Building National Broadband Networks: What works and what doesn't? Case studies based on India, Malaysia, Australia and Indonesia

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LIRNEasia
Pro-poor. Pro-market.

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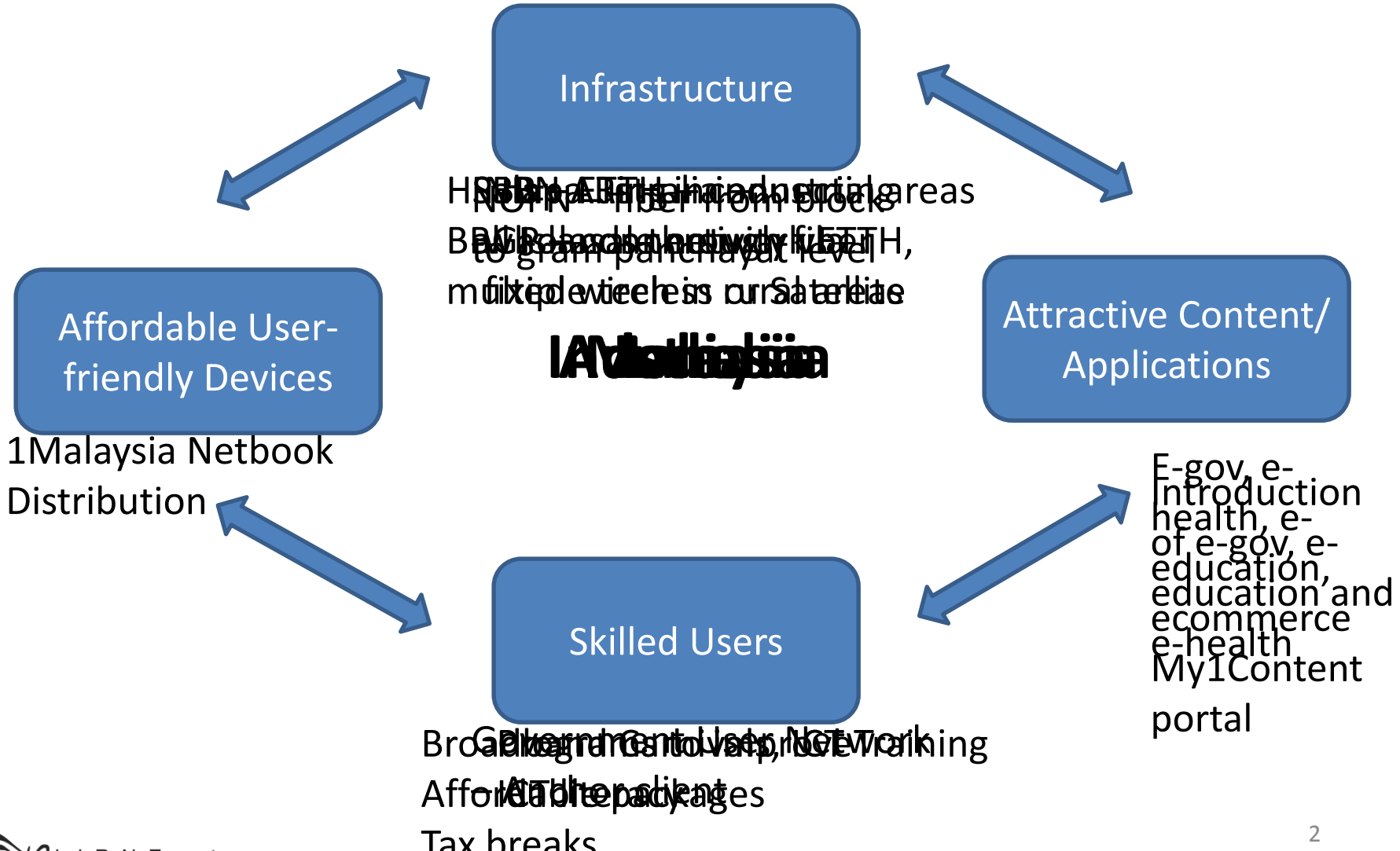
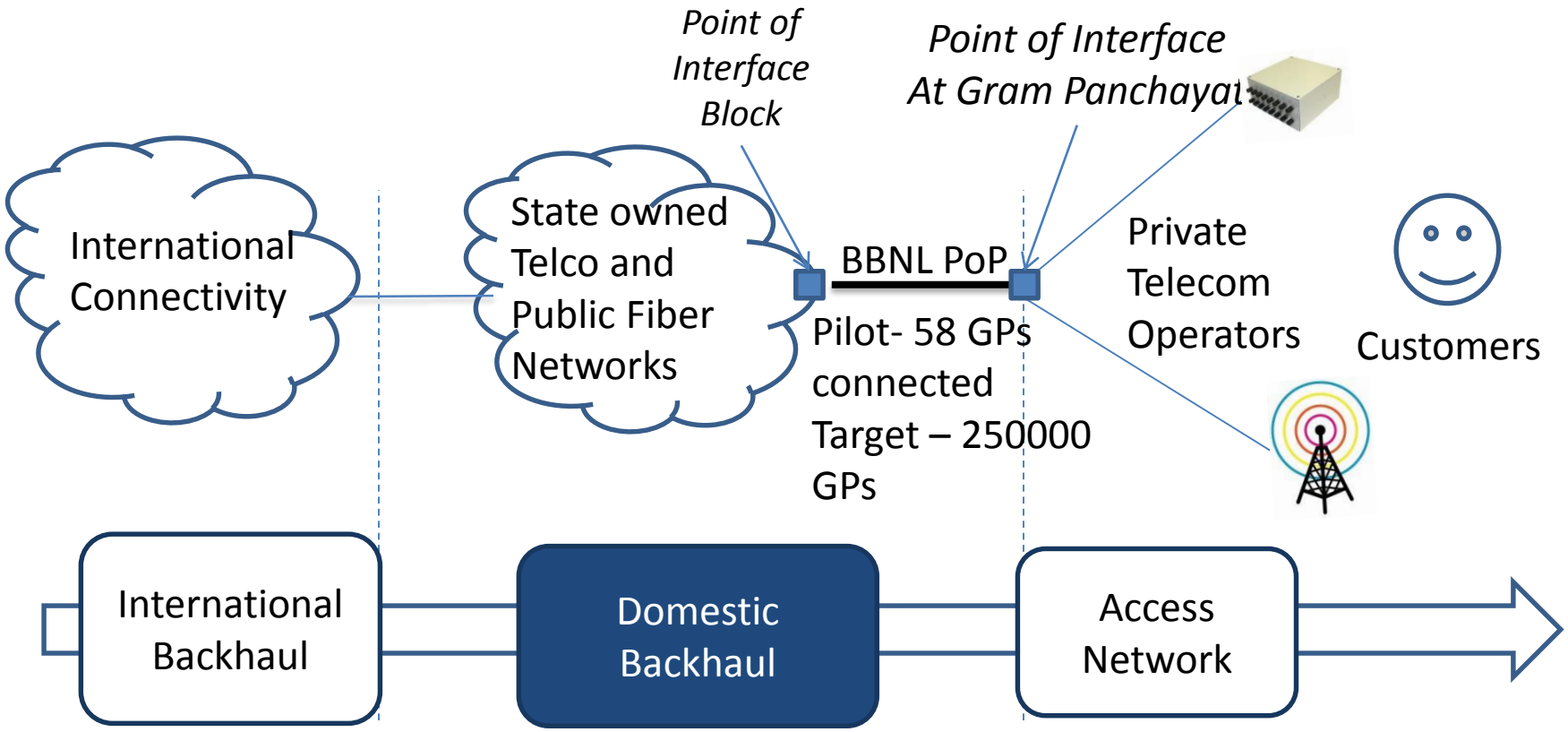
Internet Ecosystem

