

**BBVA**

RESEARCH

NOVEMBER  
**2016**

Digital Context:  
**Argentina**

# Outline

- **Overview**

- 1 Digital scenario**

- 2 Demand side**

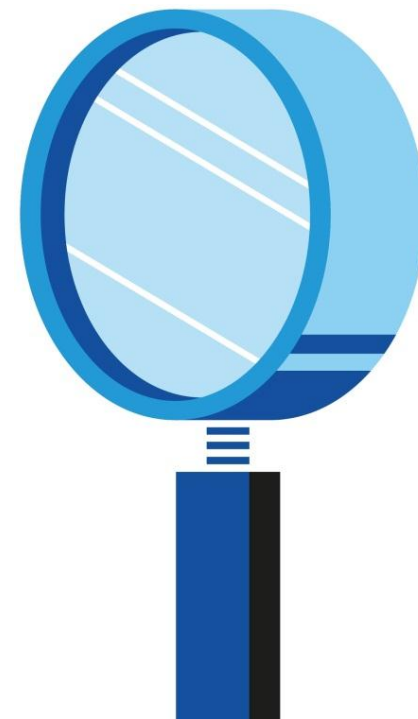
- 3 Supply side**

- 4 Regulation side**



# Overview

- Argentina has **room for improving** in terms of the **Digitization Index**, particularly ICT regulation and Internet use in enterprises
- Argentina's **Internet use** is close to that of **developed countries**, with a high frequency of use
- The **prices** of one minute call and fixed broadband monthly subscription in Argentina are **higher** than in developed countries
- **Home** is the main place for **Internet access**
- **Cost** is the **main barrier** for Internet access at home
- The use of **e-banking** and **e-commerce** is **fairly widespread** in Argentina. In both cases, it stands above 20% in 2014
- **67.3%** of Argentina's population has a **mobile-broadband subscription** in 2015
- Argentina shows a **high piracy rates** and a **low efficiency of the legal system**
- Argentina **needs to improve** in terms of the ease of doing business ranking and entrepreneurship



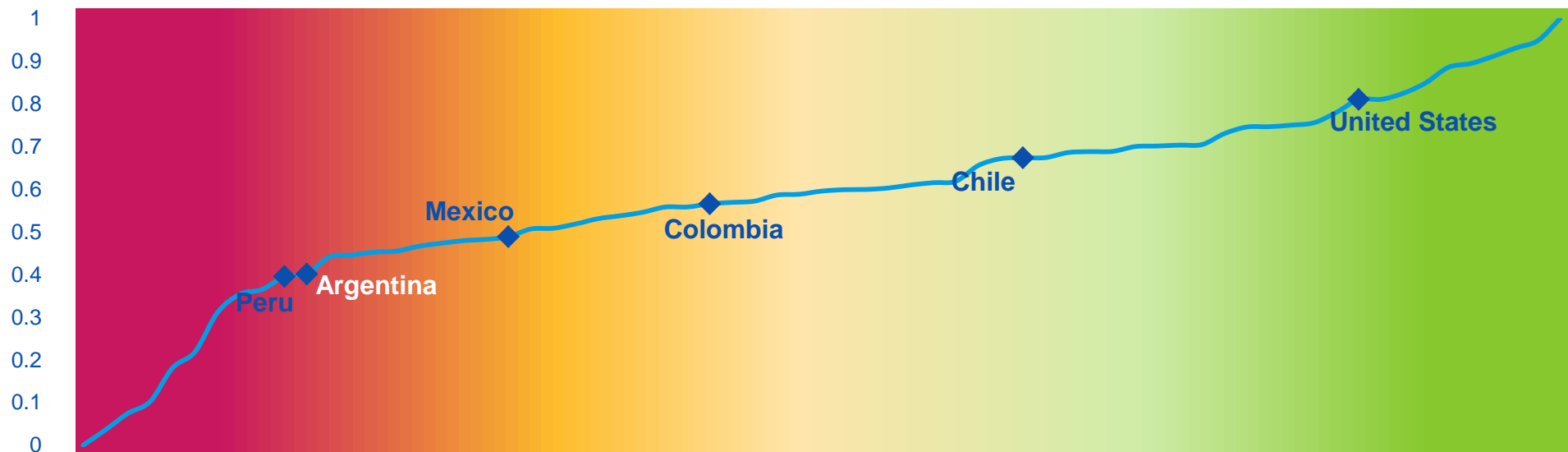


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Digital scenario:

Digitization Index

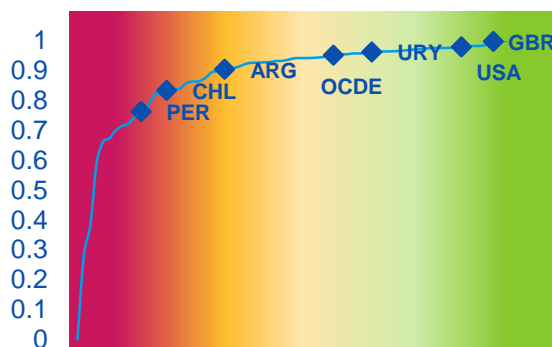
# 1.1. Structural Digitization Index, 2015



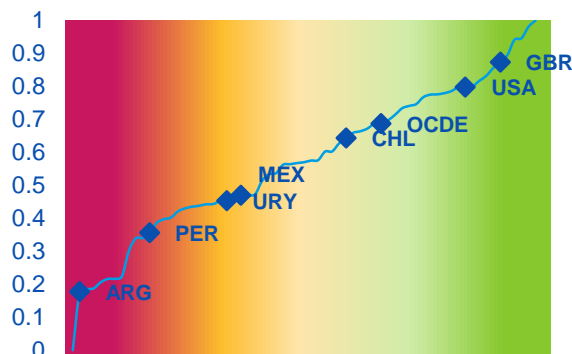
Algeria	Vietnam	Morocco	China	Hungary	Ireland	Germany	Sweden
Qatar	Peru	Thailand	Saudi Arabia	Turkey	Chile	Malaysia	Netherlands
Nigeria	Argentina	Mexico	Croatia	Romania	United Arab Emirates	Denmark	Finland
Pakistan	Egypt	Sri Lanka	Colombia	Uruguay	Belgium	Latvia	Lithuania
Bangladesh	Ukraine	Italy	Slovenia	Luxembourg	Spain	Canada	Korea, Rep.
Paraguay	Greece	Poland	Kazakhstan	Brazil	Singapore	Australia	Japan
India	Philippines	Bulgaria	Russian Federation	Czech Rep.	Austria	France	Estonia
Venezuela	Indonesia	Cyprus	Slovak Republic	South Africa	Portugal	United States	Hong Kong SAR
							United Kingdom

# 1.2. Digitization Index 2015: Dimensions

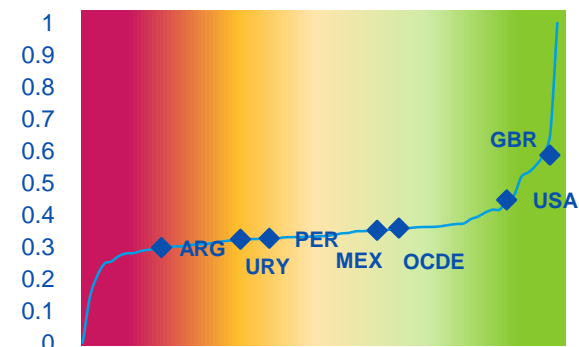
Affordability



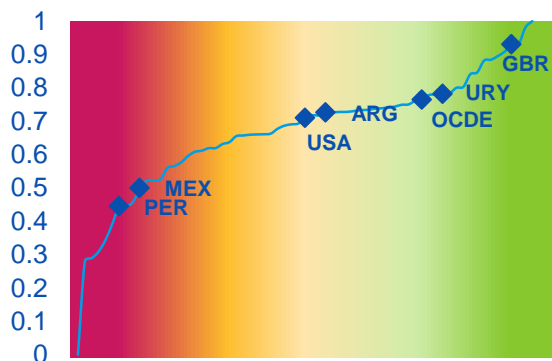
ICT Regulation



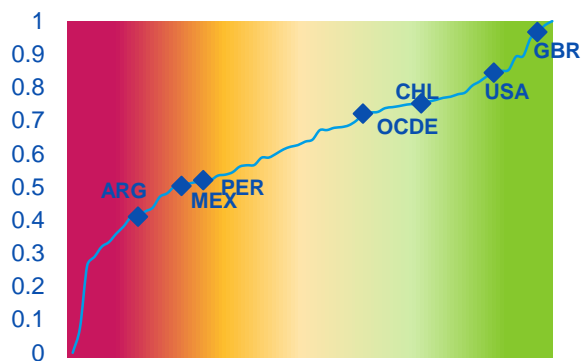
Infraestructure



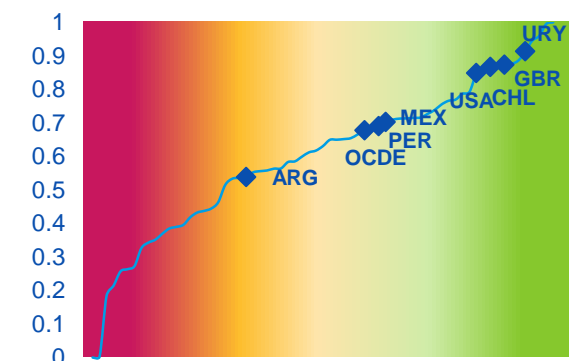
Individual use



Enterprise use



Content



Nota: Regarding the infrastructure indicator, if more Internet related variables such as 3G coverage or secure Internet servers are considered, Argentina's position both improves and overpasses that of countries like Mexico or Peru.

