GALICIA

REGIONAL REPORT ON IS

SEPTEMBER 2010

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Report on IS (Final version)

1. Overview

1.1 – Introduction

The laws do not usually arrive before the social reality, but Spain is one of those cases. This is the case of LAECSP , Act 11/2007 of June 22, Law on Citizens Electronic Access to Public Services, better known as e-Government Law ", a law created to organize the concept of E-ADMINISTRATION in the Spanish legal framework and to include it as a right. That is, citizens have the right to access to electronic services of the Public Administration and the capacity to deliver services electronically becomes an obligation for public administrations.

The pioneering LAESCP act is completed with the LOPD, the Act 15/1999 of December 13, regarding the protection of personal data, or the Act 59/2003, of electronic signature, which defines issues like the authenticity and the certification of the signatory, and the documentary integrity. All these issues guarantee the closest relation between Administration and citizens. However, the process of implementing these new rights is still very difficult in Galicia. The Rights are conceived as universal and they cannot depend on the availability of technology, the age, or the technological capabilities of citizens.

Currently, the data show the aging obstinacy: to set an example, Spain is one of the countries with the eldest population in Europe and within Spain, Galicia is leader in elderly people. The Galician community has the third highest rate of population above 65 years (584.000 currently) only surpassed by Castilla y León and Asturias.

This serious imbalance tends to increase with age, since the age range between 0 and 64 years grows at a rate of 0.8 percent per year, that of over 65 makes an average of 4.8 percent. According to IGE, there will be 700.000 people of that age in Galicia by the year 2025. At this moment, the percentage of population above 65 years old, and above all, the progressive increase registered in the target of people aged above 65 years old, is creating a gap in the Galician community, and the authorities cannot meet these needs as it is required, since it is highly improbable to digitally alphabetize that percentage of elderly people. At the same time, it is highly remarkable the fact that Galician enterprises are 10 points over the European average in the use of broadband. We are not talking about a problem of net coverage. That explanation would be too easy. The key to success is to develop a services offer useful for all citizens.

There is talk, and much, on the problem of the "Digital Divide". Limited access to the network involves a digital divide that excludes the members of the lower class from the new information society. It is easy to see: low education, elderly people and rural areas… True, but at the same time, the ways to access the network have diversified and simplified, and continue to do so. The so-called underprivileged normally use IP telephony from Internet cafes to communicate with their relatives living far away and there are cities with Wi-Fi almost free.

The evolution of the Internet evolves a more participatory web. The nodes of the network are no longer computers, now they are people. People are building their own networks of collaboration and information sharing.

The "Digital Divide" that inevitably will mark our future competitiveness is not only related to the members of the poorest classes, who have difficulties in accessing the network. The "Digital Divide" that threatens us is also the fact that the PA is disconnected from them, those who are making decisions without using the network potential to benefit the public. The services offered by the PA must be useful and easy to use.

The problem is not technological. Now it is social.

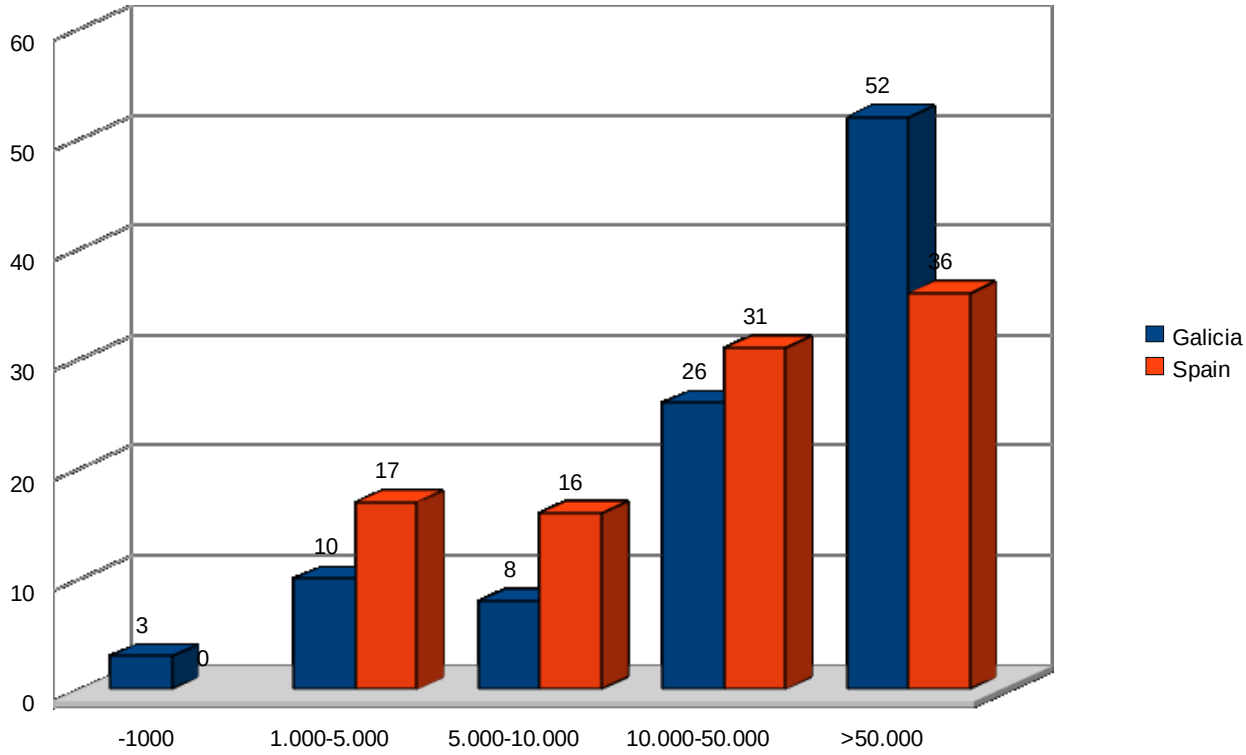
1.2 – Socio-economic data

Galicia is an Autonomous Community, that is, a regional administration as it is specified in article 2 of the Spanish Constitution. Galicia has legislative and executive competences in some areas, as well as its own Government – Xunta de Galicia – and its own Parliament.

Since a local perspective, Galicia has two administration levels: its 315 municipalities and the provinces, which groups all municipalities in four areas: A Coruña, Lugo, Ourense and Pontevedra. In this context, we should take into account that only 20 of the 315 Galician municipalities have more than 20,000 inhabitants (INE[1] 2009)

Galicia is the fifth Spanish region in number of inhabitants and its population density is 93.6 inh/km2, slightly over the Spanish average. Altogether, Galicia has 2,796,089 inhabitants (INE 2009), and its population fall last year by 45,000 inhabitants. Finally, to understand completely the demographic structure in Galicia it is important to note that Galician Statistical Institute (IGE) states that the official register "only grew 1,8% from 1998 to 2007" and the National Statistical Institute (INE) stated that "ageing rate in Galicia is 135.2% so for each 100 young people under 20, there are 135 people over 64".

Distribution of population by municipality size



There is also a high imbalance in the population distribution. According to the IGE, in the municipalities of more than 10.000 inhabitants lies 79% of the population of Galicia (see chart). Most part of Galician inhabitants live in coastal areas leading to coastal conurbations in the area of the so called Rias Baixas (metropolitan area of Vigo) and the Bay of Ártabro (corresponding to the metropolitan area of A Coruña and Ferrol). Thus, these areas

[1] INE – Instituto Nacional de Estadística: National Institute for Statistics.

concentrate the major density of population of Galicia. The contrast with the situation in interior areas is very high and it has implications on the traditional distribution of population. Interior areas are highly mountainous, very characteristic of this part of Spain.

Another important matter to take into account is that 50% of Spanish population centres are located in Galicia, in spite of representing hardly 5.8% of the total area. In addition, we should also highlight that there are 1,320 rural areas without population (INE, 2009). This fact helps us to understand the strong link between demographic weigh and territorial distribution.

While in Spain the average age grew by one year between 2000 and 2008, in Galicia it grew four ages. Two of each ten people in Galicia are over 65 years old, quite over the Spanish rate (1.6 of each 10 people). In fact, Galician Socioeconomic Atlas states that in the interior areas the situation is worse, as 25% or more are over the official retirement age. Situation in urban areas with more than 10,000 inhabitants is the opposite. Nevertheless, the strong imbalance in the population structure leads to a high dependence rate, which is referred to non-working population (children and aged people) who are dependent of working population. This rate in Galicia is 5 points over the Spanish average.

This situation makes very difficult to provide any kind of services, in particular, information society services. This kind of services has an objective provide universal services. Nevertheless, in Galicia this objective faces a strongly imbalance regarding to technological opportunities due to connectivity problems and to address to a aged population with a lack of willingness in the use of technological devises.

From a socio-economic point of view, Galicia has improved some vital aspects like income per inhabitant. Between 2000 and 2007, income per capita in Galicia grew five points to the Spanish average. Nevertheless, people in Galicia has 10% less purchasing power than the Spanish average (13,547 Euros per annum in contrast to the national average situated in 15,054 Euros per annum).

Finally, from the GDP perspective, Galicia converges with the national average but there is a dramatically gap between the Atlantic Axis and the interior areas in terms of income, population and access to technological facilities and information society services.

1.3 – Regional SWOT Analysis

Strengths	Weakness
- A relevant degree of technological skills within the Galician companies - Important development of the Galician network agents, both public and private - A great level of e-administration of Galician health.	- Unequal development urban- rural of the technological availability, and of the broadband networks. - Different law frameworks and too many authorities involved. - Low level of participation of citizens and low level of technological skills
Opportunities	**Threats**
- A great public investment in Administration development. - The recent development of a strategic planning within the Galician Community	-The level of increase of the elderly population. -The damaging effects of the economic crisis in Spain

2. The Information Society in *Galicia*: information and data

2.1 - Diffusion of the main instruments

2.1.1 Use of the PC

Following INE data, 58.5% of Galician households with less than one member between 16 and 74 years old had a PC in 2009. This record is well under the Spanish average (66.3%), resulting in a gap of 7.8 percentage points. Nevertheless, the growth rate is higher in Galicia than in Spain as a whole. If in Spain the growth rate for PC acquisition was over 2.7% in 2008, in Galicia the growth rate is over 4.9 points. This positive gap is especially important in the case of laptops.

PCs are in almost 44% of Galician families, in contrast with the 51.3% of the national average. While, the gap is lower in the case of laptops: 31.6% in Galicia and 34.7% in the Spain as a whole. Between 2008 and 2009 there was a stagnation of this growth in the case of PCs and a strong growth rate (8 points) in the case of laptops, till reduce almost to zero the gap with the Spanish average.

Relating to the use of computers, this indicator has been disregarded in Spain so data available are dated 2005. In this sense, we understand these data as not significant.

Interesting data are those referred to the use of internet in mobile phones (INE 2009) which shows a growing presence of mobile devises in the use of broadband (19,7%) and the wireless laptops outside the office or the housing (36%). In addition, two key elements show the maturity in the use of internet: one of five users use broadband in his mobile phone and more than 33% make use of their internet portability through their laptops.

