



TÍTULO: Information and Communication Technologies in the State Administration. REINA report 2018. Executive summary

Coordination and content development: General Secretariat of Digital Administration.  
General Secretariat of Digital Administration. (SGAD)

Novembre 2018

Available online at Portal de Administración Electrónica (PAe):

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

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**Edita:**

© Ministry of Territorial Politic and Public Function  
Tecnical Secretariat-General  
Resources, Publications and Documentation Unit

Publisher's series: administración electrónica

NIPO: 169-18-114-7



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## INTRODUCTION

Royal Decree 806/2014, of 26 September, introduced amendments and established the ICT Strategy Committee. Among the Committee's functions is 'acting as an Observatory of E-Government and Digital Transformation. In order to perform this task, the ICT Strategy 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).

In compliance with this, we are introducing a new REINA Report, analysing the most representative indicators of the situation and use of information and communication technologies and systems in State Administration as at 1 January 2017.

The report covers the following:

- Central, territorial and foreign organisations in the General Administration.
- Self-governing bodies reporting to ministry departments.
- Social Security common services and management agencies.
- State agencies.
- State-owned corporations and other public bodies: Administrator of Railway Infrastructures (ADIF), Spanish Airports and Air Navigation (AENA), Spanish Data Protection Agency, National Tax Agency, Centre for Industrial and Technology Development (CDTI), National Stock Exchange Commission (CNMV), Nuclear Security Council, Insurance Compensation Consortium, Spanish Mint, Instituto Cervantes, El Prado Museum, Reina Sofía Museum, National Ports and Port Authority, State-owned Industrial Ownership Corporation (SEPI).

The information about Social Security common services and management agencies, State agencies, state-owned business organisations and other bodies is grouped under the ministry these agencies and organisations report or are related to, according to the organisational structure in force as at 1 January 2018.

The information about Security Forces and law enforcement bodies, Armed Forces and the Judiciary is grouped under Home Affairs, Defence and Justice, respectively.

Therefore, this report shows the expenditure and investment made by the Departments of the State Administration, in information and communication technologies, the budget allocated by them in this area and the personnel with which each Department has to carry out its activities.

## ICT EXPENDITURE

The data collection is made from the expenses in goods and services in Information and Communication Technologies. These data are loaded by the Departments in the REINA application, which is basically based on the obligations derived from the corresponding payment proposals

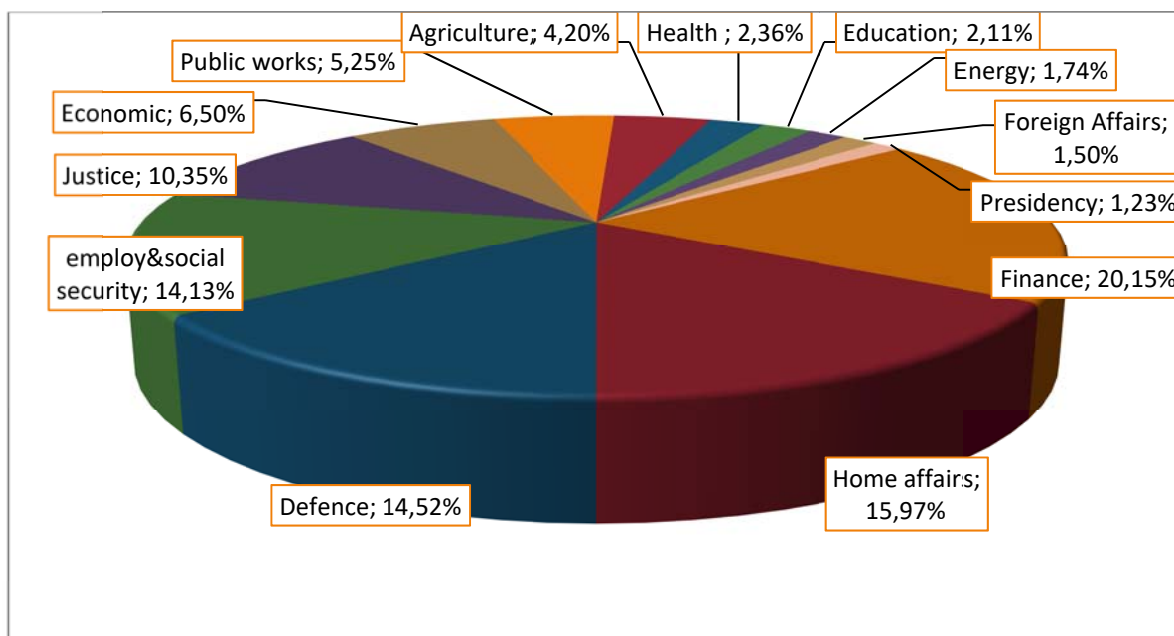
In 2017, ICT expenditure in the State Administration amounted to €1,439 million, 9.5% less than 2016. It breaks, thus, the upward trend of the last four years, graph 3.1, and is below 2015.