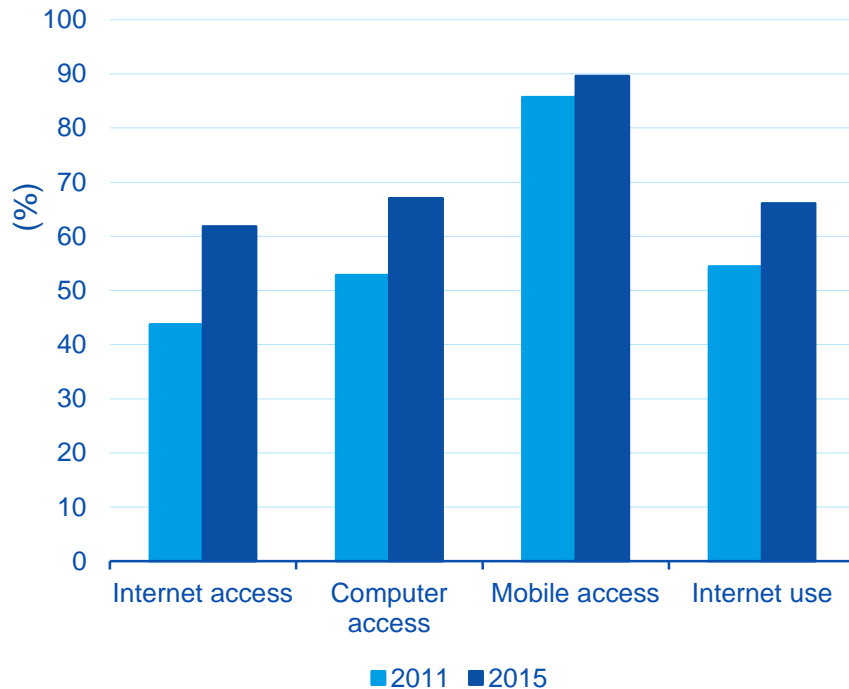


# 2 Demand side

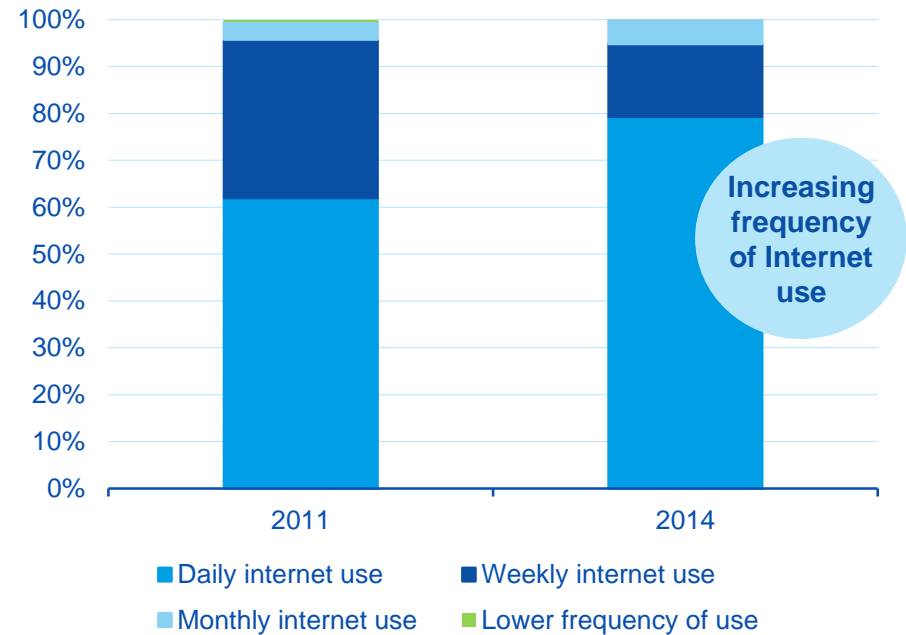


# 2.1. Computer and Internet: access at home and usage

ICT access and Internet use



Frequency of Internet use



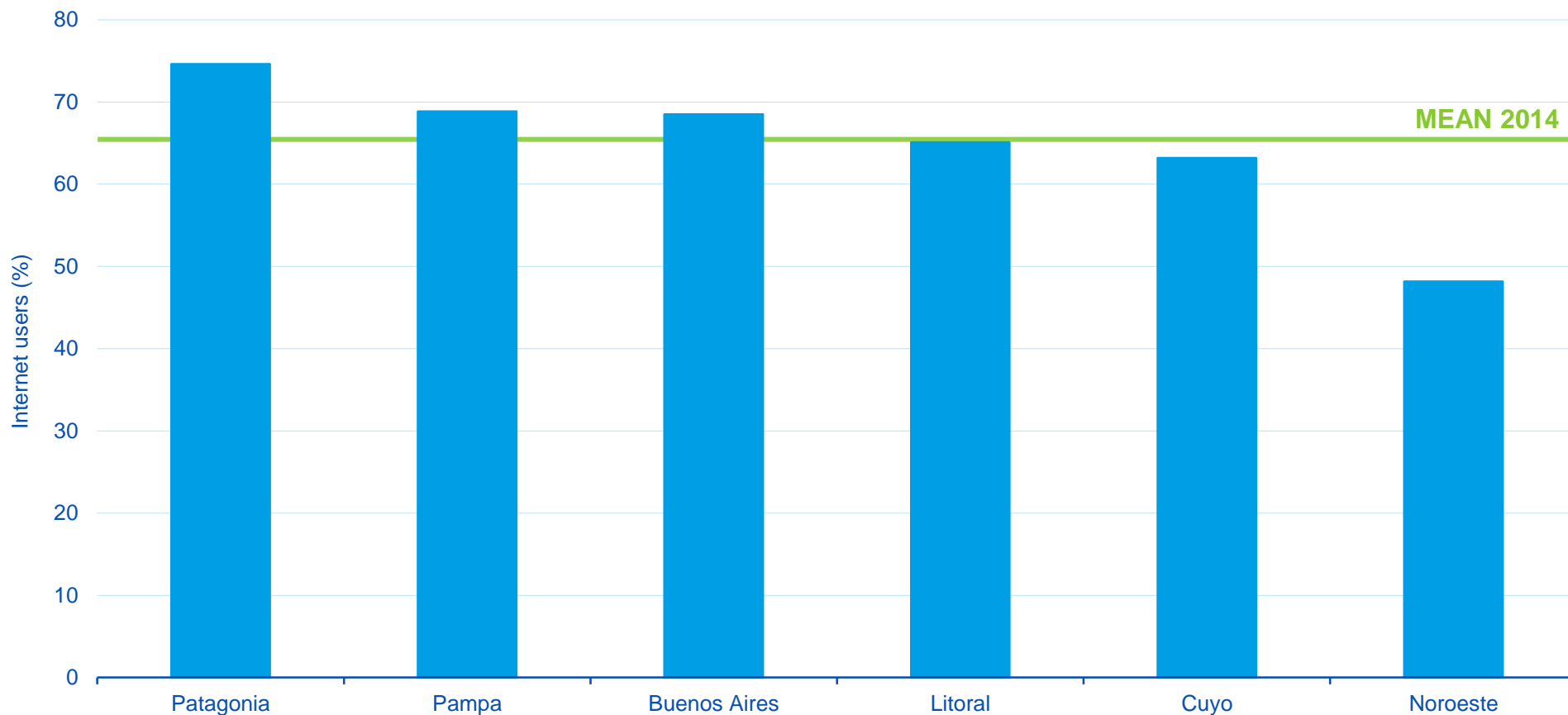
Significant increase in Internet access and Internet use between 2011 and 2015



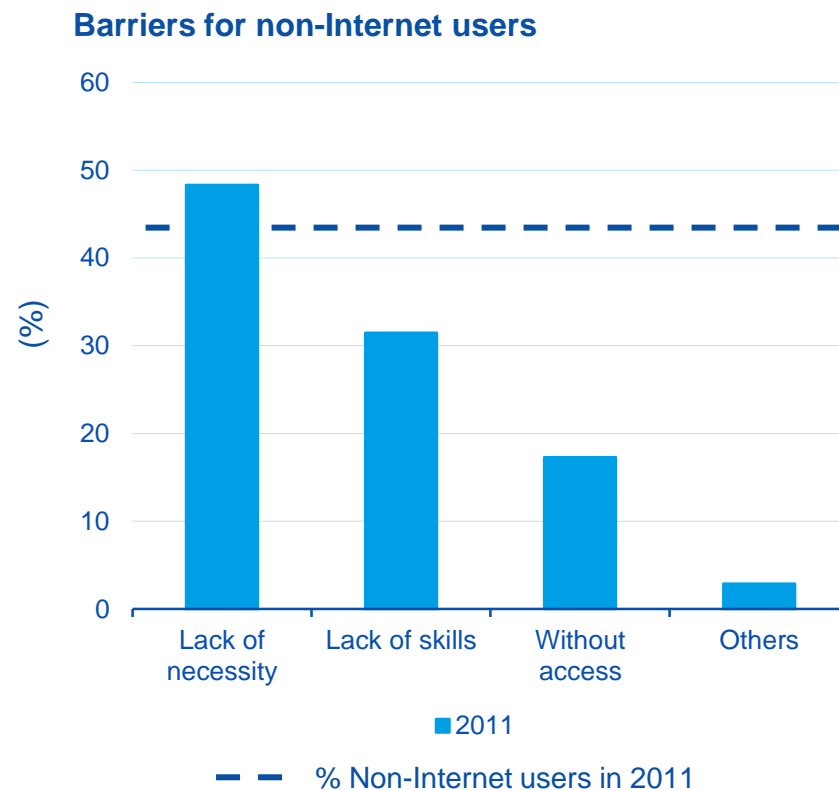
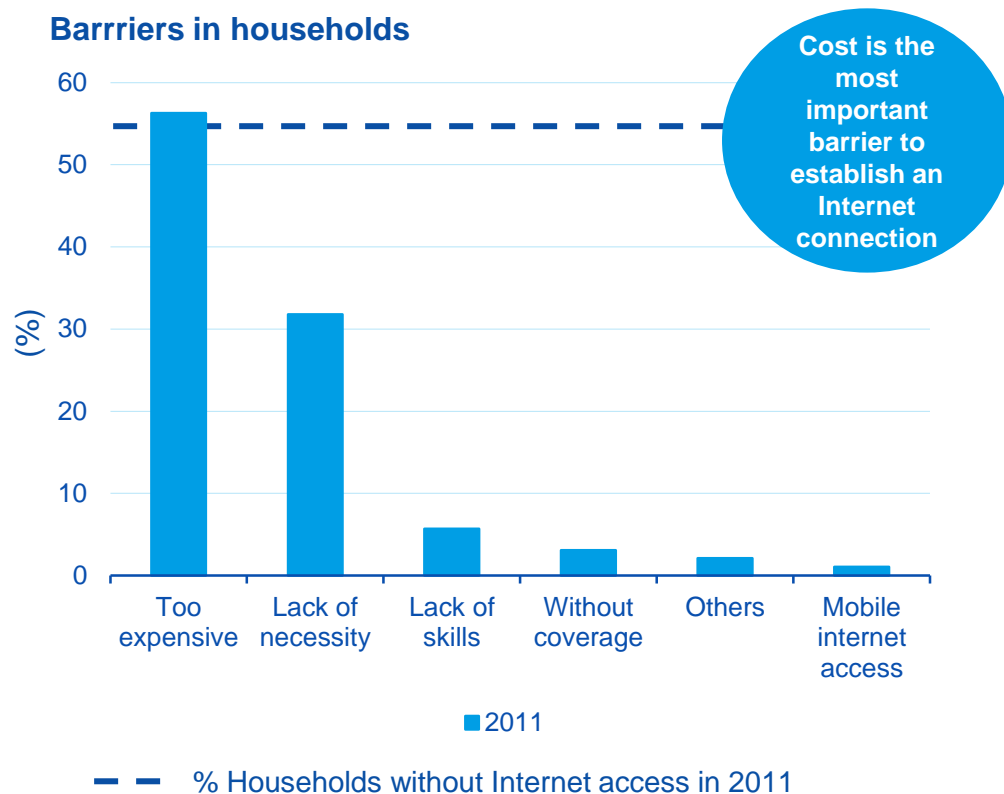
Note: use of Internet over the last 3 months



