



**Telecommunication Development
Advisory Group (TDAG)**

22nd Meeting, Geneva, 9-12 May 2017



Document TDAG17-22/INF/6-E
11 April 2017
Original: English and Spanish

Argentine Republic

ARGENTINA: INVESTMENT OPPORTUNITIES IN THE ICT SECTOR

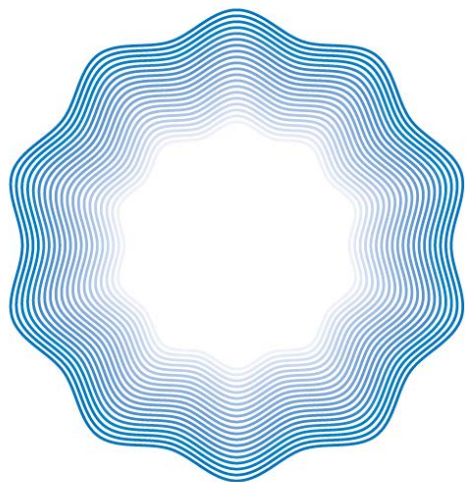
Summary:

This document contains a presentation prepared by the Ministry of Communications of Argentina on the investment opportunities the country offers in the ICT sector.

Action required:

TDAG is invited to note the presentation.

References:



Argentina: Investment Opportunities in the ICT Sector

Ministry of Communications

Contents

- Overview of the sector in Argentina
- Starting point and government plan
- Investment opportunities

Overview of the sector in Argentina

SECTOR REVENUES are low and have been decreasing in real terms over the past years ...



... additionally, **INVESTMENT AS % OF REVENUES** has been low if compared to that of other countries within the region



In terms of **BASIC SERVICE PENETRATION** (fixed and mobile), Argentina is doing better than other countries in the region ...



... however, Argentina is lagging behind in terms of **QUALITY AND ADVANCED SERVICE PENETRATION**



Finally, Argentina shows **SIGNIFICANT LEVELS OF INEQUALITY** among provinces and income classes



This situation was generated by restrictions on the demand and supply side

Supply

1. Price controls in fixed telephony.
2. Reduced competition in residential market.
3. Inefficient allocation and use of spectrum.
4. Weak execution by the regulator.
5. Difficulties to build infrastructure

