**BISER**

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Benchmarking the Information Society:
e-Europe Indicators for European Regions

# BISER – Workpackage 6:
# e-Europe Regions Domain Reporting

Regional Portrait of Tuscany

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# NUTS 2 Regions in Italy

## 1 The NUTS nomenclature in Italy – background and current structure

The Republic of Italy is divided into regions (NUTS 2), which are in turn divided into provinces (NUTS 3) and again into communes (municipalities). The nomenclature of Territorial Unities for European Statistics (NUTS) subdivides Italy and other nations of the EU into various hierarchical levels.

The NUTS favours institutional divisions based on the subdivision of regional territories by two criteria: normative and analytical. On a regional level (without taking communes into account) the administrative structure of the member states generally includes two principal regional levels (Lander and Kreise in Germany, regions and departements in France, comunidades autonomas and provincias in Spain, regioni and province in Italy etc.).

The Italian state (NUTS 0) is subdivided into five macro-areas (NUTS I) which have no administrative function and are; North-West, North-East, Centre, South and Islands.

The regions (NUTS 2) are autonomous bodies, so with political, juridical, legislative and administrative independence, as established by the Constitution, and never to clash with the laws of the State. The twenty Italian regions are distinguished between Regioni a Statuto Ordinario (regions with common statute), established in I972, and Regioni a Statuto Speciale (regions with special statute), established earlier, and which enjoy greater autonomy. The region is governed by a "Consiglio Regionale" (Regional Council), which has between 30 and 60 members elected by citizens. The Regional Council in turn elect the "Giunta Regionale" (Regional Committee), which has executive and administrative functions, and both elect the President of the Regional Council. Three delegates elected by the Regional Council of each region take part in the elections of the President of the Republic, together with both Houses of Parliament (the Chamber of Deputies and the Senate of the Republic).

The provinces are at the third level of classification.

## 2 The spatial structure of Italy

Italy is subdivided for administrative purposes into 20 regions, which are then organised into provinces and communes. Five of these regions have a special statute (Friuli-Venezia Giulia, Sardinia, Sicily, Trentino-Alto Adige and Valle d'Aosta). The total surface area of the country is 30I,40I square km and the total population numbers 57,844,000 inhabitants. Italy is, without doubt an interesting country from a geographical point of view. The variety of landscapes is infinite, from Mont Blanc, through the Padanian plain, the rolling hills of Tuscany and the Marches and the villages clinging to the Appennines, to the arid landscapes of the South and the geographical uniqueness of the islands (especially in Sicily and Sardinia). This brings about a series of differences in climate, population, economy and agriculture which make the country a place of ever-changing landscapes.

# Qualitative Description of Region Tuscany

## 3 Basic facts

| | Region (NUTS2) | Country (NUTS0) | EU |
|---|---|---|---|
| | Regioni Tuscany | Italy | EU15 average |
| GDP [€ in PPP per inhabitant (2000)] | 26,240.8 | 23,588.4 | 22,576.4 |
| Area [km²] | 22,992.6 | 301,316.2 | 3,191,119.9 |
| Population absolute (1998) | 3,527.9 | 57,588.0 | 375,812,900 |
| Population density [inhabitants/km² (1998)] | 153.4 | 191.1 | 117.8 |

## 4 Map


## 5 Regional structure

### *5.1 Spatial structure*

Tuscany is the fifth largest region in Italy (22.997 sq Km). Wedged deeply like a triangle in the heart of Italy, it constitutes a transitional area between the Po Delta and Liguria, which are highly industrialized, and those Italian regions which are still principally agricultural. It stretches over the western side of the Apennines and includes the islands of the Tuscan archipelago. Its limits are clearly defined to the north but less evident to the east, crossing the main ridge of the Tusco-Emilian Apennines and taking in the upper Val Tiberina, becoming even more uncertain to the south-east and south where they appear to be justified only for historical, linguistic and generally cultural reasons.

### 5.2 Infrastructure

The system of transport infrastructure is based on the interconnection between road and train networks which are both of fundamental importance for the entire national transport system. Indeed, the region of Tuscany is dissected lengthways both by a motorway and a train line; infrastructures which support a huge part of the transport of goods and passengers up and down the country.

