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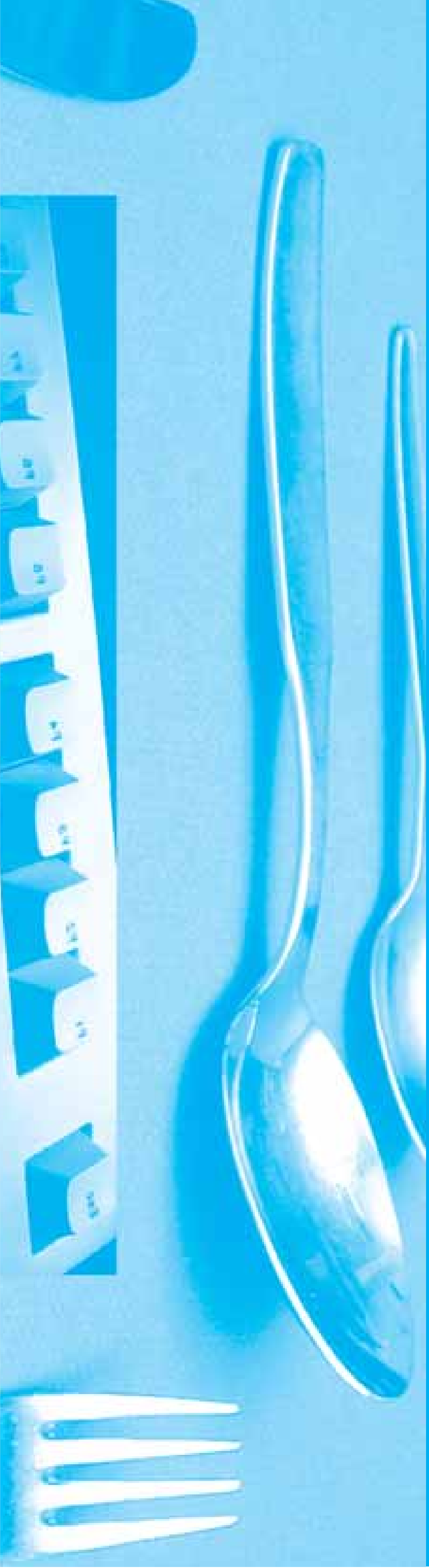


The following report presents the results of the benchmarking exercise in the area of e-government, part of the European project UNDERSTAND (www.understand-eu.net): data were collected in September-December 2005. The ten regions participating in the project developed a common methodology and comparative analysis. This report analyses the use of ICT inside the Municipalities (part one), the distribution of on line services (part two), the usage of those services from citizens and business (part four): the structure is very similar to the one of last year report with a few new elements analysed in each chapter. What is completely new is part three where we tried to cross link the results on informatisation of municipalities and the development of the front office.

All data refer to 2005.

In part one we analyse the usage of ICT inside all Municipalities, on the basis of data collected through a questionnaire. Analysed themes are the adoption of strategies on ICT and e-government, the organisation, the competencies in the field of ICT inside the single administrations, the infrastructure, the equipment, the expenses in this field, barriers to the adoption of ICT.

This year we provide also a special focus on the use of open source and the intensity of usage of this kind of applications.

Besides this year we created an index on the internal use of ICT that sums up the majority of collected information, with a single value for each municipality to offer a general idea of the state of the art in this realm. Another new entry deals with the usage of ICT inside the provincial administrations in Emilia-Romagna, derived from the ISTA survey.

The second part relates on the front office and has been done via a surveys of the web sites of the public administrations in Emilia-Romagna offering on line services: the methodology is comparable with the one for the eEurope – CapGemini Ernst&Young survey.

Here are also presented the data deriving form the questionnaire mentioned above, on the usage of multichannel delivery to deliver on line services.

The third part has been dedicated to a first attempt of a analyses linking the themes on which part one and part two are focused: the aim of this exercise is to understand how internal usage of Ict and delivery of on line services are connected and to identify possible common models to develop a specific use of ICT for internal organisations and different degree of offer of on line services.

The fourth part is focused on the usage of on line services from citizens and business, on the basis of the surveys conducted in the Understand project. For the survey on citizens 1200 telephone interviews were carried out with citizens above 15 in Emilia-Romagna.

The telephone interviews aimed at enterprises covered a sample of 570 companies in the areas of ICT, tourism and mechanics.

The survey has involved all 341 municipalities in Emilia-Romagna. Questionnaires have been mailed and e-mailed in November 2005. 268 replies were received, that is 79%. The answers followed an homogeneous mode as relates to the provincial location the dimension of the municipality, the geographical location (mountain and plain).