Demand

6. High prices for consumers.
7. Barriers for ICT adoption by businesses and government.

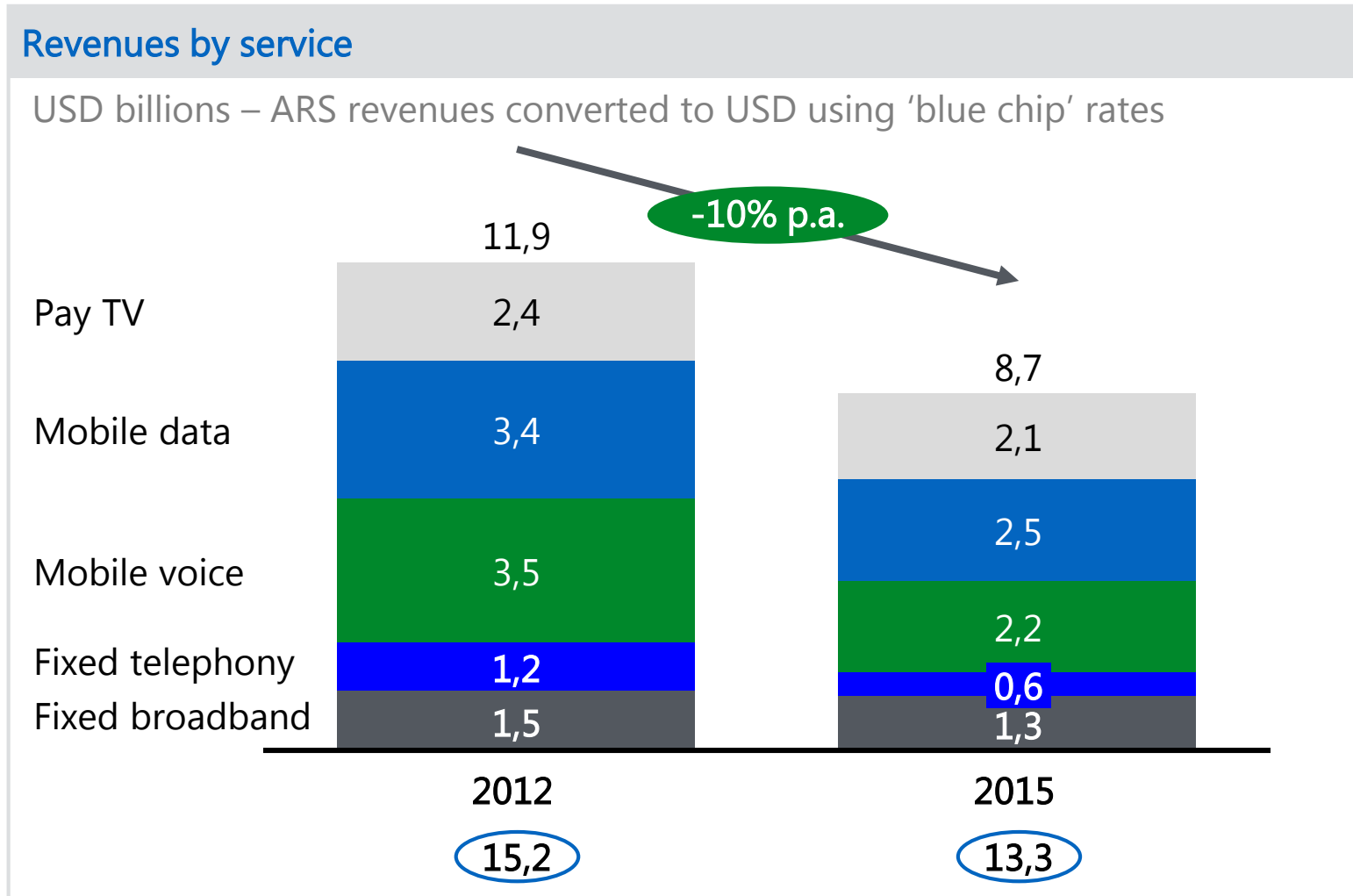


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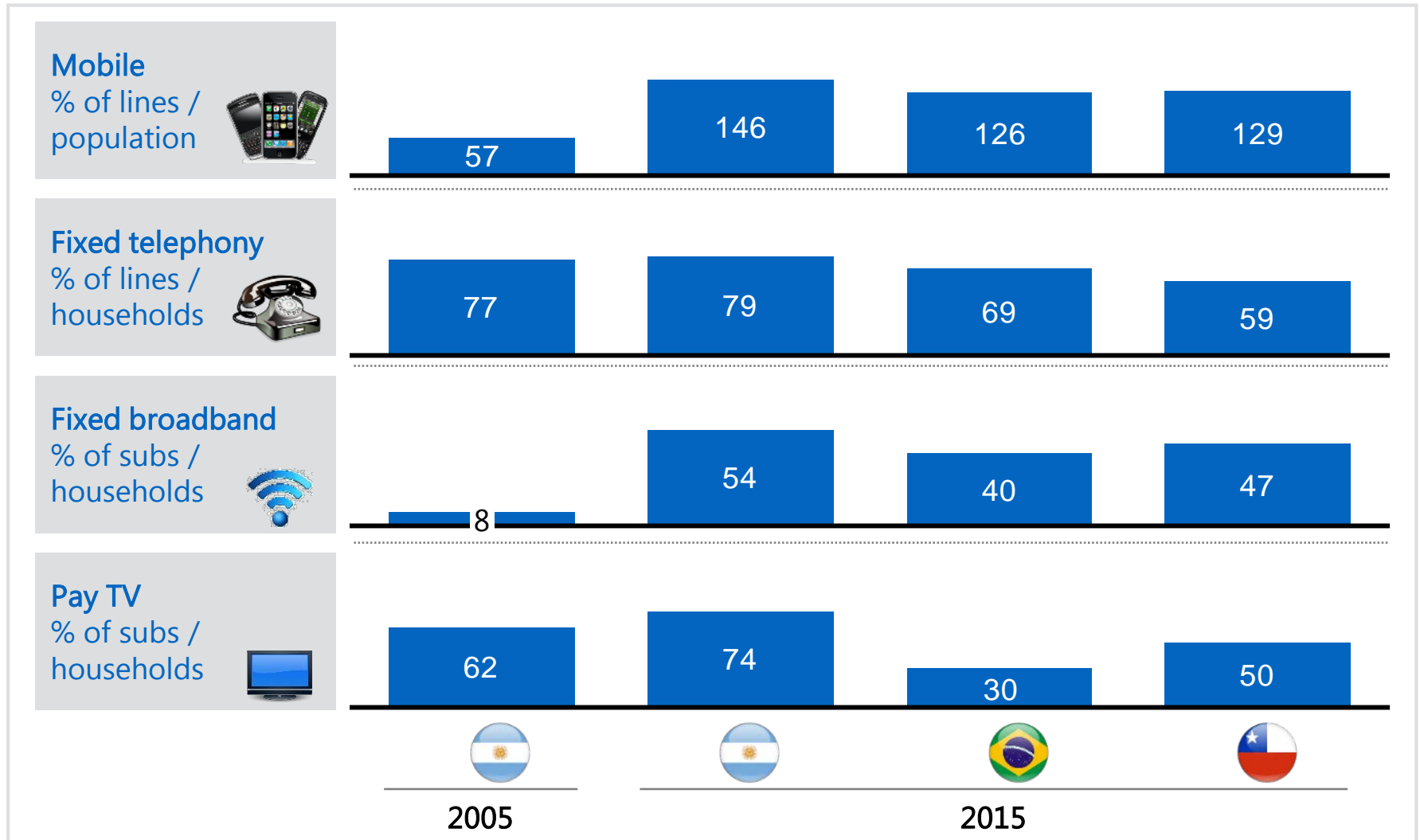
- Overview of the sector in Argentina
- **Starting point and government plan**
