

INFORMATION AND COMMUNICATION TECHNOLOGIES IN THE PUBLIC ADMINISTRATION IRIA report 2012 Executive summary



GOBIERNO
DE ESPAÑA

MINISTERIO
DE HACIENDA
Y ADMINISTRACIONES PÚBLICAS

SECRETARÍA DE ESTADO DE
ADMINISTRACIONES PÚBLICAS

DIRECCIÓN GENERAL DE MODERNIZACIÓN
ADMINISTRATIVA, PROCEDIMIENTOS E IMPULSO
DE LA ADMINISTRACIÓN ELECTRÓNICA

TITLE: Information and Communication Technologies in the Public Administration. IRIA report 2012.
Executive summary

TÍTULO: Las Tecnologías de la Información y las Comunicaciones en la Administración Pública. Informe IRIA 2012.
Resumen ejecutivo

This is a publication of the Directorate General for Administrative Modernization, Procedures and Promotion of eGovernment / Dirección General de Modernización Administrativa, Procedimientos e Impulso de la Administración Electrónica (DGMAPIAE)

Digital edition with Adobe Acrobat 5.0

Available online at Portal de Administración Electrónica (PAe):

<http://administracionelectronica.gob.es/>

Published:

© Ministry of Finance and Public Administration
Technical Secretariat-General
Information, Documentation and Publications Unit
Publications Centre

Edita:

© Ministerio de Hacienda y Administraciones Públicas
Secretaría General Técnica
Subdirección General de Información,
Documentación y Publicaciones
Centro de Publicaciones

Publisher's series: administración electrónica

NIPO (Official Publication Identification Number): 630-13-178-0



Contents

INTRODUCTION.....	4
STATE ADMINISTRATION	5
ICT EXPENDITURE.....	5
IT EQUIPMENT	7
ICT STAFF	9
NETWORKS IN THE PUBLIC ADMINISTRATION	9
E-GOVERNMENT	10
LOCAL GOVERNMENTS	11
ICT EXPENDITURE.....	11
IT EQUIPMENT	12
OPEN-SOURCE SOFTWARE	13
ICT STAFF	13
NETWORKS IN LOCAL GOVERNMENTS.....	14
E-GOVERNMENT	14

INTRODUCTION

In compliance with the clauses of Royal Decree 589/2007, of 20 May, the High Council of E-Government should, among other functions, 'act as an Observatory of E-Government, understanding its evolution and situation and suggesting adequate corrective measures whenever necessary.' In order to perform this task, the Council's Standing Committee collects 'information on the technology, human, economic and procurement resources in information technologies' and publishes regular reports on the results of its surveys on the E-Government Portal (PAe, after name in Spanish).

The IRIA Report covers the General Administration and local governments. It is published every two years (in even years) but updated on annual basis for the General Administration (REINA Report, published in the odd years).

The IRIA Report is a thorough study for the General Administration and a sample analysis for local governments. The table below shows the response rate and coverage rate at the local level.

Study's response and coverage rates

2011

Local governments		Number	Sample	Received	Response rate	Coverage rate
Provincial governments, councils and island authorities		52	52	44	85%	85%
T O W N S H I P S	> 500,000 inhabitants	6	6	6	100%	100%
	100,000-500,000 inhabitants	57	57	47	82%	82%
	30,000-100,000 inhabitants	185	185	137	74%	74%
	10,000-30,000 inhabitants	511	45	38	84%	7%
	5,000-10,000 inhabitants	563	48	35	73%	6%
	2000-5,000 inhabitants	1,003	50	42	84%	4%
	1,000-2,000 inhabitants	936	50	34	68%	4%
	500-1,000 inhabitants	1,066	48	37	77%	3%
Total		4,379	541	420	78%	10%

STATE ADMINISTRATION

ICT EXPENDITURE

In 2011, ICT expenditure in the General Administration amounted to €1,681 million, going down by 4% vis-à-vis 2009 and by 7.5% over 2009 (a record high for this indicator). The indicator reflecting the ICT expenditure share in the total budget (chapters 1, 2, 6) was 4.34%, 0.57% more than in 2009 – the highest share in the past few years. This was triggered by a shrinking global budget.

Reviewing the expenditure structure, telecommunications accounted for 22% total expenditure, while IT investment was 78%. Almost 55% expenditure was made in three ministries: the Ministry of Home Affairs, the Ministry of Labour and Immigration, and the Ministry of Economy and Finance.

