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## JRC TECHNICAL REPORTS

# PREDICT 2016 Country Factsheets: EU Member States – Purchasing Power Standard

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PREDICT 2016 Country Factsheets:  
EU Member States – Purchasing Power Standard

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# PREDICT 2016 Country Factsheets: EU Member States – Purchasing Power Standard

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## Foreword

### **PREDICT: Prospective Insights on R&D in ICT**

PREDICT produces statistics and analyses on ICT industries and their R&D in Europe since 2006. The project covers major world competitors including 40 advanced and emerging countries – the EU28 plus Norway, Russia and Switzerland in Europe, Canada, the United States and Brazil in the Americas, China, India, Japan, Korea and Taiwan in Asia, and Australia – as well as a growing array of indicators related to the ICT content of economic activities.

### **Rationale**

ICTs determine competitive power in the knowledge economy. The ICT sector alone originates almost one fourth of total Business expenditure in R&D (BERD) for the aggregate of the 40 economies under scrutiny in the project. It also has a huge enabling role for innovation in other technological domains, let aside the impact of ICT uptake in the organisation of businesses. This is reflected at the EU policy level, where the Digital Agenda for Europe in 2010 was identified as one of the seven pillars of the Europe 2020 Strategy for growth in the Union and the achievement of a [Digital Single Market](#) (DSM) is one of the 10 political priorities set by the Commission since 2015.

### **Statistics and indicators**

PREDICT provides indicators in a wide variety of topics, including value added, employment, labour productivity and BERD, distinguishing fine grain economic activities in ICT and media and content industries (up to 22 individual activities, 14 of which at the class level, i.e. at 4 digits in the ISIC classification) and at a higher level of aggregation for all the other industries in the economy. It also produces data on Government financing of R&D in ICTs, and total R&D expenditure at the country level. Now-casting of more relevant data in these domains is also being performed..

### **Team**

PREDICT is a collaboration between the JRC and the European Commission [Communications Networks, Content and Technology \(CNECT\) Directorate General](#). Since 2013 data collection and analysis has been carried out jointly by JRC and the Valencian Institute of Economic Research ([Instituto Valenciano de Investigaciones Económicas - Ivie](#)).

## Abstract

The PREDICT 2016 Country Factsheets present essential statistical data regarding the performance of the EU ICT sector. These Factsheets are the subject of three reports. This report on 'Purchasing Power Standard' and the second report on 'Data in Current Prices' present sets of Factsheets with data on each EU Member State, in comparison to the EU average. The third report presents Factsheets on the EU and 12 non-EU countries: Australia, Brazil, Canada, China, India, Japan, Korea, Norway, Russia, Switzerland, Taiwan and the United States.

## Reading Notes

The figures at the top of each Factsheet display the information presented in the statistical tables. The left-hand figure gives a snapshot of country performance in ICT specialisation (VA/GDP), ICT productivity and ICT R&D as compared to the EU (EU absolute values listed below = Index 100). The right-hand figure gives a dynamic image (evolution 2006-2013) of the country ICT VA and GDP, and also ICT BERD and Total BERD. In this figure, ICT data is also presented by subsector.

Together these 2 figures allow us to assess very rapidly:

- the ICT sector's profile in each country in Europe (2013) as regards value added, productivity, R&D intensity.
- the evolution of the ICT sector since 2006: i.e. whether the sector as a whole and also its subsectors have emerged or declined in terms of value added and R&D expenditures, as compared to the overall dynamics of each country's economy.

The statistical tables provide the full data on which these figures are based. They are divided into two main blocks:

- the first shows **Economic and Industry Trends**: Gross Value Added (GVA), Employment and Productivity.
- the second concentrates on **R&D performance** showing R&D expenditures in terms of both the actual spending and R&D intensity, calculated as the ratio of R&D spending to GVA.

Additionally, the horizontal reading of the tables conveys three further items of information:

- The time coverage (2006-2013) allows us to assess the progress of the variables during the pre and post-crisis years.
- The column headed '2013 vs EU-%shares' displays the relative performance of each variable (expressed as a proportion) as compared to the EU.
- The double column headed '2013 vs 2006 (=100)' offers indices comparing the 2013 performance of each variable with its initial level in 2006 (Index: 100) for each Member State and the EU.

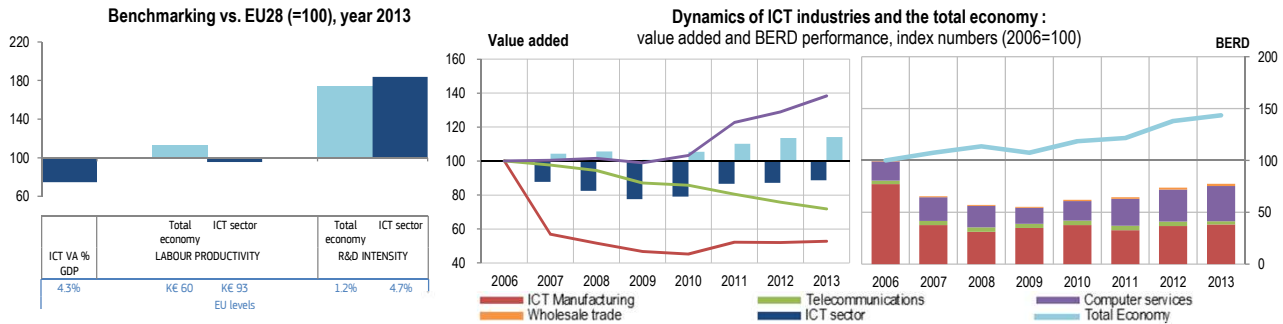
## Methodological Notes

The Factsheets are based on the latest available official data from EUROSTAT. Data sources and methods are fully described in [the metadata](#) of PREDICT 2016.

This report presents Purchasing Power Standard (PPS) data. The PPS is an artificial currency unit. Theoretically, one PPS can buy the same amount of goods and services in each country. PPS are derived by dividing any economic aggregate of a country in national currency by its respective purchasing power parities. PPS is the technical term used by Eurostat for the common currency in which national accounts aggregates are expressed when adjusted for price level differences. (See EUROSTAT – [Glossary: Purchasing Power Standard \(PPS\)](#)). The equivalent data in current prices are available in the second report referred to above, ([here](#)).

The ICT sector is classified in four sub-categories to facilitate the reading: ICT manufacturing (NACE 261-264, 268), telecommunications (NACE 61), computer services (5820, 62, 631, 951) and ICT wholesale trade (465). The classification method follows [OECD \(2007\)](#).

**AUSTRIA**



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Austria	EU
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**Economic and industry trends**

**Value added (PPS bn)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Austria	EU
<b>Total economy (GDP)</b>	<b>253</b>	<b>264</b>	<b>268</b>	<b>255</b>	<b>267</b>	<b>279</b>	<b>288</b>	<b>289</b>	<b>2.1%</b>	<b>114</b>	<b>111</b>
<b>ICT sector</b>	<b>10</b>	<b>9</b>	<b>9</b>	<b>8</b>	<b>8</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>1.6%</b>	<b>89</b>	<b>109</b>
Manufacturing	3	2	2	1	1	2	2	2	3.1%	53	69
Telecommunications	3	3	3	3	3	2	2	2	1.3%	72	85
Computer services	3	3	3	3	4	4	4	5	1.5%	138	140
Wholesale trade	1	1	1	1	1	1	1	1	1.5%	..	126
→ <b>ICT sector as a % of Total</b>	<b>4.1%</b>	<b>3.5%</b>	<b>3.2%</b>	<b>3.2%</b>	<b>3.1%</b>	<b>3.3%</b>	<b>3.2%</b>	<b>3.2%</b>			

**Employment (thousands)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Austria	EU
<b>Total economy</b>	<b>3,941</b>	<b>4,014</b>	<b>4,090</b>	<b>4,073</b>	<b>4,102</b>	<b>4,166</b>	<b>4,211</b>	<b>4,231</b>	<b>1.9%</b>	<b>107</b>	<b>100</b>
<b>ICT sector</b>	<b>104</b>	<b>95</b>	<b>98</b>	<b>98</b>	<b>96</b>	<b>99</b>	<b>102</b>	<b>104</b>	<b>1.7%</b>	<b>100</b>	<b>107</b>
Manufacturing	25	16	17	17	13	12	13	13	1.9%	51	74
Telecommunications	20	20	20	18	18	18	17	17	1.5%	84	89
Computer services	48	48	53	54	56	61	63	65	1.7%	135	127
Wholesale trade	10	10	9	9	9	9	9	9	1.6%	87	97
→ <b>ICT sector as a % of Total</b>	<b>2.6%</b>	<b>2.4%</b>	<b>2.4%</b>	<b>2.4%</b>	<b>2.3%</b>	<b>2.4%</b>	<b>2.4%</b>	<b>2.5%</b>			

**Productivity of labour (PPS thous./person employed)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Austria	EU
<b>Total economy</b>	<b>64</b>	<b>66</b>	<b>65</b>	<b>63</b>	<b>65</b>	<b>67</b>	<b>68</b>	<b>68</b>	<b>(1.13)</b>	<b>106</b>	<b>111</b>
<b>ICT sector</b>	<b>101</b>	<b>96</b>	<b>88</b>	<b>83</b>	<b>86</b>	<b>91</b>	<b>89</b>	<b>89</b>	<b>(0.96)</b>	<b>89</b>	<b>101</b>
Manufacturing	116	101	88	82	106	125	117	121	(1.66)	104	93
Telecommunications	153	149	146	144	145	138	134	131	(0.83)	85	96
Computer services	71	71	66	63	63	69	70	73	(0.92)	103	110
Wholesale trade	102	106	86	80	91	98	97	88	(0.96)	86	130

**R&D performance**

**Business expenditure in R&D (BERD - PPS mln)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Austria	EU
<b>Total economy</b>	<b>4,227</b>	<b>4,533</b>	<b>4,795</b>	<b>4,538</b>	<b>5,007</b>	<b>5,142</b>	<b>5,829</b>	<b>6,066</b>	<b>3.7%</b>	<b>143</b>	<b>126</b>
<b>ICT sector</b>	<b>1,025</b>	<b>672</b>	<b>584</b>	<b>565</b>	<b>636</b>	<b>661</b>	<b>756</b>	<b>792</b>	<b>2.9%</b>	<b>77</b>	<b>112</b>
Manufacturing	789	385	319	358	385	334	377	390	3.8%	49	80
Telecommunications	37	41	43	40	44	45	42	34	1.1%	92	82
Computer services	188	236	213	157	195	265	317	346	2.7%	184	183
Wholesale trade	11	10	9	10	13	17	20	22	3.0%	201	151
→ <b>ICT sector as a % of Total</b>	<b>24.3%</b>	<b>14.8%</b>	<b>12.2%</b>	<b>12.4%</b>	<b>12.7%</b>	<b>12.9%</b>	<b>13.0%</b>	<b>13.1%</b>			

**R&D Intensity (BERD as a % of value added)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Austria	EU
<b>Total economy (% GDP)</b>	<b>1.7</b>	<b>1.7</b>	<b>1.8</b>	<b>1.8</b>	<b>1.9</b>	<b>1.8</b>	<b>2.0</b>	<b>2.1</b>	<b>(1.73)</b>	<b>126</b>	<b>114</b>
<b>ICT sector</b>	<b>9.8</b>	<b>7.3</b>	<b>6.8</b>	<b>7.0</b>	<b>7.7</b>	<b>7.3</b>	<b>8.3</b>	<b>8.6</b>	<b>(1.84)</b>	<b>87</b>	<b>103</b>
Manufacturing	27.0	23.1	21.1	26.2	29.1	21.9	24.8	25.3	(1.23)	94	117
Telecommunications	1.2	1.4	1.5	1.5	1.7	1.9	1.8	1.6	(0.85)	128	97
Computer services	5.5	6.9	6.1	4.6	5.5	6.3	7.2	7.3	(1.74)	133	131
Wholesale trade	1.0	0.9	1.2	1.3	1.6	1.9	2.3	2.8	(1.99)	268	120
Rest of the economy	1.3	1.5	1.6	1.6	1.7	1.7	1.8	1.9	(1.79)	143	117

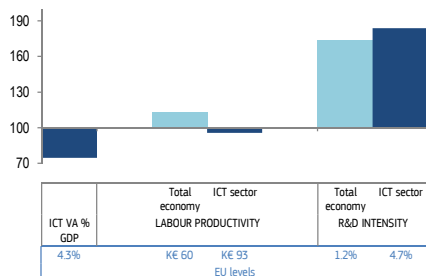
Note: all monetary variables are expressed in Purchasing Power Standards (PPS) at current prices

(\*) % shares and (levels) correspond to the ratio between the value of a variable *x* in country *i* and in the EU economy [=  $x_i/x_{EU}$ ]. Shares portray the weight of each country in the EU aggregate and are expressed in percentages, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

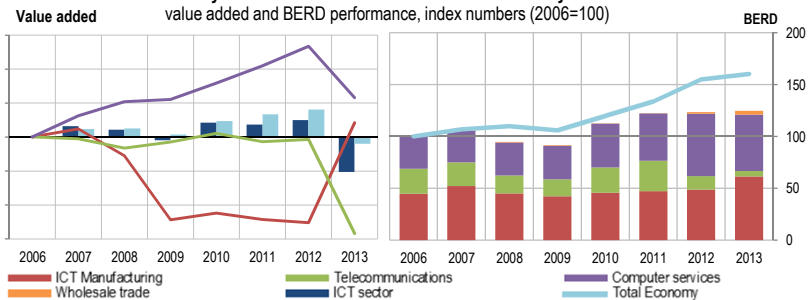
**BELGIUM**



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy :  
value added and BERD performance, index numbers (2006=100)



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Belgium	EU
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**Economic and industry trends**

**Value added (PPS bn)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Belgium	EU
<b>Total economy (GDP)</b>	<b>301</b>	<b>315</b>	<b>317</b>	<b>306</b>	<b>329</b>	<b>342</b>	<b>350</b>	<b>289</b>	<b>2.1%</b>	<b>96</b>	<b>111</b>
<b>ICT sector</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>11</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>9</b>	<b>1.6%</b>	<b>79</b>	<b>109</b>
Manufacturing	1	1	1	1	1	1	1	2	3.1%	108	69
Telecommunications	5	5	5	5	5	5	5	2	1.3%	43	85
Computer services	4	4	5	5	5	5	6	5	1.5%	123	140
Wholesale trade	1	2	2	1	2	1	1	1	1.5%	..	126
→ <b>ICT sector as a % of Total</b>	<b>3.9%</b>	<b>3.9%</b>	<b>3.8%</b>	<b>3.7%</b>	<b>3.8%</b>	<b>3.7%</b>	<b>3.7%</b>	<b>3.2%</b>			

**Employment (thousands)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Belgium	EU
<b>Total economy</b>	<b>4,303</b>	<b>4,374</b>	<b>4,453</b>	<b>4,446</b>	<b>4,474</b>	<b>4,535</b>	<b>4,552</b>	<b>4,231</b>	<b>1.9%</b>	<b>98</b>	<b>100</b>
<b>ICT sector</b>	<b>101</b>	<b>105</b>	<b>108</b>	<b>108</b>	<b>107</b>	<b>106</b>	<b>105</b>	<b>104</b>	<b>1.7%</b>	<b>103</b>	<b>107</b>
Manufacturing	13	14	13	9	8	8	7	13	1.9%	95	74
Telecommunications	28	28	28	28	29	28	28	17	1.5%	59	89
Computer services	45	49	52	58	57	58	58	65	1.7%	145	127
Wholesale trade	14	15	15	13	14	12	12	9	1.6%	64	97
→ <b>ICT sector as a % of Total</b>	<b>2.3%</b>	<b>2.4%</b>	<b>2.4%</b>	<b>2.4%</b>	<b>2.4%</b>	<b>2.3%</b>	<b>2.3%</b>	<b>2.5%</b>			

**Productivity of labour (PPS thous./person employed)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Belgium	EU
<b>Total economy</b>	<b>70</b>	<b>72</b>	<b>71</b>	<b>69</b>	<b>74</b>	<b>75</b>	<b>77</b>	<b>68</b>	<b>(1.13)</b>	<b>98</b>	<b>111</b>
<b>ICT sector</b>	<b>116</b>	<b>118</b>	<b>112</b>	<b>106</b>	<b>118</b>	<b>118</b>	<b>122</b>	<b>89</b>	<b>(0.96)</b>	<b>77</b>	<b>101</b>
Manufacturing	106	108	99	80	96	92	97	121	(1.66)	114	93
Telecommunications	179	178	167	175	181	173	178	131	(0.83)	73	96
Computer services	86	89	89	82	89	95	101	73	(0.92)	85	110
Wholesale trade	95	107	102	81	118	116	104	88	(0.96)	93	130

**R&D performance**

**Business expenditure in R&D (BERD - PPS mln)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Belgium	EU
<b>Total economy</b>	<b>3,784</b>	<b>4,044</b>	<b>4,159</b>	<b>4,009</b>	<b>4,534</b>	<b>5,058</b>	<b>5,861</b>	<b>6,066</b>	<b>3.7%</b>	<b>160</b>	<b>126</b>
<b>ICT sector</b>	<b>636</b>	<b>676</b>	<b>602</b>	<b>584</b>	<b>714</b>	<b>778</b>	<b>786</b>	<b>792</b>	<b>2.9%</b>	<b>125</b>	<b>112</b>
Manufacturing	285	332	286	269	290	300	310	390	3.8%	137	80
Telecommunications	153	145	110	105	156	187	83	34	1.1%	22	82
Computer services	196	197	202	205	268	290	383	346	2.7%	176	183
Wholesale trade	3	3	5	5	0	0	9	22	3.0%	864	151
→ <b>ICT sector as a % of Total</b>	<b>16.8%</b>	<b>16.7%</b>	<b>14.5%</b>	<b>14.6%</b>	<b>15.8%</b>	<b>15.4%</b>	<b>13.4%</b>	<b>13.1%</b>			

**R&D Intensity (BERD as a % of value added)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Belgium	EU
<b>Total economy (% GDP)</b>	<b>1.3</b>	<b>1.3</b>	<b>1.3</b>	<b>1.3</b>	<b>1.4</b>	<b>1.5</b>	<b>1.7</b>	<b>2.1</b>	<b>(1.73)</b>	<b>167</b>	<b>114</b>
<b>ICT sector</b>	<b>5.5</b>	<b>5.4</b>	<b>5.0</b>	<b>5.1</b>	<b>5.7</b>	<b>6.2</b>	<b>6.1</b>	<b>8.6</b>	<b>(1.84)</b>	<b>157</b>	<b>103</b>
Manufacturing	20.0	22.2	22.5	36.7	36.8	40.8	43.8	25.3	(1.23)	127	117
Telecommunications	3.0	2.9	2.3	2.1	3.0	3.8	1.7	1.6	(0.85)	52	97
Computer services	5.1	4.5	4.3	4.4	5.3	5.3	6.5	7.3	(1.74)	143	131
Wholesale trade	0.2	0.2	0.3	0.4	0.0	0.0	0.8	2.8	(1.99)	..	120
Rest of the economy	1.1	1.1	1.2	1.2	1.2	1.3	1.5	1.9	(1.79)	173	117

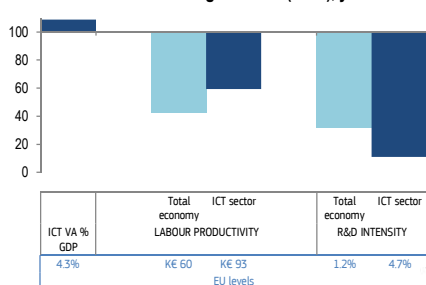
Note: all monetary variables are expressed in Purchasing Power Standards (PPS) at current prices

(\*) % shares and (levels) correspond to the ratio between the value of a variable *x* in country *i* and in the EU economy [=  $x_i/x_{EU}$ ]. Shares portray the weight of each country in the EU aggregate and are expressed in percentages, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

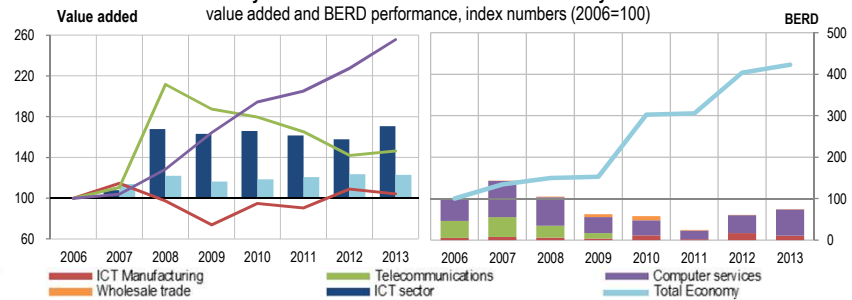
**BULGARIA**



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy :  
value added and BERD performance, index numbers (2006=100)



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Bulgaria	EU
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**Economic and industry trends**

**Value added (PPS bn)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Bulgaria	EU
<b>Total economy (GDP)</b>	<b>72</b>	<b>82</b>	<b>87</b>	<b>83</b>	<b>85</b>	<b>87</b>	<b>89</b>	<b>88</b>	<b>0.7%</b>	<b>123</b>	<b>111</b>
<b>ICT sector</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>0.7%</b>	<b>171</b>	<b>109</b>
Manufacturing	0	0	0	0	0	0	0	0	0.3%	..	69
Telecommunications	1	1	3	2	2	2	2	2	1.1%	146	85
Computer services	1	1	1	1	1	1	2	2	0.6%	..	140
Wholesale trade	0	0	0	0	0	0	0	0	0.5%	..	126
→ <b>ICT sector as a % of Total</b>	<b>3.4%</b>	<b>3.2%</b>	<b>4.6%</b>	<b>4.7%</b>	<b>4.7%</b>	<b>4.5%</b>	<b>4.3%</b>	<b>4.7%</b>			

**Employment (thousands)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Bulgaria	EU
<b>Total economy</b>	<b>3,612</b>	<b>3,727</b>	<b>3,815</b>	<b>3,749</b>	<b>3,604</b>	<b>3,525</b>	<b>3,436</b>	<b>3,422</b>	<b>1.5%</b>	<b>95</b>	<b>100</b>
<b>ICT sector</b>	<b>51</b>	<b>54</b>	<b>57</b>	<b>59</b>	<b>71</b>	<b>72</b>	<b>73</b>	<b>74</b>	<b>1.2%</b>	<b>147</b>	<b>107</b>
Manufacturing	8	8	9	7	7	7	7	7	1.1%	98	74
Telecommunications	26	26	26	27	24	25	25	24	2.2%	94	89
Computer services	10	12	15	18	33	35	36	38	1.0%	369	127
Wholesale trade	7	8	7	8	7	5	5	5	0.9%	72	97
→ <b>ICT sector as a % of Total</b>	<b>1.4%</b>	<b>1.4%</b>	<b>1.5%</b>	<b>1.6%</b>	<b>2.0%</b>	<b>2.1%</b>	<b>2.1%</b>	<b>2.2%</b>			

**Productivity of labour (PPS thous./person employed)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Bulgaria	EU
<b>Total economy</b>	<b>20</b>	<b>22</b>	<b>23</b>	<b>22</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>26</b>	<b>(0.43)</b>	<b>130</b>	<b>111</b>
<b>ICT sector</b>	<b>48</b>	<b>48</b>	<b>71</b>	<b>66</b>	<b>56</b>	<b>54</b>	<b>52</b>	<b>55</b>	<b>(0.59)</b>	<b>116</b>	<b>101</b>
Manufacturing	18	20	15	15	19	17	21	19	(0.26)	106	93
Telecommunications	50	54	106	89	94	84	74	77	(0.49)	156	96
Computer services	72	63	63	68	43	43	46	50	(0.63)	69	110
Wholesale trade	38	35	37	29	21	29	36	47	(0.51)	122	130

