Coexistence of different mobile technologies

ITU workshop: 5G and new technologies

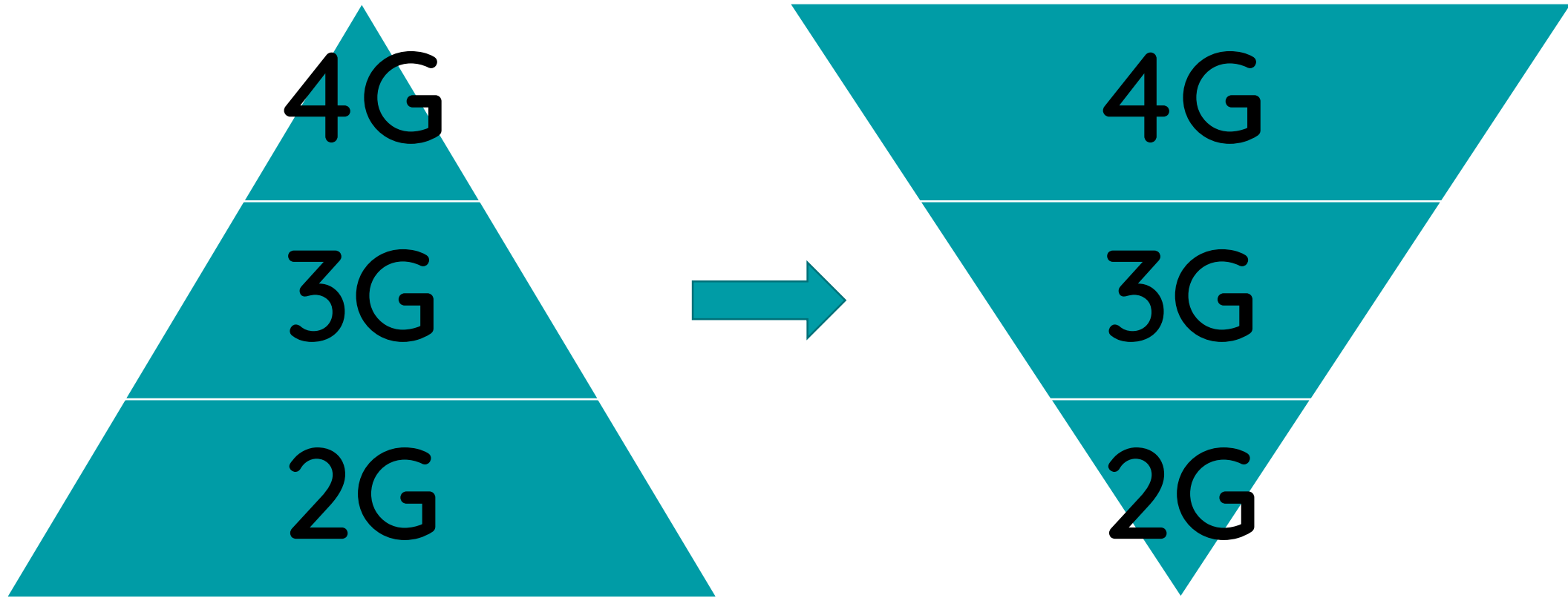September 2019

Lomé, Republic of Togo