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Total sector revenues have declined in recent years

(x) Revenues in USD at official exchange rate



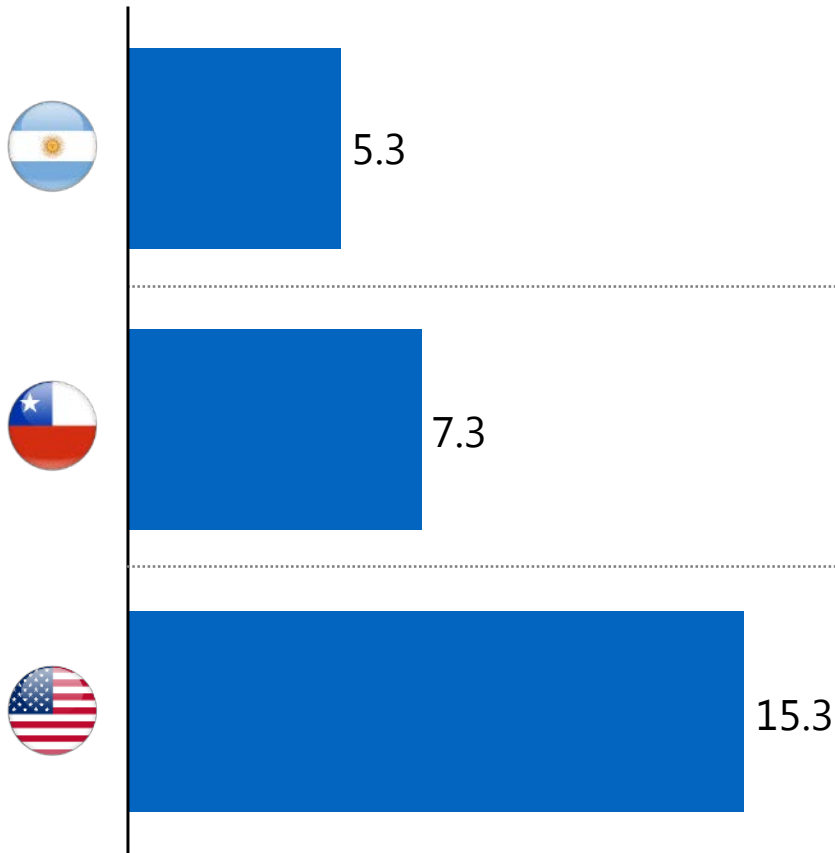
Argentina has high service penetration when compared to other countries in the region ...