**R&D performance**

**Business expenditure in R&D (BERD - PPS mln)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Bulgaria	EU
<b>Total economy</b>	<b>81</b>	<b>108</b>	<b>121</b>	<b>124</b>	<b>245</b>	<b>247</b>	<b>327</b>	<b>343</b>	<b>0.2%</b>	<b>423</b>	<b>126</b>
<b>ICT sector</b>	<b>28</b>	<b>40</b>	<b>29</b>	<b>18</b>	<b>16</b>	<b>7</b>	<b>17</b>	<b>21</b>	<b>0.1%</b>	<b>75</b>	<b>112</b>
Manufacturing	1	2	2	1	3	1	5	3	..	205	80
Telecommunications	12	13	8	4	-	-	0	0	..	..	82
Computer services	15	25	19	11	10	6	12	18	0.1%	119	183
Wholesale trade	0	0	0	2	3	0	0	0	..	..	151
→ <b>ICT sector as a % of Total</b>	<b>34.8%</b>	<b>37.1%</b>	<b>24.4%</b>	<b>14.2%</b>	<b>6.7%</b>	<b>2.8%</b>	<b>5.2%</b>	<b>6.2%</b>			

**R&D Intensity (BERD as a % of value added)**

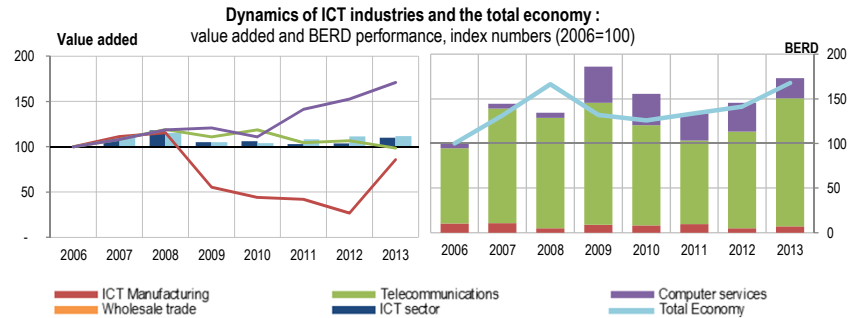
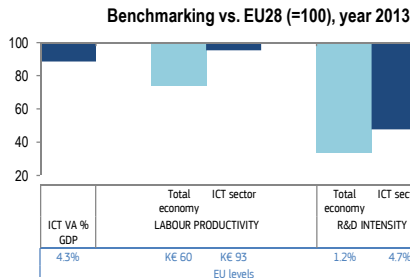
	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Bulgaria	EU
<b>Total economy (% GDP)</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.3</b>	<b>0.3</b>	<b>0.4</b>	<b>0.4</b>	<b>(0.32)</b>	<b>..</b>	<b>114</b>
<b>ICT sector</b>	<b>1.2</b>	<b>1.5</b>	<b>0.7</b>	<b>0.4</b>	<b>0.4</b>	<b>0.2</b>	<b>0.4</b>	<b>0.5</b>	<b>(0.11)</b>	<b>44</b>	<b>103</b>
Manufacturing	1.1	1.3	1.2	1.0	2.5	0.5	3.1	2.1	(0.10)	197	117
Telecommunications	0.9	0.9	0.3	0.2	0.0	0.0	0.0	0.0	(0.00)	..	97
Computer services	2.0	3.2	2.1	0.9	0.7	0.4	0.7	1.0	(0.23)	47	131
Wholesale trade	0.1	0.1	0.2	0.9	1.8	0.2	0.1	0.1	(0.06)	..	120
Rest of the economy	0.1	0.1	0.1	0.1	0.3	0.3	0.4	0.4	(0.36)	..	117

Note: all monetary variables are expressed in Purchasing Power Standards (PPS) at current prices

(%) % shares and (levels) correspond to the ratio between the value of a variable  $x$  in country  $i$  and in the EU economy [=  $x_i/x_{EU}$ ]. Shares portray the weight of each country in the EU aggregate and are expressed in percentages, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)



**CROATIA**



2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Bulgaria	EU
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**Economic and industry trends**

**Value added (PPS bn)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Bulgaria	EU
<b>Total economy (GDP)</b>	<b>61</b>	<b>68</b>	<b>71</b>	<b>65</b>	<b>64</b>	<b>66</b>	<b>69</b>	<b>69</b>	<b>0.5%</b>	<b>112</b>	<b>111</b>
<b>ICT sector</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>0.4%</b>	<b>110</b>	<b>109</b>
Manufacturing	0	0	0	0	0	0	0	0	0.5%	..	69
Telecommunications	1	2	2	2	2	2	2	1	0.8%	98	85
Computer services	0	1	1	1	1	1	1	1	0.3%	..	140
Wholesale trade	0	0	0	0	0	0	0	0	0.2%	..	126
→ <b>ICT sector as a % of Total</b>	<b>3.9%</b>	<b>3.8%</b>	<b>3.9%</b>	<b>3.9%</b>	<b>3.9%</b>	<b>3.7%</b>	<b>3.6%</b>	<b>3.8%</b>			

**Employment (thousands)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Bulgaria	EU
<b>Total economy</b>	<b>1,564</b>	<b>1,715</b>	<b>1,780</b>	<b>1,767</b>	<b>1,700</b>	<b>1,635</b>	<b>1,575</b>	<b>1,534</b>	<b>0.7%</b>	<b>98</b>	<b>100</b>
<b>ICT sector</b>	<b>26</b>	<b>30</b>	<b>30</b>	<b>28</b>	<b>30</b>	<b>30</b>	<b>26</b>	<b>29</b>	<b>0.5%</b>	<b>111</b>	<b>107</b>
Manufacturing	6	6	7	3	2	2	2	2	0.3%	40	74
Telecommunications	10	12	11	12	11	10	7	7	0.7%	71	89
Computer services	9	11	10	12	15	16	16	19	0.5%	214	127
Wholesale trade	2	2	2	2	2	2	1	1	0.2%	70	97
→ <b>ICT sector as a % of Total</b>	<b>1.7%</b>	<b>1.8%</b>	<b>1.7%</b>	<b>1.6%</b>	<b>1.7%</b>	<b>1.8%</b>	<b>1.7%</b>	<b>1.9%</b>			

**Productivity of labour (PPS thous./person employed)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Bulgaria	EU
<b>Total economy</b>	<b>39</b>	<b>40</b>	<b>40</b>	<b>37</b>	<b>38</b>	<b>41</b>	<b>43</b>	<b>45</b>	<b>(0.74)</b>	<b>114</b>	<b>111</b>
<b>ICT sector</b>	<b>90</b>	<b>84</b>	<b>92</b>	<b>88</b>	<b>85</b>	<b>81</b>	<b>93</b>	<b>89</b>	<b>(0.95)</b>	<b>99</b>	<b>101</b>
Manufacturing	49	51	44	58	59	55	39	106	(1.46)	216	93
Telecommunications	143	135	155	136	153	152	232	197	(1.25)	138	96
Computer services	54	46	55	48	35	40	43	43	(0.54)	80	110
Wholesale trade	92	92	88	77	85	88	80	104	(1.13)	112	130

**R&D performance**

**Business expenditure in R&D (BERD - PPS mln)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Bulgaria	EU
<b>Total economy</b>	<b>167</b>	<b>219</b>	<b>278</b>	<b>221</b>	<b>210</b>	<b>223</b>	<b>236</b>	<b>280</b>	<b>0.2%</b>	<b>168</b>	<b>126</b>
<b>ICT sector</b>	<b>33</b>	<b>48</b>	<b>45</b>	<b>62</b>	<b>52</b>	<b>45</b>	<b>49</b>	<b>58</b>	<b>0.2%</b>	<b>173</b>	<b>112</b>
Manufacturing	3	4	2	3	3	3	2	2	..	69	80
Telecommunications	28	43	41	46	38	31	36	48	1.5%	170	82
Computer services	2	2	2	14	12	10	11	8	0.1%	407	183
Wholesale trade	-	-	-	-	-	-	-	-	..	..	151
→ <b>ICT sector as a % of Total</b>	<b>20.0%</b>	<b>22.0%</b>	<b>16.2%</b>	<b>28.2%</b>	<b>24.8%</b>	<b>20.0%</b>	<b>20.6%</b>	<b>20.7%</b>			

**R&D Intensity (BERD as a % of value added)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Bulgaria	EU
<b>Total economy (% GDP)</b>	<b>0.3</b>	<b>0.3</b>	<b>0.4</b>	<b>0.3</b>	<b>0.3</b>	<b>0.3</b>	<b>0.3</b>	<b>0.4</b>	<b>(0.34)</b>	<b>..</b>	<b>114</b>
<b>ICT sector</b>	<b>1.4</b>	<b>1.9</b>	<b>1.6</b>	<b>2.5</b>	<b>2.1</b>	<b>1.8</b>	<b>2.0</b>	<b>2.2</b>	<b>(0.48)</b>	<b>158</b>	<b>103</b>
Manufacturing	1.3	1.2	0.5	2.0	2.3	2.8	2.3	1.0	(0.05)	80	117
Telecommunications	1.9	2.7	2.4	2.8	2.2	2.0	2.3	3.3	(1.80)	173	97
Computer services	0.4	0.4	0.4	2.4	2.3	1.5	1.5	0.9	(0.22)	238	131
Wholesale trade	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(0.00)	..	120
Rest of the economy	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	(0.32)	..	117

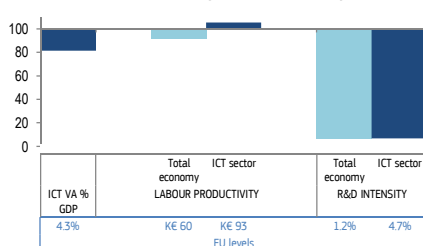
Note: all monetary variables are expressed in Purchasing Power Standards (PPS) at current prices

(%) % shares and (levels) correspond to the ratio between the value of a variable  $x$  in country  $i$  and in the EU economy [=  $x_i/x_{EU}$ ]. Shares portray the weight of each country in the EU aggregate and are expressed in percentages, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

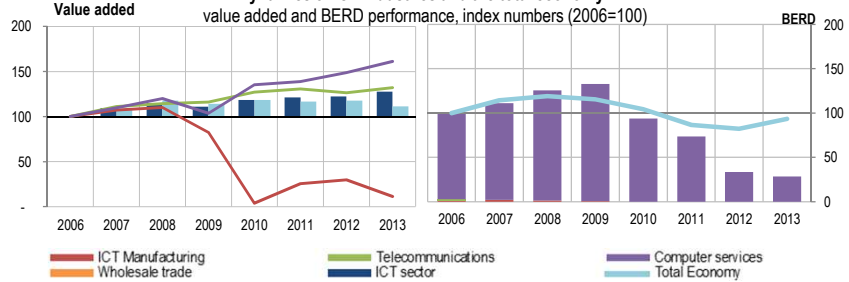
**CYPRUS**



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy :  
value added and BERD performance, index numbers (2006=100)



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Cyprus	EU
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**Economic and industry trends**

**Value added (PPS bn)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Cyprus	EU
<b>Total economy (GDP)</b>	18	20	21	21	22	21	21	20	0.1%	111	111
<b>ICT sector</b>	1	1	1	1	1	1	1	1	0.1%	..	109
Manufacturing	0	0	0	0	0	0	0	0	..	..	69
Telecommunications	0	0	0	0	0	0	0	0	0.3%	..	85
Computer services	0	0	0	0	0	0	0	0	0.1%	..	140
Wholesale trade	0	0	0	0	0	0	0	0	0.1%	..	126
→ <b>ICT sector as a % of Total</b>	3.0%	3.1%	3.0%	3.0%	3.0%	3.2%	3.2%	3.5%			

**Employment (thousands)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Cyprus	EU
<b>Total economy</b>	373	386	393	392	401	403	389	365	0.2%	98	100
<b>ICT sector</b>	6	7	7	7	7	8	7	7	0.1%	111	107
Manufacturing	0	0	0	0	0	0	0	0	..	..	74
Telecommunications	3	3	3	3	3	4	3	3	0.3%	110	89
Computer services	2	3	3	2	3	3	3	3	0.1%	122	127
Wholesale trade	1	1	1	1	1	1	1	1	0.2%	..	97
→ <b>ICT sector as a % of Total</b>	1.7%	1.8%	1.8%	1.8%	1.9%	1.9%	1.9%	2.0%			

**Productivity of labour (PPS thous./person employed)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Cyprus	EU
<b>Total economy</b>	49	51	55	53	54	53	55	55	(0.92)	114	111
<b>ICT sector</b>	86	88	92	89	88	90	92	98	(1.05)	115	101
Manufacturing	52	44	45	36	1	10	16	11	(0.15)	22	93
Telecommunications	110	116	121	119	129	126	127	132	(0.84)	120	96
Computer services	60	61	66	59	65	68	73	80	(1.00)	133	110
Wholesale trade	73	72	73	71	33	33	38	36	(0.40)	49	130

**R&D performance**

**Business expenditure in R&D (BERD - PPS mln)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Cyprus	EU
<b>Total economy</b>	16	18	19	18	17	14	13	15	..	94	126
<b>ICT sector</b>	6	7	8	8	7	5	3	2	..	37	112
Manufacturing	0	0	0	0	-	-	-	-	..	..	80
Telecommunications	0	-	0	0	1	1	0	0	..	..	82
Computer services	6	7	8	8	6	5	2	2	..	29	183
Wholesale trade	-	-	-	-	-	-	0	0	..	..	151
→ <b>ICT sector as a % of Total</b>	38.7%	37.6%	41.4%	44.8%	39.0%	36.7%	19.4%	15.2%			

**R&D Intensity (BERD as a % of value added)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Cyprus	EU
<b>Total economy (% GDP)</b>	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	(0.06)	..	114
<b>ICT sector</b>	1.1	1.1	1.2	1.4	1.0	0.8	0.4	0.3	(0.07)	29	103
Manufacturing	1.5	2.0	1.4	0.8	0.0	0.0	0.0	0.0	(0.00)	..	117
Telecommunications	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.1	(0.06)	..	97
Computer services	4.3	4.4	4.6	5.7	3.1	2.4	1.0	0.8	(0.19)	18	131
Wholesale trade	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	(0.08)	..	120
Rest of the economy	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	(0.06)	..	117

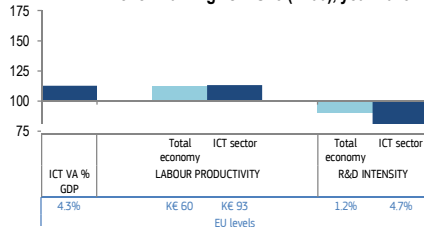
Note: all monetary variables are expressed in Purchasing Power Standards (PPS) at current prices

(\*) % shares and (levels) correspond to the ratio between the value of a variable *x* in country *i* and in the EU economy [=  $x_i/x_{EU}$ ]. Shares portray the weight of each country in the EU aggregate and are expressed in percentages, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

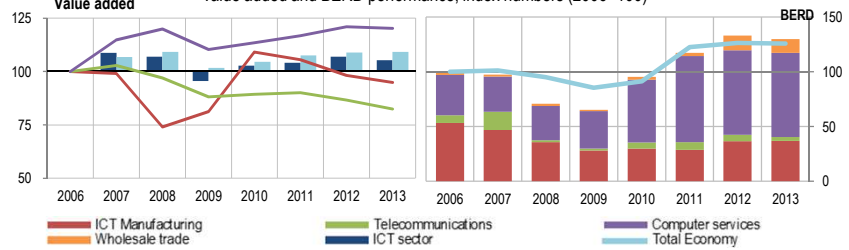
## NETHERLANDS



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy :  
value added and BERD performance, index numbers (2006=100)



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)
									Netherlands:	EU

### Economic and industry trends

#### Value added (PPS bn)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)
<b>Total economy (GDP)</b>	<b>543</b>	<b>580</b>	<b>593</b>	<b>552</b>	<b>567</b>	<b>584</b>	<b>591</b>	<b>593</b>	<b>4.4%</b>	<b>109</b>
<b>ICT sector</b>	<b>27</b>	<b>30</b>	<b>29</b>	<b>26</b>	<b>28</b>	<b>28</b>	<b>29</b>	<b>29</b>	<b>4.9%</b>	<b>105</b>
Manufacturing	2	2	1	1	2	2	1	1	2.9%	95
Telecommunications	9	9	9	8	8	8	8	8	4.4%	82
Computer services	11	12	13	12	12	13	13	13	4.2%	120
Wholesale trade	6	6	6	5	6	6	7	7	12.8%	117
→ <b>ICT sector as a % of Total</b>	<b>5.0%</b>	<b>5.1%</b>	<b>4.9%</b>	<b>4.7%</b>	<b>4.9%</b>	<b>4.9%</b>	<b>4.9%</b>	<b>4.8%</b>		

#### Employment (thousands)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)
<b>Total economy</b>	<b>8,519</b>	<b>8,771</b>	<b>8,914</b>	<b>8,838</b>	<b>8,778</b>	<b>8,854</b>	<b>8,836</b>	<b>8,754</b>	<b>3.9%</b>	<b>103</b>
<b>ICT sector</b>	<b>261</b>	<b>272</b>	<b>276</b>	<b>269</b>	<b>261</b>	<b>264</b>	<b>270</b>	<b>271</b>	<b>4.4%</b>	<b>104</b>
Manufacturing	23	22	18	14	11	11	10	10	1.5%	45
Telecommunications	42	41	39	36	33	32	32	31	2.9%	74
Computer services	140	151	163	164	162	166	171	174	4.5%	124
Wholesale trade	56	57	56	56	55	55	57	57	10.0%	101
→ <b>ICT sector as a % of Total</b>	<b>3.1%</b>	<b>3.1%</b>	<b>3.1%</b>	<b>3.0%</b>	<b>3.0%</b>	<b>3.0%</b>	<b>3.1%</b>	<b>3.1%</b>		

#### Productivity of labour (PPS thous./person employed)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)
<b>Total economy</b>	<b>64</b>	<b>66</b>	<b>67</b>	<b>62</b>	<b>65</b>	<b>66</b>	<b>67</b>	<b>68</b>	<b>(1.12)</b>	<b>106</b>
<b>ICT sector</b>	<b>104</b>	<b>109</b>	<b>106</b>	<b>97</b>	<b>107</b>	<b>107</b>	<b>108</b>	<b>106</b>	<b>(1.13)</b>	<b>101</b>
Manufacturing	67	67	62	88	146	149	151	143	(1.97)	213
Telecommunications	219	231	229	225	249	259	249	245	(1.55)	96
Computer services	77	82	80	73	76	76	77	75	(0.94)	97
Wholesale trade	102	110	110	85	106	106	115	117	(1.28)	130

### R&D performance

#### Business expenditure in R&D (BERD - PPS mln)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)
<b>Total economy</b>	<b>5,138</b>	<b>5,200</b>	<b>4,881</b>	<b>4,380</b>	<b>4,689</b>	<b>6,290</b>	<b>6,485</b>	<b>6,465</b>	<b>3.9%</b>	<b>126</b>
<b>ICT sector</b>	<b>814</b>	<b>793</b>	<b>575</b>	<b>531</b>	<b>776</b>	<b>955</b>	<b>1,083</b>	<b>1,057</b>	<b>3.9%</b>	<b>130</b>
Manufacturing	432	380	290	227	242	233	297	300	2.9%	69
Telecommunications	59	138	15	14	47	58	46	28	0.9%	48
Computer services	299	260	253	279	465	638	630	627	4.9%	210
Wholesale trade	24	15	17	10	23	26	109	101	14.1%	429
→ <b>ICT sector as a % of Total</b>	<b>15.8%</b>	<b>15.2%</b>	<b>11.8%</b>	<b>12.1%</b>	<b>16.6%</b>	<b>15.2%</b>	<b>16.7%</b>	<b>16.3%</b>		

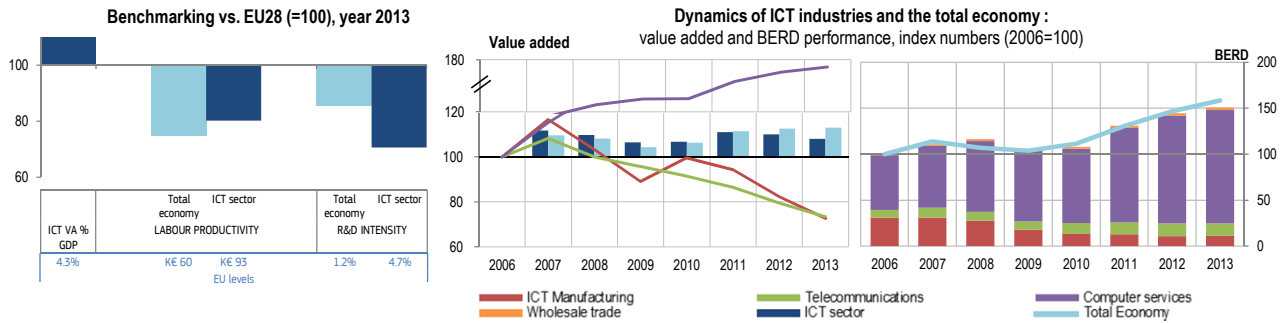
#### R&D Intensity (BERD as a % of value added)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100)
<b>Total economy (% GDP)</b>	<b>0.9</b>	<b>0.9</b>	<b>0.8</b>	<b>0.8</b>	<b>0.8</b>	<b>1.1</b>	<b>1.1</b>	<b>1.1</b>	<b>(0.90)</b>	<b>115</b>
<b>ICT sector</b>	<b>3.0</b>	<b>2.7</b>	<b>2.0</b>	<b>2.0</b>	<b>2.8</b>	<b>3.4</b>	<b>3.7</b>	<b>3.7</b>	<b>(0.79)</b>	<b>123</b>
Manufacturing	28.4	25.2	25.8	18.4	14.5	14.5	19.9	20.8	(1.01)	73
Telecommunications	0.6	1.5	0.2	0.2	0.6	0.7	0.6	0.4	(0.20)	58
Computer services	2.8	2.1	2.0	2.3	3.8	5.1	4.8	4.8	(1.15)	174
Wholesale trade	0.4	0.2	0.3	0.2	0.4	0.4	1.7	1.5	(1.10)	367
Rest of the economy	0.8	0.8	0.8	0.7	0.7	1.0	1.0	1.0	(0.91)	117

Note: all monetary variables are expressed in Purchasing Power Standards (PPS) at current prices

(\*) % shares and (levels) correspond to the ratio between the value of a variable  $x$  in country  $i$  and in the EU economy [=  $x_i/x_{EU}$ ]. Shares portray the weight of each country in the EU aggregate and are expressed in percentages, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

## CZECH REPUBLIC



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Czech	EU
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### Economic and industry trends

#### Value added (PPS bn)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Czech	EU
<b>Total economy (GDP)</b>	203	223	220	212	216	227	229	230	1.7%	113	111
<b>ICT sector</b>	10	12	11	11	11	11	11	11	1.9%	108	109
Manufacturing	2	2	2	2	2	2	2	1	2.7%	73	69
Telecommunications	4	5	4	4	4	4	3	3	1.9%	73	85
Computer services	3	4	4	5	5	5	6	6	1.9%	171	140
Wholesale trade	1	1	1	1	1	1	1	1	1.3%	..	126
→ <b>ICT sector as a % of Total</b>	5.1%	5.2%	5.2%	5.2%	5.1%	5.1%	5.0%	4.9%			

#### Employment (thousands)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Czech	EU
<b>Total economy</b>	4,989	5,093	5,204	5,110	5,057	5,043	5,065	5,081	2.3%	102	100
<b>ICT sector</b>	137	151	159	158	151	147	148	149	2.4%	109	107
Manufacturing	36	41	43	37	31	31	29	26	3.8%	73	74
Telecommunications	24	23	23	23	21	21	20	20	1.8%	81	89
Computer services	66	75	81	88	88	84	88	91	2.4%	138	127
Wholesale trade	10	12	12	10	11	11	11	12	2.1%	112	97
→ <b>ICT sector as a % of Total</b>	2.7%	3.0%	3.0%	3.1%	3.0%	2.9%	2.9%	2.9%			