Agenda

Underlying assumption: different networks coexisting

Policies to increase coverage of current networks

How to handle coexisting mobile networks: what is at stake

Conclusion

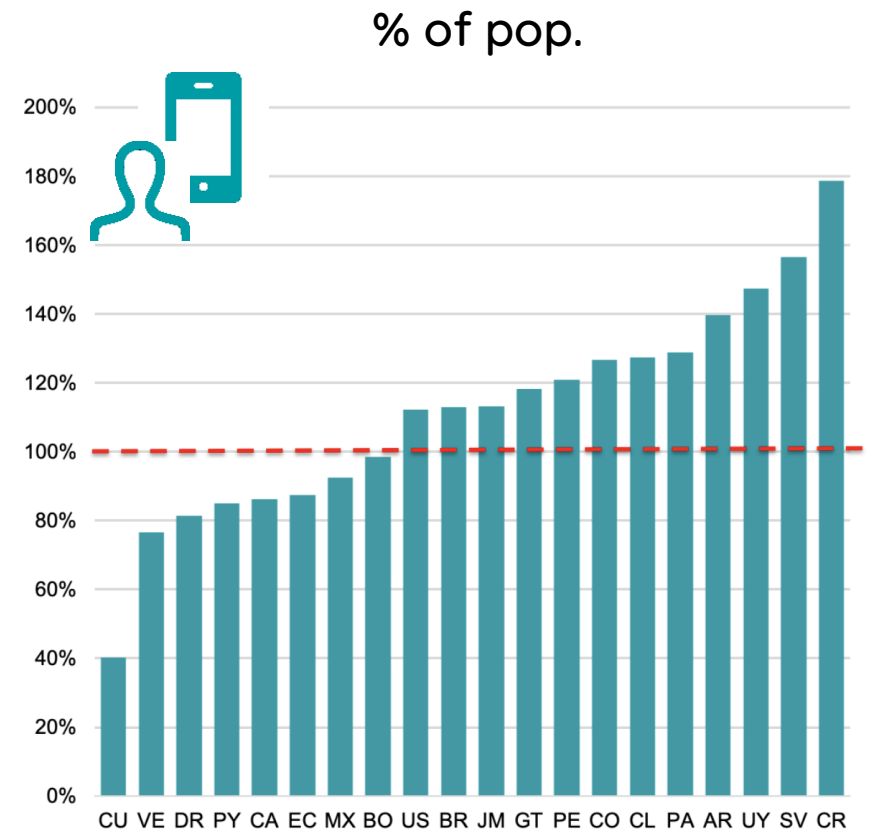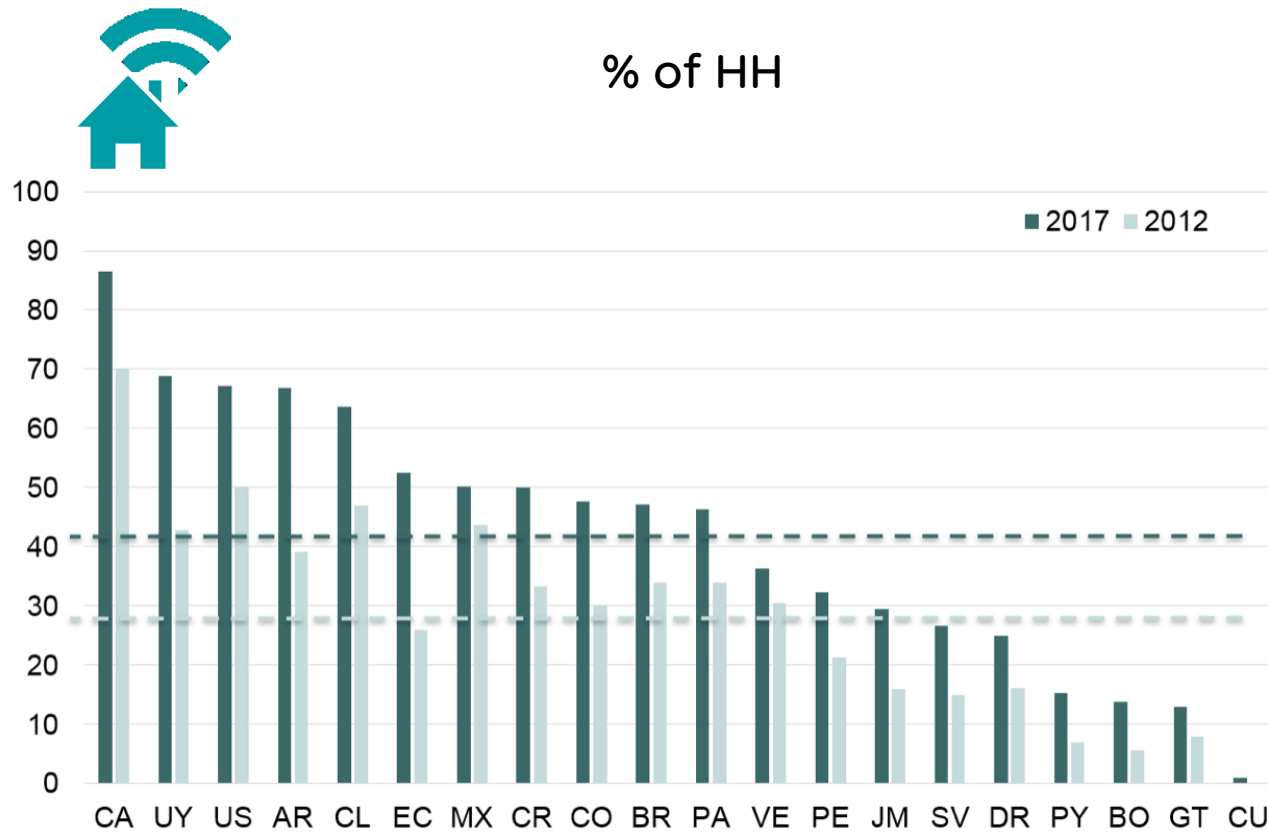# Underlying assumption: different networks coexisting