Indicators	Unit
How many families have a PC. Source: (INE 2009)	58,5 %
How many people use the PC:	
- **every day**	67,9%*
- **more time in a week**	23,0%*
- **few times in a month**	7,3%*
- **never**	39,8%*
How many enterprises have a PC	
- **Until 10 employees**	97,7%
- **More than 10 employees**	57%%
How many employees use the PC one time a week at least	
- **Companies until 10 employees**	
- **Companies with more than 10 employees**	43,8% 35,3%%
How many people has followed a PC course	64,7%**
- **Wireless laptop outside housing or the office**	36,00%

* BASIS: People using PC in the last 3 months

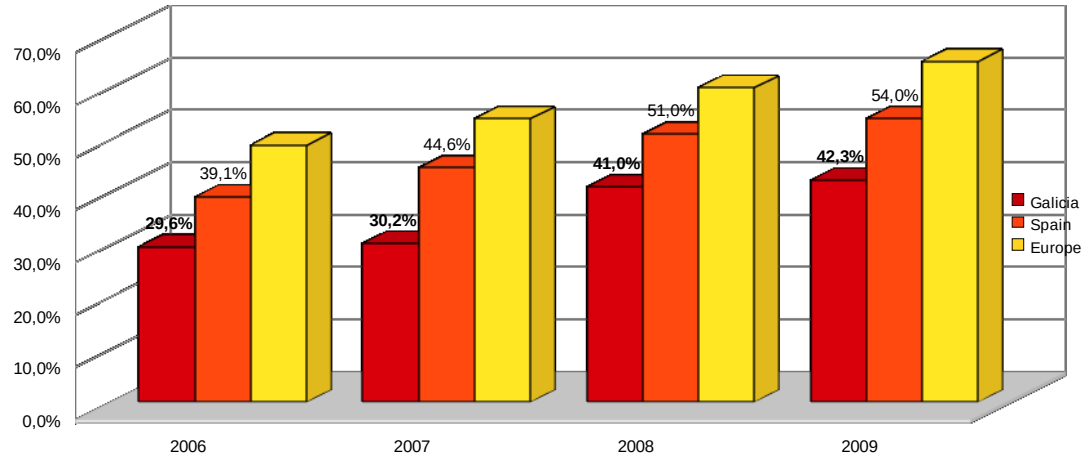
** BASIS: People who has ever used PC (60,2 %)

2.1.2 Internet

According to INE data for Galicia, around 42.3% of households have internet access and a 38.2% have broadband. This points at a gap of more than 20 points (22.7, in fact) with the European average but if we study the evolution of this indicator, we see that in 2005 this gap was about 26 pints. That means a positive evolution of this indicator during last years.

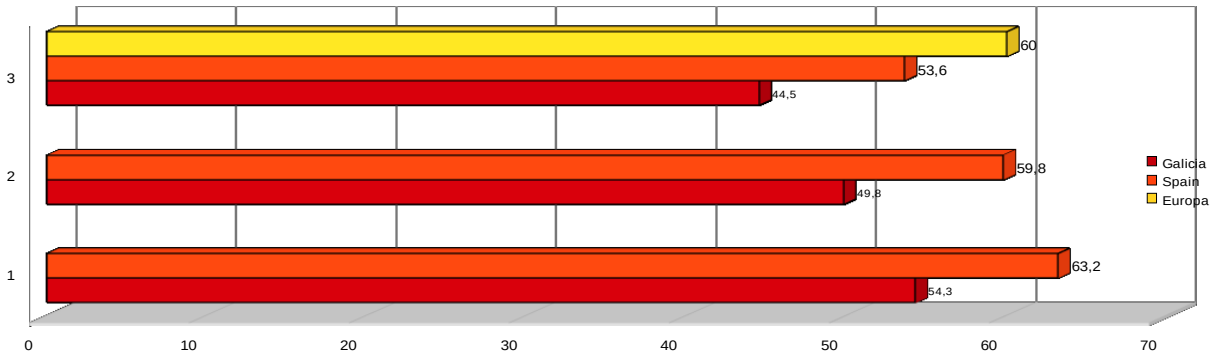
It is also very significant and a little worrying the uneven evolution of this indicator during last year, as it only grew 1.3 (from 41 to 42.3%) between 2008 and 2009 in Galicia, while in Spain the growth was of 3 points (from 51 to 54%) and 5 pints in the EU (from 60 to 65%).

Internet at Households: evolution 2006 -2009



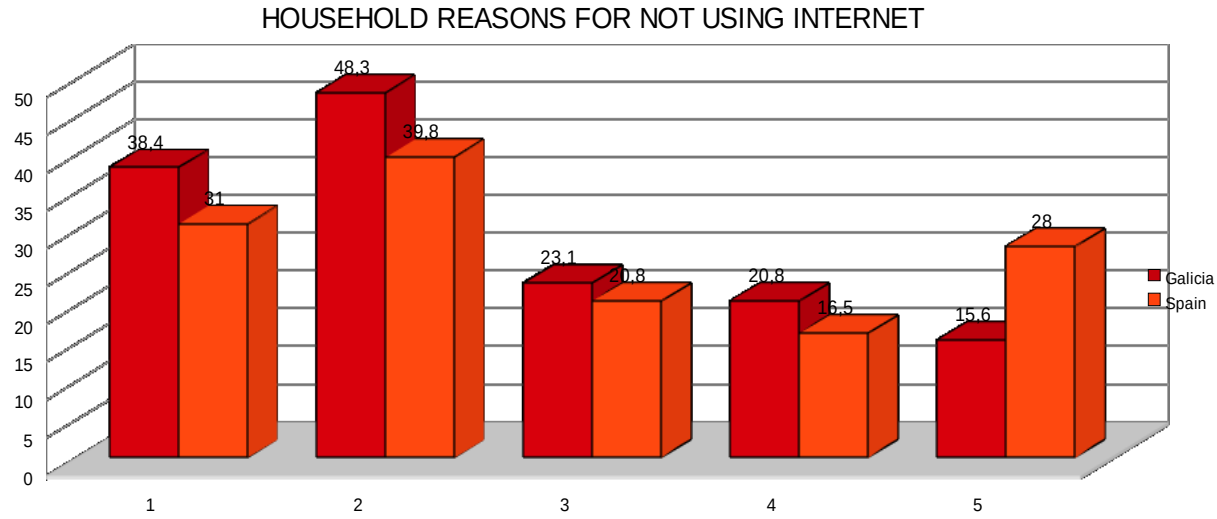
Considering all internet indicators as a whole (use of computer during last 3 months/ use of internet in the last 3 months/ frequent users of internet and use of internet at least once per week), in Galicia we find results well under the Spanish average (54.3; 49.8; 44.5 in Galicia and 63.2; 59.8; 53.6 in Spain). This fact has raised the attention of experts working in the Spanish Statistical Institute who stated: “As last year, Extremadura, Galicia and Region of Murcia show more reduced percentages in the three indicators considered, without reaching the 90% of the national average”.

% PEOPLE USING INTERNET (Eurostat /INE)



1. People using computers during last 3 months
2. People using Internet during the last 3 months
3. Frequent Internet users. At least once per week

As main reasons for this situation, the INE survey points out the great number of people who said that they do not need internet, especially in the case of Galicia. This lack of interest in information technologies may be due to the sociodemographic condicions in Galicia (great number of population over 65 years old), economic conditions and the poor penetration of technologic habits in the Galician society.



1. High prices.
2. It is not neccessary.
3. There is not broadband connection.
4. They have access to broadband connection since other place (working place, school, etc)
5. Other reasons

Indicators	Unit
How many families have an Internet connection at home (INE 2009)	42,3%
Which are the main declared reasons to not have Internet at home: example	% of reasons
- **Unable to use it**	%
- **Cost**	38,4%*
- **Accesses to Internet From another place (work,..)**	20,8%*
- **It.s not so interesting**	%
How many enterprises use Internet for own activity	%
How many employees (private sector) use Internet one time a week at least	%
How enterprises accesses to Internet:	% of ways
- **Modem**	4,3%**
- **ISDN**	11,2%**
- **Broadband**	96,1%**
Where people access to Internet:	
- **home**	77,7%***
- **work**	47,2%***
- **school**	18,1%***
- **public access points**	%***
Internet usage by mobile devise	
- **Mobile phone with broadband UMTS, 3G, 3,5G**	19,7%
- **Other mobile phones (GPRS, WAP)**	9,9%
- **Hand computer (PDA, pocket PC, palmtop)**	8,0%
- **Wireless laptop outside housing or the office**	36,00%

* BASIS: Households with no Access to broadband
** BASIS: Business with at least 10 employees with Access to Internet
*** BASIS: People who used Internet in last 3 months.

2.1.3 Broadband

Since the implementation of PEBA Programme (Rural ADSL – 512 kbit/s) there has been a slight improvement in the internet services in Galicia. From 2006 to 2008, PEBA objectives were to create a backbone of optical fibre to facilitate the installation of wire networks in populations of more than 500 homes. Total investment was near to 135 M€, of which 39M€ came from Xunta de Galicia funds. As a result, the Programme created a distribution wire network in 133 rural areas of 65 municipalities. These actions, implemented under an agreement between Spanish and Galician Governments, were complemented with other projects related to give broadband wireless access to rural municipalities.

These other projects about wireless networks (WiFi-Wimax) were developed in 2007 in 22 municipalities. These projects received near 2M € (1,860,302 €) from Xunta de Galicia.

After the initiatives from regional government in 2008, local administrations accepted the challenge and during 2009 and 2010 we are facing an important activity from local authorities to implement new initiatives related to broadband based services. To this end, many of these local authorities are using ERDF funds or national funds. For instance, Provincial Government of Ourense is implementing a broadband network in 51 municipalities, financed by ERDF funds (2,415,000€). The Provincial Government of Pontevedra is also implementing a Wimax network to give broadband access to 55 municipalities. This project is financed by ERDF funds and co-financed by the municipalities concerned (7M€). Finally, in Lugo, the Regional Government will invest 1,2M€ to extend broadband services to all municipalities in the province.

Concerning business sector, in 2008 were implemented may actions to promote broadband services in 34 industrial areas. In 2009, 34 industrial areas were also improved with Wimax technology, investing 5M€.. In this context, Galicia has evolved from a coverage of 57,4% in 2005 to a 99.9% in 2008. Nevertheless, geographical dispersion, ageing population and some other economic and educational factors have situated Galicia three points under the Spanish average.

Finally, in spite of PEBA basic coverage –512Kb- is in line with guidelines defined by the official regulatory body, CMT, it is not enough to cover current users demands, especially in reference to audiovisual contents. For this reason, authorities know that it is need keep on implementing technologic solutions and complete the process to guarantee universal broadband coverage in Galicia.

Having this into account, defining basic access with a minimum speed of 1Mb, the above mention coverage near 100% is, talking under specifications of 2008, actually is about 63.7% in municipalities of less than 150 inhabitants/km^2 and around 87,6% in municipalities of more than 150 inhabitants/km^2. That means an average of 79.6%.