In its present state, however, the road transport system has a network of over 2l,000km, 4l3km of which are made up by motorway, 3679km by main roads and the rest by local roads.

There is also an busy system providing links to the airport.

### 5.3 Population structure / migration (demography)

In 2001 total population living in Tuscany was 3.547.604 (see tab.1). Live births are 28.386, deaths 40.988. The greatest part of the population falls under the age category between 25 - 44 (1.067.056) and 45 – 65 (945.536) years old (see tab.2) with an elderliness of 189,8%, higher than the national level.

The population of Tuscany is not uniformly distributed: high- density areas contrast sharply with those where the density is markedly lower than the national average. For example mountain or agricultural areas, especially after the Second World War, suffered a population drain towards industrialized areas or lowlands, the Provinces of Grosseto, Siena and Arezzo were the most affected. As a result, the population is heavily concentrated along the Tyrrhenian coastline and in the lower Valdarno, from Florence to Pisa where there is a local density of 500 persons/ sq/.

## 6 Economic factors

### 6.1 Economic development in the last decade

Natural resources are of primary importance in Tuscany thanks to the richness of the land, making it one of the most important regions in Italy for agriculture and tourism. Even if its industries are numerous and developing, tourism still remains one of the most important economic resources of the region. Tuscany, being full of mediaeval monuments and architectural examples from all historical periods, enjoys year-round tourism. The most exported agricultural products are wine and oil.

### 6.2 Sectors

- Farming and agro-food industry: Dairy products, Greenhouses, Nurseries, Sugar-beet, Wine production
- Industry: High technologies, Light industry, Mechanical industry, Paper industry, Pharmaceuticals and parachemistry, Shipbuilding
- Services: Banking, Fairs and exhibitions, Publishing and printing, Research and development, Tourism, Transport

The areas with a high industrial concentration and the best communications networks (lower Valdarno, Florence, Lucca, Versilia, Leghorn) are richer than the rural and mountain areas (Maremma hinterland, countryside around Siena, upper Apennines).

Regarding economic sectors, agriculture has suffered, in recent decades, from a high rate of redundancy, caused by mechanization of production and drift from the countryside. The Tuscan primary sector has two different farming systems: smallholdings, sometimes still with mixed crops (wheat, vines and olives), spread mostly in the north of the region, and large farms in the south, especially in Maremma, where land has been reclaimed; these farms cultivate cereals and vegetables. The principal agricultural products are wheat and wine, the latter comes mainly from the Chianti area.

Regarding industry, mining, though sharply declining compared to a few decades ago, is still very important (pyrites, lignite, lead, alabaster, and marble. The iron, ore (Island of Elba) and mercury deposits (Mount Amiata) are no longer working.

Tuscany produces energy too, nearly entirely of thermal origin, more than a third of it comes from the exploitation of borax hot springs . Industry includes metallurgical, engineering, chemical , textile, food , printing, tanning and glass, making sectors. Craft industries flourish all over this region (faiences, lace, rush-weaving, wrought-iron). Banking (Siena, Florence) and especially commerce and tourism (the Versilia seaside resorts, many art cities) are the most important activities for the service sector.

### 6.3 Unemployment

- Working population: 1,437,000
- Distribution of employment:
    - Industry: 34%
    - Agriculture: 4%
    - Others: 62%
- Unemployment rate: 5,1% (Italy 9,5)
- Activities rate: 49,3% (Italy 48,5)

The standard of living is generally a little bit higher than the national average (unemployment rate is lower than national one), though there are some differences among the areas. The total average of people declared to be employed are 1.437.000, of which 54.000 in Agricultural sector,492.000 in Industry sector, 891.000 in other activities (see tab. 4).

### 6.4 Innovation

It is important to consider the level of diffusion of some infrastructures. Most of the firms have an infrastructural level higher than national one. In Tuscany, cultural structures (178,7%) together with railways (137,2%), banks (128,6%), tele-communication networks (114,4%), and roads and motorway infrastructures (107,8%) have an incidence percentage above 100%. But there are some infrastructures such as energy systems (97,7%), airports (97,3%), educational structures (90%) and health care (88,3%) which still have a level of diffusion lower than the national one.

