



Capacity
Building



SESSION 3

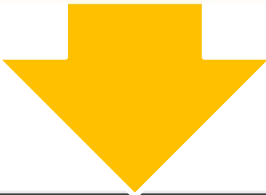
Closing the gap: the role of government



The role of the government

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Why should governments take action?	How can governments influence coverage?	What are the limits of government action?
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Enabling supply: investment-friendly regulatory framework



Why should governments take action?

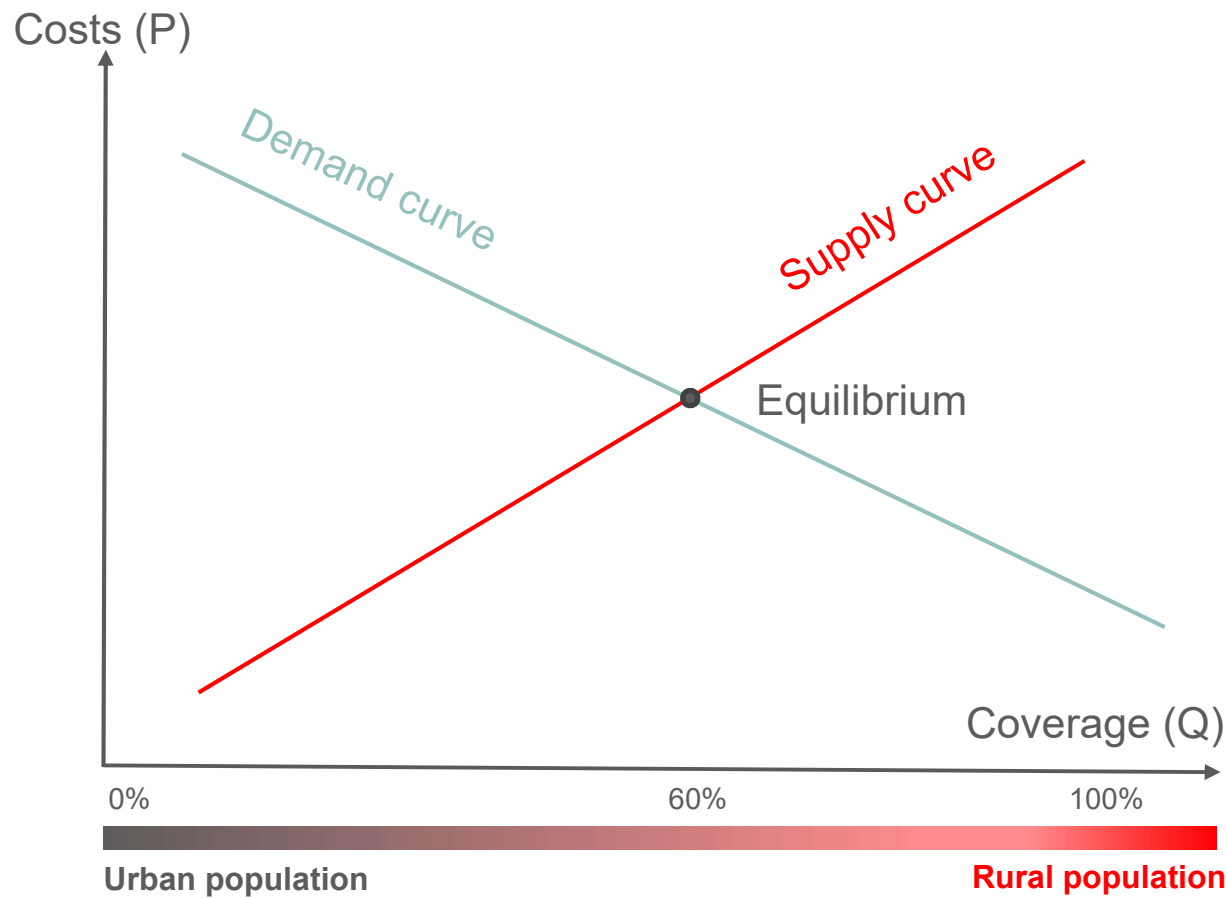
1. New services
2. New jobs
3. New business opportunities
4. GDP growth due to productivity boost
5. Increased direct and indirect tax income
6. E-government opportunities



