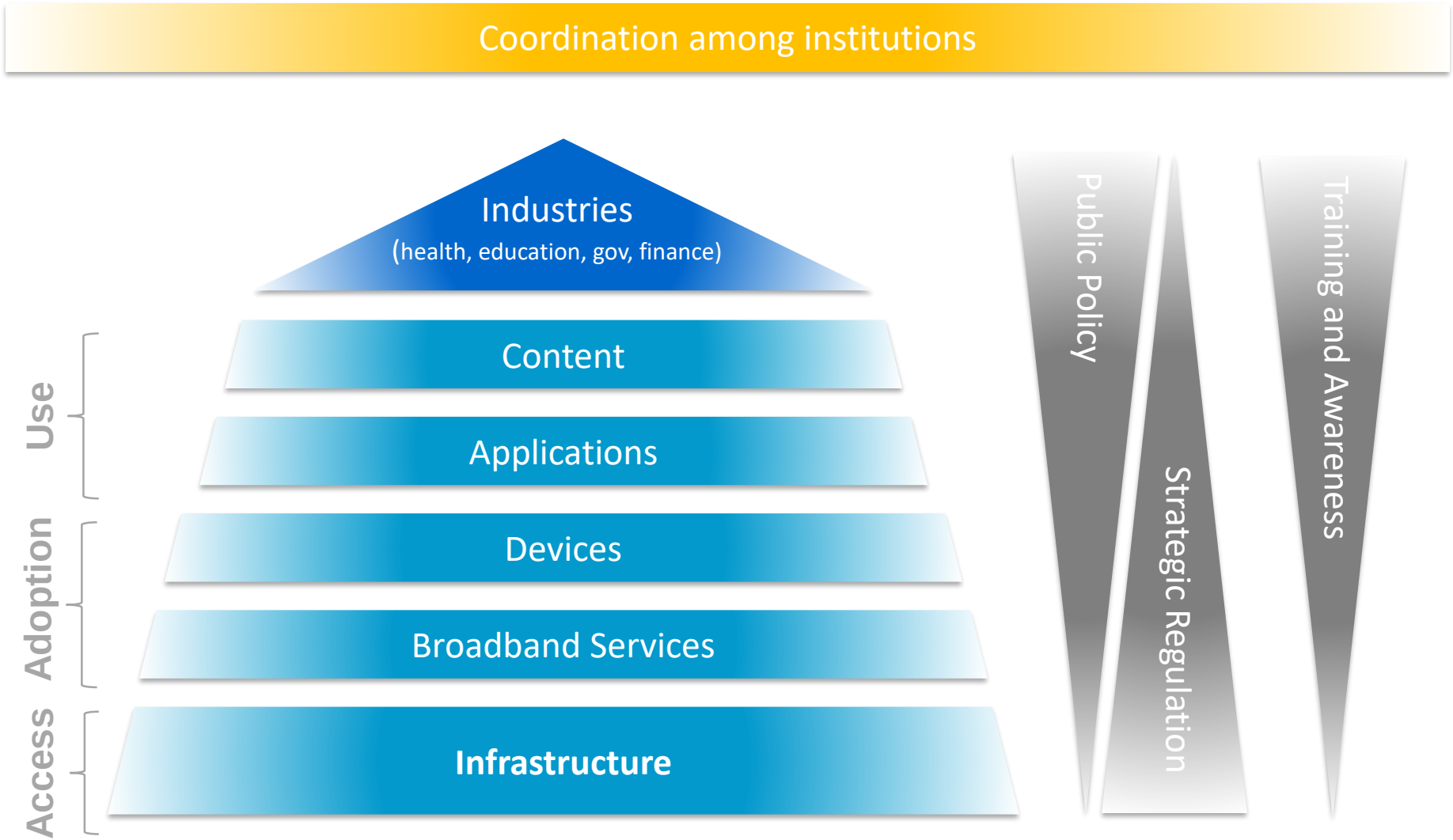
Why does the Internet matter for economic development?

The train of innovation: *ICT as a trigger for growth, productivity and social equality*