## 7 Soft factors

### 7.1 Housing

In Tuscany, the number of rented properties amounts to around 240,000 (5.6% of the total) of which 92,000 are in Florence alone (37.9% of the total of rented houses in Tuscany and 4.6% of those in metropolitan areas). Tuscany displays figures equivalent to the national ones, as far as individually owned properties (70.3%) and state-owned (I9.7%) whilst lower figures are found relating to ownership by private companies, insurance companies and provident institutions (overall 6.4%).

## *7.2 Culture*

Given the artistic and natural beauty of Tuscany, the regional policy, which has been criticised over the last few years, has developed around the idea of culture as a fundamental right of citizenship and an occasion to maximise the potential of the region. The competent authorities have moved in this direction, developing a comprehensive plan of over 64,500,000 euros, 60% of which are made up by regional contributions. These funds will be used to make the most of the heritage of museums, libraries and archives, but also be put into action in the performing arts, intercultural projects and the network of contemporary arts.

## *7.3 Regional image*

Tuscany is famous for its artistic beauty, which attracts tourists from all over the world. The reasons for this success are to be found in the many cities of art in the region as well as its stunning natural landscape and mild climate.

Tuscany is also famous for its wines, especially Chianti, and its traditional cuisine.

But Tuscany is also the region with the greatest diffusion of e-government in Italy: the E-Toscana project is pioneering a system which will develop-

- On-line counters to improve relations between institutions, citizens, companies and entities, speed up procedures and simplify bureaucracy;
- Data banks on the supply and demand for work;
- On-line archives containing all the tourist structures in Tuscany.

So, not just tradition, but also innovation.

# 8 BISER survey results on Tuscany

The following will (by necessity brief) provide an exemplary insight into the BISER survey data, in order to give an overview on how the *Regioni* Tuscany performs regarding key Information Society indicators.

## *8.1 Methodology*

There are 211 European regions at the NUTS 2 (Nomenclature des unités territoriales statistiques) level and clearly a project like BISER can not carry out surveys in each of these regions since accuracy of the resulting metrics requires a minimum number of observations. Within the limits of budget, it was decided to select 28 out of 211. The regions cover the range of patterns of sectoral structure ("agricultural", "manufacturing" and "services", depending on the share of employment in each of the sectors) and economic power (as GDP per head) as well as Member States according to the distribution of population.

Regions which were surveyed are: Salzburg (Austria), Liége (Belgium), Fyns Amt (Denmark), Väli-Suomi (Finland), Ile de France, Bretagne, Nord-Pas-De-Calais, Languedoc-Roussillon (all France), Darmstadt, Stuttgart, Braunschweig, Magdeburg, Mecklenburg-Vorpommern (all Germany), Kentriki Makedonia (Greece), Border, Midland & Western (Ireland), Sicilia, Lazio, Toscana, Lombardia (all Italy), Friesland (Netherlands), Lisboa & Vale do Tejo (Portugal), Castilla- Leon, Cataluna (both Spain), Smaaland Med Oerna (Sweden), Berkshire, Buckinghamshire and Oxfordshire, Leicestershire, Greater Manchester, and Tees Valley and Durhams (all U.K.).

Within each region the sample was set up as a random probability sample which provides a sufficiently representative picture of the resident population (aged 15+) and of the region's business establishments. For the population survey (RPS), a minimum of 400 successsful interviews were conducted in each region; in the establishment survey (RDMS) the sample was at least 300 per region.

Computer Aided Telephone Interviewing (CATI) was used. Telephone interviews offer the advantage of quick and reliable data collection from a central telephone unit. For general population surveys in former times there have been doubts about accuracy of randomisation but recent developments in sampling practices can provide for real probability samples even with rather poor list sources and the growing fractions of non-pub numbers – the shortcoming being that a very small number of households without telephone are not included. CATI also offers best field control, automated sample administration, simultaneous data entry and permits a complex branching of the interview flow depending on filter questions and thus allows to apply questions tailored e.g. to the respondent's experiences with ICT, a firm's equipment status etc.

