# **Digital performance of Spain**

### **Broadband markets**

At the end of 2013, fixed broadband covered 97% of homes in Spain (97% in the EU). In rural areas, fixed broadband covered 94% of homes. At the same time, Next Generation Access capable of providing at least 30 Mbps download was available to 65% of homes (62% in the EU).

69% of the households had a broadband subscription at the end of 2013, lower than the EU average (76%) and 2 percentage points higher than at the end of 2012. The share of high speed connections (providing at least 30 Mbps) was lower than the EU average (15% compared to 21% in the EU). Ultrafast connections (providing at least 100 Mbps) accounted for 6% of all subscriptions (5% in the EU).

On the mobile side, 4th generation (LTE) was available to 47% of population (compared to 0% in 2012). The take-up rate (subscription per 100 people) of mobile broadband was 73%, above the EU average of 62%.

Indicator (including breakdown and unit)		Spain value		
		2013	2013	
Fixed broadband coverage - Total (in % of total population)	98 <sup>1</sup>	97	97	
Rural fixed broadband coverage – Total (in % of rural population)	90 <sup>1</sup>	94	90	
NGA broadband coverage - Total (in % of households)	64 <sup>1</sup>	65	62	
Households with a broadband subscription - All households (in % of households)	67	69	76	
Share of subscriptions with at least 30Mbps - (% of subscriptions)	10	15	21	
Share of subscriptions with at least 100Mbps - (% of subscriptions)	2	6	5	
4G Mobile broadband coverage - (as a % of total population)	0	47	59	
Mobile broadband take-up - Total (in Subscriptions per 100 people)	58	73	62	

## Internet usage

In 2013, 66% of the Spanish population reported using the internet at least weekly (regular users), below the EU average of 72%. Spain exhibited lower rates of daily use of the internet (frequent users), with 54% of the population reporting going online every day, compared to an EU average of 62%. In 2013, 24% of the population had still never used the internet; lower than in 2012 and higher than the EU average of 20%.

Indicator (including breakdown and unit)		Spain value		
mulcator (including breakdown and unit)	2012	2013	2013	
Internet users going on-line weekly (Regular internet users - All individuals, in % of individuals)	65	66	72	
Internet users on a daily basis (Frequent internet users - All individuals, in % of individuals)	51	54	62	
Individuals who have never used the internet - All individuals (in % of individuals)	27	24	20	

 $<sup>^{1}</sup>$  2012 and 2013 figures are not fully comparable. 2012 coverage data are subject to revision.

# **Digital skills**

Results obtained from a newly developed Digital Skills Indicator<sup>2</sup> show that, in 2012, 46% of the Spanish population had low or no digital skills, compared to 47% for the EU average. Disadvantaged people (i.e. individuals who are aged 55-74, low educated and/or unemployed, retired or inactive) in Spain are as highly digitally skilled as the EU average. Within the workforce, skills are higher; 37% of the workforce has low or no digital skills. On average in the EU, the figure is 39%. At 36% in 2013, figures for households without internet access reporting lack of skills as a reason for no access are lower than the EU average of 37%. According to a broad definition, the share of ICT specialists in total employment in Spain was 2.5% in 2012; about the same as the EU average of 2.8%.<sup>3</sup>

Indicator (including breakdown and unit)	Spain value		EU28 value	
indicator (including preakdown and unit)		2013	2012	2013
Individuals with low or no digital skills (in % of individuals)	46	-	47	-
Disadvantaged people with low or no digital skills (in % of disadvantaged people)	64	-	64	-
Labour force with low or no digital skills (in % of labour force)	37	-	39	-
Households reporting lack of skills as a reason for having no Internet access (in $\%$ of households without internet access)	31	36	35	37
<b>Persons Employed with ICT Specialist Skills (broad definition)</b> - Total (in % of persons employed)	2.5	-	2.8	-

# **eCommerce**

In 2013, 32% of Spanish people had purchased goods or services online within the previous 12 months, which means that take-up of e-Commerce was well below the EU average of 47%. Spain exhibited worse rates of cross-border e-Commerce, with 11% of the population having bought online from other EU countries in the previous 12 months, compared to an EU average of 12%. In 2013, 30% of large enterprises were selling on-line, fewer than in 2012 and fewer than the EU average of 35%. SMEs were significantly less active with only 12% of SMEs selling online, fewer than the EU average of 14%.