- What if there are no coexisting networks?

Policies to increase coverage of current networks: examples from Latin America

Connectivity status (broadband services)

Policies to increase coverage of current networks needed

Why USFs are important to close the digital divide?

What is essential?

Where?

For how much?

Who gets access?
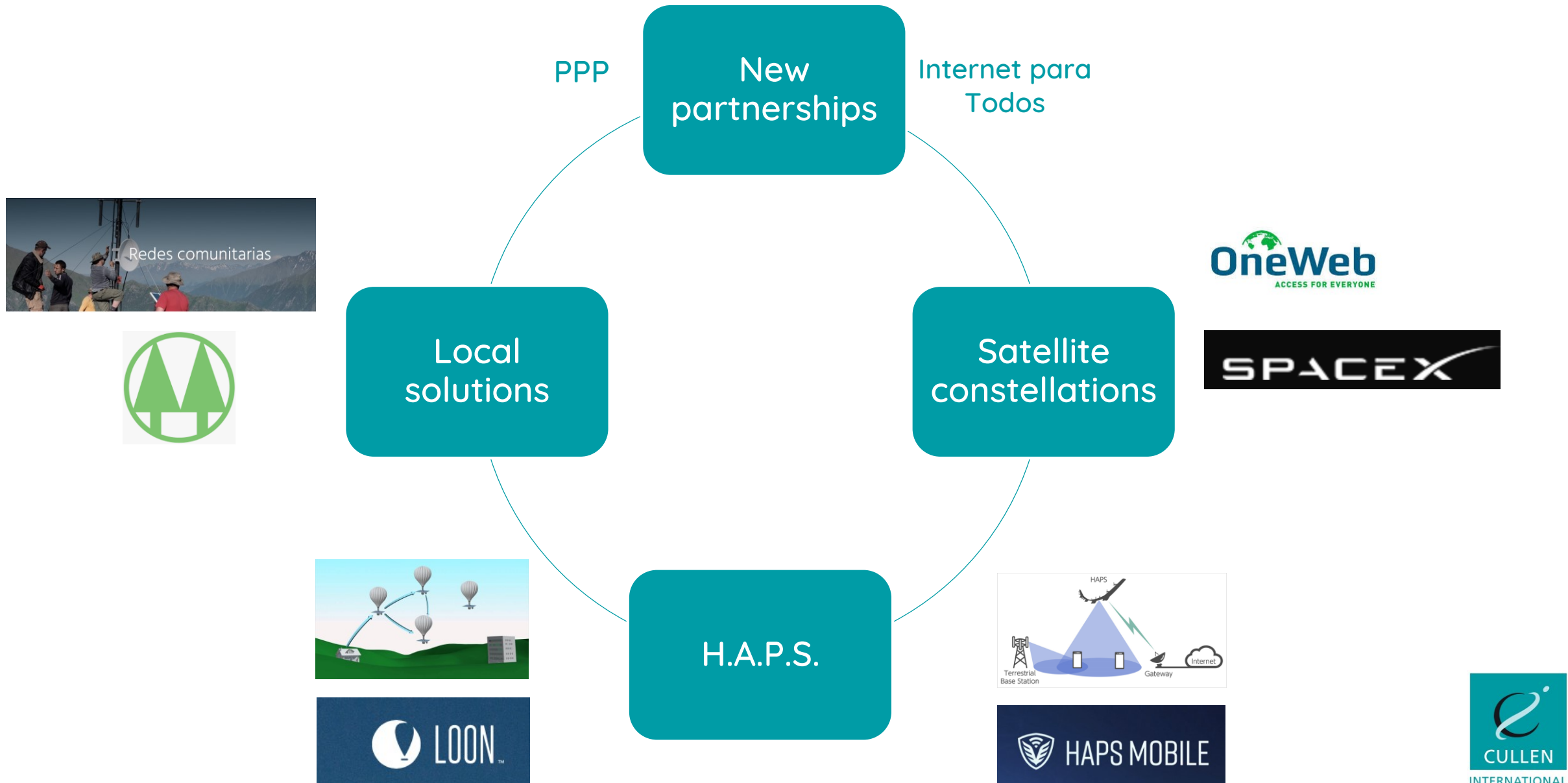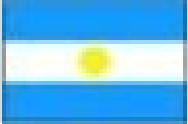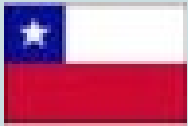
Universal service - government obligation ($)