**+1% mobile broadband
adoption
=
+0.15% GDP growth***

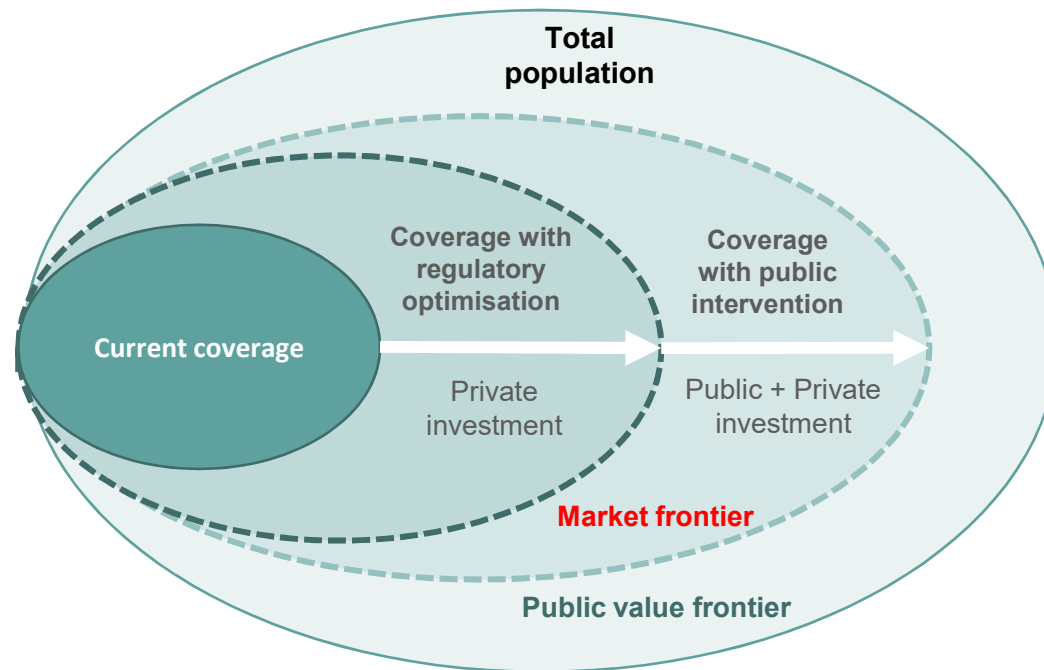
The Internet is driving economic growth and societal development, enabling access to life-enhancing services and creating multiple opportunities for citizens and businesses to thrive. There is evidence that countries with high levels of mobile connectivity have made the most progress in meeting their commitments to the UN Sustainable Development Goals.

How can the governments influence coverage?



What are the limits of government action?

- Market competition where possible, state intervention where needed
- The first priority is to enable the build out of commercially sustainable networks to the market frontier
- Only then should governments and regulators explore policy options to drive coverage out to the public frontier