Nevertheless, as these data are dated 2008 and taking into account the great effort of local administrations in this area, we should consider that these percentages have evolved a lot, especially since the implementation of the Broadband Galician Plan.

Indicators	Unit
Regional coverage	%
How many families have a broadband connection at home. Source: INE 2009	38,3%
How many enterprises have a broadband connection for own activity	
- **Until 10 employees**	**89,3%**
- **More than 10 employees**	**43,0%%**
How many Public Authorities have a broadband connection:	%
- **Small PA (local /mountain Municipalities)**	47% (*)

- **Other PA (provinces)**	100 %
- **Xunta de Galicia**	100 %
Other regional additional/distinctive indicator	

Note: This data is for 2007 / 2008 (OGSI). The drafts of the report of 2009/10 are nearly 80%.

INE: Survey about equipment and ICT use by households 2009

Results by Autonoumous Community: households ICT equipment
Households internet Access by Autonomous Community. Units: nº of households (with at least one member between 16 and 74)

	Households with internet access	Households with broadband access	Broadband connection through ADSL	Broadband connection through cable network	Mobile phone system with broadband access UMTS, 3G, 3,5G	Other broadband connections	Households with narrowband access	Narrowband connection through modem or RDSI	Other narrowband mobile phone system (WAP, GPRS)
Total	8263715	95.1	74.9	16.9	5.1	1.9	5.5	3.9	1.7
Galicia	384452	90.3	53.9	30.2	8.8	2	12.6	11.4	1.4

The table above shows how Galicia keeps on lagging behing the Spanish average in Internet access (almost a difference of 5 porcentual points). In Galicia the situation is not good. In fact, it is one of the worst positioned Communities in the Spanish ranking of broadband access, as stated in many official reports (Executive Report Xunta de Galicia 2009, Anual Report CMT 2008). Nevertheless, Galicia presents some special features regarding to implementation of services technologies in relation with the Spanish situation.

Special attention should be paid to positive gaps regarding the cable broadband connection (13,3% higher in Galicia) and broadband mobile phone systems using UMTS, 3G, 3, 5G (3,7% higher in Galicia)

Another issue to be highlighted is the higher household cable connection, in relation to the Spanish average figures. This could be due to the existence of a regional private operator. This private operator, “R”, has reached to areas not covered before by other operators. In addition, actions foreseen in the Broadband Director Plan 2010-2013 of Xunta de Galicia will lead to a higher gap in the future.

Finally, we should also pay attention to negative gaps existing in ADSL connection (74.9 in Galicia and 53.9 in Spain) and narrowband connection, where Galicia is 7.1% over the national average. These data reports some difficulties to access to broadband in Galicia, caused, in some extent, to the low ADSL distribution offered by the historic operator – Telefonica – in Galicia.

2.2 The ICT market

2.2.1 ICT enterprises

One of the main characteristics of the ICT Galician sector is its great and fast development: in the last 5 years it grew a 45%, according to a recent study made by ICT Galician Enterprises Association (AGESTIC). In Galicia, ICT sector counts on near 1,500 enterprises which employ around 14,000 people. On average, ICT enterprises in Galicia have less than 10 employees each. That is the cause of another important characteristic of this sector in Galicia: more than 90% of ICT Galician companies are SME or micro-SMEs. In any case, the presence of many small enterprises in the ICT sector reflects the reality of the Galician economy, as of a total of 203,374 enterprises, 94% are SME and micro-SME.

ICT enterprises contribute around 2.13% to Galician GDP, while at Spanish level; this contribution is near 3.06% to the GDP. The major part of this contribution to the Galician GDP comes from those enterprises with more than 10 employees, especially from those in the electronic sector, telecommunication services and telecommunication equipment. In Galicia there are six enterprises working at international level.

Nevertheless, this report should take into account the recent review that the Spanish National Institute of Statistics has made on ICT indicators and activity codes used to calculate them. The objective of this review is to standardize data between MITyC/AETIC, INE(Spain); EITO, Eurostat (Europe).

Indicators	Unit
How many enterprises work on ICT sector	N°1.542 (2009)
How many enterprises in (according to OECD macro-areas)[2]:	
- **ICT manufacturing (hardware, cables, communication devices, TV, etc..)**	5,3%
- **Services related to ICT (trading of hardware, communications instruments, etc..)**	33,1%
- **General / untangible services (sw, telecommunication, informatics and related activities)**	61,6%
How many people work on ICT sector	N°16.327 (2009)
What is the share of the ICT sector in the regional economy (GDP)	2,13%
Other regional additional/distinctive indicator	

2.2.2 ICT into the Public Administration.

In the Information Society age, e-administration is still one pending question in Galicia Regional Government. In spite of the huge effort made by Xunta de Galicia to improve and diversify its e-services, Galicia is lagging behind other regions, like Madrid or Andalucía.

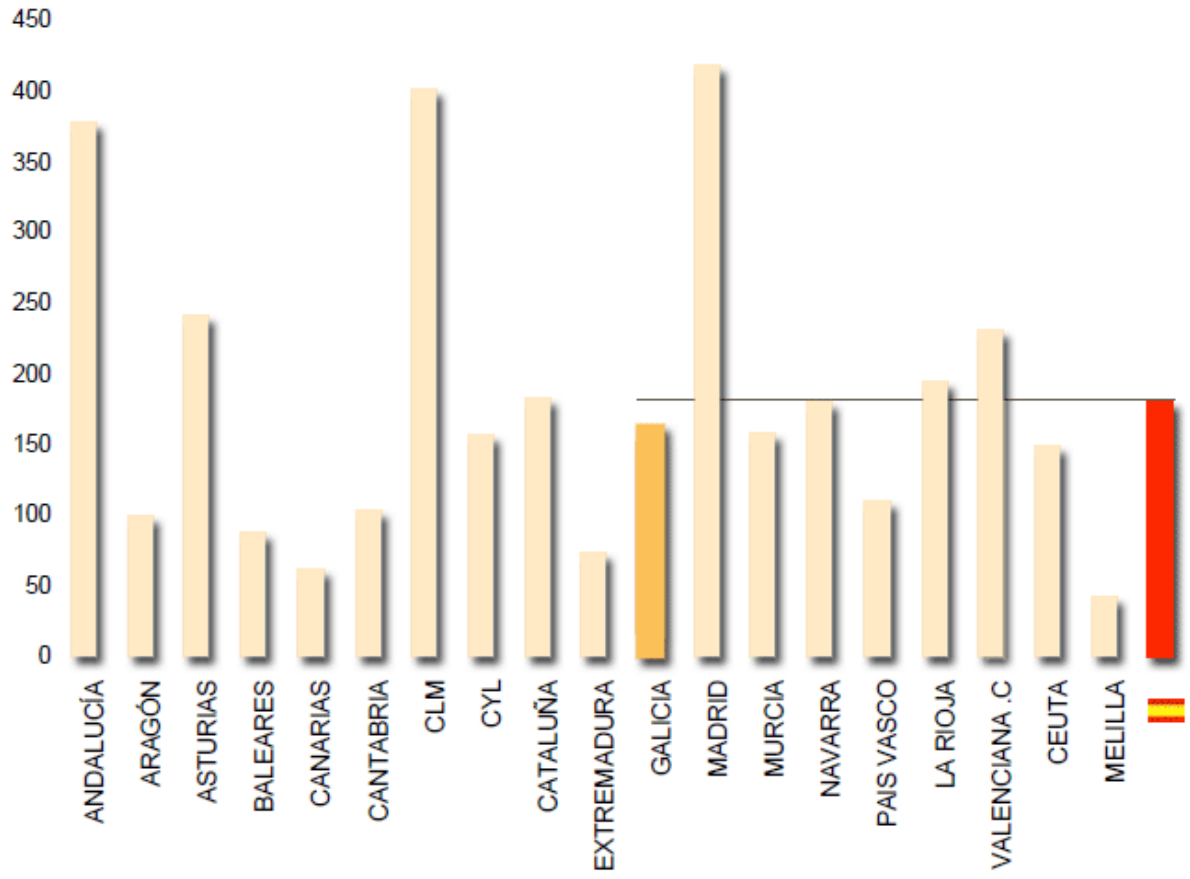
For instance, in Galicia it is possible to apply for a call for proposals, make an appointment with a doctor or go through administrative arrangements for a fishing licence using Internet. Public services offered on the Internet are increasing but, in any case, e-services in Galicia are quite under the Spanish average.

[2] OECD (Organisation for Economic Co-operation and Development) OCSE: 1) manufacturing 2) services related to products 3) Untangible services

According to the III Study on e-administration in Spanish regions, in 2009, e-administration in Galicia lost one position in the Spanish ranking of Public Administrations interactive services – from 8th to 9th position – and another one in the ranking referred to e-services for citizens (from 7th position to 8th). Moreover, Galicia fails the new technologies exam, with only 2.24 points over 5. That means that Galicia is under the Spanish average in new technologies, very far from the situation in other Spanish regions like Andalucía, Madrid or Castilla-La Mancha, which got more than 4 points over 5.

Another report, made by Internet **Users Association** (AI) and the **Association for Civil, Economic and Social Rights** (Adeces), is also very critic with the Xunta webpage. This report states that this webpage can (and should) improve the location and presentation of its electronic services and rise the attention on connection failures.

In spite of all, and bearing in mind that e-administration in Galicia should be improved, during the last two years Xunta de Galicia interactive services grew by 57% and currently it offers more than 160 different services. Nevertheless, this is still a very slight figure in comparison to the 419 proceedings available in Madrid



E-administration is weaker in some areas than in others. From 31 services analyzed, only general and more frequent proceedings – applying for the digital certificate, complaints, downloads and documents – are available online in all Spanish regions.

Proceedings related to housing, employment or education, are less developed. The studies pay attention to this fact which contrasts with the high development of e-services in the health sector. In fact, Galicia is a source of good practices in this sector at national level.

Currently, all local administrations in Galicia have access to Internet but in 2007 almost 100 municipalities had not access to broadband connection. In addition, 10.4% had not local area and near 40.5% had not webpage.

In this context, we should state that today these data are not true because in 2008 and 2009 the situation changed dramatically, so the above mentioned data should be considered as historic indicators and we should wait for the new OGSI survey on local administration to have more accurate data.

2.3 IS: services and customs

2.3.1 Internet and the citizens

To measure the use of the e-mail, the European Union and Spain use different basis. Thus, while in the EU the indicator is defined as the number of people (%) over the total population sending or receiving emails in last 3 months, in Spain this indicator is calculated on people using internet during the last 3 months. In this sense, both indicators are not comparable.

According to Eurostat, 57% of total population in EU 27 have sent/received emails in 2009. By Member States, there are significant differences. For instance, while in countries like The Netherlands, Sweden and Denmark a vast majority have used internet to send or receive e-mails (85%, 83% and 81% each), in other Member States, like Greece or Romania this indicator is around 30%.

In Spain, in 2009 52% of total population used internet to send/receive emails, 21 points higher than levels in 2004. Galicia should be in a similar situation because the INE survey shows very similar levels between Spain and Galicia in the use of e-mail.