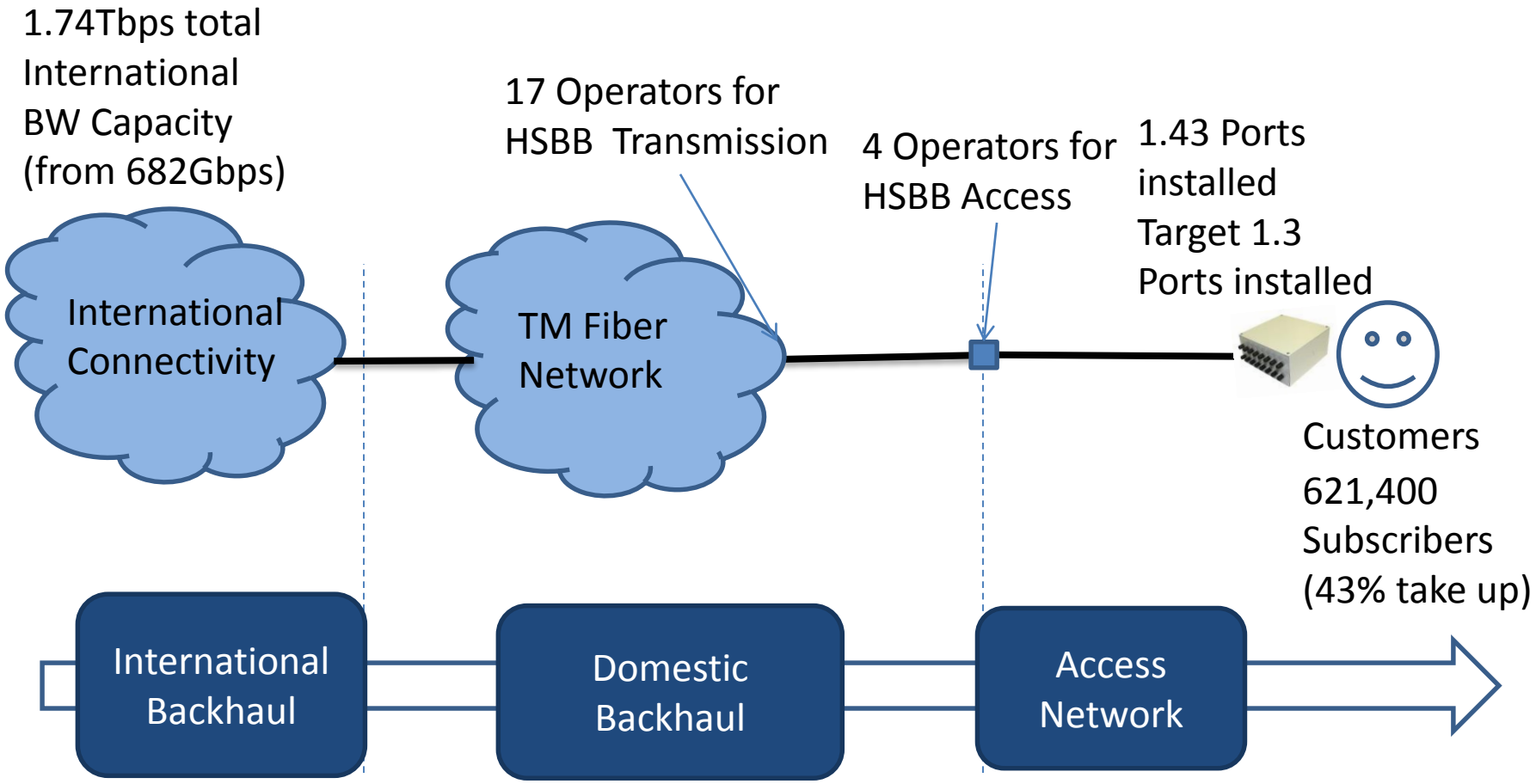


India – National Optical Fiber Network (NOFN)



