

**BBVA**

RESEARCH

NOVEMBER  
**2016**



Digital Context:  
**Uruguay**

# Outline

- **Overview**

- 1 Digital scenario**

- 2 Demand side**

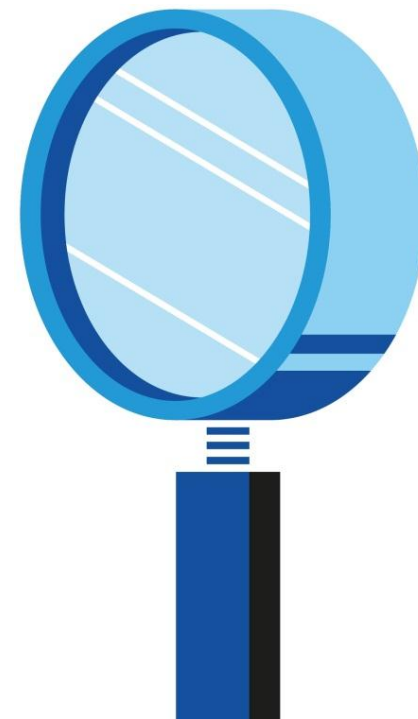
- 3 Supply side**

- 4 Regulation side**



# Overview

- Uruguay is **better off** than most Latin American countries in terms of **the digitization index**, except for Chile
- Uruguay **has room for improving ICT regulation** and **encouraging Internet use in enterprises**
- Uruguay's **Internet use** is close to **developed countries**, with a high frequency of use
- **Home** is the **main place** for **Internet access** and it is becoming even more so
- **Lack of skills** is considered the **main barrier to Internet use**; this perception increases with age
- The use of **e-banking** and **e-commerce** is **fairly widespread** in **Uruguay**, in both cases, it stands above 20%
- The **fixed broadband monthly subscription charge** in Uruguay is **17.9 USD**, which is lower than in Spain (26.7 USD)
- **45.5%** of Uruguay's population has a **mobile-broadband subscription**





1

Digital scenario:  
**Digitization Index**

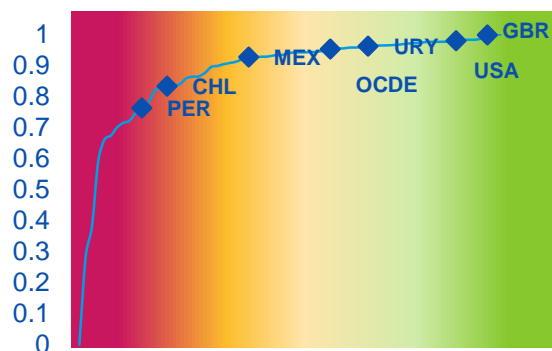
# 1.1. Structural Digitization Index, 2015



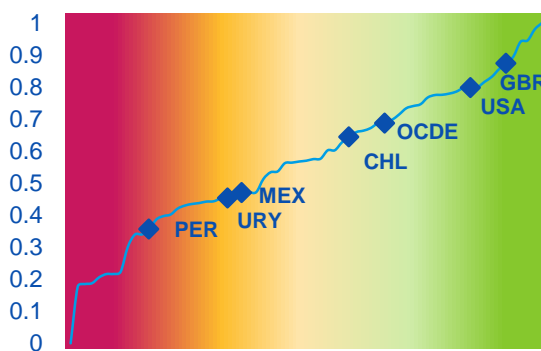
Algeria	Vietnam	Morocco	China	Hungary	Ireland	Germany	Sweden
Qatar	Peru	Thailand	Saudi Arabia	Turkey	Chile	Malaysia	Netherlands
Nigeria	Argentina	Mexico	Croatia	Romania	United Arab Emirates	Denmark	Finland
Pakistan	Egypt	Sri Lanka	Colombia	Uruguay	Belgium	Latvia	Lithuania
Bangladesh	Ukraine	Italy	Slovenia	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