## 2.2. Internet use: evolution by geographies

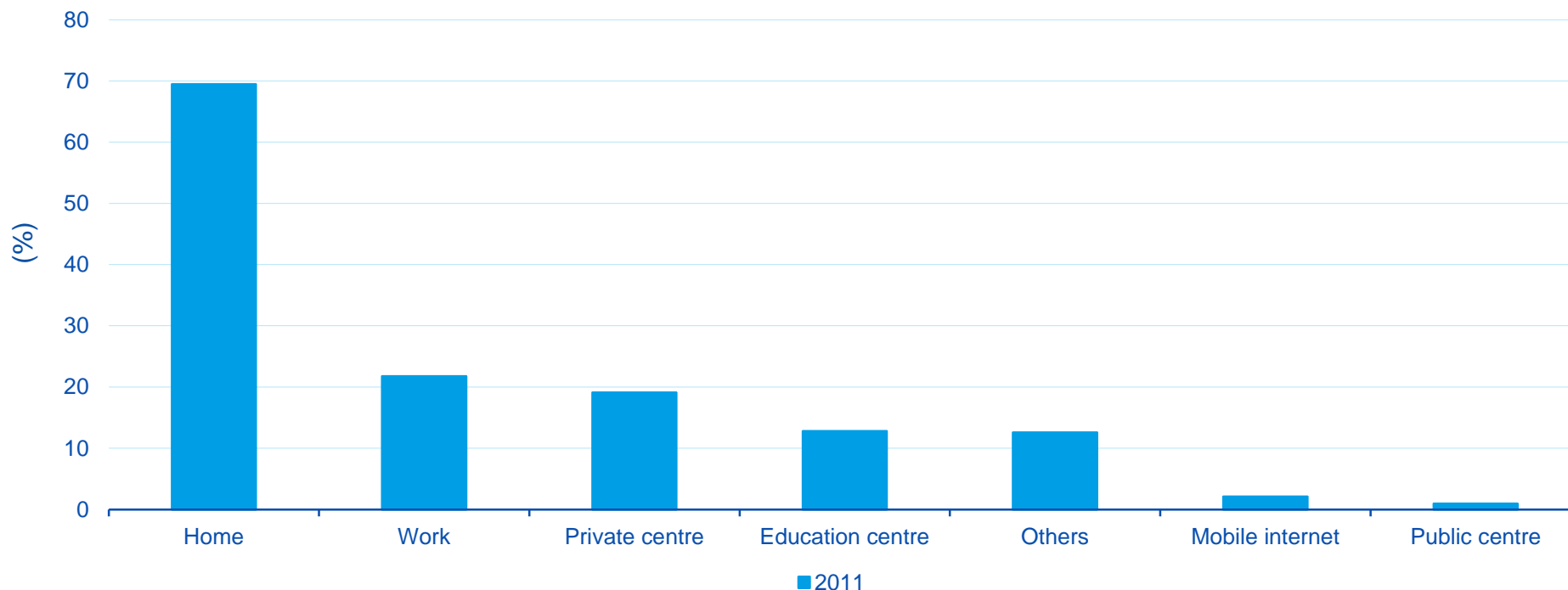


## 2.3. Internet access: barriers



**Cost is the main barrier to Internet access at home**

## 2.4. Places for Internet access (last 3 months)



Internet use in 2011:

**54.4%**

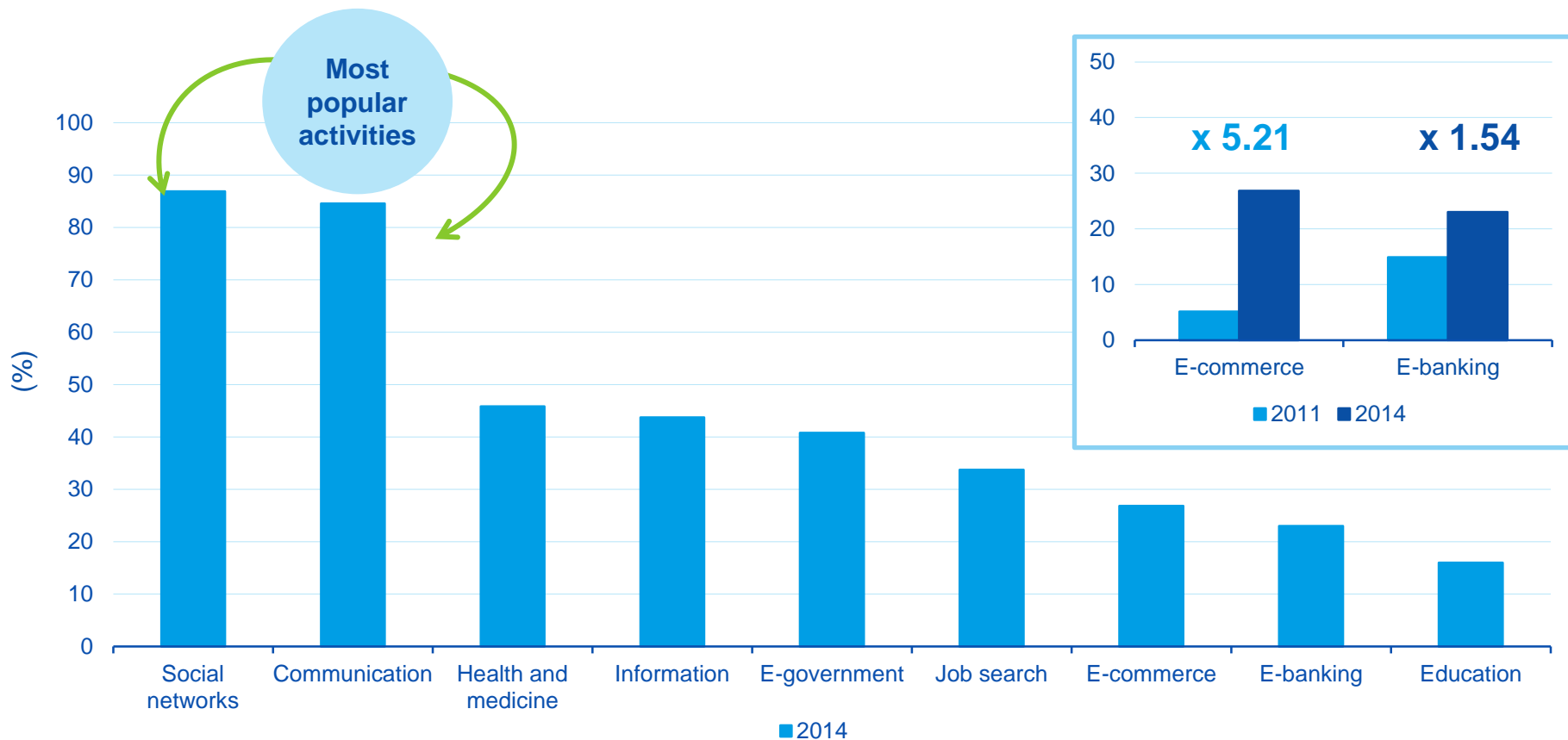
**+11.7 p.p.**

Internet use in 2015:

**66.1%**

**Home and work are the main places used to access Internet**

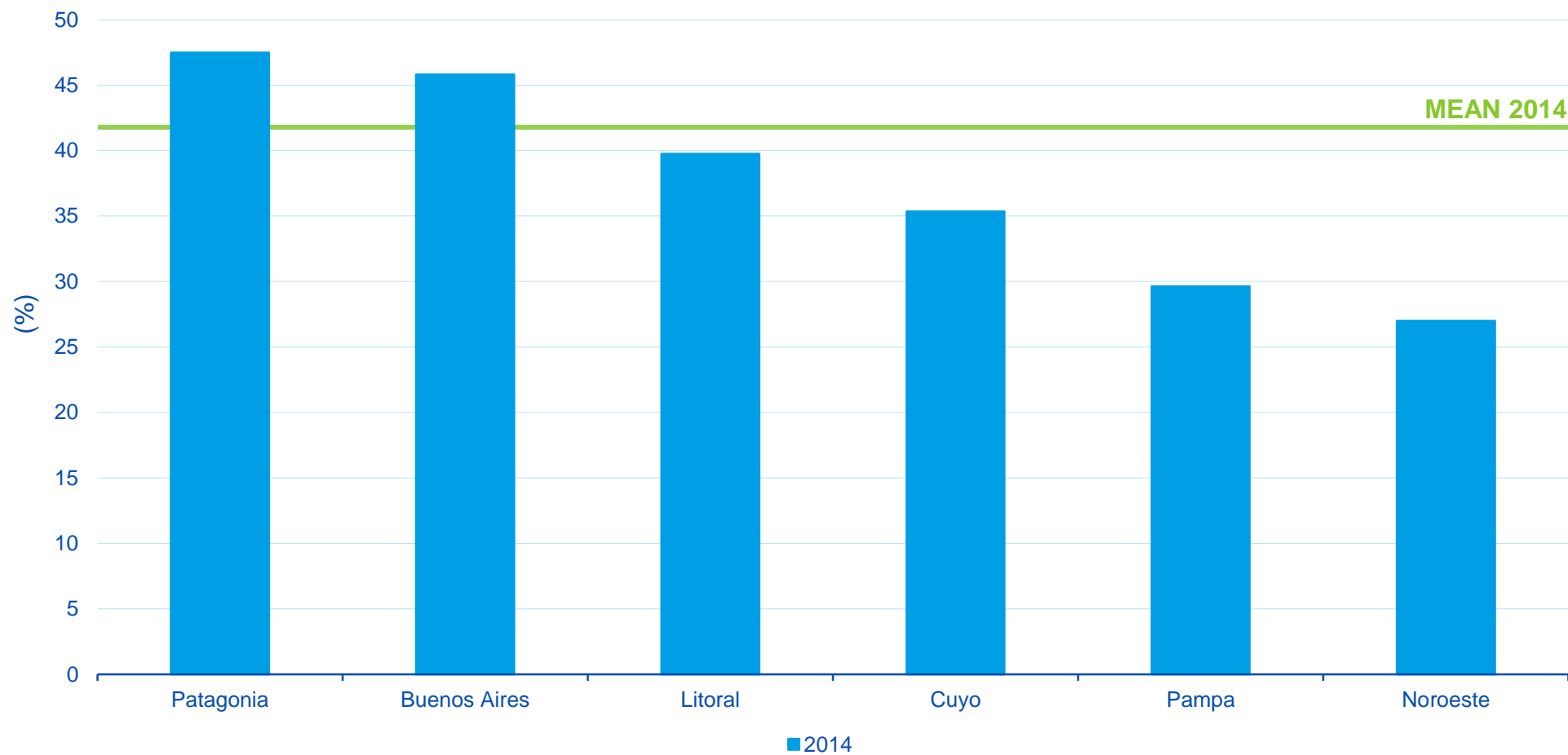
# 2.5. Internet activities: usage over last 3 months