#### Productivity of labour (PPS thous./person employed)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Czech	EU
<b>Total economy</b>	41	44	42	42	43	45	45	45	(0.75)	111	111
<b>ICT sector</b>	76	76	71	70	73	78	77	75	(0.80)	99	101
Manufacturing	52	52	45	45	60	57	53	52	(0.71)	99	93
Telecommunications	180	204	190	181	188	181	175	164	(1.04)	91	96
Computer services	52	53	55	53	53	63	65	65	(0.81)	124	110
Wholesale trade	61	56	52	48	46	53	57	58	(0.63)	94	130

### R&D performance

#### Business expenditure in R&D (BERD - PPS mln)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Czech	EU
<b>Total economy</b>	1,498	1,708	1,602	1,555	1,672	1,955	2,196	2,375	1.4%	159	126
<b>ICT sector</b>	243	269	283	256	262	318	351	366	1.4%	151	112
Manufacturing	76	75	67	43	32	32	26	27	0.3%	36	80
Telecommunications	21	26	24	22	28	31	34	33	1.1%	162	82
Computer services	144	164	187	186	197	249	284	299	2.3%	208	183
Wholesale trade	3	4	5	5	4	6	7	7	0.9%	230	151
→ <b>ICT sector as a % of Total</b>	16.2%	15.8%	17.7%	16.5%	15.7%	16.3%	16.0%	15.4%			

#### R&D Intensity (BERD as a % of value added)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Czech	EU
<b>Total economy (% GDP)</b>	0.7	0.8	0.7	0.7	0.8	0.9	1.0	1.0	(0.85)	140	114
<b>ICT sector</b>	2.4	2.3	2.5	2.3	2.4	2.8	3.1	3.3	(0.71)	140	103
Manufacturing	4.1	3.5	3.5	2.6	1.7	1.8	1.7	2.0	(0.10)	49	117
Telecommunications	0.5	0.6	0.5	0.5	0.7	0.8	1.0	1.0	(0.56)	220	97
Computer services	4.2	4.1	4.2	4.0	4.2	4.7	5.0	5.1	(1.21)	121	131
Wholesale trade	0.5	0.6	0.9	0.9	0.9	1.0	1.0	1.0	(0.73)	217	120
Rest of the economy	0.7	0.7	0.6	0.6	0.7	0.8	0.8	0.9	(0.87)	..	117

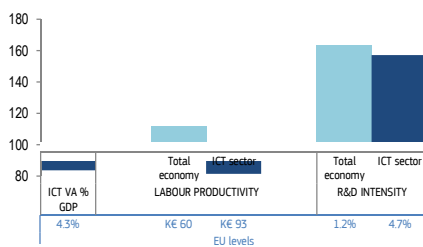
Note: all monetary variables are expressed in Purchasing Power Standards (PPS) at current prices

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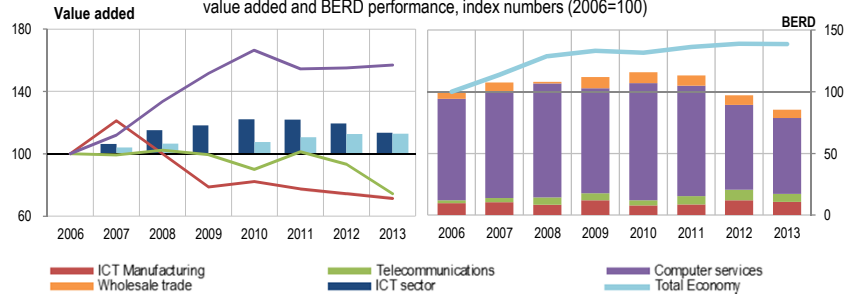
**DENMARK**



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy: value added and BERD performance, index numbers (2006=100)



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Denmark	EU
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**Economic and industry trends**

**Value added (PPS bn)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Denmark	EU
<b>Total economy (GDP)</b>	<b>164</b>	<b>171</b>	<b>175</b>	<b>165</b>	<b>177</b>	<b>182</b>	<b>185</b>	<b>186</b>	<b>1.4%</b>	<b>113</b>	<b>111</b>
<b>ICT sector</b>	<b>6</b>	<b>6</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>1.1%</b>	<b>114</b>	<b>109</b>
Manufacturing	1	1	1	0	0	0	0	0	0.7%	..	69
Telecommunications	2	2	2	2	2	2	2	2	0.9%	75	85
Computer services	2	3	3	3	4	4	4	4	1.2%	157	140
Wholesale trade	1	1	1	1	1	1	1	1	2.3%	115	126
→ <b>ICT sector as a % of Total</b>	<b>3.6%</b>	<b>3.6%</b>	<b>3.9%</b>	<b>4.2%</b>	<b>4.0%</b>	<b>3.9%</b>	<b>3.8%</b>	<b>3.6%</b>			

**Employment (thousands)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Denmark	EU
<b>Total economy</b>	<b>2,814</b>	<b>2,877</b>	<b>2,910</b>	<b>2,823</b>	<b>2,758</b>	<b>2,756</b>	<b>2,748</b>	<b>2,749</b>	<b>1.2%</b>	<b>98</b>	<b>100</b>
<b>ICT sector</b>	<b>85</b>	<b>88</b>	<b>92</b>	<b>91</b>	<b>89</b>	<b>90</b>	<b>89</b>	<b>88</b>	<b>1.4%</b>	<b>103</b>	<b>107</b>
Manufacturing	8	8	8	6	6	5	5	5	0.7%	61	74
Telecommunications	19	18	18	17	16	16	15	14	1.3%	74	89
Computer services	42	46	50	52	52	52	52	53	1.4%	126	127
Wholesale trade	16	16	16	16	15	17	16	16	2.8%	97	97
→ <b>ICT sector as a % of Total</b>	<b>3.0%</b>	<b>3.1%</b>	<b>3.2%</b>	<b>3.2%</b>	<b>3.2%</b>	<b>3.3%</b>	<b>3.2%</b>	<b>3.2%</b>			

**Productivity of labour (PPS thous./person employed)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Denmark	EU
<b>Total economy</b>	<b>58</b>	<b>60</b>	<b>60</b>	<b>58</b>	<b>64</b>	<b>66</b>	<b>67</b>	<b>68</b>	<b>(1.12)</b>	<b>116</b>	<b>111</b>
<b>ICT sector</b>	<b>69</b>	<b>71</b>	<b>73</b>	<b>76</b>	<b>81</b>	<b>79</b>	<b>79</b>	<b>76</b>	<b>(0.81)</b>	<b>110</b>	<b>101</b>
Manufacturing	63	76	66	64	72	72	72	74	(1.01)	116	93
Telecommunications	107	112	115	118	114	128	126	108	(0.68)	101	96
Computer services	54	55	60	67	73	67	67	68	(0.85)	124	110
Wholesale trade	65	68	71	68	75	72	75	77	(0.84)	118	130

**R&D performance**

**Business expenditure in R&D (BERD - PPS mln)**

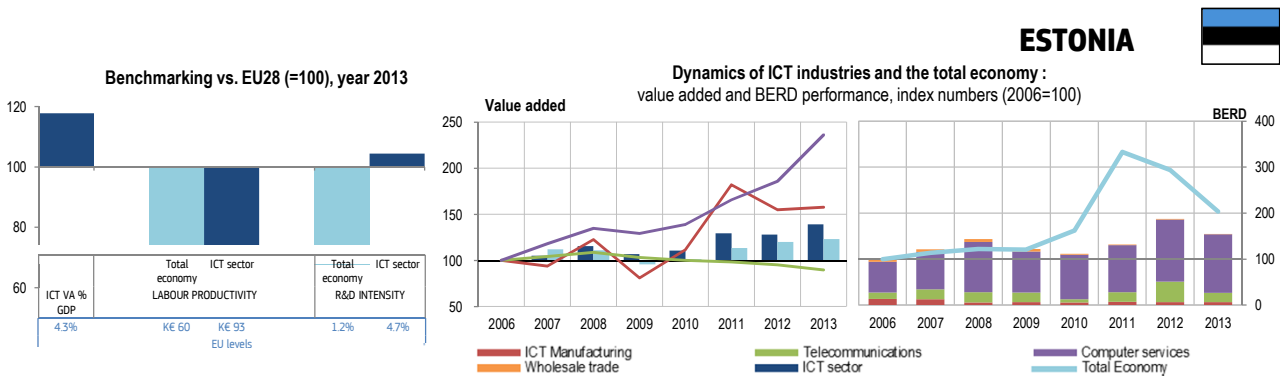
	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Denmark	EU
<b>Total economy</b>	<b>2,645</b>	<b>3,011</b>	<b>3,405</b>	<b>3,526</b>	<b>3,485</b>	<b>3,603</b>	<b>3,677</b>	<b>3,667</b>	<b>2.2%</b>	<b>139</b>	<b>126</b>
<b>ICT sector</b>	<b>569</b>	<b>612</b>	<b>615</b>	<b>637</b>	<b>659</b>	<b>645</b>	<b>552</b>	<b>487</b>	<b>1.8%</b>	<b>86</b>	<b>112</b>
Manufacturing	55	60	48	69	45	50	69	61	0.6%	111	80
Telecommunications	15	19	34	31	24	39	48	37	1.2%	252	82
Computer services	468	489	525	484	540	508	391	350	2.7%	75	183
Wholesale trade	32	44	8	53	50	48	44	39	5.4%	122	151
→ <b>ICT sector as a % of Total</b>	<b>21.5%</b>	<b>20.3%</b>	<b>18.1%</b>	<b>18.1%</b>	<b>18.9%</b>	<b>17.9%</b>	<b>15.0%</b>	<b>13.3%</b>			

**R&D Intensity (BERD as a % of value added)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Denmark	EU
<b>Total economy (% GDP)</b>	<b>1.6</b>	<b>1.8</b>	<b>1.9</b>	<b>2.1</b>	<b>2.0</b>	<b>2.0</b>	<b>2.0</b>	<b>2.0</b>	<b>(1.63)</b>	<b>123</b>	<b>114</b>
<b>ICT sector</b>	<b>97</b>	<b>98</b>	<b>91</b>	<b>92</b>	<b>92</b>	<b>90</b>	<b>7.9</b>	<b>7.3</b>	<b>(1.57)</b>	<b>75</b>	<b>103</b>
Manufacturing	10.8	9.8	9.5	17.3	10.8	12.8	18.4	16.9	(0.82)	156	117
Telecommunications	0.7	1.0	1.6	1.6	1.3	1.9	2.5	2.4	(1.31)	339	97
Computer services	20.5	19.2	17.2	14.0	14.2	14.4	11.1	9.8	(2.34)	48	131
Wholesale trade	3.0	4.1	0.7	4.9	4.4	4.0	3.7	3.2	(2.32)	106	120
Rest of the economy	1.3	1.5	1.7	1.8	1.7	1.7	1.8	1.8	(1.68)	136	117

Note: all monetary variables are expressed in Purchasing Power Standards (PPS) at current prices

(\*) % shares and (levels) correspond to the ratio between the value of a variable *x* in country *i* and in the EU economy [=  $x_i/x_{EU}$ ]. Shares portray the weight of each country in the EU aggregate and are expressed in percentages, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Estonia	EU
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## Economic and industry trends

### Value added (PPS bn)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Estonia	EU
<b>Total economy (GDP)</b>	21	24	24	20	21	24	25	26	0.2%	123	111
<b>ICT sector</b>	1	1	1	1	1	1	1	1	0.2%	..	109
Manufacturing	0	0	0	0	0	0	0	0	0.5%	..	69
Telecommunications	0	0	0	0	0	0	0	0	0.2%	..	85
Computer services	0	0	0	0	0	0	0	1	0.2%	..	140
Wholesale trade	0	0	0	0	0	0	0	0	0.1%	..	126
→ <b>ICT sector as a % of Total</b>	4.5%	4.2%	4.7%	5.0%	4.9%	5.1%	4.8%	5.1%			

### Employment (thousands)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Estonia	EU
<b>Total economy</b>	642	643	642	577	548	584	594	601	0.3%	94	100
<b>ICT sector</b>	17	16	18	17	16	21	18	20	0.3%	118	107
Manufacturing	6	5	6	6	6	8	6	6	0.9%	105	74
Telecommunications	4	2	3	3	2	3	3	4	0.4%	108	89
Computer services	7	7	8	7	8	9	9	9	0.2%	138	127
Wholesale trade	1	1	1	1	1	1	1	1	0.1%	..	97
→ <b>ICT sector as a % of Total</b>	2.6%	2.5%	2.7%	3.0%	2.8%	3.5%	3.1%	3.3%			

### Productivity of labour (PPS thous./person employed)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Estonia	EU
<b>Total economy</b>	33	37	37	35	39	41	43	43	(0.72)	132	111
<b>ICT sector</b>	56	63	62	58	68	59	66	67	(0.71)	118	101
Manufacturing	25	25	28	18	29	34	38	38	(0.51)	150	93
Telecommunications	127	217	184	153	286	141	162	105	(0.67)	83	96
Computer services	40	43	47	50	48	50	55	69	(0.87)	171	110
Wholesale trade	89	71	58	88	88	90	69	72	(0.79)	80	130

## R&D performance

### Business expenditure in R&D (BERD - PPS mln)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Estonia	EU
<b>Total economy</b>	105	120	128	127	170	350	309	213	0.1%	203	126
<b>ICT sector</b>	41	50	59	51	46	54	78	64	0.2%	155	112
Manufacturing	5	5	2	3	2	3	3	3	..	48	80
Telecommunications	6	9	9	8	3	8	18	9	0.3%	148	82
Computer services	28	34	45	37	40	42	56	53	0.4%	189	183
Wholesale trade	2	2	2	2	1	1	1	0	..	..	151
→ <b>ICT sector as a % of Total</b>	39.4%	41.9%	46.4%	39.9%	27.1%	15.6%	25.1%	30.0%			

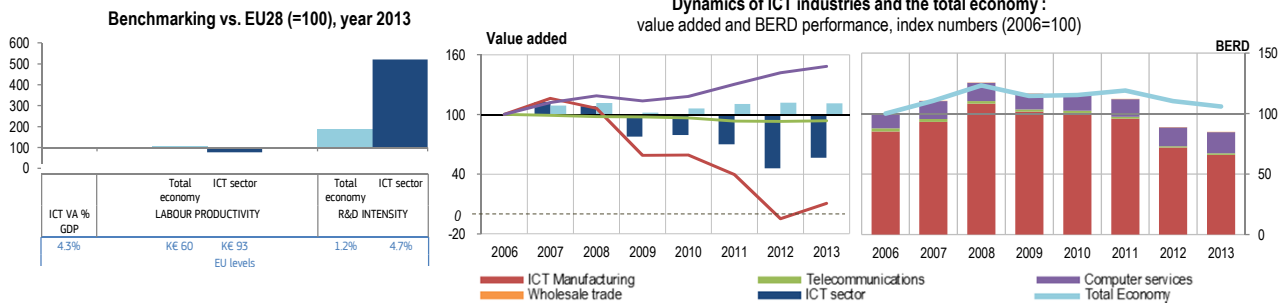
### R&D Intensity (BERD as a % of value added)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Estonia	EU
<b>Total economy (% GDP)</b>	0.5	0.5	0.5	0.6	0.8	1.5	1.2	0.8	(0.68)	165	114
<b>ICT sector</b>	4.4	5.0	5.4	5.0	4.4	4.4	6.4	4.9	(1.04)	111	103
Manufacturing	3.8	3.9	1.4	2.4	1.6	1.2	1.3	1.2	(0.06)	30	117
Telecommunications	1.3	1.9	1.9	1.8	0.6	1.9	4.2	2.1	(1.12)	165	97
Computer services	10.4	10.7	12.6	10.8	10.8	9.6	11.3	8.4	(2.00)	80	131
Wholesale trade	2.9	3.3	3.9	2.8	1.1	0.8	0.8	0.7	(0.48)	23	120
Rest of the economy	0.3	0.3	0.3	0.4	0.6	1.3	1.0	0.6	(0.57)	..	117

Note: all monetary variables are expressed in Purchasing Power Standards (PPS) at current prices

(\*) % shares and (levels) correspond to the ratio between the value of a variable  $x$  in country  $i$  and in the EU economy [=  $x_i/x_{EU}$ ]. Shares portray the weight of each country in the EU aggregate and are expressed in percentages, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

**FINLAND**



2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Finland	EU
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**Economic and industry trends**

**Value added (PPS bn)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Finland	EU
<b>Total economy (GDP)</b>	148	161	165	151	157	164	166	164	1.2%	111	111
<b>ICT sector</b>	13	14	14	10	10	9	6	7	1.2%	56	109
Manufacturing	8	9	8	4	5	3	0	1	1.6%	..	69
Telecommunications	2	2	2	2	2	2	2	2	1.1%	94	85
Computer services	3	3	3	3	3	4	4	4	1.3%	148	140
Wholesale trade	0	1	1	0	0	1	1	0	0.9%	..	126
→ <b>ICT sector as a % of Total</b>	<b>8.6%</b>	<b>8.9%</b>	<b>8.4%</b>	<b>6.6%</b>	<b>6.5%</b>	<b>5.5%</b>	<b>3.5%</b>	<b>4.4%</b>			

**Employment (thousands)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Finland	EU
<b>Total economy</b>	2,455	2,507	2,563	2,501	2,484	2,516	2,538	2,520	1.1%	103	100
<b>ICT sector</b>	116	114	111	105	102	101	101	99	1.6%	86	107
Manufacturing	36	36	33	30	27	24	24	18	2.7%	50	74
Telecommunications	19	17	15	14	13	13	13	13	1.2%	70	89
Computer services	52	52	54	53	54	57	58	61	1.6%	117	127
Wholesale trade	9	9	8	8	7	7	7	7	1.2%	82	97
→ <b>ICT sector as a % of Total</b>	<b>4.7%</b>	<b>4.5%</b>	<b>4.3%</b>	<b>4.2%</b>	<b>4.1%</b>	<b>4.0%</b>	<b>4.0%</b>	<b>3.9%</b>			

**Productivity of labour (PPS thous./person employed)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Finland	EU
<b>Total economy</b>	60	64	64	60	63	65	65	65	(1.08)	108	111
<b>ICT sector</b>	110	126	125	95	99	89	58	72	(0.78)	66	101
Manufacturing	208	242	243	150	165	125	0	44	(0.61)	21	93
Telecommunications	104	114	122	134	143	143	141	140	(0.89)	134	96
Computer services	53	60	61	59	60	64	68	67	(0.84)	126	110
Wholesale trade	58	60	68	58	66	72	74	70	(0.77)	122	130

**R&D performance**

**Business expenditure in R&D (BERD - PPS mln)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Finland	EU
<b>Total economy</b>	3,519	3,893	4,344	4,037	4,068	4,196	3,890	3,731	2.3%	106	126
<b>ICT sector</b>	2,052	2,270	2,581	2,393	2,372	2,301	1,825	1,744	6.5%	85	112
Manufacturing	1,751	1,916	2,222	2,086	2,065	1,970	1,480	1,352	13.2%	77	80
Telecommunications	52	47	47	38	37	32	21	28	0.9%	54	82
Computer services	246	306	310	267	268	296	322	361	2.8%	147	183
Wholesale trade	3	2	2	2	2	3	3	2	0.3%	67	151
→ <b>ICT sector as a % of Total</b>	<b>58.3%</b>	<b>58.3%</b>	<b>59.4%</b>	<b>59.3%</b>	<b>58.3%</b>	<b>54.8%</b>	<b>46.9%</b>	<b>46.7%</b>			

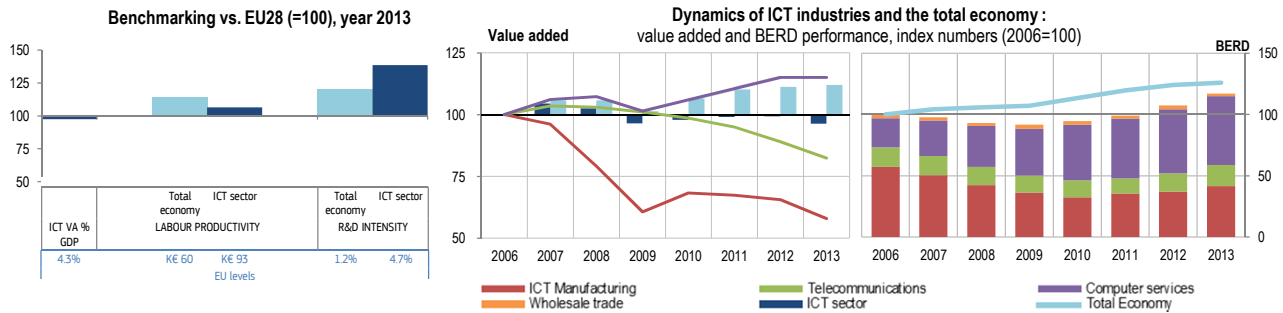
**R&D Intensity (BERD as a % of value added)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Finland	EU
<b>Total economy (% GDP)</b>	2.4	2.4	2.6	2.7	2.6	2.6	2.3	2.3	(1.88)	95	114
<b>ICT sector</b>	16.1	15.8	18.7	24.1	23.5	25.8	31.2	24.3	(5.21)	151	103
Manufacturing	23.1	21.7	27.5	46.7	45.9	65.4	-408.9	166.7	(8.09)	722	117
Telecommunications	2.7	2.5	2.5	2.0	2.0	1.8	1.2	1.6	(0.85)	58	97
Computer services	8.9	9.9	9.5	8.6	8.2	8.3	8.2	8.8	(2.11)	99	131
Wholesale trade	0.6	0.4	0.4	0.5	0.4	0.5	0.5	0.4	(0.29)	67	120
Rest of the economy	1.1	1.1	1.2	1.2	1.2	1.2	1.3	1.3	(1.20)	116	117

Note: all monetary variables are expressed in Purchasing Power Standards (PPS) at current prices

(\*) % shares and (levels) correspond to the ratio between the value of a variable *x* in country *i* and in the EU economy [=  $x_i/x_{EU}$ ]. Shares portray the weight of each country in the EU aggregate and are expressed in percentages, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

FRANCE



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) France	EU
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**Economic and industry trends**

**Value added (PPS bn)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) France	EU
<b>Total economy (GDP)</b>	<b>1,671</b>	<b>1,768</b>	<b>1,767</b>	<b>1,694</b>	<b>1,780</b>	<b>1,840</b>	<b>1,859</b>	<b>1,871</b>	<b>13.8%</b>	<b>112</b>	<b>111</b>
<b>ICT sector</b>	<b>81</b>	<b>85</b>	<b>83</b>	<b>78</b>	<b>80</b>	<b>80</b>	<b>81</b>	<b>78</b>	<b>13.5%</b>	<b>96</b>	<b>109</b>
Manufacturing	7	7	6	5	5	5	5	4	8.7%	58	69
Telecommunications	27	28	28	27	26	26	24	22	13.0%	82	85
Computer services	41	44	44	42	44	46	48	48	15.5%	115	140
Wholesale trade	5	6	5	5	4	4	4	4	7.9%	75	126
→ <b>ICT sector as a % of Total</b>	<b>4.9%</b>	<b>4.8%</b>	<b>4.7%</b>	<b>4.6%</b>	<b>4.5%</b>	<b>4.4%</b>	<b>4.3%</b>	<b>4.2%</b>			

**Employment (thousands)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) France	EU
<b>Total economy</b>	<b>26,667</b>	<b>27,042</b>	<b>27,168</b>	<b>26,863</b>	<b>26,896</b>	<b>27,107</b>	<b>27,196</b>	<b>27,197</b>	<b>12.1%</b>	<b>102</b>	<b>100</b>
<b>ICT sector</b>	<b>765</b>	<b>770</b>	<b>781</b>	<b>765</b>	<b>758</b>	<b>766</b>	<b>787</b>	<b>786</b>	<b>12.6%</b>	<b>103</b>	<b>107</b>
Manufacturing	70	68	66	57	53	50	45	44	6.5%	63	74
Telecommunications	155	152	148	146	140	136	139	137	12.6%	88	89
Computer services	476	489	505	505	516	529	546	554	14.3%	116	127
Wholesale trade	63	60	62	57	49	51	57	50	8.8%	79	97
→ <b>ICT sector as a % of Total</b>	<b>2.9%</b>	<b>2.8%</b>	<b>2.9%</b>	<b>2.8%</b>	<b>2.8%</b>	<b>2.8%</b>	<b>2.9%</b>	<b>2.9%</b>			