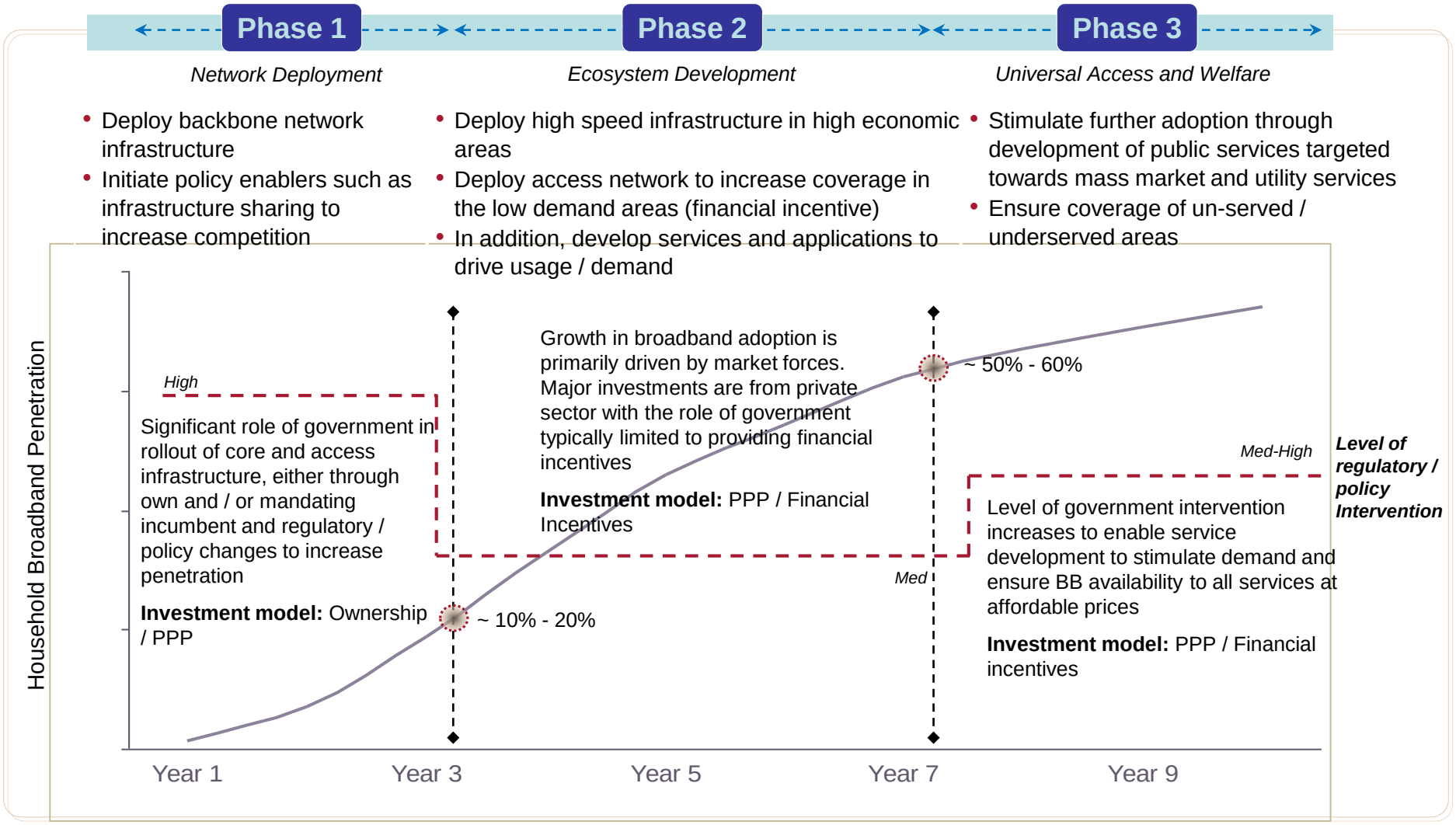
Antonio Garcia-Zaballos (antoniogar@iadb.org)
Washington DC, June 12th

