



Federal State  
Statistics Service



HIGHER SCHOOL OF ECONOMICS  
NATIONAL RESEARCH UNIVERSITY

# Information Society Indicators in the Russian Federation

Data book



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**Data Book**

Moscow 2013

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**Information Society Indicators in the Russian Federation : Data Book.** – Moscow : National Research University – Higher School of Economics, 2013. – 324 p.

The data book continues the series of annual publications by HSE Institute for Statistical Studies and Economics of Knowledge (HSE ISSEK) dedicated to information society statistics. It presents statistical data on goods and services production, employment, investments, research and development, innovation and financial activities in the ICT sector. In addition data collected in business tendency surveys is provided, offering assessments of activities by the ICT services enterprises. Special sections contain indicators of ICT usage in the business enterprise sector, public sector, by public authorities, households, and individuals. For the first time sections on ICT infrastructure and the content and media sector are included in the data book. The indicators under consideration are based on state-of-the art methodological approaches to information society statistics and comply with international standards, allowing for international comparison.

The data book uses information provided by the Federal State Statistics Service, Eurostat, the Ministry of Telecom and Mass Media of the Russian Federation, OECD, UNESCO, as well as the results of methodological and analytical studies and special surveys by HSE ISSEK.

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Symbols used in tables:

- ... data not available  
and not included in the totals
- data not applicable
- 0.0 insignificant value

In some tables, details may not add up to the total because of rounding.

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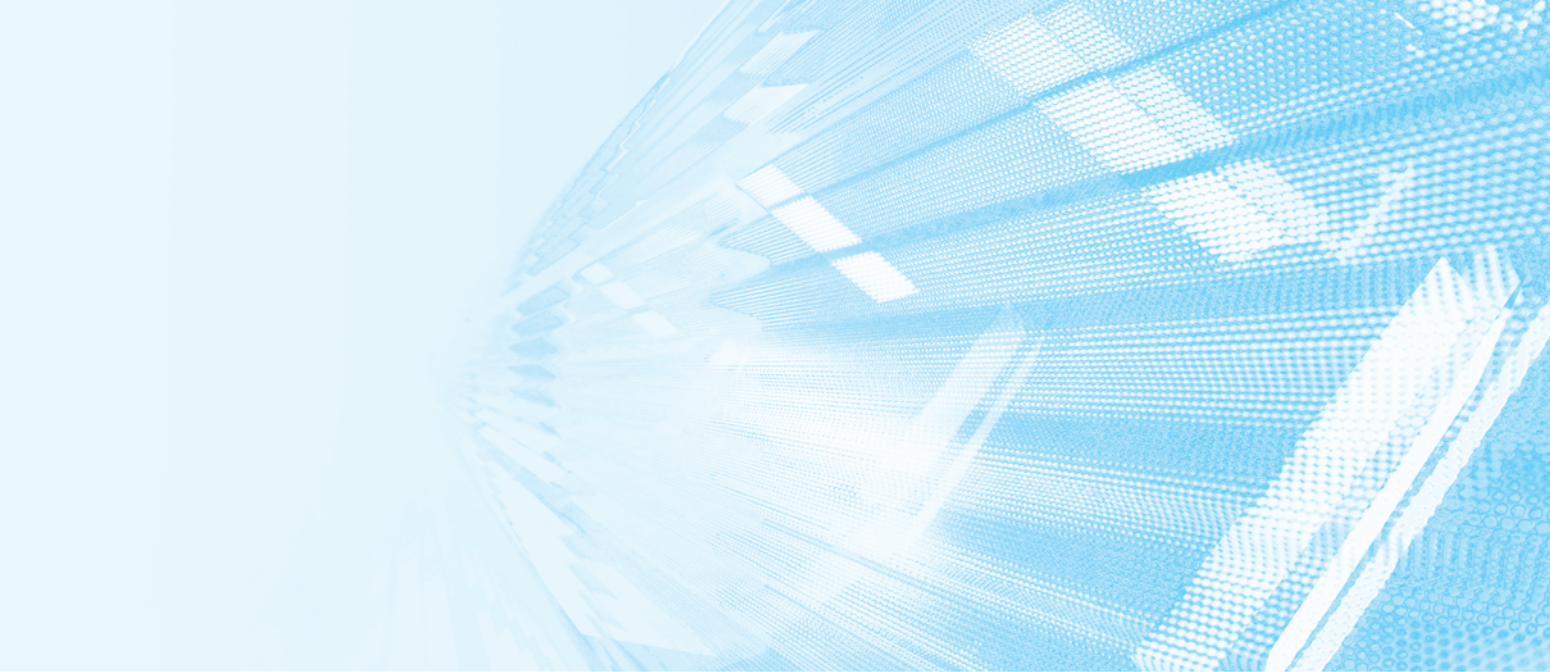
## MAIN INFORMATION SOCIETY INDICATORS

	2005	2006	2007	2008	2009	2010	2011	2012
<b>ICT Sector</b>								
Number of enterprises, <i>at the end of the year, thousand</i>	109	102	112	110	127	138	145	...
Number of employees:								
thousand persons	1347	1364	1340	1371	1280	1306	1260	...
as a percentage of the total employment	2.8	2.8	2.7	2.8	2.7	2.8	2.7	...
Gross value added:								
billion roubles	660	791	1027	1219	1273	1362	1481	...
as a percentage of GDP	3.6	3.4	3.6	3.5	3.8	3.5	3.2	...
<b>Content and Media Sector</b>								
Number of enterprises, <i>at the end of the year, thousand</i>	...	...	...	...	49.0	51.3	51.4	...
Number of employees:								
thousand persons	257.8	257.3	257.5	262.8	252.6	261.2	250.8	...
as a percentage of the total employment	0.5	0.5	0.5	0.5	0.5	0.6	0.5	...
Gross value added:								
billion roubles	111.0	145.1	177.8	228.6	189.8	206.4	219.0	...
as a percentage of GDP	0.6	0.6	0.6	0.6	0.6	0.5	0.5	...
<b>ICT Infrastructure</b>								
Telephones (including public payphones) per 100 inhabitants	30	31	32	32	32	31	31	...
Mobile cellular telephones per 100 inhabitants	86	108	120	140	161	166	179	...
Fixed broadband Internet subscriptions per 100 inhabitants	...	...	...	...	...	...	12	...
<b>ICT Usage by Enterprises</b>								
Enterprises using personal computers as a percentage of the total number of enterprises	91.1	93.3	93.3	93.7	93.7	93.8	94.1	...
Enterprises using the Internet as a percentage of the total number of enterprises	53.3	61.3	67.8	73.7	78.3	82.4	84.8	...
Enterprises with a website as a percentage of the total number of enterprises	14.8	21.1	19.8	22.8	24.1	28.5	33.0	...

(continued)

	2005	2006	2007	2008	2009	2010	2011	2012
<b>ICT Usage by Households</b>								
Households with personal computers as a percentage of the total number of households	25	31	37	43	49	54	60	...
Households with Internet access as a percentage of the total number of households	9	18	21	29	36	42	50	...
<b>ICT Usage by Individuals</b>								
Individuals using the Internet every day or almost every day as a percentage of all individuals aged 16–74*	...	...	...	...	22	26	33	41
Individuals who never used the Internet as a percentage of all individuals aged 16–74*	...	...	...	...	55	51	42	34
Individuals using the Internet as a percentage of all individuals aged 16–74:								
at home	...	...	...	...	31	35	47	58
at work	...	...	...	...	15	12	14	22
at place of education	...	...	...	...	4	4	4	8
at another person's home	...	...	...	...	11	7	6	14
Individuals' level of computer skills (aged 16–74):								
high	...	...	...	...	...	...	...	18
medium	...	...	...	...	...	...	...	21
low	...	...	...	...	...	...	...	15
Individuals' level of Internet skills (aged 16–74):								
high	...	...	...	...	...	3	4	11
medium	...	...	...	...	...	12	16	26
low	...	...	...	...	...	31	31	21

\* 2012 – aged 18 to 74.



# 1. ICT Sector

## 1.1. General Characteristics of the ICT Sector

### 1.1.1. MAIN INDICATORS OF THE ICT SECTOR

	ICT Sector				As a percentage of the respective indicator for the national economy			
	2005	2009	2010	2011	2005	2009	2010	2011
Number of enterprises, <i>thousand, at the end of the year</i>	109	127	138	145	2.3	2.6	2.9	3.0
Number of employees, <i>thousand</i>	1347	1280	1306	1260	2.8	2.7	2.8	2.7
Gross value added, <i>billion roubles</i>	660	1273	1362	1481	3.6	3.8	3.5	3.2
Turnover of enterprises, <i>billion roubles</i>	1256	2424	2930	3284	3.4	3.6	3.5	3.3
Fixed capital investment, <i>billion roubles</i>	271	256	297	362	7.5	3.2	3.2	3.4

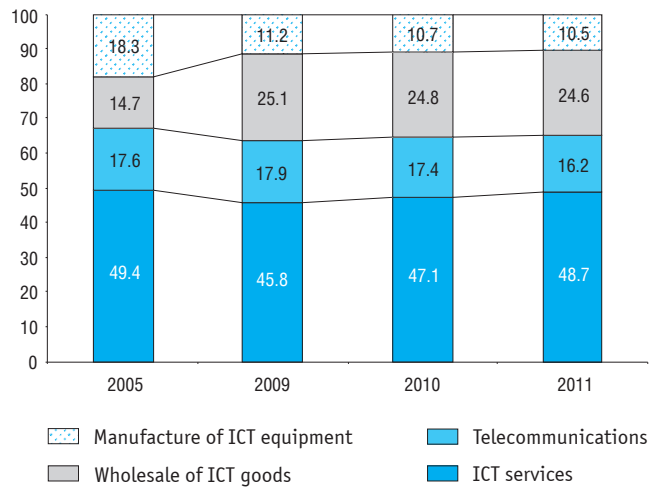
*Source* (here and below in the section): estimated by HSE Institute for Statistical Studies and Economics of Knowledge (HSE ISSEK) on the basis of data provided by Federal State Statistics Service.



### 1.1.2. ICT SECTOR ENTERPRISES BY ECONOMIC ACTIVITY

(at the end of the year)

	RCEA code (Rev. 1.1)	Number of enterprises, <i>thousand</i>				As a percentage of total ICT sector enterprises			
		2005	2009	2010	2011	2005	2009	2010	2011
<b>ICT sector – total</b>		<b>109.1</b>	<b>126.8</b>	<b>138.3</b>	<b>145.0</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
Manufacture of office, accounting and computing machinery	30	4.3	3.2	3.3	3.3	3.9	2.5	2.4	2.3
Manufacture of insulated wire and cable	31.3	0.9	0.6	0.6	0.6	0.8	0.5	0.4	0.4
Manufacture of radio, television and communication equipment and apparatus	32	7.8	4.9	5.1	5.3	7.2	3.9	3.7	3.6
Manufacture of instruments and appliances for measuring and checking	33.2	6.6	4.8	5.1	5.3	6.1	3.8	3.7	3.7
Manufacture of industrial process control equipment	33.3	0.3	0.6	0.6	0.7	0.3	0.5	0.5	0.5
Wholesale of ICT goods	51.43.2, 51.84, 51.86, 51.87.5	16.0	31.8	34.4	35.7	14.7	25.1	24.8	24.6
Telecommunications	64.2	19.3	22.8	24.0	23.4	17.6	17.9	17.4	16.2
Renting of office machinery and equipment, including computers	71.33	0.5	0.7	0.8	0.8	0.4	0.6	0.6	0.5
Computer and related activities	72	53.4	57.4	64.4	69.9	49.0	45.2	46.5	48.2

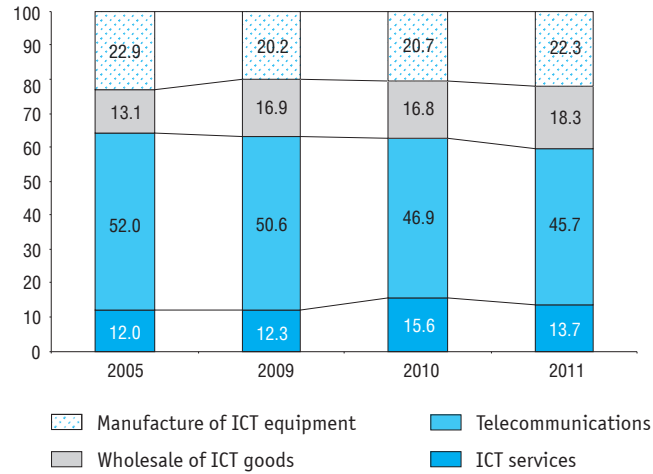
**1.1.3. PERCENTAGE DISTRIBUTION OF ICT SECTOR ENTERPRISES BY ECONOMIC ACTIVITY***(at the end of the year)*

## 1.2. Output of the ICT Sector

### 1.2.1. TURNOVER OF ICT SECTOR ENTERPRISES BY ECONOMIC ACTIVITY

	RCEA code (Rev. 1.1)	Billion roubles				As a percentage of the previous year; <i>at constant prices</i>		
		2005	2009	2010	2011	2009	2010	2011
<b>ICT sector - total</b>		<b>1255.9</b>	<b>2424.2</b>	<b>2929.9</b>	<b>3284.1</b>	<b>99.1</b>	<b>114.8</b>	<b>102.6</b>
As a percentage of the turnover in the national economy		3.4	3.6	3.5	3.3			
Manufacture of office, accounting and computing machinery	30	21.0	44.6	51.5	64.1	72.9	86.7	105.9
Manufacture of insulated wire and cable	31.3	55.0	94.4	118.8	153.8	141.5	72.8	106.2
Manufacture of radio, television and communication equipment and apparatus	32	109.6	173.2	236.0	270.5	60.7	131.0	108.4
Manufacture of instruments and appliances for measuring and checking	33.2	97.1	171.2	193.7	234.0	76.8	108.3	96.1
Manufacture of industrial process control equipment	33.3	4.2	6.4	7.9	9.7	63.4	118.5	98.1
Wholesale of ICT goods	51.43.2, 51.84, 51.86, 51.87.5	164.5	409.3	491.4	598.6	153.8	102.5	103.0
Telecommunications	64.2	653.5	1227.8	1374.9	1502.1	97.4	111.3	105.8
Renting of office machinery and equipment, including computers	71.33	0.8	1.0	2.0	2.1	66.5	206.7	96.4
Computer and related activities	72	150.2	296.3	453.7	449.2	77.1	157.5	90.8

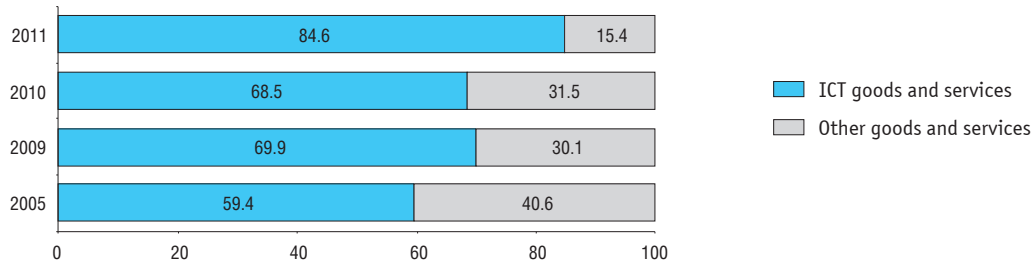
## 1.2.2. PERCENTAGE DISTRIBUTION OF THE ICT SECTOR TURNOVER BY ECONOMIC ACTIVITY



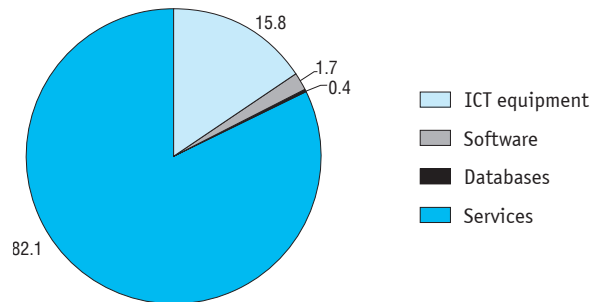
### 1.2.3. SALES OF ICT SECTOR ENTERPRISES BY ECONOMIC ACTIVITY

	RCEA code (Rev. 1.1)	Billion roubles				As a percentage of the total		
		2005	2009	2010	2011	2009	2010	2011
<b>ICT sector – total</b>		<b>1077.6</b>	<b>2023.7</b>	<b>2464.7</b>	<b>2659.0</b>	<b>100</b>	<b>100</b>	<b>100</b>
Manufacture of office, accounting and computing machinery	30	12.7	31.7	40.3	49.5	1.5	1.6	1.9
Manufacture of insulated wire and cable	31.3	51.0	82.4	109.3	141.4	4.1	4.4	5.3
Manufacture of radio, television and communication equipment and apparatus	32	94.8	159.8	227.6	256.3	7.9	9.2	9.6
Manufacture of instruments and appliances for measuring and checking	33.2	86.1	162.3	188.3	227.5	8.0	7.6	8.6
Manufacture of industrial process control equipment	33.3	3.3	4.9	7.6	9.4	0.2	0.3	0.4
Wholesale of ICT goods	51.43.2, 51.84, 51.86, 51.87.5	98.0	117.2	107.8	136.2	5.8	4.5	5.1
Telecommunications	64.2	620.6	1215.8	1365.4	1458.4	60.1	55.4	54.8
Renting of office machinery and equipment, including computers	71.33	0.8	1.2	2.0	2.1	0.1	0.1	0.1
Computer and related activities	72	110.3	248.4	416.4	378.2	12.3	16.9	14.2

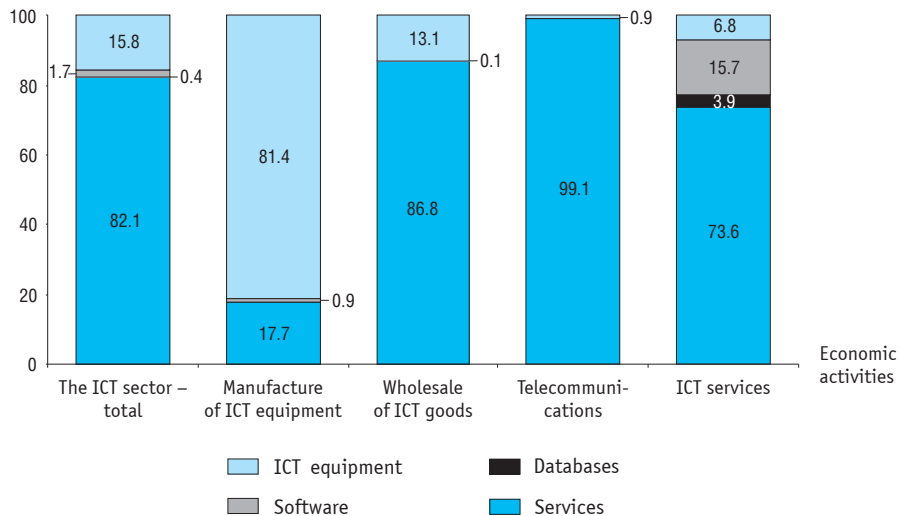
### 1.2.4. ICT GOODS AND SERVICES AS A PERCENTAGE OF TOTAL SALES IN THE ICT SECTOR



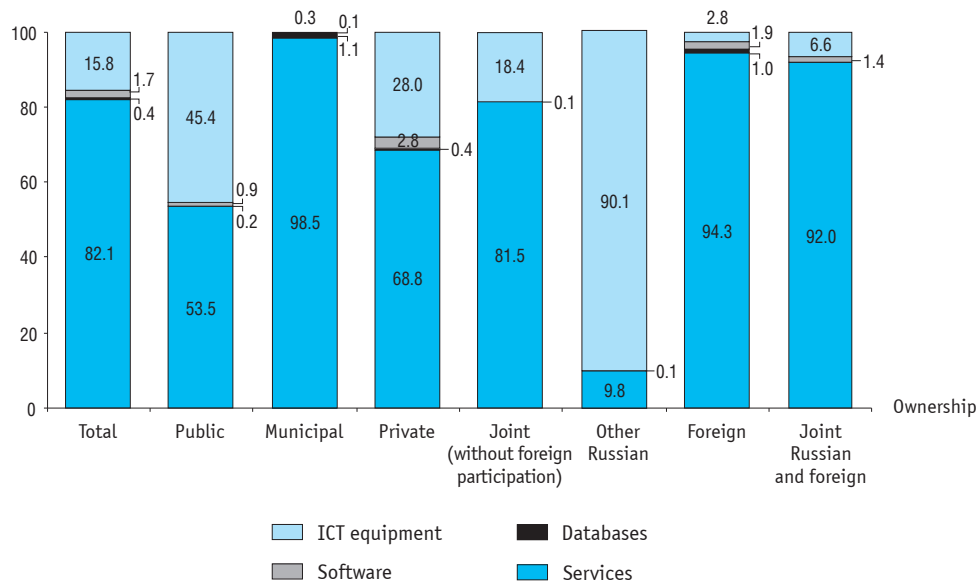
### 1.2.5. PERCENTAGE DISTRIBUTION OF ICT GOODS AND SERVICES SALES BY TYPE: 2011



### 1.2.6. PERCENTAGE DISTRIBUTION OF ICT GOODS AND SERVICES SALES BY ECONOMIC ACTIVITY: 2011

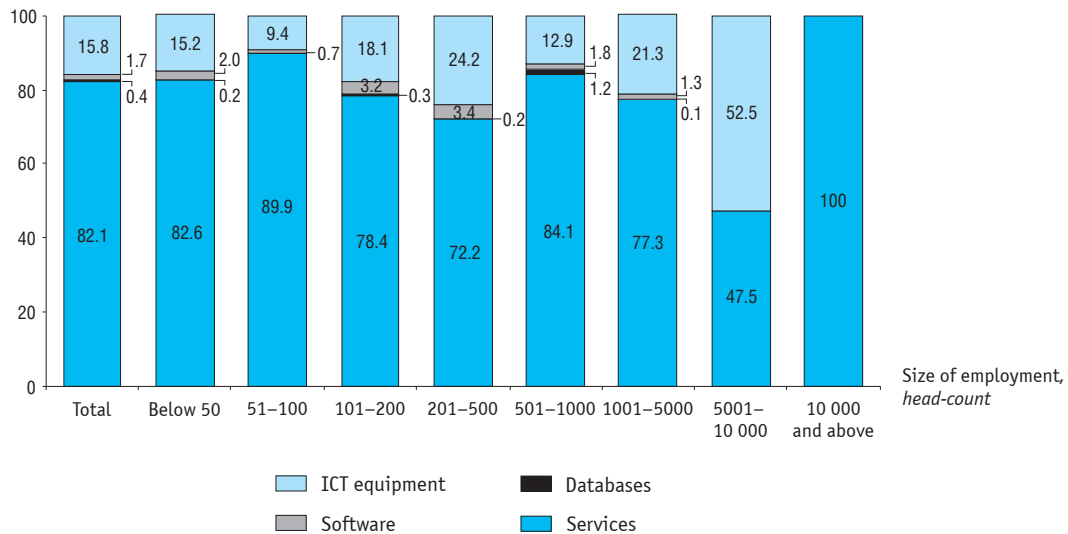


## 1.2.7. PERCENTAGE DISTRIBUTION OF ICT GOODS AND SERVICES SALES BY TYPE AND OWNERSHIP: 2011



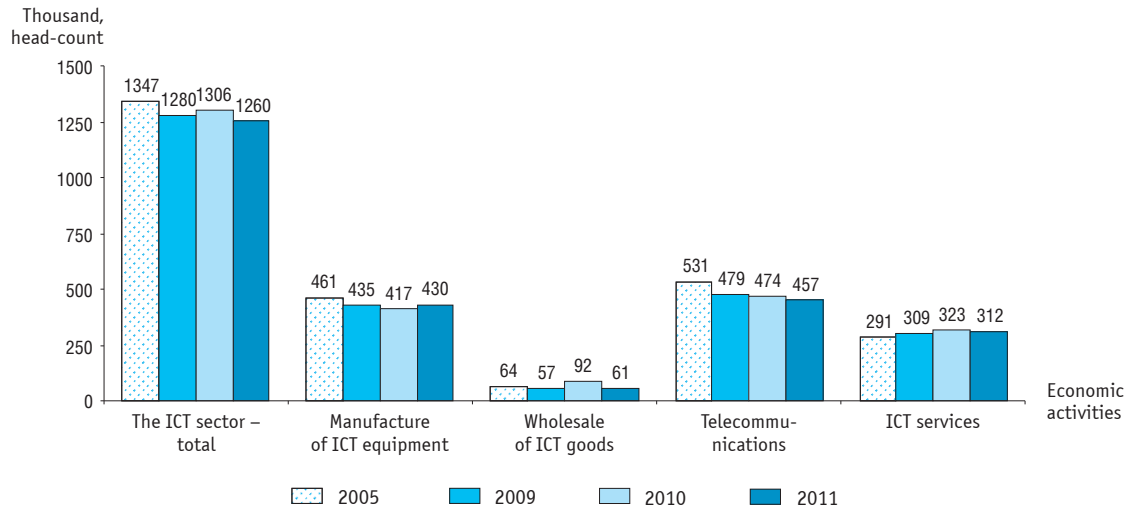


### 1.2.8. PERCENTAGE DISTRIBUTION OF ICT GOODS AND SERVICES SALES BY TYPE AND SIZE OF EMPLOYMENT: 2011

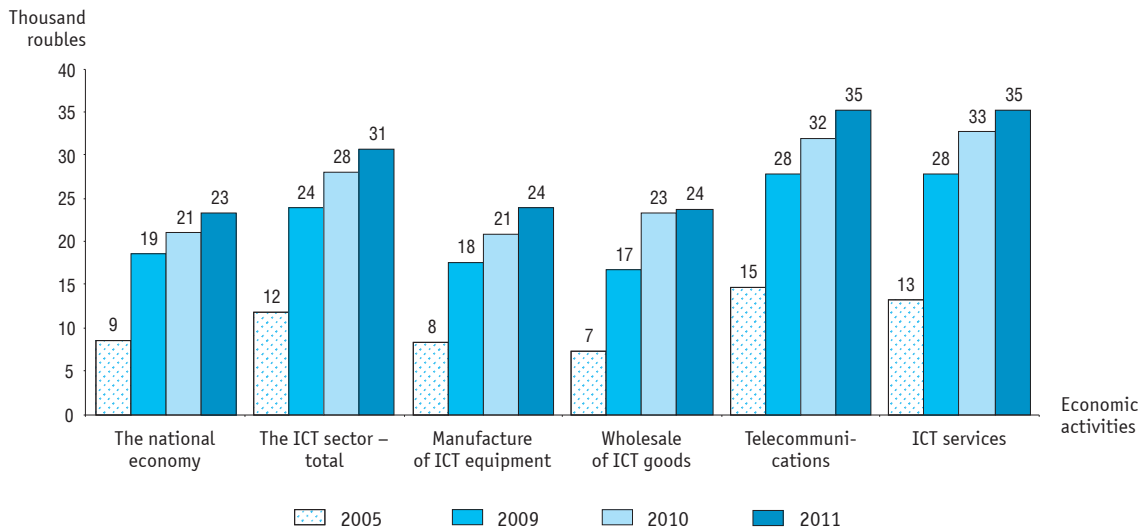


### 1.3. Employment in the ICT Sector

#### 1.3.1. EMPLOYMENT IN THE ICT SECTOR BY ECONOMIC ACTIVITY



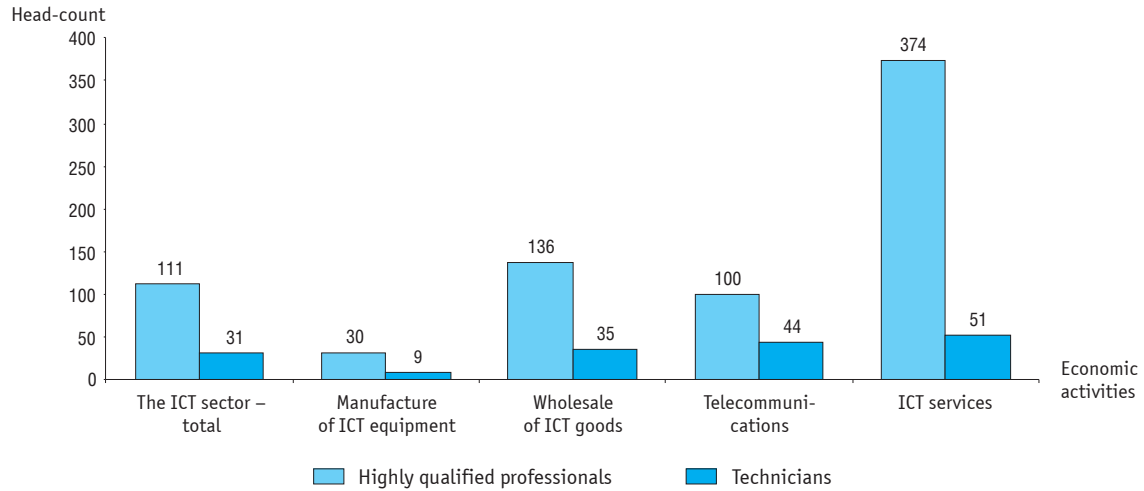
### 1.3.2. AVERAGE MONTHLY SALARIES PER EMPLOYEE BY ECONOMIC ACTIVITY



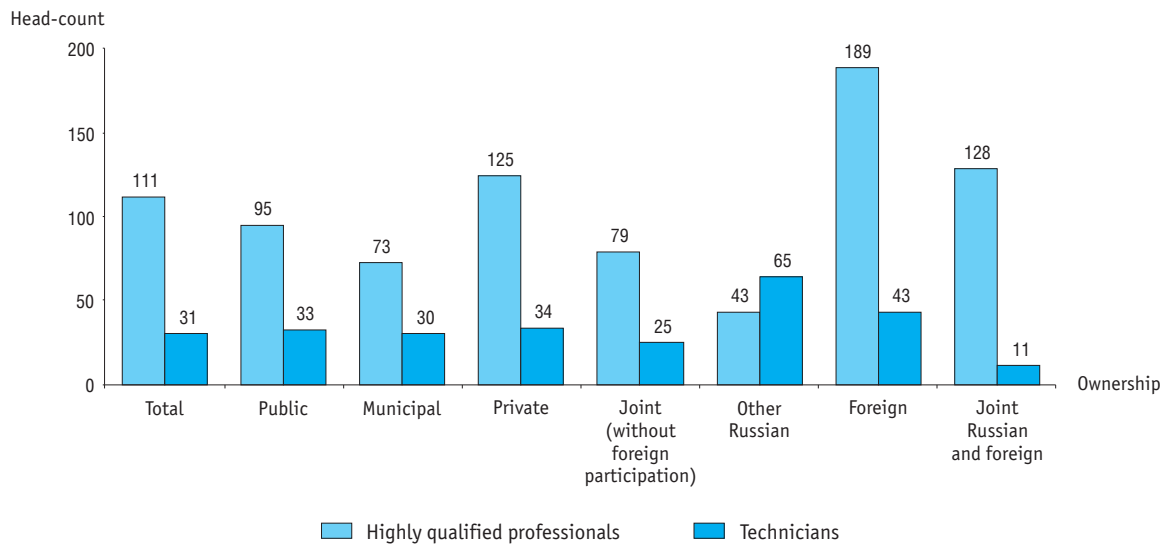
**1.3.3. ICT PROFESSIONALS IN THE ICT SECTOR***(as a percentage of the total employment in the ICT sector)*

	2005	2009	2010	2011
Highly qualified professionals:				
computer system developers and analysts	1.0	1.3	1.5	1.9
programmers	1.9	2.5	2.9	2.9
other computer related professionals	...	1.9	2.2	2.2
electronics, communication and instrument engineers	4.6	4.4	4.1	4.1
Technicians:				
electronics and telecommunications technicians	1.8	1.3	1.4	1.5
computer maintenance technicians and operators	1.4	0.6	0.6	0.6
computer devices and peripherals maintenance technicians and operators	...	0.4	0.3	0.4
industrial robots maintenance technicians and operators	...	0.1	0.0	0.1
radio, television and telecommunications hardware technicians and operators	...	0.5	0.5	0.5

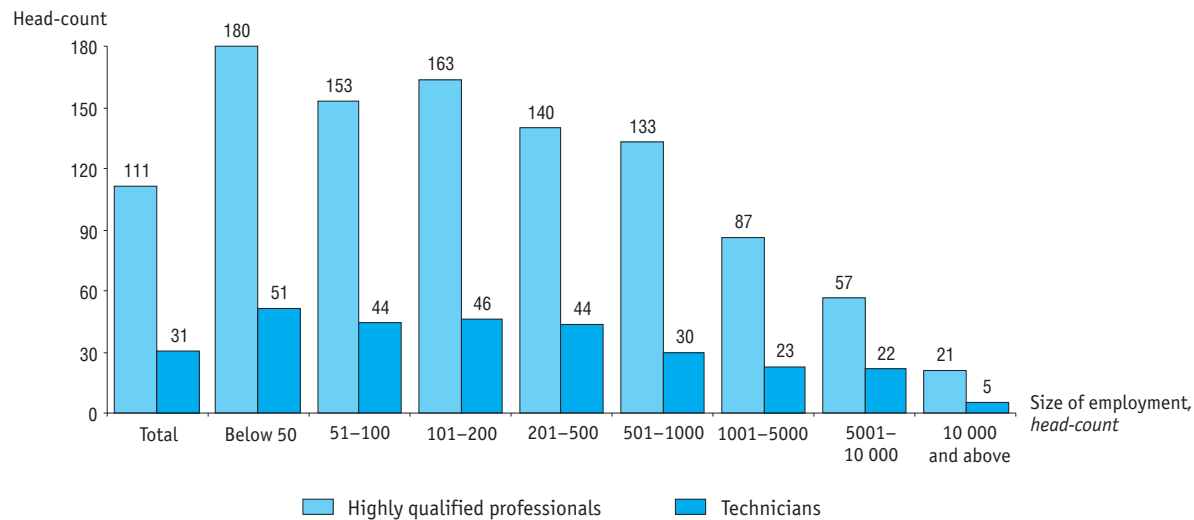
### 1.3.4. ICT PROFESSIONALS PER 1000 EMPLOYEES IN THE ICT SECTOR BY ECONOMIC ACTIVITY: 2011



## 1.3.5. ICT PROFESSIONALS PER 1000 EMPLOYEES IN THE ICT SECTOR BY OWNERSHIP OF ENTERPRISES: 2011



### 1.3.6. ICT PROFESSIONALS PER 1000 EMPLOYEES IN THE ICT SECTOR BY SIZE OF EMPLOYMENT: 2011



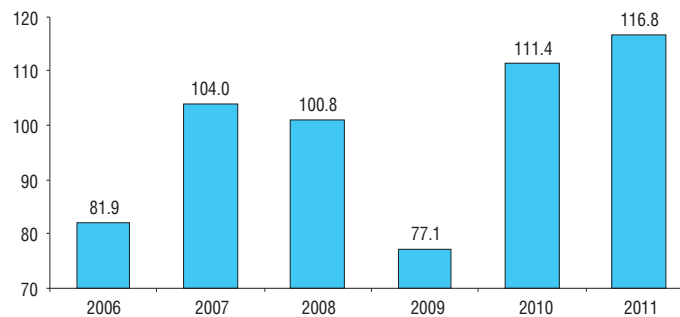
## 1.4. Investment in the ICT Sector

### 1.4.1. FIXED CAPITAL INVESTMENT IN THE ICT SECTOR

	Billion roubles	As a percentage of the respective indicator for the national economy
2005	271.5	7.5
2009	256.1	3.2
2010	297.1	3.2
2011	362.0	3.4

### 1.4.2. TRENDS IN FIXED CAPITAL INVESTMENT IN THE ICT SECTOR

*(as a percentage of the previous year; at constant prices)*

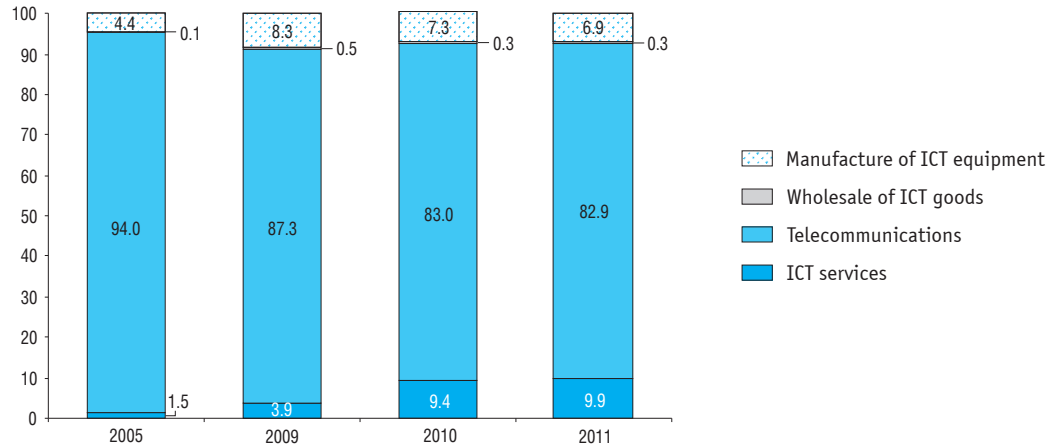




### 1.4.3. FIXED CAPITAL INVESTMENT IN THE ICT SECTOR BY ECONOMIC ACTIVITY

	RCEA code (Rev. 1.1)	Billion roubles				As a percentage of the previous year; <i>at constant prices</i>		
		2005	2009	2010	2011	2009	2010	2011
<b>ICT sector – total</b>		<b>271491</b>	<b>256079</b>	<b>297052</b>	<b>361956</b>	<b>77</b>	<b>111</b>	<b>117</b>
Manufacture of office, accounting and computing machinery	30	582	700	1400	1800	102	186	123
Manufacture of insulated wire and cable	31.3	2465	3638	1899	3394	51	50	167
Manufacture of radio, television and communication equipment and apparatus	32	4885	8500	9600	9200	92	109	89
Manufacture of instruments and appliances for measuring and checking	33.2	4015	8446	8742	10472	97	99	113
Manufacture of industrial process control equipment	33.3	25	18	56	20	45	302	34
Wholesale of ICT goods	51.43.2, 51.84, 51.86, 51.87.5	347	1303	785	1281	140	57	145
Telecommunications	64.2	255214	223572	246650	300019	77	106	117
Renting of office machinery and equipment, including computers	71.33	658	302	2220	11270	53	699	477
Computer and related activities	72	3300	9600	25700	24500	60	250	91