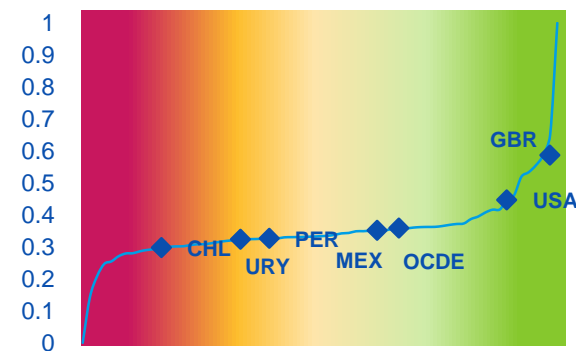
Affordability



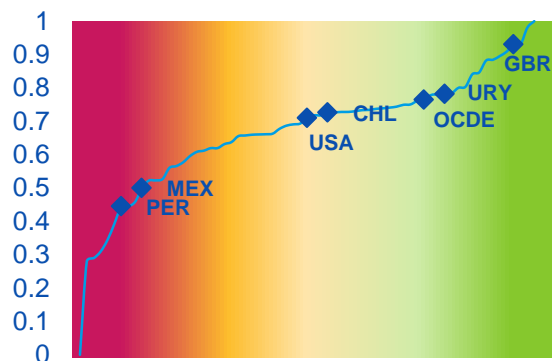
ICT Regulation



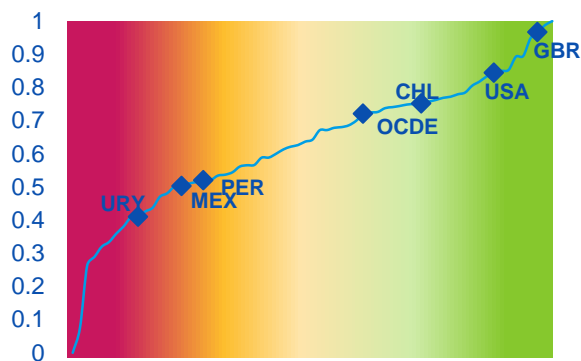
Infraestructure



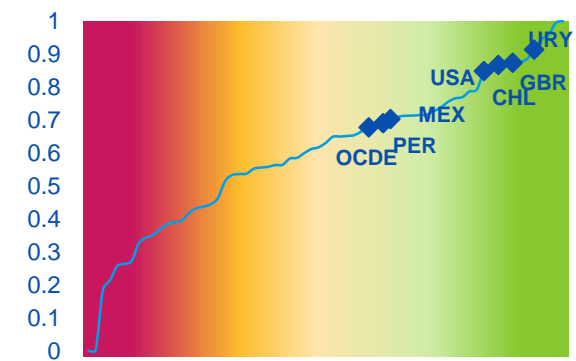
Individual use



Enterprise use



Content



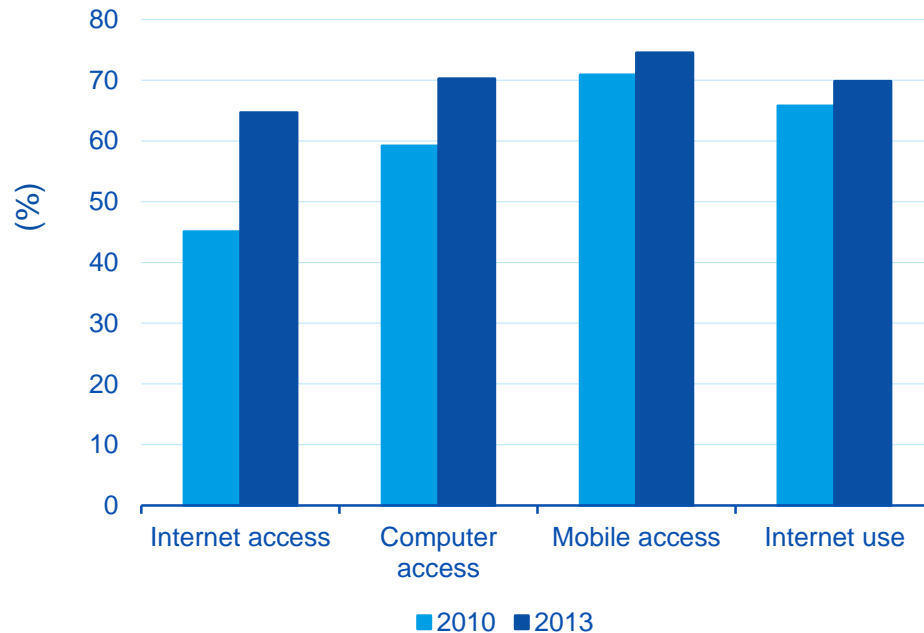


# 2 Demand side

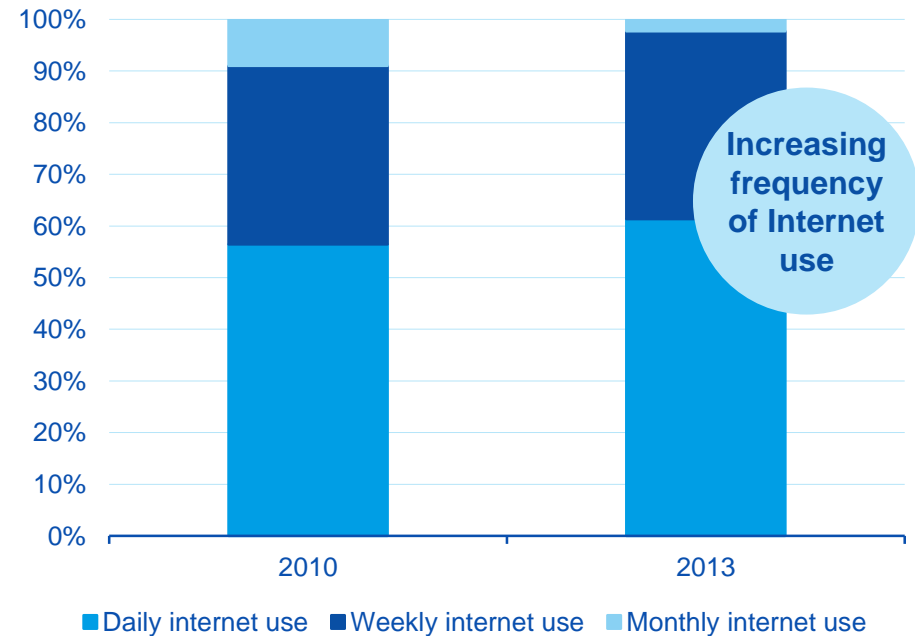


# 2.1. Computer and Internet: Access at home and usage

ICT access and Internet use



Frequency of Internet use



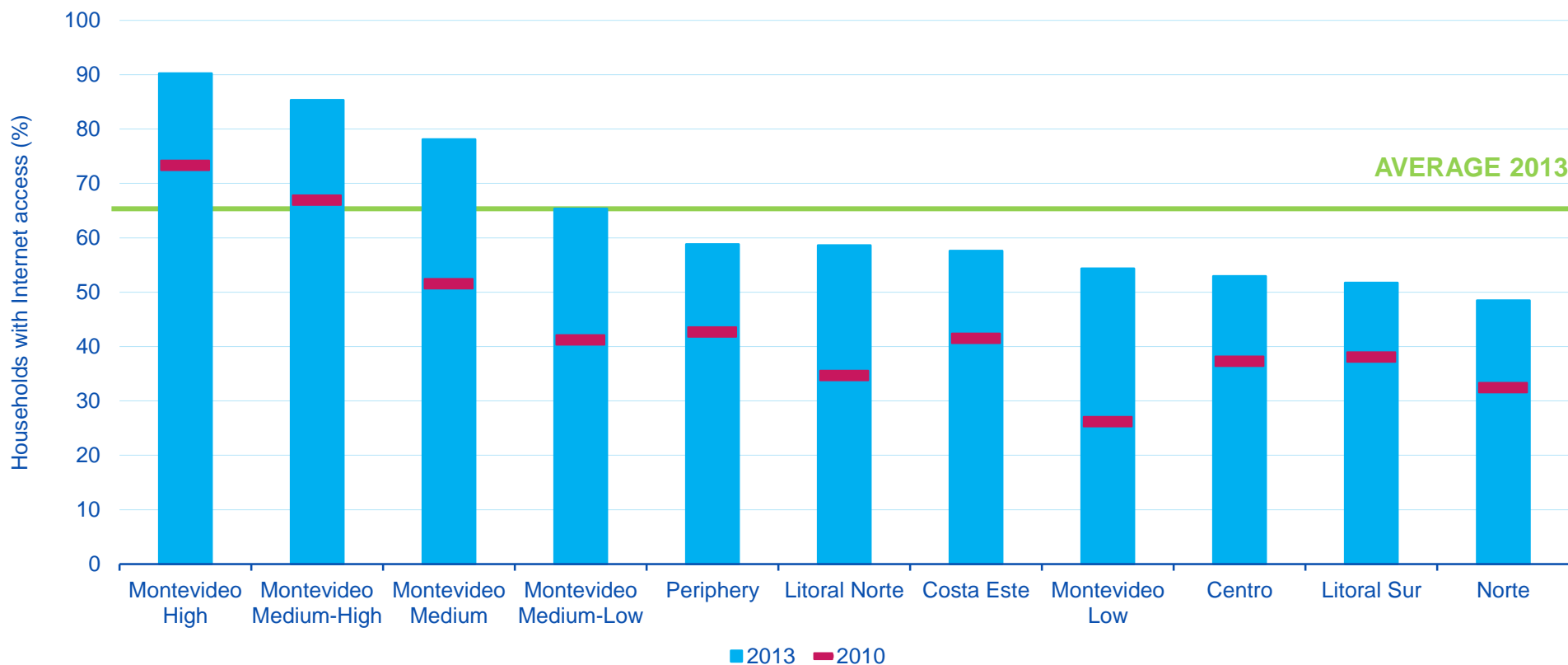
There are few differences between owning a mobile phone, computer or Internet



Note: Use of Internet is in the last 3 months

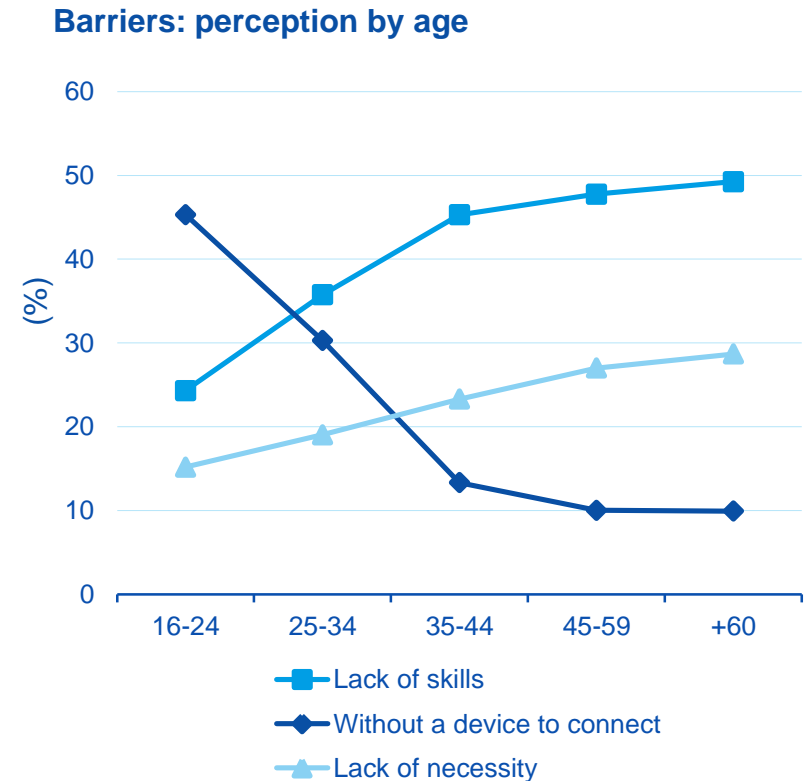
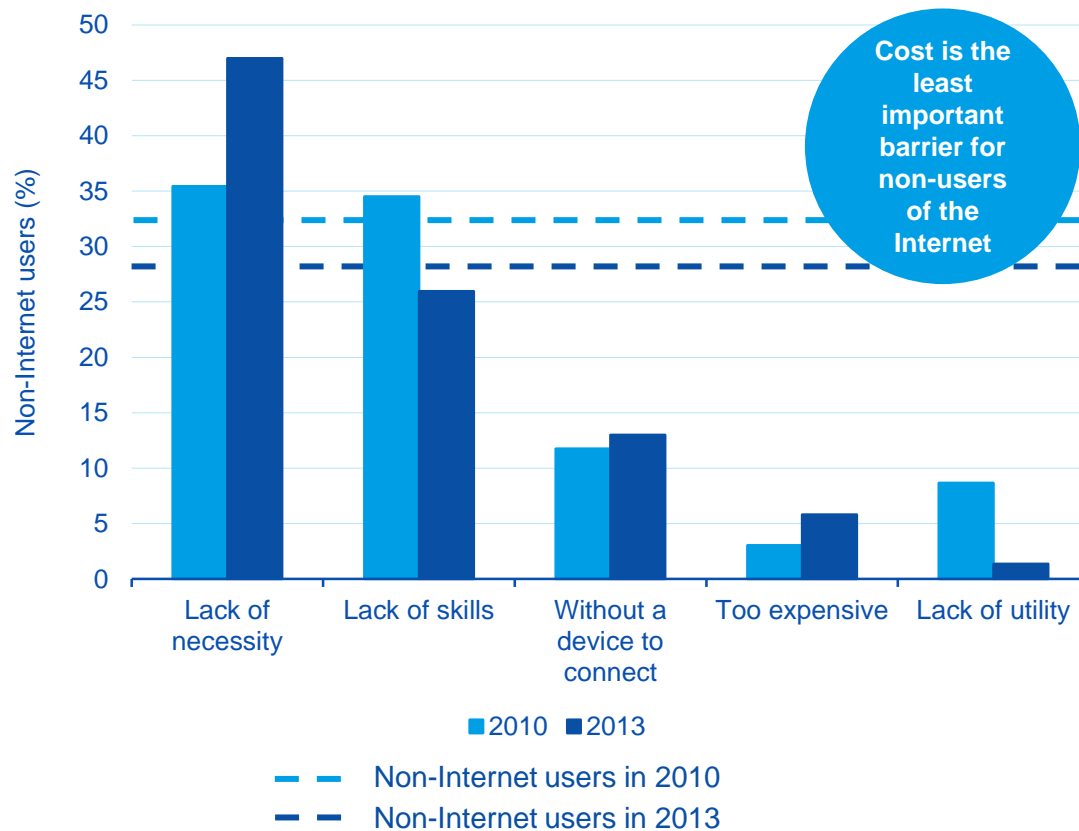