Infrastructure constitutes the foundations of the ecosystem

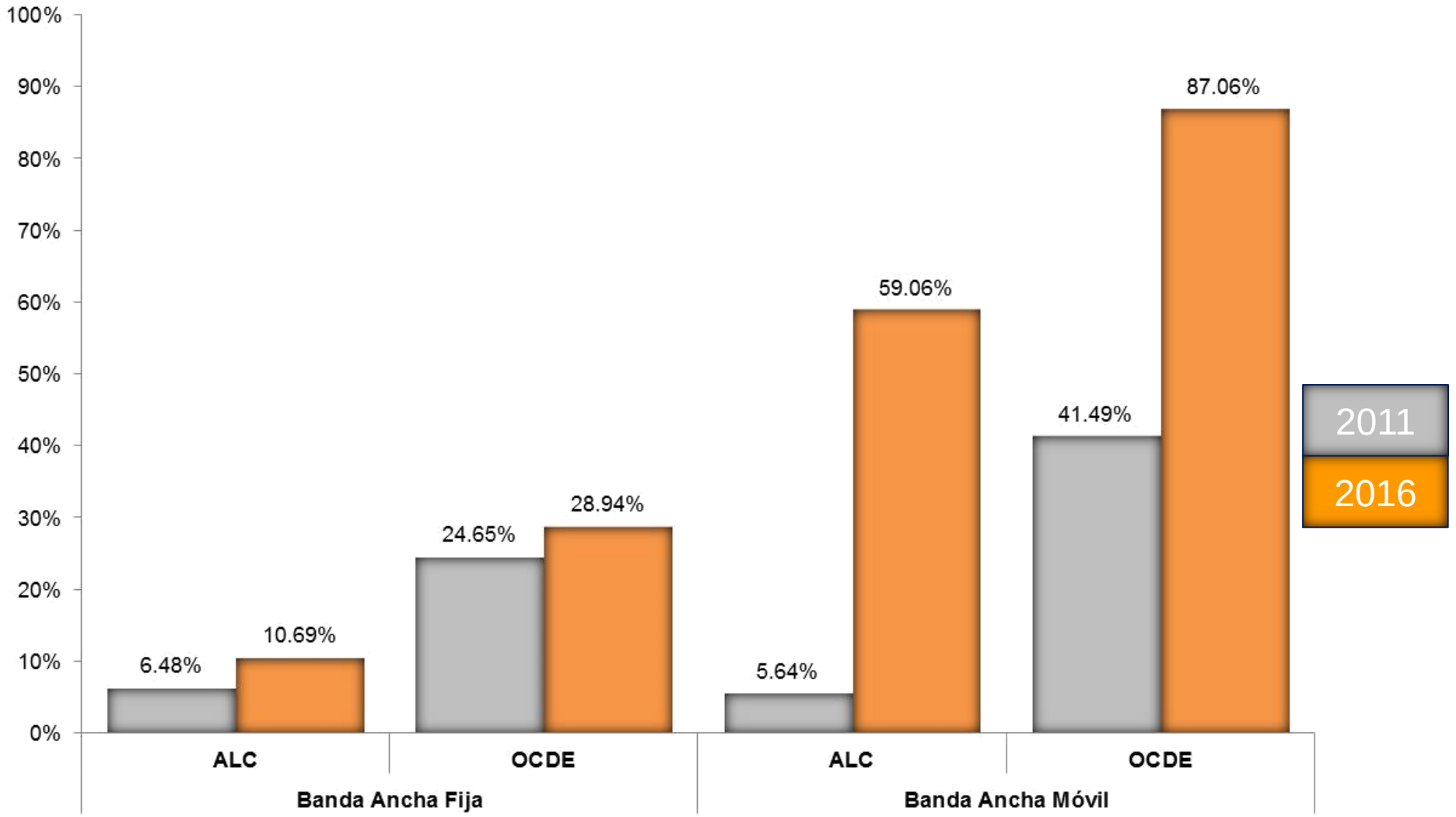


Source: Antonio García Zaballos and Félix González Herranz