## 1.4.4. PERCENTAGE DISTRIBUTION OF FIXED CAPITAL INVESTMENT IN THE ICT SECTOR BY ECONOMIC ACTIVITY

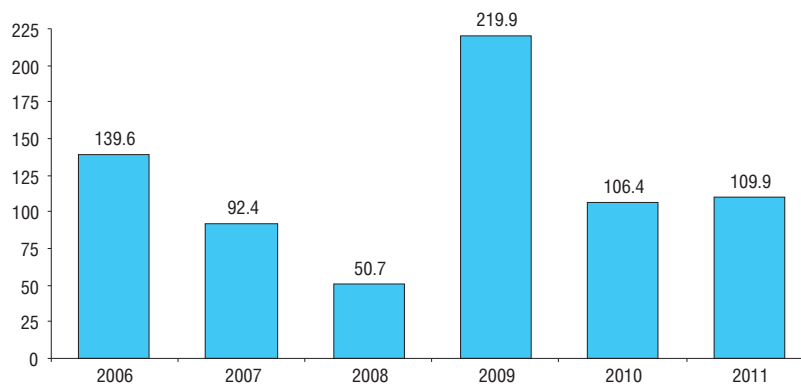


#### 1.4.5. FOREIGN INVESTMENT IN THE ICT SECTOR

	Million US dollars	As a percentage of the respective indicator for the national economy
2005	3520	6.6
2009	5067	6.2
2010	5389	4.7
2011	5920	3.1

#### 1.4.6. TRENDS IN FOREIGN INVESTMENT IN THE ICT SECTOR

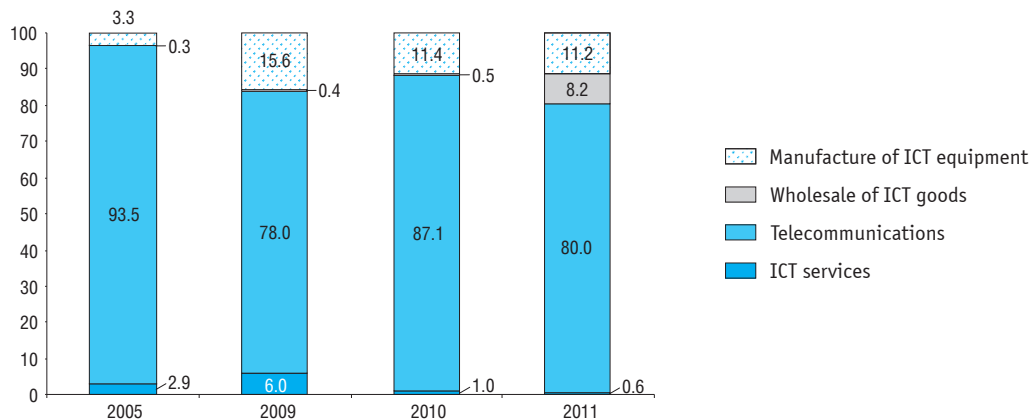
*(as a percentage of the previous year)*



## 1.4.7. FOREIGN INVESTMENT IN THE ICT SECTOR BY ECONOMIC ACTIVITY

	RCEA code (Rev. 1.1)	Million US dollars				As a percentage of the total		
		2005	2009	2010	2011	2009	2010	2011
<b>ICT sector – total</b>		<b>3519.8</b>	<b>5066.6</b>	<b>5388.6</b>	<b>5919.5</b>	<b>100</b>	<b>100</b>	<b>100</b>
Manufacture of office, accounting and computing machinery	30	0.1	3.8	130.0	74.3	0.1	2.4	1.3
Manufacture of insulated wire and cable	31.3	7.2	21.9	11.9	58.2	0.4	0.2	1.0
Manufacture of radio, television and communication equipment and apparatus	32	110.4	758.5	470.4	526.0	15.0	8.7	8.9
Manufacture of instruments and appliances for measuring and checking	33.2	–	7.3	3.8	7.5	0.2	0.1	0.1
Manufacture of industrial process control equipment	33.3	–	0.04	–	–	0.0	–	–
Wholesale of ICT goods	51.43.2, 51.84, 51.86, 51.87.5	11.5	21.6	28.6	485.0	0.4	0.6	8.1
Telecommunications	64.2	3287.4	3947.9	4690.2	4733.4	77.9	87.0	80.0
Renting of office machinery and equipment, including computers	71.33	18.6	2.4	3.1	–	0.0	0.1	–
Computer and related activities	72	84.6	303.2	50.6	35.1	6.0	0.9	0.6

### 1.4.8. PERCENTAGE DISTRIBUTION OF FOREIGN INVESTMENT IN THE ICT SECTOR BY ECONOMIC ACTIVITY



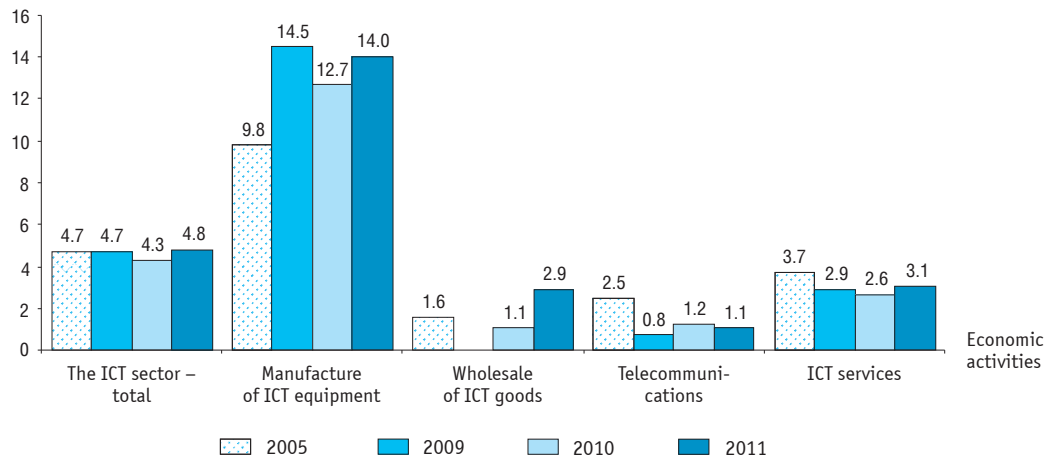
### 1.4.9 FOREIGN INVESTMENT IN THE ICT SECTOR BY TYPE

	Million US dollars				As a percentage of the total				As a percentage of the respective indicator for the national economy			
	2005	2009	2010	2011	2005	2009	2010	2011	2005	2009	2010	2011
<b>Foreign investment – total</b>	<b>3520</b>	<b>5067</b>	<b>5389</b>	<b>5920</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>6.6</b>	<b>6.2</b>	<b>4.7</b>	<b>3.1</b>
Direct investment	137	608	550	733	3.9	12.0	10.2	12.3	1.0	3.8	4.0	4.0
Portfolio investment	6	105	110	10	0.2	2.1	2.0	0.2	1.3	11.9	10.2	1.3
Other investments	3377	4354	4729	5177	95.9	85.9	87.8	87.5	8.4	6.7	4.7	3.0

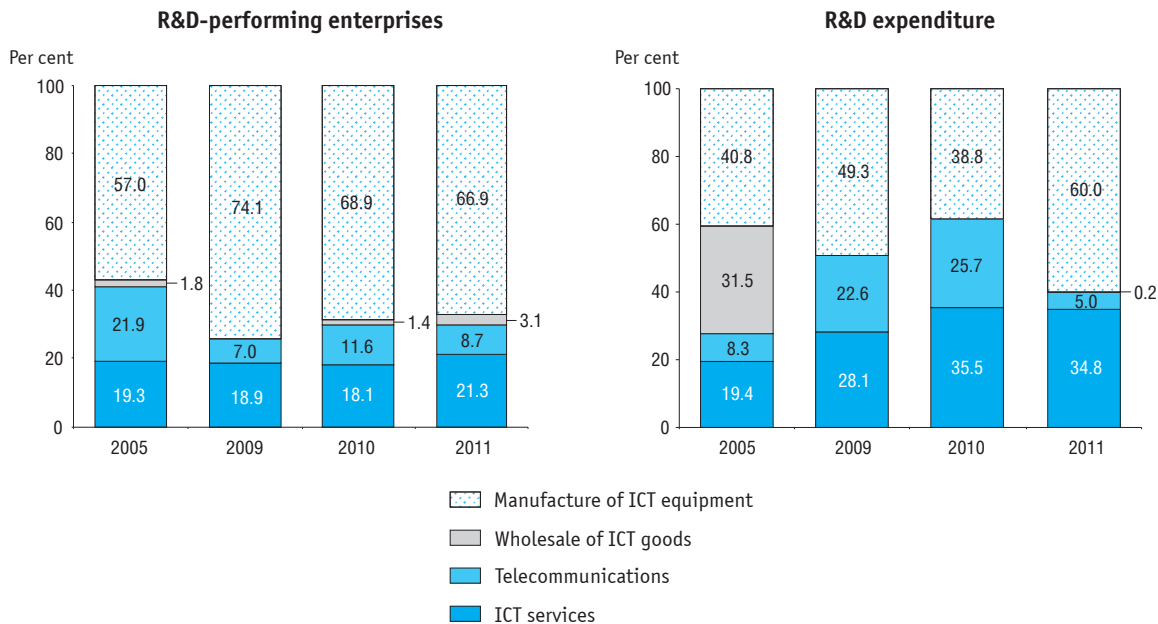
## 1.5. Research and Development (R&D) in the ICT Sector

### 1.5.1. R&D-PERFORMING ENTERPRISES IN THE ICT SECTOR BY ECONOMIC ACTIVITY

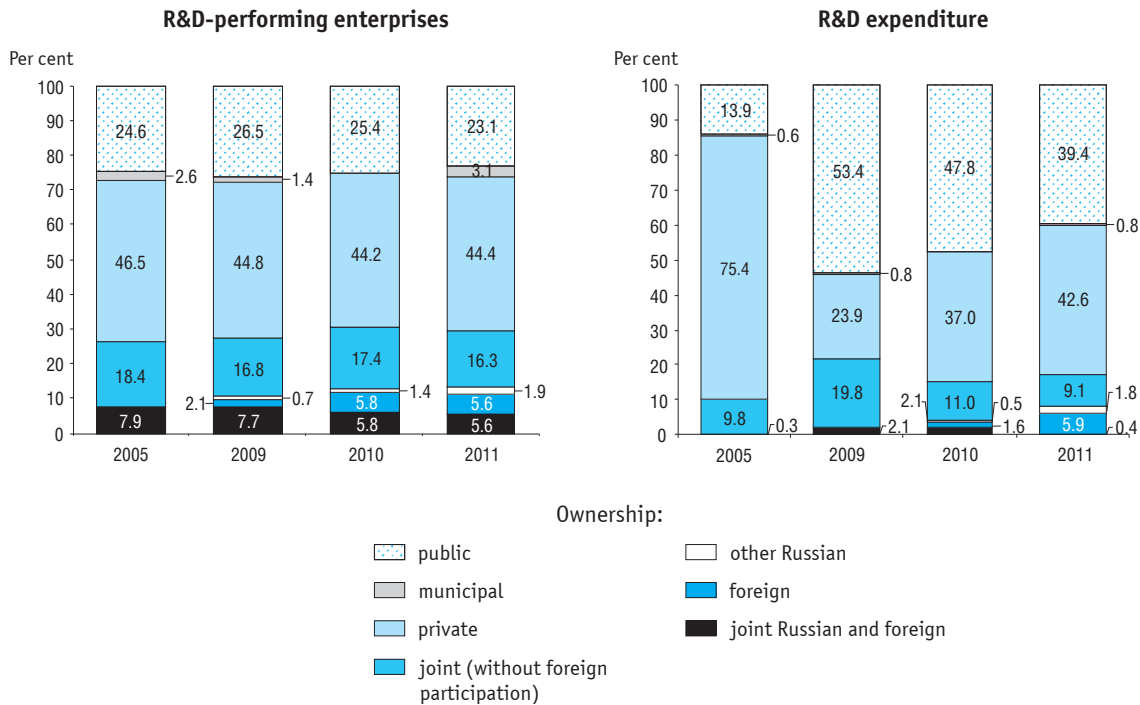
(as a percentage of the total number of enterprises)



## 1.5.2. R&D-PERFORMING ENTERPRISES IN THE ICT SECTOR AND R&D EXPENDITURE BY ECONOMIC ACTIVITY

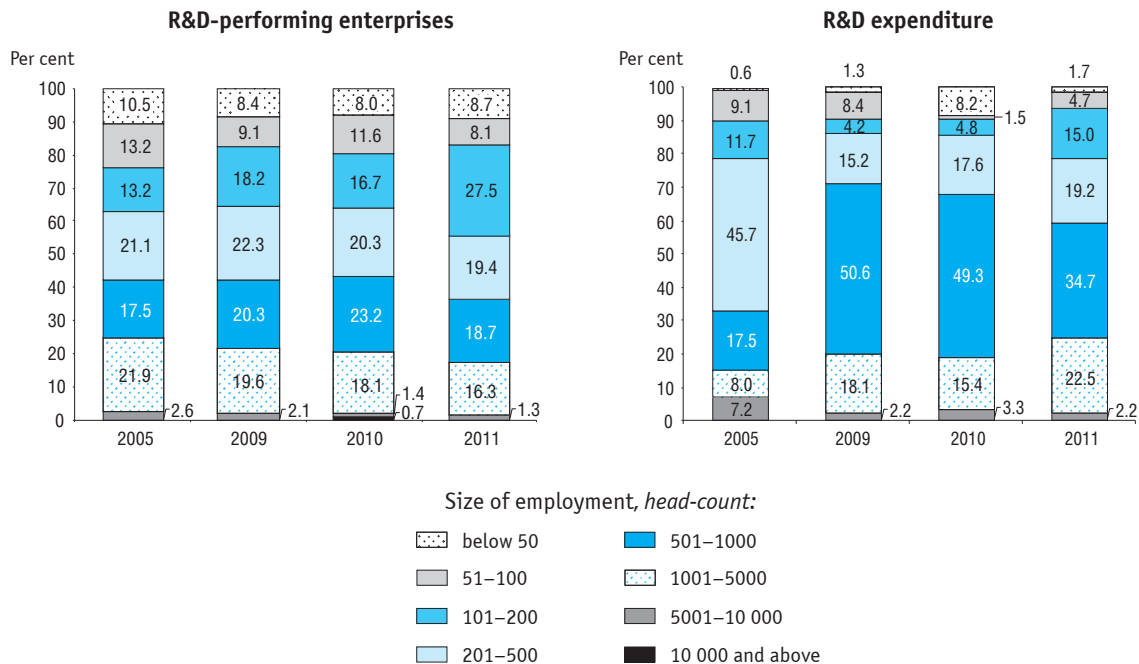


## 1.5.3. R&amp;D-PERFORMING ENTERPRISES IN THE ICT SECTOR AND R&amp;D EXPENDITURE BY OWNERSHIP OF ENTERPRISES



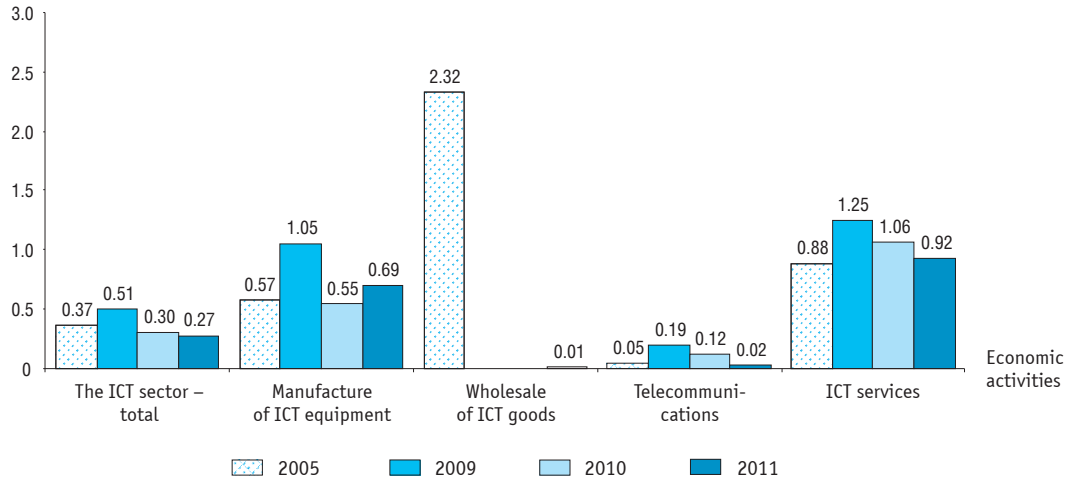


### 1.5.4. R&D-PERFORMING ENTERPRISES IN THE ICT SECTOR AND R&D EXPENDITURE BY SIZE OF EMPLOYMENT



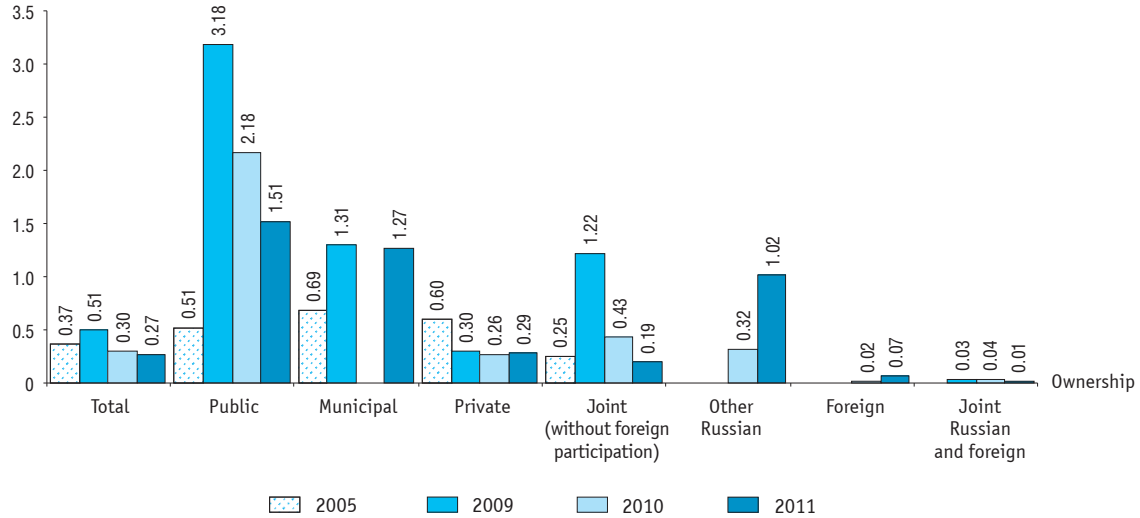
### 1.5.5. R&D INTENSITY IN THE ICT SECTOR BY ECONOMIC ACTIVITY

(R&D expenditure as a percentage of production and sales costs)

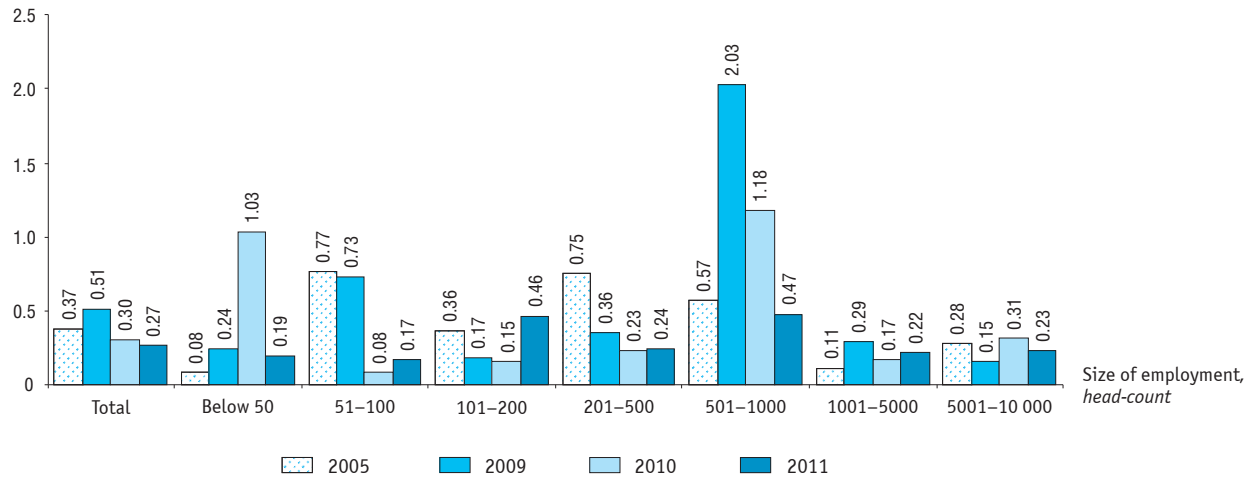


### 1.5.6. R&D INTENSITY IN THE ICT SECTOR BY OWNERSHIP OF ENTERPRISES

(R&D expenditure as a percentage of production and sales costs)

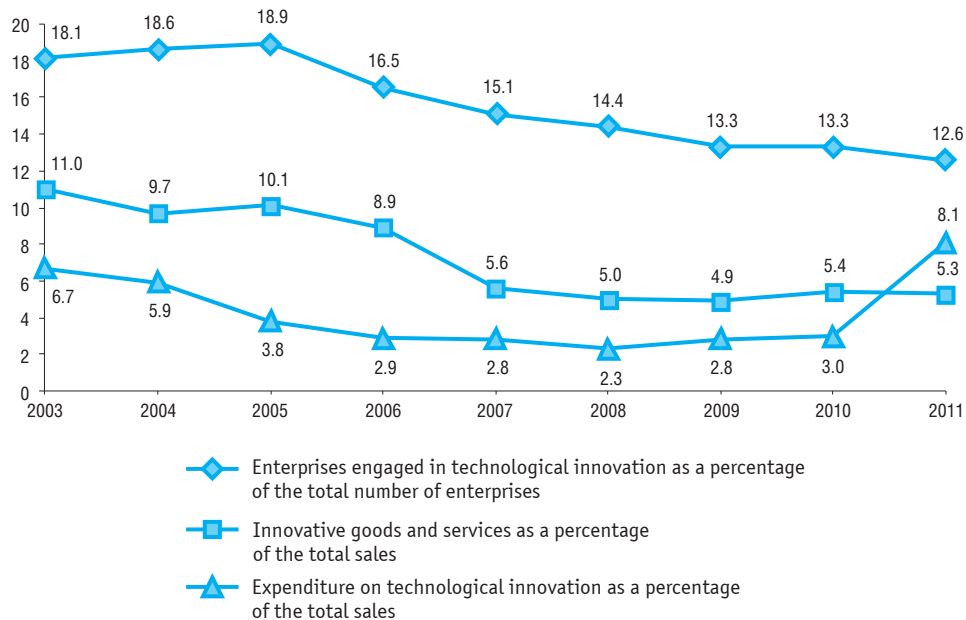


## 1.5.7. R&amp;D INTENSITY IN THE ICT SECTOR BY SIZE OF EMPLOYMENT

*(R&D expenditure as a percentage of production and sales costs)*

## 1.6. Innovative Activity in the ICT Sector\*

### 1.6.1. MAIN INDICATORS OF INNOVATION IN THE ICT SECTOR\*



\* Here and below data on the ICT sector is presented for the types of economic activity with the following RCEA codes (Rev. 1.1): 30, 32, 64, 72.

## 1.6.2. INNOVATIVE ACTIVITY IN THE ICT SECTOR BY ECONOMIC ACTIVITY

*(per cent)*

	RCEA Code (Rev. 1.1)	Total			Enterprises engaged in innovation of selected types as a percentage of the total number of enterprises								
					Technological			Organisational			Marketing		
		2009	2010	2011	2009	2010	2011	2009	2010	2011	2009	2010	2011
<b>ICT sector – total</b>		<b>16.2</b>	<b>15.8</b>	<b>14.8</b>	<b>13.3</b>	<b>13.3</b>	<b>12.6</b>	<b>5.5</b>	<b>5.5</b>	<b>4.6</b>	<b>4.8</b>	<b>4.8</b>	<b>4.1</b>
Manufacture of office, accounting and computing machinery	30	25.6	26.8	27.5	25.6	26.8	25.0	10.3	7.3	10.0	5.1	4.9	7.5
Manufacture of radio, television and communication equipment and apparatus	32	37.5	32.3	36.1	36.3	31.3	33.5	11.4	8.2	9.7	5.7	5.6	5.2
Communications	64	15.1	15.6	13.8	11.2	11.9	11.1	5.7	6.1	4.6	6.4	6.5	5.5
Computer and related activities	72	9.5	10.0	9.2	8.1	8.7	7.9	2.7	3.3	2.8	1.5	1.5	1.2

### 1.6.3. PERCENTAGE DISTRIBUTION OF ICT SECTOR ENTERPRISES ENGAGED IN TECHNOLOGICAL INNOVATION BY INNOVATIVE AND ECONOMIC ACTIVITY

	RCEA Code (Rev. 1.1)	R&D	Industrial design	Acquisition of machinery and equipment	Acquisition of technology	Of which acquisition of patent rights and licenses	Acquisition of software	Other types of production	Personnel training	Market research	Other
<b>2009</b>											
<b>ICT sector - total</b>		<b>23.8</b>	<b>25.1</b>	<b>70.8</b>	<b>7.3</b>	<b>4.1</b>	<b>38.9</b>	<b>16.5</b>	<b>23.8</b>	<b>10.5</b>	<b>11.4</b>
Manufacture of office, accounting and computing machinery	30	60.0	50.0	50.0	30.0	10.0	40.0	10.0	50.0	20.0	10.0
Manufacture of radio, television and communication equipment and apparatus	32	50.4	32.2	64.3	6.1	4.3	35.7	25.2	20.9	9.6	5.2
Communications	64	3.4	22.0	80.2	7.3	2.8	36.7	14.7	22.6	10.7	17.5
Computer and related activities	72	26.5	17.6	60.3	5.9	5.9	50.0	7.4	27.9	10.3	5.9
<b>2010</b>											
<b>ICT sector - total</b>		<b>24.7</b>	<b>23.1</b>	<b>70.6</b>	<b>8.6</b>	<b>4.9</b>	<b>39.0</b>	<b>14.5</b>	<b>27.8</b>	<b>8.8</b>	<b>10.9</b>
Manufacture of office, accounting and computing machinery	30	54.5	45.5	54.5	18.2	9.1	36.4	9.1	36.4	9.1	9.1
Manufacture of radio, television and communication equipment and apparatus	32	58.0	30.0	72.0	8.0	7.0	38.0	21.0	24.0	11.0	9.0
Communications	64	6.6	19.4	78.1	7.7	4.6	33.2	14.3	27.0	9.7	15.3
Computer and related activities	72	23.1	20.5	52.6	10.3	2.6	55.1	7.7	33.3	3.8	2.6

(continued)

	RCEA Code (Rev. 1.1)	R&D	Industrial design	Acquisition of machinery and equipment	Acquisition of technology	Of which acquisition of patent rights and licenses	Acquisition of software	Other types of reproduction	Personnel training	Market research	Other
<b>2011</b>											
<b>ICT sector - total</b>		<b>27.2</b>	<b>24.9</b>	<b>69.0</b>	<b>8.2</b>	<b>5.0</b>	<b>36.2</b>	<b>15.6</b>	<b>22.2</b>	<b>7.7</b>	<b>14.8</b>
Manufacture of office, accounting and computing machinery	30	60.0	40.0	60.0	10.0	10.0	50.0	20.0	20.0	10.0	10.0
Manufacture of radio, television and communication equipment and apparatus	32	62.5	33.7	68.3	3.8	2.9	33.7	20.2	27.9	9.6	7.7
Communications	64	7.0	22.7	78.9	8.1	3.8	33.0	13.5	19.5	8.1	23.2
Computer and related activities	72	24.1	16.5	48.1	13.9	10.1	45.6	13.9	21.5	3.8	5.1



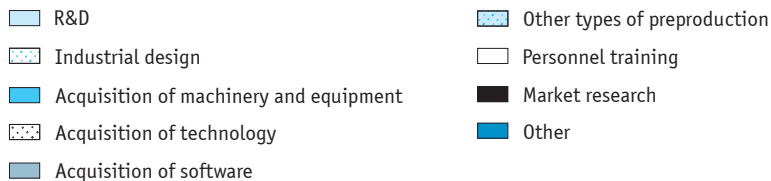
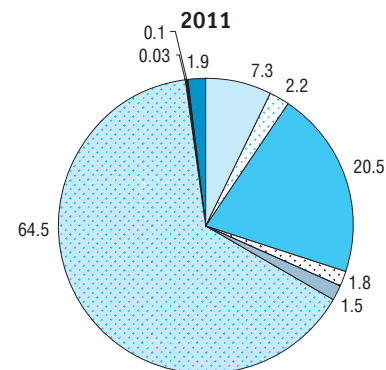
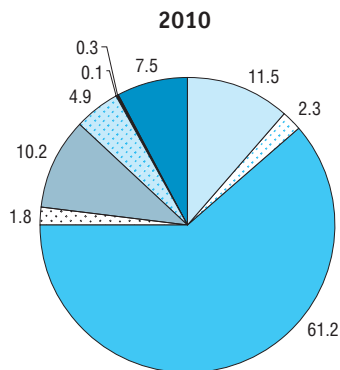
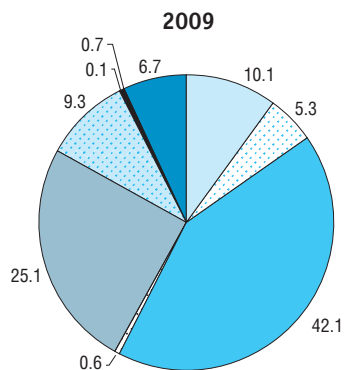
#### 1.6.4. SALES OF INNOVATIVE GOODS AND SERVICES IN THE ICT SECTOR BY ECONOMIC ACTIVITY

	RCEA code (Rev. 1.1)	Million roubles			As a percentage of total sales		
		2009	2010	2011	2009	2010	2011
<b>ICT sector - total</b>		<b>68288.8</b>	<b>84270.0</b>	<b>96412.3</b>	<b>4.9</b>	<b>5.4</b>	<b>5.3</b>
Manufacture of office, accounting and computing machinery	30	1983.2	1986.5	1136.6	8.3	5.9	3.3
Manufacture of radio, television and communication equipment and apparatus	32	19450.9	19647.1	20837.9	14.5	10.3	9.8
Communications	64	27276.7	42849.6	49486.6	2.4	3.6	3.6
Computer and related activities	72	19578.0	19786.9	24951.2	18.2	14.3	12.9

## 1.6.5. EXPENDITURE ON TECHNOLOGICAL INNOVATION IN THE ICT SECTOR BY ECONOMIC ACTIVITY

	RCEA code (Rev. 1.1)	Million roubles			As a percentage of total sales		
		2009	2010	2011	2009	2010	2011
<b>ICT sector - total</b>		<b>39274.2</b>	<b>46738.5</b>	<b>146199.5</b>	<b>2.8</b>	<b>3.0</b>	<b>8.1</b>
Manufacture of office, accounting and computing machinery	30	1032.4	416.8	748.4	4.3	1.2	2.2
Manufacture of radio, television and communication equipment and apparatus	32	5451.0	7637.7	7697.1	4.1	4.0	3.6
Communications	64	26373.5	33710.4	130211.3	2.4	2.8	9.5
Computer and related activities	72	6417.3	4973.6	7542.7	6.0	3.6	3.9

### 1.6.6. PERCENTAGE DISTRIBUTION OF EXPENDITURE ON TECHNOLOGICAL INNOVATION IN THE ICT SECTOR BY INNOVATIVE ACTIVITY



## 1.7. Financial Effects of ICT Sector Activities

### 1.7.1. MAIN FINANCIAL EFFECTS OF ICT SECTOR ENTERPRISES' ACTIVITIES\*

	ICT sector			As a percentage of the respective indicator for the national economy		
	2009	2010	2011	2009	2010	2011
The total number of enterprises surveyed	1914	1890	1975	2.9	3.0	3.3
Loss-making enterprises	403	350	404	2.0	2.0	2.4
Profit-making enterprises	1511	1540	1571	3.2	3.3	3.6
As a percentage of the total number of enterprises surveyed:						
loss-making enterprises	21.1	18.5	20.5	–	–	–
profit-making enterprises	78.9	81.5	79.5	–	–	–
Balance (profit minus loss) of enterprises' activities, <i>million roubles</i>	249830	323989	341824	5.7	5.3	4.7
Total losses	54130	36433	57777	5.2	4.6	4.4
Total profits	303960	360422	399601	5.6	5.2	4.7
Profitability of assets, <i>per cent</i>	9.1	10.8	8.8	–	–	–
Profitability of sales of goods and services, <i>per cent</i>	23.1	20.9	18.5	–	–	–

\* Here and below in the section data on small businesses is excluded.

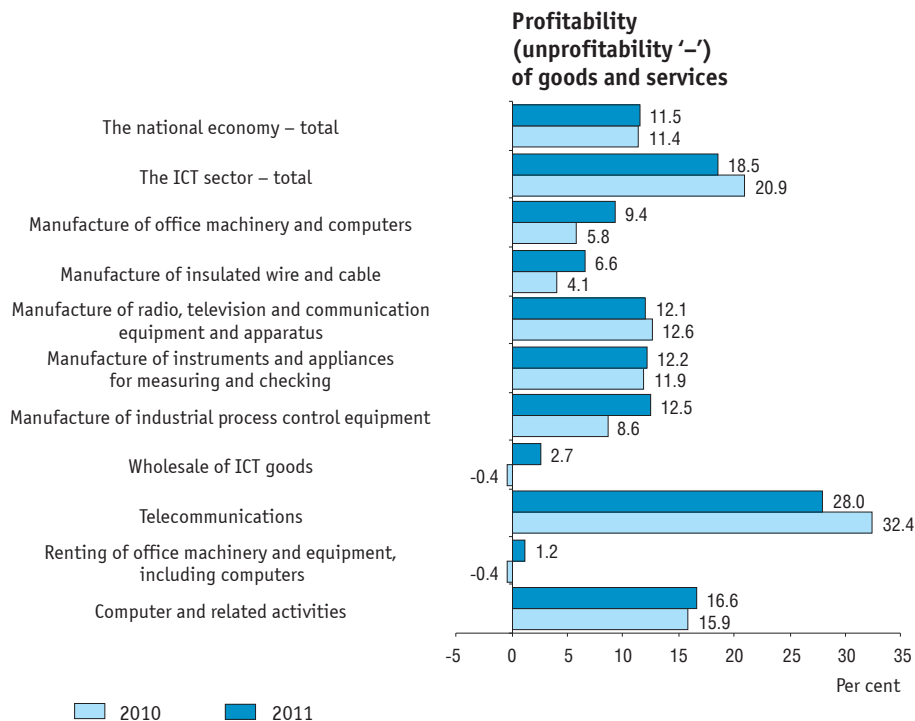
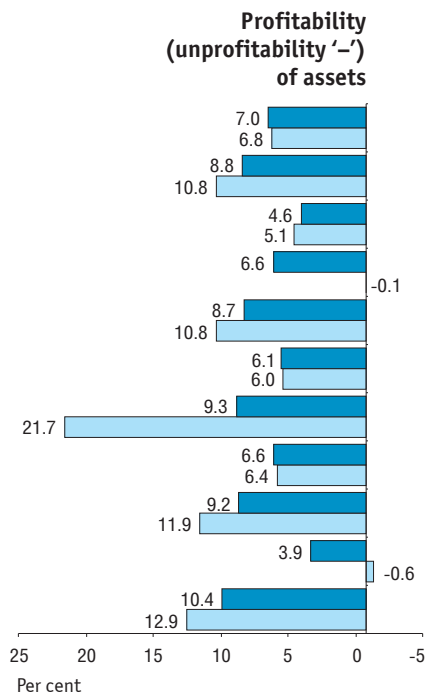
### 1.7.2. TOTAL LOSSES OF ICT SECTOR ENTERPRISES BY ECONOMIC ACTIVITY

	RCEA code (Rev. 1.1)	Total losses, <i>million roubles</i>			Loss-making enterprises as a percentage of the total number of enterprises		
		2009	2010	2011	2009	2010	2011
<b>ICT sector – total</b>		<b>54130</b>	<b>36433</b>	<b>57777</b>	<b>21.1</b>	<b>18.5</b>	<b>20.5</b>
Manufacture of office, accounting and computing machinery	30	759	794	535	34.2	20.0	8.3
Manufacture of insulated wire and cable	31.3	6026	4258	2474	43.8	28.9	29.8
Manufacture of radio, television and communication equipment and apparatus	32	2719	1649	2336	24.5	20.3	19.8
Manufacture of instruments and appliances for measuring and checking	33.2	1475	1324	2103	20.5	15.7	15.9
Manufacture of industrial process control equipment	33.3	13	26	14	30.0	23.1	18.2
Wholesale of ICT goods	51.43.2, 51.84, 51.86, 51.87.5	734	116	671	18.1	7.9	10.7
Telecommunications	64.2	30195	27282	45499	21.2	23.5	26.6
Renting of office machinery and equipment, including computers	71.33	109	80	12	100	33.3	50.0
Computer and related activities	72	12100	904	4133	13.4	12.5	16.4

## 1.7.3. TOTAL PROFITS OF ICT SECTOR ENTERPRISES BY ECONOMIC ACTIVITY

	RCEA code (Rev. 1.1)	Total profits, <i>million roubles</i>			Profit-making enterprises as a percentage of the total number of enterprises		
		2009	2010	2011	2009	2010	2011
<b>ICT sector – total</b>		<b>303960</b>	<b>360422</b>	<b>399601</b>	<b>78.9</b>	<b>81.5</b>	<b>79.5</b>
Manufacture of office, accounting and computing machinery	30	1621	2484	2281	65.8	80.0	91.7
Manufacture of insulated wire and cable	31.3	1520	4153	8144	56.2	71.1	70.2
Manufacture of radio, television and communication equipment and apparatus	32	10074	21760	22406	75.5	79.7	80.2
Manufacture of instruments and appliances for measuring and checking	33.2	10663	13464	17171	79.5	84.3	84.1
Manufacture of industrial process control equipment	33.3	267	759	399	70.0	76.9	81.8
Wholesale of ICT goods	51.43.2, 51.84, 51.86, 51.87.5	2524	5164	9971	81.9	92.1	89.3
Telecommunications	64.2	257434	288100	310996	78.8	76.5	73.4
Renting of office machinery and equipment, including computers	71.33	–	64	44	–	66.7	50.0
Computer and related activities	72	19857	24474	28189	86.6	87.5	83.6

### 1.7.4. PROFITABILITY (UNPROFITABILITY) OF ASSETS AND SALES OF GOODS AND SERVICES OF ICT SECTOR ENTERPRISES BY ECONOMIC ACTIVITY



## 1.7.5. FINANCIAL SUSTAINABILITY AND SOLVENCY OF ICT SECTOR ENTERPRISES BY ECONOMIC ACTIVITY

*(per cent)*

	RCEA code (Rev. 1.1)	Equity ratio		Working capital financed by equity to total assets ratio		Liquidity ratio	
		2010	2011	2010	2011	2010	2011
<b>ICT sector – total</b>		<b>42.4</b>	<b>35.8</b>	<b>-45.9</b>	<b>-56.3</b>	<b>125.4</b>	<b>111.8</b>
Manufacture of office, accounting and computing machinery	30	26.8	29.4	17.8	19.3	70.5	96.6
Manufacture of insulated wire and cable	31.3	25.4	19.6	-7.3	-15.7	77.7	75.7
Manufacture of radio, television and communication equipment and apparatus	32	36.5	37.5	12.7	13.1	88.4	91.8
Manufacture of instruments and appliances for measuring and checking	33.2	38.6	37.4	14.5	14.9	83.3	89.1
Manufacture of industrial process control equipment	33.3	26.3	28.7	20.3	24.4	118.3	106.8
Wholesale of ICT goods	51.43.2, 51.84, 51.86, 51.87.5	15.4	12.9	7.8	-3.9	82.1	82.5
Telecommunications	64.2	44.6	37.0	-69.4	-79.2	138.4	119.6
Renting of office machinery and equipment, including computers	71.33	47.9	74.9	-9.5	62.3	481.7	351.0
Computer and related activities	72	31.0	30.7	0.9	-6.5	127.5	119.8



### 1.7.6. PERCENTAGE DISTRIBUTION OF CURRENT ASSETS OF ICT SECTOR ENTERPRISES BY ECONOMIC ACTIVITY: 2011

	RCEA code (Rev. 1.1)	Reserves	Of which			Short – term financial invest- ment	Monetary funds	Accounts receivable	Other current assets
			industrial reserves	finished product	goods for resale				
<b>ICT sector – total</b>		<b>17.2</b>	<b>5.6</b>	<b>1.6</b>	<b>2.8</b>	<b>14.0</b>	<b>7.4</b>	<b>32.5</b>	<b>28.9</b>
Manufacture of office machinery and computers	30	31.1	11.9	3.5	6.0	10.7	11.0	39.4	7.8
Manufacture of insulated wire and cable	31.3	38.3	16.6	11.5	1.2	10.3	2.5	43.6	5.3
Manufacture of radio, television and communication equipment and apparatus	32	39.4	13.5	5.8	0.9	5.0	15.8	34.0	5.8
Manufacture of instruments and appliances for measuring and checking	33.2	45.2	16.4	4.8	0.5	5.8	7.9	36.9	4.2
Manufacture of industrial process control equipment	33.3	25.1	10.4	0.7	6.6	6.0	15.2	44.1	9.6
Wholesale of ICT goods	51.43.2, 51.84, 51.86, 51.87.5	29.8	1.9	0.3	24.6	8.9	6.5	47.0	7.8
Telecommunications	64.2	6.1	2.3	0.0	1.0	17.6	4.5	27.9	43.9
Renting of office machinery and equipment, including computers	71.33	12.3	9.5	–	–	13.2	2.6	70.0	1.9
Computer and related activities	72	11.5	3.3	0.4	2.7	16.5	18.8	38.6	14.6

## 1.8. Business Activity of Enterprises Rendering ICT Services\*

### 1.8.1. MAIN INDICATORS OF ACTIVITIES OF ENTERPRISES RENDERING ICT SERVICES\*\*

(balances\*\*\*, per cent)

	Level of the 1st half-year			Trends					
				The 1st half-year compared to the previous half-year			Expectations for the 2nd half-year		
	2010	2011	2012	2010	2011	2012	2010	2011	2012
Demand for services	-35	-31	-29	0	+5	+5	+9	+16	+15
Number of contacts (customers)	-21	-18	-28	+1	+9	+8	+9	+17	+15
Cost of services	-12	-12	-24	+9	+12	+10	+10	+21	+15
Prices (tariffs) for services	-4	-8	-13	+11	+17	+17	+5	+13	+10
Number of employees	-7	-8	-20	0	+9	0	+5	+8	+7
Competitiveness	+16	+5	-1	+13	+5	+10	+13	+10	+9
Investment	-25	-25	-38	-8	-6	-7	+1	0	-1
Economic status of enterprises	-10	-11	-22	-6	+2	+1	+4	+12	+8

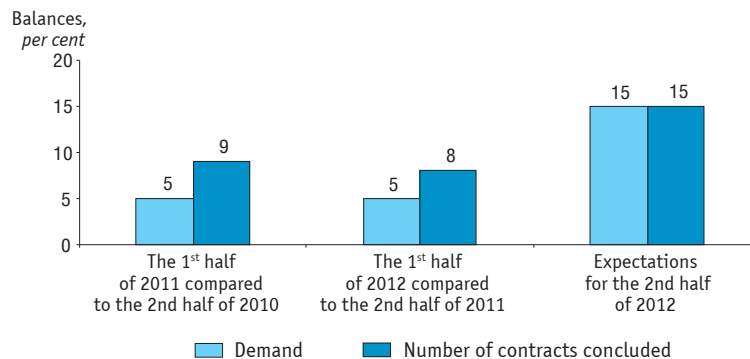
\* Enterprises engaged in computer related activities (the RCEA code (Rev. 1.1) – 72).