... however, there is low penetration of advanced services

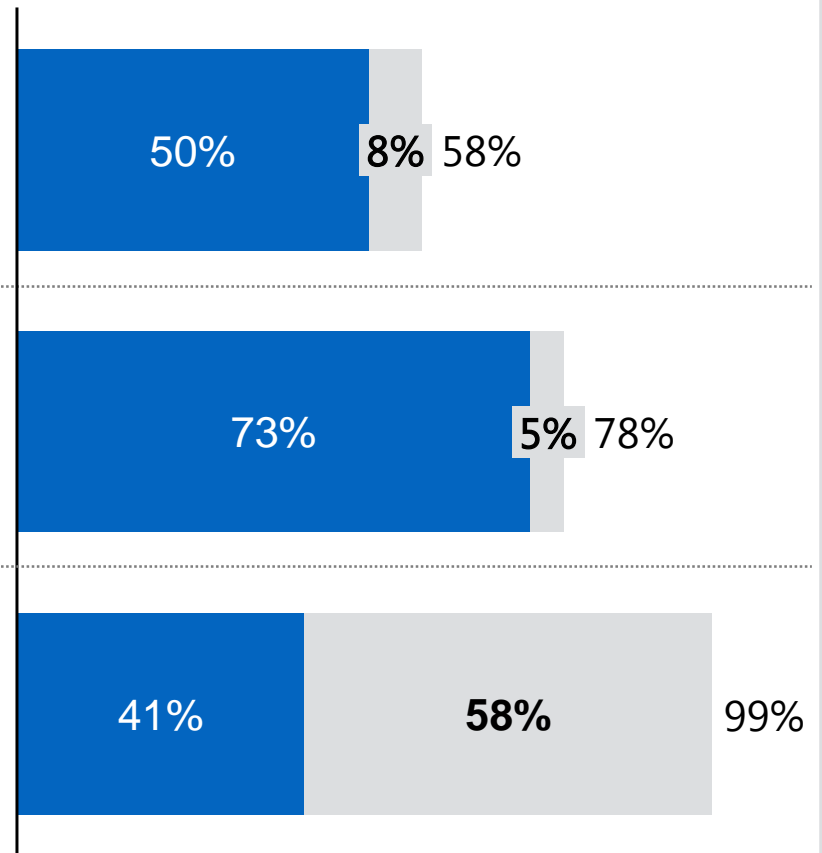
■ 3G ■ 4G

Fixed: average speed of connections
Mbit/s, 1Q 2016



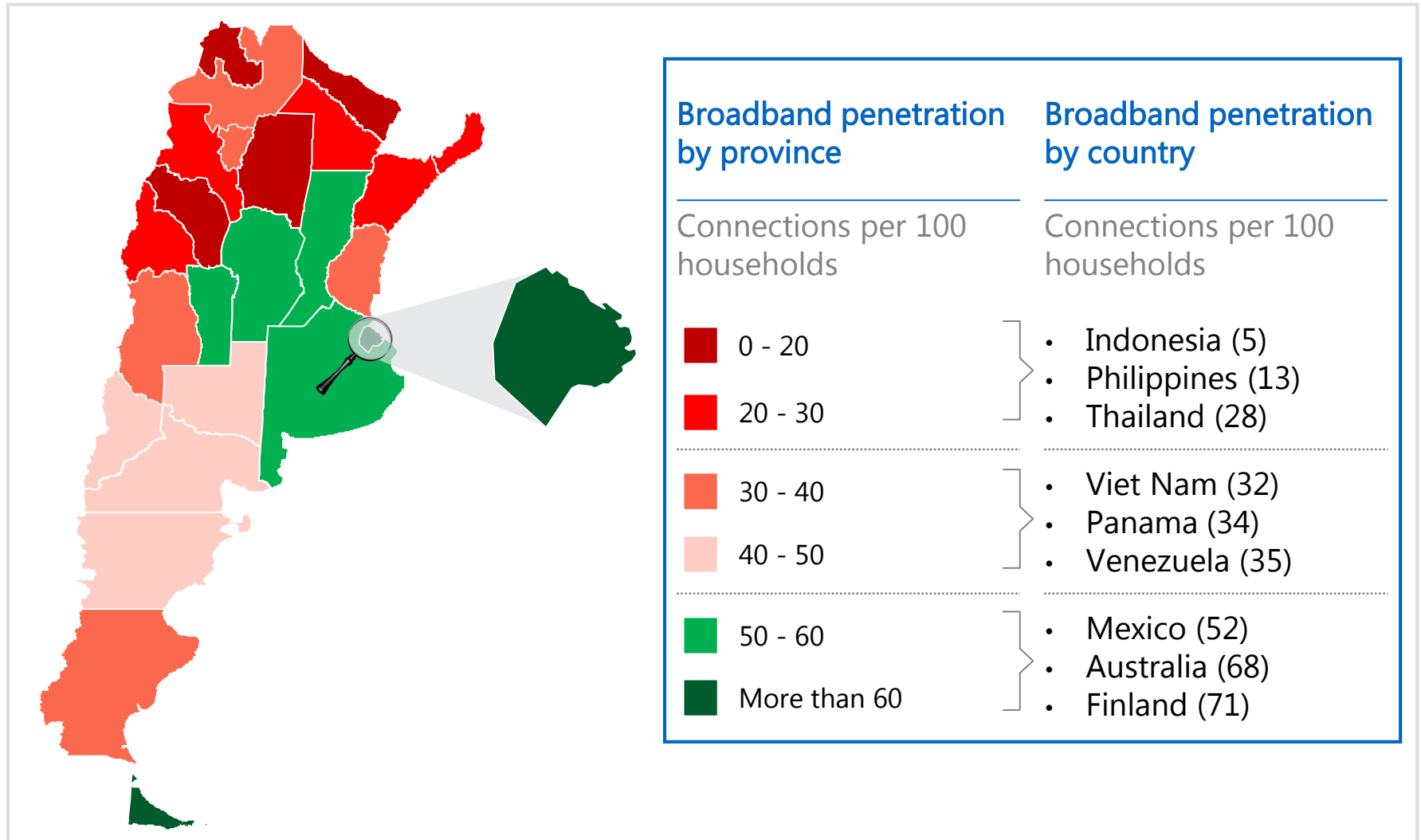