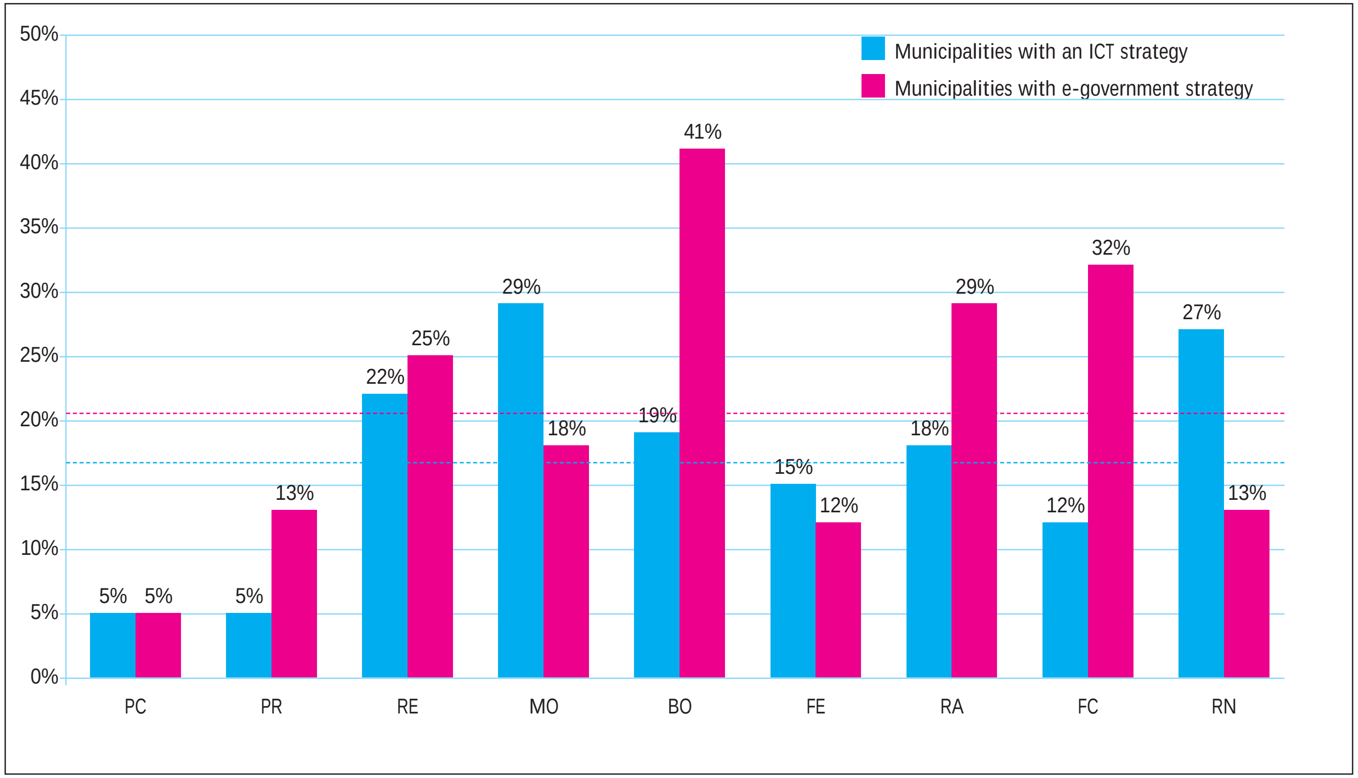
The local public administration is of the strength of Emilia-Romagna, when compared to other Italian and European regions.

From the survey the awareness of the strategic value of e-government is clear, and stable as confronted with last year data. 16% municipalities has an ICT strategy, 21% an e-government strategy.

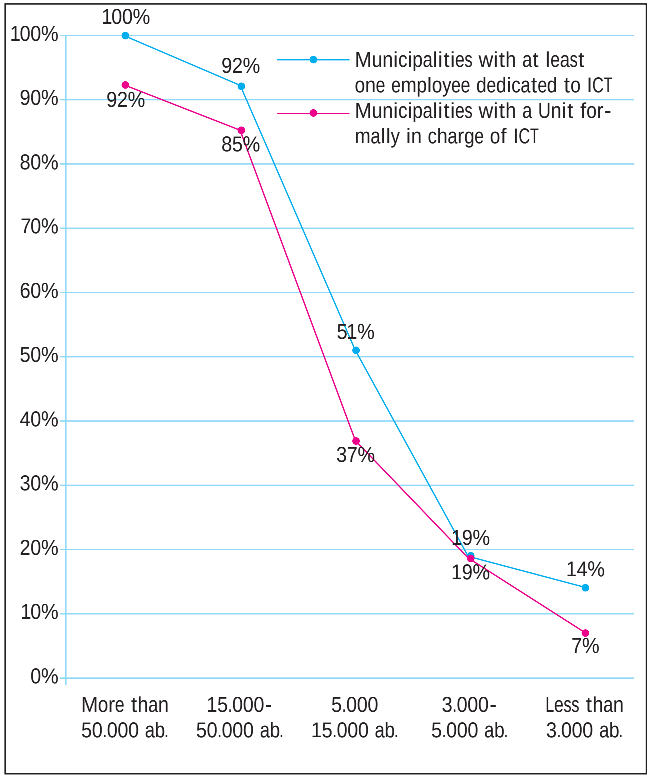
The adoption of an e-government strategy is more frequent with respect to an ICT one and in some cases provincial territories are very homogeneous.

On the other hand a lack in the technical competencies available and a low investment in training in this field .

The problem is not so much evident for the management of technical problems, but to more general poorly developed government of these issues, which becomes more evident with municipalities with less than 15.000 inhabitants. (Graph 2).