\*\* Assessment.

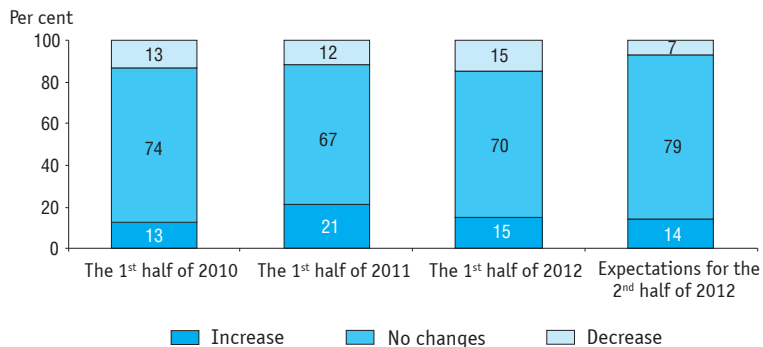
\*\*\* Balance is the difference between the respondents giving positive responses ('increase' compared to the previous period or 'above normal' current level) and those who gave negative responses ('decrease' compared to the previous period or 'below normal' current level), *per cent*.

Source: pilot business tendency survey of the service sector conducted by HSE in 2012.

### 1.8.2. ASSESSMENTS OF DEMAND CHANGE AND NUMBER OF CONTRACTS CONCLUDED

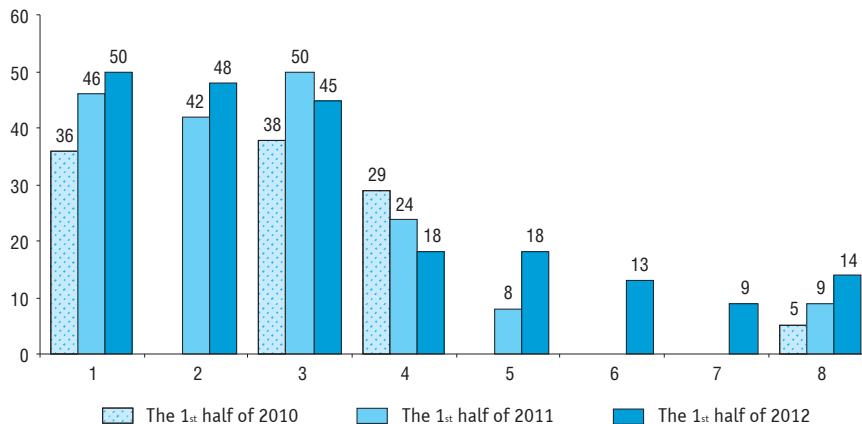


### 1.8.3. EMPLOYEE TURNOVER ASSESSMENTS



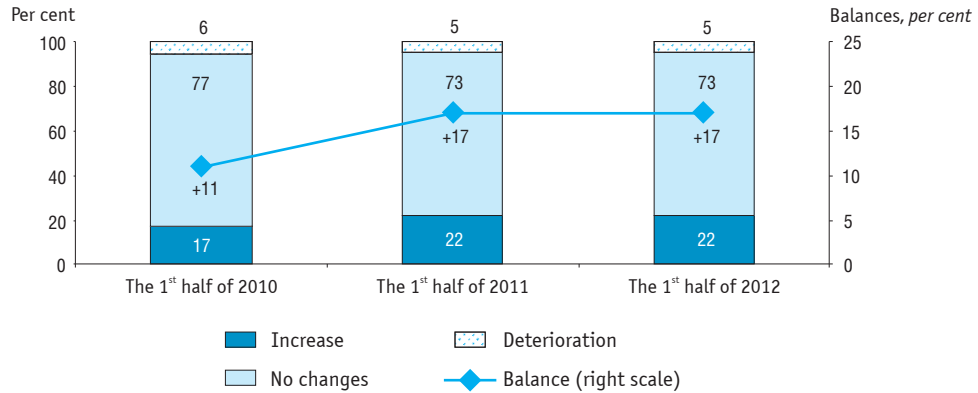
### 1.8.4. ENTERPRISES RENDERING IT SERVICES BY TYPE

(as a percentage of the total number of enterprises surveyed)

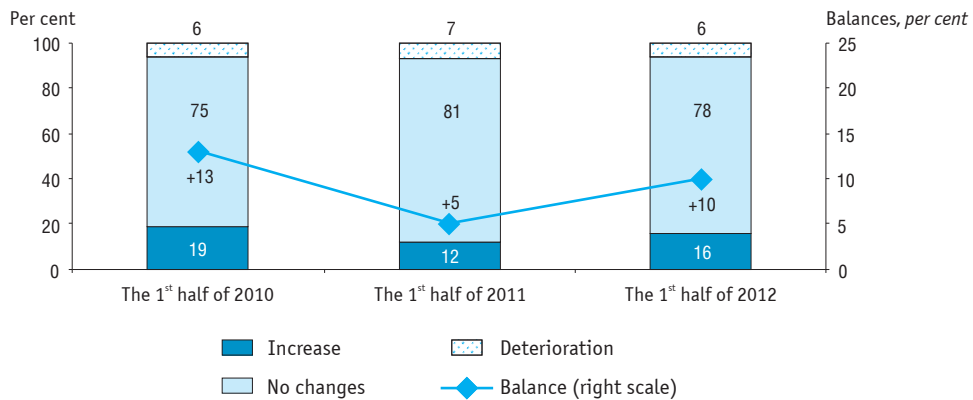


- 1 – Software development and consultancy
- 2 – Hardware and software installation and maintenance, related training and coaching
- 3 – Databases and information sources creation and processing
- 4 – Services of data processing centres
- 5 – Information security
- 6 – Outsourcing
- 7 – E-commerce and marketing
- 8 – Other

### 1.8.5. PRICE (TARIFF) CHANGE ASSESSMENTS

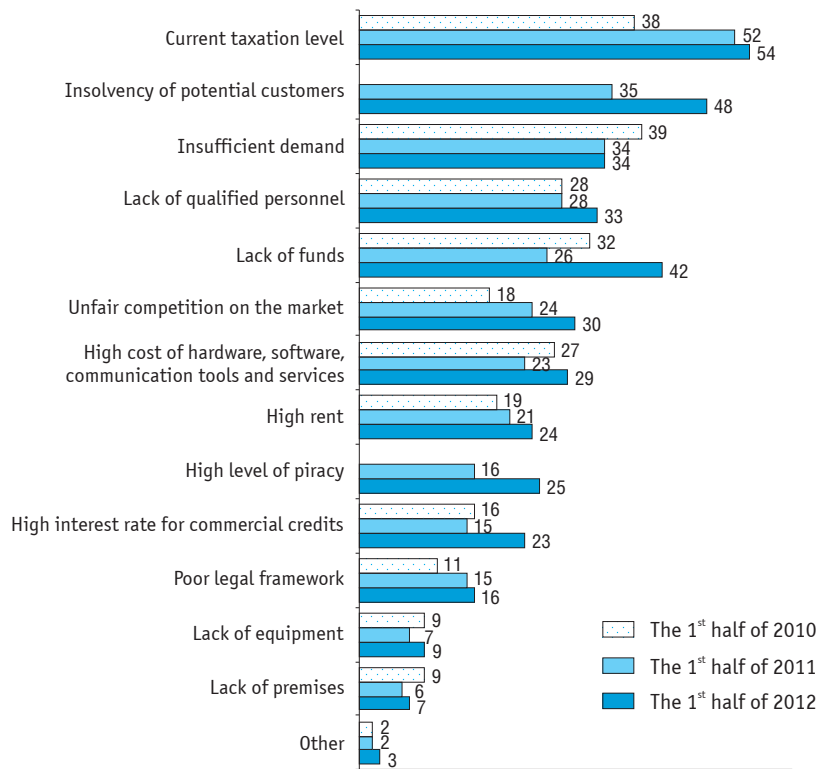


## 1.8.6. COMPETITIVENESS CHANGE ASSESSMENTS



### 1.8.7. ASSESSMENT OF FACTORS RESTRICTING BUSINESS ACTIVITIES OF ENTERPRISES RENDERING ICT SERVICES

(as a percentage of the total number of enterprises surveyed)



## 1.9. The ICT Sector by Region of the Russian Federation

### 1.9.1. ICT SECTOR ENTERPRISES BY FEDERAL DISTRICT: 2011

(at the end of the year)





## 1.9.2. ICT SECTOR ENTERPRISES BY ECONOMIC ACTIVITY: 2011

(at the end of the year)

	Total	Manufacture of ICT equipment	Wholesale of ICT goods	Telecommunications	ICT services
<b>Russian Federation</b>	<b>144973</b>	<b>15228</b>	<b>35624</b>	<b>23431</b>	<b>70690</b>
<b>Central Federal District</b>	<b>61525</b>	<b>6572</b>	<b>14217</b>	<b>9550</b>	<b>31186</b>
Belgorod Region	1184	88	407	174	515
Bryansk Region	677	77	204	115	281
Vladimir Region	1052	147	245	240	420
Voronezh Region	1459	160	395	233	671
Ivanovo Region	698	72	145	120	361
Kaluga Region	747	137	124	130	356
Kostroma Region	286	21	55	69	141
Kursk Region	544	46	140	153	205
Lipetzk Region	552	45	140	97	270
Moscow Region	6314	794	1156	1426	2938
Oryol Region	417	100	79	83	155
Ryazan Region	935	166	238	157	374
Smolensk Region	535	73	108	98	256
Tambov Region	404	30	100	110	164
Tver Region	1057	115	215	218	509
Tula Region	1223	109	350	180	584
Yaroslavl Region	1256	118	356	169	613
Moscow	42185	4274	9760	5778	22373
<b>Northwestern Federal District</b>	<b>19826</b>	<b>2309</b>	<b>4780</b>	<b>2617</b>	<b>10120</b>
Republic of Karelia	514	33	110	89	282
Republic of Komi	607	33	112	162	300

(continued)

	Total	Manufacture of ICT equipment	Wholesale of ICT goods	Telecommunications	ICT services
Arkhangelsk Region	589	42	122	158	267
Of which Nenets Autonomous District	26	1	–	10	15
Vologda Region	971	93	237	172	469
Kaliningrad Region	1296	230	331	200	535
Leningrad Region	600	64	89	145	302
Murmansk Region	581	50	88	143	300
Novgorod Region	452	71	100	109	172
Pskov Region	373	50	85	84	154
Saint-Petersburg	13843	1643	3506	1355	7339
<b>Southern Federal District</b>	<b>7822</b>	<b>755</b>	<b>2158</b>	<b>1413</b>	<b>3496</b>
Republic of Adygeya	133	10	21	39	63
Republic of Kalmykia	157	11	37	52	57
Krasnodar Territory	3026	281	833	582	1330
Astrakhan Region	455	52	85	114	204
Volgograd Region	1480	121	452	248	659
Rostov Region	2571	280	730	378	1183
<b>North Caucasian Federal District</b>	<b>2673</b>	<b>278</b>	<b>542</b>	<b>835</b>	<b>1018</b>
Republic of Dagestan	565	52	55	323	135
Republic of Ingushetia	95	1	18	52	24
Kabardino-Balkarian Republic	238	45	22	78	93
Karachaevo-Cherchessian Republic	109	13	21	32	43
Republic of North Ossetia–Alania	211	22	26	63	100
Chechen Republic	204	29	16	97	62
Stavropol Territory	1251	116	384	190	561

(continued)

	Total	Manufacture of ICT equipment	Wholesale of ICT goods	Telecommunications	ICT services
<b>Volga Federal District</b>	<b>21020</b>	<b>2261</b>	<b>5356</b>	<b>3359</b>	<b>10044</b>
Republic of Bashkortostan	2195	269	560	374	992
Republic of Mari El	375	48	67	75	185
Republic of Mordovia	388	47	156	63	122
Republic of Tatarstan	3038	357	572	482	1627
Udmurtian Republic	1094	103	304	139	548
Chuvash Republic	716	80	194	133	309
Perm Territory	2528	252	824	358	1094
Kirov Region	776	67	188	131	390
Nizhni Novgorod Region	2744	293	787	390	1274
Orenburg Region	996	73	225	223	475
Penza Region	741	111	155	100	375
Samara Region	3300	296	832	493	1679
Saratov Region	1305	190	313	257	545
Ulyanovsk Region	824	75	179	141	429
<b>Urals Federal District</b>	<b>12698</b>	<b>1280</b>	<b>3618</b>	<b>2075</b>	<b>5725</b>
Kurgan Region	318	21	67	84	146
Sverdlovsk Region	6188	623	2088	895	2582
Tyumen Region	3234	295	571	617	1751
Of which:					
Khanty-Mansi Autonomous District – Yugra	1414	117	215	285	797
Yamalo-Nenets Autonomous District	358	52	46	86	174
Chelyabinsk Region	2958	341	892	479	1246

(continued)

	Total	Manufacture of ICT equipment	Wholesale of ICT goods	Telecommunications	ICT services
<b>Siberian Federal District</b>	<b>15001</b>	<b>1418</b>	<b>4102</b>	<b>2443</b>	<b>7038</b>
Republic of Altai	105	7	27	25	46
Republic of Buryatia	414	29	72	101	212
Republic of Tuva	56	3	8	18	27
Republic of Khakasia	277	17	45	84	131
Altai Territory	1185	120	276	197	592
Zabaikalsk Territory	295	18	48	78	151
Krasnoyarsk Territory	2498	215	759	454	1070
Irkutsk Region	1446	123	305	295	723
Kemerovo Region	1449	135	337	299	678
Novosibirsk Region	4686	457	1604	528	2097
Omsk Region	1388	156	368	191	673
Tomsk Region	1202	138	253	173	638
<b>Far Eastern Federal District</b>	<b>4408</b>	<b>355</b>	<b>851</b>	<b>1139</b>	<b>2063</b>
Republic of Sakha (Yakutia)	596	32	68	178	318
Kamchatka Territory	268	19	32	90	127
Primorsky Territory	1457	136	341	305	675
Khabarovsk Territory	1176	108	284	246	538
Amur Region	319	15	45	126	133
Magadan Region	134	11	11	54	58
Sakhalin Region	367	26	64	104	173
Jewish Autonomous Region	62	7	4	21	30
Chukotka Autonomous District	29	1	2	15	11

### 1.9.3. PERCENTAGE DISTRIBUTION OF ICT GOODS AND SERVICES SALES BY TYPE: 2011

	Hardware	Software	Databases	Services
<b>Russian Federation</b>	<b>15.8</b>	<b>1.7</b>	<b>0.4</b>	<b>82.1</b>
Central Federal District	10.1	1.3	0.7	87.9
Belgorod Region	2.8	0.01	–	97.2
Bryansk Region	37.3	–	–	62.7
Vladimir Region	71.2	0.1	–	28.7
Voronezh Region	16.8	0.7	–	82.5
Ivanovo Region	9.5	–	0.5	90.0
Kaluga Region	67.8	0.3	–	31.9
Kostroma Region	–	0.1	–	99.9
Kursk Region	30.3	–	–	69.7
Lipetzk Region	11.9	–	–	88.1
Moscow Region	59.6	8.5	0.0	31.9
Oryol Region	10.0	0.1	1.0	88.9
Ryazan Region	57.2	3.7	0.0	39.1
Smolensk Region	56.3	–	–	43.7
Tambov Region	62.3	0.0	–	37.7
Tver Region	12.0	0.3	–	87.7
Tula Region	17.4	2.3	0.0	80.3
Yaroslavl Region	76.2	0.1	0.1	23.6
Moscow	2.2	1.3	0.8	95.7
<b>Northwestern Federal District</b>	<b>26.3</b>	<b>2.8</b>	<b>0.1</b>	<b>70.8</b>
Republic of Karelia	5.3	1.8	–	92.9
Republic of Komi	7.8	0.1	–	92.1

(continued)

	Hardware	Software	Databases	Services
Arkhangelsk Region	1.9	0.0	–	98.1
Of which Nenets Autonomous District	55.0	–	–	45.0
Vologda Region	–	–	–	100
Kaliningrad Region	79.8	0.0	–	20.2
Leningrad Region	88.3	–	–	11.7
Murmansk Region	0.2	0.4	0.2	99.2
Novgorod Region	9.8	–	–	90.2
Pskov Region	39.7	–	–	60.3
Saint-Petersburg	19.6	4.3	0.1	76.0
<b>Southern Federal District</b>	<b>6.4</b>	<b>0.0</b>	<b>0.0</b>	<b>93.6</b>
Republic of Adygeya	–	–	–	100
Republic of Kalmykia	–	–	–	100
Krasnodar Territory	0.1	–	0.0	99.9
Astrakhan Region	0.2	0.0	0.0	99.8
Volgograd Region	4.0	0.1	0.0	95.9
Rostov Region	13.5	0.0	–	86.5
<b>North Caucasian Federal District</b>	<b>8.2</b>	<b>0.0</b>	<b>–</b>	<b>91.8</b>
Republic of Dagestan	–	–	–	100
Republic of Ingushetia	–	–	–	100
Kabardino-Balkarian Republic	7.9	–	–	92.1
Karachaevo-Cherchessian Republic	1.9	–	–	98.1
Republic of North Ossetia–Alania	35.0	–	–	65.0
Chechen Republic	–	–	–	100
Stavropol Territory	1.3	0.0	–	98.7

(continued)

	Hardware	Software	Databases	Services
<b>Volga Federal District</b>	<b>32.7</b>	<b>2.3</b>	<b>0.0</b>	<b>65.0</b>
Republic of Bashkortostan	17.0	0.0	–	83.0
Republic of Mari El	62.8	0.0	0.0	37.2
Republic of Mordovia	73.3	–	–	26.7
Republic of Tatarstan	24.3	0.0	–	75.7
Udmurtian Republic	68.4	0.0	–	31.6
Chuvash Republic	54.2	0.1	–	45.7
Perm Territory	15.2	0.2	0.0	84.6
Kirov Region	40.4	0.0	0.0	59.6
Nizhni Novgorod Region	27.6	16.6	0.3	55.5
Orenburg Region	–	–	–	100
Penza Region	23.1	0.1	0.0	76.8
Samara Region	23.5	0.0	–	76.5
Saratov Region	35.0	0.0	0.0	65.0
Ulyanovsk Region	70.1	–	–	29.9
<b>Urals Federal District</b>	<b>15.5</b>	<b>3.6</b>	<b>0.0</b>	<b>80.9</b>
Kurgan Region	6.6	0.0	–	93.4
Sverdlovsk Region	25.1	6.4	0.0	68.5
Tyumen Region	5.4	0.3	–	94.3
Of which:				
Khanty-Mansi Autonomous District – Yugra	8.9	0.6	–	90.5
Yamalo-Nenets Autonomous District	–	–	–	100
Chelyabinsk Region	11.8	3.1	–	85.1

(continued)

	Hardware	Software	Databases	Services
<b>Siberian Federal District</b>	<b>20.2</b>	<b>2.3</b>	<b>0.2</b>	<b>77.3</b>
Republic of Altai	–	–	1.1	98.9
Republic of Buryatia	–	0.1	–	99.9
Republic of Tuva	16.9	–	–	83.1
Republic of Khakasia	–	0.2	–	99.8
Altai Territory	13.1	–	1.6	85.3
Zabaikalsk Territory	–	–	–	100
Krasnoyarsk Territory	1.5	1.0	0.0	97.5
Irkutsk Region	1.9	0.1	–	98.0
Kemerovo Region	42.0	0.1	1.4	56.5
Novosibirsk Region	24.8	7.4	0.0	67.8
Omsk Region	14.4	0.3	–	85.3
Tomsk Region	59.8	2.1	–	38.1
<b>Far Eastern Federal District</b>	<b>3.9</b>	<b>0.1</b>	<b>0.0</b>	<b>96.0</b>
Republic of Sakha (Yakutia)	–	0.0	0.0	100
Kamchatka Territory	–	0.0	–	100
Primorsky Territory	4.3	0.3	–	95.4
Khabarovsk Territory	10.5	–	–	89.5
Amur Region	–	–	–	100
Magadan Region	0.1	0.0	–	99.9
Sakhalin Region	–	–	–	100
Jewish Autonomous Region	–	–	–	100
Chukotka Autonomous District	–	–	–	100



### 1.9.4. FIXED CAPITAL INVESTMENT IN THE ICT SECTOR: 2011

(per cent)

	Total	Manufacture of ICT equipment	Wholesale of ICT goods	Telecommunications	ICT services
<b>Russian Federation</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>Central Federal District</b>	<b>30.8</b>	<b>44.2</b>	<b>35.9</b>	<b>28.6</b>	<b>63.5</b>
Belgorod Region	0.5	0.4	0.1	0.5	0.1
Bryansk Region	0.7	0.6	–	0.7	0.1
Vladimir Region	1.0	4.0	–	1.0	0.1
Voronezh Region	1.1	1.7	0.1	1.1	0.8
Ivanovo Region	0.4	0.1	–	0.4	0.0
Kaluga Region	0.5	7.4	–	0.6	0.0
Kostroma Region	0.3	–	–	0.4	0.0
Kursk Region	0.4	0.6	0.7	0.4	0.0
Lipetzk Region	0.4	0.0	0.1	0.4	0.1
Moscow Region	2.4	5.5	13.3	2.4	2.6
Oryol Region	0.4	0.5	–	0.4	0.0
Ryazan Region	0.5	4.4	–	0.5	0.1
Smolensk Region	0.5	1.1	–	0.6	0.2
Tambov Region	0.5	1.5	–	0.5	0.0
Tver Region	0.8	2.4	0.1	0.9	0.2
Tula Region	0.6	1.1	–	0.6	0.0
Yaroslavl Region	1.0	1.4	0.0	1.0	1.2
Moscow	18.9	11.8	21.5	16.3	57.9
<b>Northwestern Federal District</b>	<b>10.8</b>	<b>12.3</b>	<b>44.8</b>	<b>10.9</b>	<b>7.8</b>
Republic of Karelia	0.3	0.0	–	0.3	0.1
Republic of Komi	0.8	0.1	0.0	0.8	0.7

(continued)

	Total	Manufacture of ICT equipment	Wholesale of ICT goods	Telecommunications	ICT services
Arkhangelsk Region	0.6	0.3	0.0	0.7	0.1
Of which Nenets Autonomous District	0.0	–	–	0.0	0.0
Vologda Region	0.6	0.0	0.6	0.6	0.6
Kaliningrad Region	0.6	1.0	0.1	0.6	0.0
Leningrad Region	0.6	0.5	0.8	0.6	0.1
Murmansk Region	0.4	0.0	–	0.4	0.0
Novgorod Region	0.6	0.6	–	0.6	0.1
Pskov Region	0.3	0.5	0.1	0.3	0.0
Saint-Petersburg	6.0	9.3	43.2	5.9	6.0
<b>Southern Federal District</b>	<b>9.6</b>	<b>2.2</b>	<b>2.0</b>	<b>10.0</b>	<b>3.3</b>
Republic of Adygeya	0.1	–	–	0.1	0.0
Republic of Kalmykia	0.2	–	–	0.2	0.0
Krasnodar Territory	5.7	0.2	0.2	5.9	2.4
Astrakhan Region	0.5	–	–	0.5	0.0
Volgograd Region	1.2	0.1	–	1.2	0.2
Rostov Region	2.0	1.9	1.8	2.1	0.5
<b>North Caucasian Federal District</b>	<b>3.0</b>	<b>1.8</b>	<b>–</b>	<b>3.2</b>	<b>0.3</b>
Republic of Dagestan	0.4	0.1	–	0.5	–
Republic of Ingushetia	0.1	–	–	0.1	–
Kabardino-Balkarian Republic	0.2	0.3	–	0.2	–
Karachaevo-Cherchessian Republic	0.1	–	–	0.1	0.0
Republic of North Ossetia–Alania	0.2	0.1	–	0.2	0.1
Chechen Republic	0.6	0.1	–	0.7	–
Stavropol Territory	1.3	1.2	–	1.4	0.2

(continued)

	Total	Manufacture of ICT equipment	Wholesale of ICT goods	Telecommunications	ICT services
<b>Volga Federal District</b>	<b>14.9</b>	<b>22.6</b>	<b>5.7</b>	<b>15.4</b>	<b>8.6</b>
Republic of Bashkortostan	1.4	1.2	0.1	1.5	0.1
Republic of Mari El	0.2	0.9	0.0	0.3	0.0
Republic of Mordovia	0.6	0.9	0.2	0.4	4.0
Republic of Tatarstan	1.7	2.3	1.0	1.7	1.0
Udmurtian Republic	0.4	2.1	–	0.4	0.0
Chuvash Republic	0.4	2.4	0.1	0.4	0.1
Perm Territory	1.4	2.0	2.1	1.5	0.2
Kirov Region	0.5	0.7	0.0	0.5	0.1
Nizhni Novgorod Region	2.8	2.7	0.5	2.9	1.9
Orenburg Region	0.7	0.0	0.6	0.8	0.1
Penza Region	0.3	2.5	–	0.4	0.1
Samara Region	2.8	0.7	1.0	2.9	0.9
Saratov Region	1.1	2.8	0.1	1.1	0.1
Ulyanovsk Region	0.6	1.4	–	0.6	0.0
<b>Urals Federal District</b>	<b>10.2</b>	<b>7.8</b>	<b>4.0</b>	<b>10.4</b>	<b>7.7</b>
Kurgan Region	0.6	0.1	0.0	0.6	0.1
Sverdlovsk Region	4.9	4.9	0.5	4.8	5.6
Tyumen Region	2.9	1.0	2.9	3.0	0.9
Of which:					
Khanty-Mansi Autonomous District – Yugra	1.1	0.9	0.2	1.1	0.5
Yamalo-Nenets Autonomous District	0.6	0.0	–	0.7	0.1
Chelyabinsk Region	1.9	1.7	0.5	1.9	1.1

(continued)

	Total	Manufacture of ICT equipment	Wholesale of ICT goods	Telecommunications	ICT services
<b>Siberian Federal District</b>	<b>14.0</b>	<b>9.0</b>	<b>6.8</b>	<b>14.5</b>	<b>8.1</b>
Republic of Altai	0.3	–	–	0.3	0.0
Republic of Buryatia	0.5	0.2	2.0	0.5	0.0
Republic of Tuva	0.1	–	–	0.2	0.0
Republic of Khakasia	0.4	–	–	0.4	0.1
Altai Territory	1.1	0.3	0.0	1.2	0.2
Zabaikalsk Territory	1.0	–	0.6	1.0	0.0
Krasnoyarsk Territory	2.1	0.6	0.2	2.0	4.7
Irkutsk Region	2.6	0.1	0.2	2.7	0.5
Kemerovo Region	1.3	0.0	0.6	1.3	0.8
Novosibirsk Region	3.2	2.8	3.1	3.3	1.0
Omsk Region	0.7	2.0	0.1	0.7	0.8
Tomsk Region	0.7	3.1	–	0.8	0.0
<b>Far Eastern Federal District</b>	<b>6.7</b>	<b>0.2</b>	<b>0.8</b>	<b>7.1</b>	<b>0.7</b>
Republic of Sakha (Yakutia)	0.6	–	0.1	0.6	0.1
Kamchatka Territory	0.2	–	–	0.2	0.0
Primorsky Territory	1.7	0.2	0.7	1.8	0.2
Khabarovsk Territory	2.4	0.0	–	2.6	0.1
Amur Region	1.0	–	–	1.1	0.2
Magadan Region	0.1	–	–	0.1	0.1
Sakhalin Region	0.5	0.0	–	0.5	–
Jewish Autonomous Region	0.2	–	–	0.2	0.0
Chukotka Autonomous District	0.0	–	–	0.0	0.0

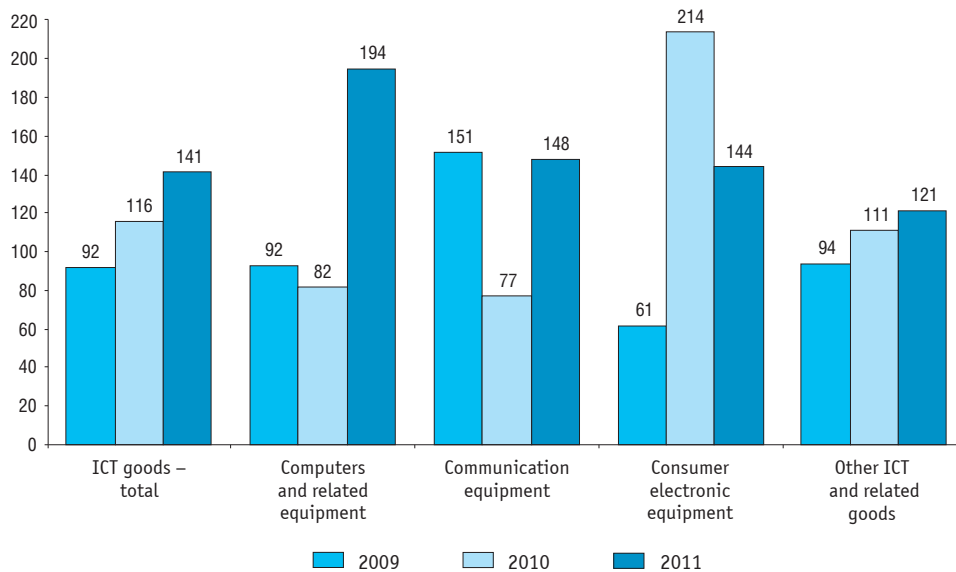
## 1.10. International Trade in ICT Goods and Services

### 1.10.1. EXPORTS OF ICT GOODS

	Million US dollars		As a percentage of the total exports of goods		As a percentage of the total exports of ICT goods	
	2010	2011	2010	2011	2010	2011
<b>ICT goods – total</b>	<b>1033.9</b>	<b>1460.2</b>	<b>0.26</b>	<b>0.28</b>	<b>100</b>	<b>100</b>
Computers and related equipment	146.5	284.5	0.04	0.06	14.2	19.5
Of which computers	99.0	220.4	0.02	0.04	9.6	15.1
Communication equipment	119.2	176.8	0.03	0.03	11.5	12.1
Of which telephone and telegraph equipment	82.9	122.0	0.02	0.02	8.0	8.4
Consumer electronic equipment	303.0	436.5	0.08	0.08	29.3	29.9
Of which:						
video equipment	1.6	9.9	0.00	0.00	0.2	0.7
TV receivers	260.0	374.0	0.07	0.07	25.1	25.6
Other ICT and related goods	465.2	562.4	0.12	0.11	45.0	38.5

### 1.10.2. TRENDS IN EXPORTS OF ICT GOODS

(as a percentage of the previous year)

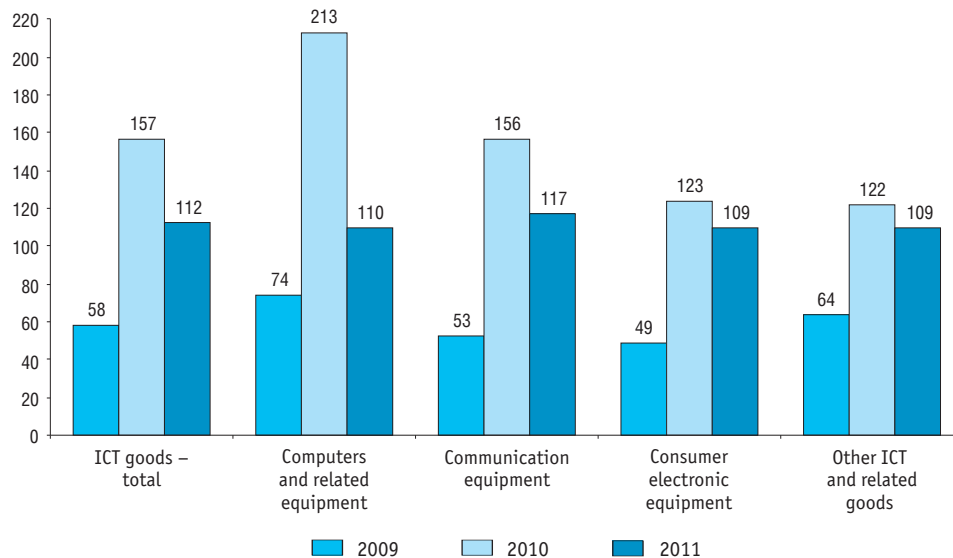


### 1.10.3. IMPORTS OF ICT GOODS

	Million US dollars		As a percentage of the total imports of goods		As a percentage of the total imports of ICT goods	
	2010	2011	2010	2011	2010	2011
<b>ICT goods - total</b>	<b>19519.6</b>	<b>21904.8</b>	<b>8.5</b>	<b>7.2</b>	<b>100</b>	<b>100</b>
Computers and related equipment	6659.8	7316.9	2.9	2.4	34.1	33.4
Of which computers	4816.6	5271.2	2.1	1.7	24.7	24.1
Communication equipment	6681.1	7825.4	2.9	2.6	34.2	35.7
Of which telephone and telegraph equipment	6606.7	7744.6	2.9	2.5	33.8	35.4
Consumer electronic equipment	3283.0	3592.7	1.4	1.2	16.8	16.4
Of which:						
video equipment	202.4	220.1	0.1	0.1	1.0	1.0
TV receivers	742.0	640.0	0.3	0.2	3.8	2.9
Other ICT and related goods	2895.7	3169.8	1.3	1.0	14.9	14.5