## 2.2. Internet access at home: Evolution across regions and income



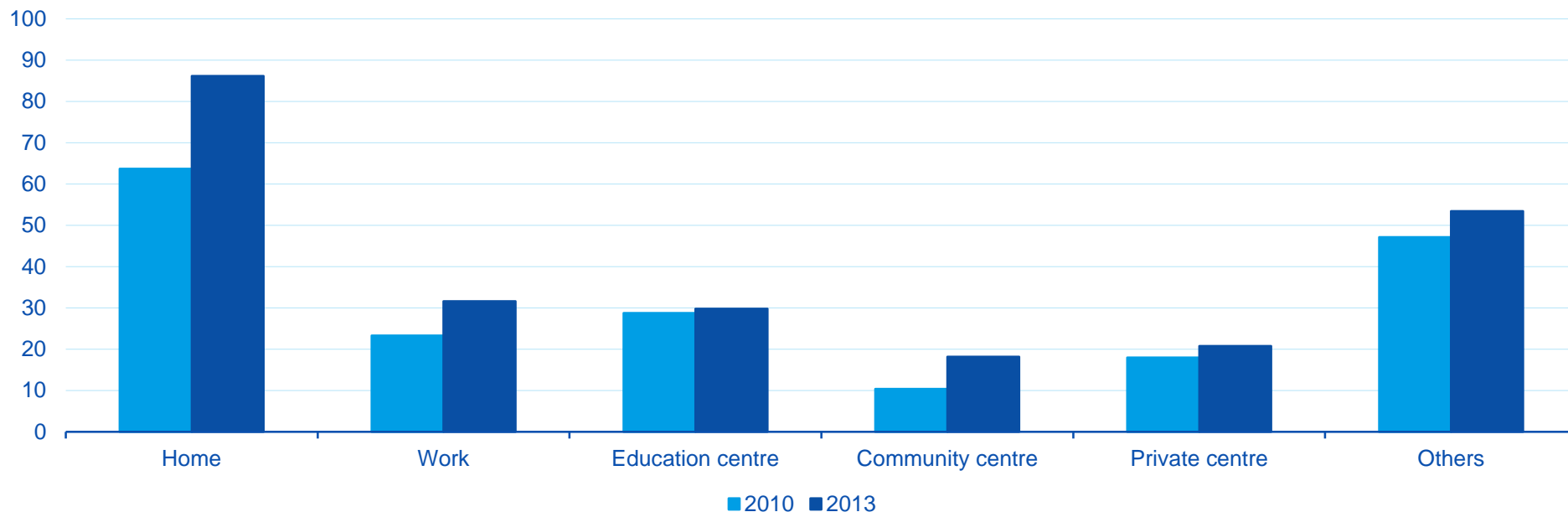
Note: Montevideo is divided into six different levels: five depending on the level of income and one on its metropolitan area (Periphery)

## 2.3. Internet access: Barriers



Lack of skills is the main barrier for Uruguayans who do not use Internet

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



Internet use in 2010:

**65.8%**

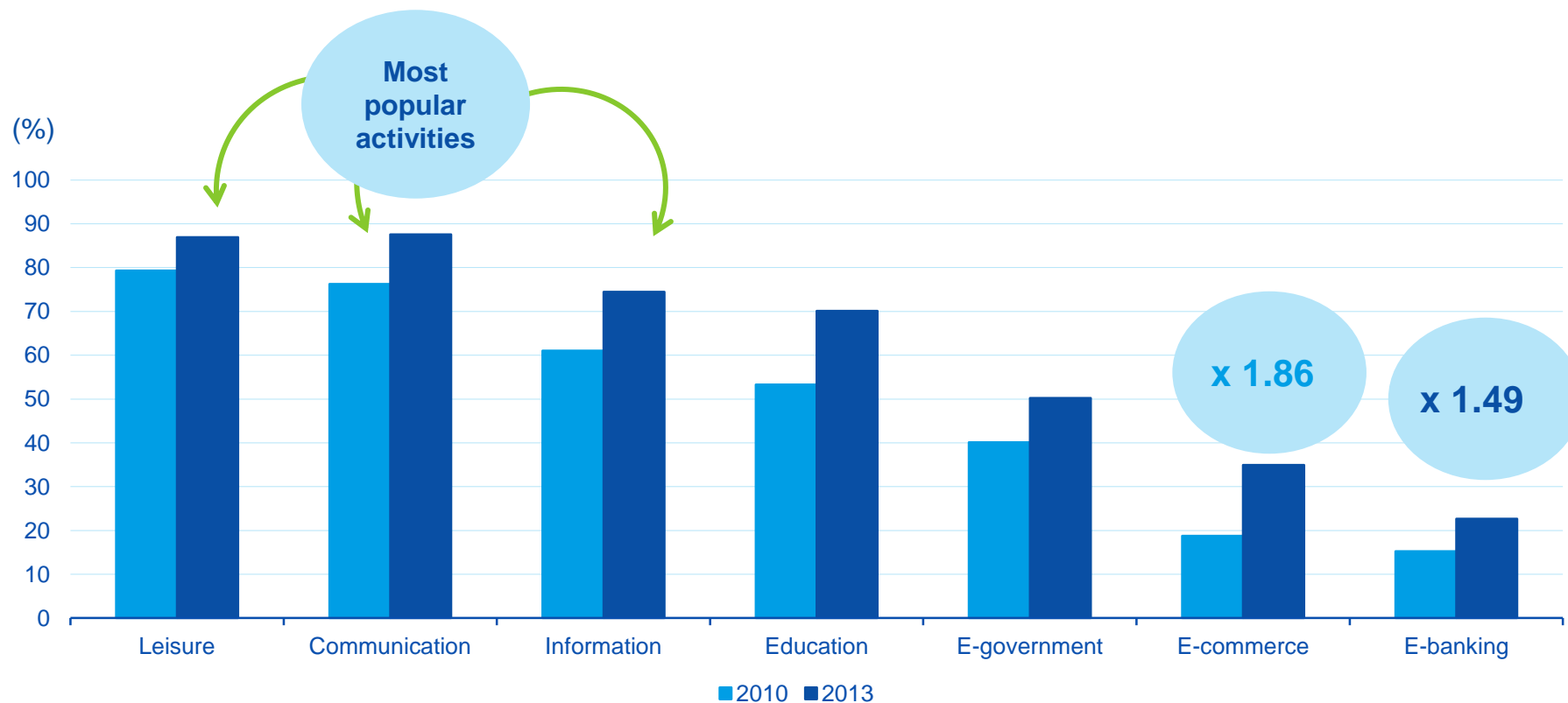
**+4.0 p.p.**

Internet use in 2013:

**69.8%**

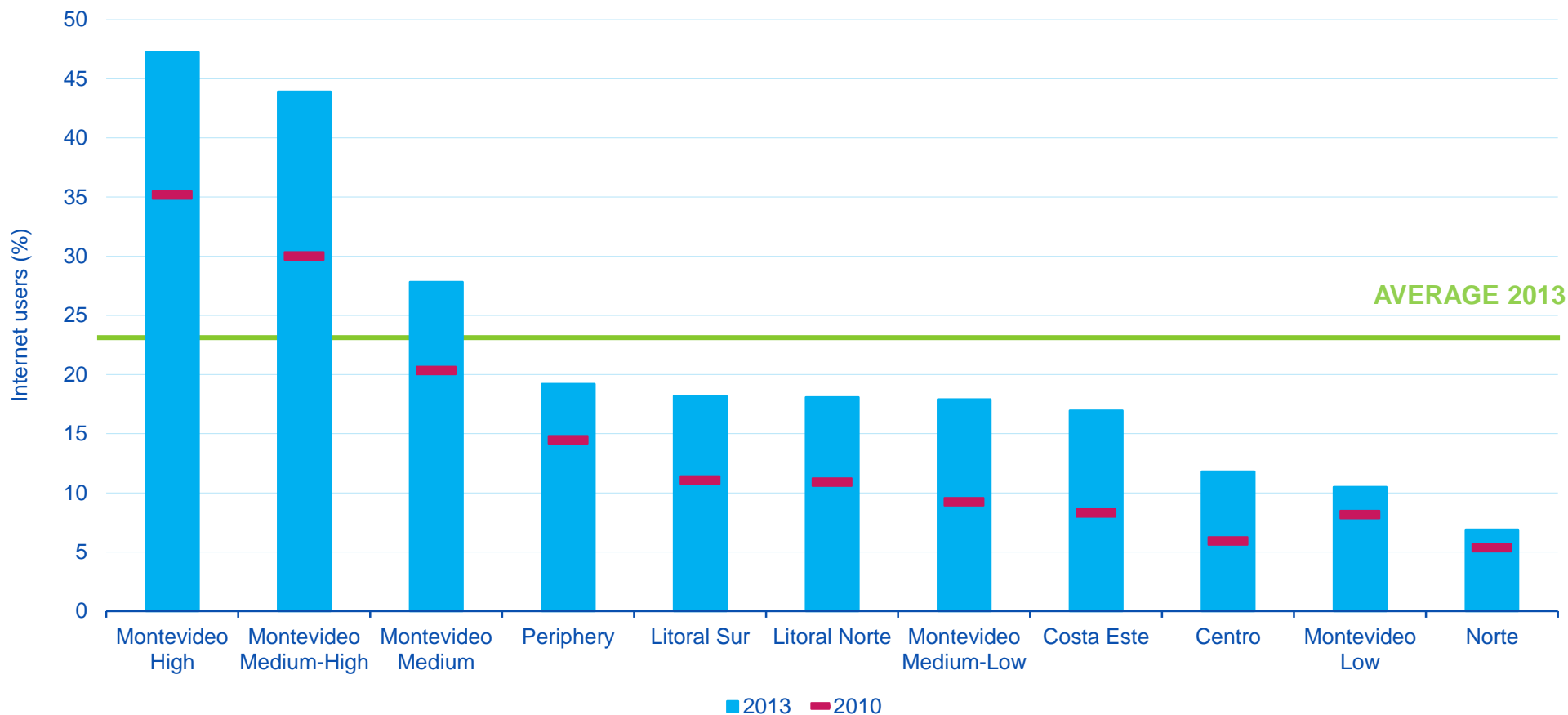
**Home and work are gaining importance compared to other access points**