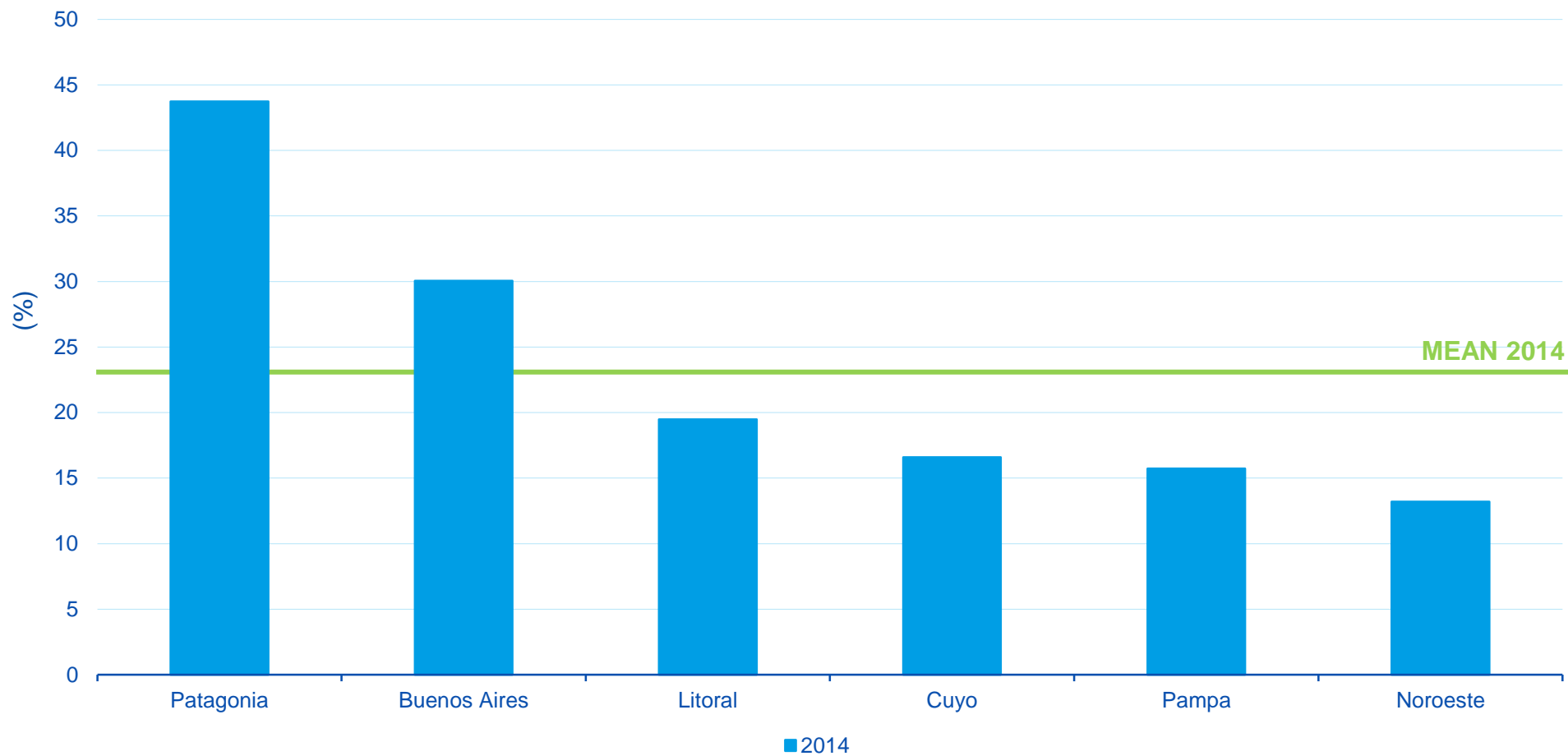
**Using social networks is the most popular activity among Internet users**

Note: options are not exclusive, individuals can select more than one activity simultaneously.

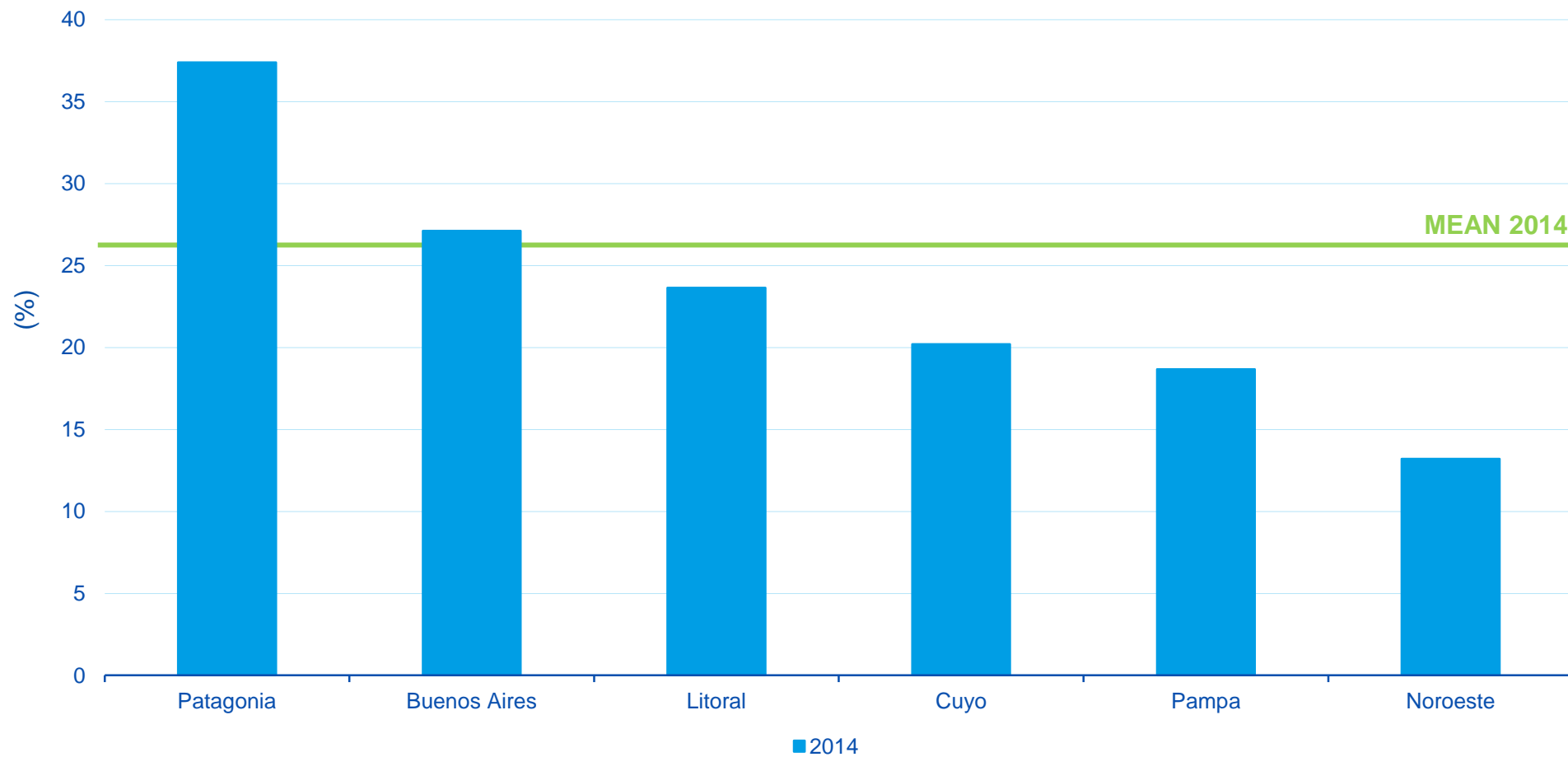
## 2.6. Smartphones: evolution by geography