**Productivity of labour (PPS thous./person employed)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) France	EU
<b>Total economy</b>	<b>63</b>	<b>65</b>	<b>65</b>	<b>63</b>	<b>66</b>	<b>68</b>	<b>68</b>	<b>69</b>	<b>(1.14)</b>	<b>110</b>	<b>111</b>
<b>ICT sector</b>	<b>106</b>	<b>110</b>	<b>107</b>	<b>102</b>	<b>105</b>	<b>105</b>	<b>103</b>	<b>100</b>	<b>(1.07)</b>	<b>94</b>	<b>101</b>
Manufacturing	106	105	89	78	96	101	109	97	(1.33)	92	93
Telecommunications	173	183	187	186	189	188	172	162	(1.03)	93	96
Computer services	87	90	88	83	85	87	87	86	(1.08)	99	110
Wholesale trade	86	98	85	82	83	80	74	81	(0.89)	94	130

**R&D performance**

**Business expenditure in R&D (BERD - PPS mln)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) France	EU
<b>Total economy</b>	<b>21,558</b>	<b>22,492</b>	<b>22,811</b>	<b>23,089</b>	<b>24,456</b>	<b>25,782</b>	<b>26,767</b>	<b>27,152</b>	<b>16.6%</b>	<b>126</b>	<b>126</b>
<b>ICT sector</b>	<b>4,313</b>	<b>4,216</b>	<b>4,016</b>	<b>3,956</b>	<b>4,083</b>	<b>4,274</b>	<b>4,626</b>	<b>5,044</b>	<b>18.7%</b>	<b>117</b>	<b>112</b>
Manufacturing	2,474	2,181	1,832	1,567	1,404	1,534	1,598	1,799	17.6%	73	80
Telecommunications	687	675	637	602	589	533	642	743	23.5%	108	82
Computer services	1,020	1,242	1,445	1,635	1,963	2,100	2,250	2,410	18.7%	236	183
Wholesale trade	132	118	102	152	126	108	136	93	12.9%	70	151
→ <b>ICT sector as a % of Total</b>	<b>20.0%</b>	<b>18.7%</b>	<b>17.6%</b>	<b>17.1%</b>	<b>16.7%</b>	<b>16.6%</b>	<b>17.3%</b>	<b>18.6%</b>			

**R&D Intensity (BERD as a % of value added)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) France	EU
<b>Total economy (% GDP)</b>	<b>1.3</b>	<b>1.3</b>	<b>1.3</b>	<b>1.4</b>	<b>1.4</b>	<b>1.4</b>	<b>1.4</b>	<b>1.5</b>	<b>(1.20)</b>	<b>112</b>	<b>114</b>
<b>ICT sector</b>	<b>5.3</b>	<b>5.0</b>	<b>4.8</b>	<b>5.0</b>	<b>5.1</b>	<b>5.3</b>	<b>5.7</b>	<b>6.4</b>	<b>(1.39)</b>	<b>121</b>	<b>103</b>
Manufacturing	33.3	30.5	31.1	34.8	27.6	30.6	32.8	41.7	(2.03)	125	117
Telecommunications	2.6	2.4	2.3	2.2	2.2	2.1	2.7	3.4	(1.81)	131	97
Computer services	2.5	2.8	3.2	3.9	4.5	4.6	4.7	5.1	(1.21)	205	131
Wholesale trade	2.4	2.0	2.0	3.3	3.1	2.6	3.2	2.3	(1.64)	94	120
Rest of the economy	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	(1.17)	114	117

Note: all monetary variables are expressed in Purchasing Power Standards (PPS) at current prices

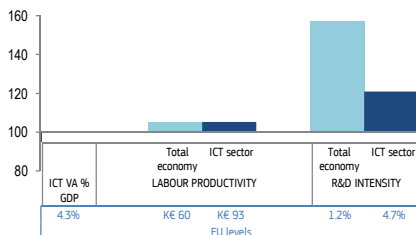
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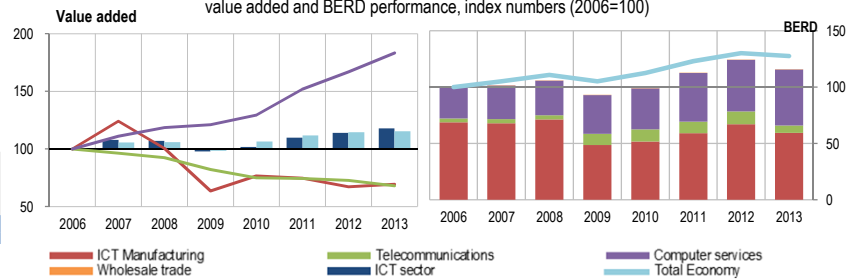
**GERMANY**



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy :  
value added and BERD performance, index numbers (2006=100)



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Germany	EU
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**Economic and industry trends**

**Value added (PPS bn)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Germany	EU
<b>Total economy (GDP)</b>	<b>2,326</b>	<b>2,455</b>	<b>2,466</b>	<b>2,287</b>	<b>2,473</b>	<b>2,601</b>	<b>2,666</b>	<b>2,684</b>	<b>19.8%</b>	<b>115</b>	<b>111</b>
<b>ICT sector</b>	<b>93</b>	<b>100</b>	<b>99</b>	<b>91</b>	<b>94</b>	<b>102</b>	<b>106</b>	<b>109</b>	<b>18.8%</b>	<b>118</b>	<b>109</b>
Manufacturing	17	21	17	11	13	13	11	12	23.6%	69	69
Telecommunications	35	34	33	29	26	26	26	24	14.0%	68	85
Computer services	35	38	41	42	45	53	58	63	20.6%	183	140
Wholesale trade	6	7	9	9	10	11	11	10	19.6%	168	126
→ <b>ICT sector as a % of Total</b>	<b>4.0%</b>	<b>4.1%</b>	<b>4.0%</b>	<b>4.0%</b>	<b>3.8%</b>	<b>3.9%</b>	<b>4.0%</b>	<b>4.1%</b>			

**Employment (thousands)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Germany	EU
<b>Total economy</b>	<b>39,635</b>	<b>40,325</b>	<b>40,856</b>	<b>40,892</b>	<b>41,020</b>	<b>41,577</b>	<b>42,060</b>	<b>42,328</b>	<b>18.9%</b>	<b>107</b>	<b>100</b>
<b>ICT sector</b>	<b>1,010</b>	<b>1,048</b>	<b>1,106</b>	<b>1,054</b>	<b>1,047</b>	<b>1,071</b>	<b>1,087</b>	<b>1,111</b>	<b>17.9%</b>	<b>110</b>	<b>107</b>
Manufacturing	164	177	187	153	145	144	143	142	20.7%	86	74
Telecommunications	197	200	194	173	144	135	129	125	11.5%	63	89
Computer services	545	565	591	627	637	662	697	723	18.6%	133	127
Wholesale trade	104	106	133	101	121	130	117	121	21.3%	117	97
→ <b>ICT sector as a % of Total</b>	<b>2.5%</b>	<b>2.6%</b>	<b>2.7%</b>	<b>2.6%</b>	<b>2.6%</b>	<b>2.6%</b>	<b>2.6%</b>	<b>2.6%</b>			

**Productivity of labour (PPS thous./person employed)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Germany	EU
<b>Total economy</b>	<b>59</b>	<b>61</b>	<b>60</b>	<b>56</b>	<b>60</b>	<b>63</b>	<b>63</b>	<b>63</b>	<b>(1.05)</b>	<b>108</b>	<b>111</b>
<b>ICT sector</b>	<b>92</b>	<b>95</b>	<b>90</b>	<b>86</b>	<b>90</b>	<b>95</b>	<b>97</b>	<b>98</b>	<b>(1.05)</b>	<b>107</b>	<b>101</b>
Manufacturing	103	119	91	70	89	88	80	83	(1.14)	80	93
Telecommunications	179	169	168	167	183	194	198	191	(1.21)	107	96
Computer services	63	68	69	67	70	79	83	88	(1.10)	138	110
Wholesale trade	58	63	65	93	86	81	93	84	(0.92)	144	130

**R&D performance**

**Business expenditure in R&D (BERD - PPS mln)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Germany	EU
<b>Total economy</b>	<b>39,991</b>	<b>42,039</b>	<b>44,345</b>	<b>42,087</b>	<b>44,974</b>	<b>49,148</b>	<b>52,056</b>	<b>50,960</b>	<b>31.1%</b>	<b>127</b>	<b>126</b>
<b>ICT sector</b>	<b>5,308</b>	<b>5,390</b>	<b>5,615</b>	<b>4,935</b>	<b>5,254</b>	<b>5,980</b>	<b>6,604</b>	<b>6,144</b>	<b>22.7%</b>	<b>116</b>	<b>112</b>
Manufacturing	3,650	3,606	3,790	2,582	2,742	3,136	3,564	3,146	30.7%	86	80
Telecommunications	175	187	184	530	578	549	601	356	11.3%	203	82
Computer services	1,480	1,592	1,635	1,816	1,924	2,283	2,427	2,632	20.4%	178	183
Wholesale trade	3	4	6	8	11	12	13	11	1.5%	389	151
→ <b>ICT sector as a % of Total</b>	<b>13.3%</b>	<b>12.8%</b>	<b>12.7%</b>	<b>11.7%</b>	<b>11.7%</b>	<b>12.2%</b>	<b>12.7%</b>	<b>12.1%</b>			

**R&D Intensity (BERD as a % of value added)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Germany	EU
<b>Total economy (% GDP)</b>	<b>1.7</b>	<b>1.7</b>	<b>1.8</b>	<b>1.8</b>	<b>1.8</b>	<b>1.9</b>	<b>2.0</b>	<b>1.9</b>	<b>(1.57)</b>	<b>110</b>	<b>114</b>
<b>ICT sector</b>	<b>5.7</b>	<b>5.4</b>	<b>5.7</b>	<b>5.4</b>	<b>5.6</b>	<b>5.9</b>	<b>6.3</b>	<b>5.6</b>	<b>(1.21)</b>	<b>98</b>	<b>103</b>
Manufacturing	21.5	17.2	22.2	24.0	21.2	24.8	31.3	26.8	(1.30)	124	117
Telecommunications	0.5	0.6	0.6	1.8	2.2	2.1	2.4	1.5	(0.81)	299	97
Computer services	4.3	4.1	4.0	4.3	4.3	4.3	4.2	4.1	(0.99)	97	131
Wholesale trade	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	(0.08)	..	120
Rest of the economy	1.6	1.6	1.6	1.7	1.7	1.7	1.8	1.7	(1.65)	112	117

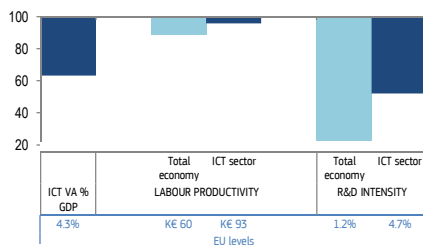
Note: all monetary variables are expressed in Purchasing Power Standards (PPS) at current prices

(\*) % shares and (levels) correspond to the ratio between the value of a variable *x* in country *i* and in the EU economy [=  $x_i/x_{EU}$ ]. Shares portray the weight of each country in the EU aggregate and are expressed in percentages, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

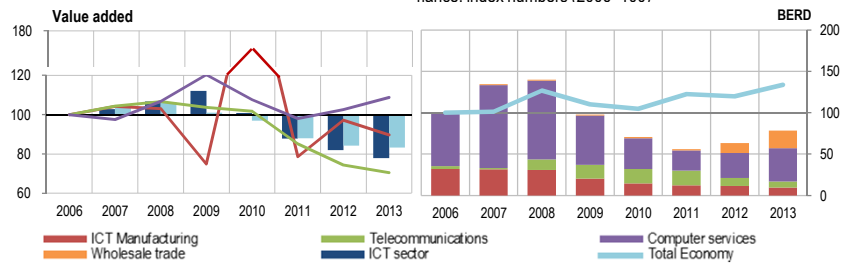
GREECE



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy :  
value added and BERD performance, index numbers (2006=100)



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Greece	EU
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Economic and industry trends

Value added (PPS bn)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Greece	EU
<b>Total economy (GDP)</b>	<b>254</b>	<b>263</b>	<b>270</b>	<b>256</b>	<b>246</b>	<b>223</b>	<b>214</b>	<b>211</b>	<b>1.6%</b>	<b>83</b>	<b>111</b>
<b>ICT sector</b>	<b>7</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>1.0%</b>	<b>78</b>	<b>109</b>
Manufacturing	0	0	0	0	0	0	0	0	0.2%	..	69
Telecommunications	5	6	6	6	6	5	4	4	2.3%	71	85
Computer services	1	1	1	1	1	1	1	1	0.4%	109	140
Wholesale trade	1	1	1	1	0	1	1	0	0.9%	..	126
→ <b>ICT sector as a % of Total</b>	<b>2.9%</b>	<b>2.9%</b>	<b>2.9%</b>	<b>3.2%</b>	<b>3.0%</b>	<b>2.9%</b>	<b>2.8%</b>	<b>2.7%</b>			

Employment (thousands)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Greece	EU
<b>Total economy</b>	<b>4,731</b>	<b>4,795</b>	<b>4,856</b>	<b>4,829</b>	<b>4,705</b>	<b>4,382</b>	<b>4,105</b>	<b>3,957</b>	<b>1.8%</b>	<b>84</b>	<b>100</b>
<b>ICT sector</b>	<b>68</b>	<b>69</b>	<b>70</b>	<b>67</b>	<b>70</b>	<b>67</b>	<b>68</b>	<b>64</b>	<b>1.0%</b>	<b>95</b>	<b>107</b>
Manufacturing	3	3	3	2	3	1	2	2	0.2%	49	74
Telecommunications	30	28	30	28	29	28	28	27	2.5%	91	89
Computer services	24	27	26	26	27	27	28	28	0.7%	114	127
Wholesale trade	10	11	11	11	10	10	10	8	1.4%	74	97
→ <b>ICT sector as a % of Total</b>	<b>1.4%</b>	<b>1.4%</b>	<b>1.4%</b>	<b>1.4%</b>	<b>1.5%</b>	<b>1.5%</b>	<b>1.7%</b>	<b>1.6%</b>			

Productivity of labour (PPS thous./person employed)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Greece	EU
<b>Total economy</b>	<b>54</b>	<b>55</b>	<b>56</b>	<b>53</b>	<b>52</b>	<b>51</b>	<b>52</b>	<b>53</b>	<b>(0.89)</b>	<b>100</b>	<b>111</b>
<b>ICT sector</b>	<b>109</b>	<b>109</b>	<b>112</b>	<b>123</b>	<b>106</b>	<b>96</b>	<b>89</b>	<b>89</b>	<b>(0.96)</b>	<b>82</b>	<b>101</b>
Manufacturing	41	46	45	47	70	73	66	74	(1.02)	182	93
Telecommunications	184	204	197	202	189	164	148	143	(0.91)	78	96
Computer services	48	42	48	54	46	42	43	46	(0.58)	96	110
Wholesale trade	55	51	55	97	35	53	61	61	(0.67)	111	130

R&D performance

Business expenditure in R&D (BERD - PPS mln)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Greece	EU
<b>Total economy</b>	<b>428</b>	<b>433</b>	<b>542</b>	<b>470</b>	<b>448</b>	<b>524</b>	<b>513</b>	<b>573</b>	<b>0.3%</b>	<b>134</b>	<b>126</b>
<b>ICT sector</b>	<b>177</b>	<b>238</b>	<b>248</b>	<b>173</b>	<b>125</b>	<b>99</b>	<b>112</b>	<b>139</b>	<b>0.5%</b>	<b>78</b>	<b>112</b>
Manufacturing	57	56	55	36	26	22	20	17	0.2%	30	80
Telecommunications	6	3	23	30	31	32	17	13	0.4%	207	82
Computer services	112	178	169	106	66	44	54	72	0.6%	64	183
Wholesale trade	2	2	2	2	2	3	21	37	5.2%	2189	151
→ <b>ICT sector as a % of Total</b>	<b>41.4%</b>	<b>55.0%</b>	<b>45.8%</b>	<b>36.9%</b>	<b>28.0%</b>	<b>19.0%</b>	<b>21.9%</b>	<b>24.3%</b>			

R&D Intensity (BERD as a % of value added)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Greece	EU
<b>Total economy (% GDP)</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.3</b>	<b>(0.22)</b>	<b>..</b>	<b>114</b>
<b>ICT sector</b>	<b>2.4</b>	<b>3.2</b>	<b>3.2</b>	<b>2.1</b>	<b>1.7</b>	<b>1.5</b>	<b>1.9</b>	<b>2.4</b>	<b>(0.52)</b>	<b>101</b>	<b>103</b>
Manufacturing	44.9	42.6	42.1	38.4	11.7	21.8	16.4	14.8	(0.72)	33	117
Telecommunications	0.1	0.1	0.4	0.5	0.6	0.7	0.4	0.3	(0.19)	..	97
Computer services	9.5	15.5	13.4	7.4	5.2	3.8	4.4	5.6	(1.33)	58	131
Wholesale trade	0.3	0.3	0.3	0.2	0.7	0.5	3.4	7.9	(5.68)	..	120
Rest of the economy	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	(0.20)	..	117

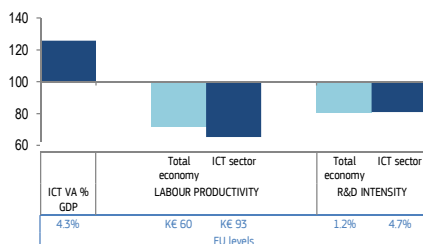
Note: all monetary variables are expressed in euros at current prices and exchange rates.

(\*) % shares and (levels) correspond to the (%) ratio between the value of a variable (x) in country (i) and in the EU economy [= x<sub>i</sub>/x<sub>EU</sub>]. Percentage shares portray the weight of each country in the EU aggregate, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

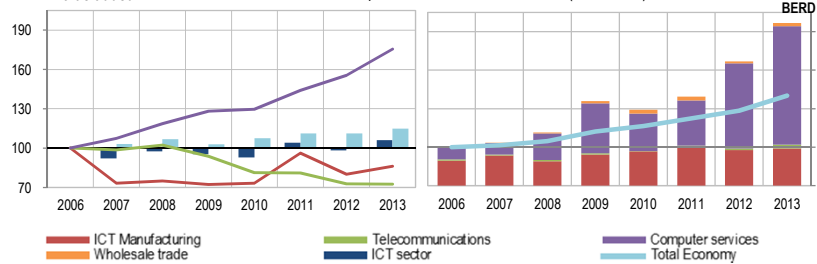
## HUNGARY



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy :  
value added and BERD performance, index numbers (2006=100)



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Hungary	EU
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### Economic and industry trends

#### Value added (PPS bn)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Hungary	EU
<b>Total economy (GDP)</b>	<b>153</b>	<b>158</b>	<b>163</b>	<b>157</b>	<b>165</b>	<b>170</b>	<b>170</b>	<b>176</b>	<b>1.3%</b>	<b>115</b>	<b>111</b>
<b>ICT sector</b>	<b>9</b>	<b>8</b>	<b>9</b>	<b>9</b>	<b>8</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>1.6%</b>	<b>106</b>	<b>109</b>
Manufacturing	3	2	2	2	2	3	3	3	5.5%	86	69
Telecommunications	3	3	3	3	3	3	2	2	1.4%	73	85
Computer services	2	2	3	3	3	3	3	4	1.2%	176	140
Wholesale trade	0	0	0	0	0	0	0	1	1.0%	..	126
→ <b>ICT sector as a % of Total</b>	<b>5.8%</b>	<b>5.2%</b>	<b>5.3%</b>	<b>5.4%</b>	<b>5.0%</b>	<b>5.5%</b>	<b>5.2%</b>	<b>5.4%</b>			

#### Employment (thousands)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Hungary	EU
<b>Total economy</b>	<b>4,192</b>	<b>4,198</b>	<b>4,115</b>	<b>4,013</b>	<b>4,002</b>	<b>4,003</b>	<b>4,008</b>	<b>4,046</b>	<b>1.8%</b>	<b>97</b>	<b>100</b>
<b>ICT sector</b>	<b>163</b>	<b>180</b>	<b>155</b>	<b>139</b>	<b>150</b>	<b>169</b>	<b>162</b>	<b>156</b>	<b>2.5%</b>	<b>95</b>	<b>107</b>
Manufacturing	87	105	79	68	78	87	78	65	9.6%	75	74
Telecommunications	24	22	21	22	21	23	22	22	2.0%	94	89
Computer services	50	49	51	44	45	54	56	63	1.6%	125	127
Wholesale trade	3	3	5	5	6	5	5	5	0.9%	215	97
→ <b>ICT sector as a % of Total</b>	<b>3.9%</b>	<b>4.3%</b>	<b>3.8%</b>	<b>3.5%</b>	<b>3.8%</b>	<b>4.2%</b>	<b>4.0%</b>	<b>3.8%</b>			

#### Productivity of labour (PPS thous./person employed)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Hungary	EU
<b>Total economy</b>	<b>36</b>	<b>38</b>	<b>40</b>	<b>39</b>	<b>41</b>	<b>42</b>	<b>42</b>	<b>43</b>	<b>(0.72)</b>	<b>119</b>	<b>111</b>
<b>ICT sector</b>	<b>55</b>	<b>46</b>	<b>56</b>	<b>61</b>	<b>55</b>	<b>55</b>	<b>54</b>	<b>61</b>	<b>(0.65)</b>	<b>111</b>	<b>101</b>
Manufacturing	36	22	30	33	30	35	32	42	(0.57)	115	93
Telecommunications	142	148	164	145	128	117	110	110	(0.70)	77	96
Computer services	43	48	50	62	62	57	59	60	(0.76)	141	110
Wholesale trade	101	86	73	66	80	93	84	97	(1.06)	96	130

### R&D performance

#### Business expenditure in R&D (BERD - PPS mln)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Hungary	EU
<b>Total economy</b>	<b>728</b>	<b>764</b>	<b>845</b>	<b>1,026</b>	<b>1,129</b>	<b>1,270</b>	<b>1,418</b>	<b>1,704</b>	<b>1.0%</b>	<b>234</b>	<b>126</b>
<b>ICT sector</b>	<b>84</b>	<b>94</b>	<b>117</b>	<b>185</b>	<b>166</b>	<b>196</b>	<b>272</b>	<b>356</b>	<b>1.3%</b>	<b>422</b>	<b>112</b>
Manufacturing	55	66	54	68	75	85	78	82	0.8%	149	80
Telecommunications	3	2	2	3	1	3	3	8	0.3%	288	82
Computer services	25	25	58	110	82	99	187	260	2.0%	1036	183
Wholesale trade	2	0	2	5	8	9	4	7	0.9%	440	151
→ <b>ICT sector as a % of Total</b>	<b>11.6%</b>	<b>12.3%</b>	<b>13.8%</b>	<b>18.1%</b>	<b>14.7%</b>	<b>15.4%</b>	<b>19.2%</b>	<b>20.9%</b>			

#### R&D Intensity (BERD as a % of value added)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Hungary	EU
<b>Total economy (% GDP)</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.8</b>	<b>1.0</b>	<b>(0.80)</b>	<b>204</b>	<b>114</b>
<b>ICT sector</b>	<b>0.9</b>	<b>1.1</b>	<b>1.3</b>	<b>2.2</b>	<b>2.0</b>	<b>2.1</b>	<b>3.1</b>	<b>3.8</b>	<b>(0.81)</b>	<b>398</b>	<b>103</b>
Manufacturing	1.7	2.9	2.3	3.0	3.2	2.8	3.1	3.0	(0.15)	173	117
Telecommunications	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.3	(0.18)	..	97
Computer services	1.2	1.1	2.3	4.0	2.9	3.2	5.6	6.9	(1.64)	590	131
Wholesale trade	0.6	0.2	0.6	1.5	1.8	1.9	0.8	1.3	(0.92)	213	120
Rest of the economy	0.4	0.4	0.5	0.6	0.6	0.7	0.7	0.8	(0.77)	..	117