## 2.5. Internet activities: Usage in the last 3 months



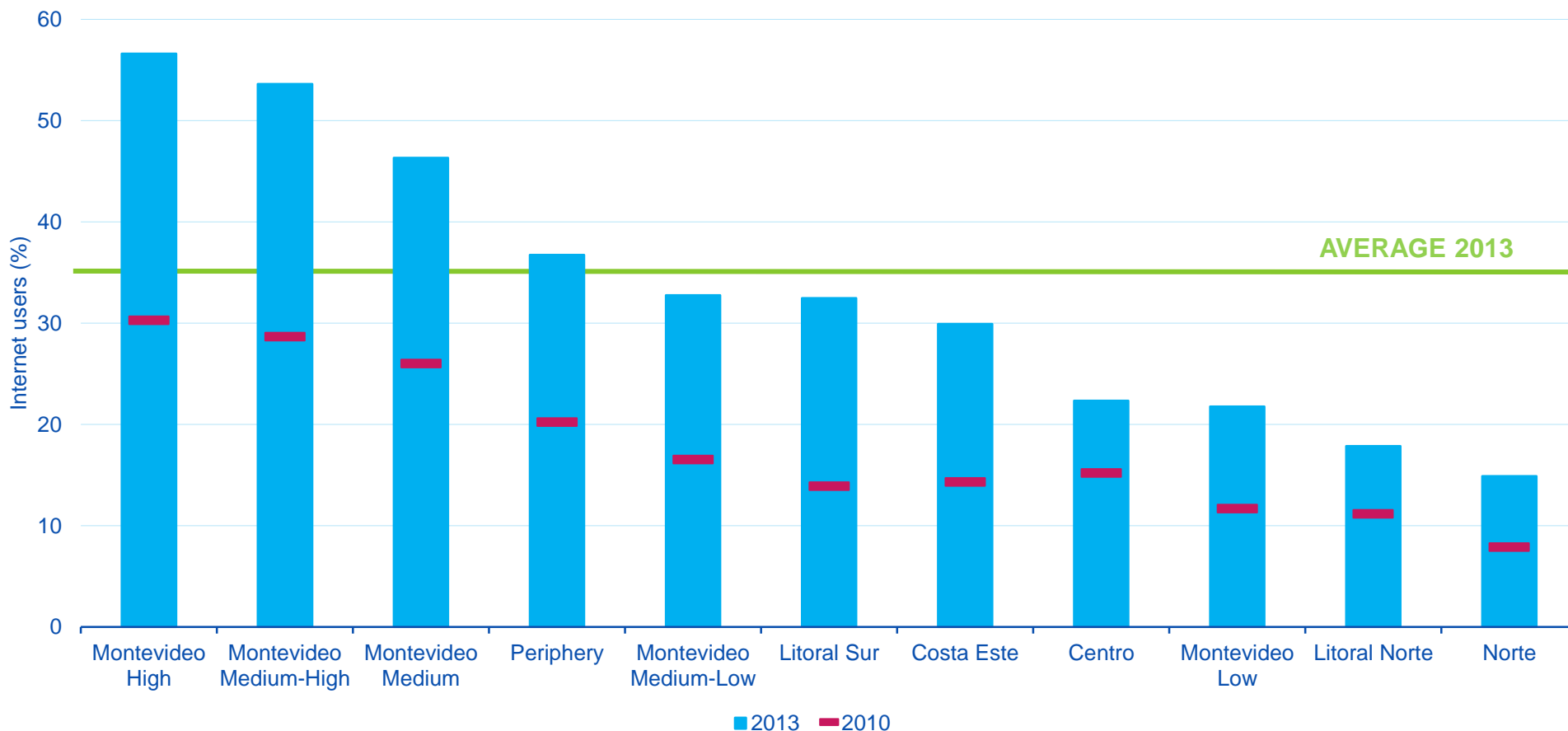
There are no changes in the preferences of Internet users between 2010 and 2013

## 2.6. E-banking: Evolution by geography and income



Note: Montevideo is divided into six different levels: five depending on the level of income and one on its metropolitan area (Periphery)

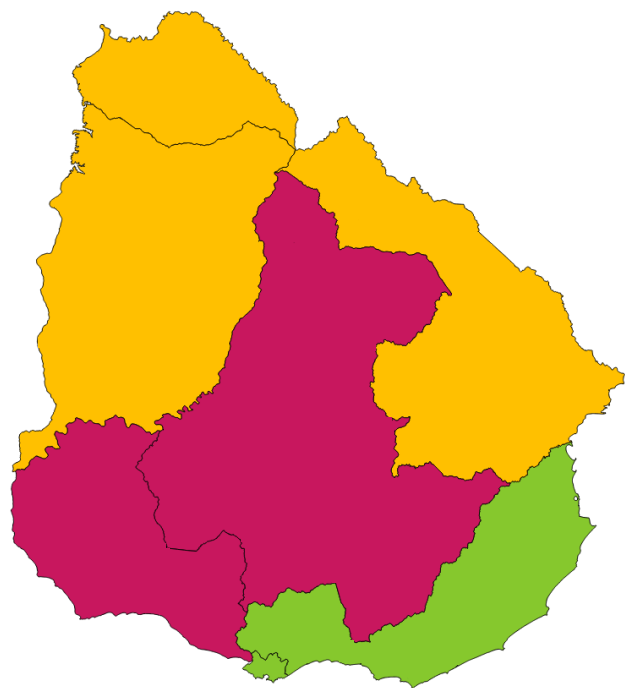
## 2.7. E-commerce: Evolution by geography and income



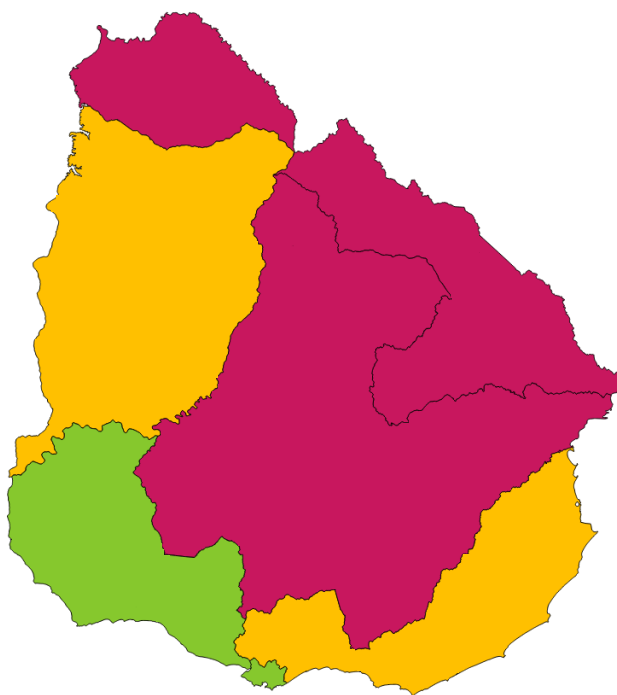
Note: Montevideo is divided into six different levels: five depending on the level of income and one on its metropolitan area (Periphery)

## 2.8. Geographical distribution in 2013: Usage in the last 3 months

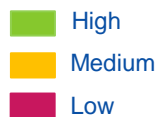
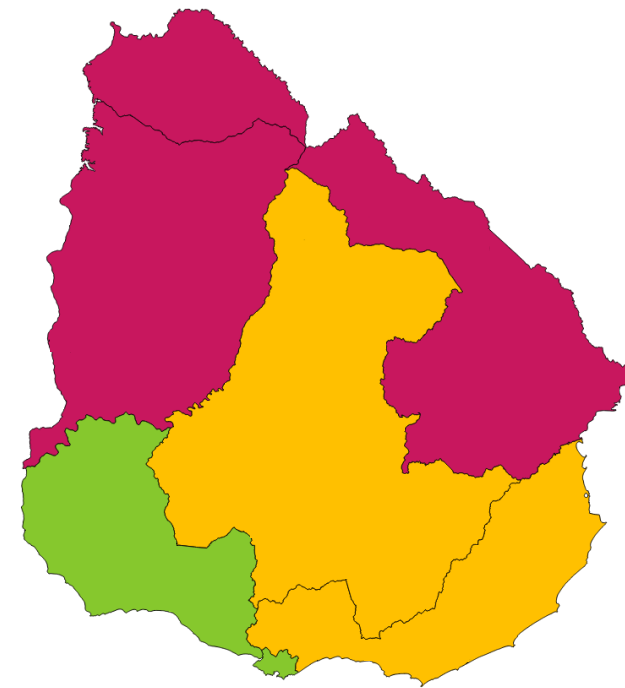
Internet