However the magnitude of the problem is different country to country



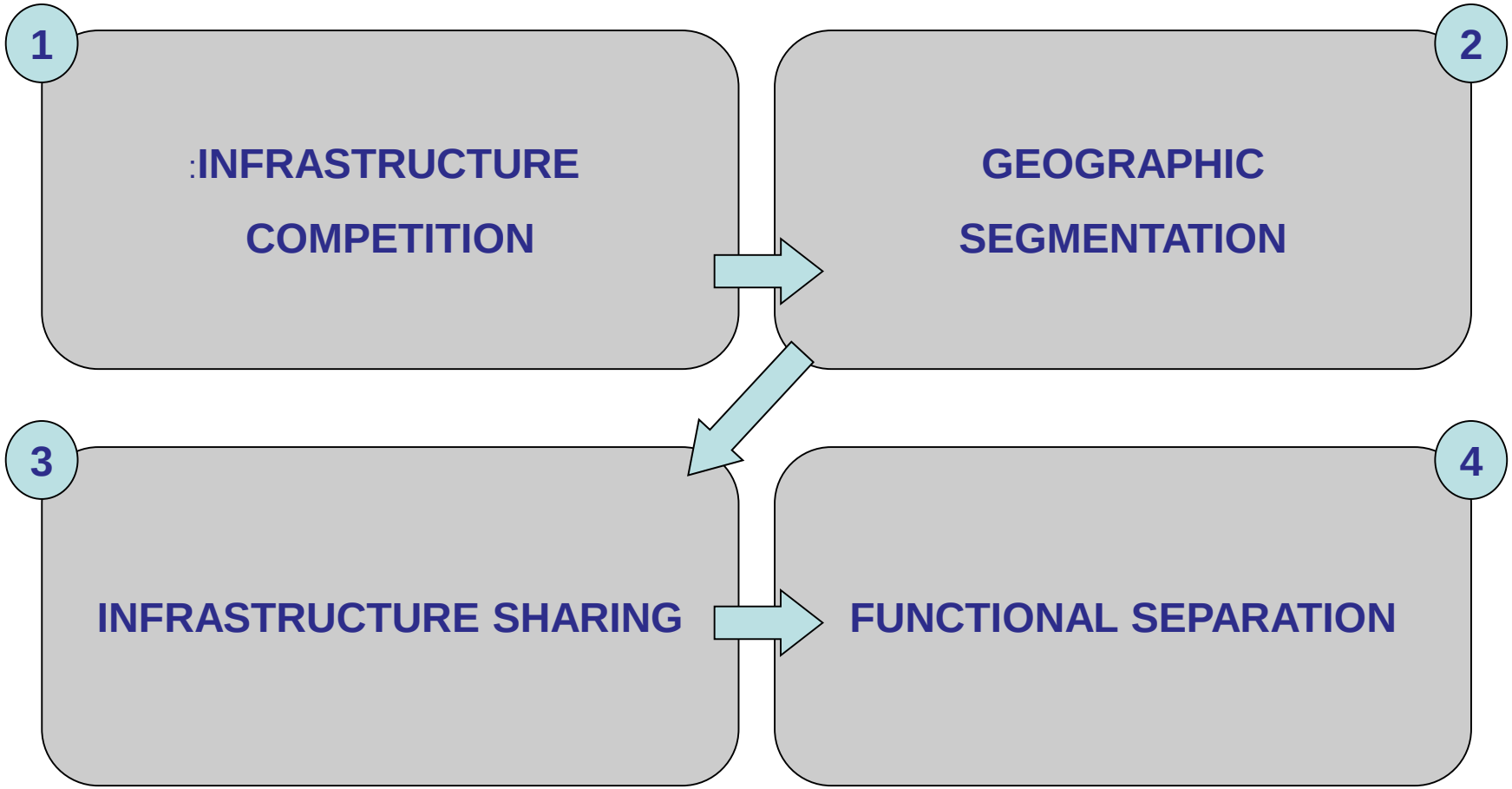
Divide is growing and is especially severe in infrastructure