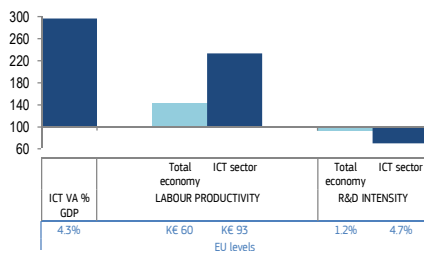
Note: all monetary variables are expressed in Purchasing Power Standards (PPS) at current prices

(\*) % shares and (levels) correspond to the ratio between the value of a variable  $x$  in country  $i$  and in the EU economy [=  $x_i/x_{EU}$ ]. Shares portray the weight of each country in the EU aggregate and are expressed in percentages, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

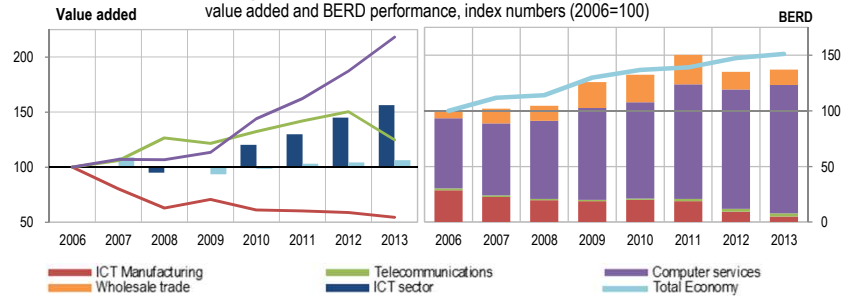
**IRELAND**



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy :  
value added and BERD performance, index numbers (2006=100)



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Ireland	EU
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**Economic and industry trends**

**Value added (PPS bn)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Ireland	EU
<b>Total economy (GDP)</b>	153	167	154	143	150	158	159	163	1.2%	106	111
<b>ICT sector</b>	13	13	13	13	16	17	19	21	3.6%	156	109
Manufacturing	4	3	2	3	2	2	2	2	4.1%	54	69
Telecommunications	2	2	2	2	2	3	3	2	1.3%	125	85
Computer services	7	7	7	8	10	11	13	15	4.8%	218	140
Wholesale trade	1	1	1	1	1	1	2	2	3.0%	..	126
→ <b>ICT sector as a % of Total</b>	<b>8.7%</b>	<b>7.9%</b>	<b>8.2%</b>	<b>9.3%</b>	<b>10.6%</b>	<b>10.9%</b>	<b>12.1%</b>	<b>12.7%</b>			

**Employment (thousands)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Ireland	EU
<b>Total economy</b>	2,053	2,143	2,129	1,962	1,883	1,849	1,839	1,882	0.8%	92	100
<b>ICT sector</b>	98	98	94	94	93	91	97	95	1.5%	97	107
Manufacturing	28	26	27	24	22	20	21	17	2.5%	60	74
Telecommunications	21	21	21	21	20	21	19	18	1.6%	86	89
Computer services	46	46	42	44	46	46	52	53	1.4%	118	127
Wholesale trade	4	5	5	4	5	4	6	7	1.2%	173	97
→ <b>ICT sector as a % of Total</b>	<b>4.8%</b>	<b>4.6%</b>	<b>4.4%</b>	<b>4.8%</b>	<b>4.9%</b>	<b>4.9%</b>	<b>5.3%</b>	<b>5.1%</b>			

**Productivity of labour (PPS thous./person employed)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Ireland	EU
<b>Total economy</b>	74	78	72	73	80	85	87	87	(1.43)	116	111
<b>ICT sector</b>	135	135	134	142	172	189	198	218	(2.34)	162	101
Manufacturing	135	118	90	110	105	113	108	122	(1.67)	90	93
Telecommunications	87	90	107	102	120	124	143	126	(0.80)	145	96
Computer services	150	158	174	175	213	242	248	278	(3.51)	186	110
Wholesale trade	213	213	141	188	317	301	246	223	(2.44)	105	130

**R&D performance**

**Business expenditure in R&D (BERD - PPS mln)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Ireland	EU
<b>Total economy</b>	1,213	1,357	1,385	1,576	1,660	1,686	1,789	1,835	1.1%	151	126
<b>ICT sector</b>	492	502	514	618	651	740	665	674	2.5%	137	112
Manufacturing	140	111	96	93	98	92	46	25	0.2%	18	80
Telecommunications	9	8	7	5	6	11	12	13	0.4%	139	82
Computer services	309	317	345	405	427	507	529	567	4.4%	183	183
Wholesale trade	33	66	67	114	121	130	78	68	9.5%	210	151
→ <b>ICT sector as a % of Total</b>	<b>40.5%</b>	<b>37.0%</b>	<b>37.1%</b>	<b>39.2%</b>	<b>39.2%</b>	<b>43.9%</b>	<b>37.2%</b>	<b>36.7%</b>			

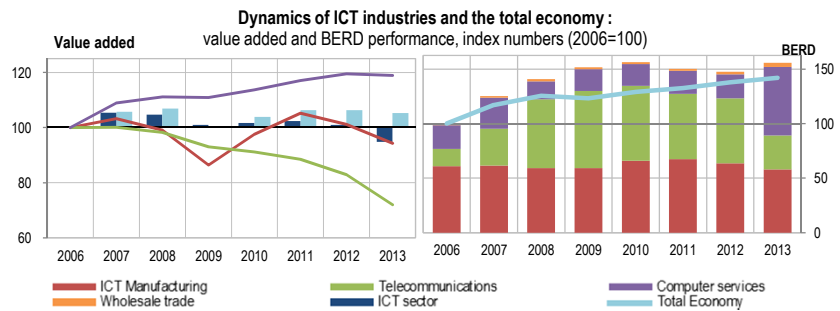
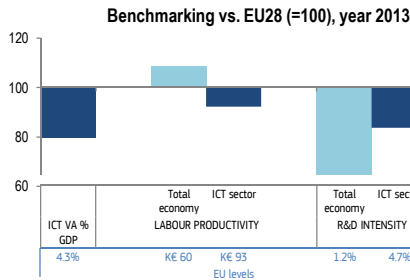
**R&D Intensity (BERD as a % of value added)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Ireland	EU
<b>Total economy (% GDP)</b>	0.8	0.8	0.9	1.1	1.1	1.1	1.1	1.1	(0.93)	142	114
<b>ICT sector</b>	3.7	3.8	4.1	4.6	4.1	4.3	3.5	3.3	(0.70)	88	103
Manufacturing	3.7	3.6	4.0	3.5	4.2	4.0	2.1	1.2	(0.06)	33	117
Telecommunications	0.5	0.4	0.3	0.2	0.2	0.4	0.4	0.6	(0.32)	112	97
Computer services	4.5	4.3	4.7	5.2	4.3	4.6	4.1	3.8	(0.91)	84	131
Wholesale trade	3.8	6.8	10.2	16.2	8.4	9.9	5.1	4.4	(3.20)	116	120
Rest of the economy	0.5	0.6	0.6	0.7	0.8	0.7	0.8	0.8	(0.77)	..	117

Note: all monetary variables are expressed in Purchasing Power Standards (PPS) at current prices

(\*) % shares and (levels) correspond to the ratio between the value of a variable *x* in country *i* and in the EU economy [=  $x_i/x_{EU}$ ]. Shares portray the weight of each country in the EU aggregate and are expressed in percentages, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

ITALY



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Italy	EU
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**Economic and industry trends**

**Value added (PPS bn)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Italy	EU
<b>Total economy (GDP)</b>	<b>1,513</b>	<b>1,599</b>	<b>1,617</b>	<b>1,519</b>	<b>1,571</b>	<b>1,609</b>	<b>1,608</b>	<b>1,593</b>	<b>11.8%</b>	<b>105</b>	<b>111</b>
<b>ICT sector</b>	<b>57</b>	<b>60</b>	<b>60</b>	<b>58</b>	<b>58</b>	<b>59</b>	<b>58</b>	<b>54</b>	<b>9.4%</b>	<b>95</b>	<b>109</b>
Manufacturing	5	5	5	4	5	5	5	5	9.6%	94	69
Telecommunications	27	27	27	25	25	24	23	20	11.5%	72	85
Computer services	22	24	24	24	25	26	26	26	8.5%	119	140
Wholesale trade	3	4	4	4	3	3	4	4	7.2%	127	126
→ <b>ICT sector as a % of Total</b>	<b>3.8%</b>	<b>3.8%</b>	<b>3.7%</b>	<b>3.8%</b>	<b>3.7%</b>	<b>3.7%</b>	<b>3.6%</b>	<b>3.4%</b>			

**Employment (thousands)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Italy	EU
<b>Total economy</b>	<b>24,984</b>	<b>25,295</b>	<b>25,349</b>	<b>24,926</b>	<b>24,766</b>	<b>24,843</b>	<b>24,765</b>	<b>24,323</b>	<b>10.8%</b>	<b>97</b>	<b>100</b>
<b>ICT sector</b>	<b>653</b>	<b>654</b>	<b>652</b>	<b>653</b>	<b>637</b>	<b>637</b>	<b>636</b>	<b>631</b>	<b>10.1%</b>	<b>97</b>	<b>107</b>
Manufacturing	89	87	84	79	75	77	76	73	10.7%	82	74
Telecommunications	121	118	116	113	108	104	99	95	8.8%	79	89
Computer services	376	382	389	400	394	397	401	406	10.4%	108	127
Wholesale trade	66	67	62	61	59	59	59	58	10.2%	87	97
→ <b>ICT sector as a % of Total</b>	<b>2.6%</b>	<b>2.6%</b>	<b>2.6%</b>	<b>2.6%</b>	<b>2.6%</b>	<b>2.6%</b>	<b>2.6%</b>	<b>2.6%</b>			

**Productivity of labour (PPS thous./person employed)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Italy	EU
<b>Total economy</b>	<b>61</b>	<b>63</b>	<b>64</b>	<b>61</b>	<b>63</b>	<b>65</b>	<b>65</b>	<b>65</b>	<b>(1.09)</b>	<b>108</b>	<b>111</b>
<b>ICT sector</b>	<b>88</b>	<b>92</b>	<b>92</b>	<b>89</b>	<b>92</b>	<b>92</b>	<b>91</b>	<b>86</b>	<b>(0.92)</b>	<b>98</b>	<b>101</b>
Manufacturing	56	60	59	55	65	69	67	65	(0.90)	116	93
Telecommunications	226	232	231	224	230	232	228	207	(1.31)	91	96
Computer services	58	63	63	61	64	65	66	65	(0.81)	110	110
Wholesale trade	45	58	61	61	58	59	65	65	(0.71)	145	130

**R&D performance**

**Business expenditure in R&D (BERD - PPS mln)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Italy	EU
<b>Total economy</b>	<b>8,018</b>	<b>9,390</b>	<b>10,075</b>	<b>9,882</b>	<b>10,349</b>	<b>10,625</b>	<b>11,060</b>	<b>11,380</b>	<b>6.9%</b>	<b>142</b>	<b>126</b>
<b>ICT sector</b>	<b>1,361</b>	<b>1,706</b>	<b>1,915</b>	<b>2,066</b>	<b>2,130</b>	<b>2,043</b>	<b>2,009</b>	<b>2,120</b>	<b>7.8%</b>	<b>156</b>	<b>112</b>
Manufacturing	829	837	805	806	900	919	866	789	7.7%	95	80
Telecommunications	215	459	859	963	935	812	810	422	13.4%	196	82
Computer services	297	387	224	271	271	288	300	857	6.6%	289	183
Wholesale trade	20	23	27	26	24	24	33	50	7.0%	250	151
→ <b>ICT sector as a % of Total</b>	<b>17.0%</b>	<b>18.2%</b>	<b>19.0%</b>	<b>20.9%</b>	<b>20.6%</b>	<b>19.2%</b>	<b>18.2%</b>	<b>18.6%</b>			

**R&D Intensity (BERD as a % of value added)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Italy	EU
<b>Total economy (% GDP)</b>	<b>0.5</b>	<b>0.6</b>	<b>0.6</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>(0.59)</b>	<b>135</b>	<b>114</b>
<b>ICT sector</b>	<b>2.4</b>	<b>2.8</b>	<b>3.2</b>	<b>3.6</b>	<b>3.7</b>	<b>3.5</b>	<b>3.5</b>	<b>3.9</b>	<b>(0.84)</b>	<b>164</b>	<b>103</b>
Manufacturing	16.4	16.0	16.1	18.5	18.3	17.3	16.9	16.6	(0.80)	101	117
Telecommunications	0.8	1.7	3.2	3.8	3.7	3.4	3.6	2.1	(1.16)	273	97
Computer services	1.3	1.6	0.9	1.1	1.1	1.1	1.1	3.3	(0.78)	243	131
Wholesale trade	0.7	0.6	0.7	0.7	0.7	0.7	0.8	1.3	(0.97)	197	120
Rest of the economy	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	(0.57)	..	117

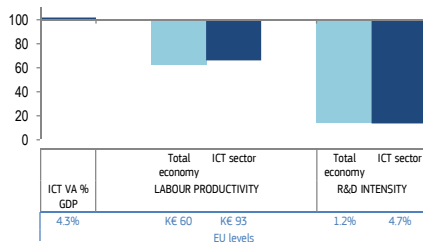
Note: all monetary variables are expressed in Purchasing Power Standards (PPS) at current prices

(\*) % shares and (levels) correspond to the ratio between the value of a variable  $x$  in country  $i$  and in the EU economy [=  $x_i/x_{EU}$ ]. Shares portray the weight of each country in the EU aggregate and are expressed in percentages, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

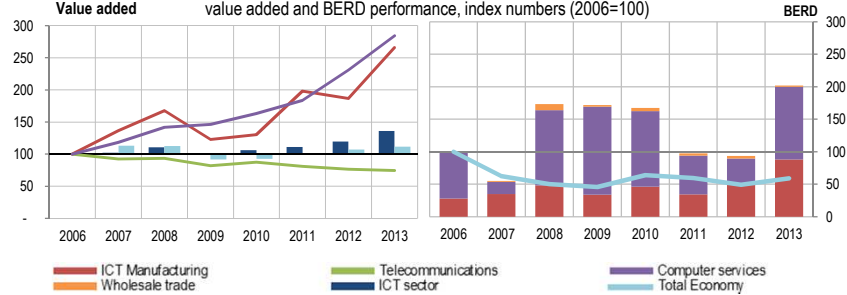
**LATVIA**



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy: value added and BERD performance, index numbers (2006=100)



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Latvia	EU
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**Economic and industry trends**

**Value added (PPS bn)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Latvia	EU
<b>Total economy (GDP)</b>	<b>30</b>	<b>34</b>	<b>34</b>	<b>27</b>	<b>28</b>	<b>30</b>	<b>32</b>	<b>34</b>	<b>0.2%</b>	<b>112</b>	<b>111</b>
<b>ICT sector</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0.3%</b>	<b>136</b>	<b>109</b>
Manufacturing	0	0	0	0	0	0	0	0	0.2%	..	69
Telecommunications	1	1	1	1	1	1	1	0	0.3%	..	85
Computer services	0	0	0	0	0	0	1	1	0.2%	..	140
Wholesale trade	0	0	0	0	0	0	0	0	0.3%	..	126
→ <b>ICT sector as a % of Total</b>	<b>3.6%</b>	<b>3.2%</b>	<b>3.5%</b>	<b>3.9%</b>	<b>4.1%</b>	<b>4.0%</b>	<b>4.0%</b>	<b>4.4%</b>			

**Employment (thousands)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Latvia	EU
<b>Total economy</b>	<b>1,025</b>	<b>1,064</b>	<b>1,055</b>	<b>904</b>	<b>844</b>	<b>856</b>	<b>869</b>	<b>889</b>	<b>0.4%</b>	<b>87</b>	<b>100</b>
<b>ICT sector</b>	<b>17</b>	<b>19</b>	<b>20</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>24</b>	<b>0.4%</b>	<b>139</b>	<b>107</b>
Manufacturing	1	1	1	1	1	1	1	1	0.2%	83	74
Telecommunications	6	6	6	6	6	6	5	6	0.5%	98	89
Computer services	7	8	9	9	9	11	13	15	0.4%	219	127
Wholesale trade	3	3	4	3	2	2	2	2	0.4%	73	97
→ <b>ICT sector as a % of Total</b>	<b>1.7%</b>	<b>1.8%</b>	<b>1.9%</b>	<b>2.0%</b>	<b>2.2%</b>	<b>2.4%</b>	<b>2.5%</b>	<b>2.7%</b>			

**Productivity of labour (PPS thous./person employed)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Latvia	EU
<b>Total economy</b>	<b>29</b>	<b>32</b>	<b>32</b>	<b>30</b>	<b>33</b>	<b>35</b>	<b>37</b>	<b>38</b>	<b>(0.63)</b>	<b>129</b>	<b>111</b>
<b>ICT sector</b>	<b>63</b>	<b>58</b>	<b>59</b>	<b>59</b>	<b>61</b>	<b>59</b>	<b>60</b>	<b>62</b>	<b>(0.66)</b>	<b>98</b>	<b>101</b>
Manufacturing	27	43	51	49	54	79	63	86	(1.18)	321	93
Telecommunications	116	99	101	92	94	88	95	88	(0.56)	76	96
Computer services	38	36	38	42	44	41	46	49	(0.62)	130	110
Wholesale trade	39	41	44	48	47	59	58	65	(0.71)	165	130

**R&D performance**

**Business expenditure in R&D (BERD - PPS mln)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Latvia	EU
<b>Total economy</b>	<b>98</b>	<b>61</b>	<b>49</b>	<b>45</b>	<b>63</b>	<b>59</b>	<b>48</b>	<b>58</b>	<b>..</b>	<b>59</b>	<b>126</b>
<b>ICT sector</b>	<b>5</b>	<b>3</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>4</b>	<b>4</b>	<b>9</b>	<b>..</b>	<b>202</b>	<b>112</b>
Manufacturing	1	2	2	2	2	2	2	4	..	313	80
Telecommunications	-	-	-	-	-	-	-	-	..	..	82
Computer services	3	1	5	6	5	3	2	5	..	159	183
Wholesale trade	0	0	0	0	0	0	0	0	..	..	151
→ <b>ICT sector as a % of Total</b>	<b>4.7%</b>	<b>4.2%</b>	<b>16.2%</b>	<b>17.5%</b>	<b>12.3%</b>	<b>7.7%</b>	<b>8.9%</b>	<b>16.1%</b>			

**R&D Intensity (BERD as a % of value added)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Latvia	EU
<b>Total economy (% GDP)</b>	<b>0.3</b>	<b>0.2</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>(0.14)</b>	<b>..</b>	<b>114</b>
<b>ICT sector</b>	<b>0.4</b>	<b>0.2</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.4</b>	<b>0.3</b>	<b>0.6</b>	<b>(0.14)</b>	<b>148</b>	<b>103</b>
Manufacturing	3.3	3.0	3.3	3.2	4.2	2.0	3.2	3.9	(0.19)	118	117
Telecommunications	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(0.00)	..	97
Computer services	1.3	0.3	1.5	1.7	1.3	0.6	0.3	0.7	(0.17)	56	131
Wholesale trade	0.1	0.1	0.3	0.1	0.2	0.1	0.1	0.1	(0.04)	..	120
Rest of the economy	0.3	0.2	0.1	0.1	0.2	0.2	0.1	0.2	(0.14)	..	117

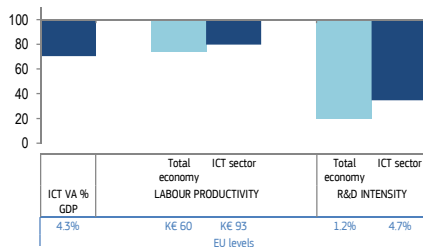
Note: all monetary variables are expressed in Purchasing Power Standards (PPS) at current prices

(\*) % shares and (levels) correspond to the ratio between the value of a variable *x* in country *i* and in the EU economy [=  $x_i/x_{EU}$ ]. Shares portray the weight of each country in the EU aggregate and are expressed in percentages, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

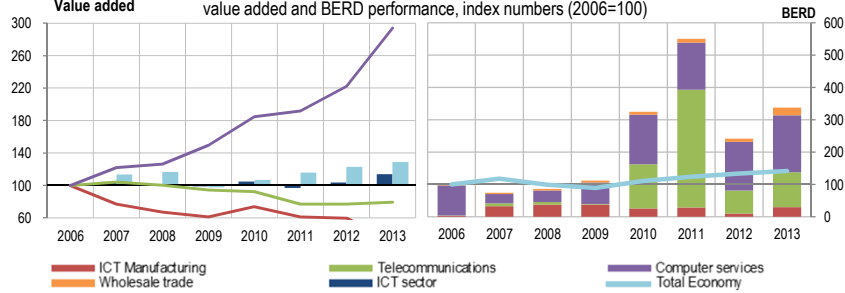
## LITHUANIA



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy: value added and BERD performance, index numbers (2006=100)



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Lithuania	EU
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### Economic and industry trends

#### Value added (PPS bn)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Lithuania	EU
<b>Total economy (GDP)</b>	<b>45</b>	<b>51</b>	<b>52</b>	<b>43</b>	<b>47</b>	<b>52</b>	<b>55</b>	<b>57</b>	<b>0.4%</b>	<b>129</b>	<b>111</b>
<b>ICT sector</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>0.3%</b>	<b>114</b>	<b>109</b>
Manufacturing	0	0	0	0	0	0	0	0	0.1%	..	69
Telecommunications	1	1	1	1	1	1	1	1	0.5%	..	85
Computer services	0	0	0	0	0	0	1	1	0.2%	..	140
Wholesale trade	0	0	0	0	0	0	0	0	0.4%	..	126
→ <b>ICT sector as a % of Total</b>	<b>3.4%</b>	<b>3.1%</b>	<b>3.0%</b>	<b>3.5%</b>	<b>3.4%</b>	<b>2.9%</b>	<b>2.9%</b>	<b>3.0%</b>			

#### Employment (thousands)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Lithuania	EU
<b>Total economy</b>	<b>1,416</b>	<b>1,445</b>	<b>1,426</b>	<b>1,317</b>	<b>1,247</b>	<b>1,253</b>	<b>1,275</b>	<b>1,292</b>	<b>0.6%</b>	<b>91</b>	<b>100</b>
<b>ICT sector</b>	<b>16</b>	<b>16</b>	<b>22</b>	<b>19</b>	<b>20</b>	<b>25</b>	<b>26</b>	<b>23</b>	<b>0.4%</b>	<b>149</b>	<b>107</b>
Manufacturing	3	3	3	2	2	2	2	1	0.2%	38	74
Telecommunications	4	5	7	4	5	7	7	7	0.6%	149	89
Computer services	6	6	10	10	11	13	15	13	0.3%	222	127
Wholesale trade	2	2	2	2	2	2	2	3	0.4%	126	97
→ <b>ICT sector as a % of Total</b>	<b>1.1%</b>	<b>1.1%</b>	<b>1.5%</b>	<b>1.4%</b>	<b>1.6%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>1.8%</b>			

#### Productivity of labour (PPS thous./person employed)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Lithuania	EU
<b>Total economy</b>	<b>31</b>	<b>35</b>	<b>36</b>	<b>33</b>	<b>38</b>	<b>41</b>	<b>43</b>	<b>44</b>	<b>(0.74)</b>	<b>141</b>	<b>111</b>
<b>ICT sector</b>	<b>98</b>	<b>97</b>	<b>70</b>	<b>79</b>	<b>78</b>	<b>60</b>	<b>61</b>	<b>74</b>	<b>(0.80)</b>	<b>76</b>	<b>101</b>
Manufacturing	53	46	49	45	54	50	54	42	(0.58)	80	93
Telecommunications	231	202	145	222	174	109	115	122	(0.78)	53	96
Computer services	39	47	28	32	40	34	35	51	(0.65)	132	110
Wholesale trade	53	55	57	56	56	63	77	85	(0.93)	161	130