Mobile: 3G and 4G penetration

3G and 4G lines / total mobile lines,
%, 2015



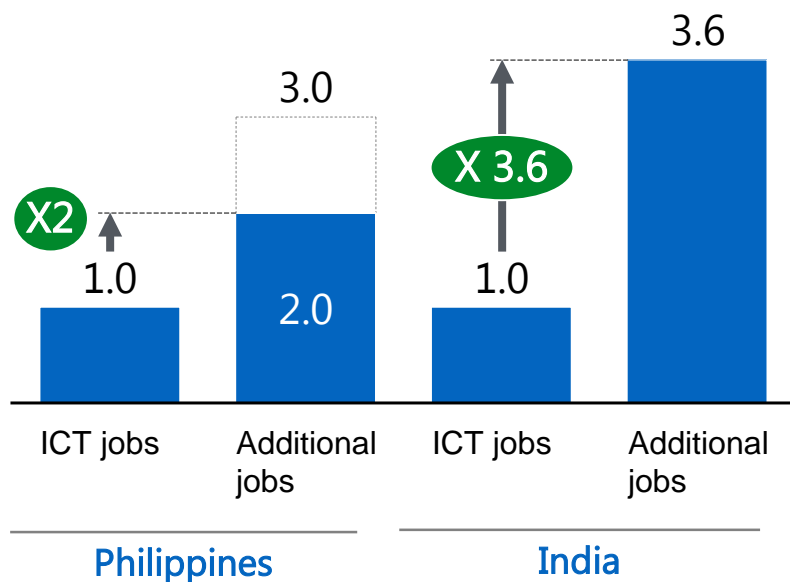


In addition, there are significant differences in service penetration among provinces