Graph 1 – Strategical approach to ICT



Graph 2 – Organisation of ICT and HR

Generally 39% municipalities has an employee dedicated to ICT support, 32% has a dedicated Unit and the situation has not changed since last year.
The lack of specialists inside the administration is compensated with the use of external expertise, mostly for the maintenance of hw (77%), sw (76%) and networks (60%).
In this field we register also a very intense collaboration amongst the local authorities, mostly with regards to acquisition and development of applications (51%) and ICT infrastructures (43%).
Connecting data on ICT dedicated employees and employees trained in ICT we found that municipalities that do not organise training are those with less internal competencies, therefore with a total lack of expertise in the field. E-learning is still very episodically used.
All municipalities are connected to internet, with less than15% using only one private provider: public networks are increasingly important. 90% of municipalities uses both types of provision (Table 1).
More than 3/4 municipalities has a broadband connection. The increase in this area is the most clear positive trend for this year, with an increase of 15 points, and this is in line with other European regions. Particularly fast connections increase the most: 54% municipalities has a DSL connection above 2 Mbps or in fibre optic, and

Table 1 – How a municipality gets connection to Internet

	n. municipalities	%
Via public network	227	84,70
Private provider	64	23,88
Do not know	0	0,00
Non No answer	1	0,37

34 municipalities have a wireless connection (satellite or wireless).
PC connected to the internet are on average 74 on 100 employees. As security is concerned, almost all have an updated antivirus and backup procedures. 80% have a

firewall and almost half have an emergency system for electricity production. Almost all security solutions have increased when compared to last year.

In an European and national comparison Emilia-Romagna shows a good level of usage of smart applications for the management of internal processes (i.e.: classic electronic filing, digital signature) which are the basis for e-government. (Graph 3).

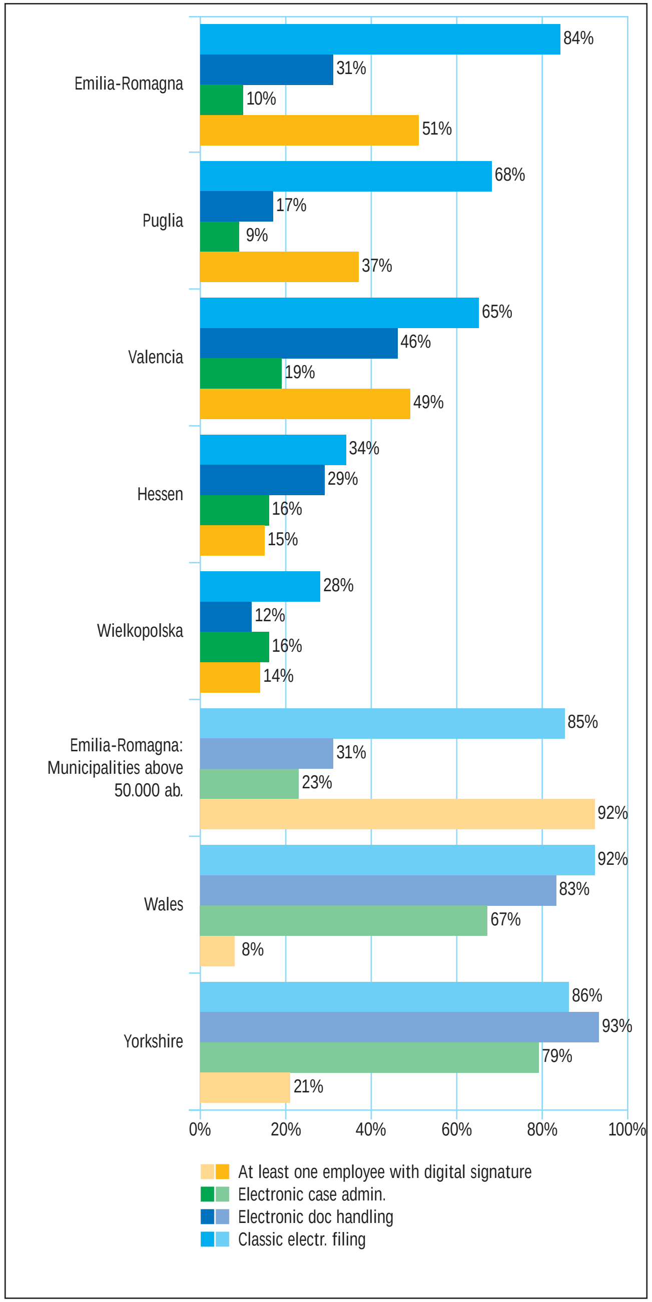
Classic electronic filing, at least in its basic version, was made compulsory in Italy, but still 8% of municipalities is still not using it. On the other hand on third of municipalities is using more sophisticated applications (electronic document handling systems) allowing for a completely electronic management of processes and documents. Here digital signature becomes a fundamental tool: more than half municipalities have personnel using this technology (7% more than 2004).

As per open source sw, 38% of Municipalities uses it, but not exclusively. Mostly they have added it to the "traditional" one they used before. Open source sw is more used when it comes to server more than on the client side, where the migration of office automation systems and email systems could be very complicated and involve a relevant number of users.

The majority of municipalities utilises specific applications for their more typical activities; often applications and data base are shared via the network. The use of Office applications is quite rare and often it supports specific applications (see table 2).

On the 268 municipalities answering the questionnaire on 55 (21%) monitor at least on e-services delivery channel , typically the web.