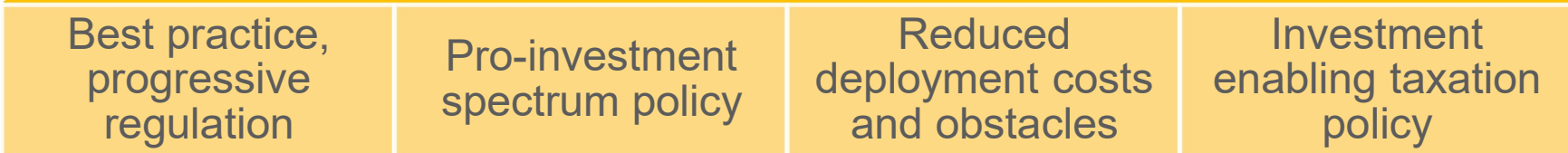
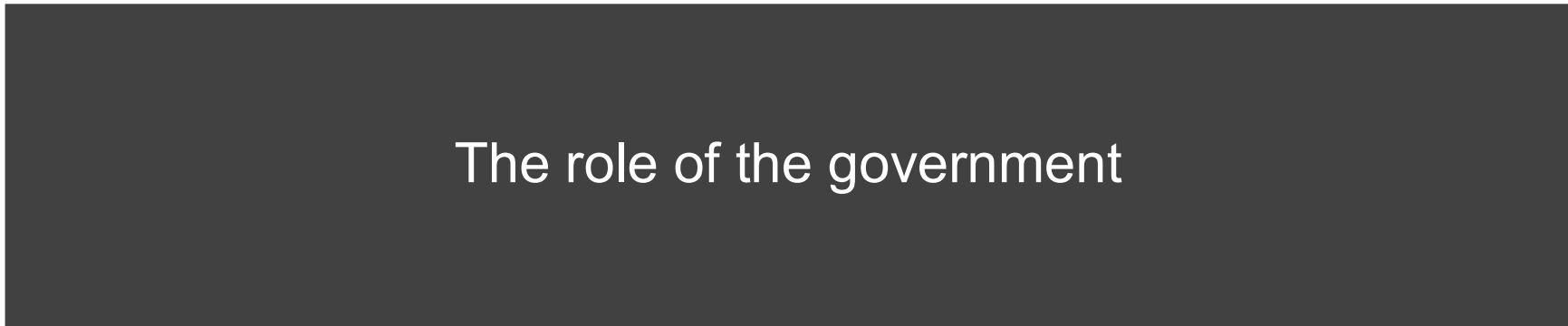


Discussion

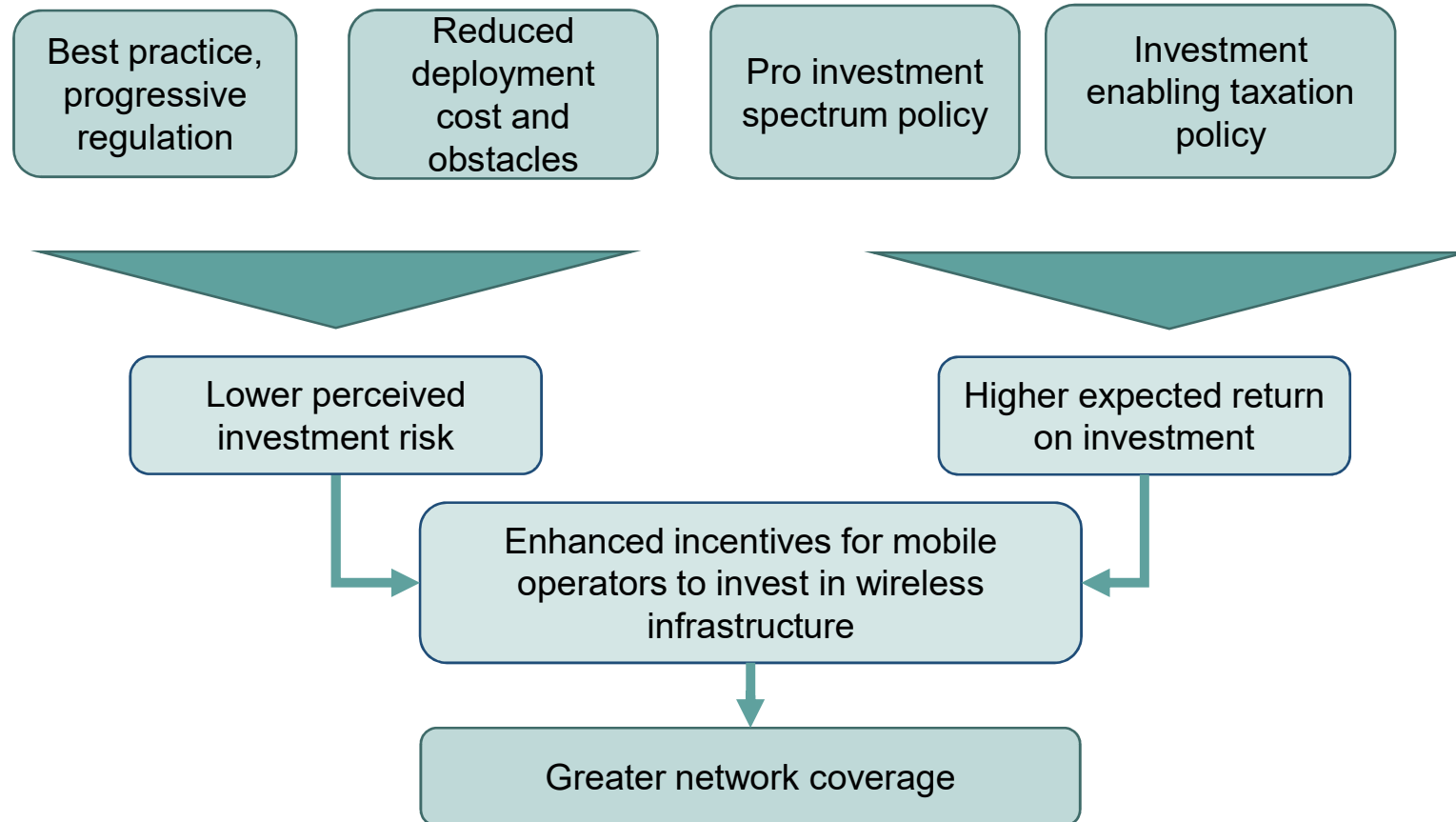
- What does bad regulation and policymaking look like? What examples can you think of?
- Why does it impact investment in, and deployments of, communications networks?



