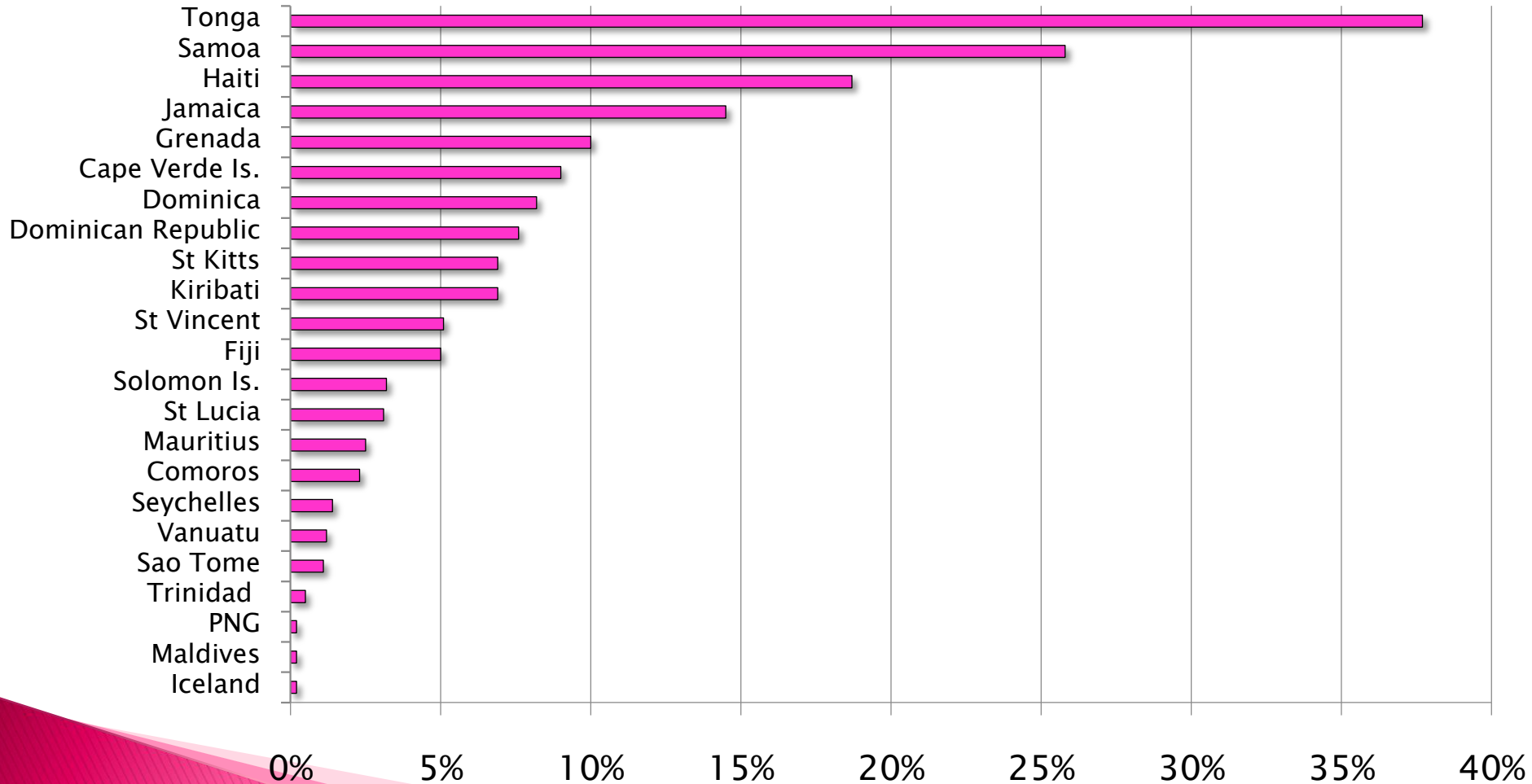
- ▶ Leaders are not developing states:
 - Singapore
 - Iceland
- ▶ Some FTTB offers in Caribbean
- ▶ Limits of fixed networks:
 - Growth died in mid-2000s
- ▶ Limits of subscriptions:
 - Vast majority of customers are pre-paid
- ▶ Telecommunications is about handheld devices

Mobile broadband

- ▶ Building on existing infrastructure competition
- ▶ Technology migration to 3G and LTE
 - Needs substantial investments in backhaul
 - Domestic
 - International
- ▶ Needs a business model for pre-paid:
 - Very different from subscription model
- ▶ Interest in m-banking for remittance trade

Islands with tourists can pay for 3G and LTE from roaming revenues

Remittance as percentage of GDP



Remittances

- ▶ Strong growth over last two decades
- ▶ In parallel with growth in mobile telephony
- ▶ Those living and working overseas are
 - Better aware of problems
 - Better able to monitor spending of remittances
- ▶ Mobile network operators are trying to get a share of revenues:
 - Overseas top-up of pre-paid credit
 - M-remittances

Conclusion

- ▶ Global lessons do not scale down
- ▶ What about trends?
 - Decline in voice revenues
 - Rise in mobile app revenues
- ▶ SIDS need to be highly selective
- ▶ A very strong case for impact assessments
- ▶ Social inclusion requires detailed statistics:
- ▶ Statistical basis is still too weak:
 - Overly reliant on operator data

Thank you

Ewan Sutherland

sutherla [at] gmail [dot] com

www.3wan.net

www.ssrn.com/author=927092