## 2.7. E-banking: evolution by geography

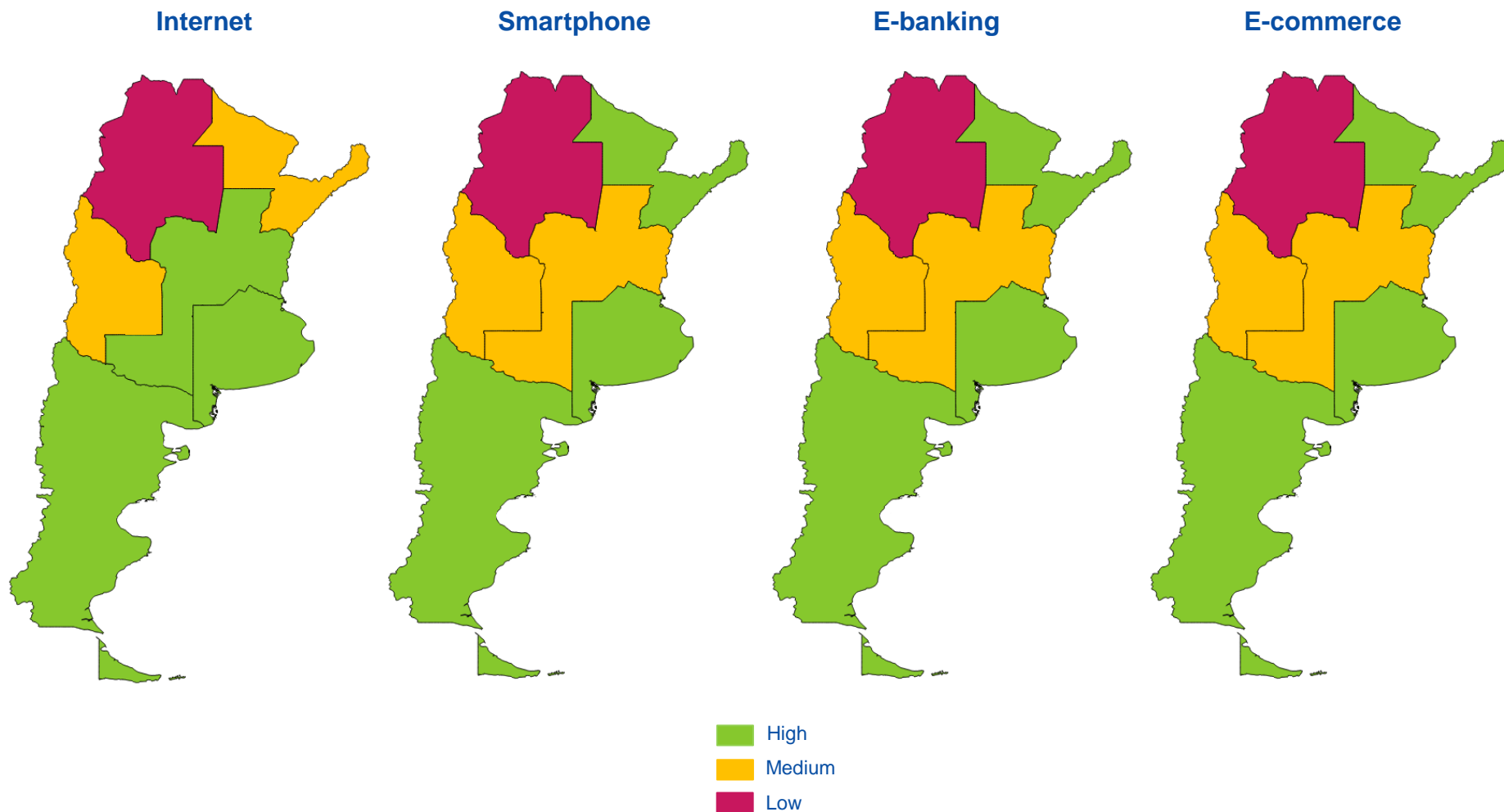


## 2.8. E-commerce: evolution by geography

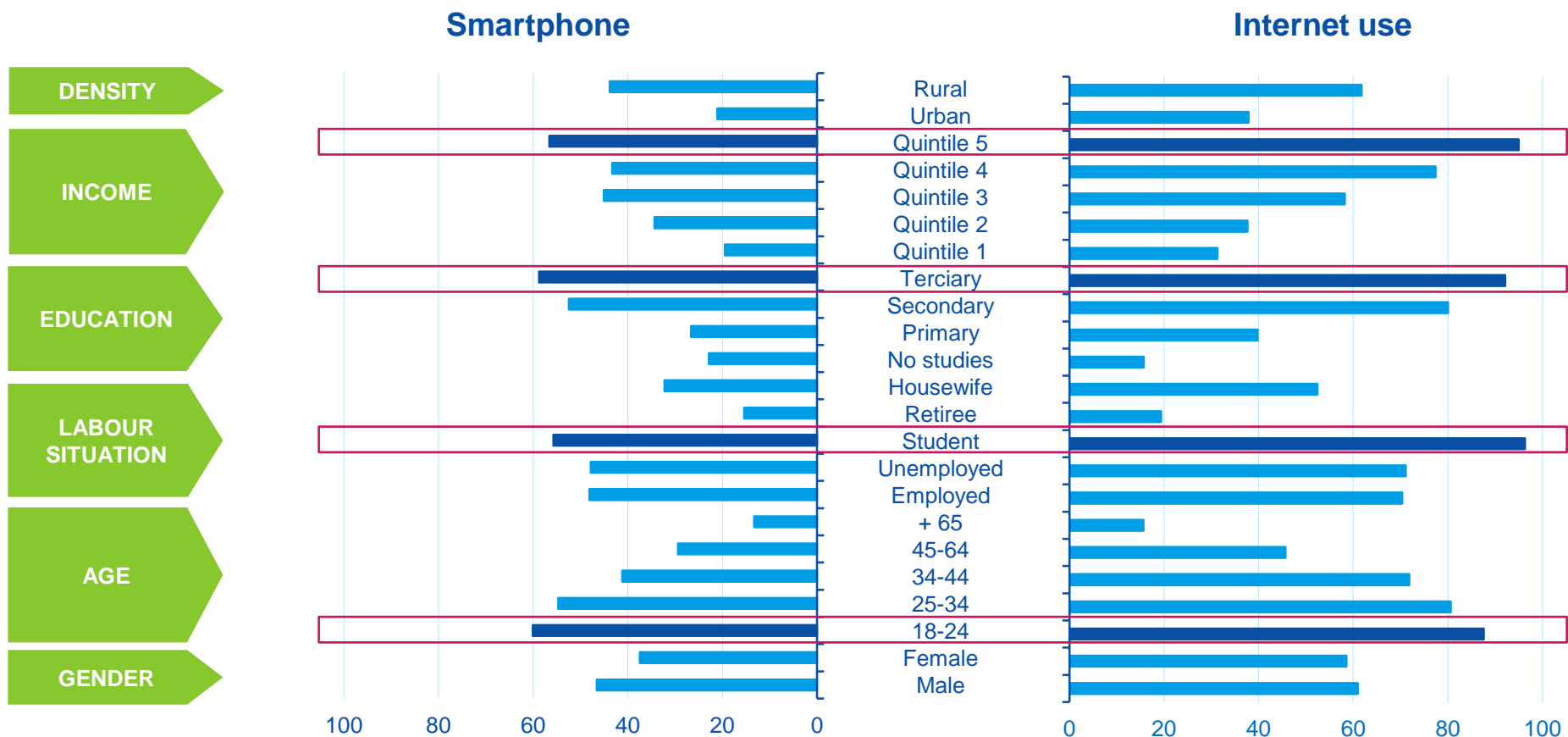




## 2.9. Geographical distribution in 2014: usage over the last 3 months

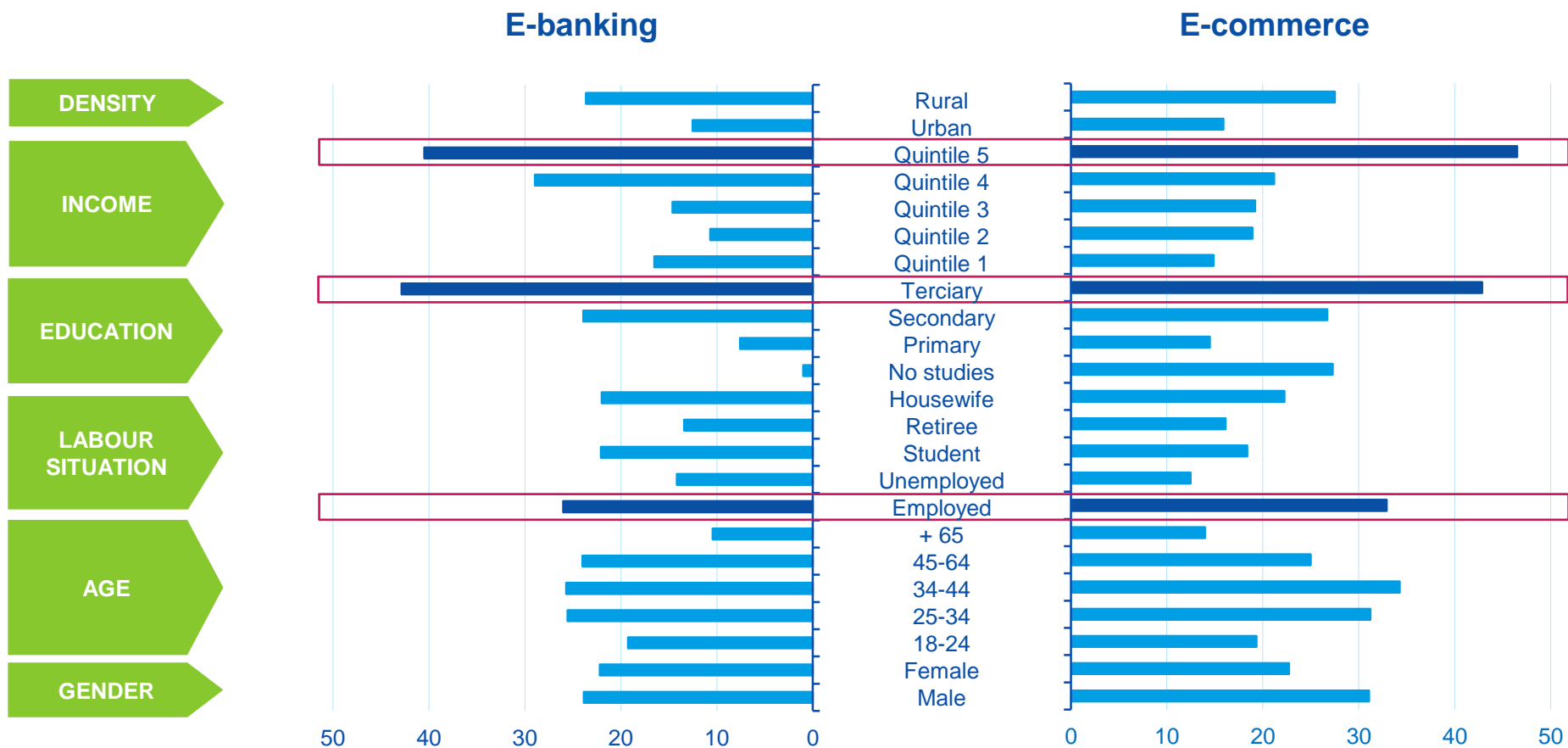


# 2.10. Population characteristics: Internet and smartphone use (%)



Note: Internet use and smartphone ownership data are from 2014

# 2.11. Population characteristics: users of e-banking and e-commerce (%)



Note: E-banking and E-commerce data are from 2014

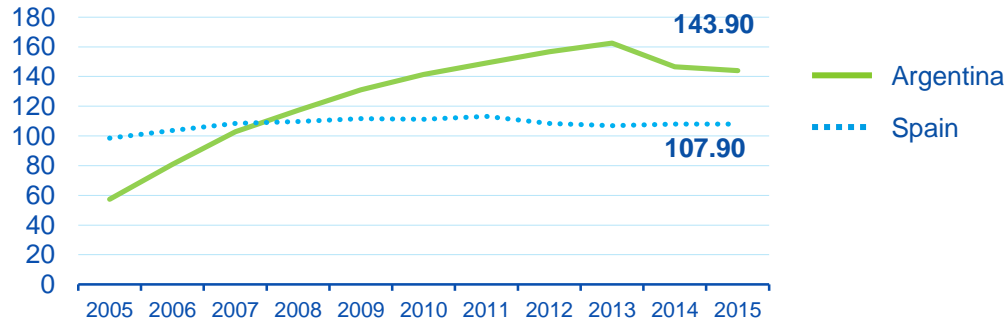


# 3 Supply side

# 3.1. Mobile situation

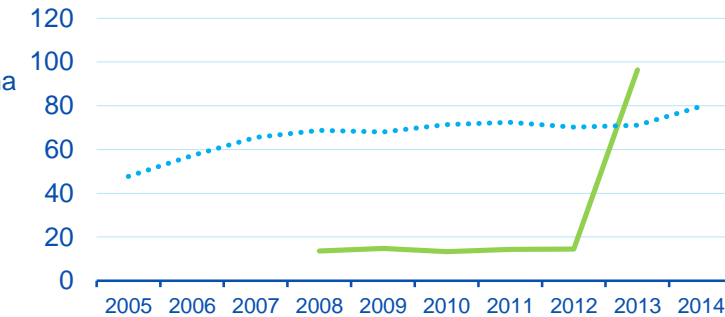
## Mobile-cellular telephone subscriptions