#### 1.10.4. TRENDS IN IMPORTS OF ICT GOODS

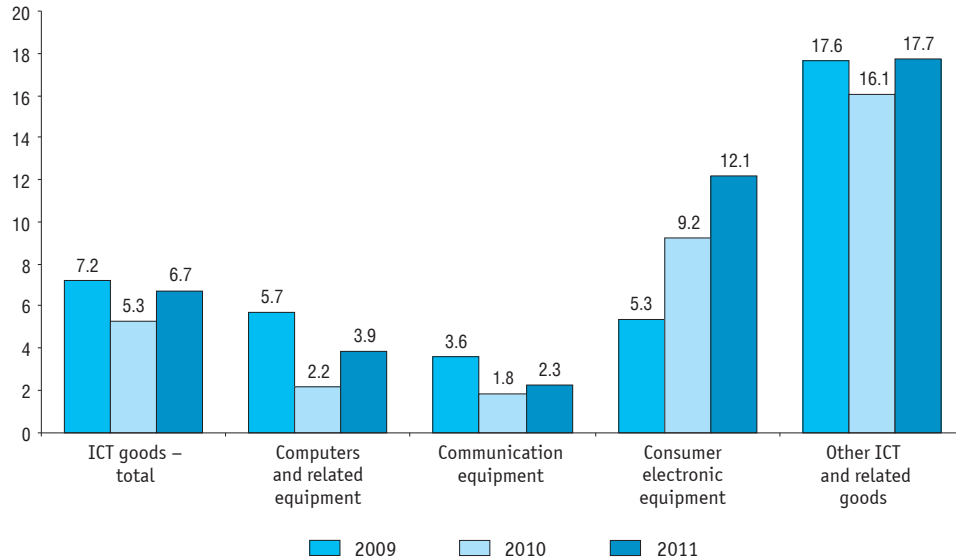
(as a percentage of the previous year)





### 1.10.5. EXPORTS TO IMPORTS RATIO FOR ICT GOODS

(exports as a percentage of imports)

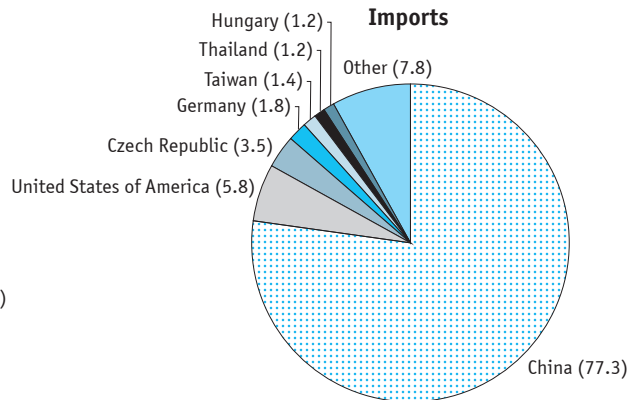
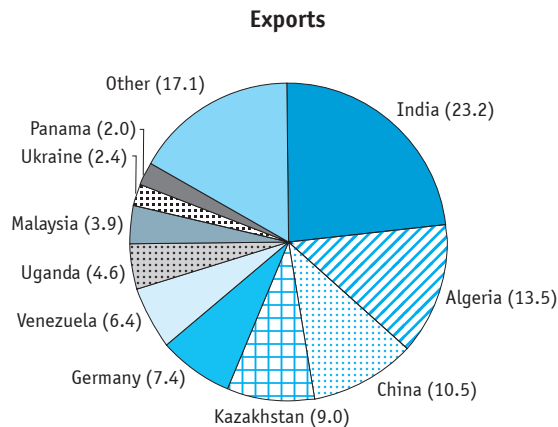


## 1.10.6. EXPORTS AND IMPORTS OF COMPUTERS

*(million US dollars)*

	2005	2009	2010	2011
<b>Exports – total</b>	<b>58.7</b>	<b>166.9</b>	<b>99.0</b>	<b>220.4</b>
Of which:				
to CIS countries	12.7	25.3	22.6	35.1
to other foreign countries	46.0	141.6	76.4	185.3
<b>Imports – total</b>	<b>1356.4</b>	<b>2857.6</b>	<b>4816.6</b>	<b>5271.2</b>
Of which:				
from CIS countries	5.9	5.6	7.7	8.9
from other foreign countries	1350.5	2852.0	4808.9	5262.3

## 1.10.7. PERCENTAGE DISTRIBUTION OF EXPORTS AND IMPORTS OF COMPUTERS BY COUNTRY: 2011

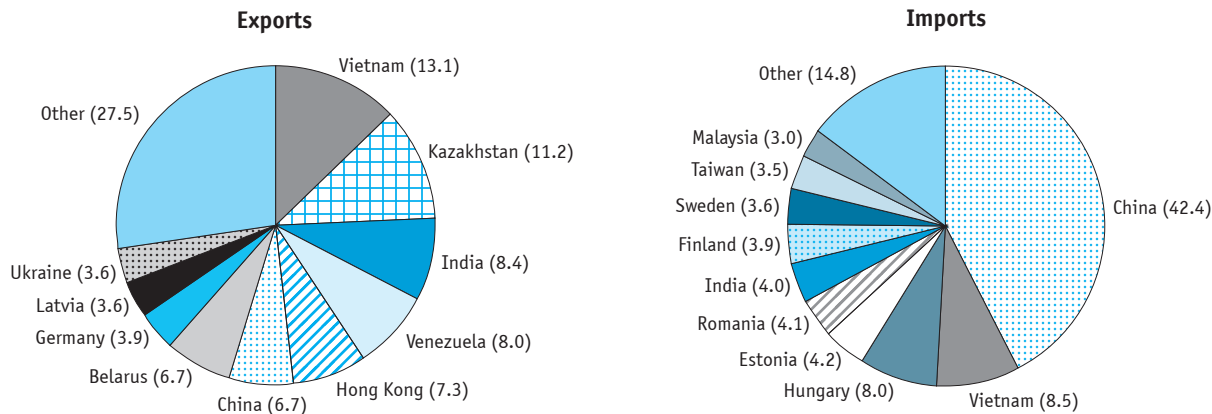


### 1.10.8. EXPORTS AND IMPORTS OF TELEPHONE AND TELEGRAPH EQUIPMENT

(million US dollars)

	2005	2009	2010	2011
<b>Exports – total</b>	<b>41.0</b>	<b>107.1</b>	<b>82.9</b>	<b>122.0</b>
Of which:				
to CIS countries	20.0	37.2	27.0	31.7
to other foreign countries	21.0	69.9	55.9	90.3
<b>Imports – total</b>	<b>1163.8</b>	<b>4223.5</b>	<b>6606.7</b>	<b>7744.6</b>
Of which:				
from CIS countries	3.2	2.5	3.3	10.5
from other foreign countries	1160.6	4221.0	6603.4	7734.1

### 1.10.9. PERCENTAGE DISTRIBUTION OF EXPORTS AND IMPORTS OF TELEPHONE AND TELEGRAPH EQUIPMENT BY COUNTRY: 2011

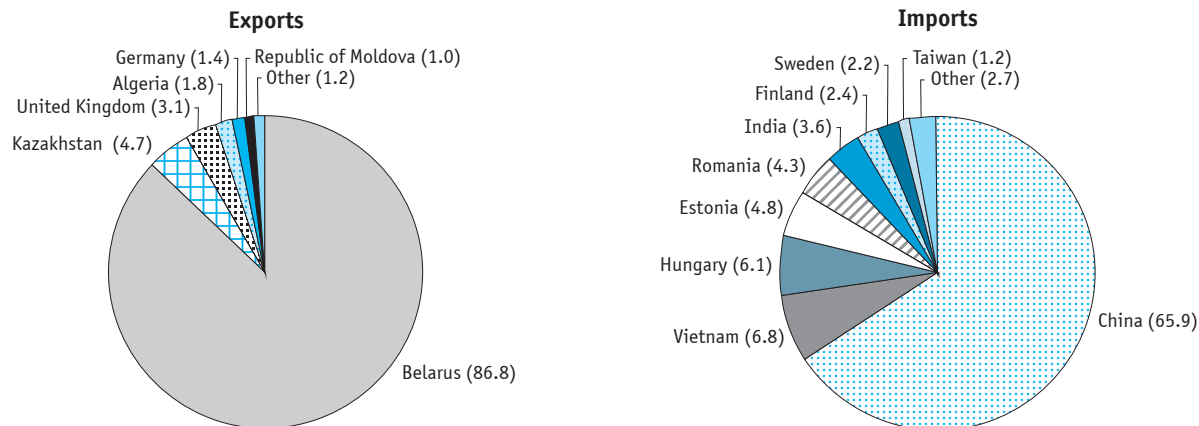


## 1.10.10. EXPORTS AND IMPORTS OF VIDEO EQUIPMENT

*(million US dollars)*

	2005	2009	2010	2011
<b>Exports – total</b>	<b>1.9</b>	<b>2.4</b>	<b>1.6</b>	<b>9.9</b>
Of which:				
to CIS countries	0.7	0.9	0.5	9.2
to other foreign countries	1.2	1.5	1.1	0.7
<b>Imports – total</b>	<b>277.5</b>	<b>154.2</b>	<b>202.4</b>	<b>220.1</b>
Of which:				
from CIS countries	0.3	–	0.2	0.3
from other foreign countries	277.2	154.2	202.2	219.8

## 1.10.11. PERCENTAGE DISTRIBUTION OF EXPORTS AND IMPORTS OF VIDEO EQUIPMENT BY COUNTRY: 2011

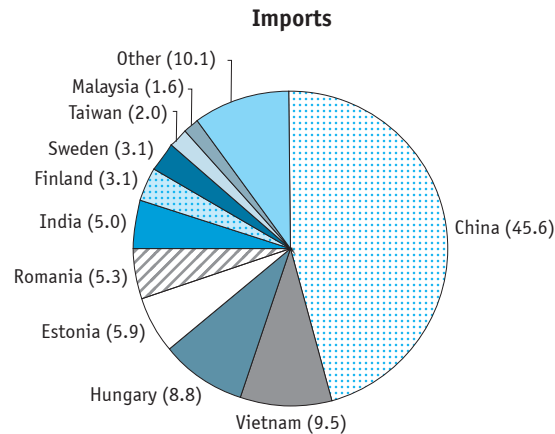
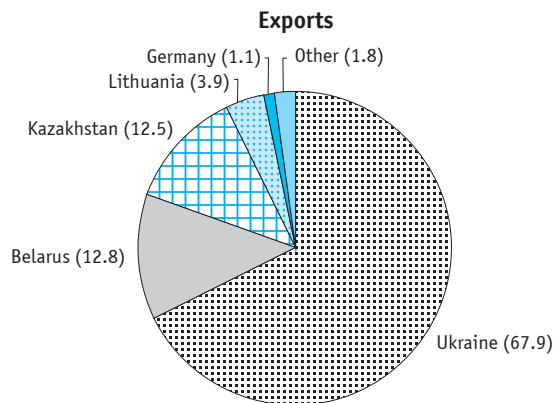


### 1.10.12. EXPORTS AND IMPORTS OF TV RECEIVERS

(million US dollars)

	2005	2009	2010	2011
<b>Exports – total</b>	<b>10.6</b>	<b>48.0</b>	<b>260.0</b>	<b>374.0</b>
Of which:				
to CIS countries	9.4	24.2	256.0	356.0
to other foreign countries	1.2	23.8	4.0	18.0
<b>Imports – total</b>	<b>491.2</b>	<b>707.0</b>	<b>742.0</b>	<b>640.0</b>
Of which:				
from CIS countries	61.4	39.0	98.4	163.0
from other foreign countries	429.8	668.0	643.6	477.0

### 1.10.13. PERCENTAGE DISTRIBUTION OF EXPORTS AND IMPORTS OF TV RECEIVERS BY COUNTRY: 2011



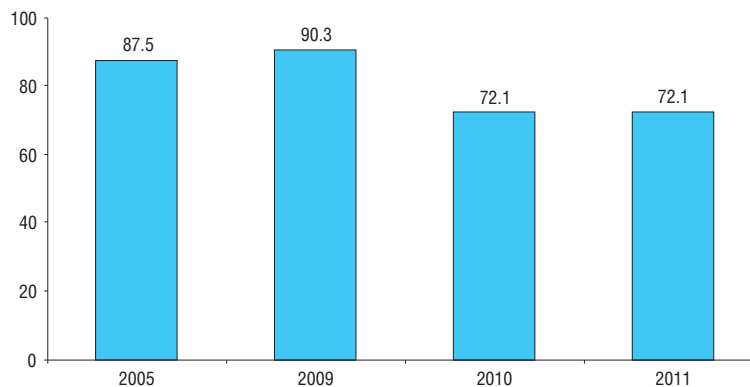
### 1.10.14. EXPORTS AND IMPORTS OF COMPUTER AND INFORMATION SERVICES

(million US dollars)

	2005	2009	2010	2011
<b>Exports – total</b>	<b>422</b>	<b>1291</b>	<b>1359</b>	<b>1753</b>
Of which:				
to CIS countries	30	93	105	154
to other foreign countries	392	1198	1254	1599
<b>Imports – total</b>	<b>482</b>	<b>1429</b>	<b>1884</b>	<b>2433</b>
Of which:				
from CIS countries	11	30	45	61
from other foreign countries	471	1399	1839	2372

### 1.10.15. EXPORTS TO IMPORTS RATIO FOR COMPUTER AND INFORMATION SERVICES

(exports as a percentage of imports)



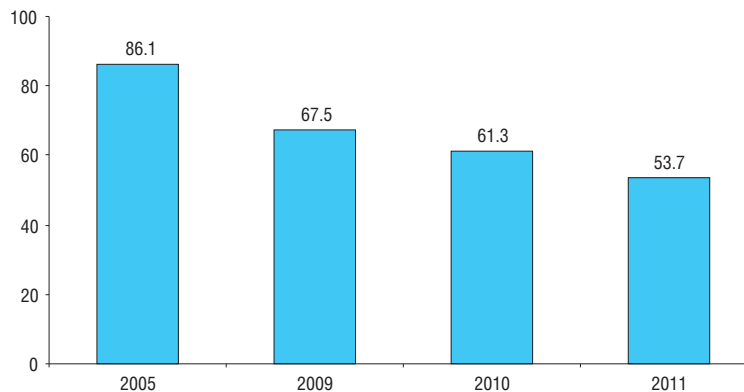
### 1.10.16. EXPORTS AND IMPORTS OF TELECOMMUNICATIONS SERVICES

(million US dollars)

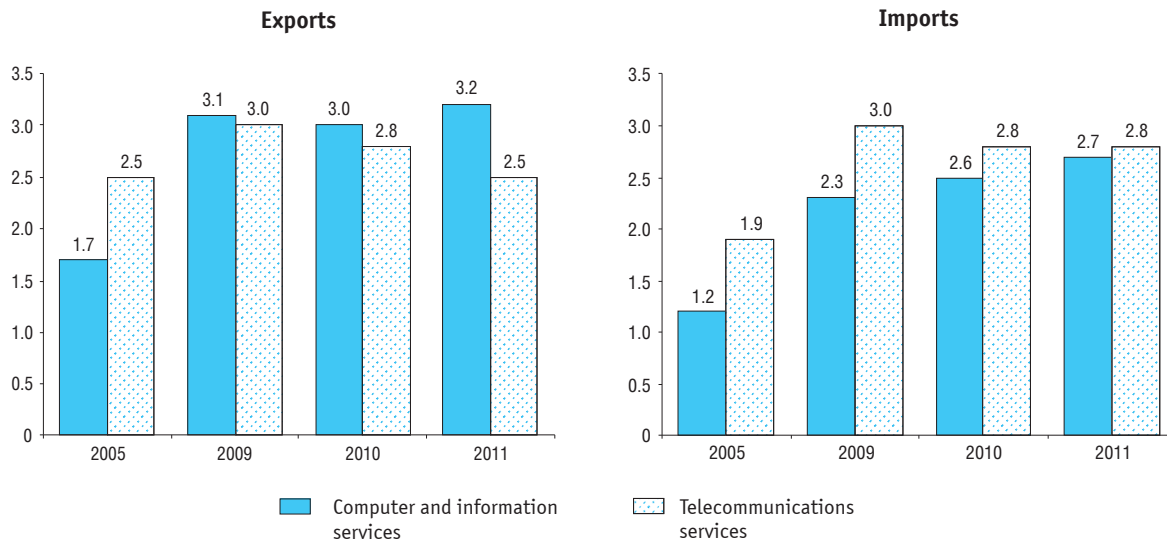
	2005	2009	2010	2011
<b>Exports – total</b>	<b>620</b>	<b>1260</b>	<b>1265</b>	<b>1349</b>
Of which:				
to CIS countries	126	206	273	241
to other foreign countries	494	1054	992	1108
<b>Imports – total</b>	<b>720</b>	<b>1866</b>	<b>2065</b>	<b>2513</b>
Of which:				
from CIS countries	223	471	535	618
from other foreign countries	497	1395	1530	1895

### 1.10.17. EXPORTS TO IMPORTS RATIO FOR TELECOMMUNICATIONS SERVICES

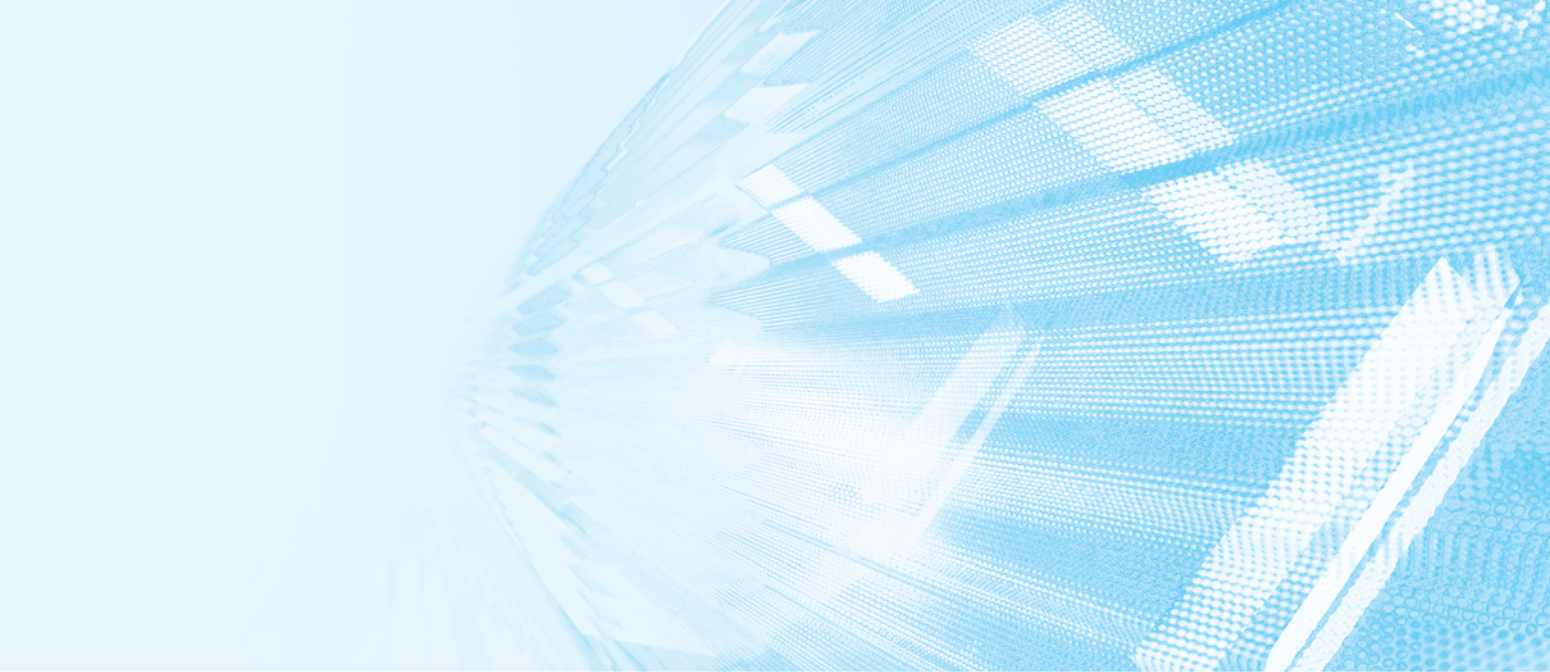
(exports as a percentage of imports)



## 1.10.18. ICT SERVICES AS A PERCENTAGE OF THE TOTAL VALUE OF EXPORTS AND IMPORTS OF SERVICES







## **2. ICT Infrastructure**

## 2.1. MAIN INDICATORS OF ICT INFRASTRUCTURE

*(at the end of the year)*

	2005	2009	2010	2011
Fixed telephones (including public payphones) per 100 inhabitants	30	32	31	31
Mobile cellular telephones per 100 inhabitants	86	161	166	179
Fixed broadband Internet subscriptions per 100 inhabitants	...	...	...	12
Level of network digitalization, <i>per cent</i> :				
urban areas	64.2	80.7	83.0	87.6
rural areas	35.8	62.1	63.9	65.9
Share of mobile cellular telephones based on IMT-2000/UMTS standard, <i>per cent</i>	...	0.7	1.3	1.7
Rural areas having telephony, <i>as a percentage of the total</i>	67.0	90.3	90.1	90.1
Percentage of the population covered by:				
radio	...	92.5	96.1	95.9
air analogue television	98.6	96.3	98.6	98.7

Source (here and below in sections 2.2 – 2.10, 2.14): the data is provided by the Ministry of Telecom and Mass Media of the Russian Federation.

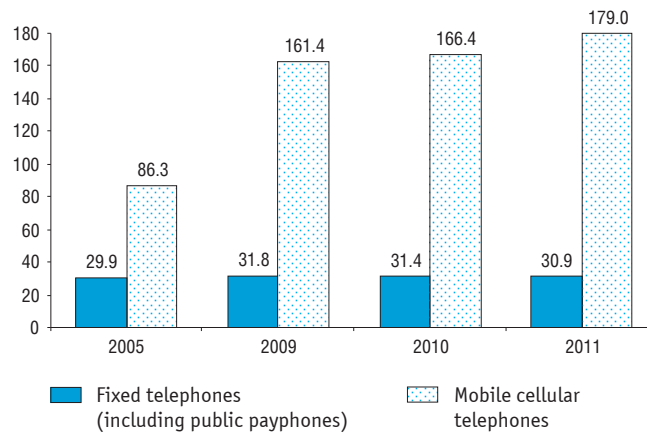
## 2.2. FIXED, MOBILE CELLULAR TELEPHONES AND PUBLIC PAYPHONES

(at the end of the year)

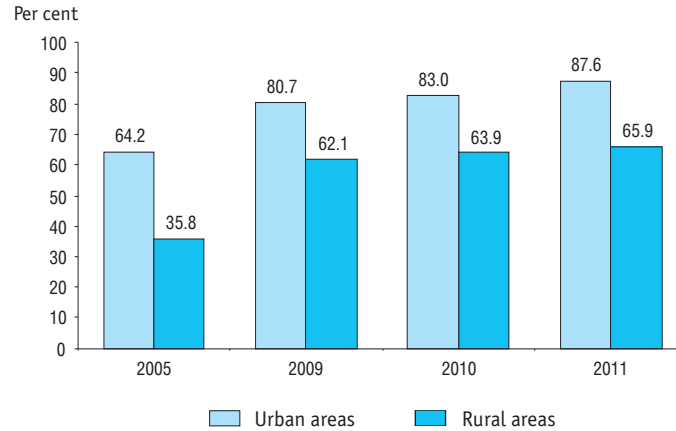
	2005	2009	2010	2011
Fixed telephones of local telephone network, <i>thousand</i>	42731	45187	44726	43998
Of which home telephones	32454	33713	33209	32403
Public payphones – <i>total, thousand</i>	151	195	190	183
Of which:				
general purpose payphones	110	190	186	180
within local telephone network	39	4.4	3.6	3.3
payphones for long distance (international) calls	1.9	0.7	0.02	0.02
Mobile cellular telephones, <i>thousand</i>	123549	230500	237689	256117
Of which those based on IMT-2000/UMTS standards	...	1612	3152	4245

### 2.3. TELEPHONE DENSITY

(units per 1000 inhabitants; at the end of the year)



## 2.4. LEVEL OF NETWORK DIGITALIZATION



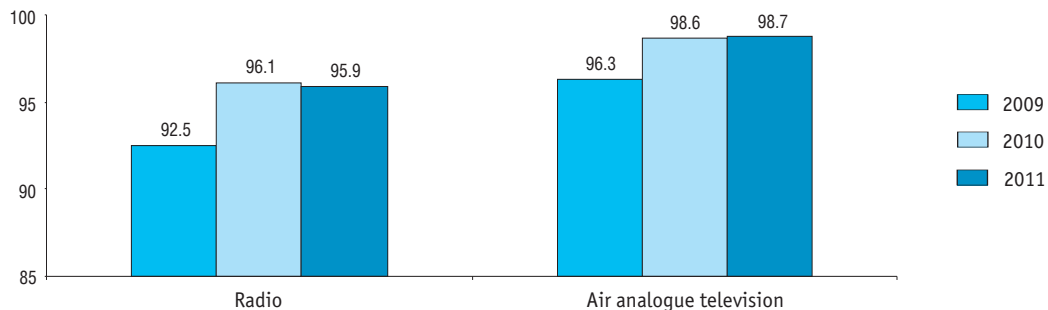
## 2.5. SATELLITE, TELEVISION AND RADIO HARDWARE

*(at the end of the year)*

	2005	2009	2010	2011
Satellite transmitting-receiving stations working within PSTN	1396	9860	11048	14800
Domestically produced satellite vehicles working within PSTN	15	15	15	15
Television transmitters:				
analogue	...	16438	16896	17583
digital	...	122	142	692
Radio transmitters:				
long and medium wave	316	275	313	336
short wave	164	156	156	137
Main radio broadcasting stations – total, <i>million</i>	15.1	9.3	8.0	7.0
Of which in rural areas	0.9	0.2	0.2	0.1

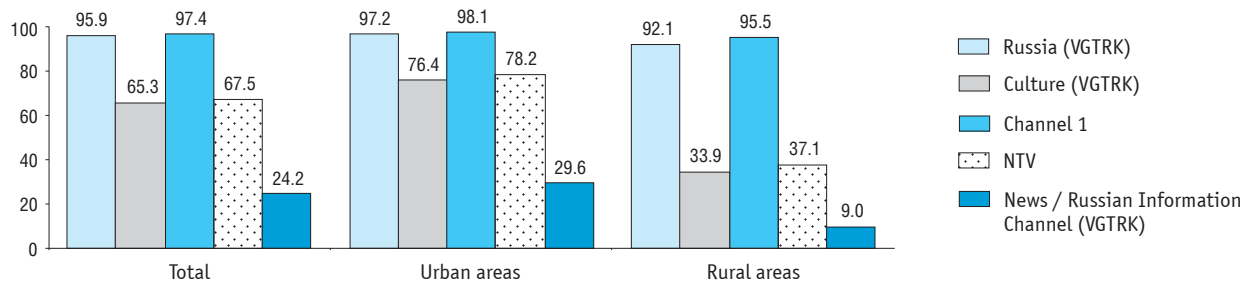
## 2.6. COVERAGE OF THE POPULATION BY RADIO AND TELEVISION

(as a percentage of the total number of inhabitants; at the end of the year)



## 2.7. COVERAGE OF THE POPULATION BY RUSSIAN POPULAR TELEVISION CHANNELS: 2011

(as a percentage of the total number of inhabitants; at the end of the year)



## 2.8. INTERNET SUBSCRIPTIONS: 2011

*(thousand; at the end of the year)*

	Total	Of which	
		physical entities	legal entities
<b>Active fixed broadband Internet subscriptions total</b>	<b>17420</b>	<b>16417</b>	<b>1003</b>
Of which:			
by type of connection:			
xDSL	8006	7328	678
FTTH/FTTB (ETTx)	7749	7540	209
other cable connection	1665	1549	116
by speed of access:			
256 Kbps – less than 2 Mbps	5284	4820	464
2 Mbps – less than 10 Mbps	8425	8049	376
10 Mbps – less than 100 Mbps	3586	3449	137
100 Mbps – less than 1 Gbps	123	97.7	25.6
above 1 Gbps	2.4	1.5	0.9
IP-TV service subscriptions	1473	1464	8.8
Active IP-TV service subscriptions (without Internet access)	188	186	2.5
Active satellite Internet subscriptions	25.9	7.0	18.9
Active wireless terrestrial Internet subscriptions	192	–	–

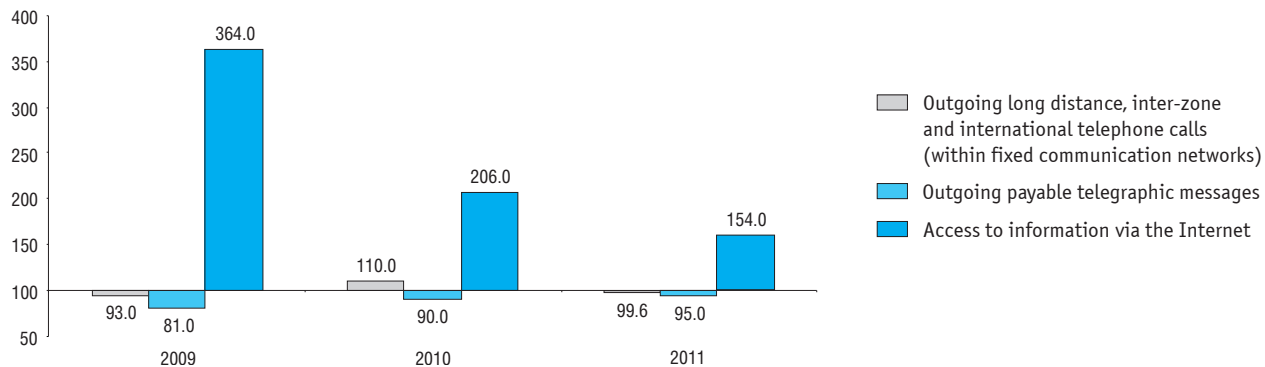


## 2.9. COMMUNICATION SERVICES BY TYPE

	2009	2010	2011
Outgoing long distance, inter-zone and international telephone calls (within fixed communication networks), <i>million hours</i>	544	599	597
Outgoing payable telegraphic messages, <i>thousand items</i>	11520	10335	9798
Access to information via the Internet – <i>total, PBytes</i>	2680	5530	8492
Including dedicated lines access	2552	5327	7937
Of which with dedicated xDSL access	560	1159	1738

## 2.10. TRENDS IN COMMUNICATION SERVICES BY TYPE

(as a percentage of the previous year)



## 2.11. AVERAGE COMMUNICATION TARIFFS FOR INDIVIDUALS

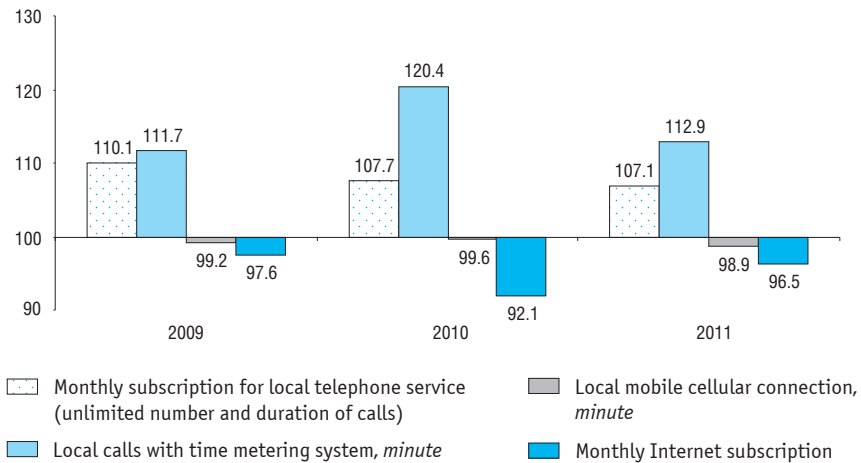
*(roubles; December)*

	2005	2009	2010	2011
Monthly subscription for local telephone service (unlimited number and duration of calls)	189.15	323.35	348.76	377.38
Monthly subscription for telephone service (telephone line of any type)	122.53	137.48	150.78	165.28
Local calls with time metering system, <i>minute</i>	0.18	0.27	0.32	0.37
Automatic long-distance calls to locations between 1201 – 3000 km, <i>minute</i>	6.22	5.21	5.15	5.02
Monthly subscription for a radio station	21.67	47.82	54.44	60.64
Local mobile cellular connection, <i>minute</i>	4.64	2.67	2.25	1.60
Monthly Internet subscription	...	645.75	599.37	555.57

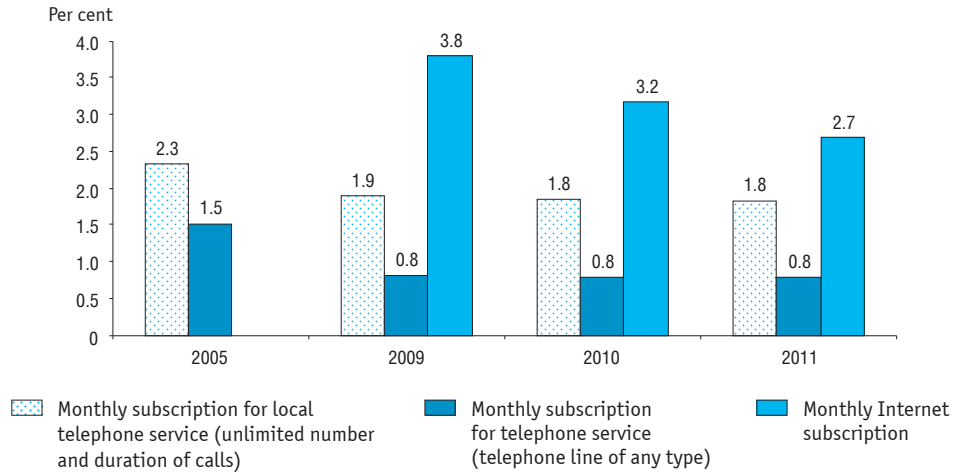
Source: the data is provided by Federal State Statistics Service (2.11 – 2.12).

## 2.12. INDICES OF COMMUNICATION TARIFFS FOR INDIVIDUALS

(as a percentage of the previous year)



### 2.13. TARIFFS FOR COMMUNICATION SERVICES TO AVERAGE PERSONAL INCOME RATIO



Source: estimated by HSE Institute for Statistical Studies and Economics of Knowledge on the basis of data provided by Federal State Statistics Service.