The population survey provided a person sample (rather than a household sample) and was predominantly based on random dialling methods. Sampling in each Member States was carried out allowing for national differences regarding organisation of telephone number allocation and unlisted telephone numbers, and taking other national peculiarities into account which may require various strategies of random drawing.

The establishment sample included establishments (and thus covered also branch offices and not only autonomous enterprises) from different industries across all economic activities but excluded establishments with less than 5 employees. Sampling was managed as a stratified approach, i.e. done separately for groups of establishments conforming with certain criteria, in order to guarantee a sample representative of the industrial structure and employment size distribution in each region. The establishment sample was drawn from the best existing source lists available, either provided by public authorities or by specialised address brokers.

Readers are reminded that survey results are estimates, the accuracy of which, everything being equal, depends on the sample size and on the observed percentage. With samples of about 300 and 400 interviews respectively, the real percentages vary within the following confidence intervals:

| Observed percentages | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% |
|---|---|---|---|---|---|---|---|---|---|
| **Confidence intervals if n=300** | 6.4% - 15.4% | 14.7% - 26.6% | 23.7% - 37.2% | 33.0% - 47.4% | 42.6% - 57.4% | 52.6% - 67.0% | 62.8% - 76.3% | 73.4% - 85.3% | 84.6% - 93.6% |
| **Confidence intervals if n=400** | 7.1% - 13.9% | 15.9% - 24.9% | 25.1% - 35.4% | 34.6% - 45.6% | 44.4% - 55.6% | 54.4% - 65.4% | 64.6% - 74.9% | 75.1% - 84.1% | 86.1% - 92.9% |