(per 100 inhabitants)



## Domestic mobile-telephone traffic

(billions of minutes)



## Mobile population Coverage



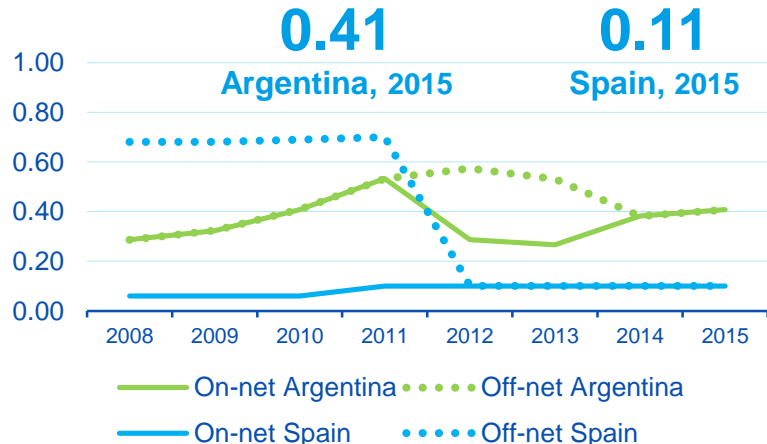
**Argentina**  
98%

**Spain**  
99.8%

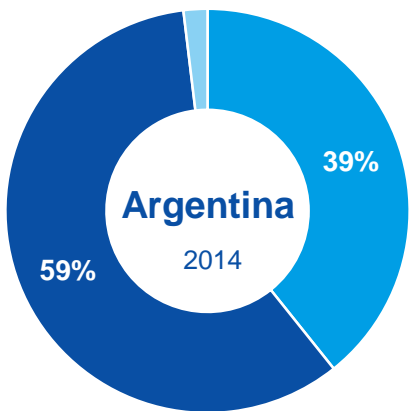
2013

## Tariffs: Mobile-cellular prepaid-1 min call

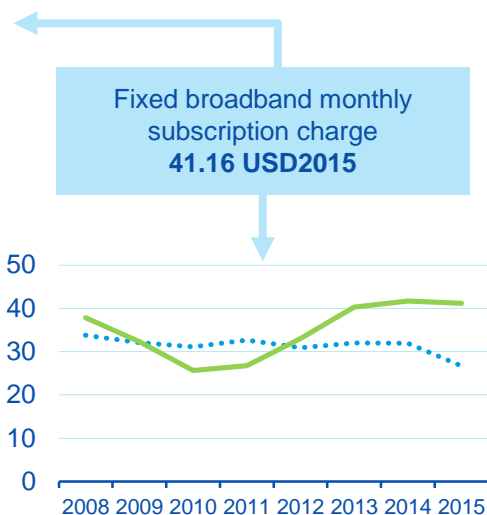
(USD)



# 3.2. Fixed broadband

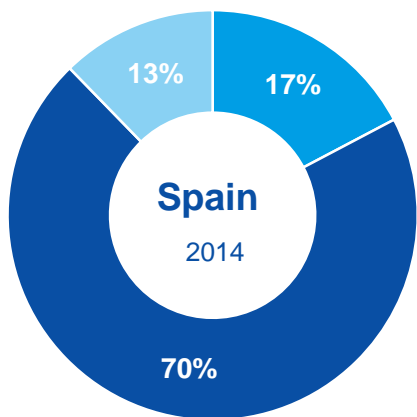


■ Cable modem ■ DSL ■ Fibre

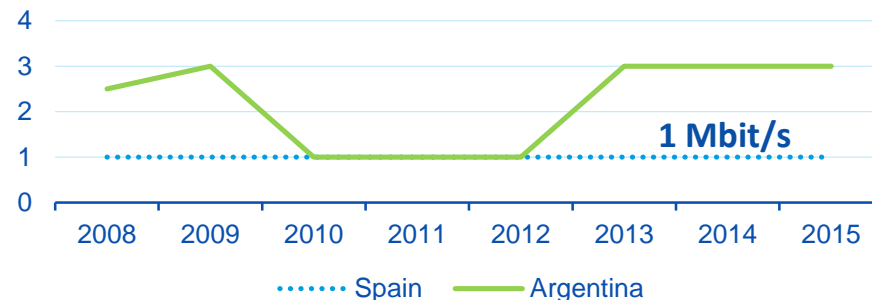


..... Spain — Argentina

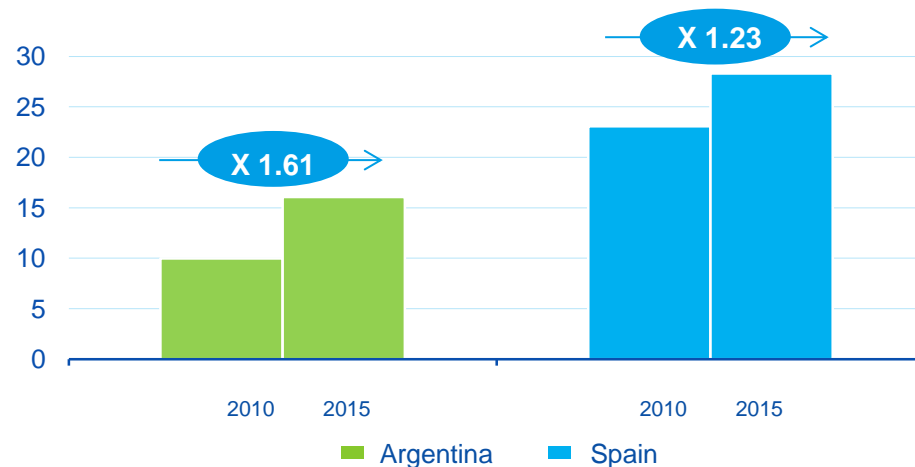
Fixed broadband monthly subscription charge  
**26.7 USD2015**



Fixed broadband speed (in Mbit/s)

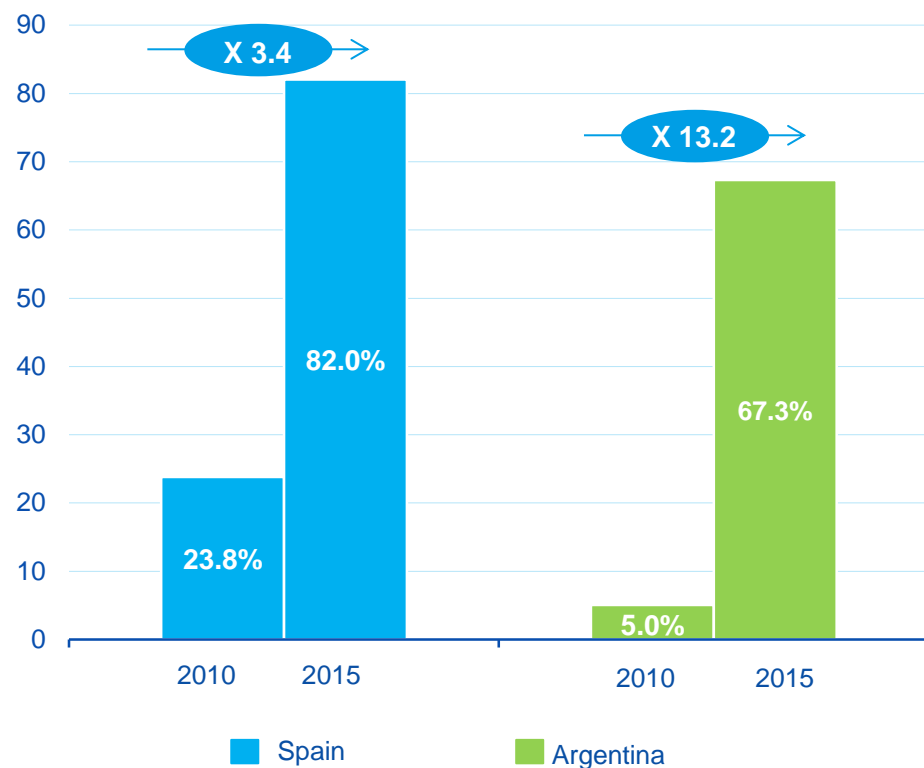


Fixed broadband subscriptions (per 100 inhabitants)

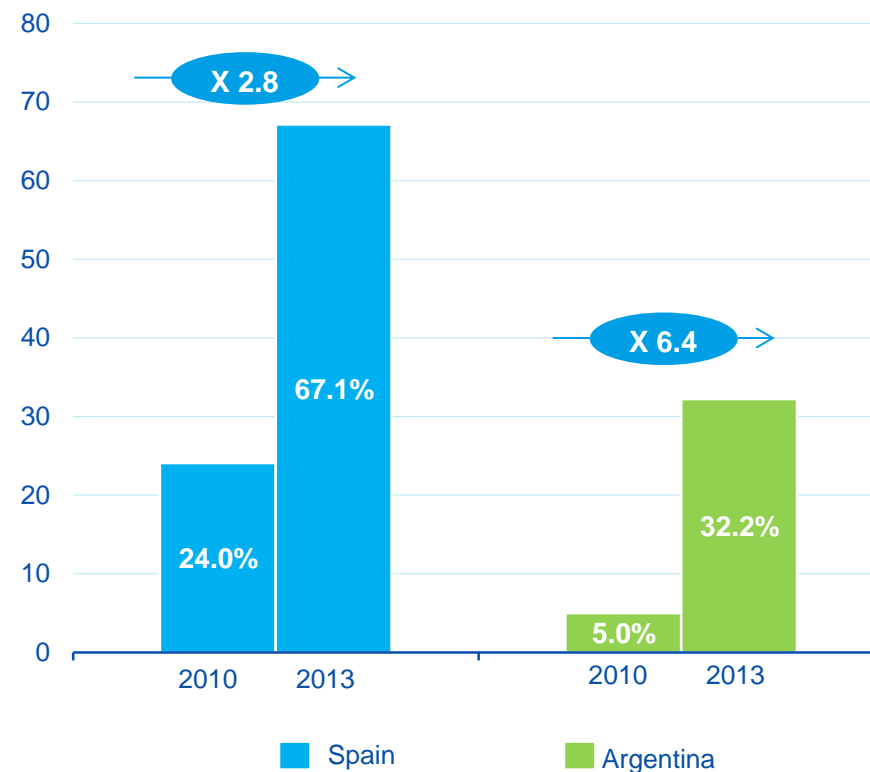


# 3.3. Wireless broadband

Mobile-broadband subscriptions (%)