### R&D performance

#### Business expenditure in R&D (BERD - PPS mln)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Lithuania	EU
<b>Total economy</b>	<b>98</b>	<b>115</b>	<b>97</b>	<b>88</b>	<b>109</b>	<b>122</b>	<b>132</b>	<b>139</b>	<b>0.1%</b>	<b>141</b>	<b>126</b>
<b>ICT sector</b>	<b>8</b>	<b>6</b>	<b>7</b>	<b>9</b>	<b>27</b>	<b>46</b>	<b>20</b>	<b>28</b>	<b>0.1%</b>	<b>338</b>	<b>112</b>
Manufacturing	0	3	3	3	2	2	1	2	..	..	80
Telecommunications	0	1	1	0	11	30	6	9	0.3%	..	82
Computer services	8	2	3	5	13	12	13	15	0.1%	190	183
Wholesale trade	0	0	0	1	1	1	1	2	0.3%	..	151
→ <b>ICT sector as a % of Total</b>	<b>8.4%</b>	<b>5.3%</b>	<b>7.3%</b>	<b>10.5%</b>	<b>24.6%</b>	<b>37.4%</b>	<b>15.2%</b>	<b>20.2%</b>			

#### R&D Intensity (BERD as a % of value added)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Lithuania	EU
<b>Total economy (% GDP)</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>(0.20)</b>	<b>..</b>	<b>114</b>
<b>ICT sector</b>	<b>0.5</b>	<b>0.4</b>	<b>0.5</b>	<b>0.6</b>	<b>1.7</b>	<b>3.1</b>	<b>1.3</b>	<b>1.6</b>	<b>(0.35)</b>	<b>296</b>	<b>103</b>
Manufacturing	0.1	2.0	2.5	2.8	1.6	2.1	0.7	4.5	(0.22)	..	117
Telecommunications	0.0	0.1	0.1	0.0	1.2	3.9	0.8	1.1	(0.60)	..	97
Computer services	3.4	0.9	1.0	1.6	3.0	2.8	2.5	2.2	(0.53)	65	131
Wholesale trade	0.2	0.3	0.3	0.5	0.7	0.6	0.4	0.9	(0.66)	..	120
Rest of the economy	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	(0.19)	..	117

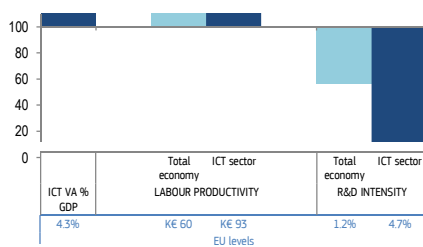
Note: all monetary variables are expressed in Purchasing Power Standards (PPS) at current prices

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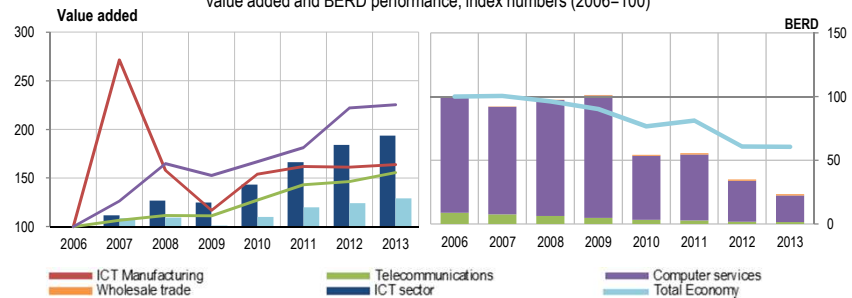
## LUXEMBOURG



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy :  
value added and BERD performance, index numbers (2006=100)



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Luxembourg	EU
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### Economic and industry trends

#### Value added (PPS bn)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Luxembourg	EU
<b>Total economy (GDP)</b>	<b>30</b>	<b>32</b>	<b>32</b>	<b>30</b>	<b>33</b>	<b>36</b>	<b>37</b>	<b>38</b>	<b>0.3%</b>	<b>129</b>	<b>111</b>
<b>ICT sector</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>0.4%</b>	<b>194</b>	<b>109</b>
Manufacturing	0	0	0	0	0	0	0	0	..	..	69
Telecommunications	1	1	1	1	1	1	1	1	0.8%	..	85
Computer services	0	0	1	0	1	1	1	1	0.2%	..	140
Wholesale trade	0	0	0	0	0	0	0	0	0.8%	..	126
→ <b>ICT sector as a % of Total</b>	<b>4.5%</b>	<b>4.6%</b>	<b>5.2%</b>	<b>5.5%</b>	<b>5.8%</b>	<b>6.2%</b>	<b>6.6%</b>	<b>6.7%</b>			

#### Employment (thousands)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Luxembourg	EU
<b>Total economy</b>	<b>319</b>	<b>334</b>	<b>349</b>	<b>353</b>	<b>359</b>	<b>370</b>	<b>379</b>	<b>386</b>	<b>0.2%</b>	<b>121</b>	<b>100</b>
<b>ICT sector</b>	<b>10</b>	<b>12</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>14</b>	<b>16</b>	<b>16</b>	<b>0.3%</b>	<b>159</b>	<b>107</b>
Manufacturing	-	0	0	0	0	0	0	0	..	..	74
Telecommunications	3	3	3	3	3	3	5	5	0.4%	181	89
Computer services	6	7	8	8	8	9	9	10	0.2%	154	127
Wholesale trade	1	2	2	2	2	2	2	2	0.3%	129	97
→ <b>ICT sector as a % of Total</b>	<b>3.2%</b>	<b>3.5%</b>	<b>3.6%</b>	<b>3.7%</b>	<b>3.7%</b>	<b>3.8%</b>	<b>4.1%</b>	<b>4.2%</b>			

#### Productivity of labour (PPS thous./person employed)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Luxembourg	EU
<b>Total economy</b>	<b>93</b>	<b>97</b>	<b>93</b>	<b>85</b>	<b>91</b>	<b>96</b>	<b>97</b>	<b>99</b>	<b>(1.65)</b>	<b>107</b>	<b>111</b>
<b>ICT sector</b>	<b>129</b>	<b>127</b>	<b>132</b>	<b>126</b>	<b>143</b>	<b>157</b>	<b>156</b>	<b>158</b>	<b>(1.69)</b>	<b>122</b>	<b>101</b>
Manufacturing	0	83	25	37	43	44	44	45	(0.62)	..	93
Telecommunications	356	365	369	344	381	401	289	307	(1.95)	86	96
Computer services	51	55	66	60	65	66	78	75	(0.95)	146	110
Wholesale trade	52	51	66	72	99	164	208	217	(2.37)	415	130

### R&D performance

#### Business expenditure in R&D (BERD - PPS mln)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Luxembourg	EU
<b>Total economy</b>	<b>432</b>	<b>434</b>	<b>416</b>	<b>390</b>	<b>331</b>	<b>351</b>	<b>263</b>	<b>262</b>	<b>0.2%</b>	<b>61</b>	<b>126</b>
<b>ICT sector</b>	<b>17</b>	<b>17</b>	<b>19</b>	<b>18</b>	<b>10</b>	<b>11</b>	<b>7</b>	<b>5</b>	<b>..</b>	<b>32</b>	<b>112</b>
Manufacturing	-	1	3	1	1	2	1	1	..	..	80
Telecommunications	1	1	1	1	1	0	0	0	..	..	82
Computer services	15	14	15	16	8	9	5	3	..	23	183
Wholesale trade	0	0	0	0	0	0	0	0	..	..	151
→ <b>ICT sector as a % of Total</b>	<b>3.9%</b>	<b>3.8%</b>	<b>4.5%</b>	<b>4.7%</b>	<b>3.2%</b>	<b>3.1%</b>	<b>2.7%</b>	<b>2.0%</b>			

#### R&D Intensity (BERD as a % of value added)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Luxembourg	EU
<b>Total economy (% GDP)</b>	<b>1.5</b>	<b>1.3</b>	<b>1.3</b>	<b>1.3</b>	<b>1.0</b>	<b>1.0</b>	<b>0.7</b>	<b>0.7</b>	<b>(0.56)</b>	<b>47</b>	<b>114</b>
<b>ICT sector</b>	<b>1.3</b>	<b>1.1</b>	<b>1.1</b>	<b>1.1</b>	<b>0.6</b>	<b>0.5</b>	<b>0.3</b>	<b>0.2</b>	<b>(0.04)</b>	<b>..</b>	<b>103</b>
Manufacturing	0.0	16.0	52.2	37.8	29.5	32.5	26.5	27.9	(1.35)	..	117
Telecommunications	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	(0.01)	..	97
Computer services	4.7	3.5	2.9	3.3	1.6	1.5	0.8	0.5	(0.11)	10	131
Wholesale trade	0.2	0.0	0.0	0.1	0.1	0.1	0.0	0.0	(0.03)	..	120
Rest of the economy	1.5	1.4	1.3	1.3	1.0	1.0	0.7	0.7	(0.68)	..	117

Note: all monetary variables are expressed in Purchasing Power Standards (PPS) at current prices

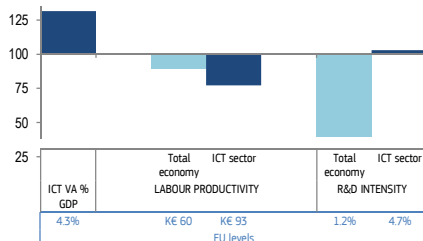
(\*) % shares and (levels) correspond to the ratio between the value of a variable  $x$  in country  $i$  and in the EU economy [=  $x_i/x_{EU}$ ]. Shares portray the weight of each country in the EU aggregate and are expressed in percentages, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)



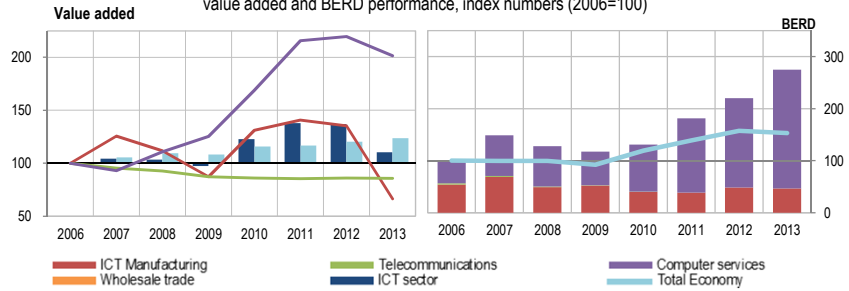
**MALTA**



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy :  
value added and BERD performance, index numbers (2006=100)



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Malta	EU
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**Economic and industry trends**

**Value added (PPS bn)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Malta	EU
<b>Total economy (GDP)</b>	8	8	9	8	9	9	9	10	0.1%	124	111
<b>ICT sector</b>	0	1	1	0	1	1	1	1	0.1%	..	109
Manufacturing	0	0	0	0	0	0	0	0	0.2%	..	69
Telecommunications	0	0	0	0	0	0	0	0	0.1%	..	85
Computer services	0	0	0	0	0	0	0	0	0.1%	..	140
Wholesale trade	0	0	0	0	0	0	0	0	..	..	126
→ <b>ICT sector as a % of Total</b>	<b>6.3%</b>	<b>6.3%</b>	<b>6.0%</b>	<b>5.7%</b>	<b>6.7%</b>	<b>7.5%</b>	<b>7.2%</b>	<b>5.6%</b>			

**Employment (thousands)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Malta	EU
<b>Total economy</b>	154	157	161	161	164	168	172	179	0.1%	117	100
<b>ICT sector</b>	8	6	7	6	6	7	7	8	0.1%	100	107
Manufacturing	4	3	3	2	2	2	2	2	0.2%	43	74
Telecommunications	2	2	2	2	2	2	2	2	0.2%	93	89
Computer services	2	1	2	2	2	3	3	4	0.1%	196	127
Wholesale trade	0	0	0	0	0	1	1	1	0.1%	..	97
→ <b>ICT sector as a % of Total</b>	<b>4.9%</b>	<b>4.0%</b>	<b>4.5%</b>	<b>3.9%</b>	<b>3.8%</b>	<b>4.1%</b>	<b>4.1%</b>	<b>4.2%</b>			

**Productivity of labour (PPS thous./person employed)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Malta	EU
<b>Total economy</b>	51	52	53	52	55	54	55	54	(0.89)	106	111
<b>ICT sector</b>	65	82	70	76	96	99	96	72	(0.77)	111	101
Manufacturing	43	73	53	62	121	124	123	66	(0.91)	153	93
Telecommunications	109	103	101	93	93	100	99	101	(0.64)	93	96
Computer services	67	80	71	80	89	100	92	69	(0.87)	103	110
Wholesale trade	26	28	28	25	37	17	17	16	(0.18)	64	130

**R&D performance**

**Business expenditure in R&D (BERD - PPS mln)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Malta	EU
<b>Total economy</b>	30	30	30	28	36	42	47	46	..	153	126
<b>ICT sector</b>	10	14	12	11	12	17	21	26	0.1%	275	112
Manufacturing	5	7	5	5	4	4	5	4	..	86	80
Telecommunications	0	0	0	0	0	-	-	-	..	..	82
Computer services	4	7	7	6	9	14	16	22	0.2%	528	183
Wholesale trade	-	-	-	-	-	-	-	0	..	..	151
→ <b>ICT sector as a % of Total</b>	<b>31.7%</b>	<b>47.3%</b>	<b>40.7%</b>	<b>40.4%</b>	<b>34.8%</b>	<b>41.4%</b>	<b>44.3%</b>	<b>57.0%</b>			

**R&D Intensity (BERD as a % of value added)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Malta	EU
<b>Total economy (% GDP)</b>	0.4	0.4	0.3	0.3	0.4	0.5	0.5	0.5	(0.39)	124	114
<b>ICT sector</b>	1.9	2.7	2.4	2.3	2.1	2.5	3.1	4.8	(1.03)	249	103
Manufacturing	3.3	3.4	2.7	3.7	1.9	1.7	2.2	4.3	(0.21)	129	117
Telecommunications	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	(0.00)	..	97
Computer services	3.2	6.2	5.2	3.9	4.0	4.9	5.8	8.4	(2.02)	262	131
Wholesale trade	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	(0.19)	..	120
Rest of the economy	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.2	(0.20)	..	117

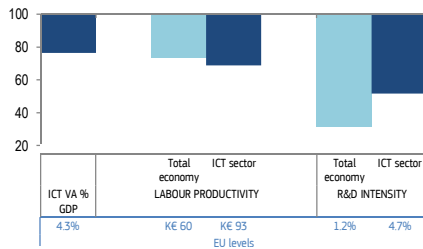
Note: all monetary variables are expressed in Purchasing Power Standards (PPS) at current prices

(\*) % shares and (levels) correspond to the ratio between the value of a variable  $x$  in country  $i$  and in the EU economy [=  $x_i/x_{EU}$ ]. Shares portray the weight of each country in the EU aggregate and are expressed in percentages, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

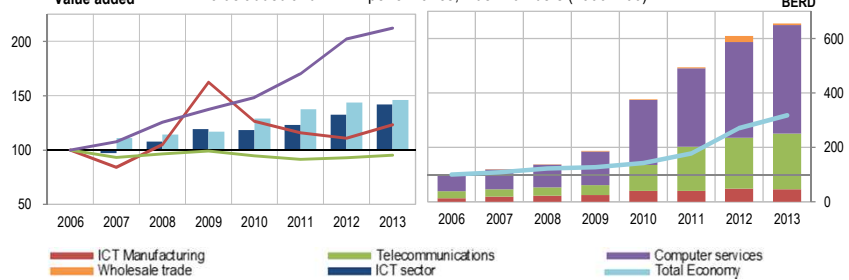
**POLAND**



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy :  
value added and BERD performance, index numbers (2006=100)



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Poland	EU
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**Economic and industry trends**

**Value added (PPS bn)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Poland	EU
<b>Total economy (GDP)</b>	<b>470</b>	<b>522</b>	<b>537</b>	<b>549</b>	<b>606</b>	<b>647</b>	<b>675</b>	<b>687</b>	<b>5.1%</b>	<b>146</b>	<b>111</b>
<b>ICT sector</b>	<b>16</b>	<b>15</b>	<b>17</b>	<b>19</b>	<b>19</b>	<b>19</b>	<b>21</b>	<b>22</b>	<b>3.9%</b>	<b>142</b>	<b>109</b>
Manufacturing	2	2	2	3	2	2	2	2	4.5%	123	69
Telecommunications	9	8	9	9	9	8	8	9	5.0%	95	85
Computer services	5	5	6	6	7	8	9	10	3.2%	212	140
Wholesale trade	0	0	1	1	1	1	1	2	3.3%	..	126
→ <b>ICT sector as a % of Total</b>	<b>3.4%</b>	<b>2.9%</b>	<b>3.2%</b>	<b>3.4%</b>	<b>3.1%</b>	<b>3.0%</b>	<b>3.1%</b>	<b>3.3%</b>			

**Employment (thousands)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Poland	EU
<b>Total economy</b>	<b>14,504</b>	<b>15,156</b>	<b>15,732</b>	<b>15,789</b>	<b>15,370</b>	<b>15,457</b>	<b>15,475</b>	<b>15,464</b>	<b>6.9%</b>	<b>107</b>	<b>100</b>
<b>ICT sector</b>	<b>252</b>	<b>293</b>	<b>309</b>	<b>320</b>	<b>312</b>	<b>313</b>	<b>336</b>	<b>350</b>	<b>5.6%</b>	<b>139</b>	<b>107</b>
Manufacturing	67	72	75	68	67	66	67	61	8.9%	91	74
Telecommunications	94	102	101	104	100	95	93	97	9.0%	104	89
Computer services	87	114	126	141	135	140	164	178	4.6%	205	127
Wholesale trade	4	5	7	8	10	12	12	14	2.4%	330	97
→ <b>ICT sector as a % of Total</b>	<b>1.7%</b>	<b>1.9%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.2%</b>	<b>2.3%</b>			

**Productivity of labour (PPS thous./person employed)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Poland	EU
<b>Total economy</b>	<b>32</b>	<b>34</b>	<b>34</b>	<b>35</b>	<b>39</b>	<b>42</b>	<b>44</b>	<b>44</b>	<b>(0.74)</b>	<b>137</b>	<b>111</b>
<b>ICT sector</b>	<b>63</b>	<b>52</b>	<b>55</b>	<b>59</b>	<b>60</b>	<b>62</b>	<b>63</b>	<b>64</b>	<b>(0.69)</b>	<b>102</b>	<b>101</b>
Manufacturing	27	21	26	44	34	32	30	37	(0.51)	135	93
Telecommunications	96	82	86	86	85	87	90	88	(0.56)	92	96
Computer services	54	44	47	46	51	57	58	56	(0.70)	103	110
Wholesale trade	79	79	85	73	101	96	95	126	(1.37)	159	130

**R&D performance**

**Business expenditure in R&D (BERD - PPS mln)**

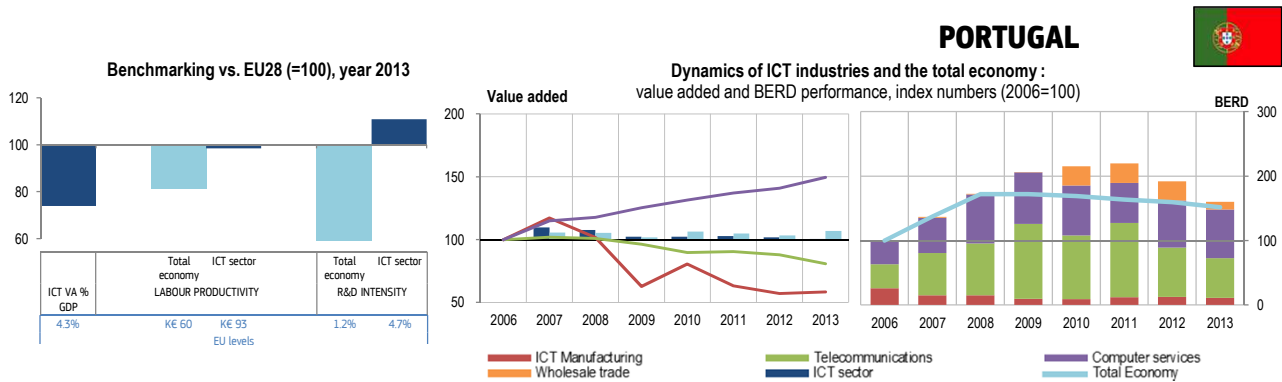
	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Poland	EU
<b>Total economy</b>	<b>820</b>	<b>892</b>	<b>1,003</b>	<b>1,043</b>	<b>1,163</b>	<b>1,454</b>	<b>2,214</b>	<b>2,608</b>	<b>1.6%</b>	<b>318</b>	<b>126</b>
<b>ICT sector</b>	<b>82</b>	<b>98</b>	<b>113</b>	<b>154</b>	<b>310</b>	<b>407</b>	<b>501</b>	<b>539</b>	<b>2.0%</b>	<b>655</b>	<b>112</b>
Manufacturing	10	15	18	21	33	33	40	38	0.4%	365	80
Telecommunications	22	22	25	30	78	133	153	169	5.3%	780	82
Computer services	50	60	68	102	197	237	290	328	2.5%	656	183
Wholesale trade	0	1	2	2	1	3	18	5	0.7%	..	151
→ <b>ICT sector as a % of Total</b>	<b>10.0%</b>	<b>11.0%</b>	<b>11.3%</b>	<b>14.7%</b>	<b>26.6%</b>	<b>28.0%</b>	<b>22.6%</b>	<b>20.7%</b>			

**R&D Intensity (BERD as a % of value added)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Poland	EU
<b>Total economy (% GDP)</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.3</b>	<b>0.4</b>	<b>(0.31)</b>	<b>..</b>	<b>114</b>
<b>ICT sector</b>	<b>0.5</b>	<b>0.6</b>	<b>0.7</b>	<b>0.8</b>	<b>1.7</b>	<b>2.1</b>	<b>2.4</b>	<b>2.4</b>	<b>(0.52)</b>	<b>461</b>	<b>103</b>
Manufacturing	0.6	1.0	1.0	0.7	1.4	1.6	2.0	1.7	(0.08)	296	117
Telecommunications	0.2	0.3	0.3	0.3	0.9	1.6	1.8	2.0	(1.06)	..	97
Computer services	1.1	1.2	1.2	1.6	2.8	3.0	3.1	3.3	(0.79)	310	131
Wholesale trade	0.1	0.1	0.3	0.3	0.1	0.2	1.6	0.3	(0.21)	..	120
Rest of the economy	0.2	0.2	0.2	0.2	0.1	0.2	0.3	0.3	(0.30)	..	117

Note: all monetary variables are expressed in Purchasing Power Standards (PPS) at current prices

(\*) % shares and (levels) correspond to the ratio between the value of a variable  $x$  in country  $i$  and in the EU economy [=  $x_i/x_{EU}$ ]. Shares portray the weight of each country in the EU aggregate and are expressed in percentages, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Portugal	EU
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### Economic and industry trends

#### Value added (PPS bn)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Portugal	EU
<b>Total economy (GDP)</b>	204	216	215	208	217	215	211	218	1.6%	107	111
<b>ICT sector</b>	7	8	7	7	7	7	7	7	1.2%	100	109
<i>Manufacturing</i>	1	1	1	0	1	0	0	0	0.9%	..	69
<i>Telecommunications</i>	4	4	4	4	4	4	4	3	1.9%	81	85
<i>Computer services</i>	2	2	2	2	2	2	2	2	0.8%	150	140
<i>Wholesale trade</i>	0	1	1	1	1	1	1	1	1.4%	..	126
→ <b>ICT sector as a % of Total</b>	3.4%	3.5%	3.4%	3.4%	3.2%	3.3%	3.3%	3.2%			