Out of the whole IT expenditure (€1,304 million), almost 50% corresponded to IT services (application development and maintenance, hardware and software maintenance, consulting services, operation, training, and so on). This was a 7% larger share than in 2009. Expenditure on staff accounted for 32% total budget (+2%). Hardware and software costs represented 11% and 9%, respectively.

In terms of suppliers, IBM continued to be the most important, even expanding its global revenue share by 10% as a result of higher sales of IT services. It was followed by Indra, which kept its second place and its position as the leading provider of IT services, even though its global revenue went down by 16%.

The total investment in **hardware** amounted to €149 million in 2011. 55% of the total budget went to the procurement of devices, 20% was channelled into personal computers and 25% was used to buy multi-user systems.

In the case of **software**, expenditure was highly diversified. 16% corresponded to horizontal market software and 13%, to information management systems. Only 6% went to the operating systems. (As in past editions, quite often operating systems are not separated from hardware, especially in personal computers, so they are not taken into account here.)

The total expenditure in **IT services** in 2011 was similar to that of previous years. Application development and maintenance accounted for 49% total expenditure, while software and hardware support and maintenance hovered at 25%. The outsourcing budget – housing, hosting and user service, data transcription and digitisation – kept its 6% share. Finally, consulting services (organisation, technology, security) only accounted for 4% of the total expenditure in IT services, while training represented just 1%.

Regarding the evolution of **telecommunication services** in the last years, after the sharp rise in 2008, it was stable, with slight ups and downs. Broken down by type of services, there were fixed-line phones (27%), data transmission (29%), mobile phones (7%) and others (36%). It was often quite difficult to break down costs by type of services, so they were usually considered under the service with the highest share.

IT expenditure

2011

In thousands of euros

Ministry	IT expenditure					Telecommunications expenses	Total
	Hardware	Software	IT services	Staff	Others		
Home Affairs	25,178	11,537	58,064	51,412	2,843	172,975	322,009
Labour and Immigration	23,279	16,510	158,449	53,535	5,947	44,097	301,818
Economy and Finance	25,650	33,224	96,920	92,993	4,674	27,111	280,571
Defence	11,223	12,278	39,361	63,156	1,886	26,375	154,278
Justice	6,089	6,369	96,379	8,208	3,265	14,362	134,673
Development	8,165	10,512	33,185	9,288	1,556	25,506	88,211
Industry, Tourism and Trade	18,802	6,238	31,123	17,647	1,685	3,659	79,153
Territorial Policy and Public Administration	4,223	5,225	19,058	17,758	855	17,444	64,562
Environment, Agriculture and Fisheries	3,340	4,661	25,077	15,302	992	8,091	57,464
Science and Innovation	7,907	5,863	20,190	10,869	1,019	6,805	52,652
Foreign Affairs and Cooperation	7,727	3,534	14,725	5,485	780	17,646	49,896
Health, Social Policy and Equality	2,199	2,356	22,124	6,172	800	6,713	40,363
Education	2,086	1,466	9,373	5,065	388	1,949	20,328
Culture	2,016	794	10,659	3,699	404	1,466	19,037
Presidency	1,864	1,335	3,699	5,627	207	2,845	15,577
Total	149,748	121,901	638,384	366,215	27,301	377,043	1,680,592

IT EQUIPMENT

As at 20 December 2012, the total number of equipments installed in the General Administration was 472,747, with an average age of 4.5 years. All equipment ranges had a similar age, from 4.4 years in large systems to 4.7 in medium-size systems.

The Ministry of Defence had the highest number: 23% of the total equipment installed in the General Administration. It was followed by the Ministry of Home Affairs, the Ministry of Labour and Immigration, and the Ministry of Economy and Finance.

In terms of type of systems, 50% large systems were to be found in the Ministry of Labour and Immigration and the Ministry of Economy and Finance. 40% medium-size systems and 24% servers were in the Ministry of Labour and Immigration.

The global number of personal computers was lower than in 2009. 86% were desktop computers, while 11% were laptops and 3%, mobile devices.

38% of the large systems installed as at 1 January 2013 are IBM systems; 22% are Fujitsu and 20% are Sun. As to medium-size systems, 47% of those installed in the General Administration are Sun equipments, Hewlett-Packard going up by 2% and IBM keeping a stable 8% share. The largest number of equipments in 2012 were installed by Hewlett-Packard, which had a 38% share.