Enabling supply: an investment-friendly regulatory framework



Enabling supply: an investment-friendly regulatory framework



Ensuring best practice, progressive regulation

A consistent regulatory approach based on best practice principles is crucial to give investors the confidence to roll out infrastructure in rural areas

Clear policy objectives

- Promotion of competition and innovation
- Protection of consumers
- Extending coverage

Best practice regulatory principles

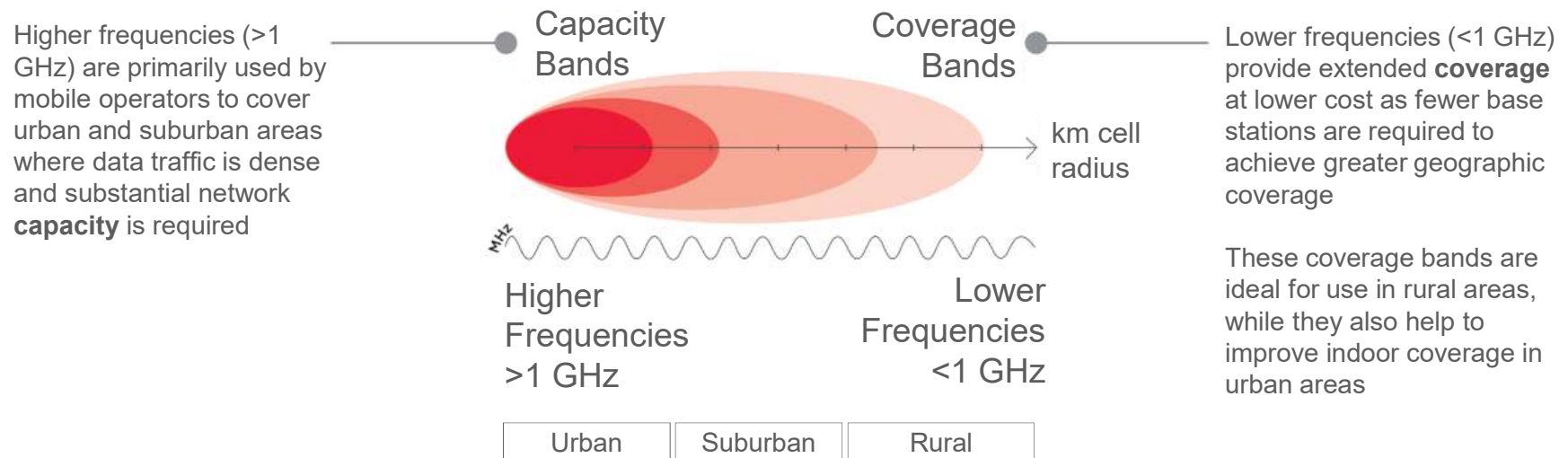
- Tech neutrality, proportionality and predictability