Barriers in the adoption of ICT are normally considered the high costs and the lack of skills inside the administration, whilst more technical problems are quoted only by a minority; the lack of integration among ICT system



Graph 3 – Digital signature and electronic document filing by municipalities

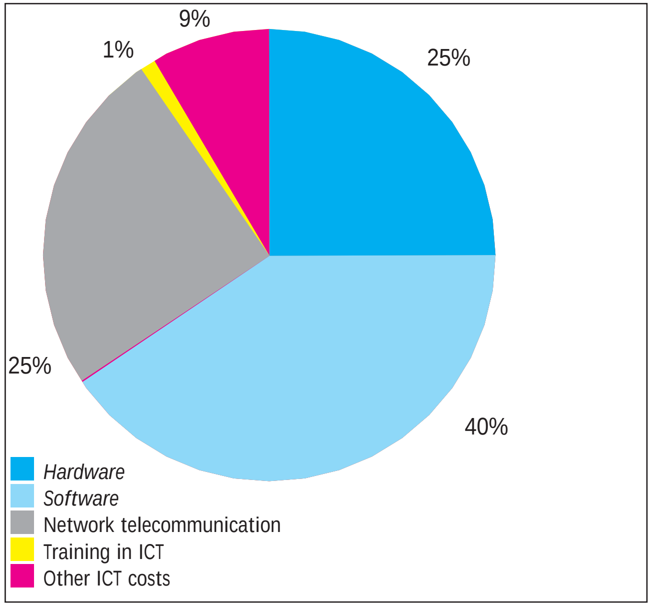
Table 2 – Municipalities using specific applications in the area of:

	n. Municipalities	%
Management of personnel	234	87,31%
Management of accounting	263	98,13%
Management of purchases	98	36,57%
Management control	132	49,25%
Management of payments	228	85,07%
Management of administrative acts/procedures	230	85,82%
Management of filing systems	261	97,39%
Registry office	263	98,13%

is a relevant problem for big municipalities.

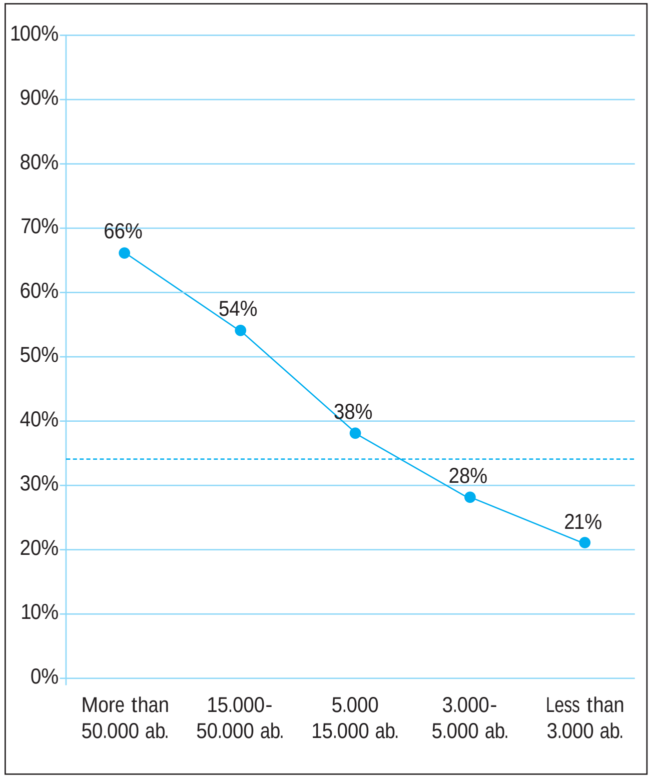
Also on European level the cost of ICT is the dominant barrier.

But what is the cost? On average it is 12,5 Euro per inhabitant and only 0,73% of the total expenditure.



Graph 4 – Composition of ICT expenditure, 2004

With regards to the dimension of the municipality, on all indicators small ones are lagging behind, and often the gap starts with municipalities with 15.000 inhabitants. In Graph 5 we show the average for the index on internal usage of ICT , grouping municipalities by dimension: diversity in result is quite evident and also municipalities between 5000 and 15.000 inhabitants (which are above the regional average) are not performing as well as the one above the 15.000 inhabitants level.
Having said this, some small municipalities are performing well: 8 municipalities with less than 5.000 inhabitants are placed in the first quarter of this ranking.



Graph 5 – Index on internal ICT equipment for municipalities (dotted line = regional average)

The territorial difference is less evident, with the provincial areas of Bologna and Ravenna clearly above the average.
This year some data on the provincial administrations are available, thanks to the ISTAT survey (table 3)

Table 3 – Usage of ICT in the provincial administration

	N. Provinces on total 9 (or n. employees on 100)
ICT office	8
Employees dedicated on ICT	9
Employees dedicated on ICT on 100 employees	2,25
ICT Strategy	1
ICT training	9
Employees trained in ICT on 100 employees	39,02
Certified e mail	6
Digital signature	8
Employees with digital signature on 100 employees	9,88
Broad band	9
Electronic file systems	6
e-procurement	3

The impact of e-government is clearly more visible when it comes to the delivery of on line services to citizens and enterprises: this happens typically via the web , multichannel delivery is still not much used. Less than a fifth of municipalities offers services via digital TV , call centre, kiosk SMS or WAP. To favour multichannel delivery Regione Emilia-Romagna started the Lepida TV channel on digital TV platform in 2006, and it will deliver services on education, health, social services, weather, mobility and culture.
On the other hand almost all municipalities have their web site (only 3 do not have an official web site) and 14% have accessible sites (the double with respect to 2004)
Quality, interactivity and completeness of local authorities web sites in Emilia-Romagna is good: our regions scores high on the availability of downloadable forms and on line payments.
The offer of on line services in Emilia-Romagna is a fact even if improvements in the last year have been few: the analysis made on 18 services delivered via web by public administrations show a 2 point increase in the interactivity average (from 58 to 60%), after the 11 points leap of 2004. Since this pattern is experienced also by