Penetración de los servicios de banda ancha (% de la población)
Fuente: www.iadb.org/digiLAC (BID)

To bridge this gap, a huge investment is required

From a service competition to an infrastructure competition



Keeping this in mind the main trends and challenges are…

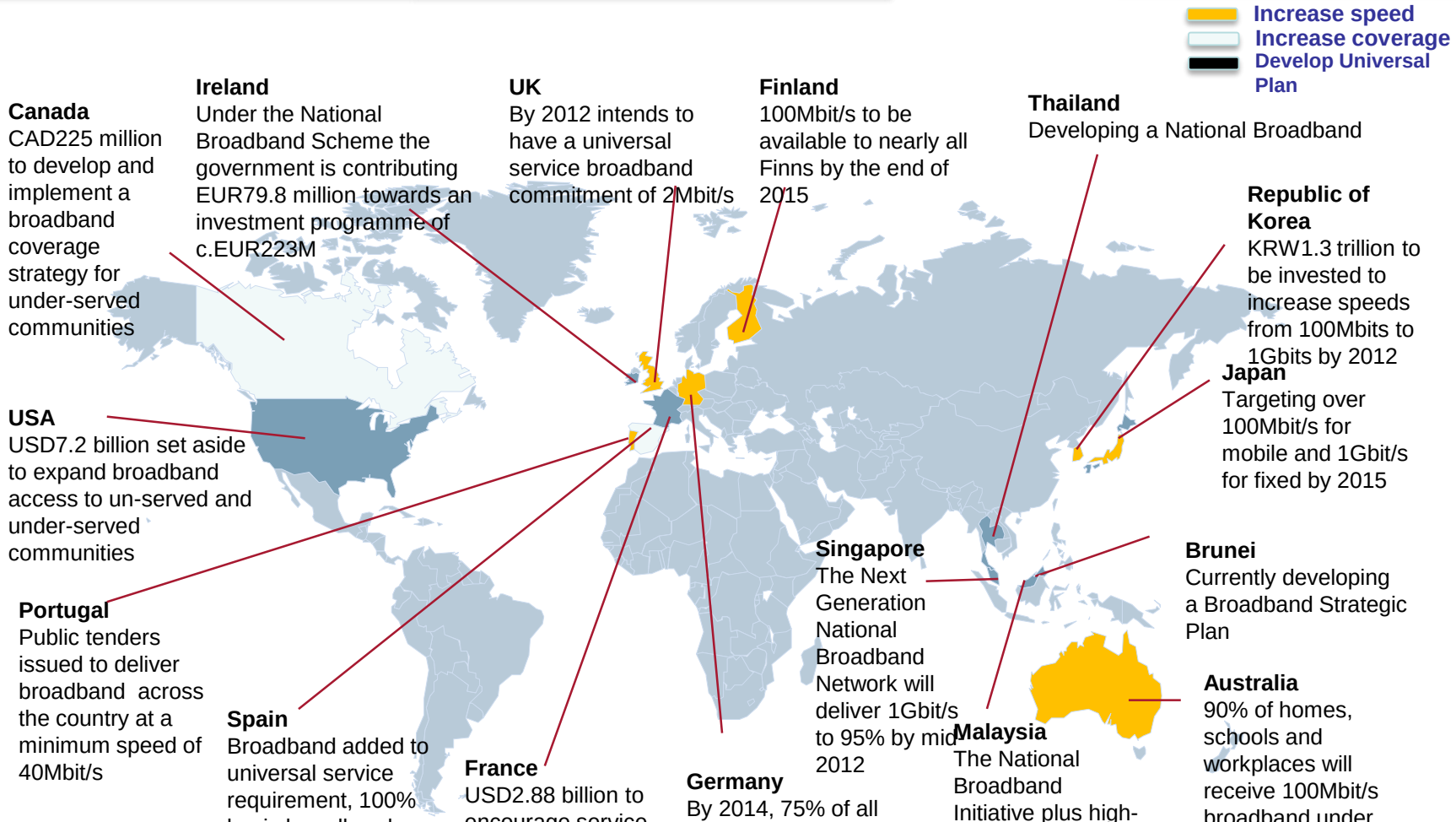
Main trends

- Growing **popularity of smartphones** with an **significant impact on the traffic**
- **Mobile broadband substitution** for several clients and geographical areas.
- **Economical crisis impacts on demand evolution** and decision taken about network rollout or sharing networks
- **Impact of network neutrality** on strategy of different operators (value chain)
- **Price strategy must be changed**
- **Spectrum regulation**
- **Digital Agenda** (rural broadband, universal broadband, etc,,,,)

Challenges

- **Definition of spectrum policy** implying more efficient spectrum use as well as a higher telecom services penetration. (refarming, digital dividend,…)
- **Definition of regulatory policy** that incentive investments and shareholders return (risk remuneration depending on the risk assumed)
- **Access network transformation** substituting traditional networks for broadband networks.
- **Geographical segmentation consideration** in the market analysis, network deployment and SMP operators.
- New **commercial and pricing policies,** based on capacity and different kinds of user devices

That is why countries all over the world are involved in ambitious broadband expansion plans…



Canada
CAD225 million to develop and implement a broadband coverage strategy for under-served communities

Ireland
Under the National Broadband Scheme the government is contributing EUR79.8 million towards an investment programme of c.EUR223M

UK
By 2012 intends to have a universal service broadband commitment of 2Mbit/s

Finland
100Mbit/s to be available to nearly all Finns by the end of 2015

Thailand
Developing a National Broadband

Republic of Korea
KRW1.3 trillion to be invested to increase speeds from 100Mbits to 1Gbits by 2012

Japan
Targeting over 100Mbit/s for mobile and 1Gbit/s for fixed by 2015

USA
USD7.2 billion set aside to expand broadband access to un-served and under-served communities

Portugal
Public tenders issued to deliver broadband across the country at a minimum speed of 40Mbit/s

Spain
Broadband added to universal service requirement, 100% basic broadband coverage targeted by 2013 and extensive penetration of ultra-fast broadband by 2020

France
USD2.88 billion to encourage service provider network investments in smaller cities and rural areas

Germany
By 2014, 75% of all regions to have access to 50Mbit/s Internet via fibre, cable or wireless connections

Singapore
The Next Generation National Broadband Network will deliver 1Gbit/s to 95% by mid 2012

Malaysia
The National Broadband Initiative plus high-speed broadband deployment to increase penetration rate to 50%

Brunei
Currently developing a Broadband Strategic Plan

Australia
90% of homes, schools and workplaces will receive 100Mbit/s broadband under National Broadband Network plans

Sources: Government websites

For instance, the LAC Region is facing different type of challenges…

Problem 1: Low Broadband Penetration

→ **Dimension 1: Universal Access**

BUT ALSO…

→ **Dimension 2: Universal Service**

Problem 2: High Broadband Prices

→ **Affordable prices (retail and devices)**

Problem 3: Low Usage

→ **Lack of digital literacy**

→ **Lack of compelling local content**

These challenges have the following implications

1. **Infrastructure**
   - a. Deployment of optican fiber ring (UNASUR)
   - b. Deployment of IXP (regional and national)
2. **Content**
   - c. Promotion and development of regional and local content
3. **Public policy and Regulation**
   - d. Regulatory harmonizaition (e.g. tariffs IIC) and public policies related to USF, Spectrum management and analogue switch over
4. **Instituional Strengthening**
   - e. Knowledge sharing and capacity building