## 2.14. MAIN INDICATORS OF ICT INFRASTRUCTURE BY REGION OF THE RUSSIAN FEDERATION: 2011

(at the end of the year)

	Rural areas having telephony, as a percentage of the total	Telephones per 100 inhabitants		Fixed broadband Internet subscriptions per 100 inhabitants
		Fixed telephones (including public payphones)	Mobile cellular telephones	
<b>Russian Federation</b>	<b>90.1</b>	<b>31</b>	<b>179</b>	<b>12.2</b>
<b>Central Federal District</b>	<b>87.4</b>	<b>38</b>	<b>199</b>	<b>13.9</b>
Belgorod Region	95.4	28	159	8.9
Bryansk Region	100	27	155	10.6
Vladimir Region	84.2	28	161	10.7
Voronezh Region	98.5	31	160	12.4
Ivanovo Region	75.2	26	178	8.6
Kaluga Region	86.7	35	174	15.0
Kostroma Region	77.8	32	205	13.4
Kursk Region	98.5	23	169	7.6
Lipetsk Region	96.0	32	156	10.8
Moscow Region	91.8	27	229*	7.3
Oryol Region	100	27	183	9.6
Ryazan Region	90.2	29	169	7.1
Smolensk Region	100	33	187	10.7
Tambov Region	98.9	26	153	7.8
Tver Region	79.9	27	192	8.0
Tula Region	99.3	32	180	12.7
Yaroslavl Region	64.8	35	182	16.7
Moscow	–	59	229*	23.4
<b>Northwestern Federal District</b>	<b>83.7</b>	<b>38</b>	<b>212</b>	<b>15.5</b>
Republic of Karelia	80.6	36	206	21.6
Republic of Komi	99.1	38	187	14.7

(continued)

	Rural areas having telephony, <i>as a percentage of the total</i>	Telephones per 100 inhabitants		Fixed broadband Internet subscriptions per 100 inhabitants
		Telephones (including public payphones)	Mobile cellular telephones	
Arkhangelsk Region	84.5	31	189	14.1
Of which Nenets Autonomous District	...	...	...	...
Vologda Region	74.0	33	195	13.8
Kaliningrad Region	98.5	33	199	18.8
Leningrad Region	96.1	25	227*	7.4
Murmansk Region	89.3	43	226	15.3
Novgorod Region	100	31	198	13.6
Pskov Region	78.4	33	180	6.3
Saint-Petersburg	–	49	227*	19.4
<b>Southern Federal District</b>	<b>97.2</b>	<b>24</b>	<b>179</b>	<b>9.3</b>
Republic of Adygeya	93.5	16	124	3.7
Republic of Kalmykia	99.2	17	163	4.5
Krasnodar Territory	98.5	24	202	8.9
Astrakhan Region	92.6	22	193	9.5
Volgograd Region	95.1	27	174	12.1
Rostov Region	98.5	25	158	9.1
<b>North Caucasian Federal District</b>	<b>87.5</b>	<b>12</b>	<b>132</b>	<b>3.4</b>
Republic of Dagestan	95.6	3	118	0.5
Republic of Ingushetia	4.3	2	130	0.5
Kabardino-Balkarian Republic	100	17	126	4.9
Karachaevo-Cherkceccian Republic	99.2	14	127	4.4
Republic of North Ossetia–Alania	93.0	28	129	5.7
Chechen Republic	20.5	1	119	0.1
Stavropol Territory	99.4	22	155	7.2

(continued)

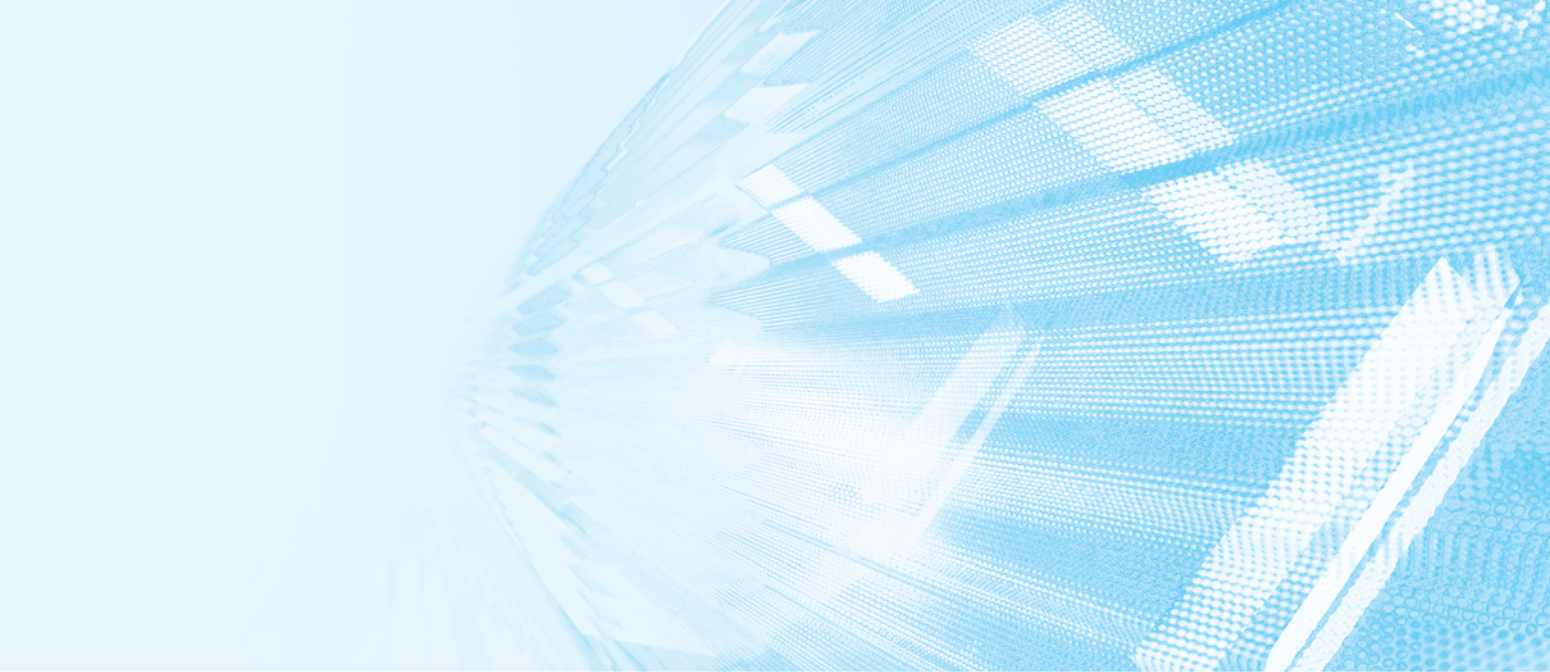
	Rural areas having telephony, <i>as a percentage of the total</i>	Telephones per 100 inhabitants		Fixed broadband Internet subscriptions per 100 inhabitants
		Telephones (including public payphones)	Mobile cellular telephones	
<b>Volga Federal District</b>	<b>97.1</b>	<b>30</b>	<b>168</b>	<b>13.2</b>
Republic of Bashkortostan	100	28	157	13.2
Republic of Mari El	97.7	24	154	12.0
Republic of Mordovia	100	30	151	9.6
Republic of Tatarstan	100	31	171	18.9
Udmurtian Republic	97.8	28	157	15.0
Chuvash Republic	99.9	22	180	6.3
Perm Territory	94.6	31	161	10.6
Kirov Region	96.3	32	175	14.4
Nizhni Novgorod Region	90.7	36	173	14.2
Orenburg Region	100	28	171	11.7
Penza Region	98.4	27	163	9.1
Samara Region	96.0	32	183	13.2
Saratov Region	99.8	27	168	12.7
Ulyanovsk Region	96.3	30	165	14.1
<b>Urals Federal District</b>	<b>96.6</b>	<b>32</b>	<b>179</b>	<b>14.1</b>
Kurgan Region	97.0	28	151	10.4
Sverdlovsk Region	94.2	32	177	14.3
Tyumen Region	98.0	33	174	16.6
Of which				
Khanty-Mansi Autonomous District – Yugra	98.0	36	198	15.2
Yamalo-Nenets Autonomous District	93.8	35	237	14.3
Chelyabinsk Region	98.2	29	175	12.5

(continued)

	Rural areas having telephony, <i>as a percent of the total</i>	Telephones per 100 inhabitants		Fixed broadband Internet subscriptions per 100 inhabitants
		Telephones (including public payphones)	Mobile cellular telephones	
<b>Siberian Federal District</b>	<b>92.3</b>	<b>27</b>	<b>160</b>	<b>10.0</b>
Republic of Altai	98.0	20	145	3.6
Republic of Buryatia	97.1	20	142	4.6
Republic of Tyva	71.1	12	148	1.2
Republic of Khakasia	98.9	25	183	7.9
Altai Territory	99.4	29	135	7.8
Zabaikalsk Territory	98.6	21	127	4.4
Krasnoyarsk Territory	91.6	30	155	10.1
Irkutsk Region	82.3	25	166	7.2
Kemerovo Region	74.4	26	174	10.3
Novosibirsk Region	97.7	33	181	20.1
Omsk Region	97.5	27	170	9.6
Tomsk Region	91.9	35	161	11.2
<b>Far Eastern Federal District</b>	<b>91.9</b>	<b>30</b>	<b>166</b>	<b>11.6</b>
Republic of Sakha (Yakutia)	87.4	27	137	9.4
Kamchatka Territory	98.8	37	189	10.9
Primorsky Territory	98.9	30	168	14.0
Khabarovsk Territory	89.5	31	179	13.5
Amur Region	88.6	21	172	6.1
Magadan Region	94.3	41	190	14.9
Sakhalin Region	90.1	39	157	11.1
Jewish Autonomous Region	100	26	144	10.2
Chukotka Autonomous Region	100	40	127	7.5

\* Total of the City of Moscow and Moscow Region; of the City of Saint-Petersburg and Leningrad Region.





## **3. ICT Usage by Enterprises**

### 3.1. Main Indicators of ICT Usage by Enterprises

#### 3.1.1. ENTERPRISES USING ICT

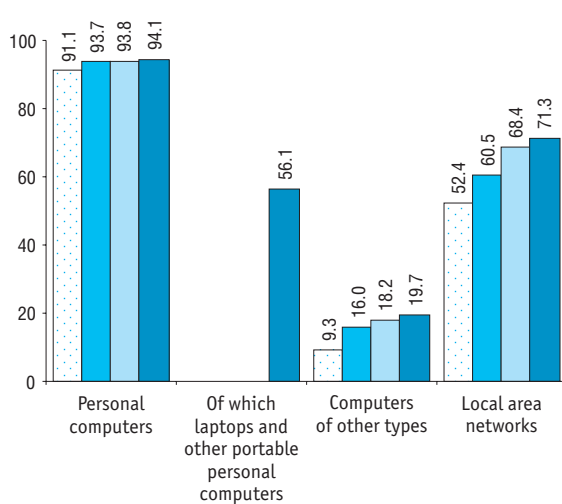
(units)

	2005	2009	2010	2011
<b>Enterprises surveyed</b>	<b>150934</b>	<b>174137</b>	<b>176684</b>	<b>178331</b>
Enterprises using:				
personal computers	137436	163237	165809	167861
Of which laptops and other portable personal computers	...	...	...	100073
computers of other types	13990	27929	32070	35165
local area networks	79054	105268	120825	127062
Of which wireless	...	...	...	35602
global information networks	81910	138057	147311	152738
Of which:				
Internet	80444	136287	145509	151261
Intranet	...	20628	23143	28782
Extranet	...	7830	9452	10850
other global networks	10805	10726	11085	12313
e-mail	84538	136677	144741	148218
dedicated communication lines	28618	53694	57722	59334
Enterprises having a website	22348	41951	50324	58908

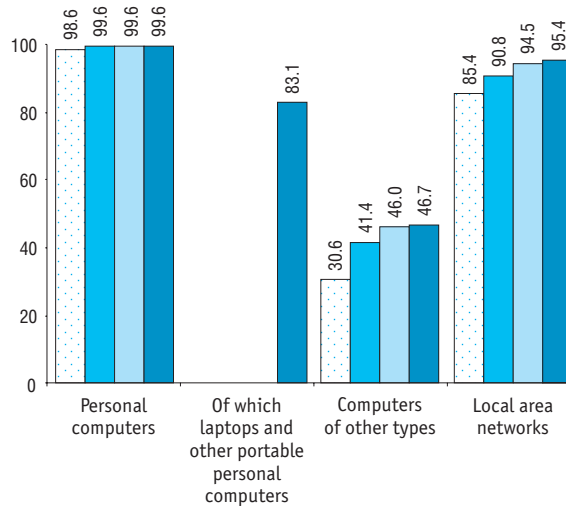
Sources (here and below in the section): estimated by HSE Institute for Statistical Studies and Economics of Knowledge on the basis of data provided by Federal State Statistics Service.

### 3.1.2. USAGE OF COMPUTING MACHINERY

Enterprises using computing machinery as a percentage of the total

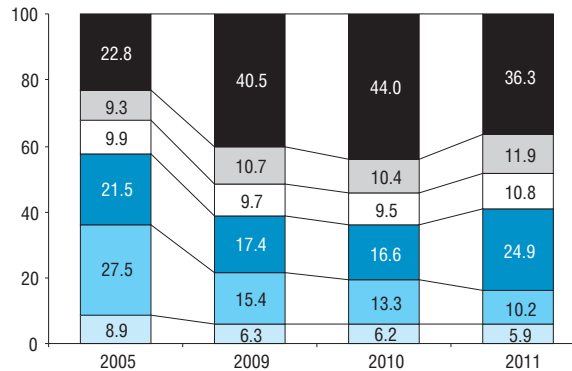


Personnel of enterprises using computing machinery as a percentage of the total employment



2005
  2009
  2010
  2011

## 3.1.3. DISTRIBUTION OF ENTERPRISES BY SHARE OF PERSONNEL USING COMPUTERS

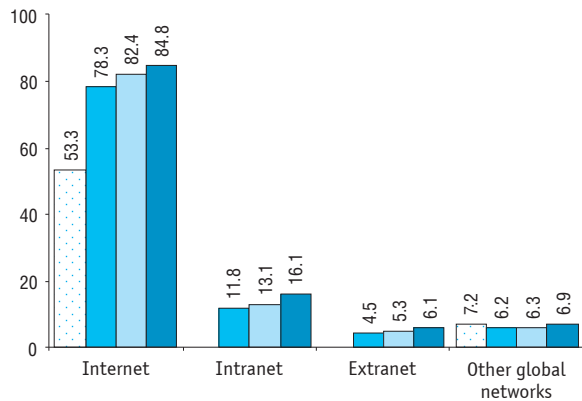
*(as a percentage of the total number of enterprises)*

Enterprises with the share of personnel using personal computers:

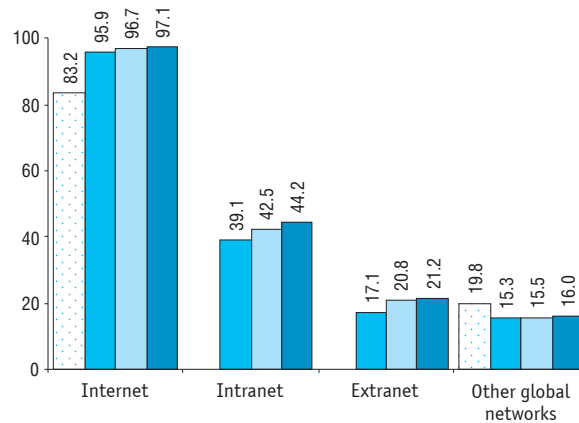
- 100-70%
- 29-10%
- 69-50%
- less than 10%
- 49-30%
- do not use computers

### 3.1.4. USAGE OF GLOBAL INFORMATION NETWORKS IN ENTERPRISES BY TYPE

Enterprises using global networks as a percentage of the total number of enterprises

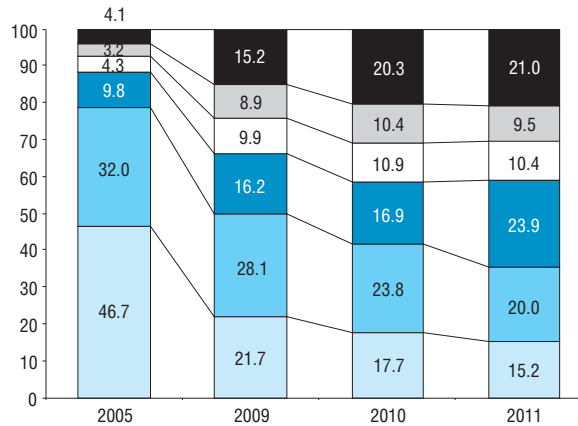


Personnel of enterprises using global networks as a percentage of the total employment

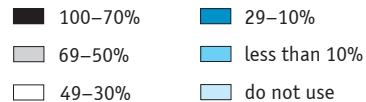


2005
  2009
  2010
  2011

## 3.1.5. DISTRIBUTION OF ENTERPRISES BY SHARE OF PERSONNEL USING THE INTERNET

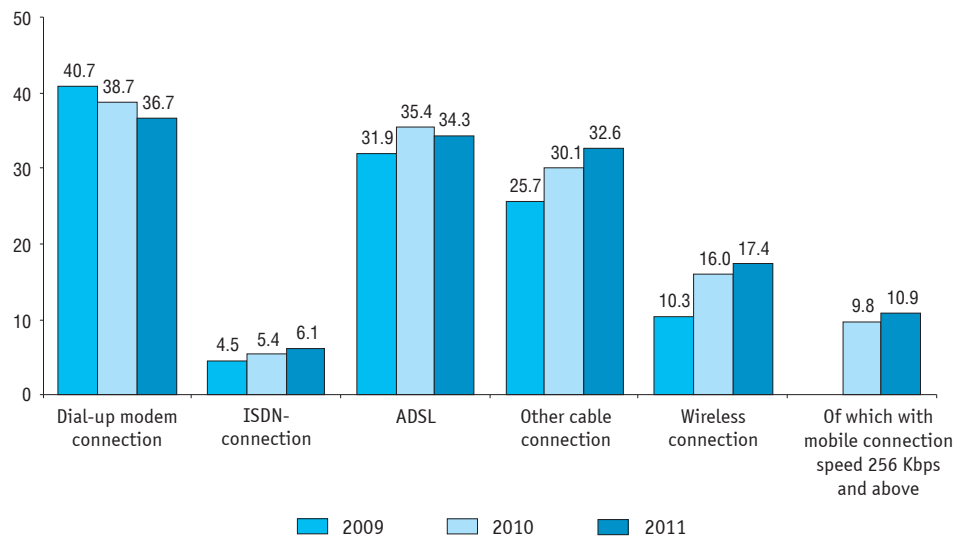
*(as a percentage of the total number of enterprises)*

Enterprises with the share of personnel using the Internet:

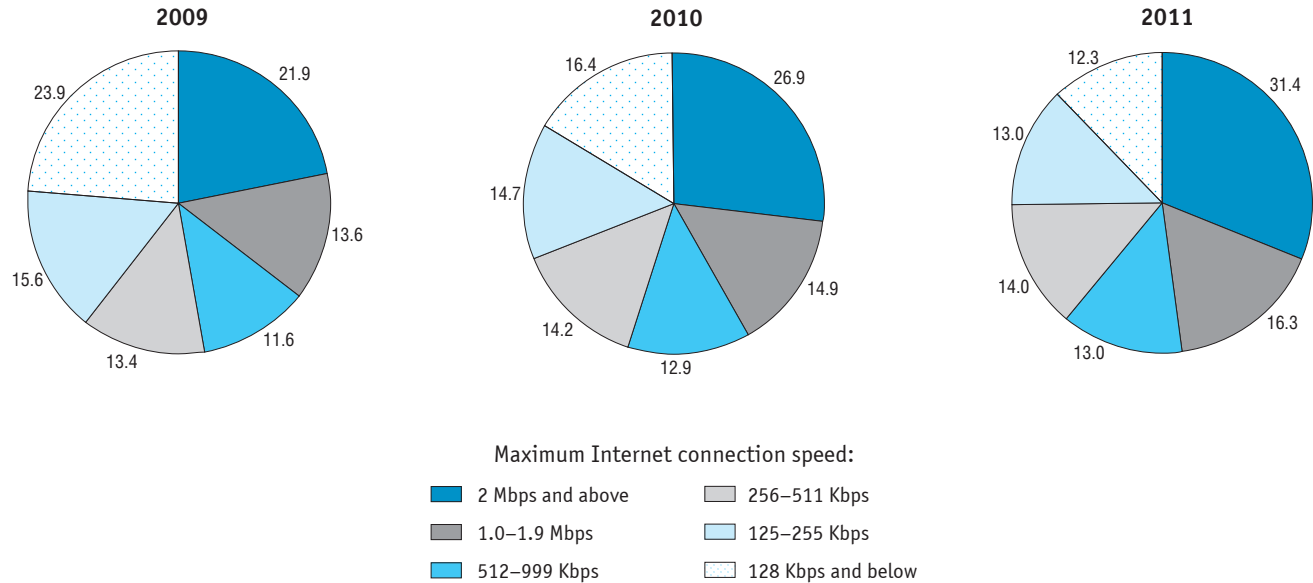


### 3.1.6. DISTRIBUTION OF ENTERPRISES BY TYPE OF INTERNET CONNECTION

(as a percentage of the total number of enterprises)

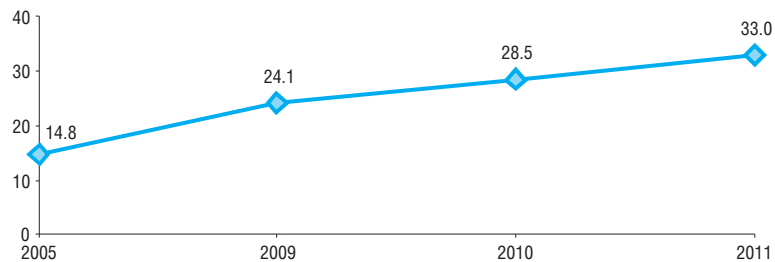


## 3.1.7. DISTRIBUTION OF ENTERPRISES BY INTERNET CONNECTION SPEED

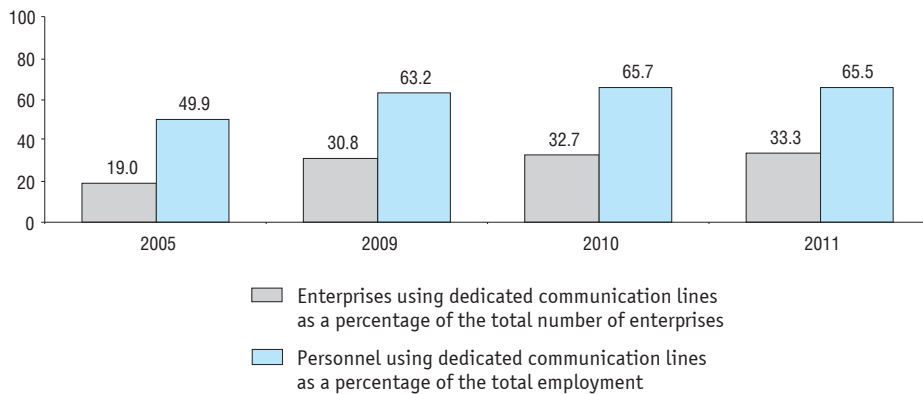
*(as a percentage of the total number of enterprises using the Internet)*



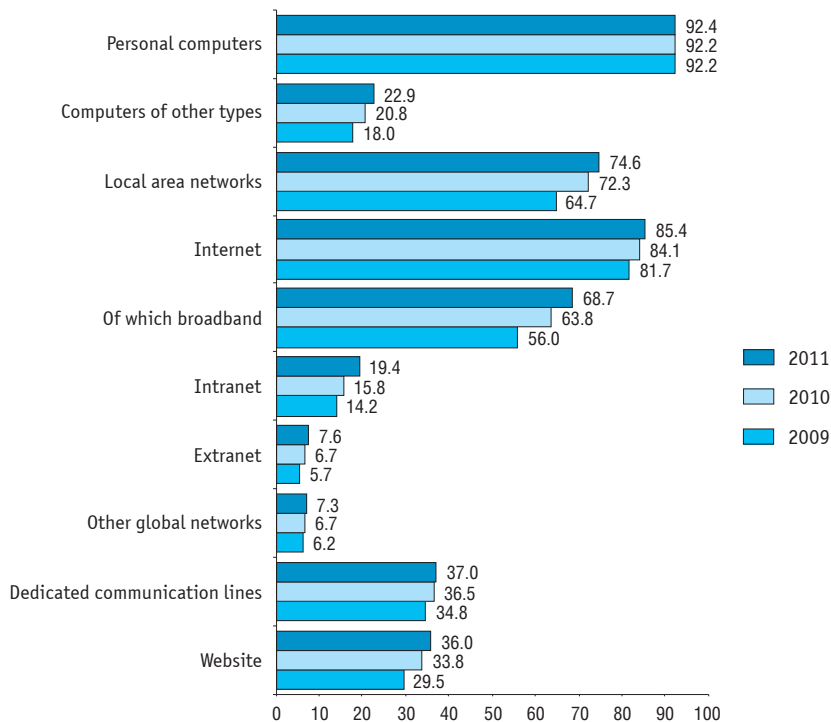
### 3.1.8. ENTERPRISES WITH A WEBSITE (as a percentage of the total number of enterprises)



### 3.1.9. ENTERPRISES USING DEDICATED COMMUNICATION LINES



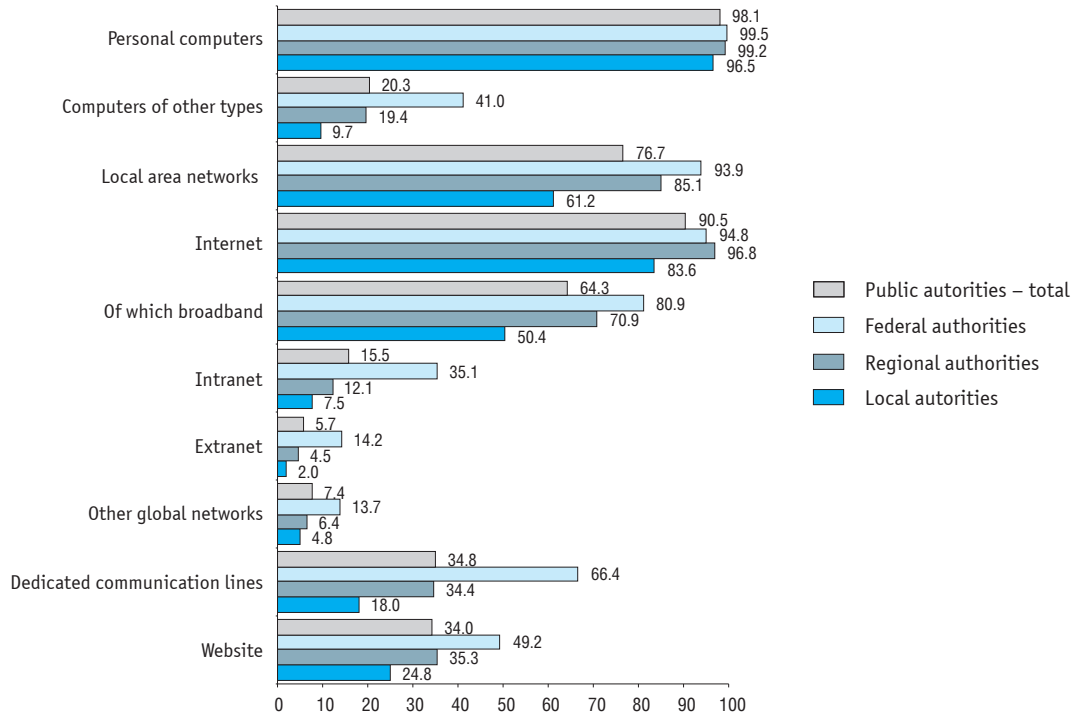
## 3.1.10. ICT USAGE IN THE BUSINESS ENTERPRISE SECTOR\*

*(as a percentage of the total number of enterprises)*

\* Enterprises engaged in economic activities with the following RCEA codes (Rev. 1.1): C, D, E, F, G, H, I, K.

### 3.1.11. ICT USAGE BY PUBLIC AUTHORITIES: 2011\*

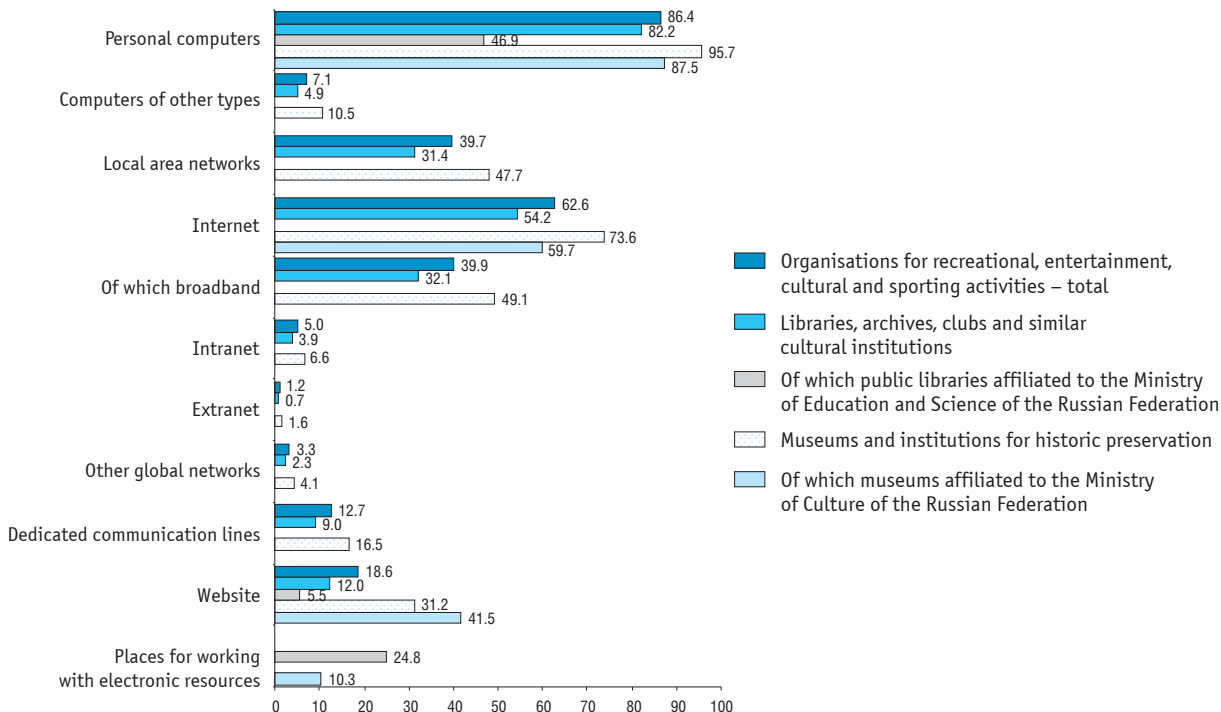
(as a percentage of the total number of enterprises)



\* The data is presented according to the Russian Classification of Government Authorities and Agencies (RCGAA) for the following groups 'Public authorities in the Russian Federation' (code 10000), 'Public authorities in regions of the Russian Federation' (code 20000), 'Local authorities in the Russian Federation' (code 30000).

## 3.1.12. ICT USAGE BY CULTURAL INSTITUTIONS: 2011\*

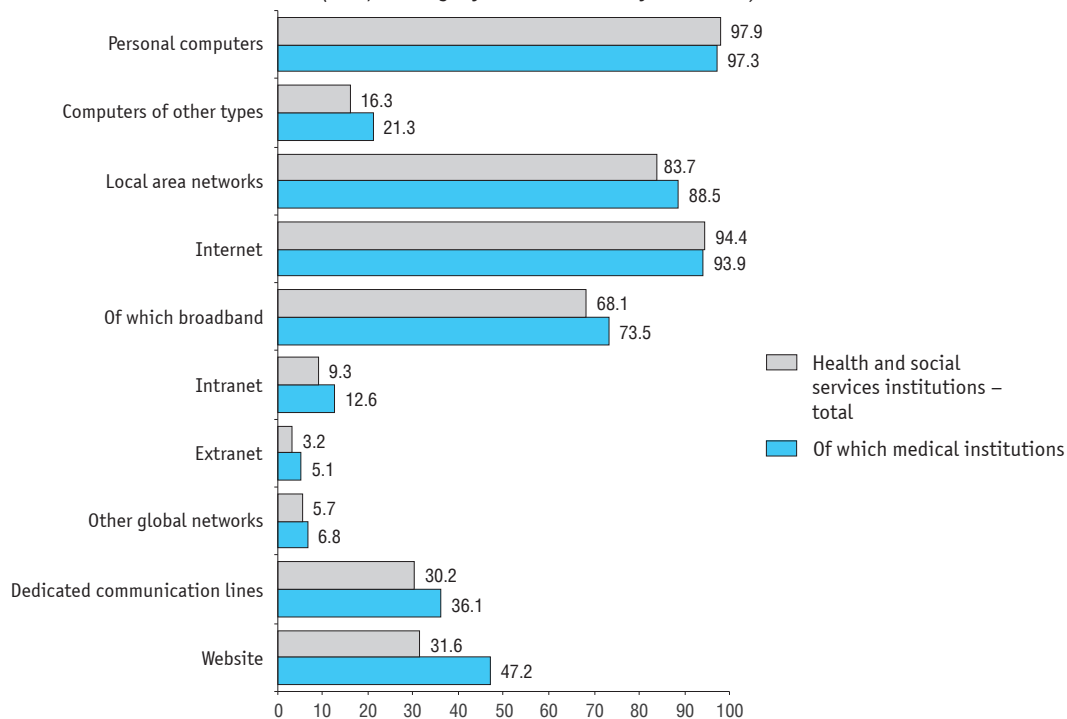
(as a percentage of the total number of institutions)



\* Consolidated data is presented for the types of economic activity with the following RCEA codes: 'Leisure, entertainment, cultural and sporting activity' (code 92); 'Libraries, archives, public clubs' activity' (code 92.51); 'Museums' activity, preservation of historic sites and buildings' (codes 92.52).

### 3.1.13. ICT USAGE BY HEALTH AND SOCIAL SERVICES INSTITUTIONS\*: 2011

(as a percentage of the total number of institutions)



\* The data is presented for types of economic activity with the following RCEA codes (Rev. 1.1.): 'Health and social institutions' (code N); 'Medical institutions' (85.11).  
 Source: estimated by HSE Institute for Statistical Studies and Economics of Knowledge (ISSEK) on the basis of data provided by Federal State Statistics Service and the Ministry of Culture of the Russian Federation.

## 3.1.14. ENTERPRISES USING COMPUTER HARDWARE BY ECONOMIC ACTIVITY

*(as a percentage of the total number of enterprises)*

	Enterprises using							
	personal computers				other types of computers			
	2005	2009	2010	2011	2005	2009	2010	2011
<b>Total</b>	<b>91.1</b>	<b>93.7</b>	<b>93.8</b>	<b>94.1</b>	<b>9.3</b>	<b>16.0</b>	<b>18.2</b>	<b>19.7</b>
Mining and quarrying	93.9	94.4	93.9	94.6	16.5	28.1	31.7	30.0
Manufacture of food products and beverages	91.3	97.0	97.6	97.6	11.3	22.3	25.6	27.5
Manufacture of chemicals and chemical products	96.8	97.8	98.0	98.3	18.6	28.6	31.4	34.5
Manufacture of basic metals	96.0	97.4	97.7	97.3	15.6	25.8	28.8	30.9
Manufacture of machinery and equipment, n.e.c.	91.3	97.5	97.7	97.4	12.2	23.0	26.3	28.8
Manufacture of electrical machinery and apparatus	98.5	98.6	98.8	98.5	18.9	27.4	30.0	30.7
Electricity, gas and water supply	90.9	90.3	90.5	91.4	10.7	16.9	19.4	20.7
Construction	93.2	96.5	96.6	96.0	6.2	15.5	18.4	20.7
Wholesale and retail trade	86.0	92.5	93.1	93.9	6.7	17.3	22.4	25.5
Transport	91.1	94.3	94.5	93.6	9.0	18.4	21.6	22.9
Communications	99.6	98.7	97.8	98.9	34.2	47.1	50.8	52.3
Financial intermediation	96.0	96.0	96.5	97.1	34.4	43.0	45.7	45.5
Research and development	96.3	98.3	97.5	97.6	19.2	28.5	31.3	31.3
Public administration; compulsory social security	93.3	98.1	98.3	98.3	8.5	15.3	16.9	17.7
Higher education	98.1	98.5	98.8	98.8	22.0	31.7	34.0	36.5
Health and social work	95.3	98.1	98.0	97.9	4.7	11.1	13.7	16.3
Other activities	86.6	87.1	87.3	88.0	6.8	11.1	12.1	13.5

### 3.1.15. ENTERPRISES USING LOCAL AREA NETWORKS BY ECONOMIC ACTIVITY

(as a percentage of the total number of enterprises)

	2005	2009	2010	2011
<b>Total</b>	<b>52.4</b>	<b>60.5</b>	<b>68.4</b>	<b>71.3</b>
Mining and quarrying	69.8	76.9	82.2	85.1
Manufacture of food products and beverages	63.6	77.8	85.9	86.9
Manufacture of chemicals and chemical products	82.8	83.8	89.0	91.6
Manufacture of basic metals	75.7	80.4	86.5	88.1
Manufacture of machinery and equipment, n.e.c.	67.2	80.2	85.9	89.0
Manufacture of electrical machinery and apparatus	83.6	86.7	90.4	90.4
Electricity, gas and water supply	55.8	58.1	64.0	67.3
Construction	58.6	70.6	79.6	82.7
Wholesale and retail trade	47.9	60.7	72.6	75.9
Transport	59.8	69.7	77.9	79.2
Communications	85.4	87.4	90.5	92.6
Financial intermediation	83.7	84.3	87.8	88.6
Research and development	76.1	81.0	83.9	84.9
Public administration; compulsory social security	44.3	58.2	67.6	71.0
Higher education	85.2	87.8	91.3	92.9
Health and social work	51.4	70.4	80.4	83.7
Other activities	47.0	47.6	54.3	56.6

## 3.1.16. ENTERPRISES USING GLOBAL INFORMATION NETWORKS BY ECONOMIC ACTIVITY

*(as a percentage of the total number of enterprises)*

	Enterprises using							
	global networks				Of which			
	Internet							
	2005	2009	2010	2011	2005	2009	2010	2011
<b>Total</b>	<b>54.3</b>	<b>79.3</b>	<b>83.4</b>	<b>85.6</b>	<b>53.3</b>	<b>78.3</b>	<b>82.4</b>	<b>84.8</b>
Mining and quarrying	74.1	89.5	91.0	91.8	73.6	88.7	90.4	91.2
Manufacture of food products and beverages	66.2	91.7	94.0	94.6	66.1	91.5	93.8	94.4
Manufacture of chemicals and chemical products	88.1	95.4	96.4	97.0	88.1	95.4	96.4	97.0
Manufacture of basic metals	78.1	94.5	94.9	95.2	78.0	94.4	94.6	94.8
Manufacture of machinery and equipment, n.e.c.	71.8	94.3	95.0	95.3	71.6	94.1	95.0	95.1
Manufacture of electrical machinery and apparatus	86.9	96.2	96.3	96.0	86.9	96.2	96.3	96.0
Electricity, gas and water supply	53.3	73.3	77.4	82.4	53.2	73.2	77.1	82.0
Construction	58.8	90.1	92.2	92.5	58.1	89.5	91.5	91.8
Wholesale and retail trade	55.6	84.2	88.1	89.0	55.2	83.7	87.5	88.6
Transport	56.8	84.9	88.0	87.7	52.4	78.1	80.3	79.9
Communications	94.3	95.7	95.4	96.2	94.0	93.8	93.8	94.7
Financial intermediation	85.1	92.5	93.7	94.5	83.3	91.9	93.5	93.9
Research and development	85.0	94.3	94.6	94.7	85.0	94.2	94.5	94.7
Public administration; compulsory social security	42.8	77.3	84.9	88.6	41.0	75.6	83.2	87.6
Higher education	91.1	96.2	97.2	97.6	91.0	96.2	97.1	97.6
Health and social work	48.4	89.9	93.2	94.5	47.8	89.5	93.0	94.4
Other activities	52.2	68.9	72.2	74.5	51.9	68.5	71.8	74.2



(continued)

	Of which								
	Intranet			Extranet			other global networks		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
<b>Total</b>	<b>11.8</b>	<b>13.1</b>	<b>16.1</b>	<b>4.5</b>	<b>5.3</b>	<b>6.1</b>	<b>6.2</b>	<b>6.3</b>	<b>6.9</b>
Mining and quarrying	24.0	25.9	28.0	10.4	12.7	13.9	9.3	9.6	10.7
Manufacture of food products and beverages	15.2	16.0	19.5	6.9	8.0	8.9	6.5	6.6	7.5
Manufacture of chemicals and chemical products	26.2	27.0	28.1	10.7	14.2	14.0	9.4	9.1	9.7
Manufacture of basic metals	20.5	23.0	25.7	7.6	8.9	10.7	7.4	8.2	9.0
Manufacture of machinery and equipment, n.e.c.	18.6	19.5	23.2	7.0	7.9	8.9	6.4	7.2	8.1
Manufacture of electrical machinery and apparatus	20.3	21.4	25.4	6.7	8.4	10.7	6.4	7.1	7.9
Electricity, gas and water supply	12.6	15.0	17.2	5.7	7.1	8.1	5.7	5.1	6.1
Construction	10.1	11.7	15.9	3.9	5.0	6.4	5.9	5.7	7.2
Wholesale and retail trade	15.3	18.1	23.6	7.1	8.9	9.0	6.0	8.8	8.5
Transport	21.0	23.6	27.3	5.5	6.3	7.3	8.3	8.7	8.0
Communications	44.5	46.7	50.2	22.9	24.6	27.0	19.6	18.9	19.7
Financial intermediation	48.8	51.1	51.2	21.0	23.2	22.8	21.0	20.1	19.5
Research and development	24.5	24.5	26.3	8.3	8.3	9.1	8.2	7.8	8.7
Public administration; compulsory social security	9.2	10.5	13.1	2.8	3.6	4.3	6.3	6.1	6.5
Higher education	37.4	37.1	40.4	16.9	17.3	18.5	13.0	12.4	14.3
Health and social work	4.5	5.4	9.3	1.4	2.1	3.2	4.7	4.7	5.7
Other activities	6.9	7.4	9.7	2.7	3.0	3.4	3.8	3.8	4.7