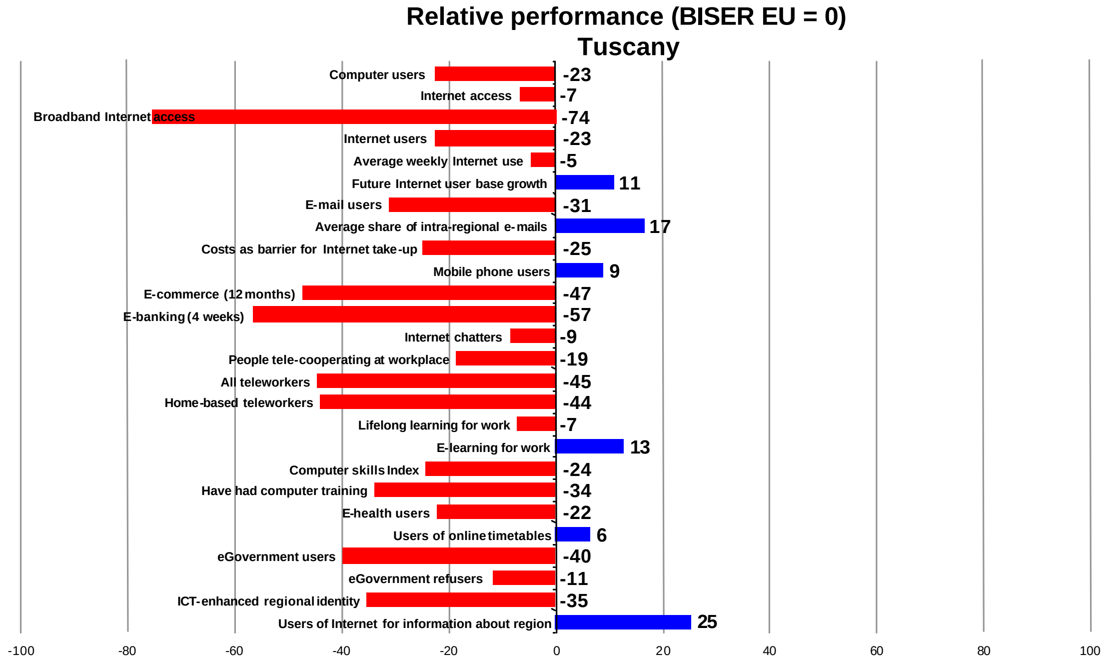
## 8.2 Selected results

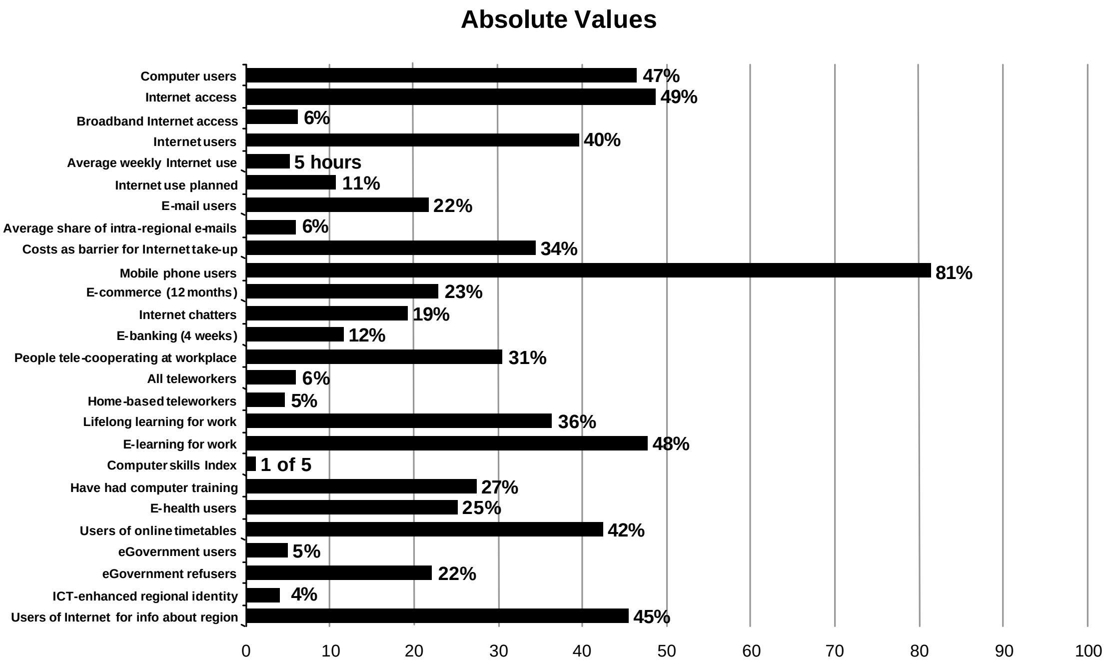
The following figure presents relative performance of Tuscany region compared to the average across all 28 BISER region. The BISER average is not representative for the whole of the EU territory in a statistical sense. However, it has been checked that the sample is very similar to the EU with regard to average values for key socio-demographic and business sector variables, respectively.

### 8.2.1 Population

| Indicator description (RPS) | | | |
|---|---|---|---|
| **Area** | **Indicators** | **Definition** | **Base** |
| *Access and basic usage* | Computer users | Persons who have used a computer in the last four weeks | Total population 15+ |
| | Internet access | Persons who have access to the Internet in their home | Total population 15+ |
| | Broadband Internet access | Persons who have access to the Internet at home via DSL or cable. | Persons with access to the Internet at home |
| | Internet users | Persons who have used the Internet in the last four weeks | Total population 15+ |
| | Average weekly Internet use | Average time spent using the Internet (hours per week) | Internet users (4 weeks), excluding DK |
| | Future Internet user base growth | Non-users who think it is likely they will use the Internet in the future | Total population 15+ |
| | E-mail users | Persons who have sent at least one e-mail (for private purposes) in the week prior to survey | Total population 15+ |
| | Average share of regional mails | Average percentage of e-mail partners located in the same NUTS 2 region | E-mail users (last week, for private purposes) |
| | Costs a barrier to Internet take-up* | Involved non-users who agree completely that the Internet is too expensive to use | Involved Internet non-users |
| | Mobile phone users | Persons who have a mobile phone for their own personal use | Total population 15+ |
| *Standard applications* | E-commerce (12 months) | Persons who have used the Internet to order products or services in the last 12 months | Internet users (12 months) |
| | E-banking (4 weeks) | Persons who have used the Internet to conduct on line banking in the last 4 weeks | Internet users (12 months) |
| | Internet chatters | Persons who have used the Internet to conduct online forum in the last 4 weeks | Internet users (12 months) |