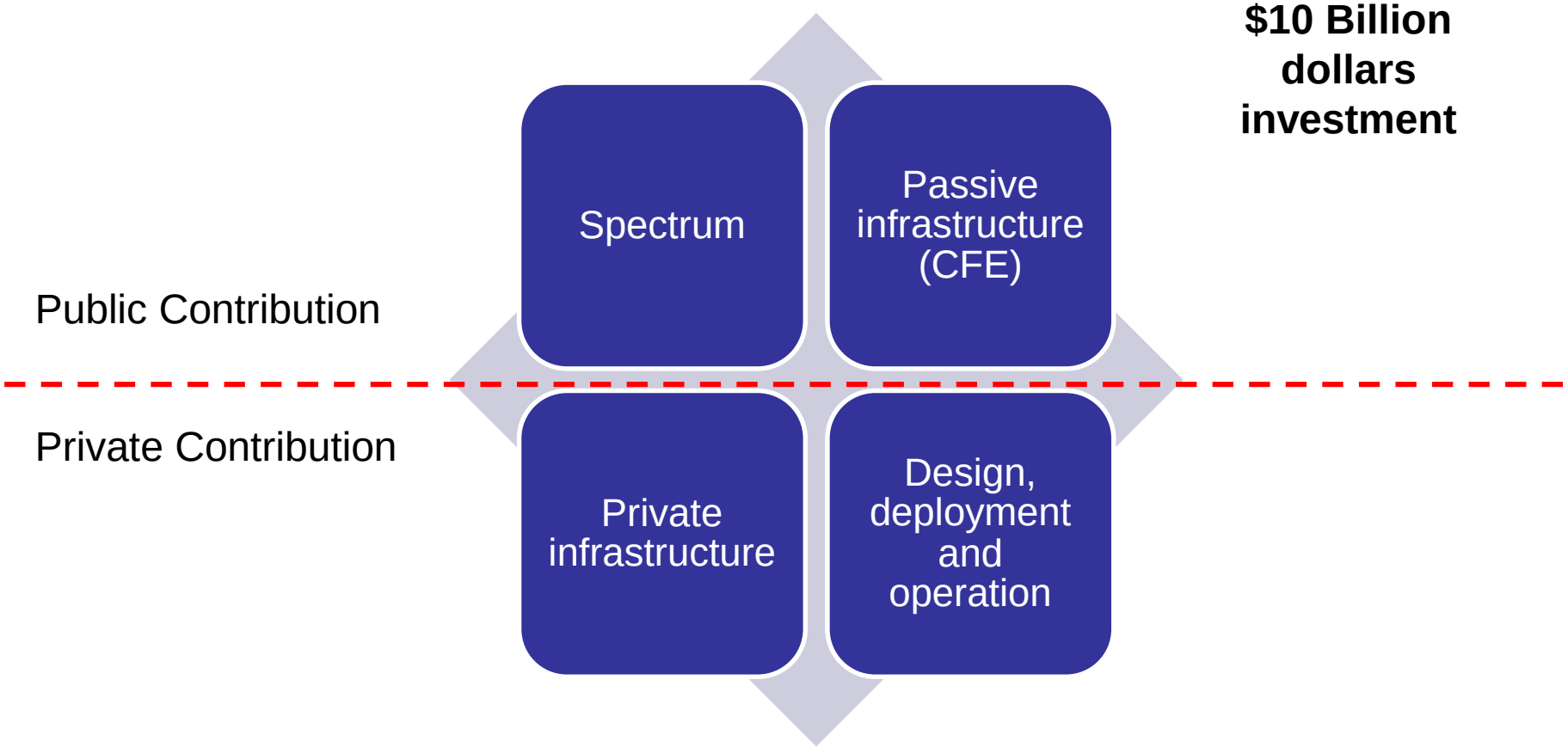
To close the existing digital divide we may think about the 5 ï”

1. Building broadband **Infrastructure**;
2. Pooling public and private **Investments**;
3. Stimulating **Innovation**;
4. Facilitating **Interaction** between stakeholders and, last but not least,
5. Empowering the individual **Initiative**.

The Constitutional Reform, along with the issuance of secondary legislation intents to **foster competition** and to promote a long-lasting environment of **legal certainty**.

The strategic projects are focus on increasing broadband penetration as well as coverage under Public Private Partnerships.

$10 Billion dollars investment



But there are many **challenges** and unresolved issues...