E-banking

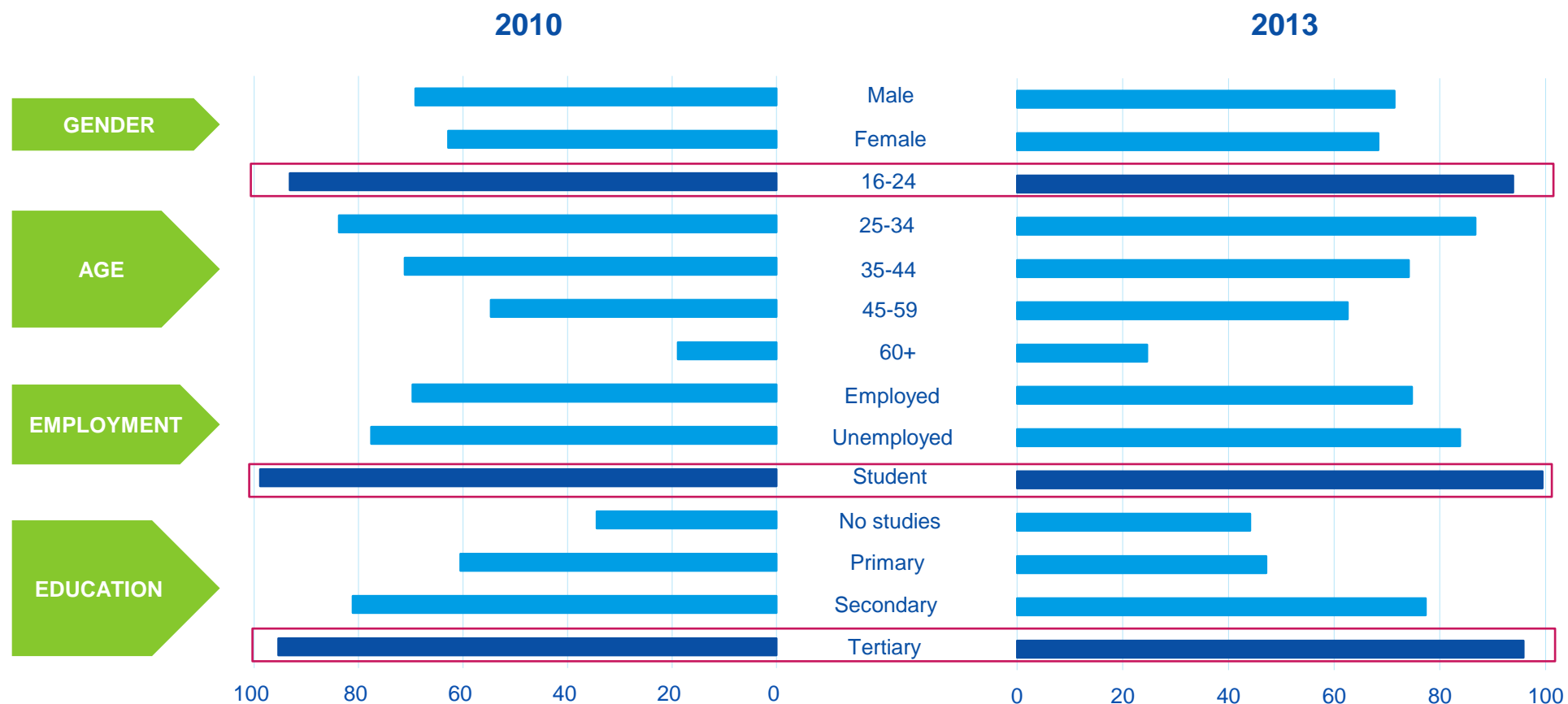


E-commerce



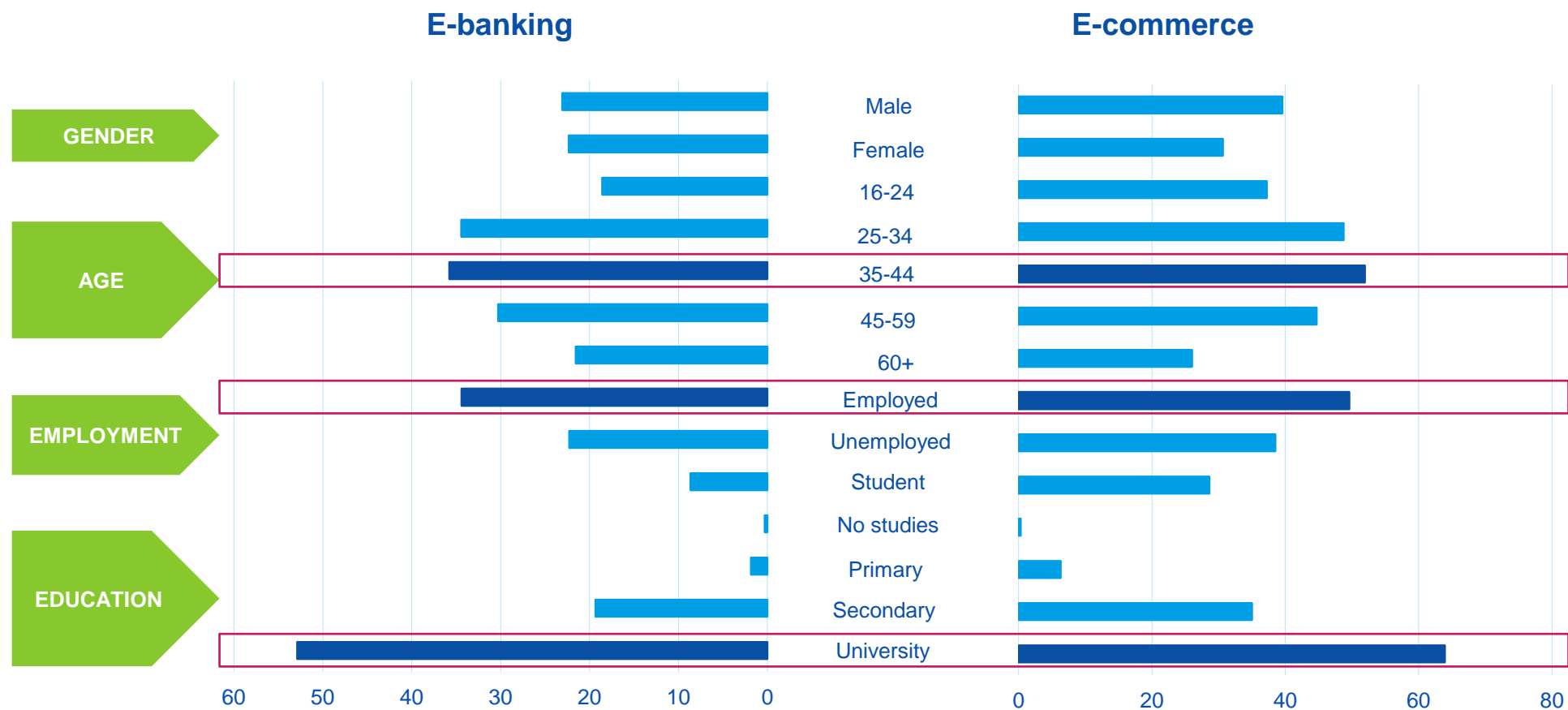


## 2.9. Population characteristics: Internet use (%)



Note: The differentiation of individuals according to their education levels varies between 2010 and 2013. This could affect the reported results.