Progressive policy approach to updating legacy legislation

- Keep pace with converged and dynamic ecosystem

Releasing enough of the right spectrum is key to extending coverage

- There is a direct trade-off between the amount of spectrum and the amount of sites required to provide sufficient coverage
- The availability of sufficient spectrum is key to allowing operators to optimise their investments
- **Releasing spectrum according to a known roadmap** provides certainty to investors
- **Releasing spectrum below 1 GHz** is required to bring coverage to rural areas



Spectrum prices can critically impact deployment

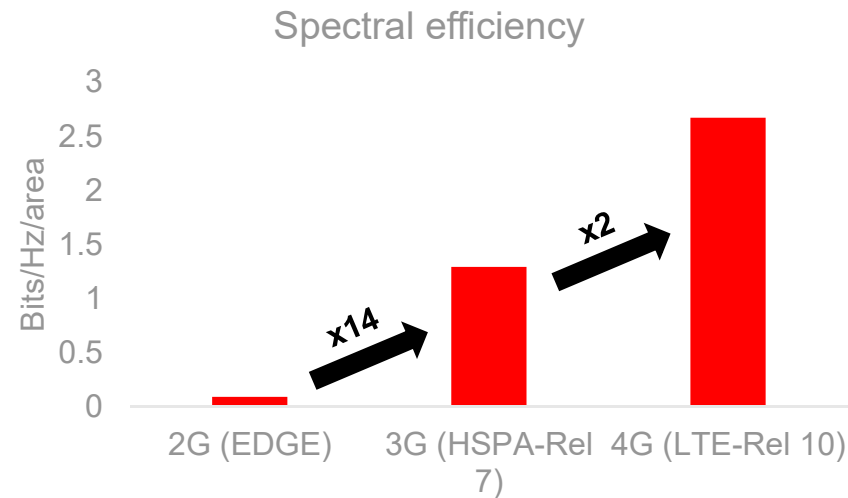
- High spectrum prices are linked to expensive, slower mobile broadband services with worse coverage
- Inflating spectrum prices through artificial scarcity or excessive reserve prices and annual fees, diverts resources from network deployment



<https://www.gsma.com/latinamerica/wp-content/uploads/2018/07/Spectrum-pricing-developing-countries.pdf>

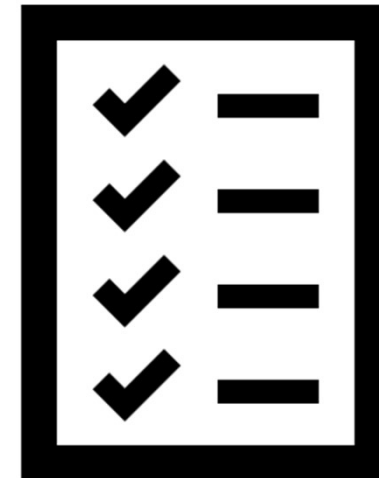
Licence conditions will also impact investment choices

- Short-term licences with uncertain renewal conditions undermine the long-term investments needed to extend connectivity
- Limits on trading spectrum prevents its efficient use by operators most willing to invest in network deployment
- Locking spectrum into a specific technology prevents operators from leveraging network innovations and exploring new coverage options