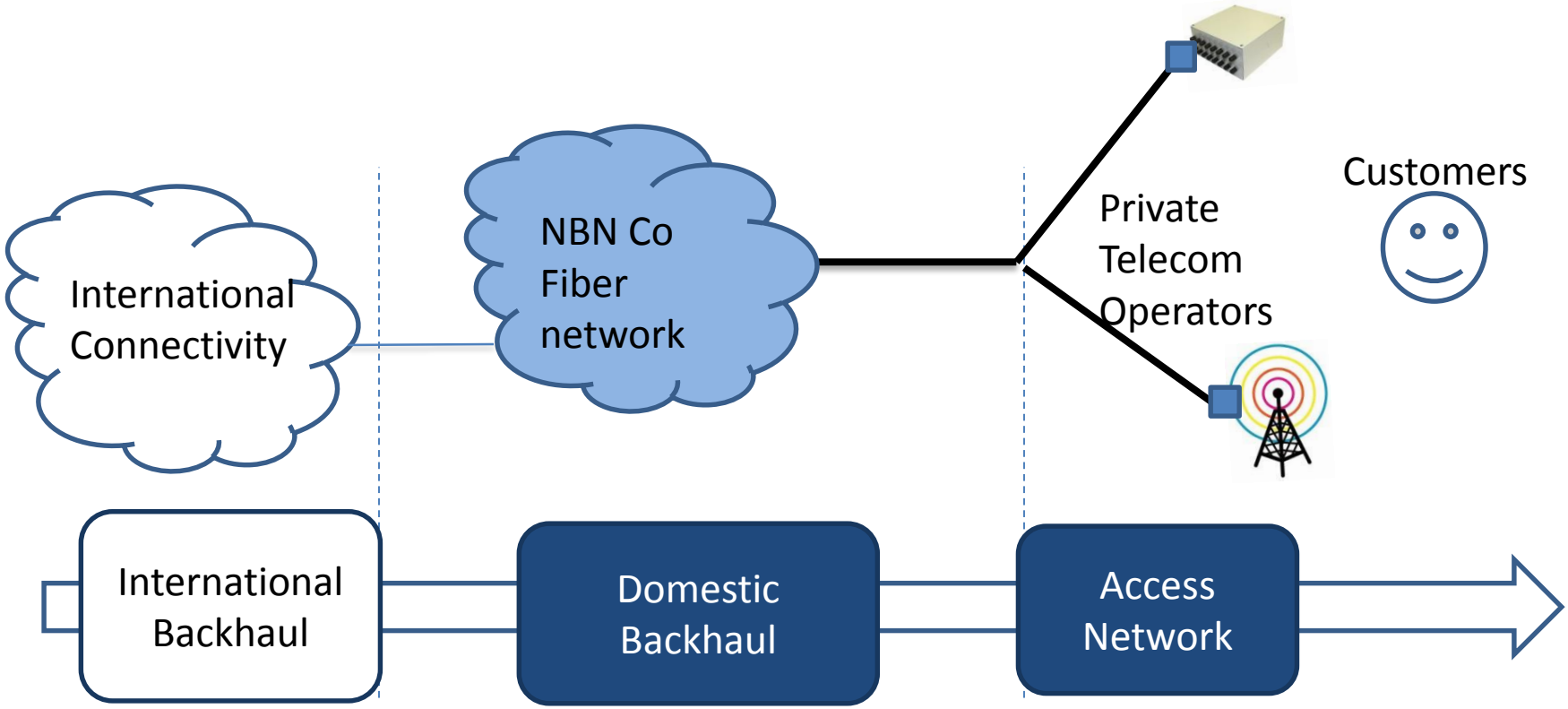
Implemented by BBNL – SPV (BSNL, Railtel, PowerGrid, GAILTEL), wholesale bandwidth provider. Costing 4B USD.

Malaysia – High Speed Broadband Network (HSBB)