Broadband-based access

Framework of policies and strategies (not only USF)

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# Alternative solutions to connect (also mobile networks)

National broadband plans and targets- USFs & Digital Agendas

	(Mbps)	Coverage	Year	USFs	National Digital agenda	National broadband plans
	No target	No target	N.A.	Yes 2000	Yes	Yes
	No target	2,471 cities	N.A	Yes 2000	Yes	Yes
	5	98% of pop	2019	Yes 2001	Yes	Yes
	No target	70% of HH internet 50 % of HH fixed broadband	2022	Yes 1976	Yes	Yes
	10	90% of HH (20% Fiber)	2020	Yes 1994	Yes	Yes
	Undecided	100% of pop	2024	No	Yes	Yes
	4	100%	2020	Yes 1996	No	Yes

The state of play of the digital agendas

Countries with a <u>single and comprehensive</u> national digital economy strategies

Yes
No
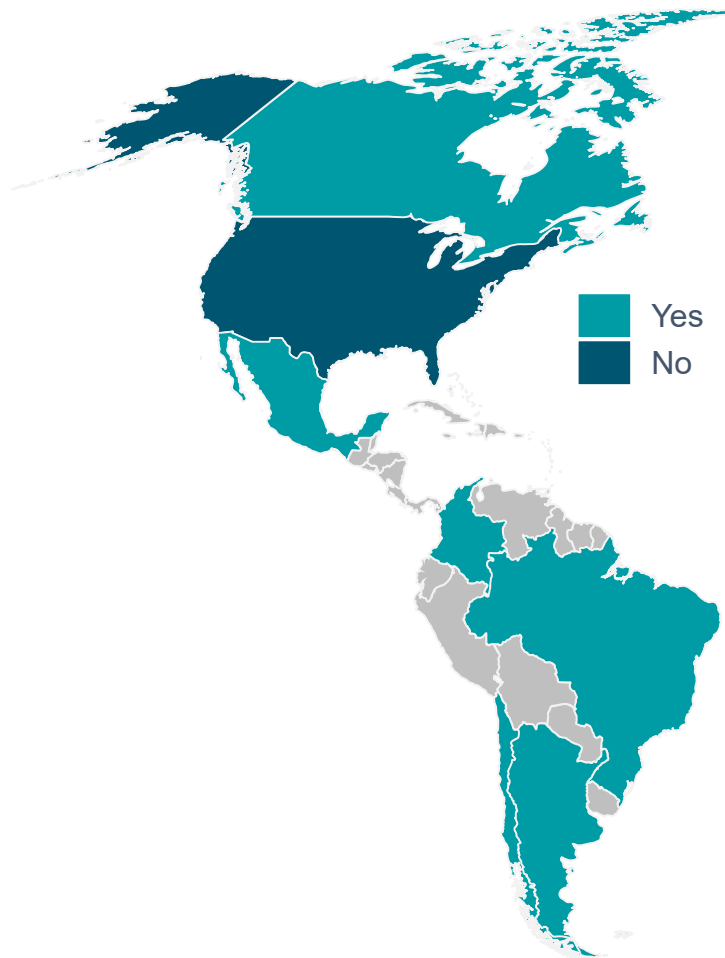
<u>Connectivity</u> still represents the main area of intervention in national digital economy plan

New government initiatives in specific digital economy areas						
Country	Connectivity	Cybersecurity	Data protection	E-commerce	Internet of things	Sharing economy
Argentina	●	●	◯		◯	
Brazil	●	◯	●	●	●	
Canada	●	●	●			
Chile	●	●	●		●	
Colombia	●	●	◯	◯	●	◯
Mexico	●	●	●	●		
US	●	◯				

● Yes

◯ Proposal/under discussion

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Spectrum comes with obligations

All countries in the Americas set coverage obligations
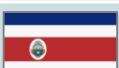
Different approaches:

- detailed coverage requirements and schedule, including roads and rural areas (Argentina, Brazil, Colombia, Chile, Costa Rica, Peru, Paraguay)

- coverage requirements as a percentage of the population (Canada, Ecuador, Mexico, United States).

Other kinds of obligations (subsidies for services and devices, info centres, investment in R&D)