Pro-investment spectrum policy

1. Accelerate release of sub 1GHz coverage spectrum to drive coverage
2. Develop national spectrum road maps to provide certainty and predictability to investors
3. Ensure spectrum auctions prioritise connectivity objectives and overarching development goals rather than maximising short-term government revenues
4. Promote spectrum licences that are of sufficient duration
5. Give operators the commercial, operational and technological flexibility to make the most efficient use of the spectrum available





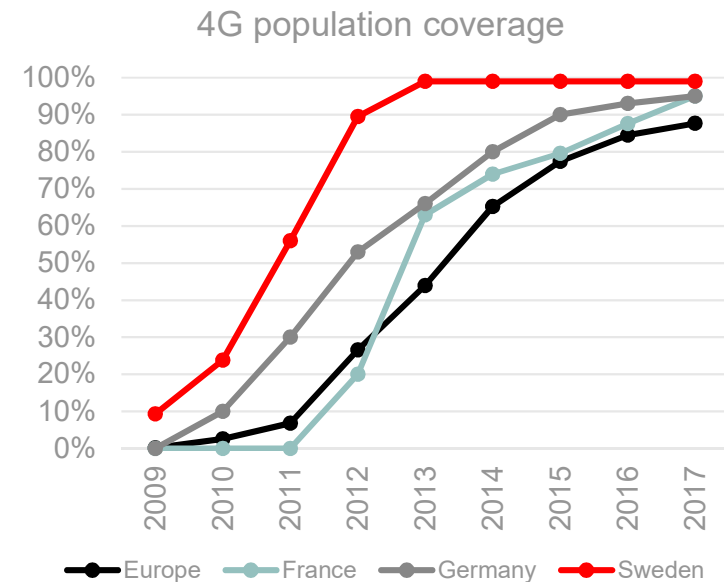
Spectrum policy case study: 4G spectrum auction in Sweden

Context

- In 2009, Sweden and Norway launched the first commercial LTE networks
- Sweden has one of the lowest population densities in the world

A connectivity driven spectrum policy

- Early release of 800 MHz spectrum in 2011
- Technology neutral licences with 25 years duration
- Targeted coverage obligations:
 - Obligations only for one of five auctioned blocks
 - Secured investment from spectrum price
- Today, 4G coverage in Sweden reaches 99% of the population



Administrative procedures and approvals

- Network operators face obstacles when seeking approvals and licenses for network deployments such as:
 - High rents
 - Administrative delays in accessing sites
 - Overly restrictive base-station EMF limits
- These raise costs and cause uncertainty that can postpone or even threaten planned investments in extending network coverage.
- Policies need to reduce obstacles to network deployment. Administrative procedures and approvals are needed in the following areas:
 - Planning regulations
 - Health and safety regulation (exposure to RF radiation)
 - Antenna deployment permit procedures
 - Rules around rights of way and public infrastructure





Reducing red tape in local government: Case study – Colombia

Context

- **1,222 municipalities**
- Wide autonomy over land use, rights of way, and urban planning
- **Rent and vote seeking incentives** drive local rules
- Permit delays and refusals result in lack of deployments

Actions of central authorities

- **2009:** Law forcing municipalities to facilitate deployments
- **2012:** Regulator issues guidelines on urban integration, health & safety and permit process
- **2014:** Regulation forcing municipalities to identify and remove barriers to deployment
- **2015:** ICT ministry and Attorney General pressure municipalities to comply with national law