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<sup>&</sup>lt;sup>2</sup> The Digital Skills Indicator is a composite indicator of digital skills based on the IPTS Digital Competence Framework and using data collected through the Eurostat survey on Internet use in households and by individuals. The indicator has been developed as part of the work towards action 62 of the Digital Agenda to propose EU-wide indicators of digital competence. http://ec.europa.eu/information\_society/newsroom/cf/dae/document.cfm?action=display&doc\_id=5406

<sup>&</sup>lt;sup>3</sup> Broad definition taken from JRC (IPTS) "The evolution of EU ICT employment 2000-2012" Technical report (forthcoming): ISCO codes 25 and 35, plus ICT graduates in certain adjacent ISCO codes.

Indicator (including breakdown and unit)	Spain	EU28 value	
indicator (including breakdown and unit)	2012	2013	2013
Ordering goods or services online - All individuals (in % of individuals)	31	32	47
Cross-border e-Commerce - All individuals (in % of individuals)		11	12
Enterprises selling online - Large enterprises (in % of enterprises)	31	30	35
Enterprises selling online - SMEs (10-249 persons employed) (in % of enterprises)	13	12	14

#### eGovernment

In 2013, 44% of Spanish people made use of the internet for eGovernment services, a decrease from 45% in 2012 and above the EU average of 41%. 23% of citizens sent filled-in forms, the same as the 23% in 2012, and above the EU average. On the supply-side, the newly introduced User-centric eGovernment Indicator<sup>4</sup> was at 87 in 2012-2013, much above the EU average of 70, and the Transparent eGovernment Indicator<sup>5</sup> was at 66, much above the EU average of 49.

Indicator (including breakdown and unit)		Spain value		
		2013	2013	
Citizens' use of eGovernment services, last 12 months - All individuals (in % of individuals)		44	41	
Citizens sending filled forms to eGov services, last 12 months - All individuals (in % of individuals)		23	21	
User-centric eGovernment Indicator - ( 0-100 range)	87		70 <sup>6</sup>	
Transparent eGovernment Indicator - (0-100 range)	66		49 <sup>7</sup>	

<sup>&</sup>lt;sup>4</sup> The User-Centric eGovernment Indicator is a composite indicator measuring the availability of eGovernment services, their connectedness and their user-friendliness for seven areas of government services through a user journey approach using the concept of life event (well defined user need).

<sup>&</sup>lt;sup>5</sup> The Transparent eGovernment Indicator is a composite indicator measuring the online transparency of governments on the different aspects of online service delivery, treatment of citizens' personal data and activities of the public administrations. The indicator has been measured over seven areas of government services through a user journey approach using the concept of life event (well defined user need).

<sup>&</sup>lt;sup>6</sup> The indicator is measured over a two-year period, figures refer to 2012-2013

<sup>&</sup>lt;sup>7</sup> See note above

#### eHealth

In 2013, 54% of Spanish hospitals had a broadband connection >50Mbps, well above the EU average of 36%. 71% of hospitals exchange clinical information with external healthcare providers or professionals, which is well above the EU average of 55%. For General Practitioners, the rate is 64%, much higher than the EU average of 28%. 21% of hospitals provide patients access to the totality or part of their medical records, which is much higher than the EU average (9%).

Indicator (including breakdown and unit) for acute <sup>8</sup> hospitals	Spain	EU28+2 <sup>9</sup> value	
	2010	2013	2013
Broadband connection > 50Mbps (in % of hospitals)	54	54	36
Exchange of clinical care information with external health care providers (in % of hospitals)	72*	71	55
Online access (partial or total) to electronic records by patients (in % of hospitals)	8	21	9
Indicator (including breakdown and unit) for General Practitioners (GPs)	2007	2013	EU28+3 <sup>10</sup> value
Use of a computer during consultation with the patient (in % of GPs)	66	99	97
Exchange of medical patient data with other health care providers or professionals (in $\%$ of $\mbox{\em GPs)}$	13	64	28
Electronic storage of individual medical patient data - (in % of GPs)	81	94	83

# Research and Development (R&D) in ICT

In 2010, Business Expenditure in R&D (BERD) by the ICT sector in Spain amounts to €1042mn, about the same as the year before. BERD by the ICT sector represents 14% of total BERD, just below the EU average of 17%, indicating relatively less of a research focus on ICT. Total BERD is 0.7% of GDP, below the EU average of 1.2%. In 2012, Public funding in R&D (GBAORD) in the ICT sector amounts to €597mn representing 9.6% to total GBAORD, above the EU average of 6.6%.