#### Employment (thousands)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Portugal	EU
<b>Total economy</b>	5,061	5,062	5,080	4,942	4,871	4,777	4,581	4,450	2.0%	88	100
<b>ICT sector</b>	64	63	65	67	68	72	74	75	1.2%	117	107
<i>Manufacturing</i>	11	11	10	9	8	8	8	8	1.1%	72	74
<i>Telecommunications</i>	14	13	14	14	14	14	15	15	1.3%	107	89
<i>Computer services</i>	34	32	34	37	39	42	44	46	1.2%	137	127
<i>Wholesale trade</i>	6	7	8	8	8	8	8	7	1.2%	109	97
→ <b>ICT sector as a % of Total</b>	1.3%	1.3%	1.3%	1.4%	1.4%	1.5%	1.6%	1.7%			

#### Productivity of labour (PPS thous./person employed)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Portugal	EU
<b>Total economy</b>	40	43	42	42	45	45	46	49	(0.81)	121	111
<b>ICT sector</b>	107	119	114	106	103	98	94	92	(0.98)	86	101
<i>Manufacturing</i>	70	84	77	56	76	59	53	57	(0.78)	81	93
<i>Telecommunications</i>	301	322	302	288	261	270	244	227	(1.44)	76	96
<i>Computer services</i>	48	58	57	55	55	53	53	53	(0.66)	109	110
<i>Wholesale trade</i>	65	84	75	75	82	80	88	110	(1.20)	168	130

### R&D performance

#### Business expenditure in R&D (BERD - PPS mln)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Portugal	EU
<b>Total economy</b>	906	1,243	1,558	1,557	1,529	1,481	1,447	1,376	0.8%	152	126
<b>ICT sector</b>	223	306	386	460	481	491	428	357	1.3%	160	112
<i>Manufacturing</i>	58	33	34	22	20	27	28	25	0.2%	43	80
<i>Telecommunications</i>	83	147	180	259	221	257	171	138	4.4%	165	82
<i>Computer services</i>	78	122	170	179	174	138	163	168	1.3%	215	183
<i>Wholesale trade</i>	4	3	3	1	66	67	66	26	3.6%	731	151
→ <b>ICT sector as a % of Total</b>	24.7%	24.6%	24.7%	29.5%	31.4%	33.1%	29.6%	26.0%			

#### R&D Intensity (BERD as a % of value added)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Portugal	EU
<b>Total economy (% GDP)</b>	0.4	0.6	0.7	0.7	0.7	0.7	0.7	0.6	(0.52)	142	114
<b>ICT sector</b>	3.2	4.0	5.2	6.5	6.8	6.9	6.1	5.2	(1.11)	159	103
<i>Manufacturing</i>	7.6	3.7	4.3	4.6	3.3	5.7	6.4	5.6	(0.27)	74	117
<i>Telecommunications</i>	2.0	3.5	4.3	6.6	6.0	6.9	4.7	4.2	(2.25)	204	97
<i>Computer services</i>	4.8	6.5	8.9	8.8	8.1	6.2	7.1	6.9	(1.66)	144	131
<i>Wholesale trade</i>	0.9	0.5	0.4	0.2	10.6	10.2	9.6	3.5	(2.54)	399	120
Rest of the economy	0.3	0.5	0.6	0.5	0.5	0.5	0.5	0.5	(0.46)	..	117

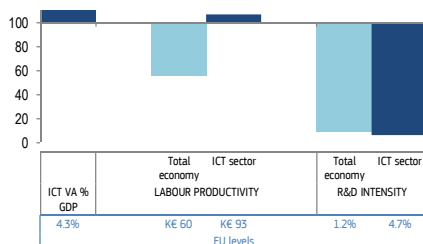
Note: all monetary variables are expressed in Purchasing Power Standards (PPS) at current prices

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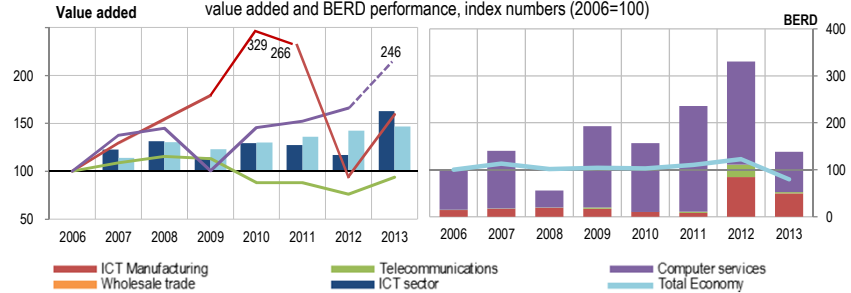
## ROMANIA



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy : value added and BERD performance, index numbers (2006=100)



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Romania	EU
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### Economic and industry trends

#### Value added (PPS bn)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Romania	EU
<b>Total economy (GDP)</b>	<b>197</b>	<b>224</b>	<b>257</b>	<b>242</b>	<b>256</b>	<b>268</b>	<b>280</b>	<b>289</b>	<b>2.1%</b>	<b>147</b>	<b>111</b>
<b>ICT sector</b>	<b>11</b>	<b>13</b>	<b>14</b>	<b>12</b>	<b>14</b>	<b>13</b>	<b>12</b>	<b>17</b>	<b>3.0%</b>	<b>163</b>	<b>109</b>
Manufacturing	1	1	1	2	3	2	1	1	2.8%	..	69
Telecommunications	5	6	6	6	5	5	4	5	2.8%	94	85
Computer services	4	6	6	4	6	6	7	10	3.4%	246	140
Wholesale trade	0	0	0	0	0	0	1	1	1.1%	..	126
→ <b>ICT sector as a % of Total</b>	<b>5.4%</b>	<b>5.8%</b>	<b>5.4%</b>	<b>5.0%</b>	<b>5.3%</b>	<b>5.0%</b>	<b>4.4%</b>	<b>6.0%</b>			

#### Employment (thousands)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Romania	EU
<b>Total economy</b>	<b>9,331</b>	<b>9,365</b>	<b>9,366</b>	<b>9,181</b>	<b>9,156</b>	<b>9,082</b>	<b>8,645</b>	<b>8,591</b>	<b>3.8%</b>	<b>92</b>	<b>100</b>
<b>ICT sector</b>	<b>160</b>	<b>160</b>	<b>159</b>	<b>142</b>	<b>133</b>	<b>145</b>	<b>169</b>	<b>173</b>	<b>2.8%</b>	<b>108</b>	<b>107</b>
Manufacturing	52	58	55	37	28	31	33	37	5.4%	71	74
Telecommunications	68	68	66	44	41	40	54	52	4.8%	77	89
Computer services	30	22	24	51	58	68	75	76	2.0%	258	127
Wholesale trade	11	13	14	11	6	7	7	7	1.2%	67	97
→ <b>ICT sector as a % of Total</b>	<b>1.7%</b>	<b>1.7%</b>	<b>1.7%</b>	<b>1.5%</b>	<b>1.5%</b>	<b>1.6%</b>	<b>2.0%</b>	<b>2.0%</b>			

#### Productivity of labour (PPS thous./person employed)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Romania	EU
<b>Total economy</b>	<b>21</b>	<b>24</b>	<b>27</b>	<b>26</b>	<b>28</b>	<b>30</b>	<b>32</b>	<b>34</b>	<b>(0.56)</b>	<b>159</b>	<b>111</b>
<b>ICT sector</b>	<b>66</b>	<b>81</b>	<b>87</b>	<b>85</b>	<b>103</b>	<b>93</b>	<b>73</b>	<b>100</b>	<b>(1.07)</b>	<b>151</b>	<b>101</b>
Manufacturing	16	19	24	42	100	73	25	37	(0.51)	224	93
Telecommunications	76	83	90	134	111	115	73	93	(0.59)	122	96
Computer services	143	261	259	84	106	95	93	137	(1.72)	96	110
Wholesale trade	31	33	34	40	27	25	90	85	(0.92)	276	130

### R&D performance

#### Business expenditure in R&D (BERD - PPS mln)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Romania	EU
<b>Total economy</b>	<b>431</b>	<b>486</b>	<b>437</b>	<b>450</b>	<b>444</b>	<b>476</b>	<b>527</b>	<b>343</b>	<b>0.2%</b>	<b>80</b>	<b>126</b>
<b>ICT sector</b>	<b>37</b>	<b>52</b>	<b>20</b>	<b>71</b>	<b>58</b>	<b>87</b>	<b>124</b>	<b>52</b>	<b>0.2%</b>	<b>141</b>	<b>112</b>
Manufacturing	5	6	7	6	4	3	31	18	0.2%	356	80
Telecommunications	0	0	0	1	0	1	10	1	..	..	82
Computer services	31	45	13	64	54	83	81	32	0.2%	101	183
Wholesale trade	-	-	-	0	0	0	2	1	0.1%	..	151
→ <b>ICT sector as a % of Total</b>	<b>8.5%</b>	<b>10.6%</b>	<b>4.7%</b>	<b>15.8%</b>	<b>13.0%</b>	<b>18.3%</b>	<b>23.5%</b>	<b>15.1%</b>			

#### R&D Intensity (BERD as a % of value added)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Romania	EU
<b>Total economy (% GDP)</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.1</b>	<b>(0.10)</b>	<b>..</b>	<b>114</b>
<b>ICT sector</b>	<b>0.3</b>	<b>0.4</b>	<b>0.1</b>	<b>0.6</b>	<b>0.4</b>	<b>0.6</b>	<b>1.0</b>	<b>0.3</b>	<b>(0.06)</b>	<b>86</b>	<b>103</b>
Manufacturing	0.6	0.6	0.5	0.4	0.1	0.1	3.8	1.3	(0.07)	223	117
Telecommunications	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	(0.01)	..	97
Computer services	0.7	0.8	0.2	1.5	0.9	1.3	1.2	0.3	(0.07)	41	131
Wholesale trade	0.0	0.0	0.0	0.0	0.1	0.1	0.4	0.2	(0.13)	..	120
Rest of the economy	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	(0.10)	..	117

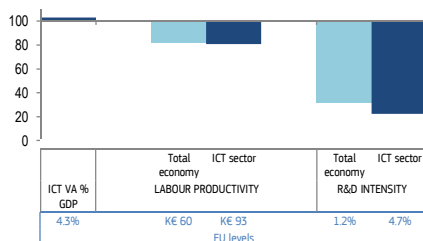
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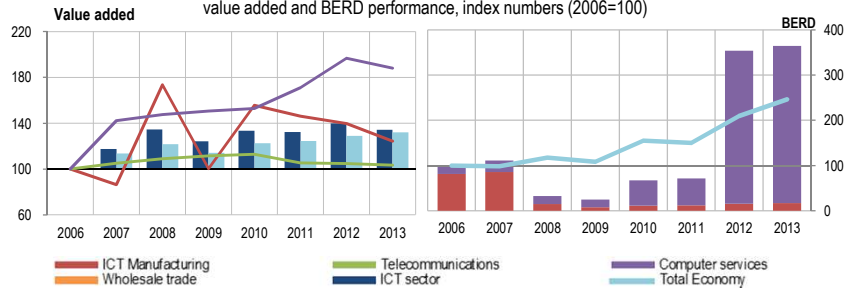
## SLOVAKIA



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy :  
value added and BERD performance, index numbers (2006=100)



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Slovakia	EU
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### Economic and industry trends

#### Value added (PPS bn)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Slovakia	EU
<b>Total economy (GDP)</b>	<b>82</b>	<b>94</b>	<b>100</b>	<b>94</b>	<b>101</b>	<b>103</b>	<b>106</b>	<b>109</b>	<b>0.8%</b>	<b>132</b>	<b>111</b>
<b>ICT sector</b>	<b>4</b>	<b>4</b>	<b>5</b>	<b>4</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>0.8%</b>	<b>134</b>	<b>109</b>
Manufacturing	1	1	1	1	1	1	1	1	1.5%	..	69
Telecommunications	2	2	2	2	2	2	2	2	0.9%	103	85
Computer services	1	2	2	2	2	2	2	2	0.7%	188	140
Wholesale trade	0	0	0	0	0	0	0	0	0.4%	..	126
→ <b>ICT sector as a % of Total</b>	<b>4.4%</b>	<b>4.5%</b>	<b>4.8%</b>	<b>4.7%</b>	<b>4.7%</b>	<b>4.6%</b>	<b>4.7%</b>	<b>4.4%</b>			

#### Employment (thousands)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Slovakia	EU
<b>Total economy</b>	<b>2,132</b>	<b>2,177</b>	<b>2,247</b>	<b>2,203</b>	<b>2,170</b>	<b>2,208</b>	<b>2,209</b>	<b>2,192</b>	<b>1.0%</b>	<b>103</b>	<b>100</b>
<b>ICT sector</b>	<b>56</b>	<b>60</b>	<b>66</b>	<b>69</b>	<b>60</b>	<b>63</b>	<b>62</b>	<b>64</b>	<b>1.0%</b>	<b>113</b>	<b>107</b>
Manufacturing	16	17	20	20	18	15	14	14	2.0%	89	74
Telecommunications	10	9	10	10	10	10	10	11	1.0%	107	89
Computer services	25	28	32	33	30	34	35	37	0.9%	144	127
Wholesale trade	5	6	5	6	3	3	3	3	0.4%	47	97
→ <b>ICT sector as a % of Total</b>	<b>2.6%</b>	<b>2.8%</b>	<b>2.9%</b>	<b>3.1%</b>	<b>2.8%</b>	<b>2.8%</b>	<b>2.8%</b>	<b>2.9%</b>			

#### Productivity of labour (PPS thous./person employed)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Slovakia	EU
<b>Total economy</b>	<b>39</b>	<b>43</b>	<b>45</b>	<b>43</b>	<b>46</b>	<b>46</b>	<b>48</b>	<b>50</b>	<b>(0.82)</b>	<b>128</b>	<b>111</b>
<b>ICT sector</b>	<b>64</b>	<b>70</b>	<b>73</b>	<b>64</b>	<b>79</b>	<b>76</b>	<b>81</b>	<b>76</b>	<b>(0.81)</b>	<b>119</b>	<b>101</b>
Manufacturing	38	30	51	30	52	57	59	54	(0.74)	140	93
Telecommunications	154	169	174	170	175	164	166	148	(0.94)	96	96
Computer services	48	62	57	55	63	61	67	62	(0.78)	131	110
Wholesale trade	46	63	69	51	90	57	69	82	(0.89)	177	130

### R&D performance

#### Business expenditure in R&D (BERD - PPS mln)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Slovakia	EU
<b>Total economy</b>	<b>169</b>	<b>166</b>	<b>199</b>	<b>183</b>	<b>262</b>	<b>253</b>	<b>354</b>	<b>416</b>	<b>0.3%</b>	<b>246</b>	<b>126</b>
<b>ICT sector</b>	<b>13</b>	<b>15</b>	<b>5</b>	<b>4</b>	<b>9</b>	<b>10</b>	<b>47</b>	<b>50</b>	<b>0.2%</b>	<b>378</b>	<b>112</b>
Manufacturing	11	11	2	1	1	2	2	2	..	20	80
Telecommunications	-	-	1	1	1	1	1	1	..	..	82
Computer services	2	3	2	2	7	8	44	46	0.4%	1879	183
Wholesale trade	-	-	-	-	-	-	-	1	0.1%	..	151
→ <b>ICT sector as a % of Total</b>	<b>7.8%</b>	<b>8.8%</b>	<b>2.5%</b>	<b>2.1%</b>	<b>3.6%</b>	<b>4.0%</b>	<b>13.3%</b>	<b>11.9%</b>			

#### R&D Intensity (BERD as a % of value added)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Slovakia	EU
<b>Total economy (% GDP)</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.3</b>	<b>0.2</b>	<b>0.3</b>	<b>0.4</b>	<b>(0.32)</b>	<b>..</b>	<b>114</b>
<b>ICT sector</b>	<b>0.4</b>	<b>0.3</b>	<b>0.1</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>	<b>0.9</b>	<b>1.0</b>	<b>(0.22)</b>	<b>282</b>	<b>103</b>
Manufacturing	1.8	2.2	0.2	0.2	0.2	0.2	0.2	0.3	(0.01)	..	117
Telecommunications	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	(0.04)	..	97
Computer services	0.2	0.2	0.1	0.1	0.4	0.4	1.9	2.0	(0.48)	..	131
Wholesale trade	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	(0.21)	..	120
Rest of the economy	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.4	(0.33)	..	117

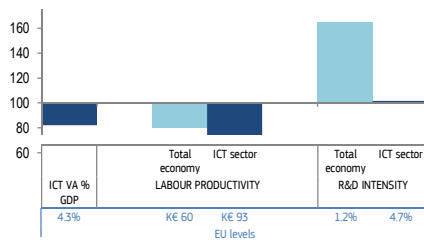
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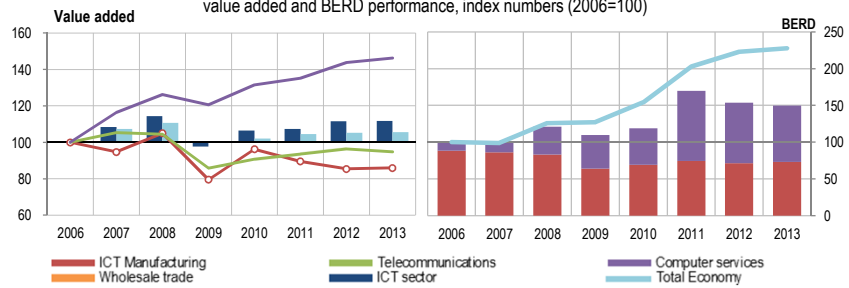
**SLOVENIA**



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy :  
value added and BERD performance, index numbers (2006=100)



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Slovenia	EU
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**Economic and industry trends**

**Value added (PPS bn)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Slovenia	EU
<b>Total economy (GDP)</b>	42	45	47	42	43	44	44	45	0.3%	106	111
<b>ICT sector</b>	1	2	2	1	1	2	2	2	0.3%	112	109
Manufacturing	0	0	0	0	0	0	0	0	0.3%	..	69
Telecommunications	1	1	1	1	1	1	1	1	0.4%	..	85
Computer services	0	1	1	1	1	1	1	1	0.2%	..	140
Wholesale trade	0	0	0	0	0	0	0	0	0.1%	..	126
→ <b>ICT sector as a % of Total</b>	<b>3.3%</b>	<b>3.4%</b>	<b>3.4%</b>	<b>3.3%</b>	<b>3.5%</b>	<b>3.4%</b>	<b>3.5%</b>	<b>3.5%</b>			

**Employment (thousands)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Slovenia	EU
<b>Total economy</b>	944	976	1,001	983	962	946	937	924	0.4%	98	100
<b>ICT sector</b>	20	22	23	24	24	23	24	24	0.4%	120	107
Manufacturing	5	5	5	5	5	4	4	4	0.6%	81	74
Telecommunications	5	5	5	5	5	5	5	5	0.5%	107	89
Computer services	9	11	12	12	13	13	14	14	0.4%	151	127
Wholesale trade	1	1	1	1	1	1	1	1	0.2%	..	97
→ <b>ICT sector as a % of Total</b>	<b>2.1%</b>	<b>2.2%</b>	<b>2.3%</b>	<b>2.5%</b>	<b>2.5%</b>	<b>2.5%</b>	<b>2.5%</b>	<b>2.6%</b>			

**Productivity of labour (PPS thous./person employed)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Slovenia	EU
<b>Total economy</b>	45	46	47	43	45	47	47	48	(0.80)	108	111
<b>ICT sector</b>	70	71	70	57	63	65	66	65	(0.69)	93	101
Manufacturing	39	38	42	29	40	42	39	41	(0.57)	107	93
Telecommunications	143	145	141	115	125	132	134	127	(0.81)	89	96
Computer services	51	52	51	46	48	49	50	49	(0.62)	97	110
Wholesale trade	42	53	65	43	51	42	51	52	(0.57)	124	130

**R&D performance**

**Business expenditure in R&D (BERD - PPS mln)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Slovenia	EU
<b>Total economy</b>	390	386	490	495	602	791	869	889	0.5%	228	126
<b>ICT sector</b>	48	48	59	57	65	86	77	74	0.3%	155	112
Manufacturing	42	41	40	31	33	36	34	35	0.3%	83	80
Telecommunications	-	-	1	2	6	3	2	2	0.1%	..	82
Computer services	5	7	18	22	24	46	39	37	0.3%	669	183
Wholesale trade	-	-	-	3	2	2	1	1	0.1%	..	151
→ <b>ICT sector as a % of Total</b>	<b>12.3%</b>	<b>12.5%</b>	<b>12.1%</b>	<b>11.6%</b>	<b>10.7%</b>	<b>10.9%</b>	<b>8.8%</b>	<b>8.4%</b>			

**R&D Intensity (BERD as a % of value added)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Slovenia	EU
<b>Total economy (% GDP)</b>	0.9	0.9	1.0	1.2	1.4	1.8	2.0	2.0	(1.65)	216	114
<b>ICT sector</b>	3.4	3.2	3.7	4.2	4.3	5.7	4.9	4.7	(1.02)	139	103
Manufacturing	21.3	21.9	19.1	19.3	17.3	20.0	20.1	20.5	(0.99)	96	117
Telecommunications	0.0	0.0	0.2	0.4	0.9	0.5	0.3	0.3	(0.16)	..	97
Computer services	1.2	1.3	3.0	3.8	3.8	7.2	5.8	5.3	(1.27)	457	131
Wholesale trade	0.0	0.0	0.0	5.1	3.9	3.8	2.3	1.2	(0.86)	..	120
Rest of the economy	0.8	0.8	1.0	1.1	1.3	1.7	1.8	1.9	(1.79)	..	117

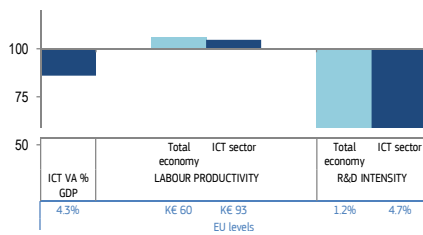
Note: all monetary variables are expressed in Purchasing Power Standards (PPS) at current prices

(\*) % shares and (levels) correspond to the ratio between the value of a variable *x* in country *i* and in the EU economy [=  $x_i/x_{EU}$ ]. Shares portray the weight of each country in the EU aggregate and are expressed in percentages, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

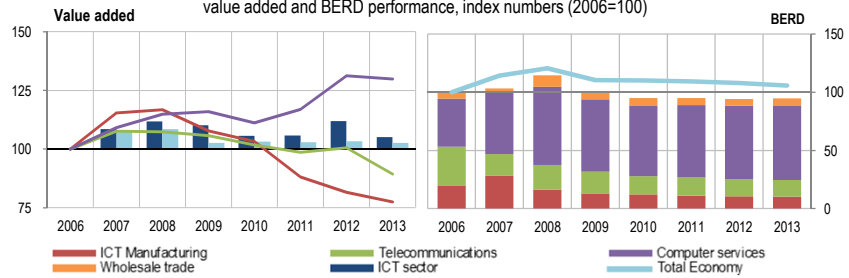
**SPAIN**



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy :  
value added and BERD performance, index numbers (2006=100)



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Spain	EU
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**Economic and industry trends**

**Value added (PPS bn)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Spain	EU
<b>Total economy (GDP)</b>	1,115	1,204	1,211	1,144	1,150	1,147	1,152	1,145	8.5%	103	111
<b>ICT sector</b>	40	44	45	44	42	43	45	42	7.3%	105	109
Manufacturing	2	2	2	2	2	2	2	2	3.0%	78	69
Telecommunications	21	22	22	22	21	21	21	19	10.9%	89	85
Computer services	14	16	16	16	16	17	19	18	6.0%	130	140
Wholesale trade	3	3	4	4	3	4	4	4	7.0%	114	126
→ <b>ICT sector as a % of Total</b>	<b>3.6%</b>	<b>3.6%</b>	<b>3.7%</b>	<b>3.9%</b>	<b>3.7%</b>	<b>3.7%</b>	<b>3.9%</b>	<b>3.7%</b>			