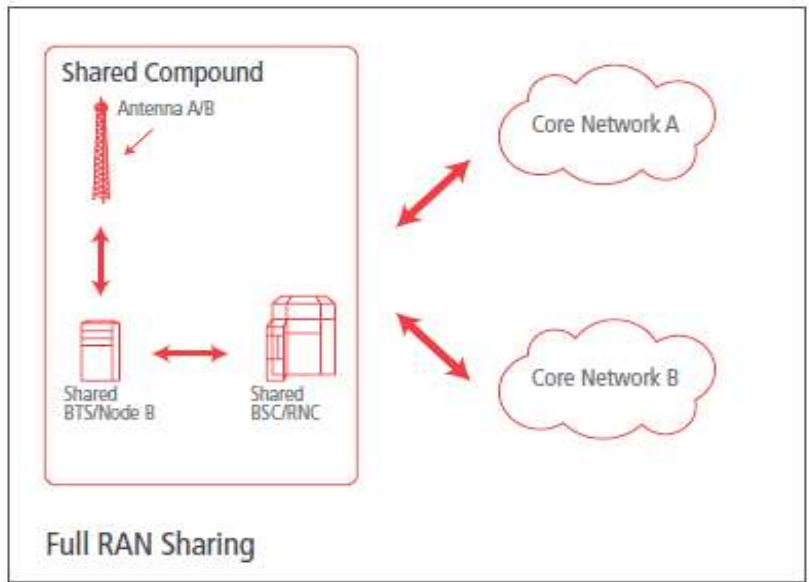
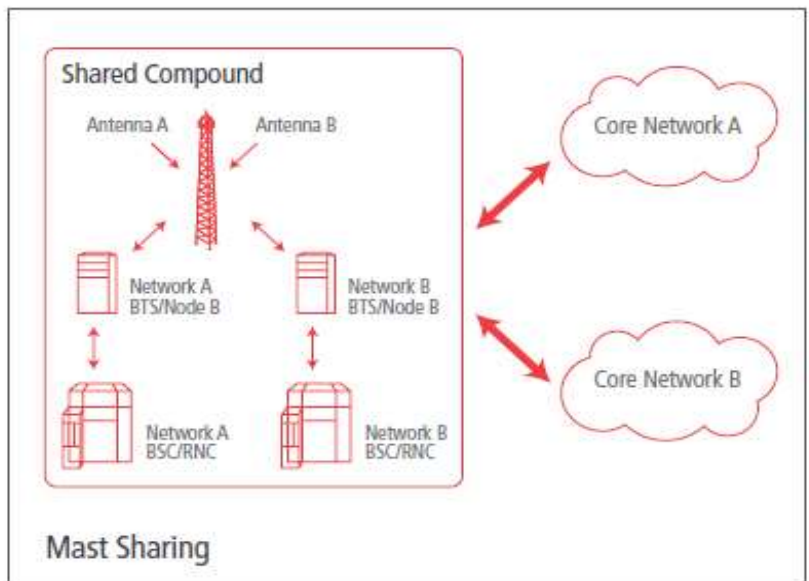
Lukewarm results

- Progress is slow despite work of central agencies
- Lack of local technical capacity is not the only issue
- Defining national guidelines is an essential first step
- But implementation requires the incentives for local governments to overcome perverse incentives.

3 Closing the coverage gap: The role of the government

Infrastructure sharing

- Infrastructure sharing reduces unnecessary duplication in hard to cover areas, resulting in
 - Lower costs for MNOs
 - Higher coverage
 - Lower prices and better services for consumers
- Passive and active infrastructure sharing should be allowed under primary legislation on a **voluntary basis**
- Voluntary infrastructure sharing is important to avoid creating a scenario that acts as a disincentive for operators to seek the 'first mover advantage'



Infrastructure sharing case study: RAN sharing in Brazil

Timeline

- 2012: Auction of 2 x 60 MHz in 2.5 GHz for 4G
 - Coverage obligations (5,570 municipalities by 2019)
- 2013: Two separate infrastructure sharing deals
 - Vivo (Telefonica) and Claro (America Movil)
 - TIM and Oi
- 2017: 4G present in 3,039 Brazilian cities
 - x3 the number requested by coverage obligations

Vivo and Claro deal

- RAN sharing deal for 432 sites
- More than 5.6M people covered by shared network
- Geographical split according to original coverage obligations