Indicator (including breakdown and unit)	Spain value EU27/28 value			value				
	2009	2010	2011	2012	2009	2010	2011	2012
ICT BERD – Million €	1097	1042	-	-	25368	25993	-	-
ICT BERD - % of Total BERD	14	14	-	-	17	17	-	-
Total BERD - % GDP	0.7	0.7	-	-	1.2	1.2	-	-
ICT GBAORD – Million €	689	672	598	597	5958	6044	6118	5962
ICT GBAORD - % of Total GBAORD	7.9	8.1	8.3	9.6	6.5	6.5	6.6	6.6

<sup>10</sup> Iceland, Norway and Turkey

<sup>&</sup>lt;sup>8</sup> Hospitals intended for short-term medical or surgical treatment and care

<sup>&</sup>lt;sup>9</sup> Iceland and Norway

<sup>\*</sup>Figures are not fully comparable across years because of different sampling methodologies and questionnaires

# Participation to the EU-funded Seventh Framework Programme for Research (FP7) in ICT

Over the period 2007-2013<sup>11</sup> the EU co-funded projects in Spain in the ICT domain (FP7 Cooperation ICT Theme and e-infrastructures within Capacities) for a cumulated total of €633 million. Overall 622 Spanish organisations participated in 1,080 projects (so represented in 45% of all projects) and coordinated 281 projects.

In 2013 participation from higher education/research organizations was at 62% of funding, below the EU average (66%). Industrial participation was at 32%, higher than the EU average (29%), with 18% of total funding going to large enterprises and 14% to SMEs.

Participation (in terms of share of total funding) is higher in the following Strategic Objectives: Future Networks and Internet, FET and Software, Services and internet connected objects.

Indicator	Spain value		EU28 value
mulcator	2012	2013	2013
Participations	323	393	3,493
Total EU funding to FP7 ICT projects – All organisations (Million €)	103.01	125.11	1,350
N. of organisations	191	213	1,780
New entries – All organisations (% of organisations)	55%	47%	41%
N. of SME participations - Total	56	60	679
N. of SME participations - % of total participations		15%	19%
Funding by organisation type - % of EU fundi	ng		
SMEs	16%	14%	16%
Higher education/research organisations (HES/REC)	63%	62%	66%
Large enterprises	19%	18%	13%
Other organizations	3%	6%	4%

 $<sup>^{\</sup>rm 11}$  Data for the period 2007 – 2013 (it considers grants signed up to December 2013).

# Top 50 Spanish organisations by funding, 2007 - 2013 (cumulated figures)

#	Organisation	Туре	EU funding (€)	% of ES total cumulated EU funding
1	TELEFONICA INVESTIGACION Y DESARROLLO SA	LARGE	46,174,548	7.3%
2	ATOS SPAIN SA	LARGE	37,999,089	6.0%
3	UNIVERSIDAD POLITECNICA DE MADRID	HES/REC	36,467,885	5.8%
4	BARCELONA SUPERCOMPUTING CENTER - CENTRO NACIONAL DE SUPERCOMPUTACION	HES/REC	28,905,553	4.6%
5	UNIVERSITAT POLITECNICA DE CATALUNYA	HES/REC	24,939,945	3.9%
6	UNIVERSITAT POMPEU FABRA	HES/REC	19,219,604	3.0%
7	FUNDACION TECNALIA RESEARCH & INNOVATION	HES/REC	18,915,624	3.0%
8	AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	HES/REC	18,679,976	3.0%
9	UNIVERSITAT POLITECNICA DE VALENCIA	HES/REC	17,407,752	2.7%
10	UNIVERSIDAD CARLOS III DE MADRID	HES/REC	8,644,437	1.4%
11	FUNDACIO INSTITUT DE CIENCIES FOTONIQUES	HES/REC	8,341,447	1.3%
12	FUNDACION TEKNIKER	HES/REC	6,861,950	1.1%
13	IKERLAN S.COOP.	HES/REC		1.1%
	FUNDACIO PRIVADA BARCELONA DIGITAL CENTRE TECNOLOGIC	HES/REC	6,668,433	1.0%
14	FUNDACIO BARCELONA MEDIA	HES/REC	6,220,011	1.0%
16	UNIVERSIDAD DE CANTABRIA	HES/REC	6,120,220	1.0%
17	UNIVERSITAT DE BARCELONA	HES/REC	6,053,177	0.9%
18	UNIVERSIDAD DEL PAIS VASCO EHU UPV	HES/REC	5,808,719 5,585,586	0.9%
19	CENTRE TECNOLOGIC DE TELECOMUNICACIONS DE CATALUNYA	HES/REC	5,570,804	0.9%
20	UNIVERSIDAD COMPLUTENSE DE MADRID	HES/REC	5,329,342	0.8%
	UNIVERSITAT ROVIRA I VIRGILI	HES/REC		0.8%
21	UNIVERSITAT AUTONOMA DE BARCELONA	HES/REC	5,316,588	0.8%
22	FUNDACIO PRIVADA I2CAT, INTERNET I INNOVACIO DIGITAL A CATALUNYA	HES/REC	5,290,508	0.8%
	INMARK ESTUDIOS Y ESTRATEGIAS SA	LARGE	5,247,425	0.5%
24	INMARK ESTUDIOS Y ESTRATEGIAS S.A.	SME	3,384,678	0.3%
	UNIVERSIDAD DE MALAGA	HES/REC	1,583,922	0.8%
26	UNIVERSITAT DE VALENCIA	HES/REC	4,857,753	0.7%
27	UNIVERSIDAD DE ZARAGOZA	HES/REC	4,554,763	0.7%
28	ETRA INVESTIGACION Y DESARROLLO SA	SME	4,401,749	0.6%
29	UNIVERSIDAD REY JUAN CARLOS	HES/REC	4,046,999	0.6%
30	FUNDACION CENTRO DE TECNOLOGIAS DE INTERACCION VISUAL Y	HES/REC	3,530,990	0.6%
31	COMUNICACIONES VICOMTECH INTELLIGENT SOFTWARE COMPONENTS S.A.	LARGE	3,502,395	0.5%
32			3,446,390	