**Employment (thousands)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Spain	EU
<b>Total economy</b>	20,609	21,285	21,324	19,987	19,640	19,141	18,430	17,948	8.0%	87	100
<b>ICT sector</b>	367	396	440	429	437	446	437	433	7.0%	118	107
Manufacturing	38	38	33	30	31	29	24	22	3.2%	58	74
Telecommunications	66	65	74	75	77	76	77	74	6.8%	113	89
Computer services	207	229	259	258	266	276	275	278	7.1%	134	127
Wholesale trade	57	64	74	66	64	65	62	59	10.5%	105	97
→ <b>ICT sector as a % of Total</b>	<b>1.8%</b>	<b>1.9%</b>	<b>2.1%</b>	<b>2.1%</b>	<b>2.2%</b>	<b>2.3%</b>	<b>2.4%</b>	<b>2.4%</b>			

**Productivity of labour (PPS thous./person employed)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Spain	EU
<b>Total economy</b>	54	57	57	57	59	60	63	64	(1.06)	118	111
<b>ICT sector</b>	109	110	102	103	97	95	103	98	(1.05)	89	101
Manufacturing	52	59	69	69	66	59	68	69	(0.95)	135	93
Telecommunications	317	345	303	293	277	271	272	252	(1.60)	79	96
Computer services	69	68	63	64	60	60	68	67	(0.84)	97	110
Wholesale trade	57	54	55	56	54	56	62	61	(0.67)	108	130

**R&D performance**

**Business expenditure in R&D (BERD - PPS mln)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Spain	EU
<b>Total economy</b>	7,255	8,303	8,758	8,024	7,987	7,928	7,838	7,669	4.7%	106	126
<b>ICT sector</b>	1,167	1,207	1,336	1,163	1,109	1,110	1,100	1,105	4.1%	95	112
Manufacturing	231	328	191	152	143	129	124	121	1.2%	52	80
Telecommunications	388	219	245	218	182	184	170	166	5.3%	43	82
Computer services	484	618	785	726	711	725	738	748	5.8%	155	183
Wholesale trade	64	42	115	67	74	72	68	70	9.7%	110	151
→ <b>ICT sector as a % of Total</b>	<b>16.1%</b>	<b>14.5%</b>	<b>15.3%</b>	<b>14.5%</b>	<b>13.9%</b>	<b>14.0%</b>	<b>14.0%</b>	<b>14.4%</b>			

**R&D Intensity (BERD as a % of value added)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Spain	EU
<b>Total economy (% GDP)</b>	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	(0.55)	103	114
<b>ICT sector</b>	2.9	2.8	3.0	2.6	2.6	2.6	2.4	2.6	(0.56)	90	103
Manufacturing	11.9	14.6	8.4	7.2	7.1	7.5	7.8	8.0	(0.39)	67	117
Telecommunications	1.9	1.0	1.1	1.0	0.9	0.9	0.8	0.9	(0.48)	48	97
Computer services	3.4	4.0	4.8	4.4	4.5	4.4	4.0	4.1	(0.97)	119	131
Wholesale trade	2.0	1.2	2.9	1.8	2.1	2.0	1.8	1.9	(1.39)	97	120
Rest of the economy	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	(0.56)	..	117

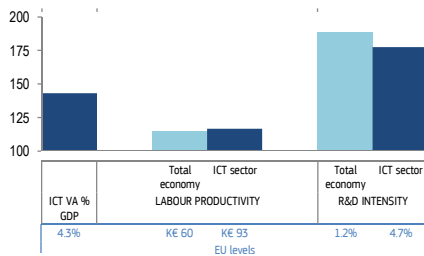
Note: all monetary variables are expressed in Purchasing Power Standards (PPS) at current prices

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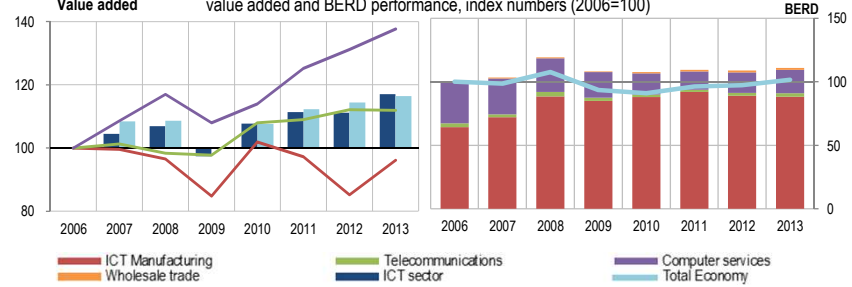
**SWEDEN**



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy: value added and BERD performance, index numbers (2006=100)



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Sweden	EU
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**Economic and industry trends**

**Value added (PPS bn)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Sweden	EU
<b>Total economy (GDP)</b>	<b>278</b>	<b>301</b>	<b>302</b>	<b>277</b>	<b>299</b>	<b>312</b>	<b>318</b>	<b>323</b>	<b>2.4%</b>	<b>116</b>	<b>111</b>
<b>ICT sector</b>	<b>17</b>	<b>18</b>	<b>18</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>19</b>	<b>20</b>	<b>3.4%</b>	<b>117</b>	<b>109</b>
Manufacturing	5	5	5	5	6	5	5	5	10.5%	96	69
Telecommunications	3	3	3	3	3	3	3	3	2.0%	112	85
Computer services	7	8	8	8	8	9	9	10	3.2%	138	140
Wholesale trade	1	1	1	1	1	1	1	1	2.5%	102	126
→ <b>ICT sector as a % of Total</b>	<b>6.1%</b>	<b>5.9%</b>	<b>6.0%</b>	<b>6.0%</b>	<b>6.1%</b>	<b>6.1%</b>	<b>5.9%</b>	<b>6.1%</b>			

**Employment (thousands)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Sweden	EU
<b>Total economy</b>	<b>4,423</b>	<b>4,524</b>	<b>4,565</b>	<b>4,455</b>	<b>4,498</b>	<b>4,594</b>	<b>4,627</b>	<b>4,672</b>	<b>2.1%</b>	<b>106</b>	<b>100</b>
<b>ICT sector</b>	<b>172</b>	<b>176</b>	<b>182</b>	<b>176</b>	<b>174</b>	<b>175</b>	<b>181</b>	<b>182</b>	<b>2.9%</b>	<b>106</b>	<b>107</b>
Manufacturing	29	30	32	31	31	30	31	31	4.5%	105	74
Telecommunications	27	26	25	24	22	21	21	21	1.9%	78	89
Computer services	94	99	105	102	103	106	110	111	2.9%	118	127
Wholesale trade	22	21	21	19	18	18	19	19	3.3%	86	97
→ <b>ICT sector as a % of Total</b>	<b>3.9%</b>	<b>3.9%</b>	<b>4.0%</b>	<b>4.0%</b>	<b>3.9%</b>	<b>3.8%</b>	<b>3.9%</b>	<b>3.9%</b>			

**Productivity of labour (PPS thous./person employed)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Sweden	EU
<b>Total economy</b>	<b>63</b>	<b>67</b>	<b>66</b>	<b>62</b>	<b>66</b>	<b>68</b>	<b>69</b>	<b>69</b>	<b>(1.15)</b>	<b>110</b>	<b>111</b>
<b>ICT sector</b>	<b>98</b>	<b>101</b>	<b>100</b>	<b>94</b>	<b>105</b>	<b>108</b>	<b>104</b>	<b>109</b>	<b>(1.17)</b>	<b>111</b>	<b>101</b>
Manufacturing	184	180	165	146	180	175	147	168	(2.30)	91	93
Telecommunications	115	121	123	127	153	162	166	166	(1.05)	144	96
Computer services	76	78	80	76	79	84	85	88	(1.11)	116	110
Wholesale trade	59	68	72	61	67	72	74	70	(0.77)	120	130

**R&D performance**

**Business expenditure in R&D (BERD - PPS mln)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Sweden	EU
<b>Total economy</b>	<b>7,259</b>	<b>7,155</b>	<b>7,807</b>	<b>6,789</b>	<b>6,604</b>	<b>6,994</b>	<b>7,065</b>	<b>7,368</b>	<b>4.5%</b>	<b>102</b>	<b>126</b>
<b>ICT sector</b>	<b>1,479</b>	<b>1,527</b>	<b>1,763</b>	<b>1,599</b>	<b>1,591</b>	<b>1,619</b>	<b>1,609</b>	<b>1,639</b>	<b>6.1%</b>	<b>111</b>	<b>112</b>
Manufacturing	952	1,065	1,309	1,256	1,300	1,359	1,315	1,305	12.7%	137	80
Telecommunications	42	36	51	38	31	27	33	41	1.3%	98	82
Computer services	474	415	392	295	246	212	240	272	2.1%	57	183
Wholesale trade	12	11	11	9	14	21	21	21	2.9%	180	151
→ <b>ICT sector as a % of Total</b>	<b>20.4%</b>	<b>21.3%</b>	<b>22.6%</b>	<b>23.6%</b>	<b>24.1%</b>	<b>23.1%</b>	<b>22.8%</b>	<b>22.2%</b>			

**R&D Intensity (BERD as a % of value added)**

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU % shares (levels)	2013 vs 2006(=100) Sweden	EU
<b>Total economy (% GDP)</b>	<b>2.6</b>	<b>2.4</b>	<b>2.6</b>	<b>2.4</b>	<b>2.2</b>	<b>2.2</b>	<b>2.2</b>	<b>2.3</b>	<b>(1.88)</b>	<b>87</b>	<b>114</b>
<b>ICT sector</b>	<b>8.7</b>	<b>8.6</b>	<b>9.7</b>	<b>9.7</b>	<b>8.7</b>	<b>8.6</b>	<b>8.5</b>	<b>8.3</b>	<b>(1.78)</b>	<b>95</b>	<b>103</b>
Manufacturing	17.6	19.8	25.1	27.4	23.6	25.8	28.5	25.1	(1.22)	143	117
Telecommunications	1.3	1.1	1.7	1.3	0.9	0.8	1.0	1.2	(0.63)	88	97
Computer services	6.6	5.3	4.7	3.8	3.0	2.4	2.6	2.8	(0.66)	42	131
Wholesale trade	0.9	0.8	0.8	0.8	1.1	1.7	1.5	1.6	(1.15)	176	120
Rest of the economy	2.2	2.0	2.1	2.0	1.8	1.8	1.8	1.9	(1.79)	85	117

Note: all monetary variables are expressed in Purchasing Power Standards (PPS) at current prices

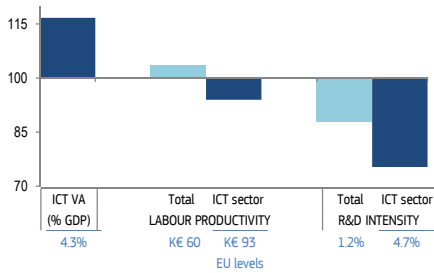
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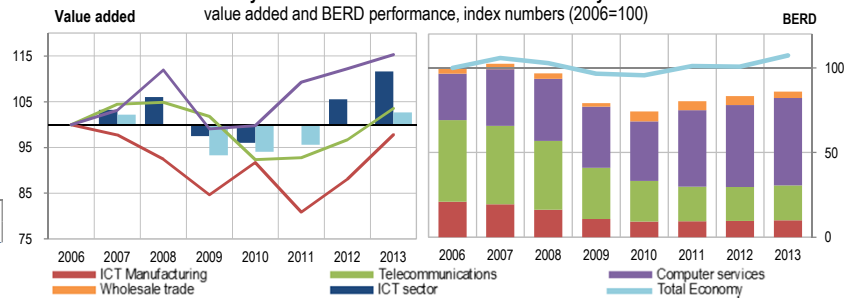
## UNITED KINGDOM



Benchmarking vs. EU28 (=100), year 2013



Dynamics of ICT industries and the total economy :  
value added and BERD performance, index numbers (2006=100)



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs EU		
									% shares (levels)	UK	EU

### ECONOMIC AND INDUSTRY TRENDS

#### Value added (PPS bn)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs 2006(=100)		
<b>Total economy (GDP)</b>	<b>1,827</b>	<b>1,866</b>	<b>1,824</b>	<b>1,704</b>	<b>1,718</b>	<b>1,747</b>	<b>1,821</b>	<b>1,876</b>	<b>13.9%</b>	<b>103</b>	<b>111</b>
ICT sector	84	87	89	82	81	84	89	94	16.2%	112	109
Manufacturing	6	6	5	5	5	5	5	6	11.2%	98	69
Telecommunications	30	31	31	30	27	28	29	31	18.0%	104	85
Computer services	42	44	47	42	42	46	47	49	15.8%	115	140
Wholesale trade	6	7	5	5	6	6	8	9	17.0%	137	126
<b>ICT sector as a % of Total</b>	<b>4.6%</b>	<b>4.7%</b>	<b>4.9%</b>	<b>4.8%</b>	<b>4.7%</b>	<b>4.8%</b>	<b>4.9%</b>	<b>5.0%</b>			

#### Employment (thousands)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs 2006(=100)		
<b>Total economy</b>	<b>29,140</b>	<b>29,373</b>	<b>29,629</b>	<b>29,152</b>	<b>29,227</b>	<b>29,372</b>	<b>29,693</b>	<b>30,044</b>	<b>13.4%</b>	<b>103</b>	<b>100</b>
ICT sector	1,007	1,016	1,014	988	976	1,025	1,021	1,070	17.2%	106	107
Manufacturing	87	86	81	62	59	59	59	61	8.9%	70	74
Telecommunications	221	221	213	214	211	214	212	210	19.4%	95	89
Computer services	608	628	638	629	627	676	675	718	18.5%	118	127
Wholesale trade	90	82	81	83	79	75	74	82	14.4%	90	97
<b>ICT sector as a % of Total</b>	<b>3.5%</b>	<b>3.5%</b>	<b>3.4%</b>	<b>3.4%</b>	<b>3.3%</b>	<b>3.5%</b>	<b>3.4%</b>	<b>3.6%</b>			

#### Productivity of labour (PPS thous./person employed)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs 2006(=100)		
<b>Total economy</b>	<b>63</b>	<b>64</b>	<b>62</b>	<b>58</b>	<b>59</b>	<b>59</b>	<b>61</b>	<b>62</b>	<b>(1.03)</b>	<b>100</b>	<b>111</b>
ICT sector	84	85	88	83	83	82	87	88	(0.94)	105	101
Manufacturing	65	65	64	77	88	78	84	92	(1.26)	140	93
Telecommunications	135	141	146	141	130	129	136	147	(0.93)	109	96
Computer services	69	69	74	67	67	68	70	68	(0.85)	98	110
Wholesale trade	71	82	67	61	75	78	103	109	(1.19)	152	130

### R&D PERFORMANCE

#### Business expenditure in R&D (BERD - PPS mln)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs 2006(=100)		
<b>Total economy</b>	<b>18,580</b>	<b>19,653</b>	<b>19,080</b>	<b>17,918</b>	<b>17,744</b>	<b>18,773</b>	<b>18,709</b>	<b>19,942</b>	<b>12.2%</b>	<b>107</b>	<b>126</b>
ICT sector	3,824	3,918	3,700	3,024	2,839	3,070	3,188	3,290	12.2%	86	112
Manufacturing	803	742	619	409	357	364	366	379	3.7%	47	80
Telecommunications	1,838	1,775	1,557	1,161	912	775	767	791	25.1%	43	82
Computer services	1,053	1,273	1,402	1,374	1,349	1,725	1,851	1,972	15.3%	187	183
Wholesale trade	130	129	122	80	222	206	204	147	20.4%	113	151
<b>ICT sector as a % of Total</b>	<b>20.6%</b>	<b>19.9%</b>	<b>19.4%</b>	<b>16.9%</b>	<b>16.0%</b>	<b>16.4%</b>	<b>17.0%</b>	<b>16.5%</b>			

#### R&D Intensity (BERD as a % of value added)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs 2006(=100)		
<b>Total economy (% GDP)</b>	<b>1.0</b>	<b>1.1</b>	<b>1.0</b>	<b>1.1</b>	<b>1.0</b>	<b>1.1</b>	<b>1.0</b>	<b>1.1</b>	<b>(0.88)</b>	<b>105</b>	<b>114</b>
ICT sector	4.5	4.5	4.1	3.7	3.5	3.6	3.6	3.5	(0.75)	77	103
Manufacturing	14.2	13.4	11.8	8.5	6.9	7.9	7.3	6.8	(0.33)	48	117
Telecommunications	6.2	5.7	5.0	3.8	3.3	2.8	2.7	2.6	(1.39)	42	97
Computer services	2.5	2.9	3.0	3.3	3.2	3.7	3.9	4.0	(0.97)	162	131
Wholesale trade	2.0	1.9	2.2	1.6	3.7	3.5	2.7	1.7	(1.20)	83	120
Rest of the economy	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	(0.89)	110	117

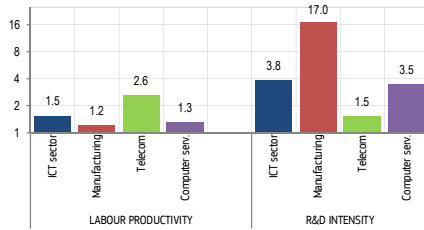
Note: all monetary variables are expressed in Purchasing Power Standards (PPS) at current prices

(\*) % shares and (levels) correspond to the ratio between the value of a variable  $x$  in country  $i$  and in the EU economy  $[= x_i/x_{EU}]$ . Shares portray the weight of each country in the EU aggregate and are expressed in percentages, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

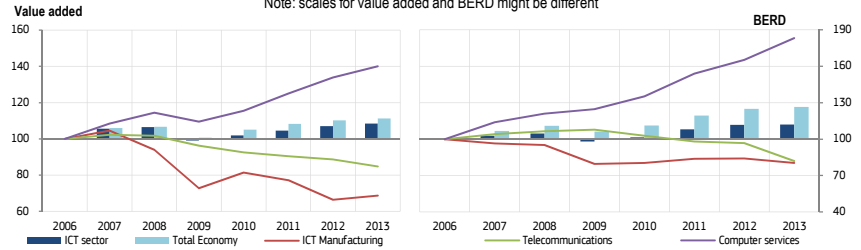
EU28



Benchmarking vs. total economy, year 2013, log scale



Dynamics of ICT industries (2006=100)  
Note: scales for value added and BERD might be different



	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs Total ec.	2013 vs 2006(=100)
ICT sector	100	100	100	100	100	100	100	100		100
Total Economy	100	100	100	100	100	100	100	100		100
ICT Manufacturing	100	100	100	100	100	100	100	100		100
Telecommunications	100	100	100	100	100	100	100	100		100
Computer services	100	100	100	100	100	100	100	100		100

### Economic and industry trends

#### Value added (PPS bn)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs Total ec.	2013 vs 2006(=100)
<b>Total economy (GDP)</b>	<b>12,177</b>	<b>12,909</b>	<b>12,994</b>	<b>12,250</b>	<b>12,794</b>	<b>13,177</b>	<b>13,429</b>	<b>13,542</b>		<b>111</b>
ICT sector	535	566	570	531	545	560	573	581		109
Manufacturing	72	76	68	53	59	56	48	50	0.4%	69
Telecommunications	201	206	205	194	186	182	179	171	1.3%	85
Computer services	220	239	252	241	255	276	295	308	2.3%	140
Wholesale trade	41	45	45	43	46	47	51	52	0.4%	126
→ ICT sector as a % of Total	<b>4.4%</b>	<b>4.4%</b>	<b>4.4%</b>	<b>4.3%</b>	<b>4.3%</b>	<b>4.2%</b>	<b>4.3%</b>	<b>4.3%</b>		<b>97.6</b>

#### Employment (thousands)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs Total ec.	2013 vs 2006(=100)
<b>Total economy</b>	<b>224,538</b>	<b>228,831</b>	<b>231,179</b>	<b>227,192</b>	<b>225,673</b>	<b>225,993</b>	<b>225,129</b>	<b>224,472</b>		<b>100</b>
ICT sector	5,791	5,989	6,138	5,991	5,928	6,068	6,146	6,221		107
Manufacturing	928	950	921	784	743	740	715	683	0.3%	74
Telecommunications	1,221	1,253	1,235	1,185	1,123	1,105	1,099	1,084	0.5%	89
Computer services	3,055	3,197	3,358	3,451	3,496	3,646	3,764	3,887	1.7%	127
Wholesale trade	587	589	623	571	567	577	568	568	0.3%	97
→ ICT sector as a % of Total	<b>2.6%</b>	<b>2.6%</b>	<b>2.7%</b>	<b>2.6%</b>	<b>2.6%</b>	<b>2.7%</b>	<b>2.7%</b>	<b>2.8%</b>		<b>107.5</b>

#### Productivity of labour (PPS thous./person employed)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs Total ec.	2013 vs 2006(=100)
<b>Total economy</b>	<b>54</b>	<b>56</b>	<b>56</b>	<b>54</b>	<b>57</b>	<b>58</b>	<b>60</b>	<b>60</b>	<b>(1.00)</b>	<b>111</b>
ICT sector	92	94	93	89	92	92	93	93	(1.55)	101
Manufacturing	78	80	74	67	79	75	67	73	(1.21)	93
Telecommunications	165	164	166	164	166	165	162	158	(2.61)	96
Computer & information services	72	75	75	70	73	76	78	79	(1.32)	110
Wholesale trade	70	77	73	75	81	81	90	92	(1.52)	130

### R&D performance

#### Business expenditure in R&D (BERD - PPS mln)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs Total ec.	2013 vs 2006(=100)
<b>Total economy</b>	<b>129,584</b>	<b>138,256</b>	<b>143,659</b>	<b>137,675</b>	<b>143,986</b>	<b>154,838</b>	<b>161,939</b>	<b>163,866</b>	<b>100.0%</b>	<b>126</b>
ICT sector	24,097	24,793	25,237	23,618	24,469	26,059	26,913	27,021	16.5%	112
Manufacturing	12,722	12,269	12,102	10,120	10,213	10,675	10,691	10,241	6.2%	80
Telecommunications	3,854	4,017	4,106	4,151	3,958	3,783	3,730	3,159	1.9%	82
Computer services	7,042	8,027	8,521	8,788	9,530	10,842	11,635	12,899	7.9%	183
Wholesale trade	478	480	508	559	769	758	858	721	0.4%	151
→ ICT sector as a % of Total	<b>18.6%</b>	<b>17.9%</b>	<b>17.6%</b>	<b>17.2%</b>	<b>17.0%</b>	<b>16.8%</b>	<b>16.6%</b>	<b>16.5%</b>		<b>88.7</b>

#### R&D Intensity (BERD as a % of value added)

	2006	2007	2008	2009	2010	2011	2012	2013	2013 vs Total ec.	2013 vs 2006(=100)
<b>Total economy (% GDP)</b>	<b>1.1</b>	<b>1.1</b>	<b>1.1</b>	<b>1.1</b>	<b>1.1</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>(1.00)</b>	<b>114</b>
ICT sector	4.5	4.4	4.4	4.5	4.5	4.7	4.7	4.7	(3.84)	103
Manufacturing	17.6	16.2	17.8	19.2	17.4	19.1	22.2	20.6	(17.03)	117
Telecommunications	1.9	2.0	2.0	2.1	2.1	2.1	2.1	1.9	(1.53)	97
Computer services	3.2	3.4	3.4	3.6	3.7	3.9	3.9	4.2	(3.46)	131
Wholesale trade	1.2	1.1	1.1	1.3	1.7	1.6	1.7	1.4	(1.15)	120
Rest of the economy	0.9	0.9	1.0	1.0	1.0	1.0	1.1	1.1	(0.87)	117

Note: all monetary variables are expressed in Purchasing Power Standards (PPS) at current prices

% shares and (levels) correspond to the ratio between the value of a variable x in country i and in the EU economy [= xix/EU]. Shares portray the weight of each country in the EU aggregate and are expressed in percentages, the EU being equal to 100%. Levels, computed for productivity and R&D intensity, portray the performance vs. the EU aggregate, and are expressed as a simple ratio, the EU level being equal to (1.00)

## **References**

The 2016 PREDICT Report

Both the report and the database can be accessed through the following web page:  
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