Total wireless broadband subscriptions (%)



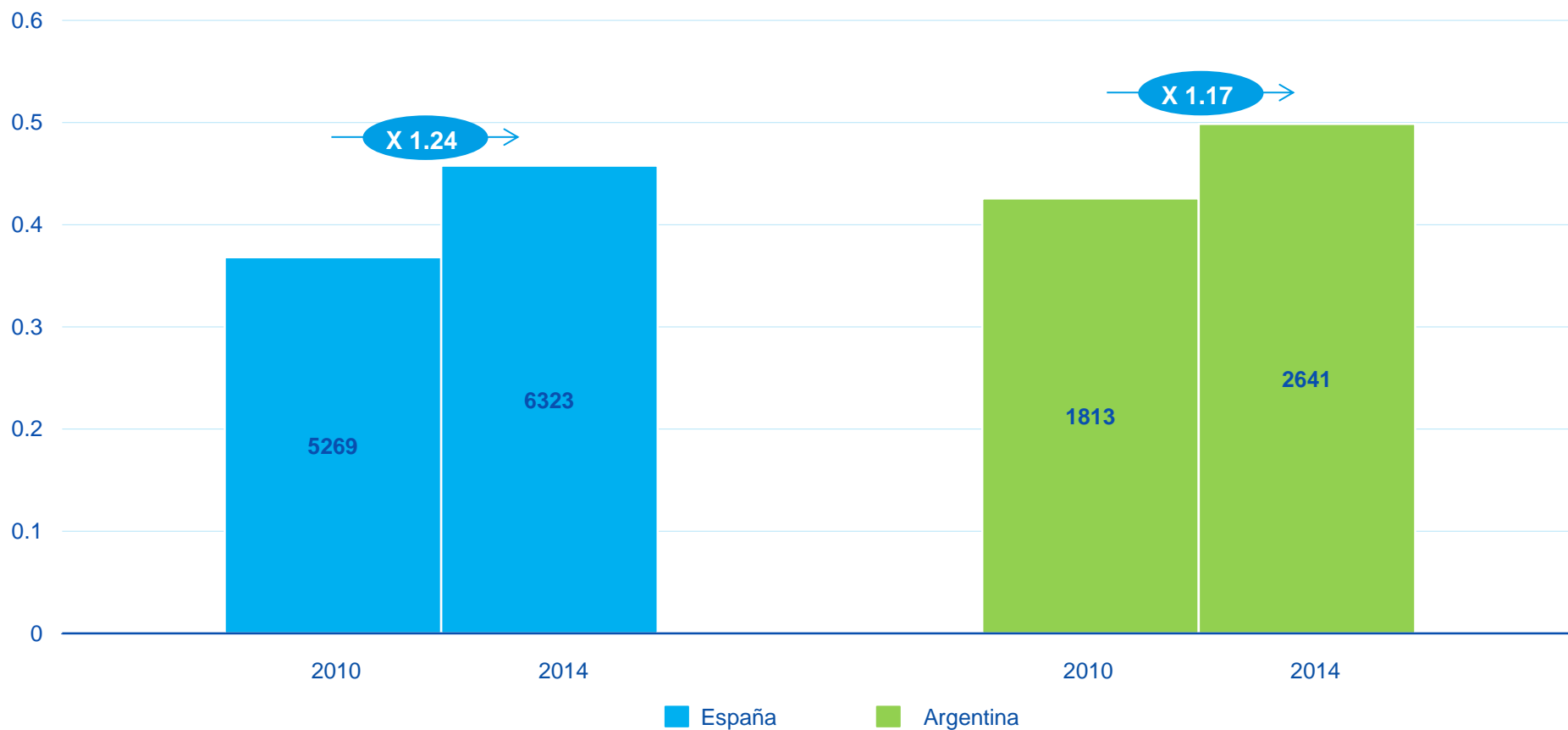
Note 1: The numbers inside the bars show number of subscriptions per 100 inhabitants

Note 2: The total wireless broadband subscriptions indicator is composed of satellite, terrestrial fixed wireless and mobile broadband subscriptions



# 3.4. Annual investment in telecommunication services

Annual investment in telecommunication services (millions of USD, % GDP)