The telecommunications budget went down by 4.8% over 2016, with a total share of about 17.85%. As to the IT expenditure, it decreased by 10.6%, with a total share of about 82.15%. Almost 65% expenditure corresponded to three ministries: the Ministry of Finance and Public Administration, Ministry of Home Affairs, the Ministry of Defence and Ministry Employment and Social Security.

The Ministry of the Interior has the highest expenditure in telecommunications with 45.3% of the total, while the largest IT spending falls on the Ministry of Finance and Public Function, with 19.6%.

The indicator reflecting the ICT expenditure share in the total budget (chapters 1, 2, 6) was 3.8%, almost 1.0% less than in 2016

ICT expenses- Distribution by Ministries  
Graph 2017 (%)



Graph 1 represents the volume of ICT spending in each Ministry, with respect to the total.

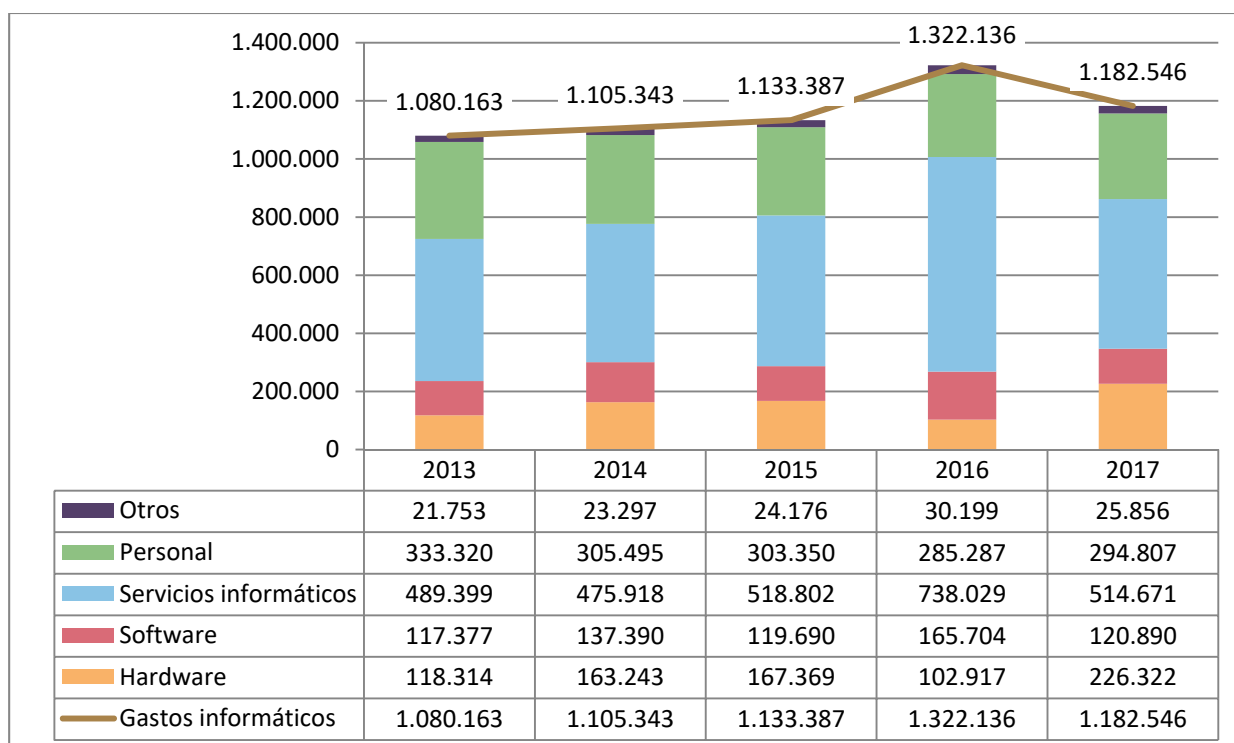
The distribution of ICT expenditure by procurement methods, in telecommunications, the open procedure prevails, which has increased by 29 points with respect to 2016, while contracts negotiated by 24 points have decreased. On the other hand, in computer science there are more contracts for Catalog

of the Central Supply Service. The other forms of contracting was similar to the one reported the previous year.

IT expenditure was 1,182 million euros, but the distribution changed respect to the previous year, with higher allocation for hardware (8% vis-à-vis 19%) and IT services was decreased by 30.3% compared to 2016 (55% vis-à-vis 44%). Note that the hardware item includes both investment expenses and equipment rental expenses.