Regulation (price, SMP, etc)

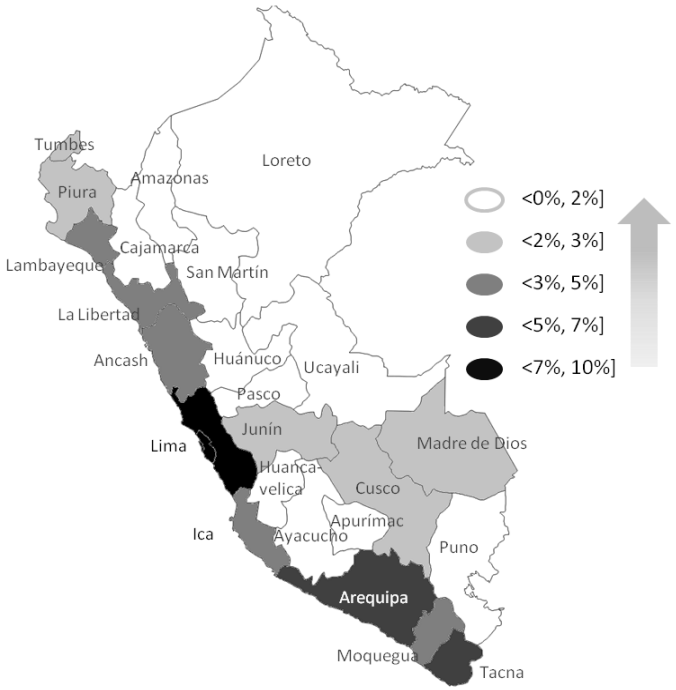
Sustainability (demand)

Operations (infrastructure sharing)

In Perú there is an **inequality** in terms of access across the different regions

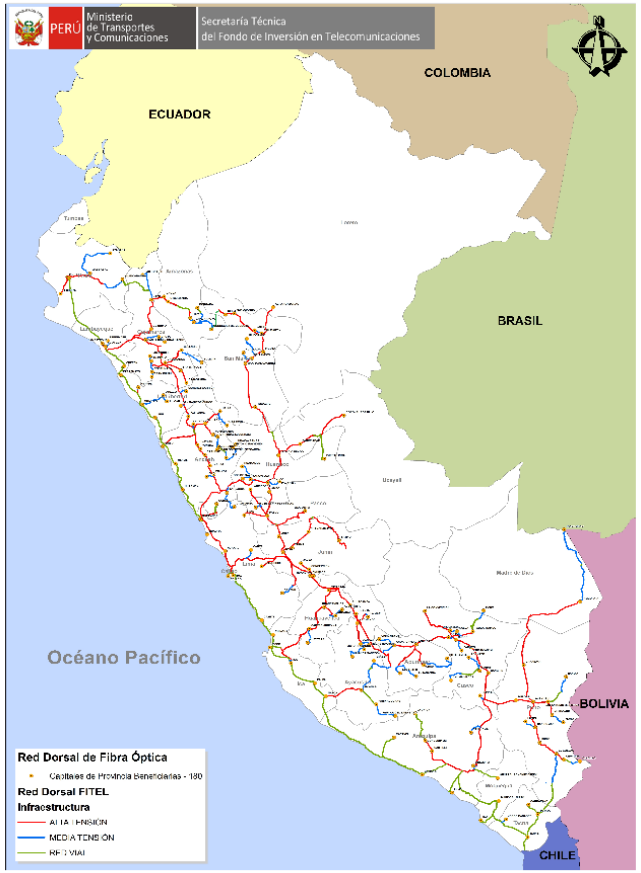
Perú: Internet Access
1.6
Million of suscribers
Penetration
5.2%
nationwide

Fixed Internet Penetration



Fuente: MTC, OSIPTEL

From the **backbone network**….