## 3.1.17. ENTERPRISES BY TYPE OF INTERNET CONNECTION AND ECONOMIC ACTIVITY

*(as a percentage of the total number of enterprises)*

	Dial-up modem connection		ISDN-connection		ADSL line		Other cable connections		Wireless connection		Of which with mobile connection speed 256 Kbps and above	
	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011
<b>Total</b>	<b>38.7</b>	<b>36.7</b>	<b>5.4</b>	<b>6.1</b>	<b>35.4</b>	<b>34.3</b>	<b>30.1</b>	<b>32.6</b>	<b>16.0</b>	<b>17.4</b>	<b>9.8</b>	<b>10.9</b>
Mining and quarrying	28.1	25.0	5.5	5.8	36.0	36.5	41.5	44.4	40.2	43.2	22.4	26.4
Manufacture of food products and beverages	37.2	31.5	6.8	7.8	45.6	42.1	35.7	40.8	24.6	25.8	15.0	15.7
Manufacture of chemicals and chemical products	29.2	24.1	7.5	6.0	33.5	35.0	56.1	62.4	32.9	31.5	19.3	22.5
Manufacture of basic metals	30.5	24.1	6.0	7.0	37.5	36.9	47.3	51.1	28.5	29.7	16.3	18.3
Manufacture of machinery and equipment, n.e.c.	33.3	27.6	5.6	6.1	38.1	36.0	47.9	53.4	23.7	27.5	14.2	16.9
Manufacture of electrical machinery and apparatus	32.3	25.3	5.9	5.8	38.3	37.1	56.0	58.7	24.3	25.7	15.4	17.3
Electricity, gas and water supply	35.7	35.0	5.3	5.2	36.6	34.7	27.5	29.9	19.3	21.8	13.7	15.3
Construction	37.4	32.4	6.6	7.1	36.8	33.8	36.9	39.5	25.7	27.6	16.7	18.6
Wholesale and retail trade	32.3	32.0	7.4	10.6	33.7	35.7	44.4	47.5	25.5	26.9	15.1	18.8
Transport	32.7	29.6	4.8	5.3	32.6	30.3	33.6	34.7	21.5	23.4	13.0	14.4
Communications	29.8	25.1	8.5	9.0	38.2	38.7	72.7	72.5	34.6	38.1	23.8	26.1
Financial intermediation	23.9	22.5	8.2	9.2	49.5	48.2	68.2	69.5	24.9	26.5	16.8	19.6
Research and development	31.7	27.0	4.8	5.3	29.3	30.4	62.6	61.7	20.9	21.1	13.0	13.1
Public administration; compulsory social security	45.3	44.4	4.7	5.3	37.6	36.0	23.0	26.2	11.2	13.2	6.8	7.7
Higher education	32.2	26.2	7.5	6.7	43.3	39.6	60.5	63.3	28.7	29.0	15.1	15.9
Health and social work	53.9	48.4	6.1	6.8	46.6	45.3	20.5	24.3	13.1	13.1	7.7	7.4
Other activities	34.0	33.4	4.7	4.9	27.4	26.6	24.5	25.3	12.6	13.3	7.7	8.1

### 3.1.18. ENTERPRISES WITH A WEBSITE BY ECONOMIC ACTIVITY

(as a percentage of the total number of enterprises)

	2005	2009	2010	2011
<b>Total</b>	<b>14.8</b>	<b>24.1</b>	<b>28.5</b>	<b>33.0</b>
Mining and quarrying	16.4	24.8	27.9	30.0
Manufacture of food products and beverages	22.2	38.4	42.7	44.6
Manufacture of chemicals and chemical products	48.2	60.5	64.2	66.5
Manufacture of basic metals	39.8	58.5	61.6	61.7
Manufacture of machinery and equipment, n.e.c.	35.7	55.8	60.0	62.5
Manufacture of electrical machinery and apparatus	47.9	62.9	67.3	69.3
Electricity, gas and water supply	10.2	17.2	24.0	29.2
Construction	13.7	27.5	31.2	34.3
Wholesale and retail trade	14.2	29.1	35.7	35.5
Transport	10.8	19.3	23.2	24.4
Communications	42.9	60.2	62.5	65.7
Financial intermediation	38.8	52.2	54.9	57.2
Research and development	41.8	60.5	63.7	64.8
Public administration; compulsory social security	8.2	19.2	24.6	30.5
Higher education	50.4	74.3	77.2	79.1
Health and social work	7.4	12.8	18.1	31.6
Other activities	14.3	20.1	23.1	25.1

## 3.1.19. ENTERPRISES HAVING DEDICATED COMMUNICATION LINES BY ECONOMIC ACTIVITY

*(as a percentage of the total number of enterprises)*

	2005	2009	2010	2011
<b>Total</b>	<b>19.0</b>	<b>30.8</b>	<b>32.7</b>	<b>33.3</b>
Mining and quarrying	32.0	45.9	46.6	48.5
Manufacture of food products and beverages	23.8	42.2	43.2	43.4
Manufacture of chemicals and chemical products	44.6	56.5	56.3	53.1
Manufacture of basic metals	34.3	47.5	48.8	49.6
Manufacture of machinery and equipment, n.e.c.	27.8	46.0	47.2	46.9
Manufacture of electrical machinery and apparatus	37.4	50.6	52.1	51.4
Electricity, gas and water supply	19.8	27.9	29.7	30.1
Construction	14.9	32.3	34.8	35.9
Wholesale and retail trade	18.2	38.7	43.1	44.8
Transport	21.3	34.8	36.9	36.8
Communications	62.2	74.2	73.4	74.2
Financial intermediation	61.2	72.1	73.5	72.4
Research and development	36.8	48.8	50.7	49.3
Public administration; compulsory social security	15.8	28.7	31.0	31.5
Higher education	50.6	61.6	62.9	61.2
Health and social work	6.7	24.2	27.5	30.2
Other activities	15.0	22.1	22.6	22.3

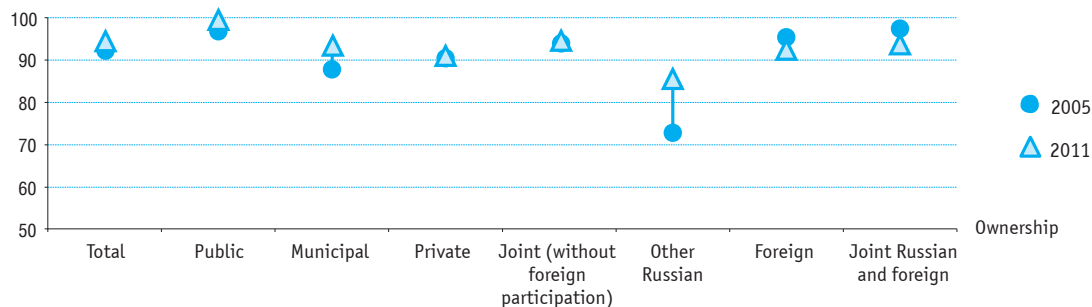
### 3.1.20. ENTERPRISES USING COMPUTING MACHINERY BY OWNERSHIP

(as a percentage of the total number of enterprises)

	Enterprises using							
	personal computers				other types of computers			
	2005	2009	2010	2011	2005	2009	2010	2011
<b>Total</b>	<b>91.1</b>	<b>93.7</b>	<b>93.8</b>	<b>94.1</b>	<b>9.3</b>	<b>16.0</b>	<b>18.2</b>	<b>19.7</b>
Ownership:								
Russian	90.9	93.8	94.0	94.2	8.8	15.4	17.3	18.8
public	96.8	99.0	99.1	99.2	12.5	21.8	24.5	25.9
municipal	88.0	92.3	92.7	93.2	3.3	6.8	8.0	9.4
private	90.1	90.5	90.3	90.5	11.1	21.5	24.1	26.1
joint	94.0	94.8	94.6	94.7	18.8	26.6	30.5	31.8
other	72.3	82.3	84.2	85.8	1.8	5.2	7.4	9.2
foreign	93.8	90.8	91.2	91.8	22.2	26.8	32.0	34.9
joint Russian and foreign	97.1	93.0	92.9	93.4	27.8	30.3	32.2	31.3

### 3.1.21. TRENDS IN THE SHARE OF ENTERPRISES USING PERSONAL COMPUTERS BY OWNERSHIP

(as a percentage of the total number of enterprises)

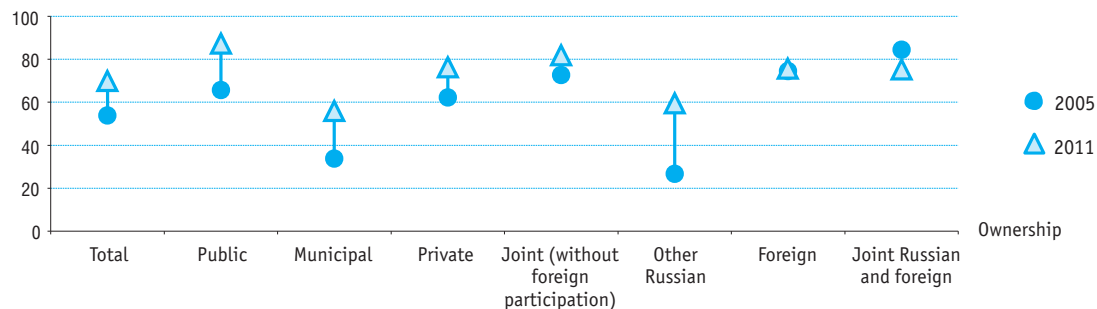


## 3.1.22. ENTERPRISES USING LOCAL AREA NETWORKS BY OWNERSHIP

*(as a percentage of the total number of enterprises)*

	2005	2009	2010	2011
<b>Total</b>	<b>52.4</b>	<b>60.5</b>	<b>68.4</b>	<b>71.3</b>
Ownership:				
Russian	51.6	60.2	68.1	70.9
public	66.7	76.9	85.3	87.7
municipal	32.1	43.0	52.3	56.4
private	61.6	68.9	75.0	76.3
joint	70.9	75.2	80.7	82.0
other	27.4	42.0	54.3	58.0
foreign	73.5	63.6	72.1	75.8
joint Russian and foreign	82.7	68.1	75.0	77.0

## 3.1.23. TRENDS IN THE SHARE OF ENTERPRISES USING LOCAL AREA NETWORKS BY OWNERSHIP

*(as a percentage of the total number of enterprises)*

### 3.1.24. ENTERPRISES USING GLOBAL INFORMATION NETWORKS BY OWNERSHIP

(as a percentage of the total number of enterprises)

	Enterprises using							
	global networks				Of which			
					Internet			
	2005	2009	2010	2011	2005	2009	2010	2011
<b>Total</b>	<b>54.3</b>	<b>79.3</b>	<b>83.4</b>	<b>85.6</b>	<b>53.3</b>	<b>78.3</b>	<b>82.4</b>	<b>84.8</b>
Ownership:								
Russian	53.3	78.9	83.1	85.5	52.3	77.8	82.0	84.6
public	66.8	90.8	94.4	95.8	64.2	88.8	92.4	94.1
municipal	32.9	67.3	74.1	78.4	32.4	66.4	73.2	77.8
private	66.1	83.9	85.1	85.6	65.9	83.6	84.8	85.3
joint	74.0	88.3	90.0	90.1	73.1	87.9	89.5	88.9
other	30.6	68.6	73.9	76.5	30.5	68.5	73.9	76.5
foreign	85.1	85.0	87.1	87.8	85.0	84.9	86.6	87.5
joint Russian and foreign	89.6	88.0	89.5	89.8	89.3	87.8	89.4	89.6

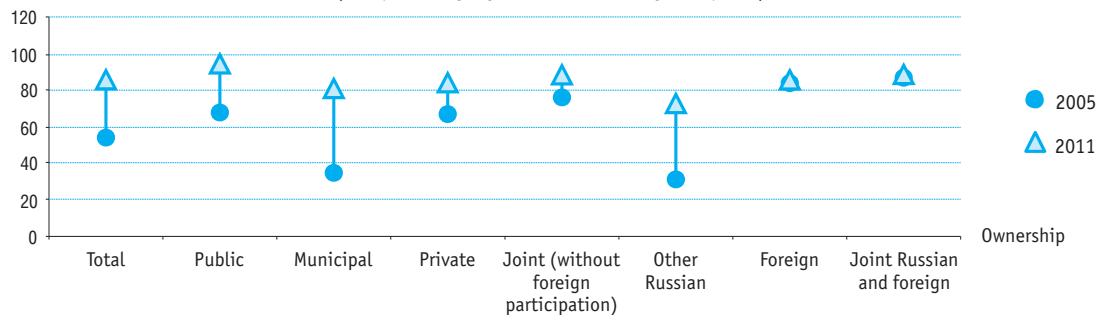
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	Of which								
	Internet			Extranet			other global networks		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
<b>Total</b>	<b>11.8</b>	<b>13.1</b>	<b>16.1</b>	<b>4.5</b>	<b>5.3</b>	<b>6.1</b>	<b>6.2</b>	<b>6.3</b>	<b>6.9</b>
Ownership:									
Russian	10.9	12.0	14.9	4.0	4.8	5.4	5.9	5.9	6.5
public	14.5	16.5	20.2	4.7	5.9	6.9	7.6	7.4	8.1
municipal	3.5	3.9	6.2	1.0	1.2	1.7	3.4	3.4	4.0
private	17.8	19.3	22.2	7.8	9.0	9.6	7.5	7.8	8.6
joint	26.0	29.0	32.6	10.0	11.2	13.0	10.6	10.9	11.2
other	2.2	3.8	7.1	0.8	2.3	2.7	2.1	2.5	3.7
foreign	29.9	30.3	36.7	14.1	15.0	15.4	11.7	14.0	13.4
joint Russian and foreign	30.1	31.0	30.8	14.4	15.3	16.1	11.9	11.6	12.5



### 3.1.25. TRENDS IN THE SHARE OF ENTERPRISES USING GLOBAL INFORMATION NETWORKS BY OWNERSHIP

(as a percentage of the total number of enterprises)



### 3.1.26. ENTERPRISES BY TYPE OF INTERNET CONNECTION AND OWNERSHIP

(as a percentage of the total number of enterprises)

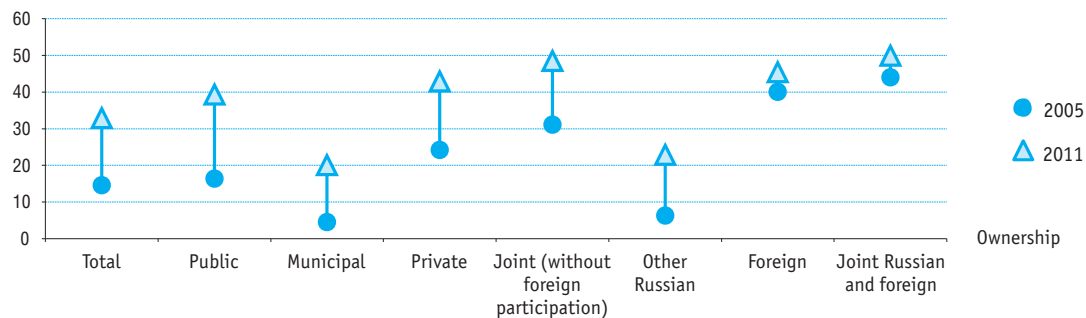
	Dial-up modem connection		ISDN-connection		ADSL		Other cable connections		Wireless connection		Of which with mobile connection speed 256 Kbps and above	
	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011
<b>Total</b>	<b>38.7</b>	<b>36.7</b>	<b>5.4</b>	<b>6.1</b>	<b>35.4</b>	<b>34.3</b>	<b>30.1</b>	<b>32.6</b>	<b>16.0</b>	<b>17.4</b>	<b>9.8</b>	<b>10.9</b>
Ownership:												
Russian	39.8	37.6	5.3	5.8	35.7	34.5	28.5	31.0	15.2	16.5	9.4	10.2
public	43.3	39.5	5.7	6.3	43.7	42.4	34.7	37.8	16.1	18.2	9.7	11.1
municipal	44.1	44.1	4.5	4.9	30.9	29.8	14.1	16.2	9.2	10.1	5.8	5.8
private	28.4	24.7	6.2	6.6	34.4	32.8	45.0	47.3	23.7	24.6	14.5	15.8
joint	31.7	27.5	6.4	7.3	42.4	41.8	49.2	50.5	25.3	26.6	17.2	18.5
other	40.7	36.0	3.4	4.3	26.3	25.6	19.6	23.7	12.6	15.2	7.8	10.0
foreign	20.8	24.3	8.1	13.0	25.8	31.2	56.1	57.6	31.6	33.7	17.3	24.2
joint Russian and foreign	24.1	22.4	6.6	6.9	34.0	31.5	54.8	56.4	28.6	28.6	18.1	19.3

## 3.1.27. ENTERPRISES WITH A WEBSITE BY OWNERSHIP

*(as a percentage of the total number of enterprises)*

	2005	2009	2010	2011
<b>Total</b>	<b>14.8</b>	<b>24.1</b>	<b>28.5</b>	<b>33.0</b>
Ownership:				
Russian	14.0	23.0	27.3	32.1
public	15.8	27.1	32.4	38.8
municipal	4.3	10.2	14.5	20.7
private	23.4	38.2	41.9	43.2
joint	30.5	43.6	48.1	48.6
other	6.7	15.2	20.5	23.1
foreign	40.1	43.3	47.6	44.5
joint Russian and foreign	43.6	46.2	48.6	49.3

## 3.1.28. TRENDS IN THE SHARE OF ENTERPRISES WITH A WEBSITE BY OWNERSHIP

*(as a percentage of the total number of enterprises)*

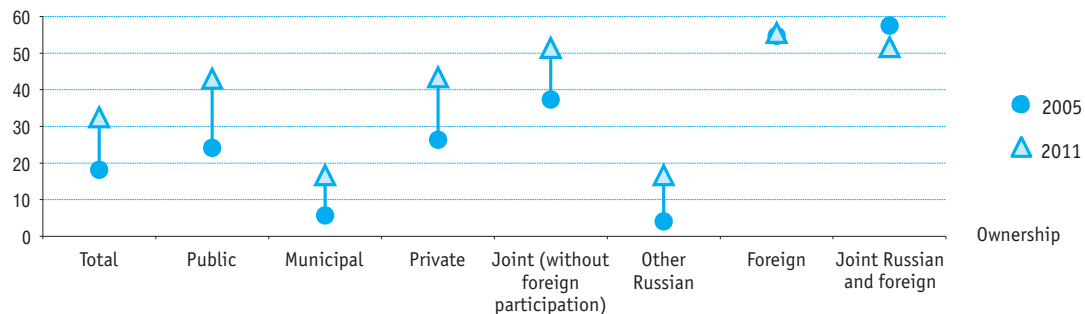
### 3.1.29. ENTERPRISES HAVING DEDICATED COMMUNICATION LINES BY OWNERSHIP

(as a percentage of the total number of enterprises)

	2005	2009	2010	2011
<b>Total</b>	<b>19.0</b>	<b>30.8</b>	<b>32.7</b>	<b>33.3</b>
Ownership:				
Russian	17.9	29.7	31.4	31.9
public	24.1	40.3	43.1	43.8
municipal	5.5	14.4	15.9	16.8
private	26.4	41.8	43.2	43.3
joint	36.9	49.6	52.2	50.8
other	4.1	14.0	16.9	18.4
foreign	53.7	51.7	54.7	54.4
joint Russian and foreign	56.9	52.6	52.9	51.4

### 3.1.30. TRENDS IN THE SHARE OF ENTERPRISES HAVING DEDICATED COMMUNICATION LINES BY OWNERSHIP

(as a percentage of the total number of enterprises)

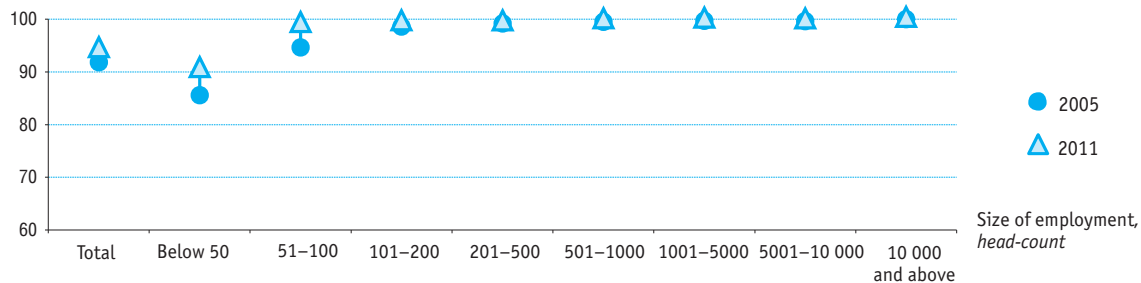


## 3.1.31. ENTERPRISES USING COMPUTING MACHINERY BY SIZE OF EMPLOYMENT

*(as a percentage of the total number of enterprises)*

	Enterprises using							
	personal computers				other types of computers			
	2005	2009	2010	2011	2005	2009	2010	2011
<b>Total</b>	<b>91.1</b>	<b>93.7</b>	<b>93.8</b>	<b>94.1</b>	<b>9.3</b>	<b>16.0</b>	<b>18.2</b>	<b>19.7</b>
Size of employment, <i>head-count</i> :								
below 50	85.3	89.8	90.2	90.7	4.5	9.0	10.5	12.0
51–100	94.9	99.2	99.4	99.4	9.2	18.6	22.3	24.3
101–200	98.3	99.6	99.6	99.6	12.5	24.0	26.9	29.1
201–500	99.2	99.7	99.7	99.8	16.7	29.7	34.1	34.8
501–1000	99.5	99.8	99.8	99.8	24.2	38.7	42.6	43.7
1001–5000	99.7	100	100	100	36.0	50.0	54.5	56.4
5001–10 000	99.6	100	100	100	57.2	68.3	76.3	76.0
10 000 and above	100	100	100	100	78.5	88.6	86.4	93.8

## 3.1.32. TRENDS IN THE SHARE OF ENTERPRISES USING PERSONAL COMPUTERS BY SIZE OF EMPLOYMENT

*(as a percentage of the total number of enterprises)*

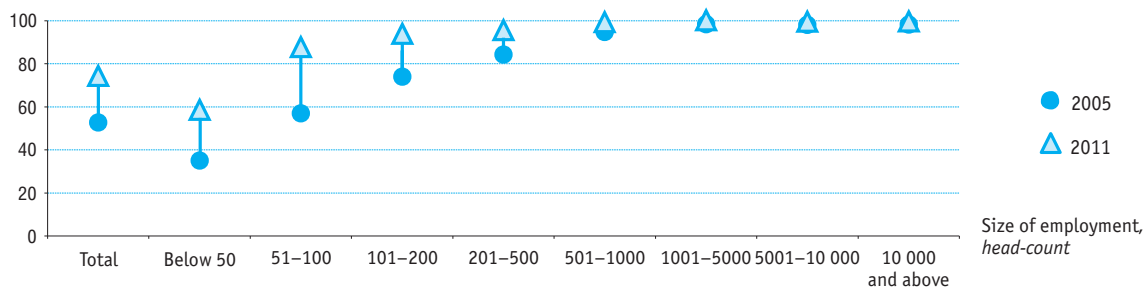
### 3.1.33. ENTERPRISES USING LOCAL AREA NETWORKS BY SIZE OF EMPLOYMENT

(as a percentage of the total number of enterprises)

	2005	2009	2010	2011
<b>Total</b>	<b>52.4</b>	<b>60.5</b>	<b>68.4</b>	<b>71.3</b>
Size of employment, <i>head-count</i> :				
below 50	34.4	44.3	53.8	57.5
51–100	57.3	74.7	84.7	88.0
101–200	72.6	84.3	91.3	93.1
201–500	83.2	90.4	95.5	96.3
501–1000	92.0	95.5	97.9	98.3
1001–5000	96.7	98.3	99.2	99.3
5001–10 000	98.1	99.5	99.1	99.5
10 000 and above	98.3	98.9	98.8	100

### 3.1.34. TRENDS IN THE SHARE OF ENTERPRISES USING LOCAL AREA NETWORKS BY SIZE OF EMPLOYMENT

(as a percentage of the total number of enterprises)



## 3.1.35. ENTERPRISES USING GLOBAL INFORMATION NETWORKS BY SIZE OF EMPLOYMENT

*(as a percentage of the total number of enterprises)*

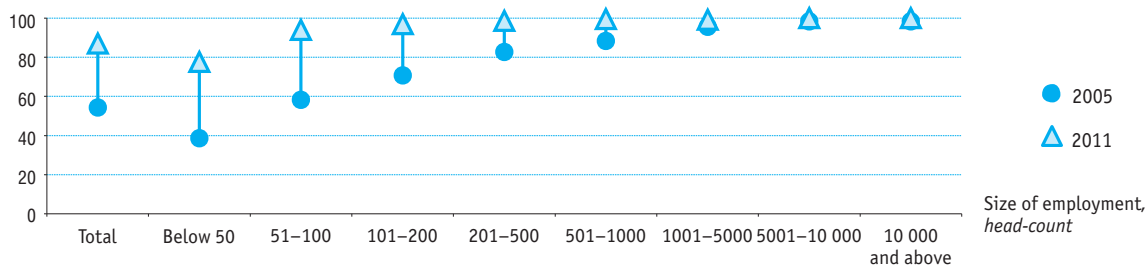
	Enterprises using							
	global networks				Of which			
					Internet			
	2005	2009	2010	2011	2005	2009	2010	2011
<b>Total</b>	<b>54.3</b>	<b>79.3</b>	<b>83.4</b>	<b>85.6</b>	<b>53.3</b>	<b>78.3</b>	<b>82.4</b>	<b>84.8</b>
Size of employment, <i>head-count</i> :								
below 50	38.6	68.1	74.3	77.8	37.6	67.1	73.3	77.2
51–100	58.3	92.7	96.1	97.2	57.7	92.2	95.6	96.7
101–200	71.6	96.6	97.8	98.1	70.7	95.7	97.0	97.2
201–500	81.2	97.7	98.4	98.4	79.8	95.9	96.5	96.5
501–1000	89.5	98.5	98.7	98.7	87.8	96.8	96.6	96.6
1001–5000	95.5	99.3	99.2	99.4	94.1	98.1	98.0	98.3
5001–10 000	98.4	100	100	100	97.7	100	100	100
10 000 and above	98.3	100	100	100	96.7	100	100	100

(continued)

	Of which								
	Intranet			Extranet			other global networks		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
<b>Total</b>	<b>11.8</b>	<b>13.1</b>	<b>16.1</b>	<b>4.5</b>	<b>5.3</b>	<b>6.1</b>	<b>6.2</b>	<b>6.3</b>	<b>6.9</b>
Size of employment, <i>head-count</i> :									
below 50	5.3	6.3	9.0	1.8	2.3	2.7	4.1	4.3	4.6
51–100	13.4	15.4	19.6	5.1	6.2	7.5	7.0	7.1	8.2
101–200	17.9	19.8	23.4	7.0	8.3	9.5	8.1	8.1	9.7
201–500	24.7	27.0	30.1	9.3	11.5	12.5	10.1	10.4	11.2
501–1000	35.1	37.7	41.1	13.4	15.9	17.6	13.1	13.1	13.7
1001–5000	51.4	53.6	56.4	23.3	25.8	28.4	18.8	18.5	19.7
5001–10 000	73.8	80.0	81.0	29.0	30.2	36.2	27.1	26.0	26.2
10 000 and above	85.2	85.2	88.9	42.0	44.4	53.1	38.6	39.5	35.8

### 3.1.36. TRENDS IN THE SHARE OF ENTERPRISES USING GLOBAL INFORMATION NETWORKS BY SIZE OF EMPLOYMENT

(as a percentage of the total number of enterprises)



## 3.1.37. ENTERPRISES BY TYPE OF INTERNET CONNECTION AND SIZE OF EMPLOYMENT

(as a percentage of the total number of enterprises)

	Dial-up modem connection		ISDN-connection		ADSL		Other cable connections		Wireless connection		Of which with mobile connection speed 256 Kbps and above	
	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011
<b>Total</b>	<b>38.7</b>	<b>36.7</b>	<b>5.4</b>	<b>6.1</b>	<b>35.4</b>	<b>34.3</b>	<b>30.1</b>	<b>32.6</b>	<b>16.0</b>	<b>17.4</b>	<b>9.8</b>	<b>10.9</b>
Size of employment, <i>head-count</i> :												
below 50	39.1	38.7	4.5	5.2	29.3	28.5	19.5	21.2	10.6	11.7	6.6	7.0
51–100	43.0	39.5	6.3	6.9	41.2	39.8	37.5	41.4	18.6	19.8	11.1	12.1
101–200	38.5	34.0	6.3	7.1	43.3	42.2	44.3	47.5	22.5	24.4	13.3	15.6
201–500	35.6	29.7	7.0	7.7	47.9	45.6	49.2	54.0	27.5	30.1	16.9	19.6
501–1000	31.5	25.2	7.1	7.4	51.0	49.3	59.7	64.6	33.4	36.1	20.9	24.2
1001–5000	30.5	26.0	9.6	10.5	52.8	50.9	76.2	80.1	41.0	45.2	26.7	32.8
5001–10 000	27.0	30.3	9.3	10.4	47.9	50.2	92.1	91.4	46.5	52.9	32.6	37.1
10 000 and above	37.0	30.9	12.3	23.5	43.2	51.9	93.8	97.5	50.6	56.8	29.6	44.4



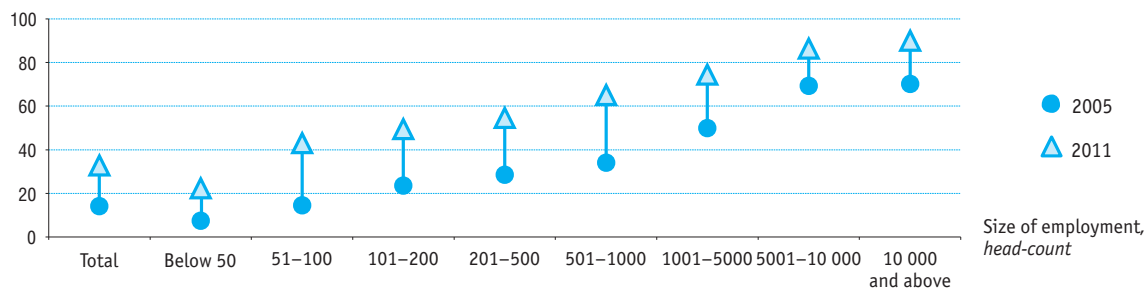
### 3.1.38. ENTERPRISES WITH A WEBSITE BY SIZE OF EMPLOYMENT

(as a percentage of the total number of enterprises)

	2005	2009	2010	2011
<b>Total</b>	<b>14.8</b>	<b>24.1</b>	<b>28.5</b>	<b>33.0</b>
Size of employment, head-count:				
below 50	6.8	13.3	17.5	21.4
51–100	15.6	31.2	36.9	42.3
101–200	22.2	38.7	43.8	48.9
201–500	28.2	43.5	49.4	55.9
501–1000	34.1	50.4	56.2	64.4
1001–5000	50.0	67.5	71.3	75.9
5001–10 000	69.3	85.5	89.3	86.4
10 000 and above	70.2	87.5	86.4	90.1

### 3.1.39. TRENDS IN THE SHARE OF ENTERPRISES WITH A WEBSITE BY SIZE OF EMPLOYMENT

(as a percentage of the total number of enterprises)

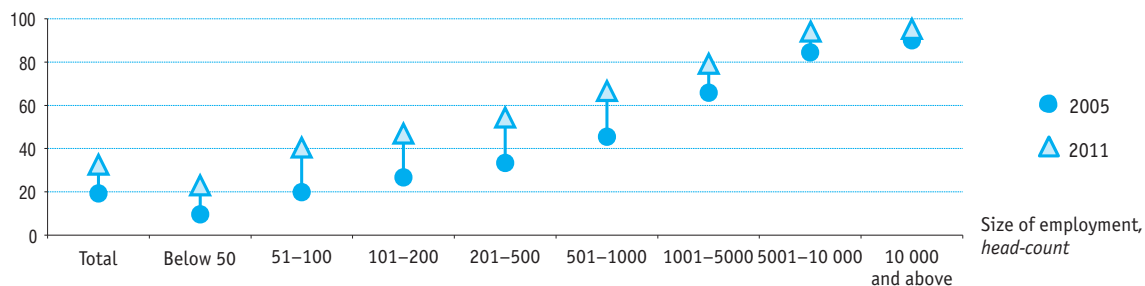


## 3.1.40. ENTERPRISES WITH DEDICATED COMMUNICATION LINES BY SIZE OF EMPLOYMENT

*(as a percentage of the total number of enterprises)*

	2005	2009	2010	2011
<b>Total</b>	<b>19.0</b>	<b>30.8</b>	<b>32.7</b>	<b>33.3</b>
<i>Size of employment, head-count:</i>				
below 50	9.6	19.5	21.5	21.9
51–100	19.9	37.5	40.4	42.0
101–200	26.7	45.4	47.3	48.1
201–500	33.4	52.0	53.9	55.4
501–1000	45.5	62.3	64.7	66.0
1001–5000	64.5	77.2	79.3	78.6
5001–10 000	84.4	91.9	91.6	94.6
10 000 and above	90.1	94.3	96.3	96.3

## 3.1.41. TRENDS IN THE SHARE OF ENTERPRISES WITH DEDICATED COMMUNICATION LINES BY SIZE OF EMPLOYMENT

*(as a percentage of the total number of enterprises)*

## 3.2. Personal Computers and Software

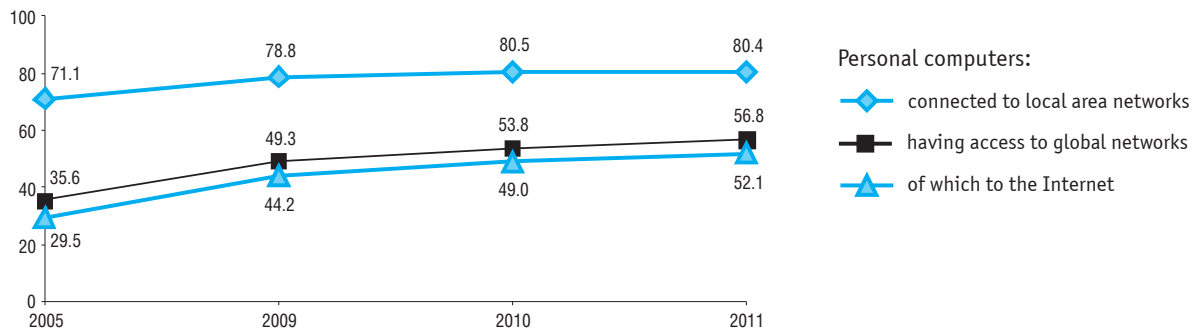
### 3.2.1. PERSONAL COMPUTERS IN ENTERPRISES

(thousand)

	2005	2009	2010	2011
<b>Total</b>	<b>5709.6</b>	<b>8743.7</b>	<b>9288.1</b>	<b>9972.2</b>
Of which:				
within local area networks	4057.6	6893.6	7480.2	8018.3
having access to global networks	2032.0	4313.5	4997.1	5663.2
of which to the Internet	1686.1	3866.4	4553.3	5198.3
acquired in the reference year	978.6	890.6	999.9	1251.6
laptops and portable personal computers	...	...	...	895.5

### 3.2.2. PERSONAL COMPUTERS IN NETWORKS

(as a percentage of the total number of computers)



## 3.2.3. PERSONAL COMPUTERS CONNECTED TO LOCAL AREA NETWORKS IN ENTERPRISES BY ECONOMIC ACTIVITY

*(as a percentage of the total number of computers)*

	2005	2009	2010	2011
<b>Total</b>	<b>71.1</b>	<b>78.8</b>	<b>80.5</b>	<b>80.4</b>
Mining and quarrying	81.9	86.8	87.3	89.8
Manufacture of food products and beverages	80.5	89.4	89.8	88.9
Manufacture of chemicals and chemical products	75.7	82.8	84.9	84.0
Manufacture of basic metals	80.8	86.8	88.6	86.5
Manufacture of machinery and equipment, n.e.c.	76.2	85.2	87.2	88.0
Manufacture of electrical machinery and apparatus	65.7	80.0	80.9	83.4
Electricity, gas and water supply	76.6	86.0	87.5	88.8
Construction	64.1	76.3	79.5	79.0
Wholesale and retail trade	74.0	85.3	87.6	85.2
Transport	76.7	83.4	85.3	85.8
Communications	77.1	84.7	85.6	86.9
Financial intermediation	87.4	89.6	91.1	88.5
Research and development	64.3	69.2	70.7	77.8
Public administration; compulsory social security	65.8	72.9	74.8	75.3
Higher education	66.9	77.1	78.7	79.2
Health and social work	42.4	55.6	59.4	62.8
Other activities	68.7	78.9	80.0	75.7

### 3.2.4. PERSONAL COMPUTERS WITH ACCESS TO GLOBAL INFORMATION NETWORKS IN ENTERPRISES BY ECONOMIC ACTIVITY

(as a percentage of the total number of computers)

	Personal computers							
	having access to global networks				of which to the Internet			
	2005	2009	2010	2011	2005	2009	2010	2011
<b>Total</b>	<b>35.6</b>	<b>49.3</b>	<b>53.8</b>	<b>56.8</b>	<b>29.5</b>	<b>44.2</b>	<b>49.0</b>	<b>52.1</b>
Mining and quarrying	47.1	52.1	56.9	60.2	27.9	36.4	42.7	46.2
Manufacture of food products and beverages	37.4	61.8	64.6	69.2	35.2	57.8	62.6	66.8
Manufacture of chemicals and chemical products	37.8	51.8	55.0	59.4	36.3	49.0	51.7	56.7
Manufacture of basic metals	36.8	49.1	50.4	52.6	31.2	44.2	46.5	49.7
Manufacture of machinery and equipment, n.e.c.	30.3	46.6	54.4	58.3	27.8	43.9	51.3	54.9
Manufacture of electrical machinery and apparatus	26.0	43.7	45.1	47.7	24.4	40.8	42.4	45.8
Electricity, gas and water supply	37.2	52.2	59.1	63.9	31.5	47.5	54.0	60.0
Construction	32.9	59.7	68.1	71.4	30.5	57.4	66.4	69.3
Wholesale and retail trade	47.6	63.7	65.7	74.8	43.7	60.3	62.2	66.7
Transport	46.0	52.0	55.2	53.3	19.0	30.4	36.8	37.5
Communications	52.9	70.4	76.3	77.2	49.3	66.8	73.8	75.0
Financial intermediation	42.1	50.2	55.1	52.0	28.0	38.5	43.5	41.4
Research and development	36.6	42.2	43.7	56.0	33.0	41.5	43.4	53.4
Public administration; compulsory social security	18.4	32.1	38.6	42.9	14.5	28.2	34.4	39.2
Higher education	58.0	70.8	71.7	74.6	56.9	70.3	71.4	74.1
Health and social work	10.4	27.6	34.2	41.2	9.8	26.3	32.7	39.6
Other activities	31.1	49.2	53.9	53.1	28.6	46.2	51.3	51.4