| Indicator description (RPS) | | | |
|---|---|---|---|
| **Area** | **Indicators** | **Definition** | **Base** |
| *Work organisation* | People tele-cooperating at workplace | Use of e-mail or other electronic data transfer for co-operation with clients, customers, suppliers or other working partners at other locations | Total employment |
| | All teleworkers | Multi-locational workers who spend paid working time doing home-based telework or mobile telework | Total employment |
| | Home-based teleworkers | Persons who spend paid working time working at home or on the same grounds or buildings as their home, and are using a connection to the Internet or their company's computer system while doing so | Total employment |
| *Learning and skills* | Lifelong learning for work | Persons in paid employment who have been involved either work related training by their company or by training organisation or in self-directed work related learning in the 4 weeks prior to the survey | Total labour force incl. temporarily not working (unemployed) |
| | E-learning for work | Persons engaged in lifelong learning who have used e-learning | All respondents engaged in lifelong learning in the 4 weeks prior to the survey |
| | Computer skills index | Average number of computer skills (out of a list of 5 of increasing sophistication) in the population | Total population 15+ |
| | Have had computer training | Persons who have once attended a computer training course lasting at least half a day in total | Total population 15+ |
| *Special applications* | E-health users | Internet users who have searched for any health-related information on the Internet in the 12 months prior to the interview | Internet users (12 months) |
| | Users of online timetables | Percentage of Internet users who have used the Internet to get any timetable information in the 4 weeks prior to the survey | Internet users (12 months) |
| | eGovernment users | Persons who have used the Internet for receiving at least one of three typical services provided by government/ public administration in the 12 months prior to the survey | All persons who have carried out at least one of these three typical services provided by government/ public administration in the 12 months prior to the survey.<br>Non Internet-users excluded. |
| | eGovernment refusers* | Persons who agree completely that eGovernment is nothing they are interested in | Internet users (12 months) |
| *Region-specific usage* | ICT-enhanced regional identity | Percentage of respondents who state that the Internet and e-mail have given them a greater sense of identity with the region in which they live | Total population 15+ |
| | Users of Internet for information about region | Percentage of Internet users who have got news about region from the Internet | Internet users (12 months) |
| * = scale inverted in figure below | | | |




Note: In the upper figure, the scale has been inverted for indicators where high values are considered negative (see table). This means that if the bar is blue and pointing towards the right for "costs as a barrier for Internet take-up", for example, this means that in this region below average shares of respondents were affected by costs as a barrier.

The performance of the region of Tuscany in ICT terms shows trends of growth which highlight a trend in motion towards an informed use of the web.

Tuscany seems to place a lot of trust in an increase in Internet use, this expresses the awareness of the population of the innovative and constructive importance of this instrument.

It is, indeed, one the Italian regions with the most active intervention projects in e-government and publicizing the image of the region. In the specific instance, e-government interventions are dictated by the awareness of the delay accumulated in this sphere and the opportunities that investing in this sector could create both for citizens and for businesses.

E-government consists in providing on-line services in public administration, and, in a more advanced phase, leads to the practice of e-democracy; the use of information technology to increase participation in democratic processes. The Tuscan e-government project goes from the bottom upwards, as in the example of the city of Siena which has produced a citizen Smart Card which guarantees access to services and information about the city both to residents and tourists. It is important to mention the Tuscan project because it represents an important local initiative within the Italian panorama.

Above the regional average, high values are found both in attention to the web and the search for regional information on-line, this can be explained if we reflect on the intense tourism activity here which calls for the on-line sponsorship of tourism companies so as to guarantee year round tourism.

Local activity allows the region to overtake various regional averages without having to rely on state intervention policies. Within this context and in order to achieve such results it is important to reflect on the importance of regional development for the population here.