# 2.10. Population characteristics in 2013 (%)



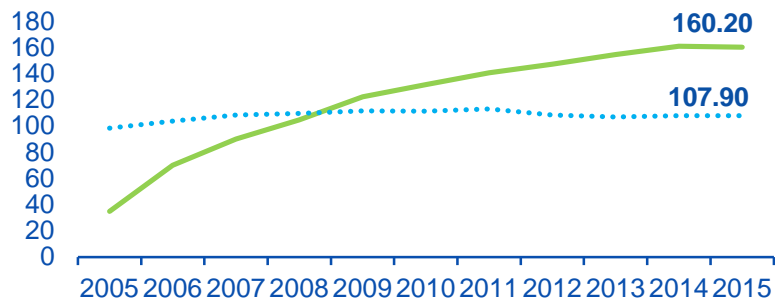


# 3 Supply side

# 3.1. Mobile situation

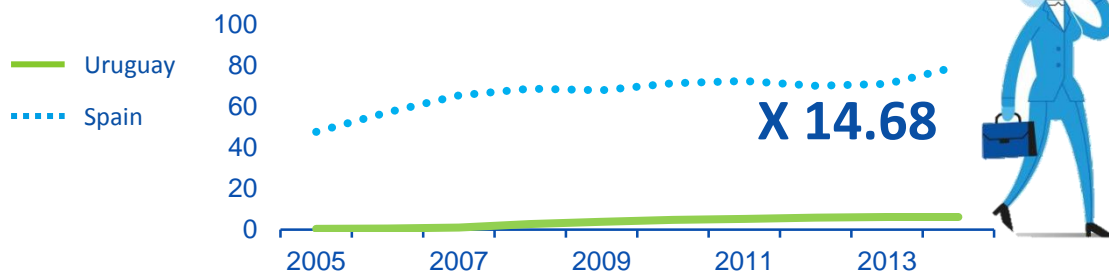
## Mobile-cellular telephone subscriptions

(per 100 inhabitants)



## Domestic mobile-telephone traffic

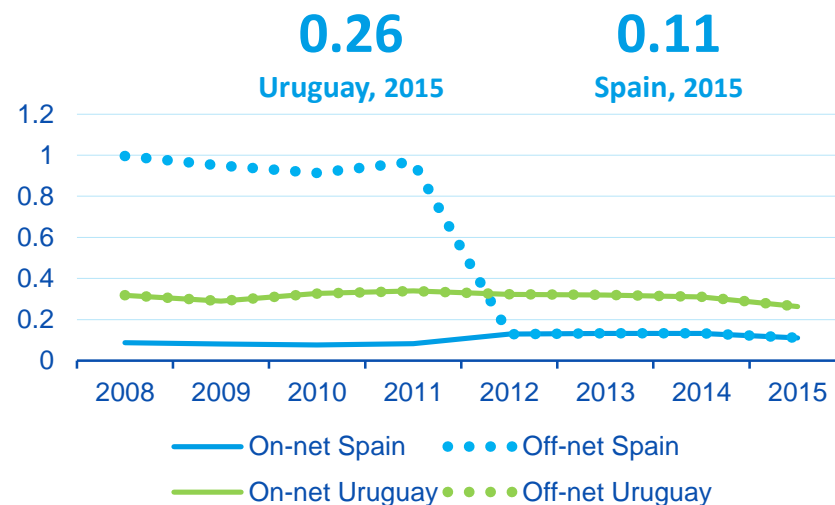
(billions of minutes)



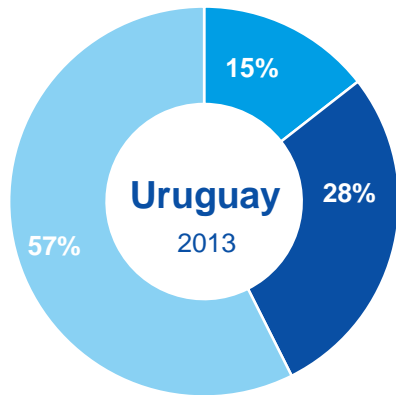
## Mobile population Coverage



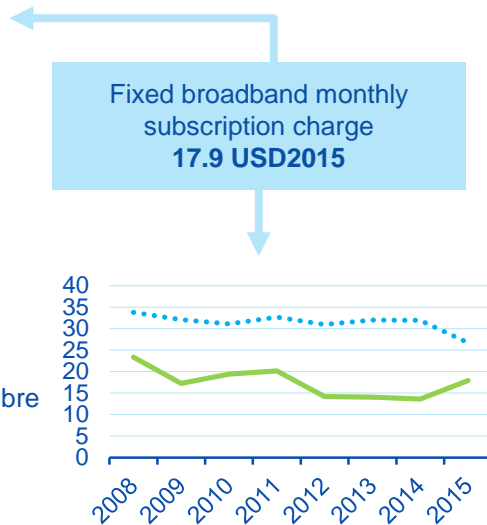
## Tariffs: Mobile-cellular prepaid-1 min call (USD)



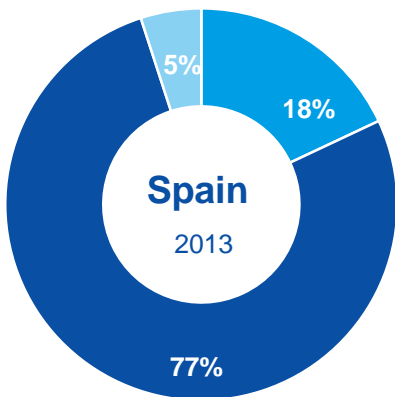
# 3.2. Fixed broadband



■ Other connections ■ DSL ■ Fibre

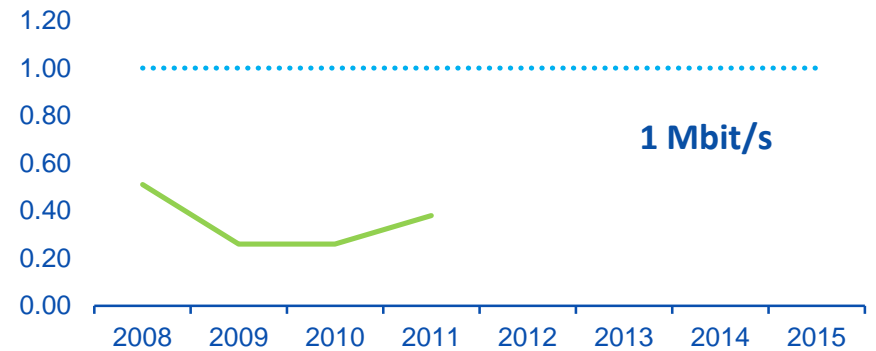


..... Spain — Uruguay

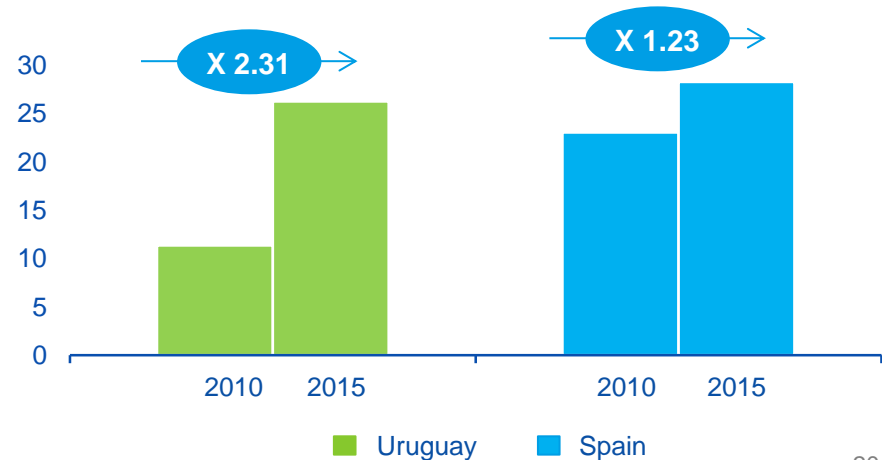


■ Cable modem ■ DSL ■ Fibre

**Fixed broadband speed, (in Mbit/s)**

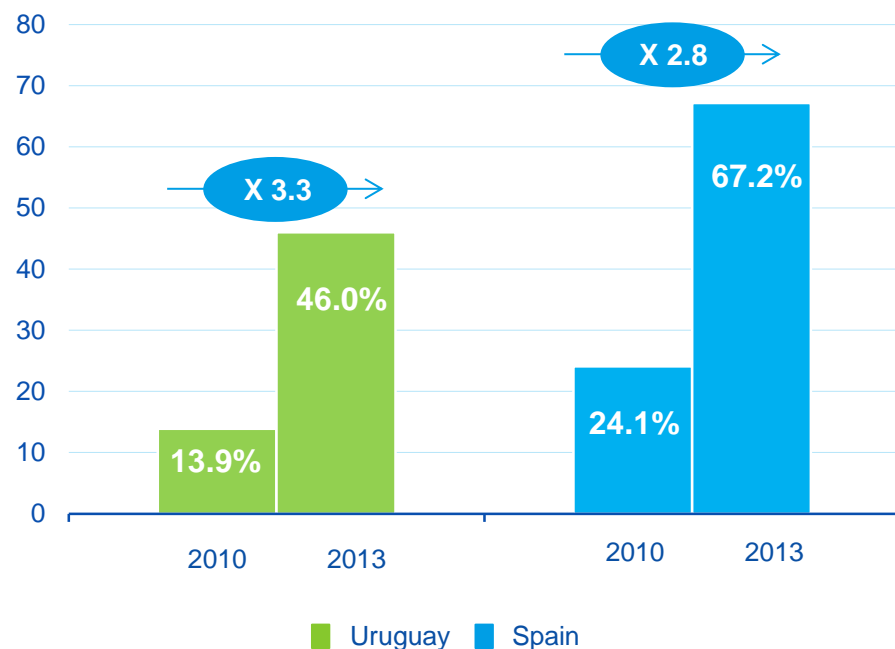


**Fixed broadband subscriptions (per 100 inhabitants)**

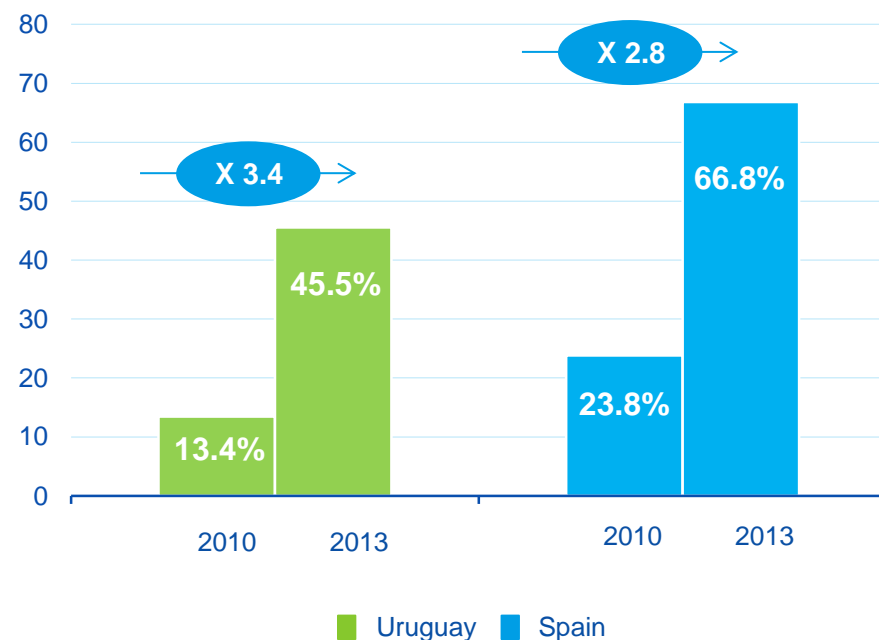


# 3.3. Wireless broadband

Total wireless broadband subscriptions (%)