Benefits

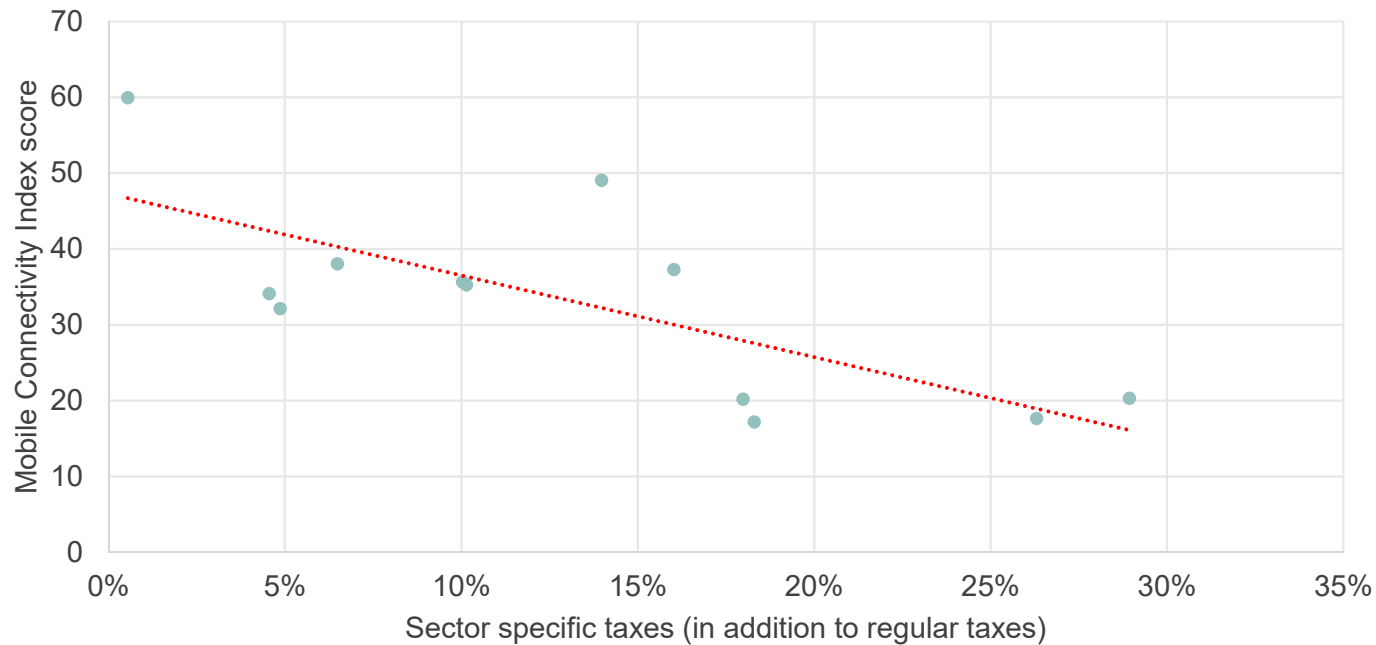
- More competition in rural areas that would otherwise only have one operator.
- Faster deployment for mobile operators and for the government.



Investment enabling taxation policy

- ✓ Eliminate sector specific taxation.
- ✓ Reduce overall uncertainty and unpredictability in the tax system,
- ✓ Focus taxation on profits rather than revenues.
- ✓ Introduce incentives for rural investment, such as import duty exceptions on mobile equipment.

Sector specific taxation versus connectivity in SSA



A key role for governments in promoting investment coverage

- It is in the government’s best interest to support the mobile industry to extend coverage to rural areas.
- Before thinking of coercive mechanisms, regulators should optimise the existing regulation.
- A connectivity driven regulatory framework needs to be coherent with its objectives.
- The table below shows the key regulatory areas governments should consider.

	Mobile operators	Government
Foster demand		
Foster supply	<ul style="list-style-type: none"> • Infrastructure sharing in rural areas • Innovation on last mile and backhaul technology 	<ul style="list-style-type: none"> • Best-practice, progressive regulation • Pro-investment spectrum policy • Reduced deployment costs and obstacles • Investment enabling taxation policy





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SESSION 3

Group Review

- How do you think the current regulatory framework in your country compares to these recommendations?
- What are the main regulatory challenges related to improving connectivity in your country?