As to personal computers, the leading supplier was Hewlett-Packard (42%), with Dell in the second place (15%) with a lower share than in previous years. 64% of the personal computers installed in the General Administration in 2011 were Hewlett-Packard.

With regard to the operating systems installed in 2011, all the large equipments had UNIX-like operating systems. As to medium-size systems, 84% of the new equipment had UNIX-like operating systems. 65% of the servers installed in 2011 had Windows as operating system, Linux accounting for 12%. Finally, almost 95% personal computers had Windows as their operating system (Windows 7, 38%; Windows XP, 31%; Windows Vista, 26%), an amount similar to that of 2009.

Installed IT equipment (evolution)

Number of units

	01/01/2008	01/01/2009	01/01/2010	01/01/2011	12/20/2011
Large systems	94	91	84	80	45
Medium-size systems	1,678	1,678	1,202	1,254	1,027
Servers	18,195	19,653	20,429	21,850	21,663
Personal computers	427,416	456,685	431,453	452,126	450,012
Total	447,383	478,107	453,168	475,310	472,747

Equipment by ministries

12/20/2011

Ministry	Large systems		Medium size systems		Servers		Personal computers		Total	
	Number	%V	Number	%V	Number	%V	Number	%V	Number	%V
Defence	4	9%	50	5%	3,290	15%	106,689	24%	110,033	23%
Home Affairs	7	16%	175	17%	1,360	6%	72,425	16%	73,967	16%
Labour and Immigration	12	27%	416	41%	5,290	24%	65,381	15%	71,099	15%
Economy and Finance	10	22%	132	13%	2,323	11%	60,881	14%	63,346	13%
Development	5	11%	56	5%	1,971	9%	30,549	7%	32,581	7%
Science and Innovation	2	4%	22	2%	1,568	7%	26,586	6%	28,178	6%
Justice	0	0%	3	0%	957	4%	18,108	4%	19,068	4%
Environment, Agriculture and Fisheries	5	11%	38	4%	750	3%	14,350	3%	15,143	3%
Territorial Policy and Public Administration	0	0%	11	1%	814	4%	13,538	3%	14,363	3%
Foreign Affairs and Cooperation	0	0%	8	1%	691	3%	12,554	3%	13,253	3%
Industry, Tourism and Trade	0	0%	4	0%	1,074	5%	8,734	2%	9,812	2%
Health, Social Policy and Equality	0	0%	31	3%	565	3%	7,459	2%	8,055	2%
Culture	0	0%	75	7%	617	3%	4,583	1%	5,275	1%
Education	0	0%			127	1%	4,269	1%	4,396	1%
Presidency	0	0%	6	1%	266	1%	3,906	1%	4,178	1%
Total	45	100%	1,027	100%	21,663	100%	450,012	100%	472,747	100%

%V: Vertical percentage

ICT STAFF

The information about ICT staff and its costs used in this study came from administrative sources. Based on the data contained in the Central Staff Registry (excluding defence and security forces), it is general in nature. The people working in state-owned corporations, particularly relevant in ministries like the Ministry of Development, whose agencies have a large staff, were not taken into account.

The global number of employees doing ICT-related tasks in the General Administration as at 20 December 2012 was 13,789. 92% of them were career civil servants, while the remaining 8% were non-civil-service workers. 23% worked in the Ministry of Economy and Finance, followed by the Ministry of Defence (18%). The staff share for each of the other ministries was less than 15%.

ICT/total staff ratio

12/20/2011

Ministry	ICT staff	Total staff (07/01/2011)	ICT/total staff ratio
Industry, Tourism and Trade	650	6,668	9.75%
Territorial Policy and Public Administration	773	10,193	7.58%
Economy and Finance	3,154	48,281	6.53%
Environment, Agriculture and Fisheries	590	10,436	5.65%
Presidency	202	3,964	5.10%
Health, Social Policy and Equality	241	5,298	4.55%
Labour and Immigration	1,987	47,674	4.17%
Foreign Affairs and Cooperation	227	7,912	2.87%
Culture	140	5,154	2.72%
Science and Innovation	420	17,449	2.41%
Education	201	9,496	2.12%
Defence	2,687	152,993	1.76%
Justice	297	27,043	1.10%
Home Affairs	1,869	183,173	1.02%
Development	351	39,883	0.88%
Total	13,789	575,617	2.40%

NETWORKS IN THE PUBLIC ADMINISTRATION

Analysis of the indicators showing the use of ICTs in the General Administration.