The ICT sector is a priority for Argentina as a key driver of economic and social progress

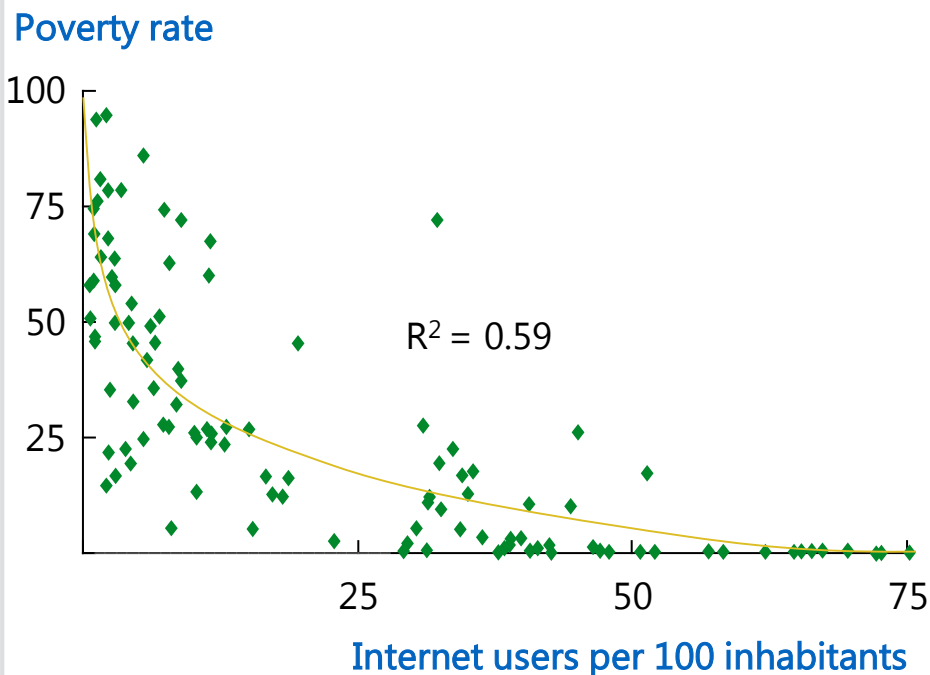
ICT employment has a multiplier effect on the economy



"In Chile, increasing broadband Internet penetration by 10% led to a ~2% decrease in the unemployment rate"

Columbia, R. Katz

Connectivity as a driver to integrate the country and reduce poverty



The Ministry has defined a programme for the sector centered around 5 priorities

Regulatory framework	1	Build a modern high-speed broadband infrastructure
	2	Improve 3G and 4G mobile network quality
	3	Develop a modern framework for the digital age
Demand stimulation	4	Stimulate demand for advanced services
	5	Eliminate The Country's Digital Gap ("Zero Digital Poverty")

1 Build a modern high-speed broadband infrastructure

- **Enable revenue opportunities** that will allow players in the sector to increase their investments
 - Flexible **fixed telephony** prices
 - **Authorize *bundling* of TV and telecom services**
- Protect and facilitate **the deployment of infrastructure**
- Create **transparency about the quality of fixed services**

2 Improve 3G and 4G mobile network quality

- Create a **multi-year plan for spectrum** (e.g., including 5G)
- **Simplify the process to invest in infrastructure**
- Create **transparency about coverage and quality**
- Facilitate **number portability** and **unlocking of devices**



3 Develop a modern regulatory framework for the digital age

- Establish a **modern regulation** for (non-exhaustive):
 - Media (e.g., licenses attribution, content rules, advertising)
 - OTTs
 - Net neutrality
 - Use of universal service funds
 - Interconnection and access to networks
 - Carrier registration
- Create a plan for the **transition to digital TV**