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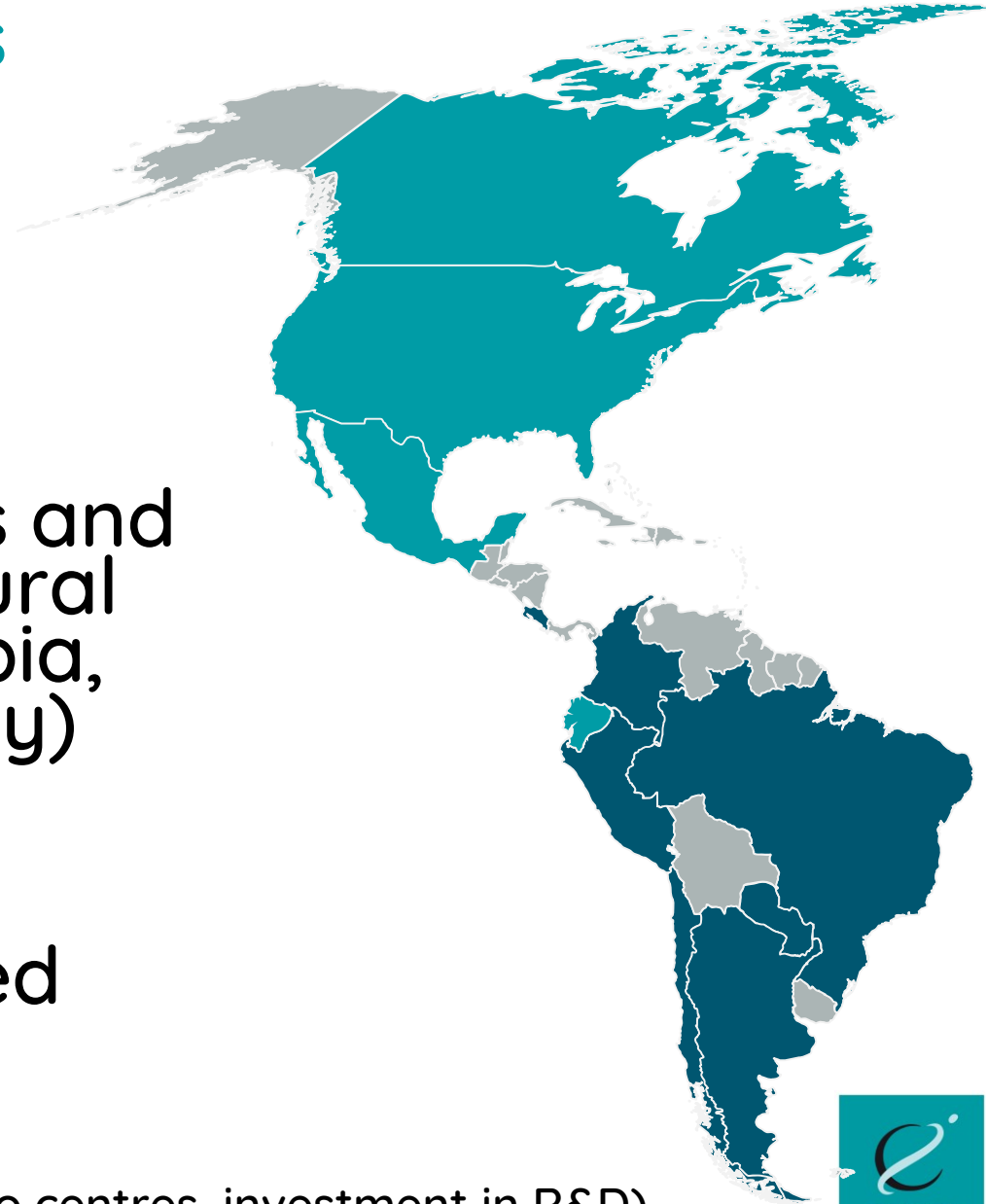
Different approaches to promote rollout

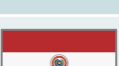| Country	General policy to ease network rollout		
AR	Connectivity and Infrastructure	Code of best practices, ranking One stop shop (u.i.)	Yes, price set by national government
BR	General targets	Antenna Law, ranking	Yes, for free
CL	General targets	Antennas Law	Yes
CO	Incl. in action plan and NDP	Code of best practices, one stop shop	Sharing ducts and poles
CR	Action plan	Sharing in natural areas	Yes
EC	White paper on deployment	-	Sharing in public properties
MX	General guidelines and OECD recommendations	IFT guidelines and assessment of local rules	Federal buildings (SCT, Promtel) and IFT guidelines
PY	NDP	Conatel guidelines	Only for basic services
PE	Yes	Antennas law, ranking	Proposed by Osiptel
US	Yes, 5G fast plan	23 state-law on mobile 5G and small cell	-