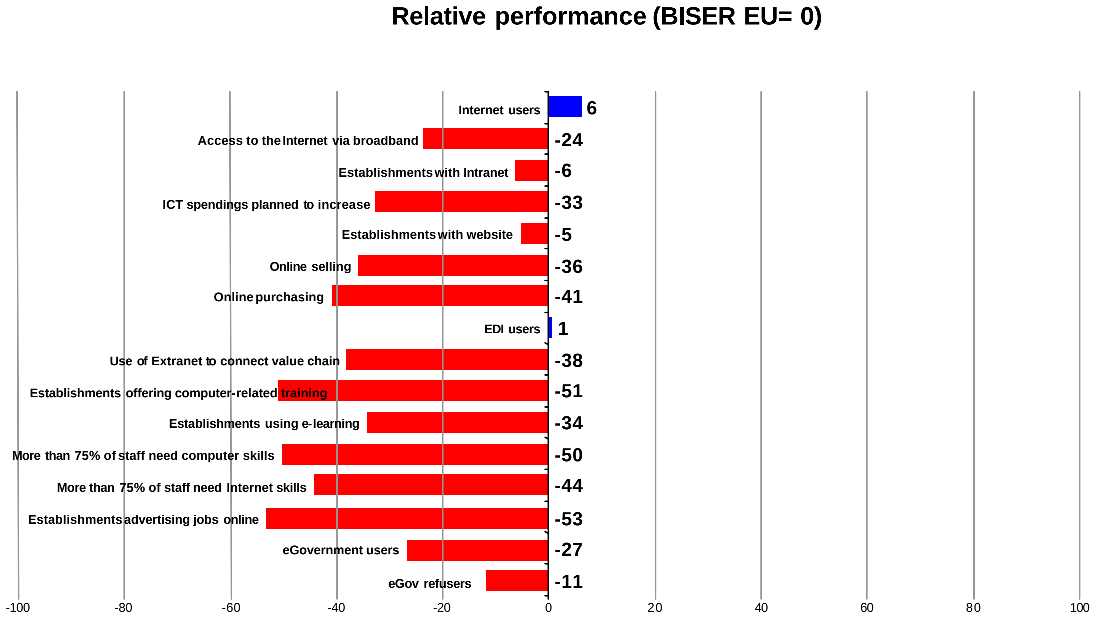
A substratum seems therefore to exist which can be used for the development of ICT, in this sense an intervention to improve access via broadband could become necessary. Such an adjustment would allow Tuscany, a region full of local products, to achieve high performance also in on-line sales of products.

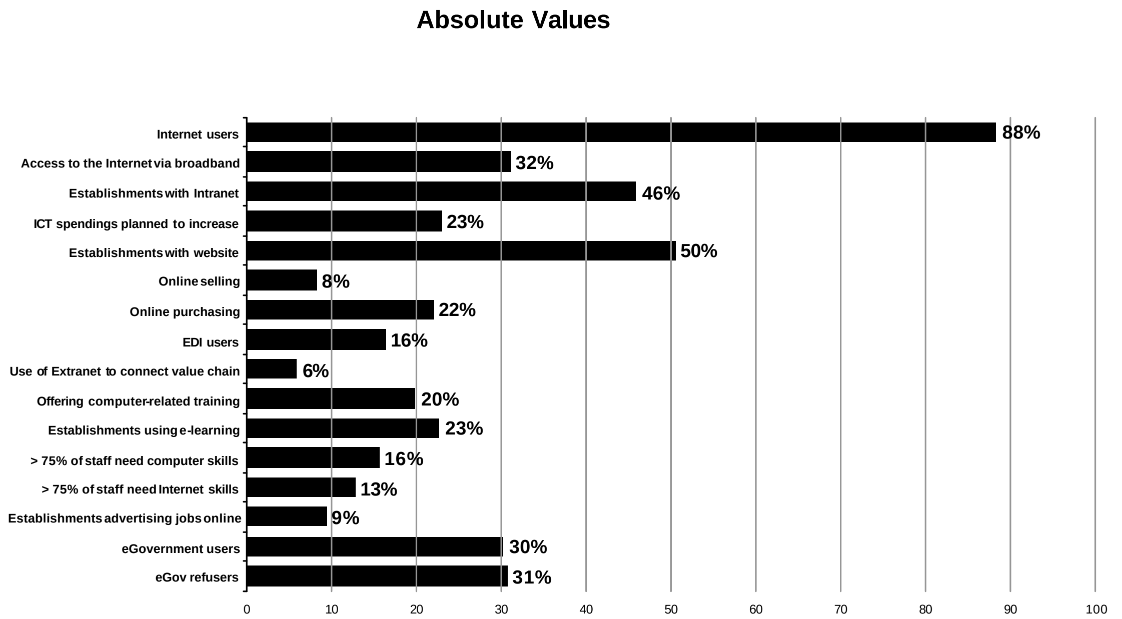
Comparing the figures from the survey on the population in Tuscany with the other regional averages, the image emerges of a region still strongly orientated towards use of the internet for intra-regional services. Intervention should therefore be aimed at externalising interests, in this sense it would be necessary to invest in infrastructure and to guarantee on-line security. In order that the strong civic sense of this region and the artistic and cultural attractions it possesses can be exported via the web also outside the region itself.