4 Stimulate demand for advanced services

- Facilitate **access to technology** by reducing the cost of Internet-enabled devices
- **Create incentives for the creation of digital clusters**
- **Promote connectivity and use of ICT by SMEs** (for example: access to high-speed broadband)
- Encourage **investments in the IT sector** (for example: hardware, software, services)

5 Eliminate the country's digital gap ("zero digital poverty")

- Connect remote towns and cities that have deficient access to Internet
- Provide access in low-income and rural/remote locations
- Design initiatives to increase awareness and use of digital services

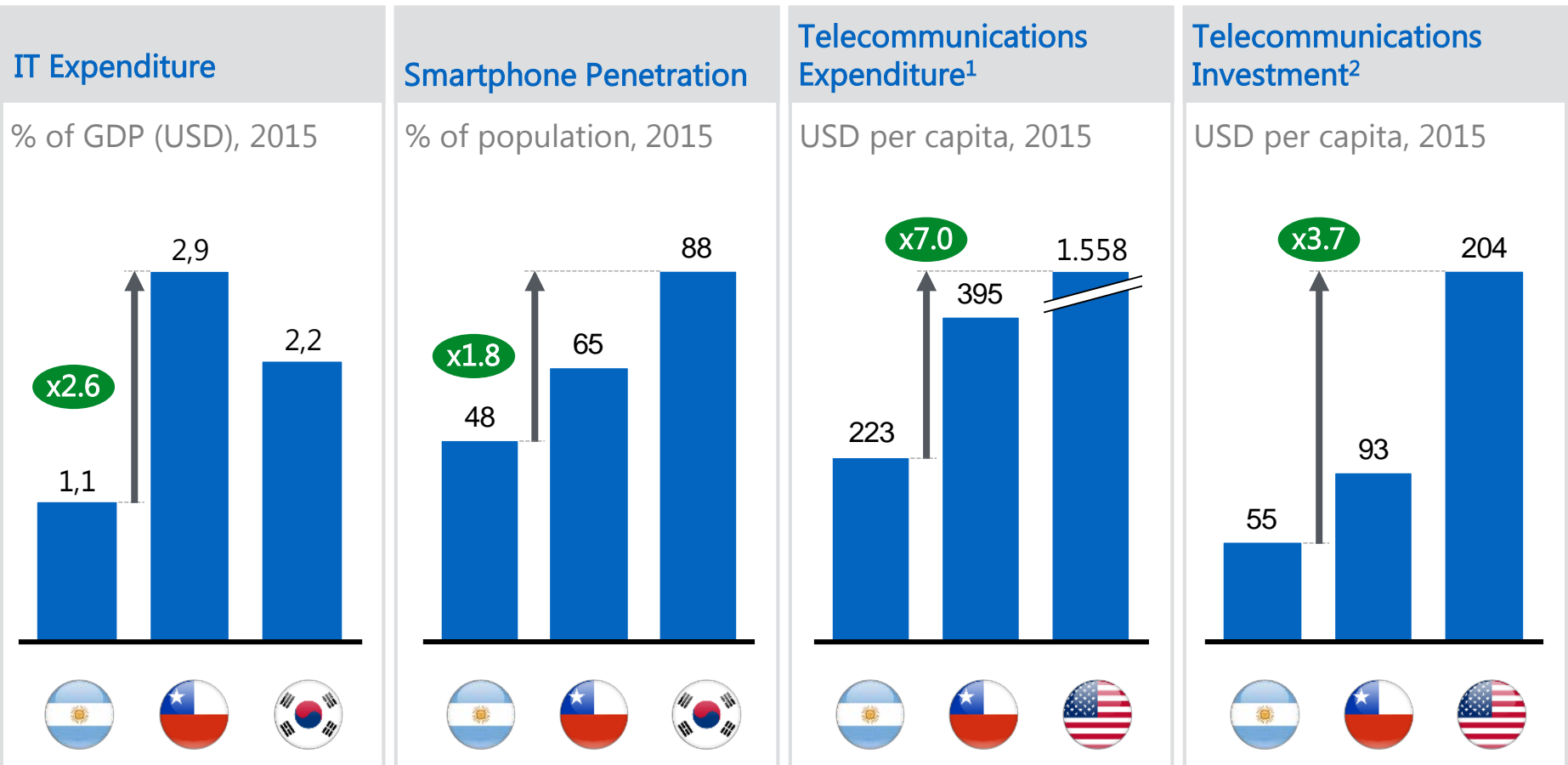


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In this context there will be ample opportunities for growth and investment, as Argentina will need to catch up to satisfy a latent demand



1 Including revenue derived from devices and telephones.

2 Not including spectrum licenses.

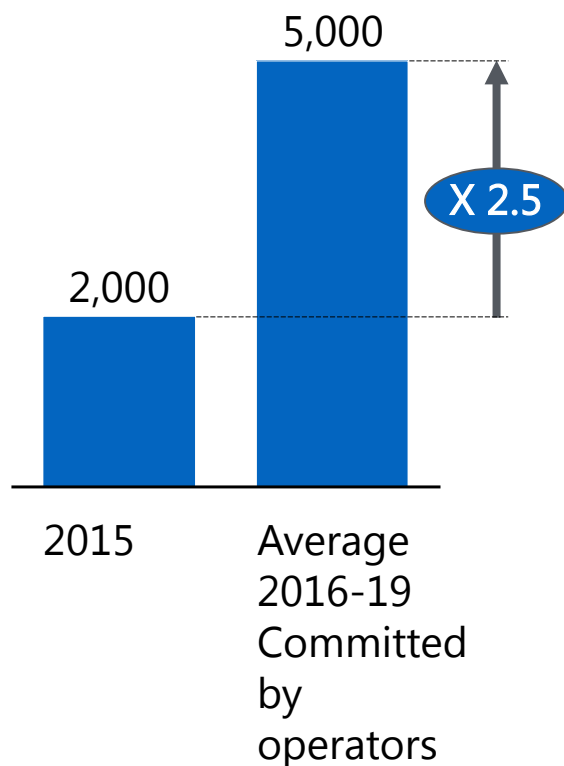