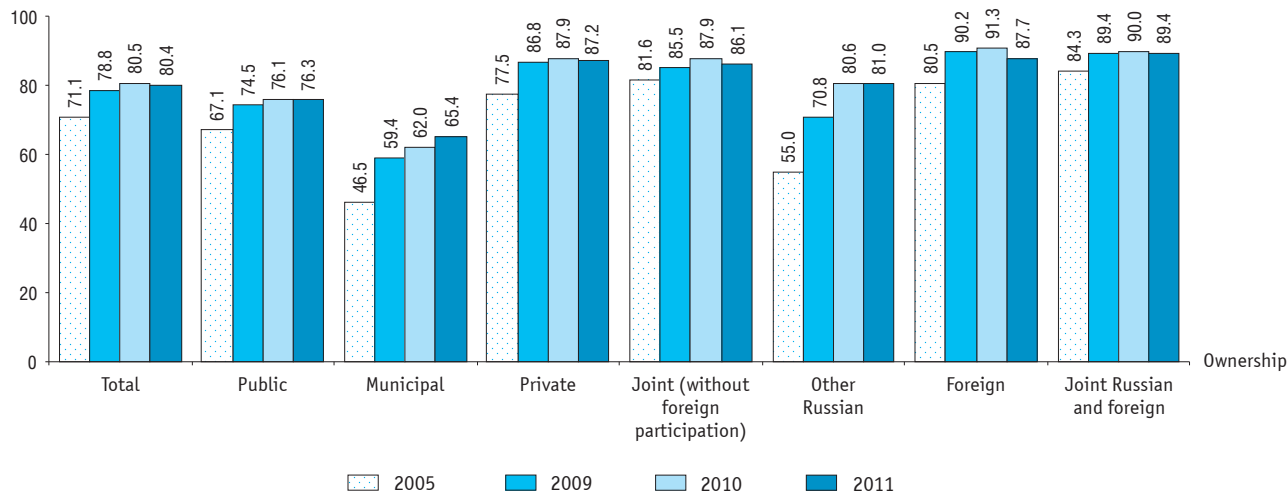
## 3.2.5. ACQUISITION OF PERSONAL COMPUTERS BY ENTERPRISES BY ECONOMIC ACTIVITY

*(as a percentage of the total number of computers)*

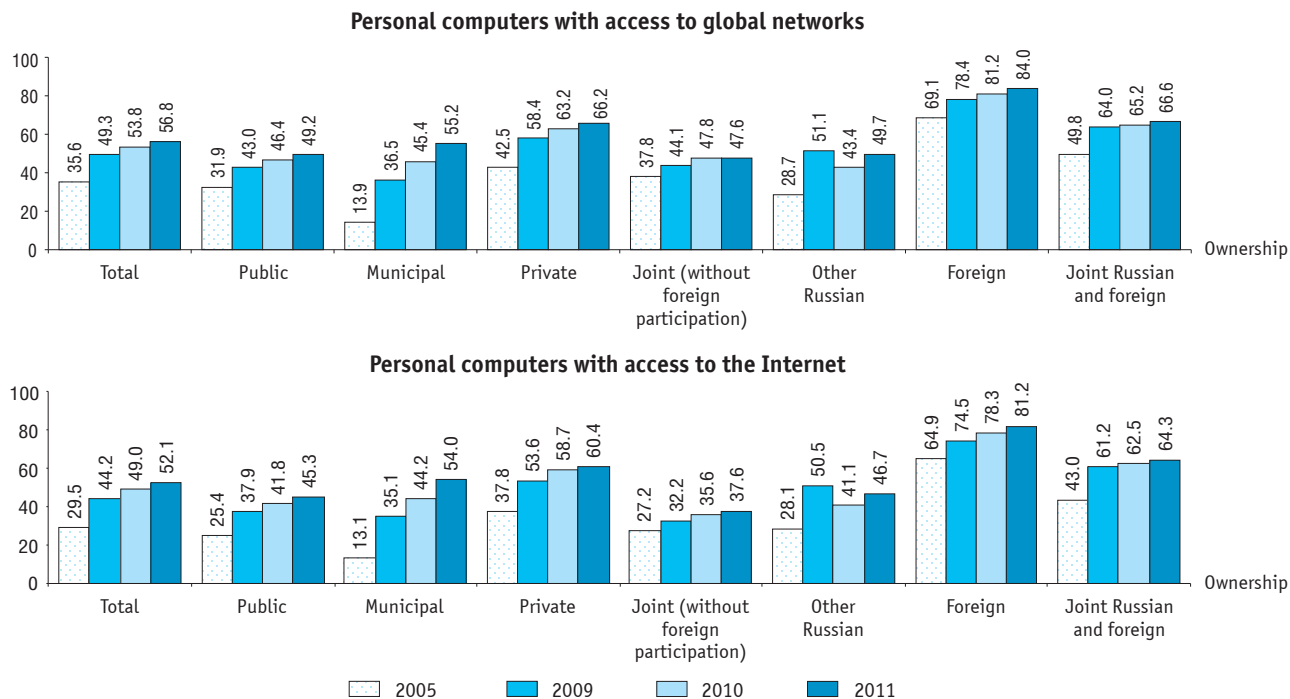
	Acquired in the reference year			
	2005	2009	2010	2011
<b>Total</b>	<b>17.1</b>	<b>10.2</b>	<b>10.8</b>	<b>12.6</b>
Mining and quarrying	17.4	7.6	10.9	12.0
Manufacture of food products and beverages	15.9	10.4	11.0	11.0
Manufacture of chemicals and chemical products	17.0	6.7	8.5	11.9
Manufacture of basic metals	16.1	5.3	8.2	11.6
Manufacture of machinery and equipment, n.e.c.	16.0	6.8	11.1	11.3
Manufacture of electrical machinery and apparatus	13.1	8.7	11.2	11.3
Electricity, gas and water supply	16.4	11.5	11.9	11.5
Construction	18.0	10.8	13.4	14.2
Wholesale and retail trade	21.1	12.7	13.1	14.8
Transport	16.6	9.4	9.9	12.2
Communications	17.9	9.6	10.7	10.2
Financial intermediation	19.9	9.8	12.2	15.4
Research and development	12.7	11.0	11.1	13.2
Public administration; compulsory social security	17.5	11.1	10.2	11.2
Higher education	13.7	9.1	8.0	10.9
Health and social work	21.2	10.9	10.8	13.1
Other activities	16.4	10.2	11.0	13.7

### 3.2.6. PERSONAL COMPUTERS CONNECTED TO LOCAL AREA NETWORKS IN ENTERPRISES BY OWNERSHIP

(as a percentage of the total number of computers)



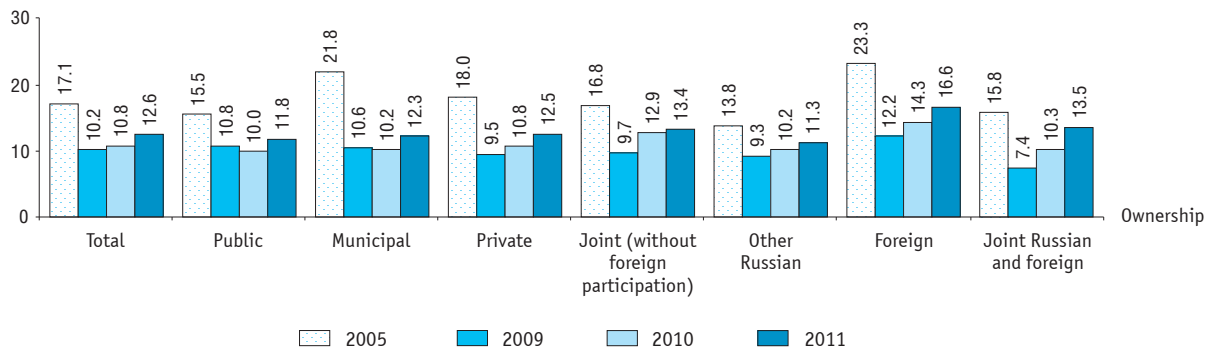
## 3.2.7. PERSONAL COMPUTERS WITH ACCESS TO GLOBAL INFORMATION NETWORKS IN ENTERPRISES BY OWNERSHIP

*(as a percentage of the total number of computers)*



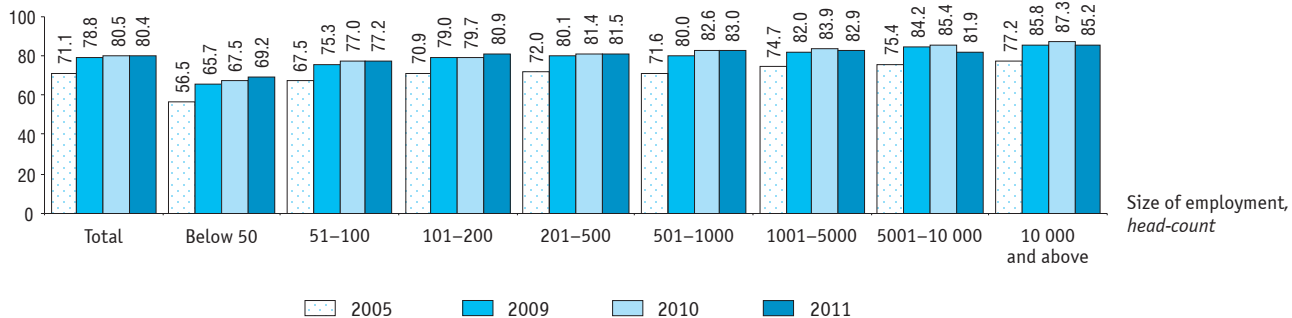
### 3.2.8. ACQUISITION OF PERSONAL COMPUTERS BY ENTERPRISES BY OWNERSHIP

(as a percentage of the total number of computers)



### 3.2.9. PERSONAL COMPUTERS CONNECTED TO LOCAL AREA NETWORKS IN ENTERPRISES BY SIZE OF EMPLOYMENT

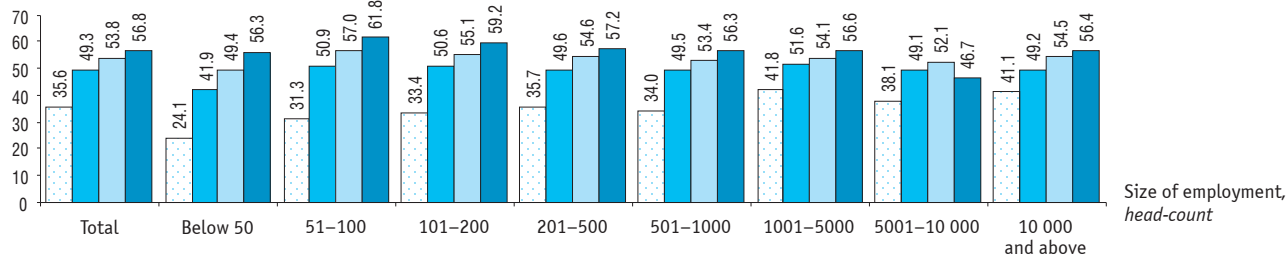
(as a percentage of the total number of computers)



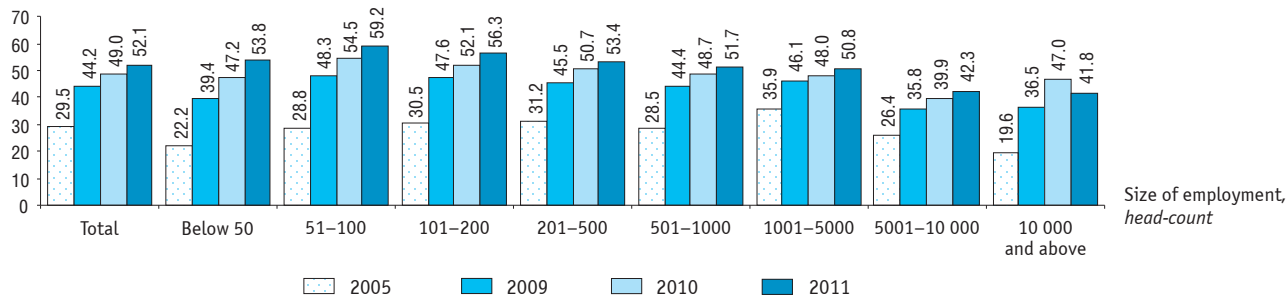
### 3.2.10. PERSONAL COMPUTERS WITH ACCESS TO GLOBAL INFORMATION NETWORKS IN ENTERPRISES BY SIZE OF EMPLOYMENT

(as a percentage of the total number of computers)

Personal computers with access to global networks

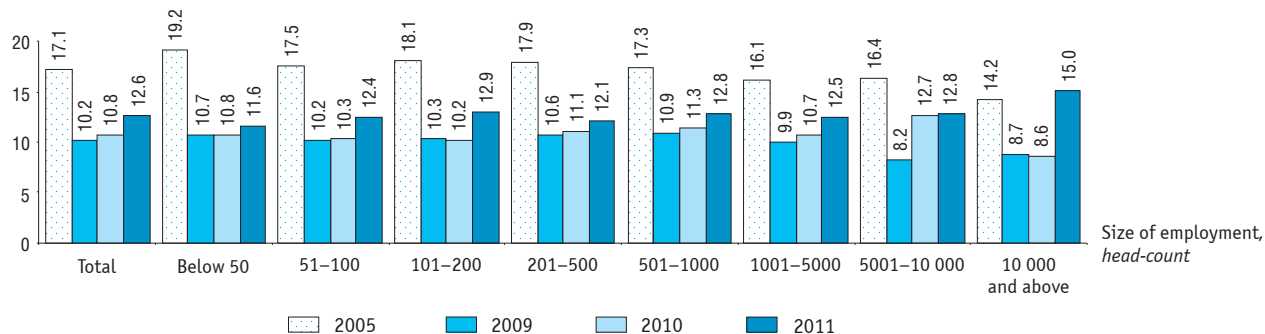


Personal computers with access to the Internet



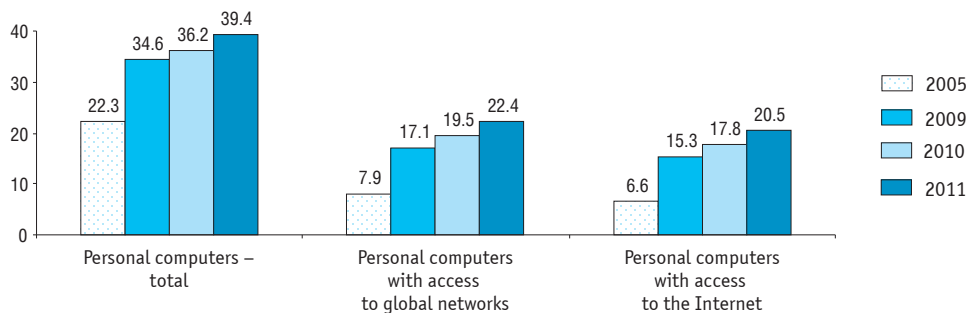
### 3.2.11. ACQUISITION OF PERSONAL COMPUTERS BY ENTERPRISES BY SIZE OF EMPLOYMENT

(as a percentage of the total number of computers)



### 3.2.12. AVAILABILITY OF PERSONAL COMPUTERS IN ENTERPRISES

(computers per 100 employees)



## 3.2.13. AVAILABILITY OF PERSONAL COMPUTERS IN ENTERPRISES BY ECONOMIC ACTIVITY

*(computers per 100 employees)*

	2005	2009	2010	2011
<b>Total</b>	<b>22.3</b>	<b>34.6</b>	<b>36.2</b>	<b>39.4</b>
Mining and quarrying	15.1	22.0	23.9	24.4
Manufacture of food products and beverages	11.6	16.6	17.6	20.0
Manufacture of chemicals and chemical products	13.8	24.2	26.2	28.1
Manufacture of basic metals	15.4	23.2	23.3	24.5
Manufacture of machinery and equipment, n.e.c.	12.8	21.5	22.5	24.2
Manufacture of electrical machinery and apparatus	16.3	26.0	28.0	29.7
Electricity, gas and water supply	15.8	24.4	26.6	28.0
Communications	10.1	15.0	16.4	17.5
Wholesale and retail trade	22.7	34.1	28.1	39.3
Transport	14.3	21.2	22.0	22.5
Communications	34.0	52.1	58.5	57.9
Financial intermediation	97.0	118.7	112.2	117.8
Research and development	36.7	51.5	57.4	183.3
Public administration; compulsory social security	50.7	73.5	79.9	82.6
Higher education	64.0	87.8	91.9	99.4
Health and social work	8.8	14.5	16.1	18.2
Other activities	16.0	28.3	30.5	16.5

### 3.2.14. AVAILABILITY OF PERSONAL COMPUTERS WITH ACCESS TO GLOBAL INFORMATION NETWORKS IN ENTERPRISES BY ECONOMIC ACTIVITY

*(computers per 100 employees)*

	2005	2009	2010	2011
<b>Total</b>	<b>7.9</b>	<b>17.1</b>	<b>19.5</b>	<b>22.4</b>
Mining and quarrying	7.1	11.4	13.6	14.7
Manufacture of food products and beverages	4.3	10.2	11.4	13.9
Manufacture of chemicals and chemical products	5.2	12.6	14.4	16.7
Manufacture of basic metals	5.7	11.4	11.8	12.9
Manufacture of machinery and equipment, n.e.c.	3.9	10.0	12.2	14.1
Manufacture of electrical machinery and apparatus	4.2	11.4	12.7	14.2
Electricity, gas and water supply	5.9	12.7	15.7	17.9
Construction	3.3	8.9	11.2	12.5
Wholesale and retail trade	10.8	21.7	18.5	29.4
Transport	6.6	11.0	12.1	12.0
Communications	18.0	36.6	44.6	44.7
Financial intermediation	40.9	59.6	61.8	61.3
Research and development	13.4	21.7	25.1	102.7
Public administration; compulsory social security	9.3	23.6	30.9	35.4
Higher education	37.1	62.2	65.9	74.1
Health and social work	0.9	4.0	5.5	7.5
Other activities	5.0	13.9	16.4	8.8

## 3.2.15. AVAILABILITY OF PERSONAL COMPUTERS WITH ACCESS TO THE INTERNET IN ENTERPRISES BY ECONOMIC ACTIVITY

*(computers per 100 employees)*

	2005	2009	2010	2011
<b>Total</b>	<b>6.6</b>	<b>15.3</b>	<b>17.8</b>	<b>20.5</b>
Mining and quarrying	4.2	8.0	10.2	11.3
Manufacture of food products and beverages	4.1	9.6	11.0	13.4
Manufacture of chemicals and chemical products	5.0	11.9	13.5	16.0
Manufacture of basic metals	4.8	10.2	10.8	12.2
Manufacture of machinery and equipment, n.e.c.	3.6	9.4	11.5	13.3
Manufacture of electrical machinery and apparatus	4.0	10.6	11.9	13.6
Electricity, gas and water supply	5.0	11.6	14.4	16.8
Construction	3.1	8.6	10.9	12.1
Wholesale and retail trade	9.9	20.6	17.5	26.2
Transport	2.7	6.4	8.1	8.4
Communications	16.8	34.8	43.2	43.4
Financial intermediation	27.2	45.7	48.8	48.7
Research and development	12.1	21.3	24.9	97.9
Public administration; compulsory social security	7.4	20.7	27.5	32.4
Higher education	36.4	61.7	65.6	73.6
Health and social work	0.9	3.8	5.3	7.2
Other activities	4.6	13.1	15.6	8.5

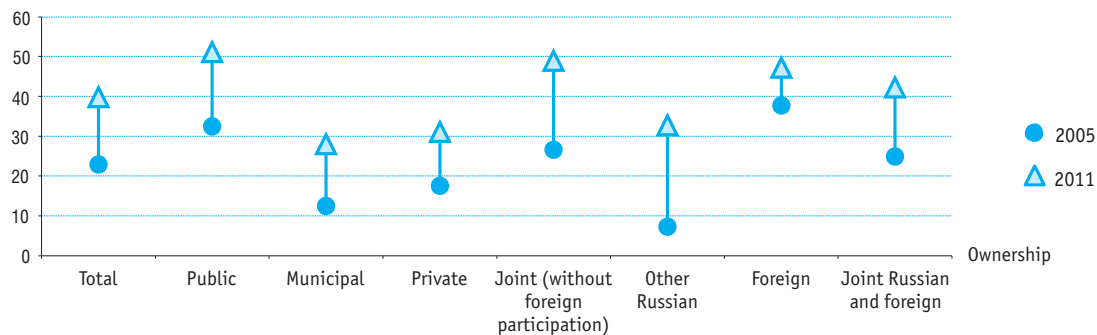
### 3.2.16. AVAILABILITY OF PERSONAL COMPUTERS IN ENTERPRISES BY OWNERSHIP

(computers per 100 employees)

	2005	2009	2010	2011
<b>Total</b>	<b>22.3</b>	<b>34.6</b>	<b>36.2</b>	<b>39.4</b>
Ownership:				
Russian	21.9	33.7	35.4	38.9
public	31.7	45.6	48.9	51.0
municipal	12.3	22.2	24.2	27.8
private	17.2	26.5	27.1	30.0
joint	26.0	41.7	43.7	48.7
other	7.3	14.6	24.5	32.6
foreign	37.7	45.7	48.2	46.3
joint Russian and foreign	24.7	42.4	41.7	41.3

### 3.2.17. TRENDS IN AVAILABILITY OF PERSONAL COMPUTERS IN ENTERPRISES BY OWNERSHIP

(computers per 100 employees)



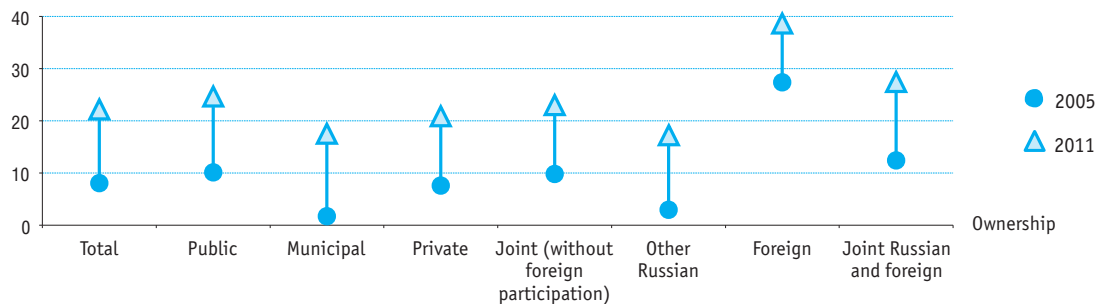
### 3.2.18. AVAILABILITY OF PERSONAL COMPUTERS WITH ACCESS TO GLOBAL INFORMATION NETWORKS IN ENTERPRISES BY OWNERSHIP

(computers per 100 employees)

	2005	2009	2010	2011
<b>Total</b>	<b>7.9</b>	<b>17.1</b>	<b>19.5</b>	<b>22.4</b>
Ownership:				
Russian	7.4	15.8	18.2	21.2
public	10.1	19.6	22.7	25.1
municipal	1.7	8.1	11.0	15.3
private	7.3	15.5	17.1	19.9
joint	9.8	18.4	20.9	23.2
other	2.1	7.5	10.6	16.2
foreign	26.1	35.8	39.1	38.9
joint Russian and foreign	12.3	27.2	27.2	27.5

### 3.2.19. TRENDS IN AVAILABILITY OF PERSONAL COMPUTERS WITH ACCESS TO GLOBAL INFORMATION NETWORKS IN ENTERPRISES BY OWNERSHIP

(computers per 100 employees)





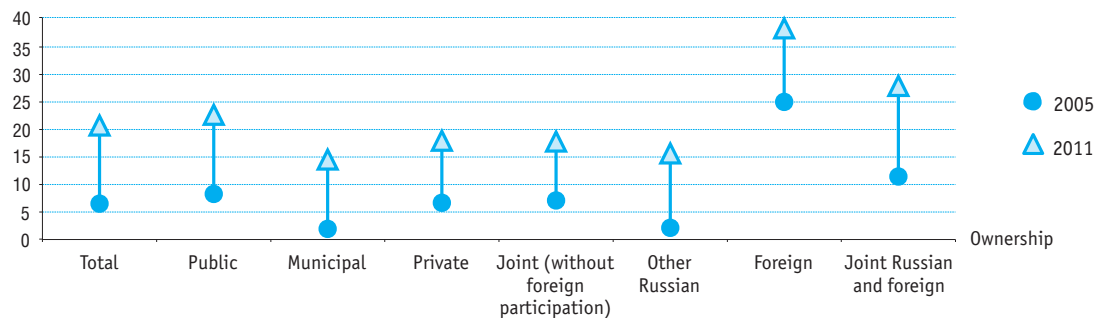
### 3.2.20. AVAILABILITY OF PERSONAL COMPUTERS WITH ACCESS TO THE INTERNET IN ENTERPRISES BY OWNERSHIP

(computers per 100 employees)

	2005	2009	2010	2011
<b>Total</b>	<b>6.6</b>	<b>15.3</b>	<b>17.8</b>	<b>20.5</b>
Ownership:				
Russian	6.1	14.0	16.4	19.3
public	8.0	17.3	20.5	23.1
municipal	1.6	7.8	10.7	15.0
private	6.5	14.2	15.9	18.1
joint	7.1	13.5	15.6	18.3
other	2.0	7.4	10.1	15.2
foreign	24.5	34.0	37.7	37.6
joint Russian and foreign	10.6	25.9	26.0	26.6

### 3.2.21. TRENDS IN AVAILABILITY OF PERSONAL COMPUTERS WITH ACCESS TO THE INTERNET IN ENTERPRISES BY OWNERSHIP

(computers per 100 employees)

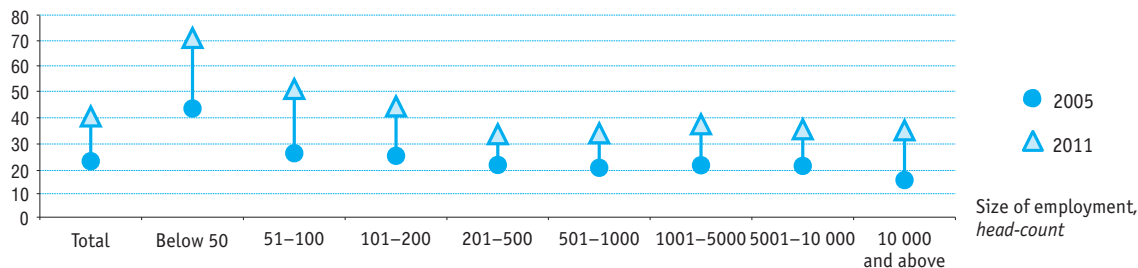


## 3.2.22. AVAILABILITY OF PERSONAL COMPUTERS IN ENTERPRISES BY SIZE OF EMPLOYMENT

*(computers per 100 employees)*

	2005	2009	2010	2011
<b>Total</b>	<b>22.3</b>	<b>34.6</b>	<b>36.2</b>	<b>39.4</b>
Size of employment, <i>head-count</i> :				
below 50	42.2	64.4	66.6	70.5
51–100	28.3	42.2	45.5	49.9
101–200	24.7	36.9	39.4	42.4
201–500	20.8	30.1	32.1	34.3
501–1000	19.2	28.4	30.7	32.8
1001–5000	20.7	33.3	35.0	37.1
5001–10 000	20.5	31.6	32.9	37.7
10 000 and above	17.4	30.0	27.4	35.6

## 3.2.23. TRENDS IN AVAILABILITY OF PERSONAL COMPUTERS IN ENTERPRISES BY SIZE OF EMPLOYMENT

*(computers per 100 employees)*

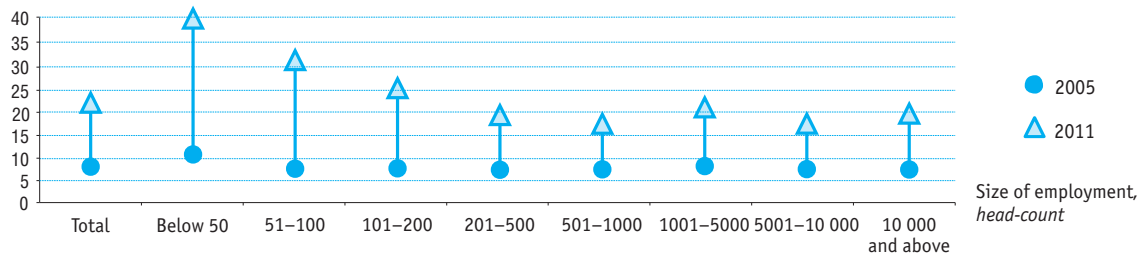
### 3.2.24. AVAILABILITY OF PERSONAL COMPUTERS WITH ACCESS TO GLOBAL INFORMATION NETWORKS IN ENTERPRISES BY SIZE OF EMPLOYMENT

(computers per 100 employees)

	2005	2009	2010	2011
<b>Total</b>	<b>7.9</b>	<b>17.1</b>	<b>19.5</b>	<b>22.4</b>
Size of employment, head-count:				
below 50	10.1	27.0	32.9	39.7
51–100	8.9	21.5	25.9	30.8
101–200	8.3	18.7	21.7	25.1
201–500	7.4	15.0	17.5	19.6
501–1000	6.5	14.1	16.4	18.5
1001–5000	8.6	17.2	18.9	21.0
5001–10 000	7.8	15.5	17.2	17.6
10 000 and above	7.2	14.8	15.0	20.1

### 3.2.25. TRENDS IN AVAILABILITY OF PERSONAL COMPUTERS WITH ACCESS TO GLOBAL INFORMATION NETWORKS IN ENTERPRISES BY SIZE OF EMPLOYMENT

(computers per 100 employees)



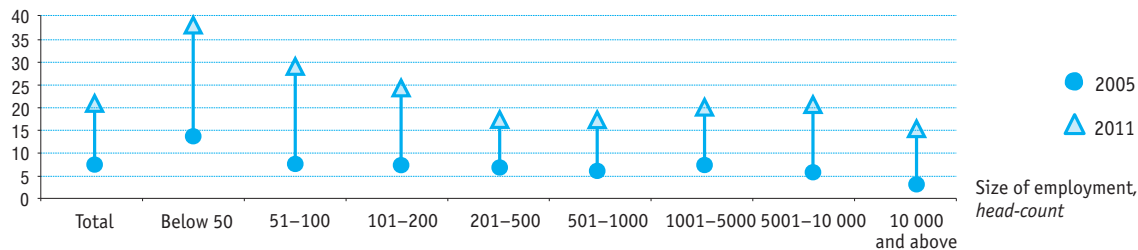
## 3.2.26. AVAILABILITY OF PERSONAL COMPUTERS WITH ACCESS TO THE INTERNET IN ENTERPRISES BY SIZE OF EMPLOYMENT

(computers per 100 employees)

	2005	2009	2010	2011
<b>Total</b>	<b>6.6</b>	<b>15.3</b>	<b>17.8</b>	<b>20.5</b>
Size of employment, <i>head-count</i> :				
below 50	9.4	25.4	31.4	37.9
51–100	8.2	20.4	24.8	29.5
101–200	7.5	17.6	20.5	23.8
201–500	6.5	13.7	16.3	18.3
501–1000	5.5	12.6	14.9	16.9
1001–5000	7.4	15.3	16.8	18.9
5001–10 000	5.4	11.3	13.1	16.0
10 000 and above	3.4	11.0	12.9	14.9

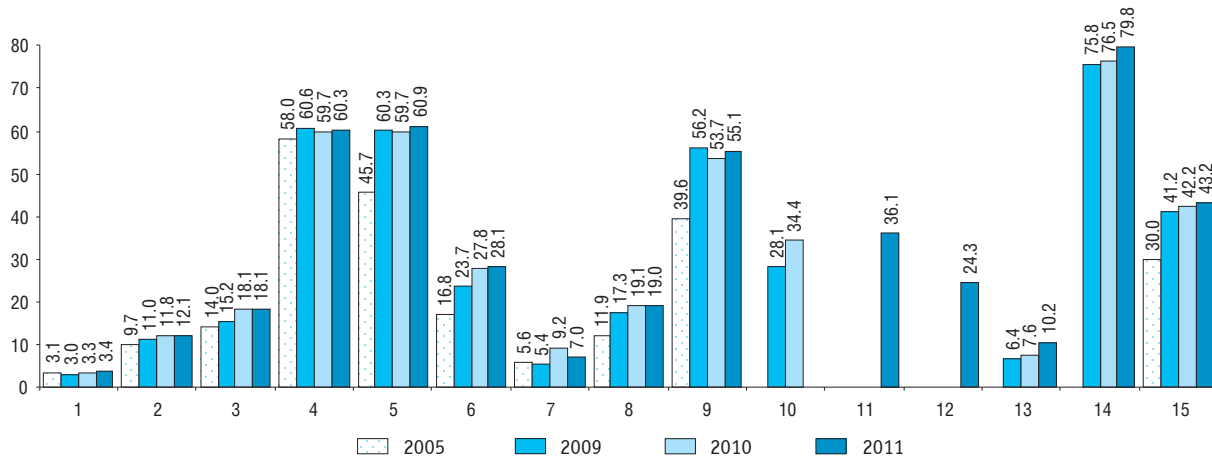
## 3.2.27. TRENDS IN AVAILABILITY OF PERSONAL COMPUTERS WITH ACCESS TO THE INTERNET IN ENTERPRISES BY SIZE OF EMPLOYMENT

(computers per 100 employees)



### 3.2.28. ENTERPRISES USING SPECIALISED SOFTWARE

(as a percentage of the total number of enterprises)

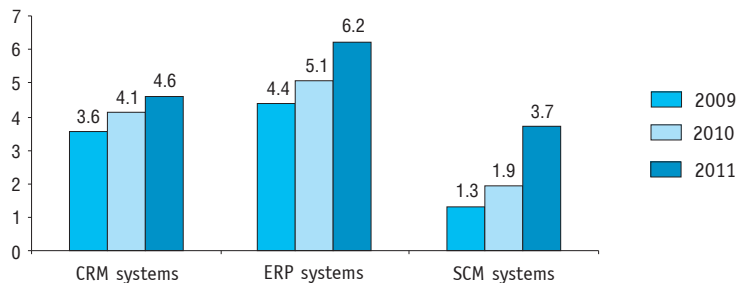


Specialised software for:

- |   |   |
|---|---|
| 1 – scientific research                                 | 9 – electronic legal reference information systems                      |
| 2 – computer-aided design systems                       | 10 – programs for managing purchase and sale of goods (works, services) |
| 3 – computer-aided manufacturing systems                | 11 – programs for managing goods (works, services) purchase             |
| 4 – computer-aided management systems                   | 12 – programs for managing goods (works, services) sales                |
| 5 – electronic payment transactions                     | 13 – CRM-, ERP-, SCM-systems  |
| 6 – access to databases via global information networks | 14 – anti-virus systems   |
| 7 – desk-top publishing systems                         | 15 – other purposes   |
| 8 – training and educational programs                   |   |

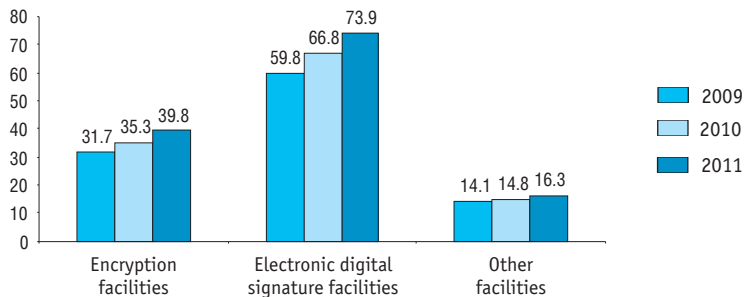
### 3.2.29. ENTERPRISES USING CRM, ERP, SCM SYSTEMS

(as a percentage of the total number of enterprises)



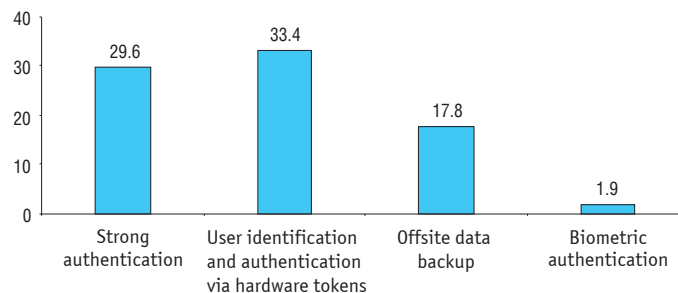
### 3.2.30. ENTERPRISES USING INFORMATION SECURITY FACILITIES FOR DATA TRANSMISSION VIA GLOBAL NETWORKS

(as a percentage of the total number of enterprises)



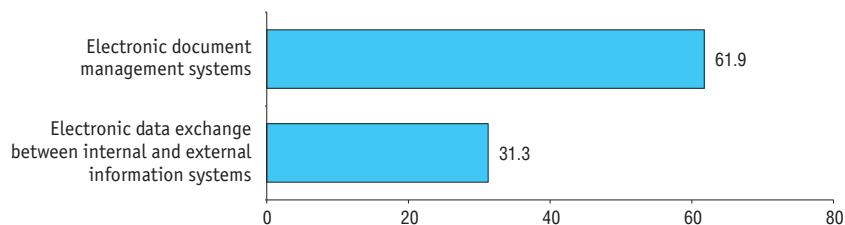
### 3.2.31. ENTERPRISES USING INFORMATION SECURITY SYSTEMS: 2011

(as a percentage of the total number of enterprises)