Mobile-broadband subscriptions (%)



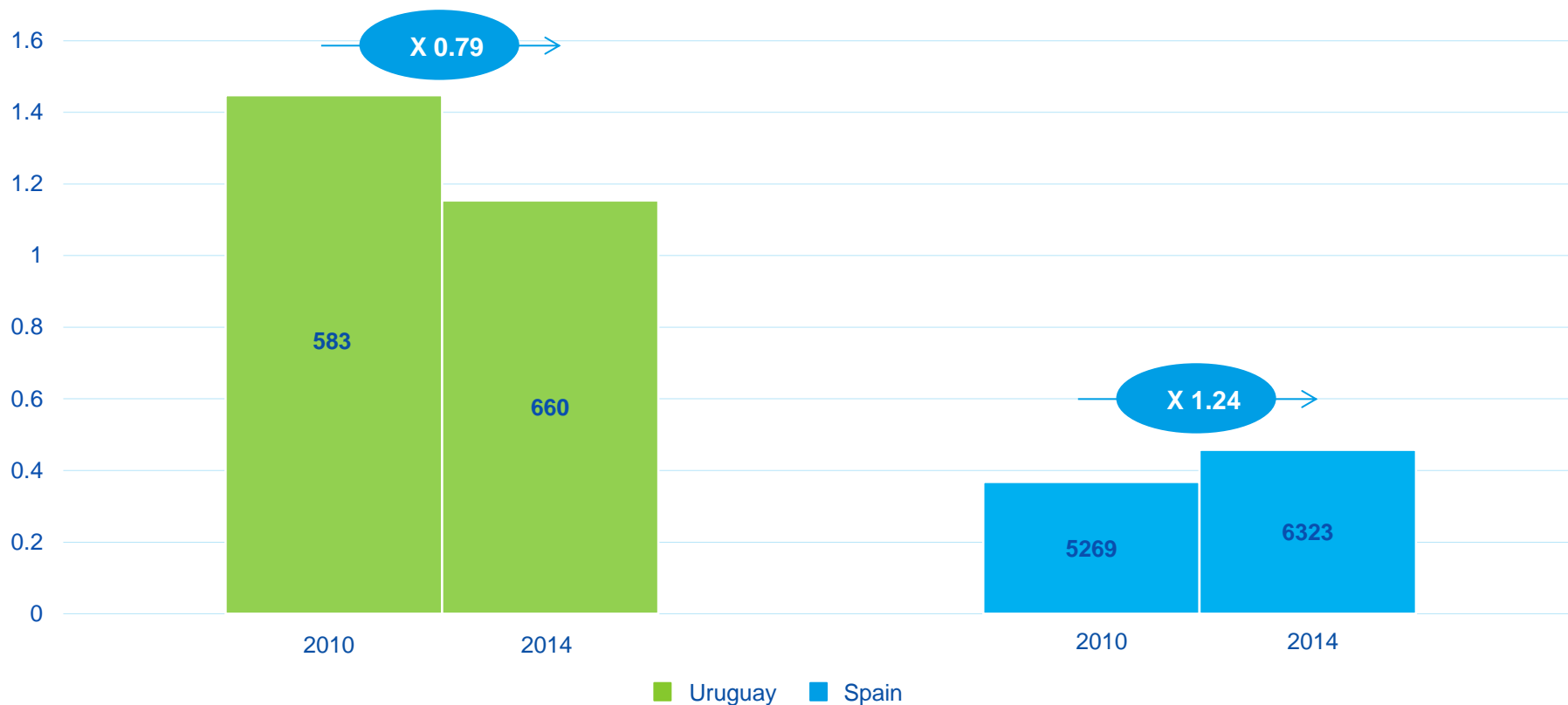
**Around 99% of total wireless broadband subscriptions correspond to mobile-broadband type**

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)



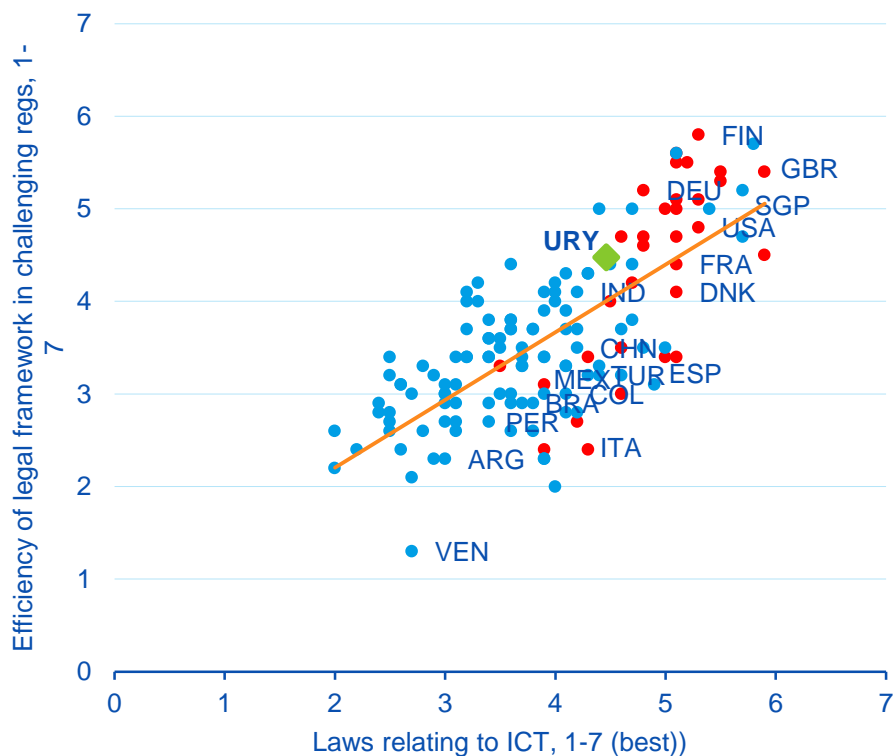
Note: Values inside bars represent total investment in millions of USD