Table 4 – Functionality of municipal web sites

	Possibility to print and download forms	Possibility to pay on line
Emilia-Romagna	79%	14%
Puglia	70%	1%
Valencia	52%	4%
Hessen	75%	1%
Wielkopolska	63%	0%
Yorkshire & Humber	93%	93%
Wales	100%	83%

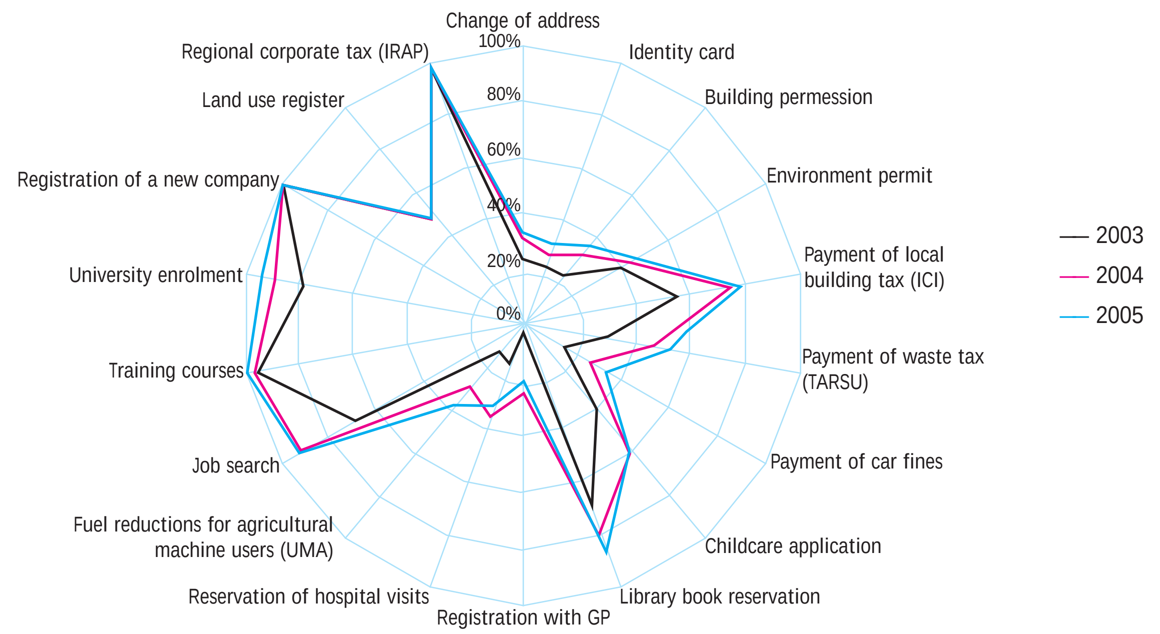
single services we can estimate we have reached an optimum as far as opportunity for e-government in our territory are concerned at the state of the art. In other words, for a further improvement new and diverse tools are to be implemented : the use of digital signature and certified e mail (offer side), together with a widespread initiative to promote the usage of services (demand side). The completeness of on line services improves, improving the quality of the overall offer.

2005 was a stable year also as far as the percentage of municipalities delivering via internet at least one of their services in an interactive mode: it increases only of one point, reaching 87%

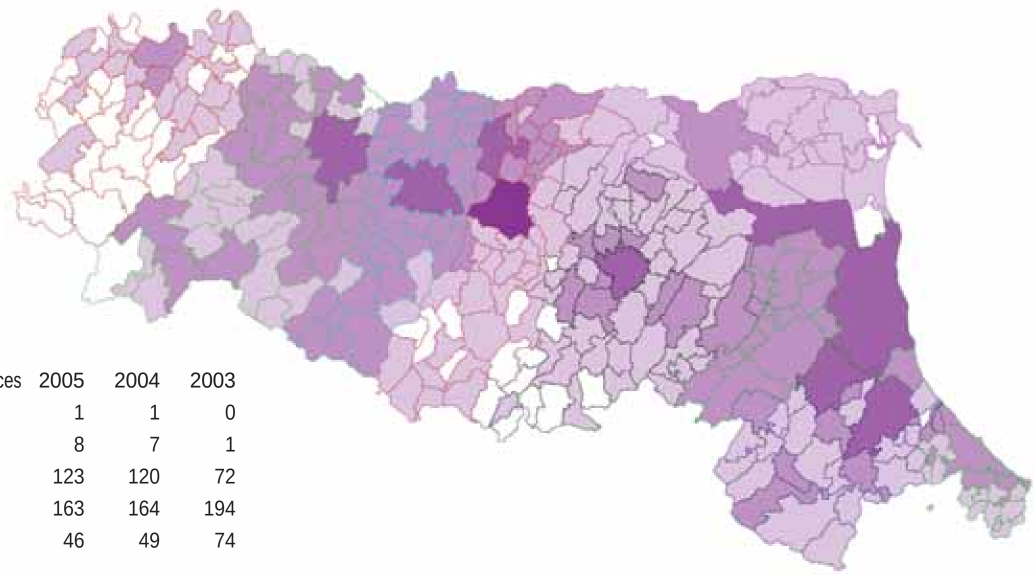
The majority only offers 3 out of 9 services in an interactive manner, normally the lending of books from public libraries (70%), payment of local building fees (46%) and the payment of waste fee (21%), that are those which are not delivered directly by municipalities but via a third entity.