Regarding to other internet uses, as indicated in the table below, searching info on products and goods (77.1%) and searching info on travel and holidays (50.9%) are the most popular uses after the email (85%).

From a qualitative point of view, Galicia shows ratios above the Spanish (32%) and the European average (33%) in requesting information related to the health sector, according to some comparative studies made by the Spanish Regional Governments. In spite of not using the Eurostat indicator, we can trust on this conclusion due to the great degree of implementation of ICT proceedings in this sector in Galicia: to make on-line an appointment, electronic prescription, etc...

Other important internet uses in Galicia and Spain are social networks and blogging (51.6%). A study carried out by Novatris – net Observer, published in 2008 compares 5 EU Member States (Spain, France, Italy, Germany and United Kingdom) in terms of their use of web 2.0. In this raking Spain is the number one because it is related to blog creation, podcast elaboration, use of chats and free communication tools like Skype.

These data contrast with the acknowledged digital gap that usually reserves to Spain the last positions in e-commerce and the science and technology area.

Indicators	Unit
How many people use Internet for:	% among people using Internet
- **Email**	85,0%*
- **Searching info on products and goods**	77,1%*
- **Searching info on travel and holidays**	50,9%*
- **Searching health info**	38 %*
- **Other search activities**	13,4%*
- **Learning**	46%*
- **Downloading**	33,4%*
- **Home banking**	51,6%*
- **Blogging**	51,6%*
- **Chat / communities**	%
- **Phone**	
Focusing on people which purchasing by Internet, how many buy	
- **Books, papers**	21,1 %**
- **Travel, holidays**	38,1%**/52,7%**
- **Clothes**	27,7%**
- **Films, music**	11,8 %**
- **Phone recharges**	8 %**
- **Software**	14,9 %**
- **Tickets**	34,6 %**
- **Hardware**	14,6 %**
- **Electronic devices**	19,7 %**
- **Foodstuff**	5,9 %**
- **Financial services**	8,9 %**
Other regional additional/distinctive indicator	

* BASIS: People using Internet within last 3 months

** BASIS: People buying on-line within last 12 months

2.3.2 Internet and the enterprises

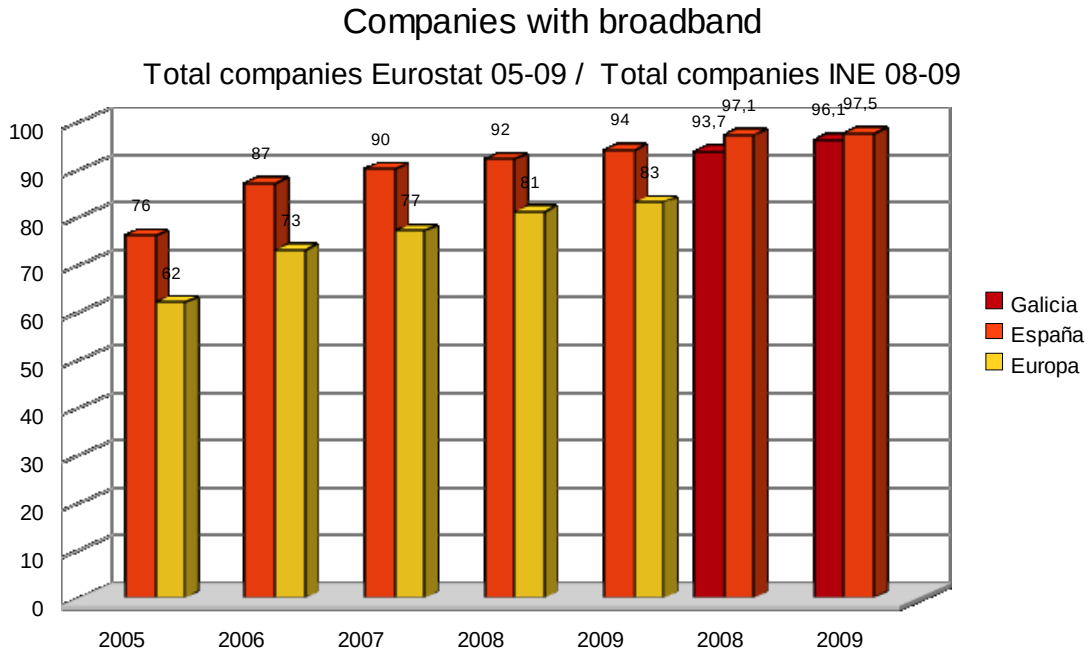
Almost all companies (98,6%) with at least 10 employees use computers in their activities, as stated in the Survey about ICT and e-commerce in bussines 2008/09.

In addition, 80.8% have a local network (2.2 less than Spain) and about 33,4% have wireless connection. In reference to electronic communications, 90.6% of Galician companies work with e-mail (the Spanish average is around 94.7%) and 92% use mobile phone connections (the Spanish average is 91%).

Internet and Broadband

The gap doesn't exist, on the contrary, concerning broadband diffusion in enterprises where the whole data (91%) is similar to the national (94 %) and it is situated above the EU27 (81%) Eurostat 'Information Society Statistics'**.**

92.9% of Galician companies with at least 10 employees have access to internet 3.3 points under the Spanish average, which ir 96,2%. **Broadband connection** in companies with at least 10 employees is, in Spain, 97.5%, 1.4 points over the Galician figure, that is 96.1%. Basis for this indicator is an INE survey on the total number of companies with computer. This basis is different from the European standard which is total number of companies.



In any case, what we want emphasize is that, using the European standard indicator, Spain and Galicia will show results well over the European average, at the same level of Finland.

Nevertheless, we should state that the European standard indicator makes reference to entreprises with at least employees, so micro-companies are out of this indicator. And mico-entreprises are a very important part of the Galician business sector. For this reason, in the tables below we have reflected both, situation in relation to the European indicator and the situation taking into account enterprises with less than 10 employees.

Most of the times, in Spain, as in Galicia, broadband access is through some DSL connection. In any case, in this case national average is also over Galician average (4.2 points). Figures are 94.7% in Spain and 90.5% in Galicia.

Internet access by other connections (cable, LMDS...) the Galician average is over the Spanish one by 3.5 points (12.7% in Galicia and 9.2% in Spain).

In addition, Galicia has a more deep presence of Internet access through mobile phones (34.8%) than the Spanish average (34.0%)

Relations with Public Administrations.

In terms of relations between enterprises and Public Administrations by Internet, Galicia is 0,4 points under the Spanish average (Galicia: 67.4% - Spain: 67.8%).

Looking at this indicator in the other EU members, only 9 Member States are under the average (71%). Most of them are in the same situation than Galicia: >65%.

E-commerce.

In Galicia, 13.7% of enterprises use e-commerce facilities, slightly under the 14.2% of the Spanish average.

In 2009, total e-commerce turnover reached 1,503 Million Euros. In terms of registered operations, an increase of 8.5% was registered; according to the E-Commerce Report of the Telecomunications Market Commission (CMT).

Of all registered purchases, 43.4% (650 M Euros) were made from Spain to other Spanish webpages. Foreign purchases to Spanish websites were about 11.6% (174 M Euros), while purchases from Spain to foreing websites represented 45.1% of the total e-purchases (678 M Euros).

55.1% of Galician enterprises with at least 10 employees and Internet connection have also webpage, compared to the 58.9% of the Spanish average. This percentage drops to 32.2% if we talk about entreprises with less than 10 employees.

In terms of people working on ICT tasks in the enterprises, the difference is 2.9 percentage points between Spain and Galicia. So, while the Spanish average is 24.4%, in Galicia this figure is 21.5%.

In addition, the percentage of Spanish enterprises training on ICT to their employees was 13.4% in comparision to 12.2% of companies doing so in Galicia. Moreover, the number of employees having access to that trainning is also smaller in Galicia (23.1%) than in Spain (26.7%).

Finally, Galicia is also under the Spanish media in terms of **telework**: only 14.4% in comparision to 16.2% registered in Spain. At this regard, we should point out that the interannual growth was around 10 point in both cases.

E-Business

In Galicia, 33% of enterprises make automatic exchange data with other ICT external systems, 3.6 points under the Spanish average (36.7%).

Exchange data more common are payment orders to banks (75.5% in Spain and 72.9% in Galicia) and information exchange with Public Administrations (60% in Spain and 59.9% in Galicia).

In e-business, informatic tools to share electronic information are implemented in the 18.1% of the Galician enterprises, near the level of the Spanish average which is 19.1%. Difference is a bit wider in relation to other applications to manage customers information. Only 21.3% of the Galician enterprises use this informatic tool, while 24.9% of Spanish companies do so. So, in this case, difference between Galician and Spanish rates are over 3.5 points.

Indicators	Unit
How many enterprises use Internet for:	% enterprises among using Internet
- **Commerce (buying/purchasing)**	
- Buying	16,4%*
- Purchasing	9,09%*
- Purchasing in companies with less than 10 employees	6,22%
- **Banking or financial services**	81,7%**
- **PA services**	67,4%**
- Companies with less than 10 employees	32,2%
- **Achieving market information (e.g. prices)**	36,6%**
- **Achieving digital information and services**	98,3%**
- **E.learning**	37,9%**
How many enterprises have a web site	
- Companies with more than 10 employees	55,1%***
- Companies with less than 10 employees	19,5%***
Which services/information they offer by the web site:	

- **Catalogues and prices**	50,8%****
- **On line purchasing / booking**	10,2%****
- **On line payments**	2,1%****
- **Working request**	5,3%****
How many enterprises (use ICT for data management. Example:	
- **Receiving digital invoices**	26%*****
- **Sending digital invoices**	19,2%*****
- **Sending/receiving information on products**	61%*****
- **Supplying management**	13,7%*****
- **Customer management**	21,3%*****
- **Data exchange with PA**	59,9%*****
Other regional additional/distinctive indicator	

* BASIS: Total number of companies
** BASIS: Companies with at least 10 employees with Internet access
*** BASIS: Companies with Internet access
**** BASIS: Companies with at least 10 employees with Internet access and website
***** BASIS: Companies with at least 10 employees exchanging data automatically (33.01%)

Survey about ICT and e-commerce in enterprises (2008-2009)

Total percentages of companies

Unit: percentages

	Spain	Galicia
Companies that have local network (LAN)	83,0	80,8
Companies that have local wireless network	34,7	33,4
Companies that have local internet conection	96,2	92,9
Companies that have local mobile phone	90,9	**92,0**
Companies that have local internet conection other technologies (GPS, TPV, etc.)	26,8	29,3
Companies that have e-mail	94,7	90,6
Companies that have Intranet	23,1	19,3
Companies that have Extranet	14,6	12,0
Companies that have S.O Open Source (LINUX)	8,9	**10,1**
Companies with Internet access: modem (1)	7,3	4,3
Companies with Internet access: RDSI(1)	14,6	11,2
Companies with Internet access: Broadband ancha(1)	**97,5**	**96,1**
Companies with Internet access: XDSL (ADSL,SDSL,...)(1)	94,7	90,5
Companies with Internet access: other (Cable, LMDS,...)(1)	9,2	**12,7**
Companies with Internet access: mobile (GSM,GPRS,UMTS,...)(1)	34,0	34,8
Companies with Data exchange with PA (2008) (1)	67,8	67,4
Data Exchange by type: Sending information (1)	62,0	61,3
Data Exchange by type: Get prints and forms, ...(1)	61,3	61,4
Data Exchange by type: Return completed forms (1)	48,2	48,2
Data Exchange by type: Complete electronic management (1)	**45,4**	**44,6**