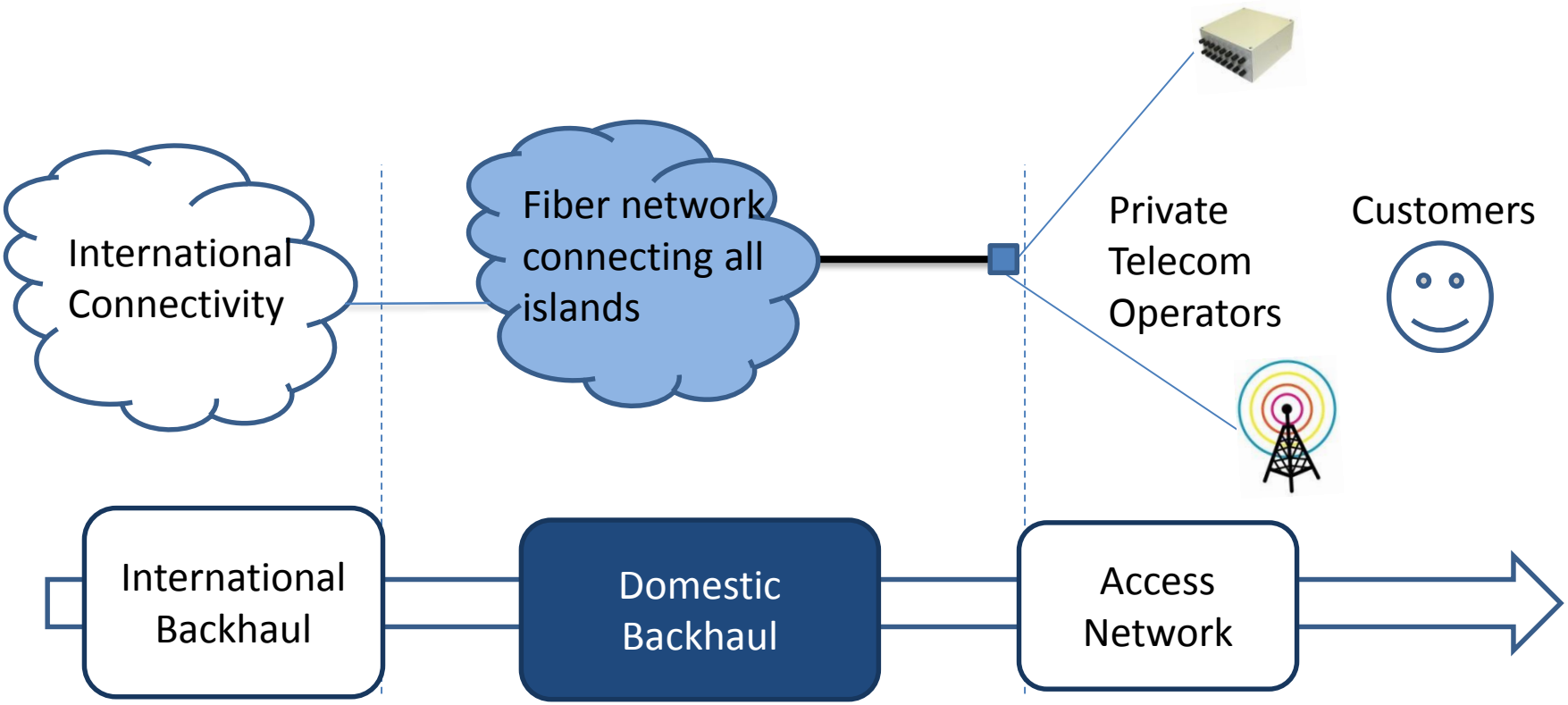
Implemented by Telekom Malaysia, National incumbent as a PPP with Gov (selected with no tender process). Total cost 3.5B USD, out of which Gov spent 0.75B
Conditions to access network commercially negotiated and not transparent

Australia – National Broadband Network (NBN)