The personnel expenses item increases to a participation (22% vis-à-vis 25%). Finally, the quota corresponding to consumables and miscellaneous expenses was similar to the one reported the previous year.

**IT Costs / Total Budget (Evolution)**



**Software** costs totalled almost €120 million (procurement of systems and application packages, without custom developments) thinned over 27% (13% vis-à-vis 10%).

Broken down by ministries/departments, Finance and Public Administration, and Employment and Social Security, had the largest shares in hardware (32.4% and 14.7%, respectively). Likewise, the Ministry of Employment and Social Security accounted for 19% of the expenditure in IT services. Finally, Finance and Public Administration, and Home Affairs were the ministries with the largest shares in ICT staff (24.4% and 18.2%, respectively).

The total **hardware** investment totalled almost €221 million (the cost of renting supplies is not included), double the investment compared to the previous year (99 million euros). 68.4% of the total budget went to the procurement of devices (storage systems, communications and network equipment, printing systems, digitalization and security hardware among others). 16.6% was channelled into personal computers and 14.9% was used to buy multi-user systems.

The Ministry of Finance and Public Function has made the largest volume of investment both in personal computers (24.8% of the total), and in multi-user systems, assuming 20.2% in this item.

The main form of contracting in this item continues being the Catalog of the Central Supply Service, which concentrates 78.4% of the total. Hewlett-Packard continued to be the leading hardware supplier, with 33.6% share and FUJITSU is second with 5.7%.

Information management systems accounted for 23.7% of the total investment in software, while 13.8% goes to the acquisition of system utilities, 6.7% to development tools and 4.5% to security software. Only 2.4% went to horizontal applications.

IBM is the leader of the suppliers in software although it diminishes its percentage to 17.8% from 33%. The rest of the suppliers do not reach the 10% quota.

The total expenditure in IT services in 2017 was almost €515 million, 30% less than in 2016. The expenses in development reach 28.7% of the total. The outsourcing expenditure (includes housing, hosting, user services, data transcription and digitization) shared 6.8%. The consultancy service (organization, technology and security) represents 6.0% and the training expense only reaches 1.8%. Ministry of Defense is the one that spends the most in ICT consultancy and training.

INDRA (GRUPO) ICT was the most important supplier of IT services (6.3%) in a highly fragmented market. IBM stands out in support and Fujitsu in security.

Regarding **telecommunication services**, the total expenditure was €257 million (-13%). The highest expense was due to the consumption of data transmission services, some 66 million euros, which is 25.8% of the total, followed by fixed telephony, with 12.1% and mobile telephony with 4, 5%

The largest supplier of telecommunication services was Grupo Telefónica, whose share, 87.1%. It was followed by BT España and other operators, whose share was 5%. The rest of the suppliers had shares of less than 1%.

## IT expenditure

01/01/2018

Ministry	IT expenditure		Telecommunications		Total	
	€	%V.	€	%V.	€	%V.
	Hacienda y Función Pública	232.189	19,6%	57.841	22,5%	290.030
Interior	113.382	9,6%	116.457	45,3%	229.839	16,0%
Defensa	166.805	14,1%	42.254	16,4%	209.060	14,5%
Empleo y Seguridad Social	189.847	16,1%	13.517	5,3%	203.364	14,1%
Justicia	146.136	12,4%	2.897	1,1%	149.033	10,4%
Economía, Industria y Competitividad	90.122	7,6%	3.381	1,3%	93.503	6,5%
Fomento	63.264	5,3%	12.350	4,8%	75.615	5,3%
Agricultura y Pesca, Alimentación y Medio Ambiente	57.235	4,8%	3.280	1,3%	60.514	4,2%
Sanidad, Servicios Sociales e Igualdad	31.720	2,7%	2.178	0,8%	33.898	2,4%
Educación, Cultura y Deporte	30.043	2,5%	259	0,1%	30.302	2,1%
Energía, Turismo y Agenda Digital	24.243	2,1%	765	0,3%	25.008	1,7%
Asuntos Exteriores y Cooperación	21.137	1,8%	411	0,2%	21.548	1,5%
Presidencia y para las Administraciones Territoriales	16.423	1,4%	1.282	0,5%	17.705	1,2%
<b>Total</b>	<b>1.182.546</b>	<b>100%</b>	<b>256.873</b>	<b>100%</b>	<b>1.439.420</b>	<b>100%</b>



## IT EQUIPMENT

As at 1 January 2018, the total number of equipments installed in the State Administration was 568,098, distributed in 95.33% in personal computers, 4.66% in servers and 0.01% in mainframes.