Data Exchange by type: Submit a business proposal for bids PA (e-procurement)(1)	7,9	6,6
Companies with access to Internet and web site / web page (1)	58,9	55,1
Companies with access to Internet and web site for**:** orders and reservations	12,1	10,2
Companies with access to Internet and web site for**:** Online Payments (2)	4,7	2,1
Companies with access to Internet and web site for order tracking (2)	6,8	5,3
Companies that use digital signature	**52,8**	**54,8**
Companies using digital signature for customer relationship	17,3	16,1
Companies using digital signature for Data exchange with PA	93,9	93,5
Companies with access to Internet that use information security services: antivirus (1)	96,8	98,0
Companies with access to Internet that use information security services: Firewall (1)	79,9	75,0
Companies with access to Internet that use information security services: SSL (1)	53,2	48,3
Companies with access to Internet that use information security services: Backup(1)	66,8	59,2
Companies with access to Internet that use automated data exchange EDI	36,7	33,0
Companies with access to Internet that use ERP	19,1	18,1
Companies with access to Internet that use CRM)	24,9	21,3
Companies that provide ICT training activities for employees	13,4	12,2
Percentage of employees who received training in ICT (3)	26,7	23,1

BASIS:
(1) Percentage of all enterprises with Internet connection
(2) Percentage of all enterprises with Internet access and web page
(3) Percentage of total employees of the companies that ICT training

2.3.3 Focus on PA services

The use of public administration services shows a limited development of the technologic skills in the Galician society, especially in the domestic use. The main use of Galician people is for asking information (50%) and downloads (28%). It is specially significant the lack of use of internet to send documents or forms to Public Administrations (15%)

In the business field those ratios show a higher penetration in the use of internet. Almost a half of registered business in Galicia use internet to access to public administration services for sending forms (48%). This is three times the value for domestic use. By the other hand, it worth pay attention to the lack of e-procurement, which only represents a 6.6%.

Indicators	Unit
How many people use PA web services for:	%
- **Asking information**	53,3%*
- **Sending documents/forms**	15%*
- **Downloading documents/forms**	%
How many enterprises use PA web services for:	%
- **Bureaucratic procedures**	67,4%** 32,2%***
- **E.procurement**	6,6%**
- **Asking information**	61,3%** 28,1%***
- **Sending documents/forms**	48,2%** 24,5%***

-	**Downloading documents/forms**	51,4%** 18,3%***
Other regional additional/distinctive indicator		

* BASIS: People using Internet within last 3 months

** BASIS: Companies interacting with Public Administration using Internet

*** BASIS: Companies with less than 10 employees with Internet access

2.4 Digital divide

2.4.1 Gap features

To explain the digital divide in Galicia is not easy. The gaps are too many and it is very difficult to define the real impact of each of them. This is what we found:

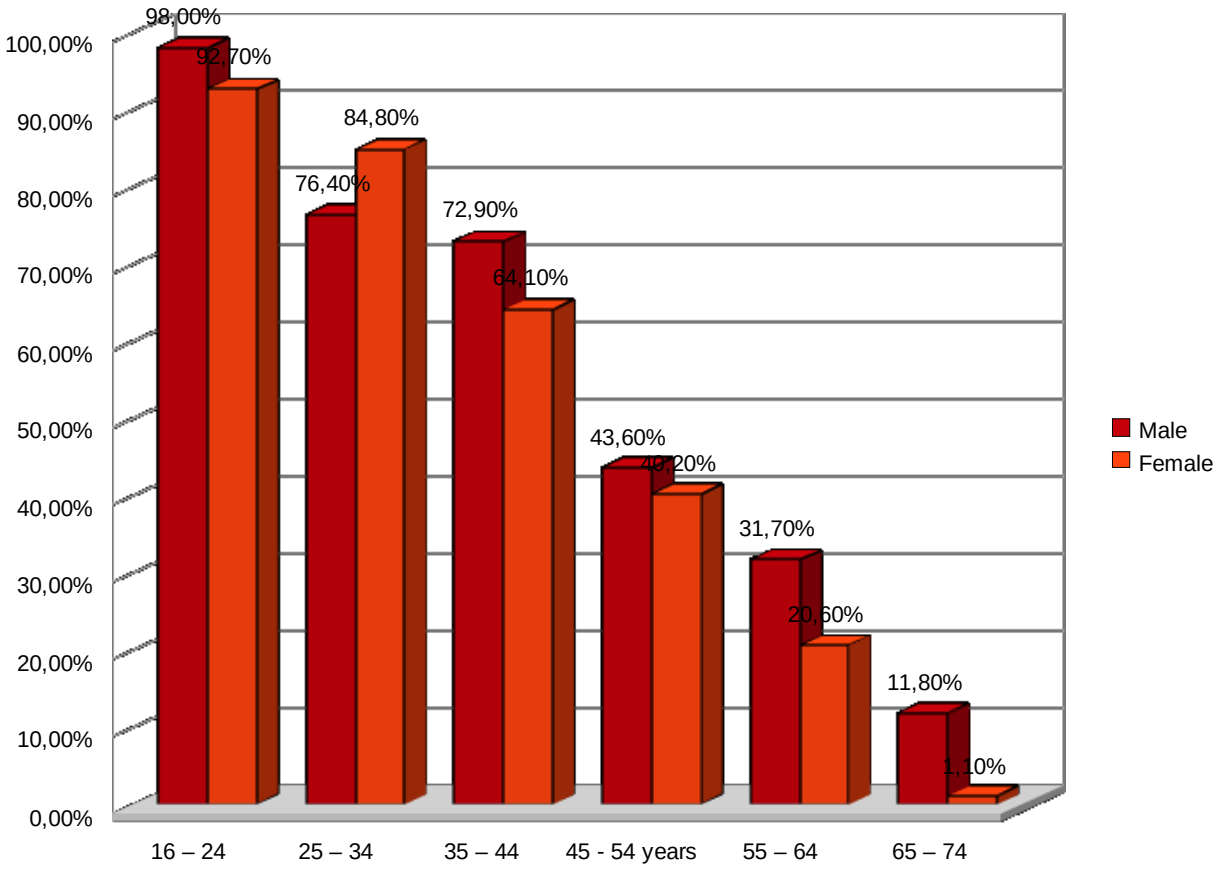
The gender gap is not the most important problem in Galicia in the affairs of the digital divide. There are few demographic differences in computer use by sex. However, It should be noted the almost zero ratio of women > 65 years (1.6%) with minus of 10 percent points in relation to men. The situation is different when it involves the Internet: men use Internet more than women and there is a difference of 10 percent points and Internet use is zero in women over 65. We also need to remember that in Galicia there are 211,101 households, 20.7% of the total, which are composed of people aged 65 and older. We also should remember that these differences become smaller when the population is aged under 45, and they disappear in higher education levels.

The use of Internet according to the education level of the householder affects greatly. Only one (21, 23%) of those without primary studies using the Internet compared to almost 90% of those with higher education.

It is especially significant the lack of use of Internet in population areas minor of 10,000 inhabitants, with a percent of 30.7 points against 54.5 points in those population areas over 100,000 inhabitants. This fact is not only to be studied from the population perspective, but also from the territory and the society perspective.

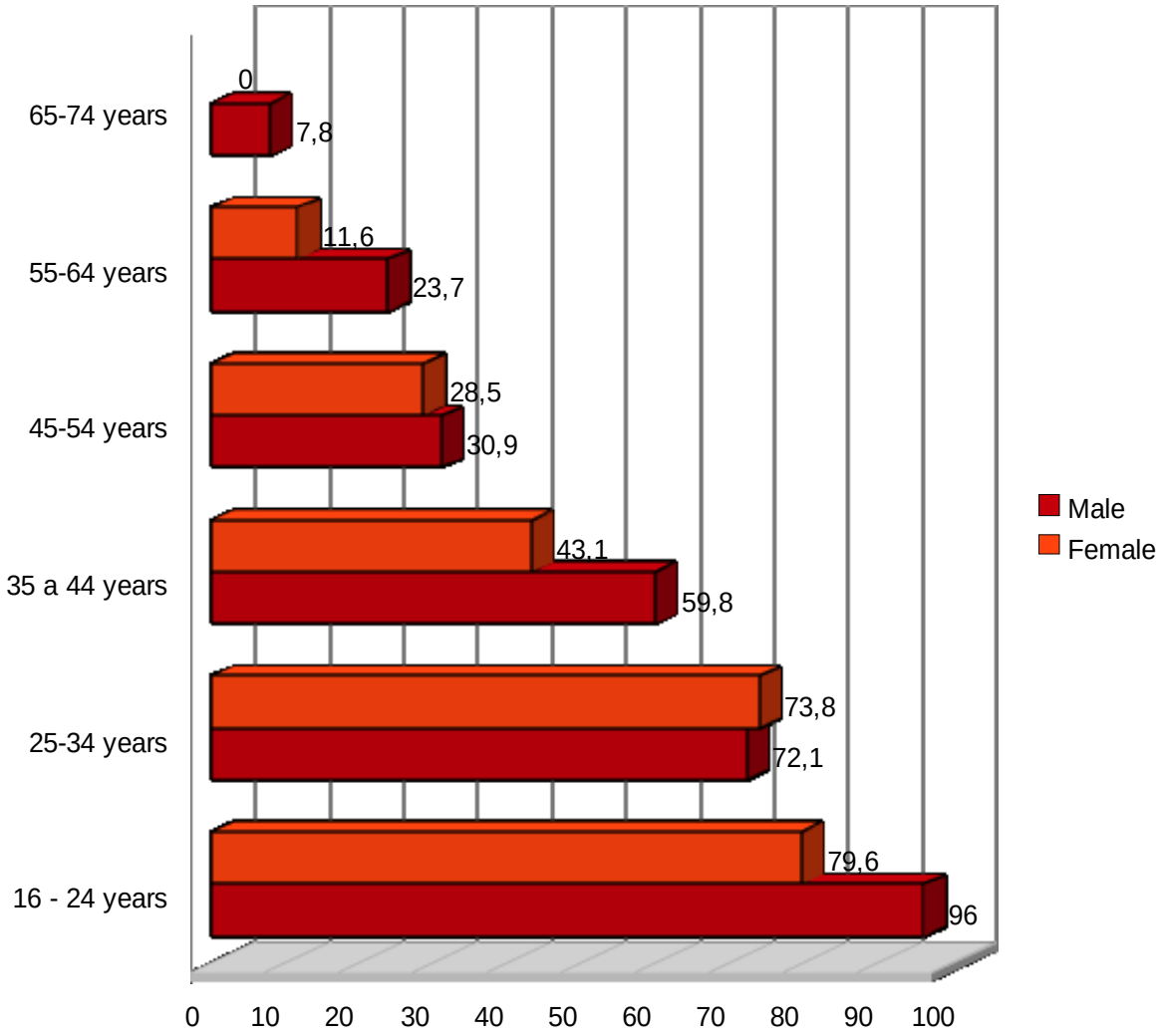
The population areas minor of 10,000 inhabitants are situated in small municipalities in the interior of Galicia, and they have three gaps: the deficient broadband, a lower level of per capita output and an older and less receptive to the technological changes population than that of the urban areas.