Thanks to those "centralised" activities also small

Graph 6 – Comparison 2005-2003 on regional interactivity data

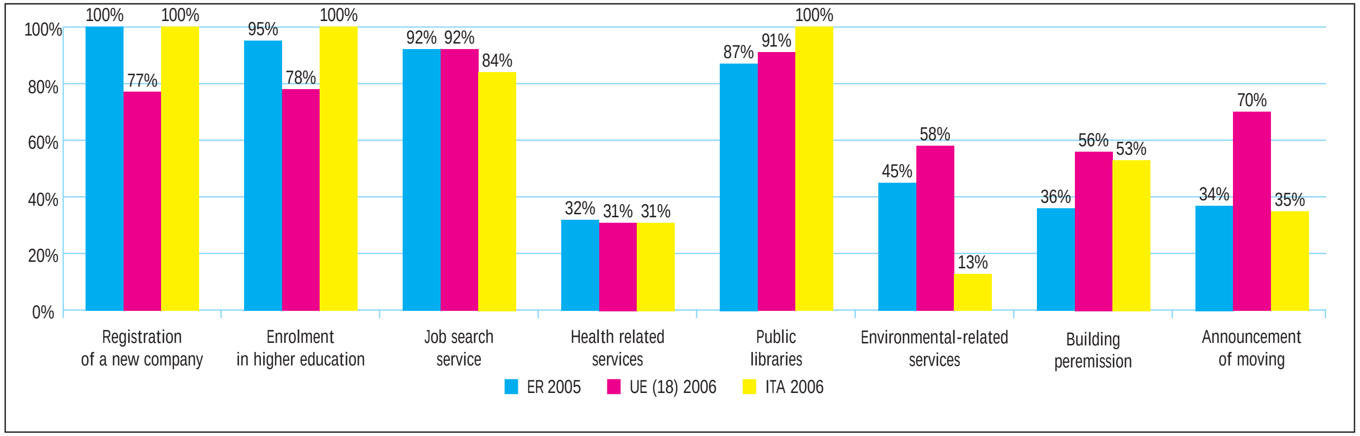


Graph 7 – Number of interactive services on the nine which are competence of the municipalities



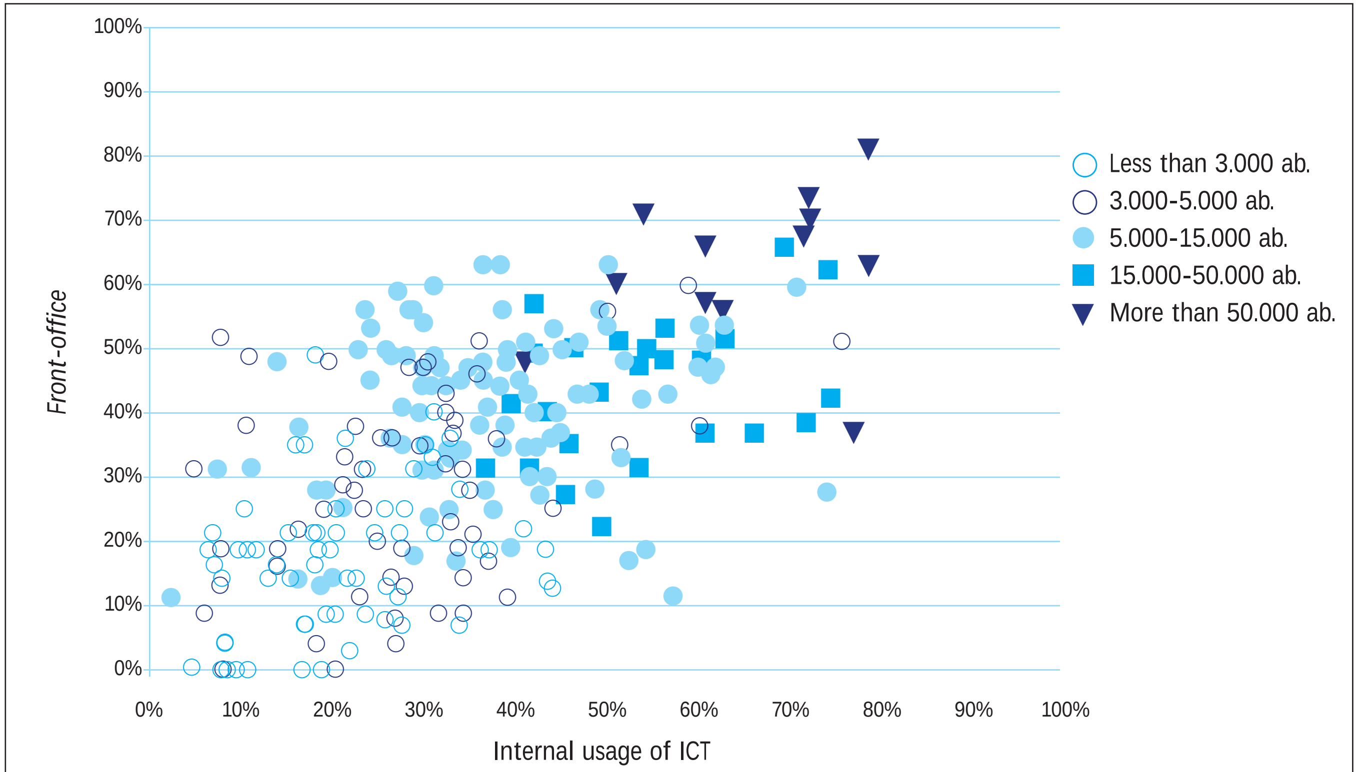
Number interactive services	2005	2004	2003
6	1	1	0
4-5	8	7	1
2-3	123	120	72
1	163	164	194
0	46	49	74

municipalities can reach a good interactivity grade. On this issue, mostly as far as small municipalities are concerned, the joined management of ICT systems has proved important to improve the single local authority organisation but also the quality of services offered.
Amongst the services analysed in Emilia-Romagna 8 are comparable with those which are studied in the *benchmarking* eEurope (by Cap Gemini & Ernst e Young)