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The regional initiatives – Coordination
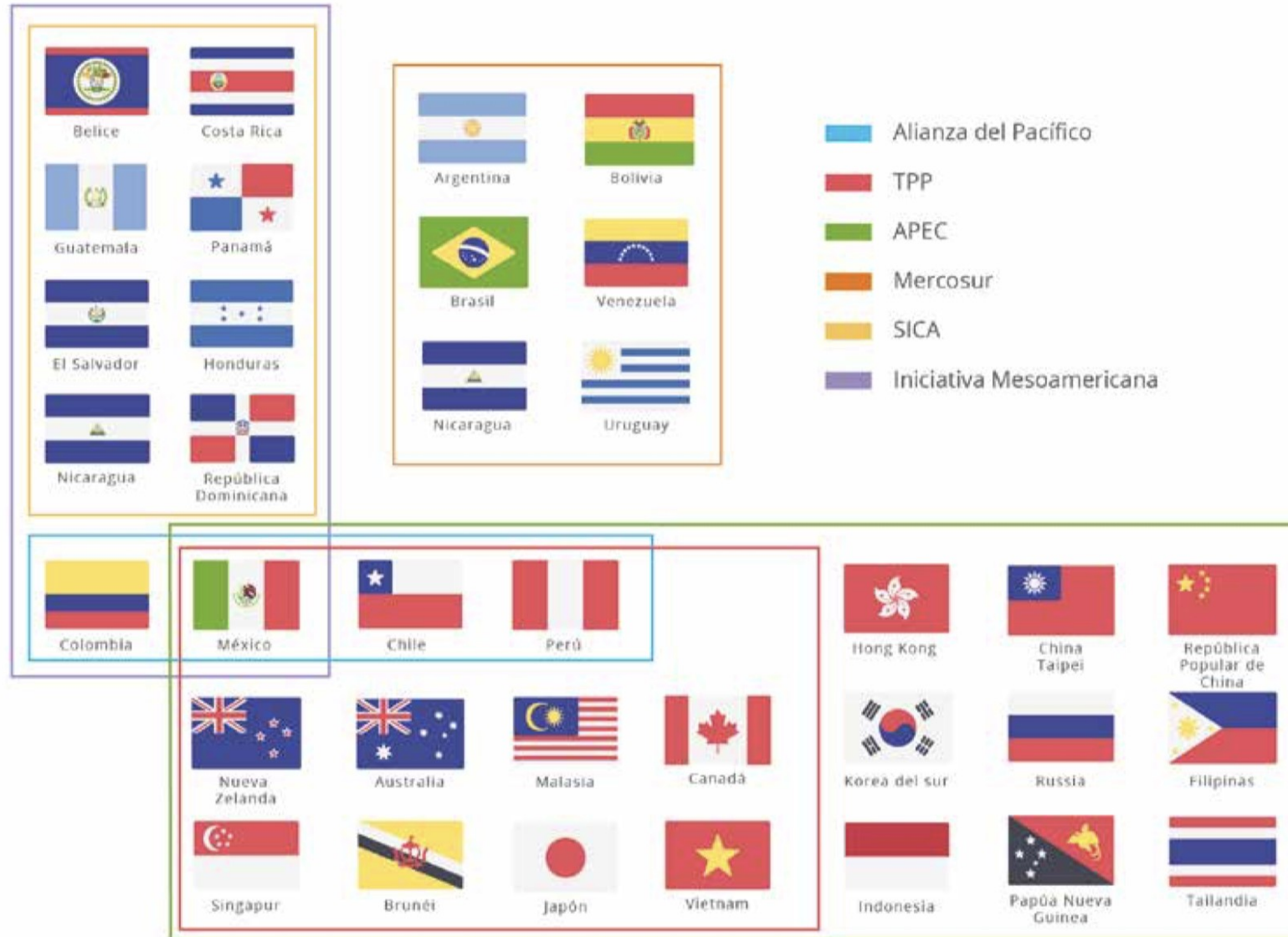
How to handle coexisting networks

How to handle coexisting networks: switch-off?

- What is at stake?

- Spectrum for new technologies and compatibility issues

- Isolated areas: which technology is serving customers there?
- Are devices affordable?

How to handle coexisting networks: switch-off?

- ## Two approaches:

- ## Led by operators: the US and Europe

- ## Led by the government: under discussion in Brazil and Colombia
  - Mandatory? Government obliging
  - Stimulated? Government stimulating new technologies (e.g. 4G or 5G)

Conclusion

- # If networks do not coexist, there are several different alternatives to foster coverage expansion:
  - USF, digital agenda, coverage obligations, other approaches

- # When networks do coexist:
  - Operators may naturally switch technologies off
  - Governments stimulate and discuss obliging

Thank you!

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