ICT use: Use of PC according to age/gender



Use of PC according to age/gender		
Age	**Male**	**Female**
16 - 24 years (young people)	98 %	92,7 %
25 - 34 years (young people)	76,4%	84,8 %
35 - 44years (young people)	72,9 %	64,1%
45 - 54 years (middle age people)	43,6%	40,2%
55 - 64 years (aged people)	31,7 %	20,6%
65 - 74 years (aged people)	11,8 %	1,1%

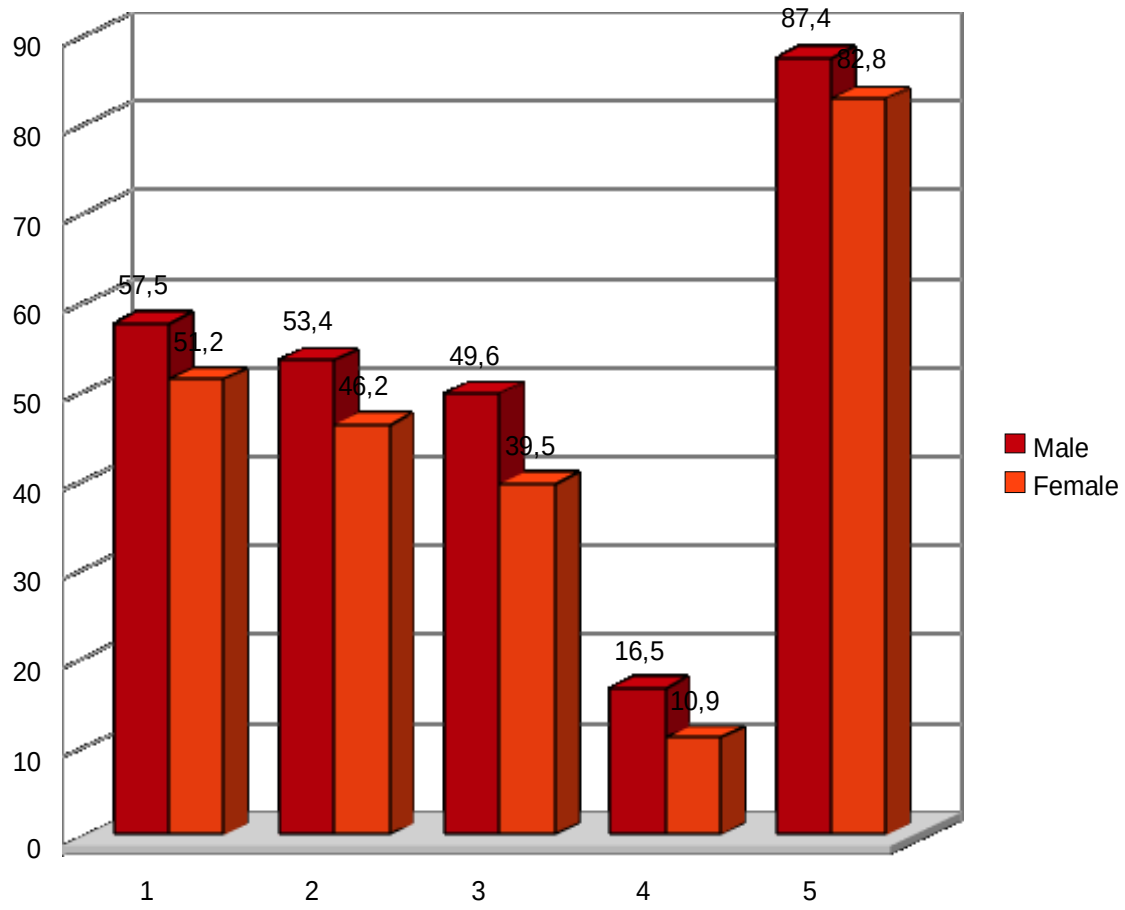
ICT use: Use of Internet according to age/gender



Use of Internet according to age/gender		
Age	**Male**	**Female**
16 - 24 years (young people)	96 %	79,6 %
25 - 34 years (young people)	73,8%	72,1 %
35 - 44years (young people)	59,8 %	28,5 %
45 - 54 years (middle age people)	30,9%	28,5 %
55 - 64 years (aged people)	23,7 %	11,6 %
65 - 74 years (aged people)	7,8 %	0 %

Note: People who have used Internet at least once a week in the last 3 months.

ICT use according to Sex: Computer (PC), Internet, E-commerce and mobile phones



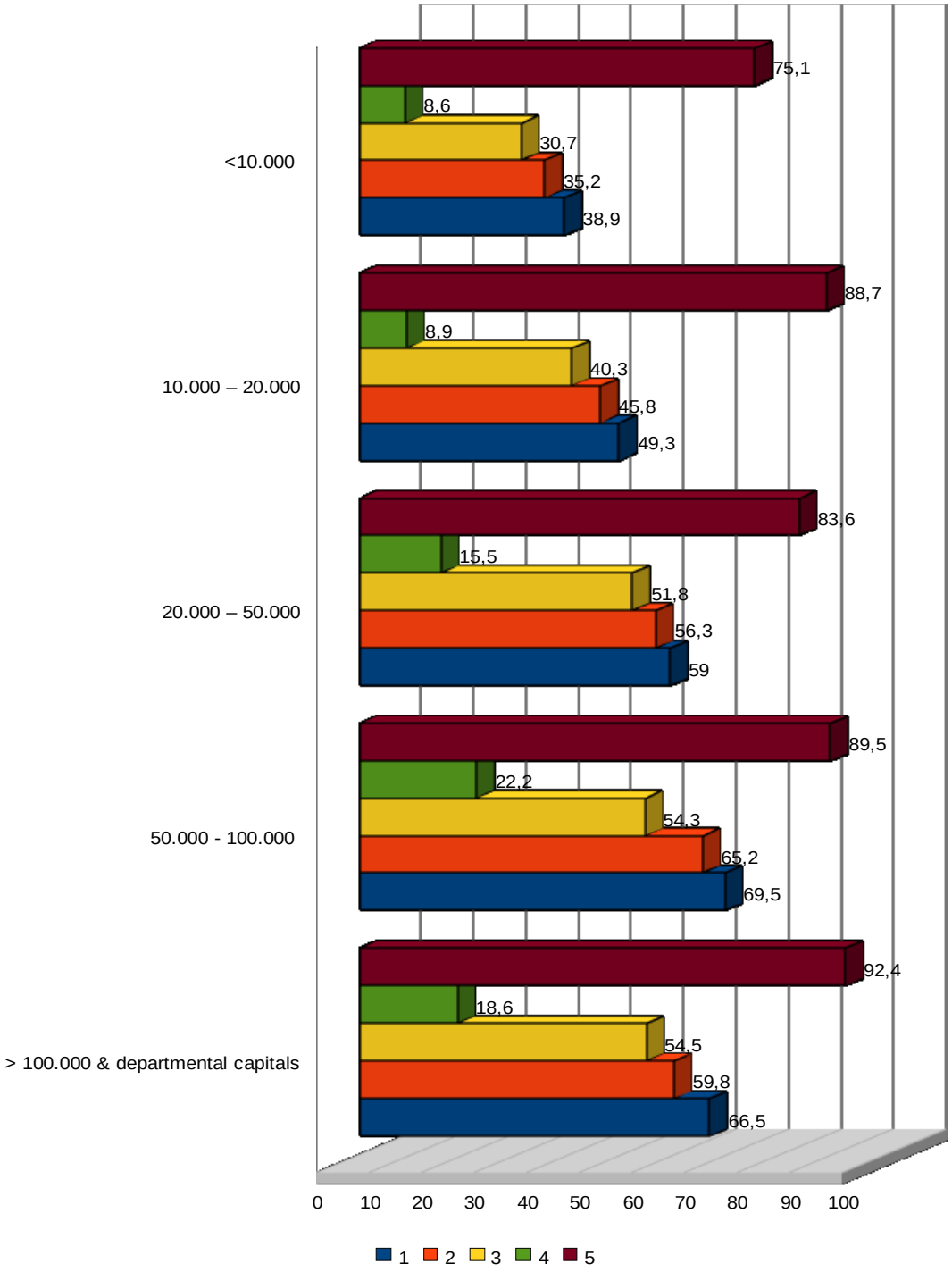
1. People who have used the computer in the last 3 months
2. People who have used Internet in the last 3 months
3. **People who have used Internet at least once a week in the last 3 months.**
4. People who have purchased online in the last 3 months
5. People who have used the mobile phone

*. % among into people using Internet

Use of ITC to age/gender

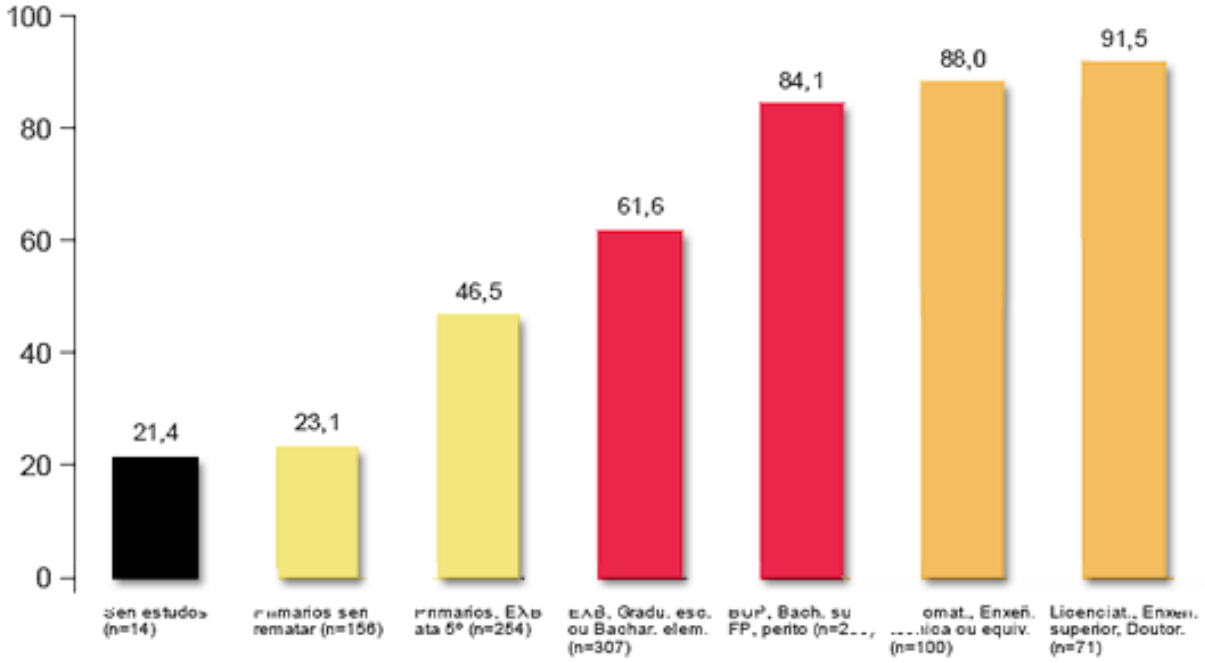
Age	Male	Female
People who have used the computer in the last 3 months	57,5 %	51,2 %
People who have used Internet in the last 3 months	53,4%	46,2 %
People who have used Internet at least once a week in the last 3 months.	49,6 %	39,5%
People who have purchased online in the last 3 months	16,5 %	10,9%
People who have used the mobile phone	87,4 %	82,8 %