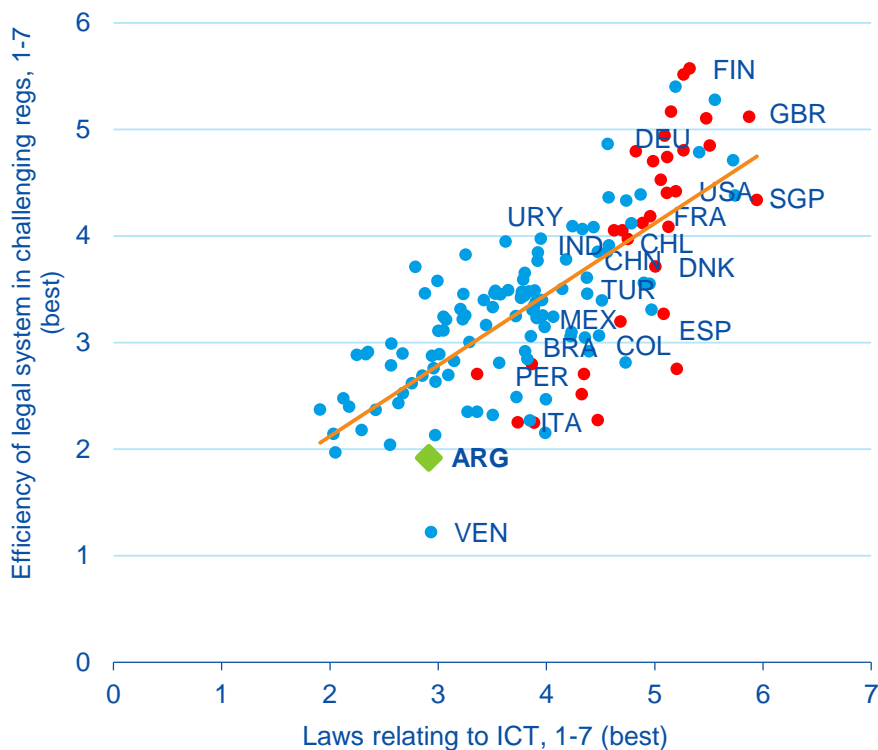


Note: Values inside bars represent total investment in millions of USD

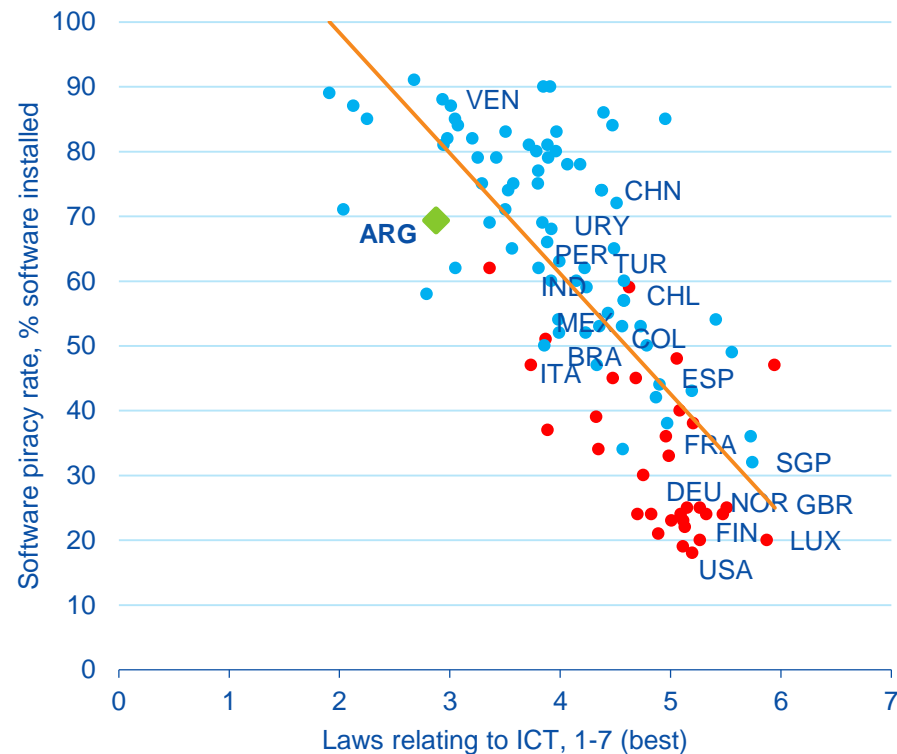


# 4 Regulation side

# 4.1. ICT laws: Efficiency and Piracy

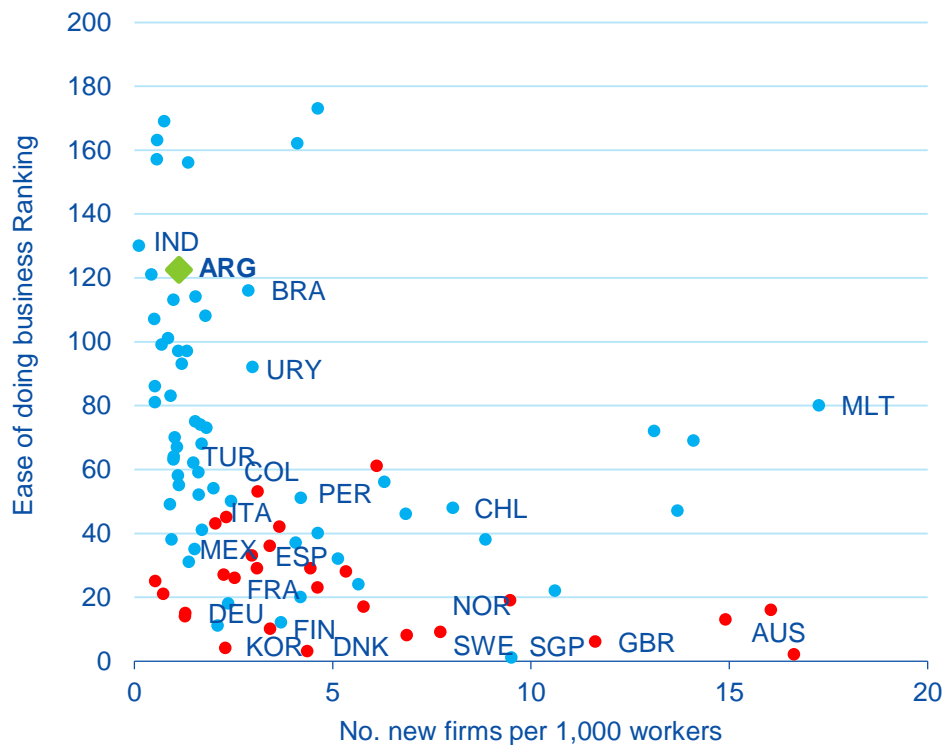


● High income OECD countries

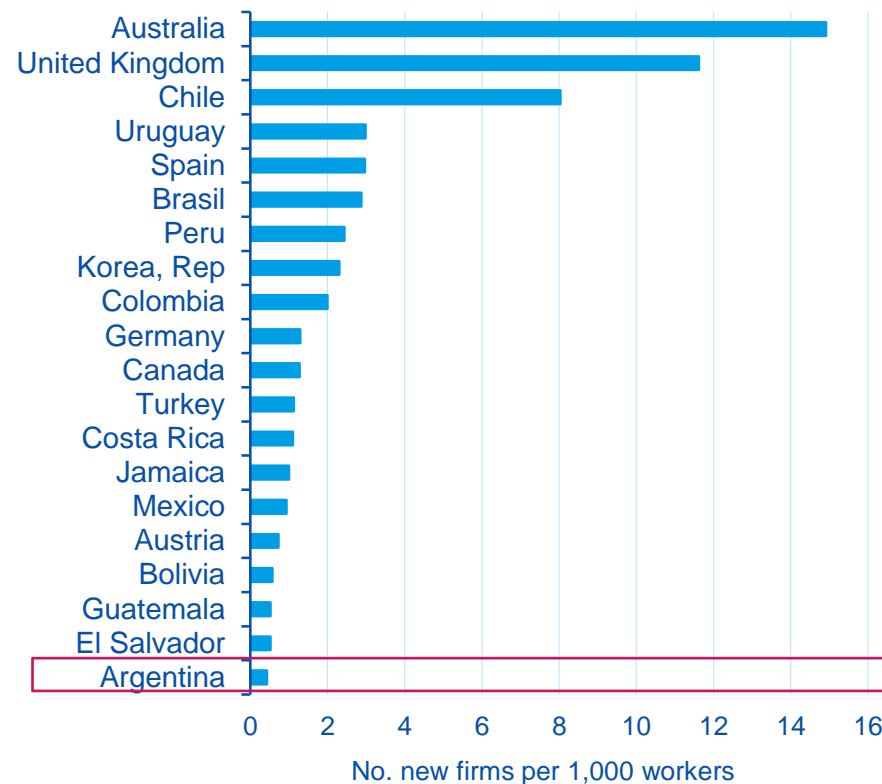


● Rest (Argentina is highlighted in green)

# 4.2. Ease of doing business & entrepreneurship

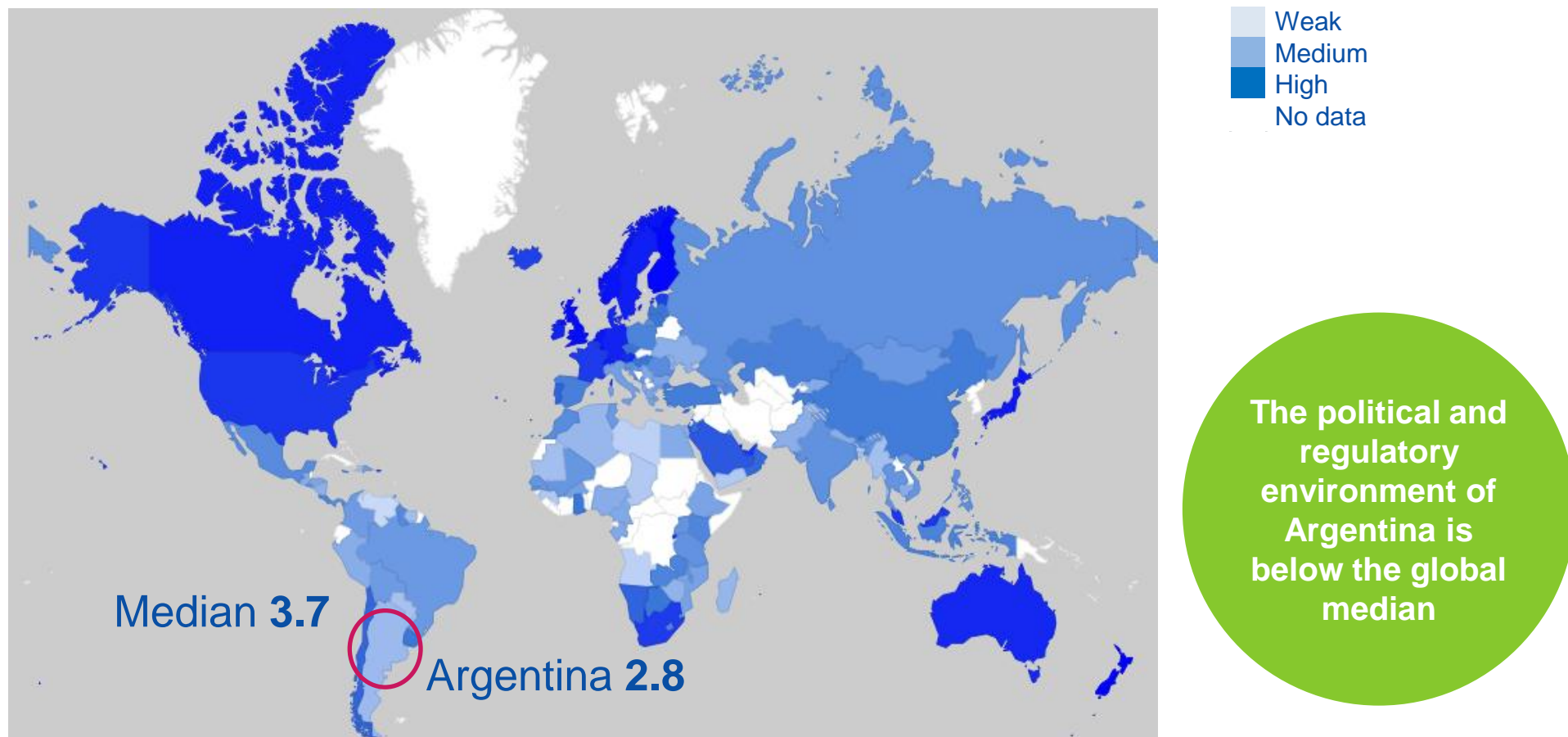


● High income OECD countries



● Rest (Argentina is highlighted in green)

## 4.3. Political and regulatory environment



Source: BBVA Research & World Economic Forum, 2015

Note: In order to measure the political and regulatory environment, indicators such as ICT-related laws, piracy rates, efficiency of legal system and protection of intellectual property are taken into account.



# 5 Appendices

# Composition of the Digitization Index

## Infrastructure

- ✓ Fixed (wired)-broadband speed, in Mbit/s.
- ✓ International Internet bandwidth. It is measured in bits per second per Internet users.
- ✓ Percentage of total population covered by a mobile network signal.
- ✓ International Internet bandwidth in megabits per second (Mbit/s).

## Cost

- ✓ Monthly subscription charge for fixed (wired) broadband Internet service (PPP \$). Fixed (wired) broadband is considered to be any dedicated connection to the Internet at downstream speeds equal to, or greater than, 256 kilobits per second, using DSL.

## Users adoption

- ✓ Active mobile-broadband subscriptions.
- ✓ Fixed (wired)-broadband subscriptions.
- ✓ Mobile telephone subscriptions
- ✓ Percentage of households with Internet access at home.
- ✓ Proportion of individuals that have used the Internet in the last 12 months.
- ✓ how widely used are virtual social networks in the country.

## Regulation

- ✓ How developed are your country's laws relating to the use of ICT (e.g., electronic commerce, digital signatures, consumer protection)?

[1 = not developed at all; 7 = extremely well-developed]

## Firms adoption

- ✓ What extent do businesses use ICT for transactions with other businesses in the country?
- ✓ What extent do businesses use the Internet for selling their goods and services to consumers in the country?
- ✓ What extent do businesses adopt new technology in the country?

[1 = not at all; 7 = to a great extent]

## Content

- ✓ The Government Online Service Index assesses the quality of governments' delivery of online services on a 0-to-1 (best) scale. There are four stages of service delivery: Emerging, Enhanced, Transactional and Connected. In each country, the performance of the government in each of the four stages is measured as the number of services provided as a percentage of the maximum services in the corresponding stage.



## Source of data from the Demand Side:

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Survey conducted by the National Institute of Statistics and Census of Argentina Republic (INDEC) for years 2011 and 2015.

This is a special study for households and individuals on the Use of Information Technology and Communications (ENTIC) in Argentina.

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In addition, we used additional information from another survey conducted worldwide by the Pew Research Center about trends and technological dynamism in several countries (Spring 2013-2014 Survey).

## Source of data from the Supply Side: World Telecommunication/ICT Indicators database (ITU, 2016)

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The World Telecommunication/ICT Indicators database contains time series data for the years 1960, 1965, 1970 and annually from 1975 to 2015. These data are available for over 200 economies, however the availability of data for the different indicators and years can vary

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The data are collected from an annual questionnaire sent to official economy contacts, usually the regulatory authority or the ministry in charge of telecommunication and ICT. Additional data are obtained from reports provided by telecommunication ministries, regulators and operators and from ITU staff reports

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Mauro N. Acuña  
Víctor Adame  
Javier Alonso  
Alfonso Arellano  
Noelia Cámara  
Rosa M<sup>a</sup> Oliveros  
Lucía Pacheco

**Argentina****Gloria Sorensen***Chief Economist*

Marcos Dal Bianco  
María Celeste González  
Adriana Haring  
Jorge Alberto Lamela  
Juan Manuel Manías