As at 20 December 2011, there were **78 computers every 100 public servants** in the General Administration as a whole, almost the same ratio as that of the previous two-year period. In the case of administrative workers (excluding security forces, teachers and health professionals), the number was 155 computers every 100 public servants. This had to do with the fact that the equipment included computers in workers' offices and training facilities, laptops and mobile devices.

93% personal computers were connected to the **Intranet**, 5% more than in 2009. As to **PCs connected to the Internet**, their number increased considerably, to 87%. In several ministries almost every PC was connected to the internet.

The total number of **public servants who had an e-signature** was 309,734, i.e. 54% of all workers. This number is slightly higher than the total for the previous two-year period.

For the analysis of **teleworking**, only those employees working part- or full-time out of the office and accessing the information systems of the Public Administration were taken into account. In absolute terms, they totalled only 4,110, i.e. less than 1% of the total workforce. Still, there were more of them than in the previous two-year period.

E-GOVERNMENT

As many as 821 websites were registered in the REINA Information System. Such a high number was related to the many websites of consulates and embassies, as well as of the offices and departments of Instituto Cervantes, the High Council of Scientific Research (CSIC) and National Ports.

These were not taken into account when analysing the characteristics of websites of the General Administration. The number of websites analysed was 429. 43% websites were updated on a daily basis, whereas 39% were updated only when there were changes in their contents. 59% were run on their own resources, 14% were outsourced and 28% used mixed models. 31% were secure websites. 69% complied with usability standards, which means they were user-friendly in terms of operation, understanding, use and management. 21% had webpage identity certificates for security and trustworthiness. Finally, 43% of the websites in the Public Administration featured English versions and 35% were translated into the co-official languages in Spain.

LOCAL GOVERNMENTS

ICT EXPENDITURE

The total ICT expenditure for local governments was €859 million, almost 10% less than in 2009. 25% expenditure (a little over €210 million) went to telecommunications; the remaining 75% was IT expenditure. Telecommunication services included voice and data transmission but no communication hardware, which was part of IT expenditure.

As in past editions, stratified expenditure showed that small townships spent a larger share of their ICT budget on telecommunications than large townships or provincial governments. Besides, there was a sharp drop in telecommunication expenses in townships with the lowest number of inhabitants.

The indicator reflecting the ICT expenditure share in the total budget of local governments (chapters 1, 2, 6) was 1.84%, a 0.09% increase over 2009. Broken down by government size, this indicator went up in townships with 30,000 to 50,000 inhabitants and in smaller townships, falling in all the other categories.

The ICT expenditure/population ratio was €14.40/inhabitant on average, 8.5% less than in 2009. In fact, this indicator decreased in all township categories except for townships with 1,000 to 10,000 inhabitants. Moreover, variation between categories flattened.

There was a slight decrease in hardware investment and a sharp fall in software expenses. On the other hand, IT services remained stable and staff expenditure went considerably up.

Regarding the evolution of IT expenditure in the past few years, steady growth until 2007 was followed by a downward trend showing a 14% fall in the 2007-2011 period.

The fall since 2009 could be observed in all township categories, being sharper in smaller townships (-33%), provincial governments (-20%) and townships with 10,000 to 30,000 inhabitants (-19%).

ICT EXPENDITURE

2011

In thousands of euros

Local governments	IT expenditure					Telecommunications expenses	Total	
	Hardware	Software	Staff	IT services	Others			
Provincial governments, councils and island authorities	28,218	10,623	50,189	47,756	2,598	32,551	171,934	
TOWNSHIPS	> 500,000 inhabitants	10,929	15,096	58,016	51,047	2,312	13,934	151.333
	100,000-500,000 inhabitants	11,831	9,611	55,197	54,840	2,288	34,147	167.915
	30,000-100,000 inhabitants	16,323	11,075	42,111	24,895	1,569	37,171	133.144
	10,000-30,000 inhabitants	12,220	6,307	32,404	19,184	1,131	37,846	109.093
	1,000-10,000 inhabitants	10,534	6,735	31,019	14,466	952	49,321	113.028
	500-1,000 inhabitants	686	626	2,005	1,972	99	7,490	12.878
Total	90,741	60,074	270,942	214,159	10,949	212,460	859,325	

IT EQUIPMENT

With regard to the availability of IT equipment by type and township categories, the global number of medium-size systems dropped, whereas the number of servers and personal computers rose slightly. As to large systems, their number remained stable as compared to 2009.