### 8.2.2 Establishments[1]

| Indicator description (RDMS) | | | |
|---|---|---|---|
| **Area** | **Indicators** | **Definition** | **Base** |
| *Access and basic usage* | Internet users | Percentage of establishments using the WWW | All establishments |
| | Access to the Internet via broadband | Percentage of establishments that access the Internet via DSL, cable, or leased line | All establishments that use the Internet |
| | Establishments with Intranet | Percentage of establishments that have an Intranet | All establishments |
| | ICT spendings planned to increase | Percentage of establishments which are planning to increase spendings on ICT in the next 12 months | All establishments |
| | Establishments with website | Percentage of establishments that have a website on the Internet | All establishments |
| *eCommerce* | Online selling | Percentage of establishments that sell online or distribute digital products online | All establishments |
| | Online purchasing | Percentage of establishments that purchase online | All establishments |
| | EDI users | Percentage of establishments that use EDI | All establishments |
| | Use of Extranet to connect value chain | Percentage of establishments that have an Extranet | All establishments |
| *Training and skills* | Establishments offering computer-related training | Percentage of establishments that offer computer-related training courses to their staff | All establishments |
| | Establishments using e-learning | Percentage of establishments that use e-learning tools (online or offline) for training their staff | All establishments |
| | More than 75% of staff need computer skills | Need for any computer skills in the establishment: More than 75% of staff | All establishments, excluding DK |
| | More than 75% of staff need Internet skills | Need for Internet skills in the establishment: More than 75% of staff | All establishments, excluding DK |
| | Establishments advertising jobs online | Percentage of establishments that have published job adverts on the Internet | All establishments |
| *eGovernment* | eGovernment users | Establishments that have used the Internet for receiving at least one of four typical services provided by government/ public administration in the 12 months prior to the survey | All establishments that have carried out at least one of these four typical services provided by government/ public administration in the 12 months prior to the survey |
| | eGovernment refusers* | Percentage of respondents who agree completely that they do not need any eGovernment services | All establishments |
| * = scale inverted in figure below | | | |

[1] All values weighted by employment




Note: In the upper figure, the scale has been inverted for indicators where high values are considered negative (see table).

The position occupied by Tuscany as regards establishments sees it achieve positive values only for Internet users compared to the averages in other regions.

Figures which certainly do not correspond with those on population and which could be attributed to the small number of cases analysed.

Another possible explanation for this situation could be found in the typology of companies active within the region of Tuscany. These are mainly agricultural, although most of them produce products of certified quality.

It is a common belief that the introduction of ICT in primary sectors is more difficult than in services and industry. Above all when innovation does not regard technology in processes, but business and technical communicative methods of product sales. Besides the large agricultural and alimentation industries, leaders in their sector, we find small to medium businesses, mostly family-run, for which innovation, confronted with now renowned benefits, demand investment beyond the possibilities of the company.

In this sense, the image that we get of Tuscany, when compared to the averages of other regions, is that of an active region, commuted to innovation, which believes in the possibilities that the Internet and the new forms of economy linked to it have to offer, but which clashes with the limits of an economic sector of prevalently primary sector and with a tourist industry which has not yet made full use and advantage of the possibilities connected to the web.

Comparing both surveys, Tuscany comes to occupy a not unimportant position for ICT use. It is therefore in a middling position, in which the seeds of possible improvement are already present, but which necessitate help from interventions initially from the state which would then pass to local authorities.

# 9 Sources

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