US$ 333 million
Investment

Azteca Comunicaciones

180 Connected district capital

13.5 thousand km
Of deployed optical fiber

2015 - 2016
Delivery

To the **regional projects**

+6,000
Municipalities Benefited

Investment and subsidy over
US$1,800
million

21
Projects

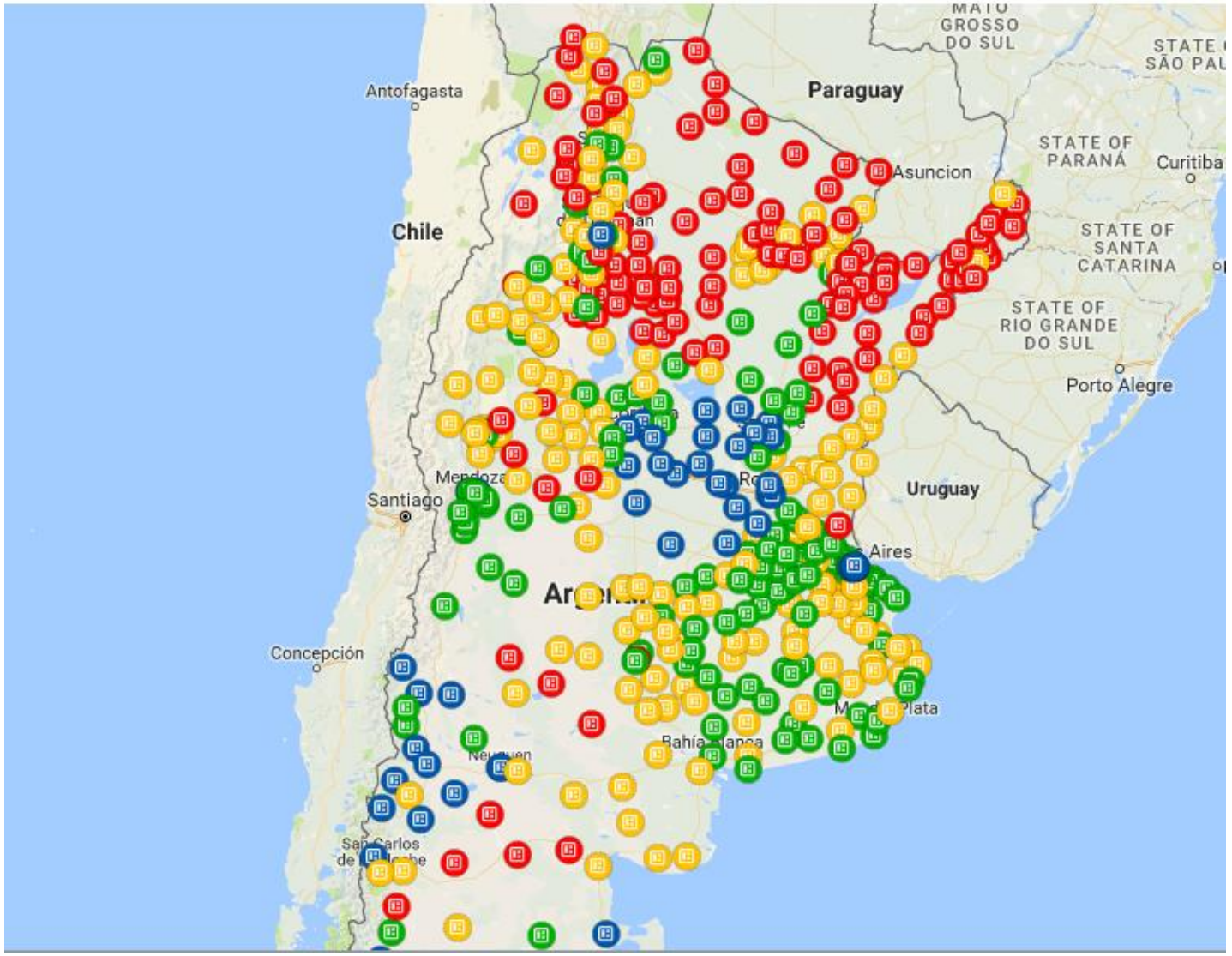
3.9 million
People benefited

29 mil km
Of deployed optical fiber

+11 thousand
Connected public institutions

Training
Education, health and security

There is digital gap between **rural and urban areas**

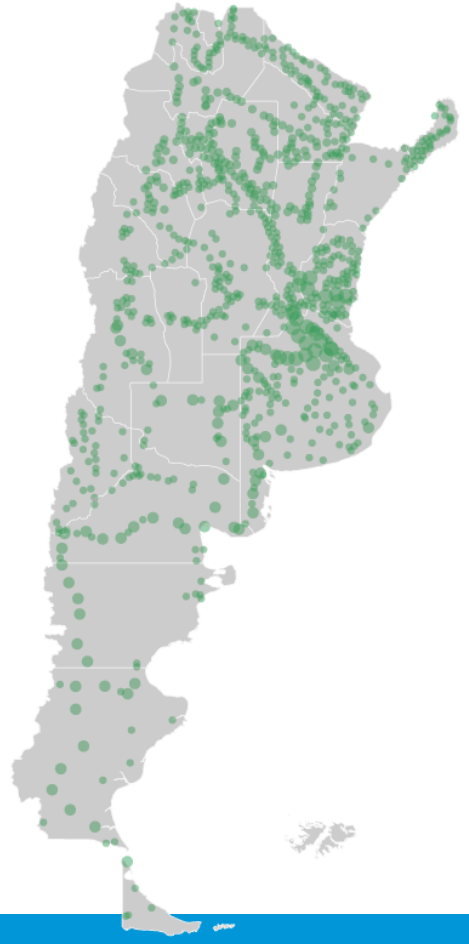


30% of the population, 70% of the country is lacking access to internet or just have one internet provider with high tariffs and low quality

Fuente: digiLAC

To overcome this gap, the Government has defined a **National connectivity plan**

Objective: Conect in two years over 1100 municipalities in Argentina (29 million people) to the National fiber network so that the population can access to internet with affordable tariffs and quality services.



ARSAT is expected to provide the backbone and the wholesale services to the local carriers (neutral operator).

- Universalization of digital services
- Bridge the existing digital gap
- Improve quality of service
- Job creation
- Development of regional economies

Digital Republic
Access
Digital and Open Government
Education and technology
Productivity and jobs

And two cross-cutting areas of intervention: **Security and Social Inclusion**