]	STARLAB BARCELONA SL	LARGE	1	0.5%
33			3,154,174	
	TTI NORTE, S.L.	LARGE		0.5%
34			3,119,702	
	YAHOO IBERIA SL	LARGE		0.5%
35			3,080,129	
2.5	UNIVERSIDAD DE SEVILLA	HES/REC	2 222 522	0.5%
36	CENTRE INTERNACIONAL DE METODES MUMERIOS EN ENCINIVERIA	LIEC/DEC	3,029,580	0.50/
37	CENTRE INTERNACIONAL DE METODES NUMERICS EN ENGINYERIA	HES/REC	2,984,761	0.5%
37	CONSORCI INSTITUT D'INVESTIGACIONS BIOMEDIQUES AUGUST PI I SUNYER	HES/REC	2,984,701	0.5%
38	CONSORCI INSTITUT D INVESTIGACIONS BIOMEDIQUES AUGUST FITSUNTEN	TILS/INCC	2,906,251	0.576
30	FUNDACIO PRIVADA INSTITUT CATALA DE NANOTECNOLOGIA	HES/REC	2,300,231	0.4%
39	TONDACIO I NIVADA INSTITUT CATALA DE NANOTECNOLOGIA	TIES/ NEC	2,830,202	0.470
	UNIVERSIDAD DE MURCIA	HES/REC	_,	0.4%
40			2,817,313	
	UNIVERSITAT JAUME I DE CASTELLON	HES/REC		0.4%
41			2,809,834	
	CENTRO DE ESTUDIOS E INVESTIGACIONES TECNICAS	HES/REC		0.4%
42			2,788,582	
	ACCIONA INFRAESTRUCTURAS S.A.	LARGE		0.4%
43			2,750,838	
	MEDTRONIC IBERICA SA	LARGE		0.4%
44	THE ACCOUNT OF THE PROPERTY OF	1150/050	2,748,387	0.40/
45	FUNDACION PARA LA PROMOCION DE LA INNOVACION, INVESTIGACION Y	HES/REC	2 660 606	0.4%
45	DESARROLLO TECNOLOGICO EN LA INDUSTRIA DE AUTOMOCION DE GALICIA ENTIDAD PUBLICA EMPRESARIAL RED.ES	HES/REC	2,660,696	0.4%
46	ENTIDAD POBLICA EIVIPRESARIAL RED.ES	HES/REC	2,609,111	0.4%
40	ASOCIACION DE EMPRESAS TECNOLOGICAS INNOVALIA	HES/REC	2,009,111	0.4%
47	ASSOCIACION DE LIVII NESAS TECNOLOGICAS INNOVALIA	TIES/INCC	2,592,913	0.470
.,	UNIVERSIDAD AUTONOMA DE MADRID	HES/REC	2,002,020	0.4%
48			2,525,930	0,
	FUNDACION ANDALUZA PARA EL DESARROLLO AEROESPACIAL	HES/REC		0.4%
49			2,435,916	
	AGENCIA D'INFORMACIO AVALUACIO I QUALITAT EN SALUT	NIL		0.4%
50			2,434,487	
,	Total			66.2%
			419,357,068	
	ES total cumulated EU Funding		633,091,515	