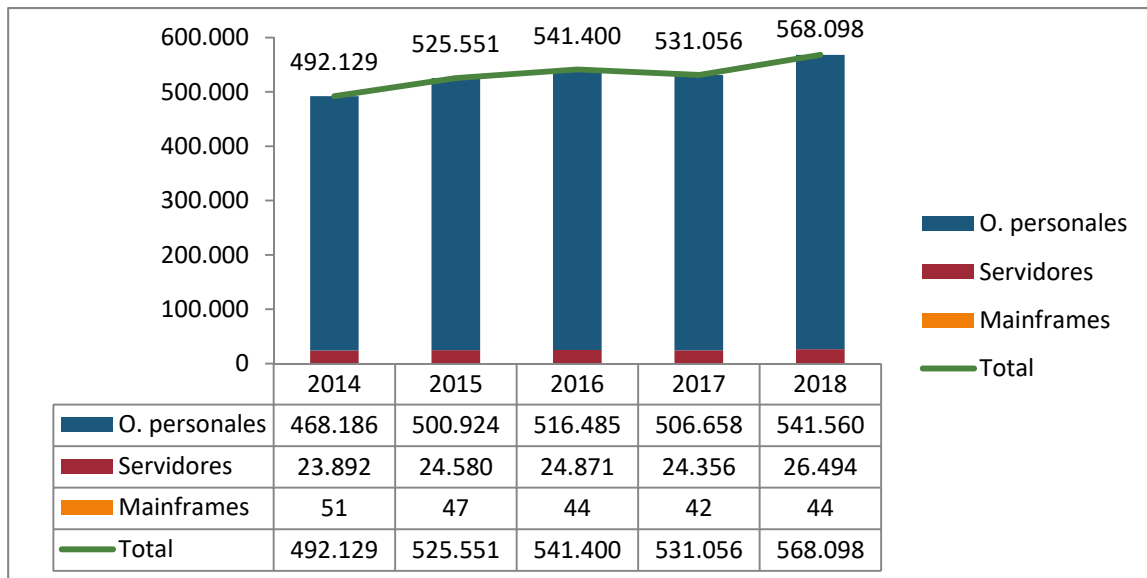
### IT equipment

01/01/2018

	Number (systems)	Age (years)
Mainframes	44	6.9
Servers	26,494	7.9
Personal computers	541,560	6.1
<b>Total</b>	<b>568,098</b>	

Graph 3 shows the evolution of the equipments installed in the State Administration. We highlight the following points: the number of Mainframes is maintained and the number of servers increases. While the park of personal computers rises by 6.9%.

**Installed park (Evolution)**  
**Graph: Number of equipments**



IBM keeps 39.6% of the total base corresponds to mainframes, SUN keeps 18.2% and 15.9% Fujitsu. Hewlett-Packard keeps 40.3% of the servers installed in the State Administration which is also the supplier with the largest installed base of personal computers (56.7%). In laptops, Toshiba continues to lead with a 31% share.

## SOFTWARE

66.7% new mainframes ran on Z/OS as their operating system and 16.7% ran on LINUX. 32.0% of servers installed in 2017 are virtualized. Finally, almost 89% personal computers installed in 2017 had Windows as their operating system, the most common versions being Windows 10 (80%), and Windows 7 (8%). In the mobile section the park installed in January 2018 is mostly Android.

## ICT STAFF

The global number of employees doing ICT-related tasks in the State Administration was 10,322. 95% of them were career civil servants, while the remaining 5% were non-civil-service workers.

Ministries of Home Affairs, Defence and of Finance and Public Function totalize 62.5% workers with a 65% of civil servants. Ministries of Economy, Industry and Competitiveness, Employment and Social Security, Defense and Education, Culture and Sports totalize 56% of non-civil-service workers.

Next table shows the ratio of ICT personnel to total personnel. Overall, it is lead on 2,03%

### ICT staff vs total staff

01/01/2018

Ministry	ICT staff	Total staff(*)	ICT/total staff ratio
Finance and Public Administration	2.132	37.221	5,73%
Industry, Energy and Tourism	141	2.580	5,47%
Employment and Social Security	1.489	39.925	3,73%
Presidency	352	9.523	3,70%
Economy and Competitiveness	310	9.256	3,35%
Agriculture, Food and Environment	662	22.973	2,88%
Home Affairs	151	7.438	2,03%
Defence	123	6.424	1,91%
Education, Culture and Sports	2.160	136.007	1,59%
Foreign Affairs and Cooperation	216	13.791	1,57%
Development	2.164	169.848	1,27%
Health, Social Services and Equality	218	26.974	0,81%
Justice	204	26.112	0,78%
<b>Total</b>	<b>10.322</b>	<b>508.072</b>	<b>2,03%</b>

(1) Staff not working with general network not included.

(2) The number of employees corresponds to January 2018. it is excluded staff that corresponding to the Public Business Entities and Other Organizations that have not participated in this study.

Finally, the evolution of ICT staff in the last six years is shown.

**Evolution of ICT Personnel**