NOTE: Informal exchange rate as quoted on *Ámbito Financiero*.

SOURCE: PEW Research, IDC, IHS, ITU, Ovum Research.

Overview of investment opportunities

Investments already committed by operators ...

USD billions, annual investments by main operators

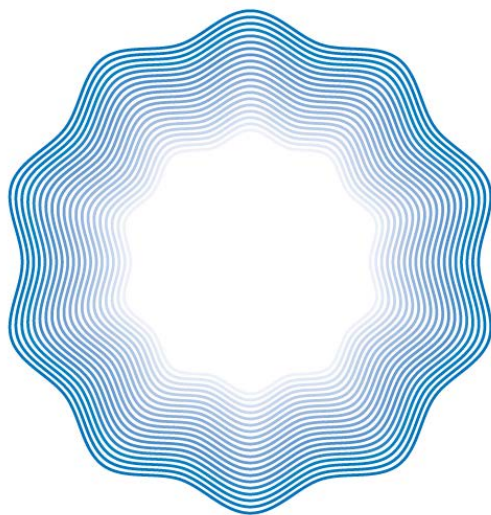


... will provide significant opportunities for growth in the sector ...

- Fixed network equipment (upgrade in backbone and last mile)
- Mobile network equipment (current 4G rollout and future 5G rollout)
- Partner with ARSAT
- MVNOs
- Mobile towers
- Field services for network rollout and maintenance
- Upgrade to back office of operators (e.g., IT legacy systems)
- End-user devices (smartphones and tablets)

... as well as enable opportunities in adjacent sectors

- IT Services (e.g., cloud services)
- Software
- Hardware (computers, servers, etc.)
- Apps
- OTT content
- ICT-enabled industries
 - Health care (eHealth)
 - Education (eLearning)
 - Online banking
 - Connected home
 - Localization services
 - Logistics



THANK YOU!