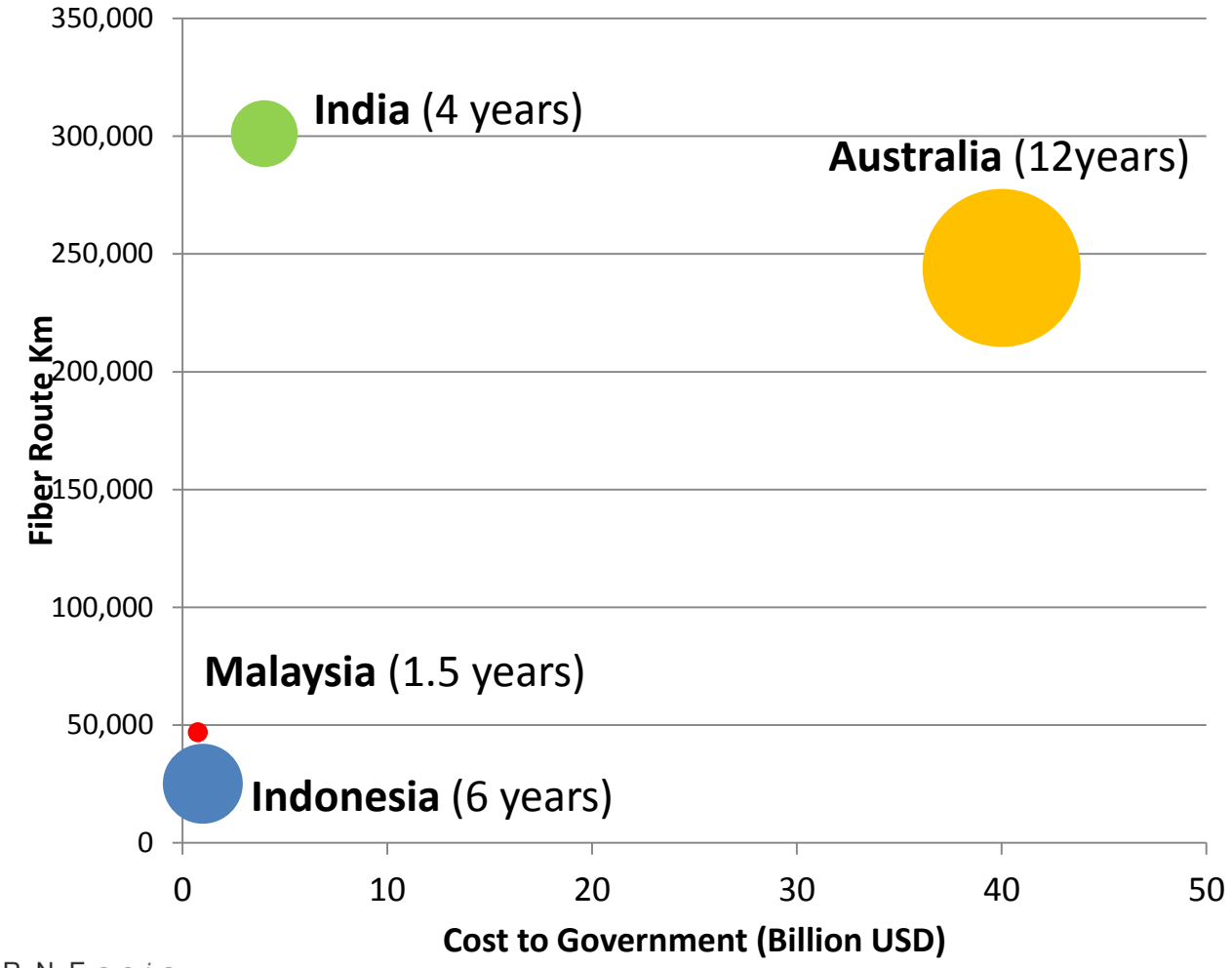
Implemented by NBN Co (wholesale-only SPV, providing retail telecom SPs with access). Estimated cost 40B USD. Was planned as FTTH initially in 2009 but after Gov changed from Labor to Coalition, in 2013, multi technology approach favored. Still planning stage. Companies Act and Access Act in place to ensure transparent and non discriminatory process.

Indonesia – Palapa Ring



446 cities implemented by PT Telekom, incumbent (no tender process. 51 in least commercial cities to be implemented through gov subsidized auctions. Estimated cost 1B USD.

Cost vs Fiber deployed vs Implementation time



Size denotes implementation time

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	Cost to Government (Billion USD)	Implementation Entity	Scope of Project	Open Access	Timely implementation
India	4	BSNL SPV	Connectivity from Block to 250,000 GP 301,000 km fiber	Conditions being discussed, Tariff on web	Delayed (2015)
Malaysia	0.75	TM (selected with no tender process, other operators not considered) PPP	FTTH in high industrial areas only 46,986 km fiber	No transparent conditions or pricing, but other operators have signed up	Completed on time (2010)
Australia	40	NBN Co Wholesale only SPV	Connectivity of whole country through FTTH, fixed wireless and satellite 250,000 km fiber	Clear legislation on non discriminatory open access and transparent pricing	Delayed (2019)
Indonesia	1	PT Telekom (other operators not considered)	Connectivity of Eastern non commercial cities 25,000 km fiber	Conditions have not been agreed	Delayed (2015)

Conclusion

- Need for demand-side stimulation
  - including, training, awareness campaigns, affordable user-friendly devices and attractive local language content.
- Open transparent tender process when selecting implementer
  - Taking technology neutrality into account.
  - Open access to network with transparent, non-discriminatory conditions and pricing.
  - Disbursements tied to implementation miles stones.
- PPP vs. SPV
  - PPP can lead to faster implementation time as in Malaysia, but may not be conducive to competition. SPV take a long time to set up and high admin burden as in India and Australia.