Use Internet - Habitat : Municipalities according targets to population size



1. People who have used the computer in the last 3 months
2. People who have used Internet in the last 3 months
3. People who have used Internet at least once a week in the last 3 months
4. People who have purchased online in the last 3 months
5. People who have used the mobile phone

ICT use: Internet according to grade level

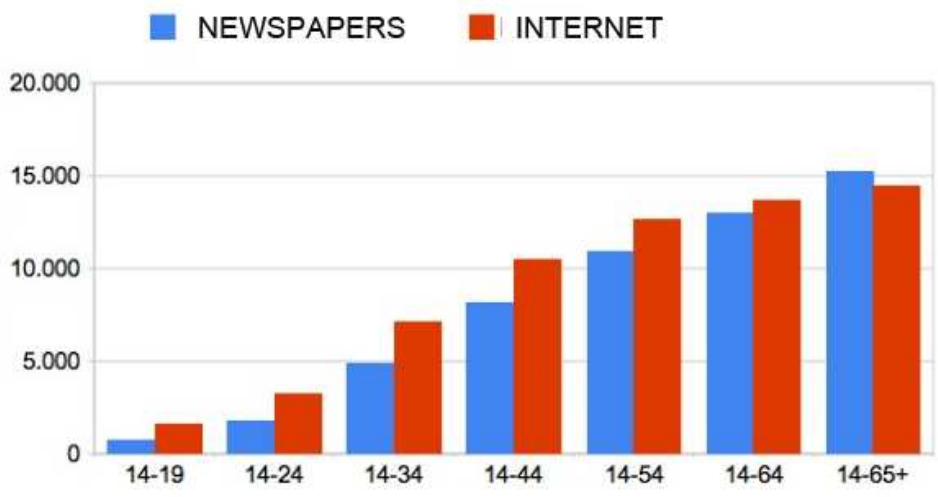


Observatorio Galego da Sociedade da Información, ano 2008.

Use of Internet according to grade level of the householder		
	PC	**Internet**
High level (university degree)	%	91,5 % 88 %
Medium level (high school)	%	84,1 % 61, 6 %
Low level (primary school) **Low level (unfinished primary)**	%	46,5 % 23,1 %

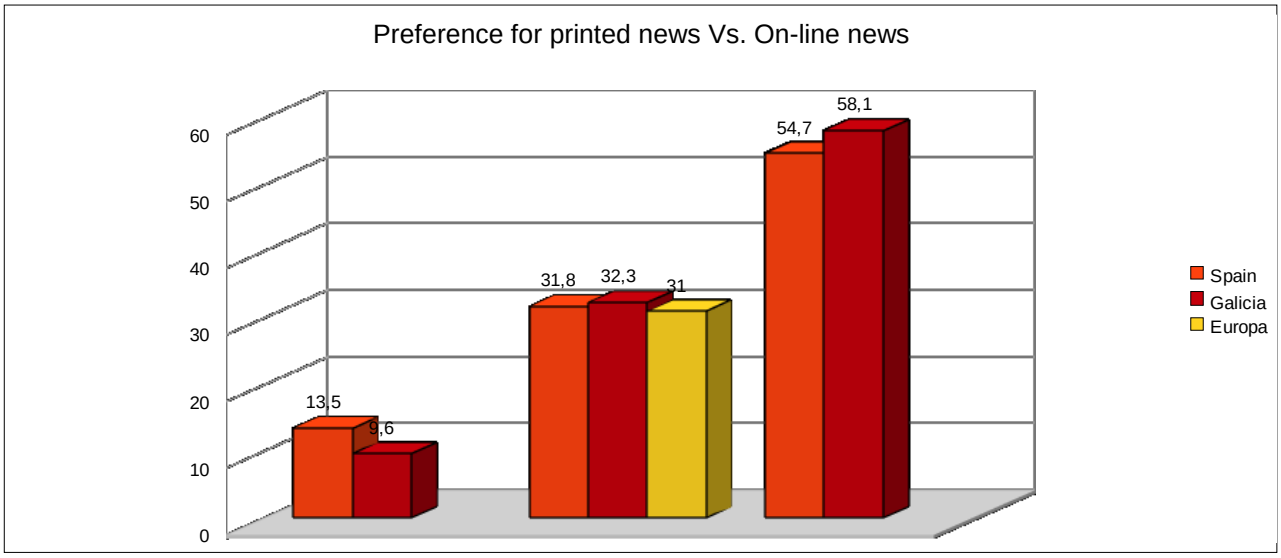
2.4.2 From traditional services to web services

In 2010, for the first time, in Spain people preferred Internet tan traditional media to access to information, according to the official study: "General Study about the Media". This study states that the number of users of e-newspapers is higher than in traditional press in almost all target groups, even if we consider as a group all population under 65. In the range of population over 14 years, this indicator is 36.8%.



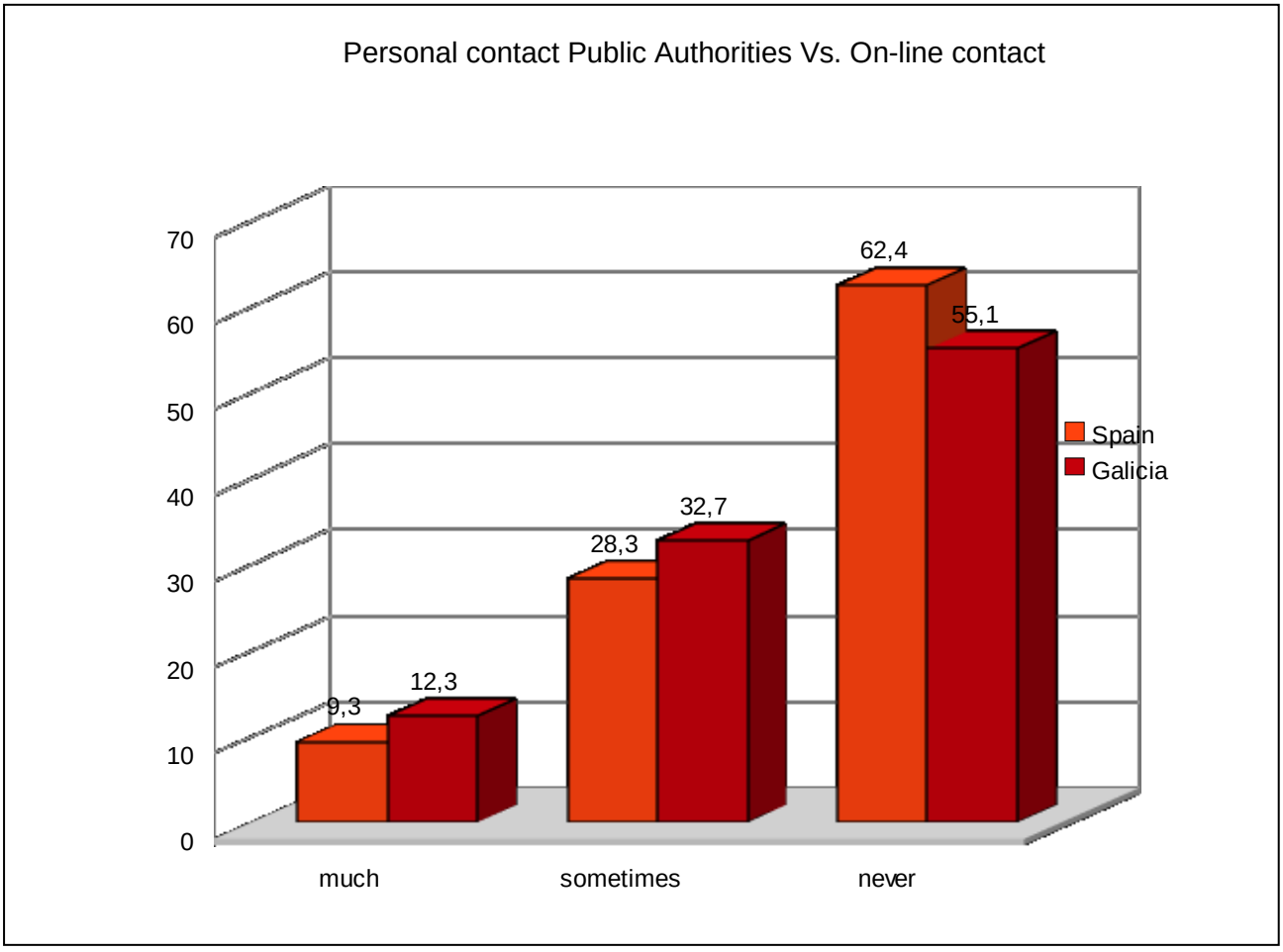
Comparing these data with those registered in 2009, only radio (+2.3%), Internet (+11.6%) and cinema (+6.3%) improve their results, while written press (-4.6%) and TV (-0,2%) are loosing ground. TV still is the preferred media, with a coverage of 88.3% thanks to new thematich channels provided by TDT.

According to Eurostat 2009 data, this year 31% of total population in EU 27 used Internet to read newspapers and magazines on-line. By its side, using the same indicator and also 2009 data, the Spanish National Statistics Institute (INE) concludes that Galicia is over the European media in this indicator (32.3%) but still far away of values registered in other Member States like Denmark, Finland or Estonia (around 64%).



Once again, data in Galicia is highly conditioned by its ageing population. Thus, while Galicia shows very similar ratios to Spain in aspects like download music and videos, the convergence with the Spanish average is much lower in other habits like listen to the radio by Internet.

Finally, ratios in Galicia regarding to the substitution of personal contact by electronic facilities is quite dual: 1/3 of people sometimes contact with public administrations on-line (4.4 points more than the Spanish average); nevertheless, about a half of the total population have never used that via to contact public administration. That means 7 points under the Spanish average which may indicate a rejection from some targets of population, maybe ageing people.