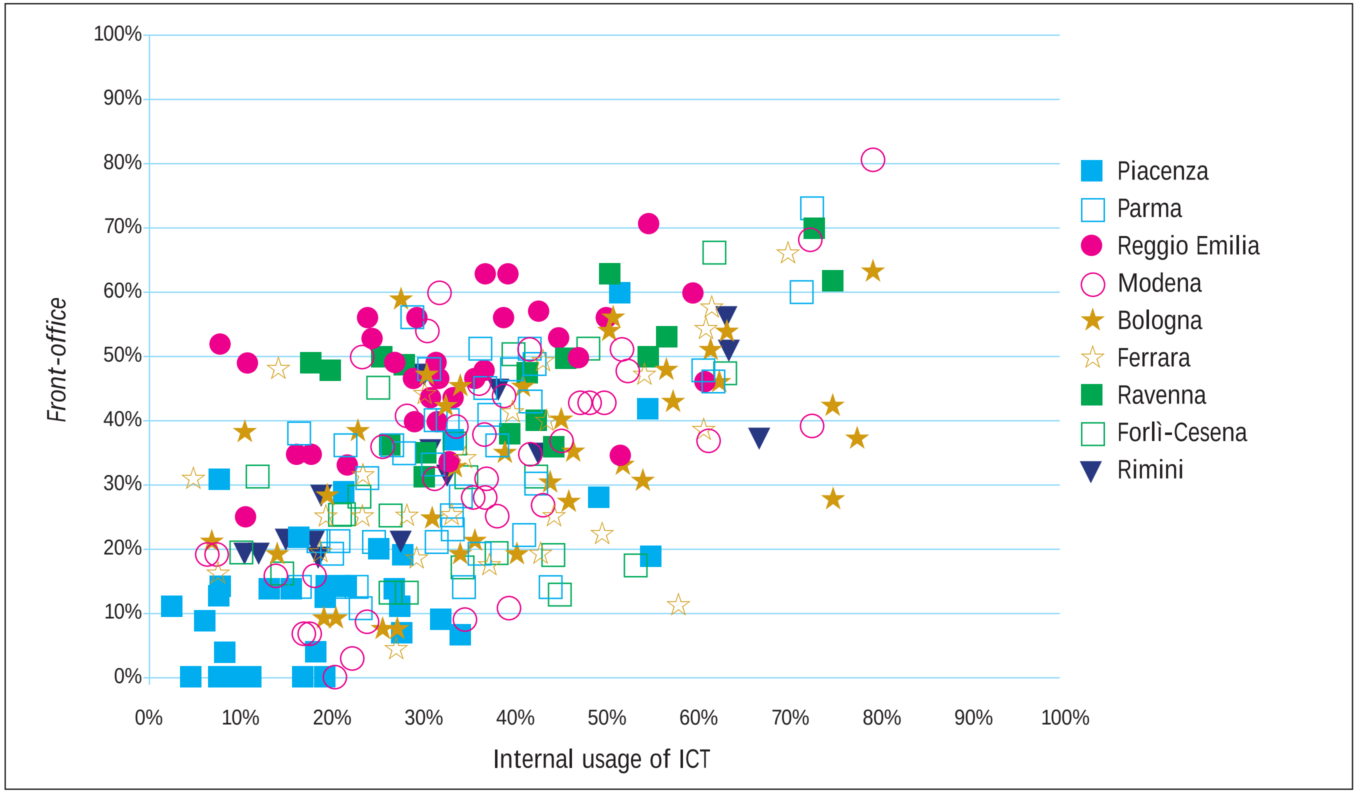
Graph 8 – Average interactivity in comparable services

Once an index on the degree of "informatisation" per single municipality and the interactivity index were measured we moved to check how these two elements are linked: do municipalities with a better degree of usage of ICT internally perform better on the front office side or is there a more varied model? Graphs 9 and 10 have on the abscissa axe the index on usage and on the other axe the interactivity index for services offered on line via web (as a proxy of the front office development). In graph 9 municipalities are grouped by dimension, in graph 10 by provincial area.
A link between the two elements appears to exists even if it is not necessarily a cause/effect relation and both variables are the result of decisions taken inside the single municipality. All in all, some twenty municipalities performed real well in both areas, very few are the ones opting decisively only for one direction.
The dimension is still a decisive factor even if there are 4 municipalities with less of 5000 inhabitants that on two goals reach results comparable to the ones reached by bigger entities. On these "cases" we intend to develop a more in depth analysis