IT equipment

12/20/2011

Local governments	Large systems	Medium size systems	Servers	Personal computers	
Provincial governments, councils and island authorities	6	84	2,821	47,836	
TOWNSHIPS	> 500,000 inhabitants	3	14	1,239	41.306
	100,000-500,000 inhabitants	8	76	2,715	62.949
	30,000-100,000 inhabitants	7	85	3,722	61.607
	10,000-30,000 inhabitants	0	40	2,677	57.122
	1,000-10,000 inhabitants	0	80	3,726	66.095
	500-1,000 inhabitants	0	0	749	7.462
Total	24	380	17,649	344,378	

95% **workplaces** in the three upper categories had **access to broadband**. In townships with 10,000 to 100,000 inhabitants, the percentage was 90%, while for the two lowest categories it was about 50%. (Broadband: speed of at least 1,024KB/sec.)

OPEN-SOURCE SOFTWARE

About 25% multi-user systems used open-source software in both applications and operating systems. The highest percentage in this respect corresponded to provincial governments.

As to personal computers, this percentage went up to 28% for applications (44% in provincial governments) and down to 13% for operating systems.

ICT STAFF

The global number of employees doing ICT-related tasks in local governments, considering civil servants, non-civil-service workers and employees of state-owned corporations went significantly down vis-à-vis 2009. This had to do with the lower number of state-owned corporation employees. However, this was not reflected in staff expenses, as the costs of state-owned corporation employees appeared under IT services rather than staff expenditure.

While figures remained stable for provincial governments and smaller townships, they decreased for all other township categories, particularly for townships with 10,000 to 100,000 inhabitants. The ICT/total staff ratio was 0.31% higher than in 2009.

ICT staff

12/20/2011

Local governments		ICT staff	
		Number	%
Provincial governments, councils and island authorities		1,772	22%
T O W N S H I P S	> 500,000 inhabitants	1,112	14%
	100,000-500,000 inhabitants	1,471	19%
	30,000-100,000 inhabitants	1,091	14%
	10,000-30,000 inhabitants	1,063	13%
	1,000-10,000 inhabitants	1,275	16%
	500-1,000 inhabitants	144	2%
Total		7,928	100%

The global indicator of **personal computers every 100 public servants** rose to 68. In this regard, there were significant rises in all township categories with less than 100,000 inhabitants, while the increase was less considerable in the upper categories.

The evolution of this indicator in the past few years shows steady growth (except for stagnation in the 2007-2009 period).

NETWORKS IN LOCAL GOVERNMENTS

At the level of local government, 90% **personal computers** were **connected to the Internet** – 4% more than in 2009. The samples for the lower categories, however, showed a slight decrease, vis-à-vis the positive evolution of the other categories. As for **personal computers connected to the Intranet**, their number was 1% higher than in 2009. The lower the township category, however, the lower the number of personal computers with Intranet access.

Likewise, 62% **civil servants** had **access to the Internet**. This was 9% more than in 2009, with positive variations in all categories. As to the **number of civil servants with access to the intranet**, they were 51%, 6% more than in 2009, again with positive variations in all categories.

71,113 **employees** had an **e-signature**. They accounted for 14% staff (+6%). Their number grew in all categories, with a sharper increase in the upper levels.

Finally, only 0.64% **civil servants** were reported to use **teleworking**. The percentage was very low both for categories taken as a whole and for individual levels.

E-GOVERNMENT

Already in 2009, 100% townships with more than 10,000 inhabitants had their own **web portals**. The upward trend continued, with average percentages of 89% for small townships (1,000-10,000 inhabitants) and 71% for even smaller entities (500-1,000 inhabitants).

More than 50% governments were reported to offer **administrative procedures** that could be **fully processed online**. This meant significant progress over 2009, when there were 34% of them. In particular, 100% large townships offer census registration online. Other services offered are payments of property tax, road tax and building permits. The smaller the township, the lower degree of implementation of these services.

Finally, the number of **centres with public Internet access every 10,000 inhabitants** was 2.54, while the number of Internet access points every 10,000 inhabitants was 11.98.