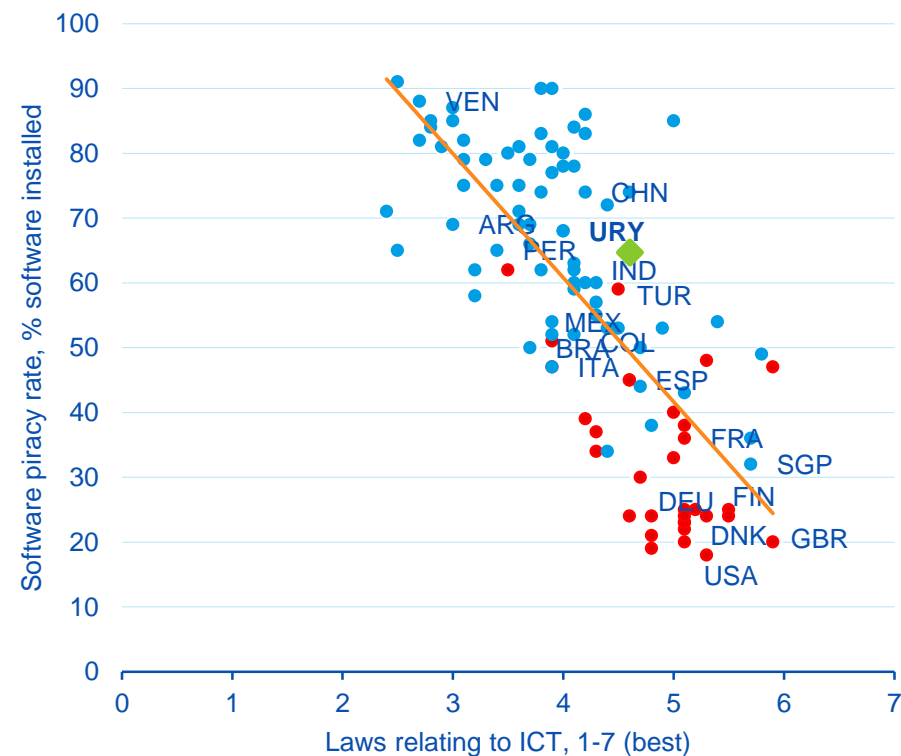


# 4 Regulation side

# 4.1. ICT laws: Efficiency and Piracy

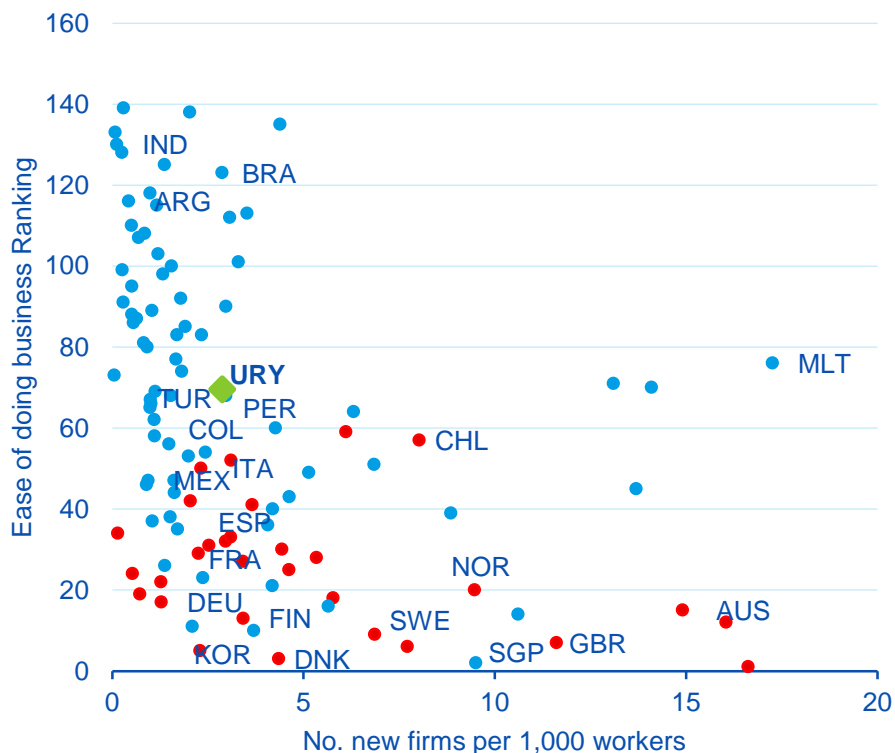


● High income OECD countries

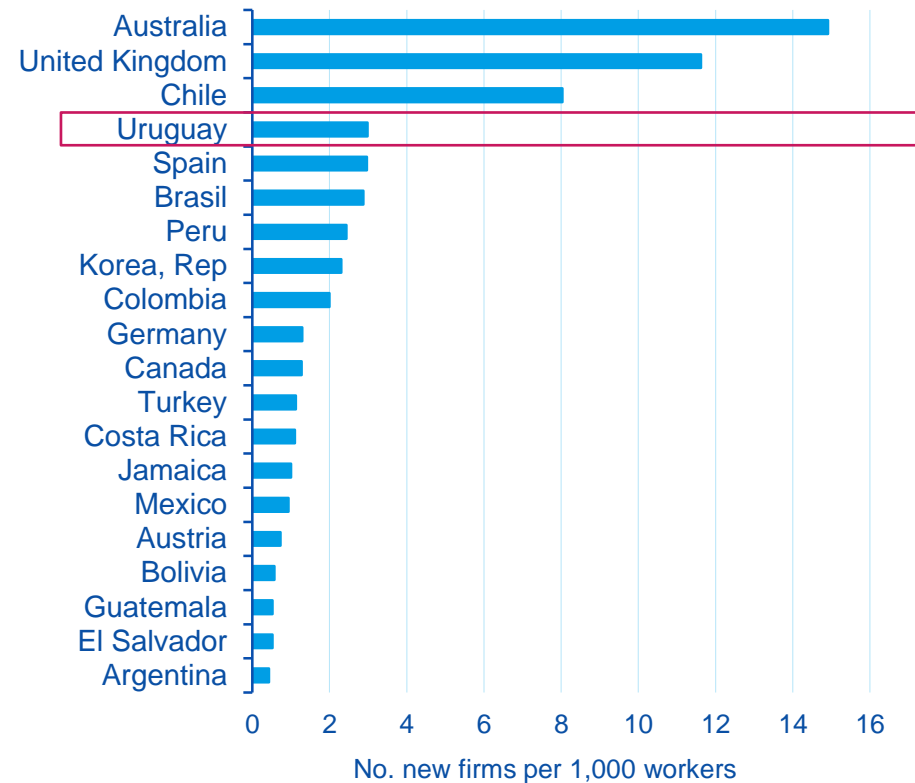


● Rest (Uruguay is highlighted in green)

# 4.2. Ease of doing business & entrepreneurship

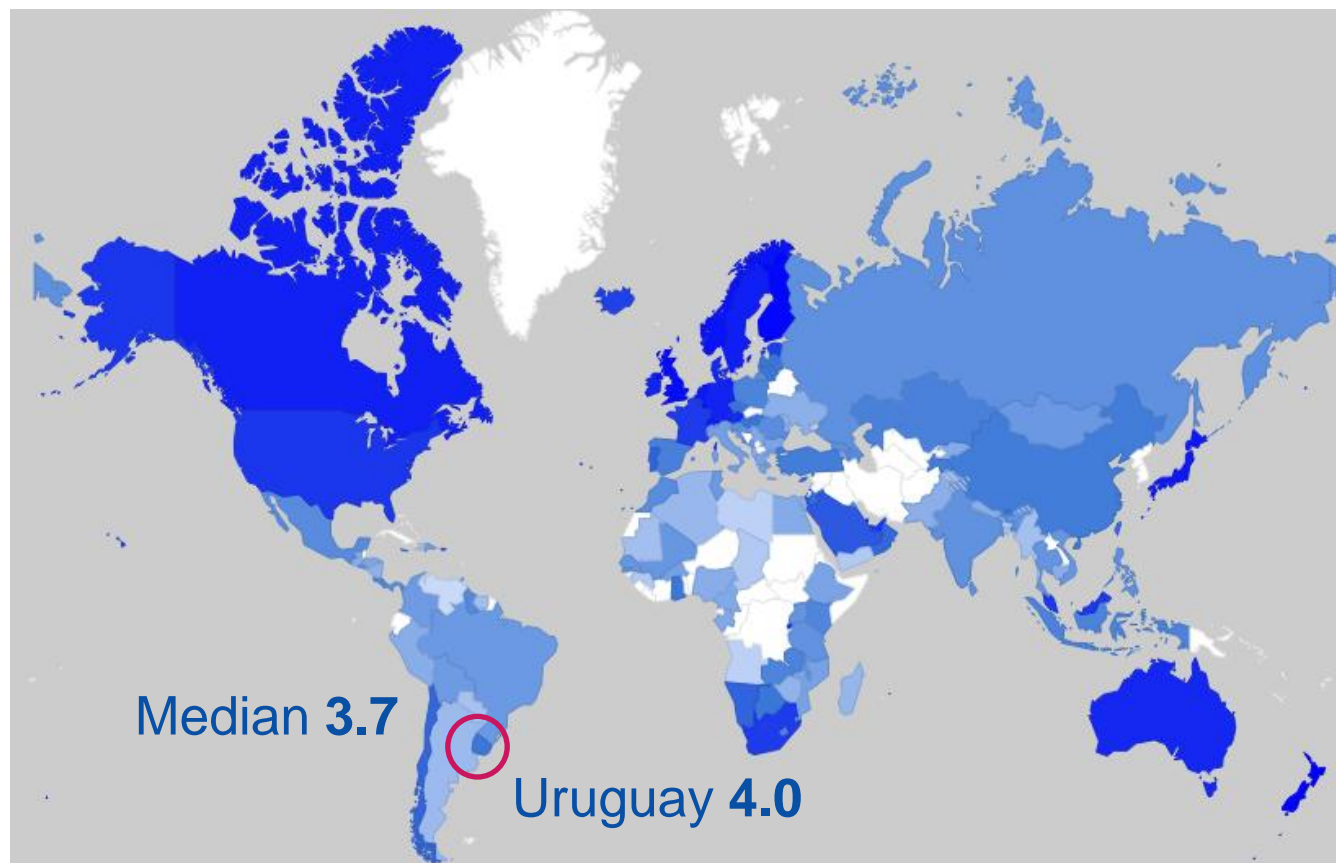


● High income OECD countries



● Rest (Uruguay is highlighted in green)

## 4.3. Political and regulatory environment



The political and regulatory environment of Uruguay is similar to the global median, but above it

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 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: EUTIC

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Survey elaborated by the National Statistics Institute of Uruguay (INE) for 2010 and 2013

This is a special study for households and individuals on the Use of Information Technology and Communications (EUTIC) in Uruguay

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The main objective is to measure the coverage, access and use of information and communications technology in households and by individuals

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The sample size is composed of 4,183 distributed households, 47% in Montevideo, 11% in the Periphery and 42% in the urban Interior, those resident in towns of 5,000 or more. This sample comprises a total of 7,424 people aged 6 years and older. The total sample size and stratum is determined so as to obtain the desired precision and confidence in the estimation of some primary interest parameters at the level of sub-universes to be investigated



## 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

**Financial Inclusion**

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