Printer news and newspapers Vs on-line news

	much	sometimes	never
Spain	13,5	31,8	54,7
Galicia	9,6	32,3	58,1
Europa		31	

Buy CDs and DVD Vs downloading music and video files

	CD much	CD sometimes	CD never	DVD much	DVDs sometimes	DVD never
Spain	13,4	23,6	63	10,8	19,6	69,5
Galicia	12,8	21,6	65,6	8,7	18,5	72,8

Listening the radio in the traditional way Vs listening the radio through the web

	much	sometimes	never
Spain	6,2	22,9	70,9
Galicia	4,3	17,2	78,5

Personally contact the authorities Vs on-line contact

	much	sometimes	never
Spain	9,3	28,3	62,4
Galicia	12,3	32,7	55,1

3. The Information Society in Galicia: governance and policies at local and regional level

3.1 – The governance of the Information society in Galicia

In Galicia, the Secretariat General for Modernisation and Technological Innovation (Regional Government) is the main administrative body to boost, assess and improve ICT in the region. This body is part of the regional Government and is dependent on the Regional President (Decree 82/2009, 21 April). This Secretariat General has as objectives:

- To order and standardize Galician Administration activities in the ICT area.
- To adapt Regional Administration to all e-administration requirements.
- To exploit all ICT possibilities to dynamize public services.
- To boost information society development.

To fulfil these commitments, Galician Government has an important tool: Galician Telecommunications Network, RETEGAL S.A., a public Enterprise belonging to Xunta de Galicia. It is in charge of managing all Galician institutional telecommunication services and infrastructures.

Retegal has developed its professional services strategy with a main target: to be in conditions to provide a complete infrastructures network, safety and efficient, to produce real benefits for all Galician citizens.

3.2 Local and Regional policies and objectives

3.2.1 Telecommunications.

Broadband Master Plan:

Its main target is to give broadband access to all Galician society and place Galicia among the main regions of reference for the new ICTs development.

To reach this objective, following the Broadband Master Plan 2010-2013, the public company Retegal is already working to implement optical fibre and radio-relay link to those areas un profitable for the private sector. This project aims to reduce the important digital gap with Spain and between Galician coastal areas and interior areas.

This Master Plan means an investment around 35 M Euros to extend the optical fibre network by 800 km, to reach a total figure of 1,900 km and be able to give broadband access to areas until now isolated from a technological point of view. Moreover, this Plan also foresees the implementation of last generation tools (MPLS, Multiprotocol Label Switching, and WDM) for a great speed in data transmission (10 Gb).

The optical fibre network will grow around two rings, one for Pontevedra and Ourense (at the South of Galicia) and another for A Coruña and Lugo (the provinces at the North). According to Retegal information, this network will be connected to 400 centres and microcenters and in those areas where optical fibre could not reach, Retegal will use radio-relay links.

According to this Plan, Galicia should go from the last positions in broadband connections to the leader ones in 4 years, implementing technologies like the cable with Docisis 3.0 system, the optical fibre to the home (FTTH) or mobile phone 4G. The objective is to reach a broadband coverage of 94%, covering the residual percentage with alternative technologies like satellites.

3.2.2 eGovernment

To implement its ICT objectives, Galician Government has started different programmes like the Modernisation Plan 2010-2013.

This e-Administration development plan is base on the improvement and modernization of all services that the Regional Government (Xunta de Galicia) offers to citizens. So, this Plan bets on spreading the use of ICT in its administrative tasks to facilitate all proceedings and give real-time information to citizens:

- Improve the quality of services provided by Public Administrations.
- Boost the use of new technologies in the exchanges with Public Administration.
- Promote transparency and accessibility in relations with citizens.
- Increase the competitiveness in Galicia, making easier and improving access to public administration services.

3.2.3 eHealth – Ianus

The Electronic Medical Record eSaúde – Ianus is a programme developed by the Galician Health Service (SERGAS). This programme aims to consolidate the electronic medical records, e-prescription and citizens access to all health services.

This programme links medical records among different specialized medical units, gives a transversal coverage to the gap with primary health care systems and manage all medical documentation in both cases.

Ianus keeps the current level of investment in information systems and makes possible its interaction with the other ICT systems at regional level. Thus, this programme allows us to know all existing information about the medical history of one person with a single consultation. In addition, the programme improves the current systems with new functions and applications. IANUS is considered as a good practice and it offers great figures: 10 million medical reports, more than 13,000 users, more than 1,700 professionals connected and more than 7.5 million prescriptions.

As the backbone of the electronic medical record, IANUS interacts with other projects aimed to boost a new health care system like electronic prescription, or an important range of department information systems. All this systems will constitute the electronic medical record of each patient.

3.2.4 - ePresciption

E-prescription gives support to the prescription, standardization and medicament providing system. Completely integrated in IANUS, ePrescription go along the whole life cycle of the prescription process to allow doctors and pharmaceuticals, a proper register of each step in this process.

3.2.5 eJustice

ICT Plan for urgent measures in justice management

This Plan started in 2010 with the aim of contributing to the modernization of Galician justice services so, to a more efficient services to citizens, avoiding collapses and trying to place Galicia on the top of the list in terms of access to a modern, dynamic and lively justice administration.

Among other actions within this Plan, it worth to highlight the one referred to review all data processing centers in all judicial units. Currently, this service is not centralized but distributed among 49 different places. In this context, to overcome this situation the Plan looks to integrate a central Processing Data Center for judicial informatics. In addition, the ICT Plan for urgent measures implemented a renewal programme to all ICT judicial systems in order to change the oldest computers and establish a progressive substitution system. Finally, this plan also implies a new Judicial Office and a legislative modification to establish new administrative units and new working responsibilities, different from the current ones.

Senda2013

Senda2013 is a Project to develop ICT systems in the Galicia Justice Administration. This project designs a road map for a more efficient justice system for a new planning strategy. This road map includes redesigning processes, update information systems, deployment of new infrastructures and technologic services, new resources and an implementation process.

This Plan is promoted from General Direction of Justice (Regional Minister for Presidency, Public Administrations and Justice) and the General Secretariat for Modernisation and Technical Innovation. This Plan has 34 M Euros of total budget for the period 2010-2014.

Senda2013 looks to evolve towards an integral model for information systems in Galician Justice Administration. The final objective is to guarantee coordination and interoperability with the other Justice Administration for a better service and good answer to professionals and citizens needs.

The Plan is focused in:

- Defining a new model for information systems. Integral review of the information system model focusing in the electronic judicial file. This new model should integrate procedural

information, reduce time for processing files, and guarantee high quality services, as well as coherence and reliability.

- Citizens accessibility. Electronic justice. Citizens' demand for a more accessible justice administration will be answered thought the implementation of a new interactive website for the Judicial Administration and a "citizen file" which will be the main communication channel with citizens.
- Control panel. Analysis of information. New analysis information systems to help follow up and control task, to all justice administration levels.
- Interoperability with other administration levels. Development of a new tool for an integrated management of all procedural information.
- To carry out dispositions in the new data protection law for citizens' personnel data.
- Dinamyze information system use. Boost the proper use of all information systems through training plans.
- Review ICT services model
- Consolidation of infrastructures. Galician Justice technological node. Create a strong and reliable technological base to allow real implementation of justice electronic files, movility of those files, etc.

3.2.6 eEducation – Abalar

ABALAR is a Project integrated in the Regional Ministry for Education and University. This project details a strategy to integrate ICT in the Galician education system, as one of the priority areas and acting in the following fields:

- Equipment and infrastructures
- Educative contents
- Boost digital culture
- Integration and participation
- Actuation lines

ABALAR includes all initiatives in the educational field in the best way to create synergies with other resources coming from Spanish Administration, in the framework of "School 2.0" Project.

ABALAR looks for a qualitative and quantitative improvement in the educative Galician model to improve its modernization process. This projects aims to maximize all available resources, to coordinate and boost a change in the educative model on the basis of more training to teachers and modernization tools to transform schools in digital educative centers.

The strategy of ABALAR goes around digital educative center concept as a reference model to follow at infrastructure, services, process and even at organizational level, with the aim of integrating ICTs in de educational activities.

3.2.7 Plan eMunicipalities (*eConcellos*)

eConcellos is a Programme aimed to modernizate Galician Local Administrations. Currently there are several e-administration initiatives in local administrations but it is needed to coordinate local and regional administration actions to avoid redundant investments and give them support to their internal management. This Programme will help local authorities to achieve a good level of technological support oriented to three action fields: infrastructures, services and applications.

E-Concellos is addressed to all local administration actors in Galicia:

* Provincial Government
* Cities
* Municipalities
* Municipal consortiums and other local actors

In the Local Administration field, studies have detected that those municipalities with less than 30,000 inhabitants are less developed in the technologic field and have more difficulties to work on this issue. For this reason, some concrete actions included in the Plan are aimed to reduce this gap in electronic administration to guarantee eAdministration to all Galician citizens.

3.2.3. IMPROVE ICT USE

3.2.3.1. Network of centers for modernisation and technical inclusión (CeMIT)

The Regional Government – Xunta de Galicia – has implemented a network of centres aimed to modernisate and work for the technical inclusion in Galicia, the so called CeMIT Network. This network is an important tool to implement ICT initiatives addressed to improve information society in Galicia, as well as other political areas like employment, competitiveness, e-inclusion and e-Administration.

CeMIT coordinates all actions developed in public computer labs to improve digital skills in Galician society, as well as to further develop information society in Galicia. This new network will work under a common brand as a tool to generate economical growth and a proper development according to guidelines within Galicia Information Society Strategy.

Moreover, CeMIT will be open to every centre willing to join the network, as long as it has basic infrastructure. In general terms, we are talking about libraries, civic centres, associations, foundations, etc.

CeMIT is developed with the permanent assistance of General Direction for Local Administration. To become CeMIT into a reality, the regional government should work in the following areas:

- Territorial, coordinating under a same network all centres already operating in Galicia. This would mean the network to be in almost every one of the 315 Galician municipalities.

- Institutional, creating one collaboration model with different regional and local administration bodies. The aim of these collaboration agreements would be make available all network resources, infrastructures and services to all local administrations for the development of their politic areas: employment, entrepreneurial competitiveness and electronic Administration.

- Services, defining a services portfolio from a strategic, transversal and multi-level perspective, to develop different activities oriented to the network objectives.

- Organization and management, defining a new model to reinforce network structure and involving local agents in centres management.

In this context, CeMIT centres are currently offering more than 100 training courses to 94 different municipalities. That means more than 3,000 training hours to bring new technologies closer to Galician society. These services have as public target, five different groups: citizens, here are included unemployed people, immigrants, women, disabled people and old people; ICT professionals, employed or not; enterprises, micro-SMEs and self-employed people; civil servants and territorial agents, which means municipal services, civil associations, business associations, Non Profit Organizations, etc.

3.2.4. INFORMATION SOCIETY BUSINESS SECTOR

IS Sector Support Scheme. Support to Contents Production and Services

This initiative is aimed to give support to the ICT business sector in Galicia. The final objective is, by one hand; facilitate tools for the development of content and services in Galician, and on the other hand, to boost the adjustment of this contents and services to other languages for its commercialization in other markets.

This initiative also includes support to actions related to software localization activities and tools.