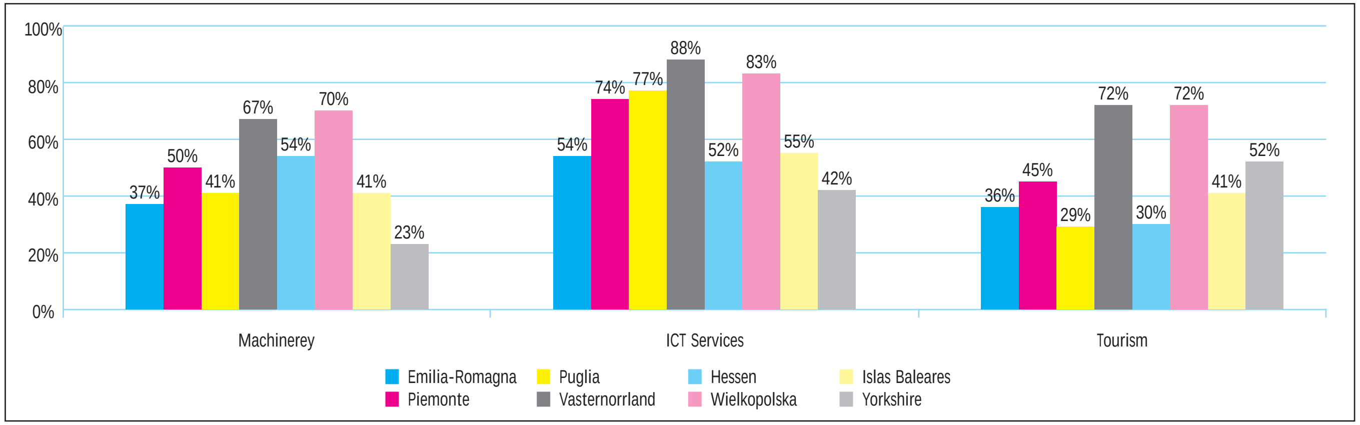
Graph 9 – Internal usage of ICT and interactivity of services per each municipality (by dimension)

It is clear that analysing the performance of a municipality the “size factor” makes a difference, more than the territorial element (the province you belong to).

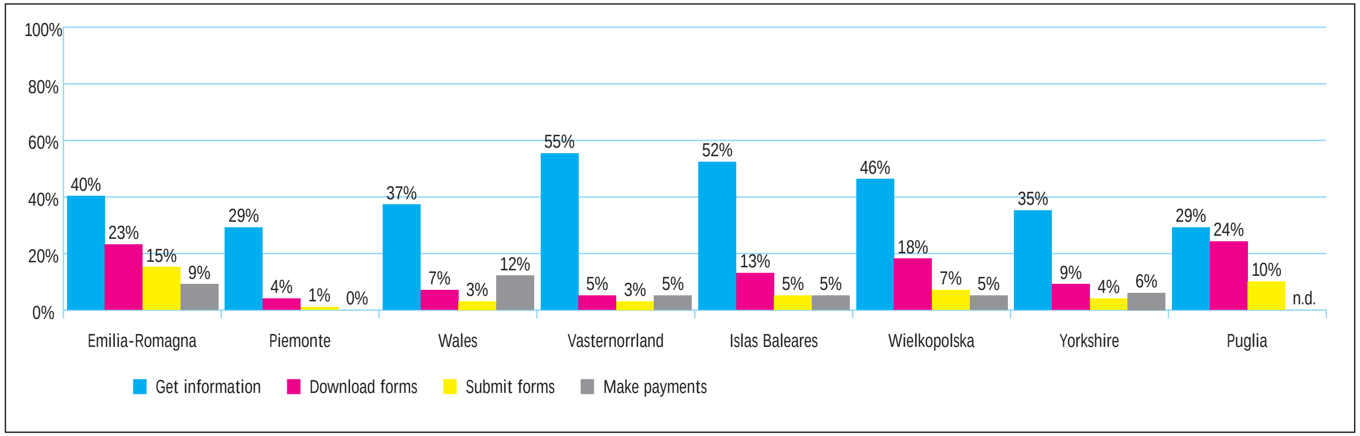


Graph 10 – Internal usage of ICT and interactivity of services per each municipality (by provincial area)

Our survey on e-business and the usage of e-government from enterprises in our region focused on 3 sectors: ICT, tourism and mechanics. 40% of the sample declared to use Internet to communicate with the public administration, mostly for tax declaration (23%), request certifications (22%) and authorisations (16%) whilst companies participating to on line tenders or applying to public funding on line are less than 10%.
Citizens in Emilia-Romagna over 15 using the Internet are 37% of the entire population. Of the, 51% visited the public administration web sites (an increase of 9 points with respect to 2004). 43% of internet users visited a public administration web site in the last 3 months mostly to search for information (40% internet users), download forms (23%), submit forms (15%) and make payments (9%).
Differently from last year the transactive use of e-services is quite good, when compared to other European regions, maybe also because e-services here are more available.
All the same, citizens using on line services are still few: the estimate from the sample is of 48.000 users for local building taxation payment (1,3%), 85.000 for the reservation of books from public libraries (2.3%), 48.000 cit-



Graph 11 – Enterprises that used Internet to communicate to the PA in the last year



Graph 12 – Internet users having visited a public administration web site in the last 3 months

izens for the on line childcare services (1.3%)

The most used on line services pertain to job search, and university enrolment: they are also more stable from the offer side.

The reasons for the non use of the on line services have to do mostly with a lack of interest (67%) and the lack of knowledge of the existence of this opportunity (35%).