### 3.2.32. ENTERPRISES USING ELECTRONIC DOCUMENT MANAGEMENT SYSTEMS, ELECTRONIC DATA EXCHANGE BETWEEN INTERNAL AND EXTERNAL INFORMATION SYSTEMS: 2011

(as a percentage of the total number of enterprises)



## 3.2.33. ENTERPRISES USING SPECIALISED SOFTWARE BY ECONOMIC ACTIVITY

*(as a percentage of the total number of enterprises)*

	Total		Of which using									
			software for scientific research		computer-aided design systems		computer-aided manufacturing systems		computer-aided management systems		software for electronic payment transactions	
	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011
<b>Total</b>	<b>89.1</b>	<b>89.8</b>	<b>3.3</b>	<b>3.4</b>	<b>11.8</b>	<b>12.1</b>	<b>18.1</b>	<b>18.1</b>	<b>59.7</b>	<b>60.3</b>	<b>59.7</b>	<b>60.9</b>
Mining and quarrying	92.1	92.4	7.4	7.1	34.9	37.5	40.6	40.3	68.7	69.3	71.7	72.1
Manufacture of food products and beverages	94.4	94.1	2.6	3.0	14.5	15.5	43.0	43.6	69.6	70.0	73.6	73.2
Manufacture of chemicals and chemical products	94.7	95.6	18.1	19.0	38.8	37.0	51.7	51.1	75.3	77.2	75.5	78.1
Manufacture of basic metals	94.1	95.0	6.6	5.5	53.2	55.6	47.4	50.5	70.7	73.1	77.7	78.4
Manufacture of machinery and equipment, n.e.c.	94.8	95.0	6.2	5.9	54.3	56.9	40.7	43.9	72.0	72.4	76.0	75.2
Manufacture of electrical machinery and apparatus	96.3	95.8	10.7	11.0	55.9	56.8	48.8	49.9	75.3	75.4	77.8	77.2
Electricity, gas and water supply	85.2	87.4	1.7	1.8	23.0	25.1	24.2	25.7	58.4	60.6	56.3	59.7
Construction	93.4	92.8	2.9	4.0	41.1	43.0	20.2	21.1	64.3	64.7	71.0	71.6
Wholesale and retail trade	89.1	89.7	1.5	1.4	10.6	8.8	21.3	18.4	63.1	60.2	64.7	62.2
Transport	91.0	90.7	1.6	1.6	13.8	14.8	32.0	33.5	66.5	66.9	64.6	64.7
Communications	96.0	96.9	5.2	4.6	38.5	38.8	60.0	61.1	78.8	81.8	77.4	76.9
Financial intermediation	94.8	95.3	1.4	1.6	8.3	9.2	27.7	28.5	73.1	74.4	79.7	79.7
Research and development	94.9	95.1	55.3	56.0	43.0	42.2	31.5	29.8	69.5	70.4	72.1	74.1
Public administration; compulsory social security	94.8	95.0	0.7	0.9	3.8	4.2	10.6	10.2	63.1	63.2	61.0	62.6
Higher education	97.0	97.3	33.9	34.1	33.3	34.4	27.2	26.9	73.4	75.0	74.0	76.1
Health and social work	94.7	95.6	2.9	3.4	2.1	2.3	14.5	15.0	64.2	66.4	66.0	68.8
Other activities	79.5	80.8	2.4	2.3	10.6	9.5	14.4	13.7	47.9	48.6	47.3	48.1



(continued)

	software providing access to databases via global information networks		desk-top publishing systems		training and educational programs		electronic legal reference information systems		programs for managing goods (works, services) sales	programs for managing goods (works, services) purchase	antivirus programs	
	2010	2011	2010	2011	2010	2011	2010	2011	2011	2011	2010	2011
<b>Total</b>	<b>27.8</b>	<b>28.1</b>	<b>9.2</b>	<b>7.0</b>	<b>19.1</b>	<b>19.0</b>	<b>53.7</b>	<b>55.1</b>	<b>24.3</b>	<b>36.1</b>	<b>76.5</b>	<b>79.8</b>
Mining and quarrying	32.8	29.8	10.4	8.7	27.5	26.8	69.3	72.1	35.9	43.1	81.5	85.7
Manufacture of food products and beverages	33.1	32.0	9.8	6.7	18.3	19.3	67.1	68.6	56.1	55.1	82.0	84.2
Manufacture of chemicals and chemical products	35.2	32.4	15.6	11.6	29.1	27.8	76.4	78.3	62.7	62.9	84.1	86.6
Manufacture of basic metals	31.9	29.0	12.8	8.9	23.2	21.9	71.6	74.2	55.0	55.9	81.8	85.1
Manufacture of machinery and equipment, n.e.c.	28.0	26.7	9.6	9.3	20.8	21.5	72.7	73.3	48.3	49.7	83.8	87.2
Manufacture of electrical machinery and apparatus	29.1	25.7	11.5	8.5	24.0	21.8	75.5	77.2	52.1	54.4	85.7	87.8
Electricity, gas and water supply	21.3	23.0	6.4	4.3	0.3	21.1	52.9	55.3	28.6	31.7	73.3	76.9
Construction	29.1	27.5	8.5	6.3	20.4	20.7	66.8	66.9	33.7	38.3	80.5	82.2
Wholesale and retail trade	36.8	31.7	10.0	6.3	21.2	18.1	56.8	55.0	56.5	56.9	75.5	78.9
Transport	26.9	26.5	8.0	5.8	26.9	28.5	61.9	62.6	32.0	37.9	79.5	82.2
Communications	52.0	48.9	15.6	15.0	39.9	40.8	76.3	75.3	56.7	56.1	88.4	90.2
Financial intermediation	52.4	48.3	11.6	8.3	33.3	35.3	76.8	76.6	38.0	32.2	85.5	89.9
Research and development	35.2	29.8	22.4	20.0	27.5	27.5	71.7	72.1	28.0	39.0	84.0	86.9
Public administration; compulsory social security	26.7	28.7	6.1	4.1	16.7	16.2	53.4	55.6	9.9	32.4	82.6	85.6
Higher education	45.9	42.7	34.6	33.4	79.2	80.4	76.6	78.6	28.2	39.3	91.1	91.9
Health and social work	29.3	32.0	6.2	4.3	16.8	17.4	56.3	59.7	21.5	50.4	82.2	86.4
Other activities	21.8	22.5	10.8	8.7	17.9	14.2	42.0	42.5	19.1	25.4	65.6	69.1

## 3.2.34. ENTERPRISES USING CRM, ERP, SCM SYSTEMS BY ECONOMIC ACTIVITY

*(as a percentage of the total number of enterprises)*

	Total		Of which using					
	2010	2011	CRM systems		ERP systems		SCM systems	
			2010	2011	2010	2011	2010	2011
<b>Total</b>	<b>7.6</b>	<b>10.2</b>	<b>4.1</b>	<b>4.6</b>	<b>5.1</b>	<b>6.2</b>	<b>1.9</b>	<b>3.7</b>
Mining and quarrying	17.2	21.0	6.7	5.7	14.3	16.2	4.2	6.3
Manufacture of food products and beverages	17.3	21.7	9.2	9.6	13.1	15.7	3.8	7.5
Manufacture of chemicals and chemical products	30.0	30.5	11.2	12.4	24.1	24.3	6.0	7.1
Manufacture of basic metals	22.6	27.8	9.6	11.2	18.1	21.5	3.9	7.0
Manufacture of electronic machinery and equipment, n.e.c.	20.1	25.5	10.4	11.0	14.6	18.7	3.2	6.0
Manufacture of electrical machinery and apparatus	23.7	26.3	11.0	10.6	19.7	21.4	4.7	6.8
Electricity, gas and water supply	8.5	11.8	3.6	4.1	6.9	8.5	1.7	3.2
Construction	6.8	11.5	3.5	3.4	4.7	6.3	1.5	5.2
Wholesale and retail trade	18.6	22.6	9.8	10.7	13.7	16.3	4.9	6.5
Transport	10.6	14.5	4.0	4.1	8.4	11.0	2.3	4.9
Communications	31.9	37.0	25.0	27.8	26.2	27.4	10.9	16.3
Financial intermediation	24.5	23.1	20.8	18.5	12.1	10.7	5.4	5.4
Research and development	12.1	13.3	4.9	4.6	8.6	9.4	3.5	4.4
Public administration; compulsory social security	2.2	4.1	1.2	1.4	1.1	1.6	0.7	2.2
Higher education	16.0	17.2	8.7	9.0	9.6	10.6	5.9	6.8
Health and social work	2.6	5.2	1.5	1.9	1.3	2.3	0.8	2.7
Other activities	5.5	7.7	2.7	3.4	3.4	4.3	1.5	2.9

### 3.2.35. ENTERPRISES USING INFORMATION SECURITY FACILITIES FOR DATA TRANSMISSION VIA GLOBAL NETWORKS

(as a percentage of the total number of enterprises)

	Encryption facilities		Electronic digital signature facilities		Other facilities	
	2010	2011	2010	2011	2010	2011
<b>Total</b>	<b>35.3</b>	<b>39.8</b>	<b>66.8</b>	<b>73.9</b>	<b>14.8</b>	<b>16.3</b>
Mining and quarrying	52.8	55.4	73.4	76.4	23.3	23.2
Manufacture of food products and beverages	54.0	55.7	79.0	82.9	19.1	20.0
Manufacture of chemicals and chemical products	62.7	62.4	84.1	84.5	25.0	23.2
Manufacture of basic metals	53.4	55.1	78.9	81.7	18.3	20.4
Manufacture of machinery and equipment, n.e.c.	53.1	54.4	80.2	82.3	17.9	17.9
Manufacture of electrical machinery and apparatus	54.1	56.2	79.5	83.2	18.5	18.9
Electricity, gas and water supply	36.4	40.7	61.2	70.6	13.5	14.8
Construction	42.6	47.2	75.3	79.9	16.3	18.1
Wholesale and retail trade	40.2	41.9	66.5	69.9	18.7	19.2
Transport	40.9	43.9	69.3	74.4	16.0	17.9
Communications	64.5	67.0	76.2	77.9	33.2	35.8
Financial intermediation	73.7	75.1	81.4	82.4	39.6	38.9
Research and development	46.4	50.4	73.9	81.1	20.7	20.7
Public administration; compulsory social security	32.9	38.2	72.6	81.5	13.7	15.8
Higher education	50.9	55.4	77.1	82.3	26.6	27.9
Health and social work	37.7	45.6	79.9	87.8	13.2	15.3
Other activities	24.4	28.2	52.1	59.7	10.4	11.6

## 3.2.36. ENTERPRISES USING INFORMATION SECURITY SYSTEMS BY ECONOMIC ACTIVITY: 2011

*(as a percentage of the total number of enterprises)*

	Strong authentication	User identification and authentication via hardware tokens	Offsite data backup	Biometric authentication
<b>Total</b>	<b>29.6</b>	<b>33.4</b>	<b>17.8</b>	<b>1.9</b>
Mining and quarrying	51.4	45.1	27.6	3.7
Manufacture of food products and beverages	40.4	44.0	24.3	3.2
Manufacture of chemicals and chemical products	45.9	53.1	27.0	3.3
Manufacture of basic metals	41.3	46.9	23.1	3.2
Manufacture of machinery and equipment, n.e.c.	44.8	47.5	25.9	2.2
Manufacture of electrical machinery and apparatus	44.2	49.2	23.7	3.0
Electricity, gas and water supply	29.6	37.5	15.6	1.6
Construction	33.2	44.8	23.1	2.8
Wholesale and retail trade	38.7	35.7	24.4	2.9
Transport	39.1	42.1	19.6	2.5
Communications	64.2	55.6	34.4	6.5
Financial intermediation	70.3	63.1	38.9	3.9
Research and development	36.1	44.1	18.3	3.0
Public administration; compulsory social security	26.7	30.0	15.1	1.4
Higher education	43.6	43.3	22.5	2.5
Health and social work	26.3	34.5	15.3	1.5
Other activities	20.0	24.9	14.2	1.4

### 3.2.37. ENTERPRISES USING ELECTRONIC DOCUMENT MANAGEMENT SYSTEMS, ELECTRONIC DATA EXCHANGE BETWEEN INTERNAL AND EXTERNAL INFORMATION SYSTEMS BY ECONOMIC ACTIVITY: 2011

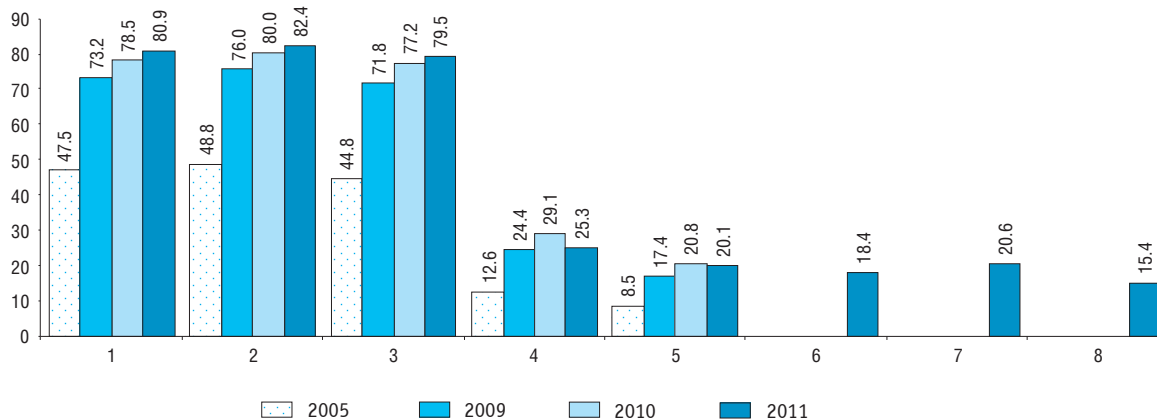
(as a percentage of the total number of enterprises)

	Electronic document management systems	Electronic data exchange between internal and external information systems	Of which by information exchange type		
			EDIFACT, EANCOM, ANSI X12 and others	based on XML-standards	proprietary standards agreed upon with other enterprises
<b>Total</b>	<b>61.9</b>	<b>31.3</b>	<b>3.7</b>	<b>21.4</b>	<b>11.7</b>
Mining and quarrying	58.8	28.3	4.3	21.5	10.7
Manufacture of food products and beverages	61.6	33.7	6.7	25.1	12.0
Manufacture of chemicals and chemical products	58.1	30.3	5.1	24.1	12.7
Manufacture of basic metals	58.2	31.8	3.5	24.0	9.4
Manufacture of machinery and equipment, n.e.c.	57.0	29.2	2.9	22.9	9.4
Manufacture of electrical machinery and apparatus	57.2	28.6	2.8	22.8	9.1
Electricity, gas and water supply	56.2	27.4	2.8	20.2	11.3
Construction	59.6	29.7	3.7	23.7	9.5
Wholesale and retail trade	57.5	32.5	4.9	22.8	11.9
Transport	60.5	30.4	3.3	20.4	10.7
Communications	72.9	44.4	5.3	29.5	23.3
Financial intermediation	71.6	51.7	7.7	38.7	30.1
Research and development	63.7	30.4	3.9	20.9	11.9
Public administration; compulsory social security	72.8	35.6	3.9	22.9	13.6
Higher education	68.6	39.5	5.3	27.0	17.5
Health and social work	74.0	37.5	3.8	24.9	13.0
Other activities	49.4	23.0	2.5	15.8	7.5

### 3.3. Objectives and Effects of Internet Usage

#### 3.3.1. INTERNET USAGE FOR GENERAL PURPOSES

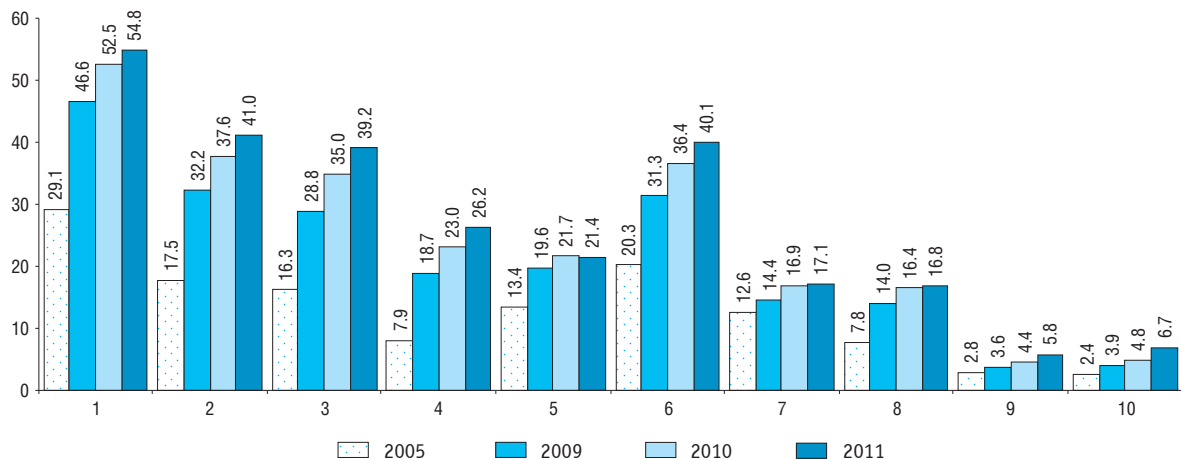
(as a percentage of the total number of enterprises)



- 1 - Information search
- 2 - E-mailing
- 3 - Information exchange in electronic form
- 4 - Personnel training
- 5 - Internal or external hire of personnel
- 6 - Telephone communication via the Internet\VoIP
- 7 - Videoconferencing
- 8 - Subscription for electronic databases, electronic libraries

### 3.3.2. INTERNET USAGE FOR COMMERCIAL PURPOSES

(as a percentage of the total number of enterprises)



Communication with suppliers:

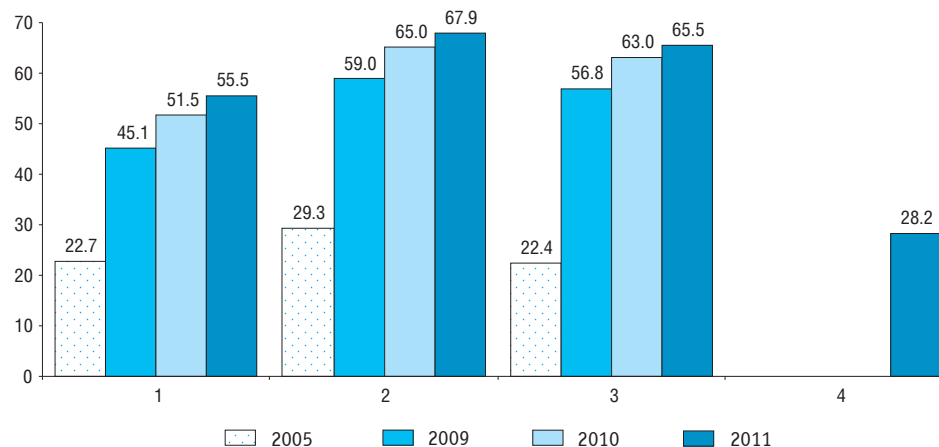
- 1 – getting information about goods and services
- 2 – providing information about enterprise's need for goods and services
- 3 – placing orders for goods and services
- 4 – paying for goods and services
- 5 – acquiring electronic products

Communication with consumers:

- 6 – providing information about the enterprise and its goods and services
- 7 – receiving orders for goods and services
- 8 – electronic payment transactions with consumers
- 9 – distribution of electronic products
- 10 – after sales service

### 3.3.3. INTERNET USAGE FOR INTERACTION WITH PUBLIC AUTHORITIES

(as a percentage of the total number of enterprises)

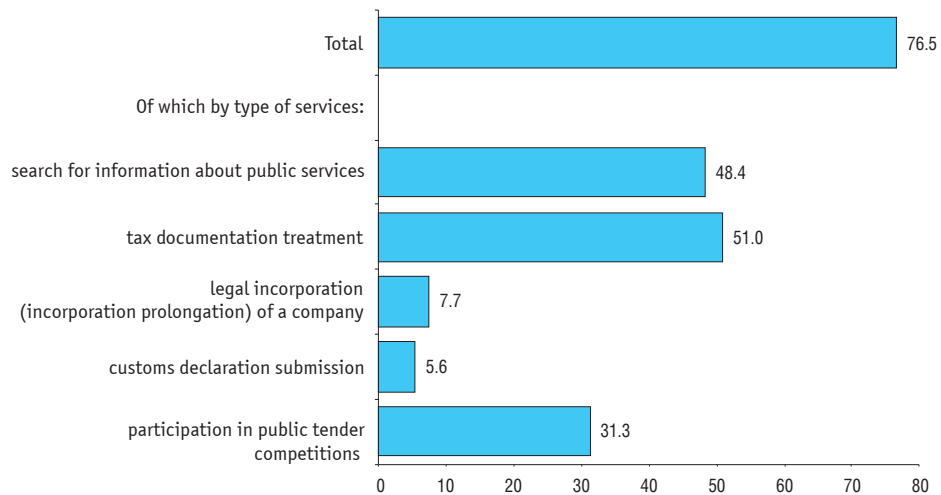


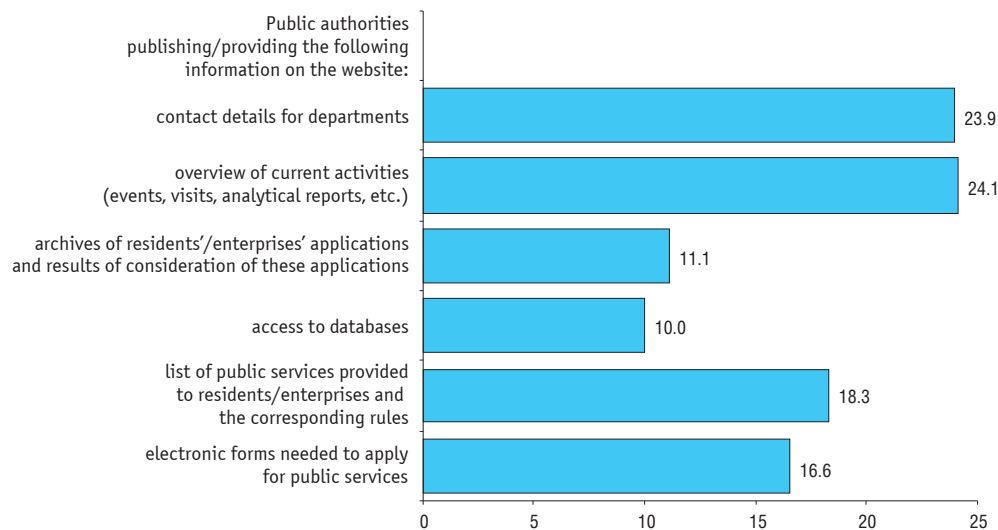
- 1 – Getting information about public authorities' activity
- 2 – Obtaining blank forms (e.g. statistical and tax forms)
- 3 – Submitting filled forms (e.g. statistical and tax forms)
- 4 – Full electronic case handling



### 3.3.4. INTERNET USAGE FOR RECEIVING SOME TYPES OF PUBLIC SERVICES: 2011

(as a percentage of the total number of enterprises)



**3.3.5. INTERNET USAGE BY PUBLIC AUTHORITIES FOR INTERACTION WITH INDIVIDUALS AND ENTERPRISES: 2011***(as a percentage of the total number of enterprises\*)*

\* The data is provided for enterprises engaged in the economic activity with RCEA (Rev. 1.1) code 75.11 'General public service activities'.

### 3.3.6. INTERNET USAGE FOR GENERAL PURPOSES IN ENTERPRISES BY ECONOMIC ACTIVITY

(as a percentage of the total number of enterprises)

	Information search		E-mailing		Information exchange in electronic form		Personnel training		Internal or external recruitment		Tele- phoning over the Internet / VoIP	Video- conferencing	Paid subscription for access to e-databases, e-libraries
	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2011	2011	2011
<b>Total</b>	<b>78.5</b>	<b>80.9</b>	<b>80.0</b>	<b>82.4</b>	<b>77.2</b>	<b>79.5</b>	<b>29.1</b>	<b>25.3</b>	<b>20.8</b>	<b>20.1</b>	<b>18.4</b>	<b>20.6</b>	<b>15.4</b>
Mining and quarrying	87.7	88.7	89.4	89.3	86.6	87.4	38.8	31.3	33.3	30.9	32.1	31.0	23.7
Manufacture of food products and beverages	91.5	92.0	92.5	92.7	89.6	90.2	37.4	30.0	41.0	39.8	32.6	28.5	24.5
Manufacture of chemicals and chemical products	95.9	94.7	96.1	95.5	93.6	93.8	45.9	36.7	56.3	50.5	45.4	40.1	34.7
Manufacture of basic metals	92.8	92.7	93.9	93.5	90.6	91.4	40.7	34.3	45.2	42.9	37.3	33.7	29.7
Manufacture of machinery and equipment, n.e.c.	93.6	93.0	93.8	93.8	91.0	90.8	38.9	33.5	42.2	39.9	32.6	27.8	25.3
Manufacture of electronic machinery and apparatus	95.3	93.9	96.0	95.2	93.5	92.7	41.2	35.8	46.3	45.5	35.6	30.1	27.1
Electricity, gas and water supply	74.7	78.9	74.5	80.1	71.8	77.0	29.3	25.1	16.9	16.9	17.1	17.3	15.3
Construction	88.5	87.9	90.0	90.5	87.2	87.1	34.2	29.1	34.4	32.7	21.2	19.7	23.3
Wholesale and retail trade	82.5	83.1	85.9	86.6	82.4	83.2	35.2	31.1	42.6	41.2	33.2	29.5	22.2
Transport	77.1	76.6	78.3	77.5	74.6	73.9	28.4	23.6	23.2	21.6	18.5	17.1	16.1
Communications	92.6	92.5	93.3	93.2	91.4	91.7	57.5	58.6	57.5	54.0	48.8	52.8	32.3
Financial intermediation	91.8	91.4	92.7	91.6	90.1	90.5	52.8	52.7	56.1	53.5	48.9	47.7	34.2
Research and development	93.3	92.1	93.9	93.7	91.7	91.2	43.5	36.9	36.8	33.8	30.2	35.8	36.9
Public administration; compulsory social security	77.3	82.5	80.7	85.0	77.3	82.1	26.7	22.5	10.2	10.0	12.0	19.2	9.1
Higher education	95.9	95.9	96.3	97.0	95.1	95.7	78.0	62.3	39.4	34.7	45.0	61.1	50.6
Health and social work	88.6	90.6	91.6	93.3	88.7	90.0	26.5	24.2	13.0	14.3	11.0	16.9	12.6
Other activities	68.8	70.7	68.4	70.9	66.0	67.8	22.0	18.9	16.1	14.5	13.4	13.3	11.9

## 3.3.7. INTERNET USAGE FOR GENERAL PURPOSES IN ENTERPRISES BY OWNERSHIP

*(as a percentage of the total number of enterprises)*

	Information search		E-mailing		Information exchange in electronic form		Personnel training		Internal or external recruitment		Telephoning over the Internet / VoIP	Video-conferencing	Paid subscription for access to e-databases, e-libraries
	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2011	2011	2011
<b>Total</b>	<b>78.5</b>	<b>80.9</b>	<b>80.0</b>	<b>82.4</b>	<b>77.2</b>	<b>79.5</b>	<b>29.1</b>	<b>25.3</b>	<b>20.8</b>	<b>20.1</b>	<b>18.4</b>	<b>20.6</b>	<b>15.4</b>
Ownership:													
Russian	78.1	80.6	79.6	82.2	76.7	79.2	28.2	24.5	18.9	18.1	16.6	19.1	14.5
public	87.8	89.8	91.5	92.7	87.8	89.7	33.5	30.4	20.6	20.0	20.2	26.2	16.6
municipal	68.9	73.8	69.3	74.5	66.8	71.3	19.7	15.9	5.5	5.6	6.1	9.7	7.4
private	82.0	81.8	83.3	83.2	80.7	80.5	35.9	31.6	39.4	36.6	29.8	26.6	23.6
joint	87.6	86.6	88.2	87.0	85.5	84.9	40.9	37.3	37.8	35.3	30.8	30.5	24.8
other	69.5	72.1	70.5	73.7	66.9	69.1	19.9	16.8	12.3	12.5	12.6	12.1	11.4
foreign	83.7	84.0	85.4	85.4	82.7	83.2	44.4	38.1	54.7	52.6	44.9	44.2	28.8
joint Russian and foreign	86.4	85.8	88.4	87.9	85.5	85.1	41.0	38.5	48.9	46.0	43.0	38.3	28.3

### 3.3.8. INTERNET USAGE FOR GENERAL PURPOSES IN ENTERPRISES BY SIZE OF EMPLOYMENT

(as a percentage of the total number of enterprises)

	Information search		E-mailing		Information exchange in electronic form		Personnel training		Internal or external recruitment		Telephoning over the Internet / VoIP	Video-conferencing	Paid subscription for access to e-databases, e-libraries
	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011			
<b>Total</b>	<b>78.5</b>	<b>80.9</b>	<b>80.0</b>	<b>82.4</b>	<b>77.2</b>	<b>79.5</b>	<b>29.1</b>	<b>25.3</b>	<b>20.8</b>	<b>20.1</b>	<b>18.4</b>	<b>20.6</b>	<b>15.4</b>
Size of employment, <i>head-count</i> :													
below 50	68.6	72.6	70.0	74.1	67.0	70.8	21.0	18.0	10.6	10.2	11.8	13.2	9.3
51–100	92.1	93.3	94.2	95.2	91.0	92.4	35.0	31.9	25.9	25.9	22.4	26.5	19.4
101–200	94.1	94.0	96.1	95.9	93.4	93.4	39.9	35.1	35.9	34.4	26.8	28.6	24.1
201–500	94.6	94.1	96.1	95.4	93.8	93.2	44.0	38.0	41.7	40.3	31.6	33.9	27.2
501–1000	95.4	94.7	96.2	95.7	94.4	94.2	51.4	44.7	49.9	48.0	36.7	42.4	30.9
1001–5000	97.4	97.2	97.8	97.1	96.4	96.0	62.1	55.6	62.6	58.7	48.9	57.6	40.6
5001–10 000	99.5	99.1	99.1	99.1	98.6	97.3	71.2	71.0	65.6	66.1	56.1	70.1	52.0
10 000 and above	97.5	98.8	100	98.8	98.8	98.8	80.2	79.0	70.4	65.4	65.4	79.0	59.3

## 3.3.9. INTERNET USAGE FOR INTERACTION WITH PUBLIC AUTHORITIES IN ENTERPRISES BY ECONOMIC ACTIVITY

*(as a percentage of the total number of enterprises)*

	Getting information about public authorities' activity		Obtaining blank forms (e.g. statistical and tax forms)		Submitting filled forms (e.g. statistical and tax forms)		Full electronic case handling
	2010	2011	2010	2011	2010	2011	
<b>Total</b>	<b>51.5</b>	<b>55.5</b>	<b>65.0</b>	<b>67.9</b>	<b>63.0</b>	<b>65.5</b>	<b>28.2</b>
Mining and quarrying	59.2	61.3	79.9	77.6	77.5	75.9	30.2
Manufacture of food products and beverages	57.2	59.7	81.4	81.4	81.6	82.2	34.8
Manufacture of chemicals and chemical products	66.8	69.5	87.9	84.3	86.2	83.9	33.0
Manufacture of basic metals	60.9	63.1	81.1	81.0	81.0	80.9	32.7
Manufacture of machinery and equipment, n.e.c.	60.2	63.3	81.5	80.7	79.5	81.9	35.5
Manufacture of electrical machinery and apparatus	66.1	67.2	84.6	84.2	84.1	84.1	36.4
Electricity, gas and water supply	48.0	52.6	63.0	69.4	61.8	67.4	23.7
Construction	52.9	56.8	77.6	77.2	77.5	76.9	36.0
Wholesale and retail trade	51.4	52.8	71.5	70.5	69.2	69.4	30.4
Transport	47.3	48.4	65.2	64.3	64.5	62.9	24.3
Communications	71.6	72.4	82.9	79.7	78.9	77.9	35.4
Financial intermediation	67.2	68.7	78.4	75.5	76.5	74.2	34.5
Research and development	70.4	72.5	84.4	83.0	80.1	79.5	39.9
Public administration; compulsory social security	55.0	60.7	62.4	68.7	60.0	65.1	28.2
Higher education	77.8	78.7	85.9	85.4	81.9	83.2	41.2
Health and social work	58.2	64.5	75.2	79.3	75.5	78.1	34.4
Other activities	41.0	44.3	54.3	56.8	51.3	53.5	22.3

### 3.3.10. INTERNET USAGE FOR INTERACTION WITH PUBLIC AUTHORITIES IN ENTERPRISES BY OWNERSHIP

(as a percentage of the total number of enterprises)

	Getting information about public authorities' activity		Obtaining blank forms (e.g. statistical and tax forms)		Submitting filled forms (e.g. statistical and tax forms)		Full electronic case handling
	2010	2011	2010	2011	2010	2011	2011
<b>Total</b>	<b>51.5</b>	<b>55.5</b>	<b>65.0</b>	<b>67.9</b>	<b>63.0</b>	<b>65.5</b>	<b>28.2</b>
Ownership:							
Russian	51.1	55.3	64.5	67.7	62.5	65.2	27.8
public	61.4	65.9	73.3	77.1	72.0	75.3	35.0
municipal	43.1	48.8	54.1	59.8	51.3	55.9	21.9
private	52.7	54.3	71.7	70.5	70.6	69.4	30.0
joint	59.2	60.7	75.5	73.5	72.8	71.5	31.4
other	37.1	40.4	57.9	61.7	54.4	58.9	21.0
foreign	57.9	59.5	72.3	70.7	69.4	70.6	34.3
joint Russian and foreign	58.4	57.2	74.3	71.2	71.0	70.3	31.4

## 3.3.11. INTERNET USAGE FOR INTERACTION WITH PUBLIC AUTHORITIES IN ENTERPRISES BY SIZE OF EMPLOYMENT

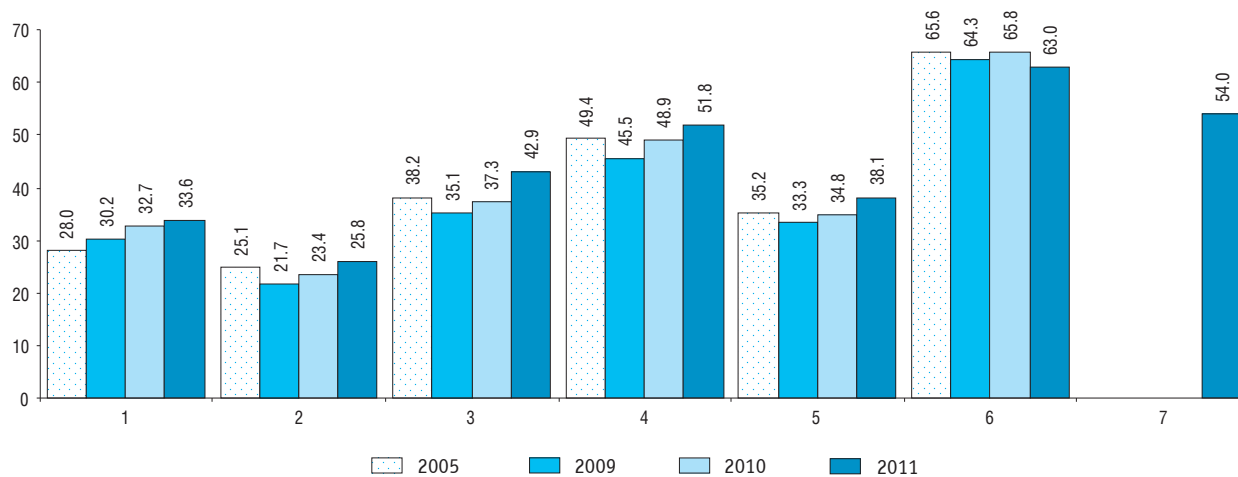
*(as a percentage of the total number of enterprises)*

	Getting information about public authorities' activity		Obtaining blank forms (e.g. statistical and tax forms)		Submitting filled forms (e.g. statistical and tax forms)		Full electronic case handling
	2010	2011	2010	2011	2010	2011	2011
<b>Total</b>	<b>51.5</b>	<b>55.5</b>	<b>65.0</b>	<b>67.9</b>	<b>63.0</b>	<b>65.5</b>	<b>28.2</b>
Size of employment, <i>head-count</i> :							
below 50	42.2	46.8	53.3	57.9	49.6	54.0	21.9
51–100	60.5	65.0	78.9	81.7	79.3	81.1	35.4
101–200	64.1	67.5	83.8	83.7	84.8	84.1	38.1
201–500	68.6	71.6	85.5	84.4	86.2	84.6	39.6
501–1000	74.0	75.4	87.1	85.9	87.4	85.6	41.0
1001–5000	82.1	82.5	90.5	89.6	90.2	89.0	41.8
5001–10 000	87.9	85.5	92.1	90.0	91.6	88.2	44.8
10 000 and above	88.9	87.7	92.6	95.1	92.6	90.1	39.5



### 3.3.12. EFFECTS OF INTERNET USE

(as a percentage of the number of enterprises using the Internet)



- 1 – Reducing production and sales costs
- 2 – Extending product range
- 3 – Attracting new suppliers
- 4 – Improving quality of interaction with suppliers/customers

- 5 – Accelerating production and sales of goods and services
- 6 – Improving the enterprise's image
- 7 – Changing the type of work, increasing its attractiveness, improving working conditions

## 3.3.13. EFFECTS OF INTERNET USE IN ENTERPRISES BY ECONOMIC ACTIVITY

*(as a percentage of the number of enterprises using the Internet)*

	Reducing production and sales costs	Extending product range	Attracting new suppliers	Improving quality of interaction with suppliers/ customers	Accelerating production and sales of goods and services	Improving the enterprise's image	Changing the type of work, increasing its attractiveness, improving working conditions
<b>Total</b>	<b>33.6</b>	<b>25.8</b>	<b>42.9</b>	<b>51.8</b>	<b>38.1</b>	<b>63.0</b>	<b>54.0</b>
Mining and quarrying	38.7	22.1	58.2	70.9	46.0	66.2	54.6
Manufacture of food products and beverages	45.1	34.7	67.2	74.4	51.9	69.8	52.6
Manufacture of chemicals and chemical products	52.3	40.4	78.5	83.7	61.7	80.2	65.0
Manufacture of basic metals	49.6	40.9	77.9	80.7	59.2	77.4	59.1
Manufacture of machinery and equipment, n.e.c.	51.5	39.2	74.9	79.4	58.1	76.3	58.7
Manufacture of electrical machinery and apparatus	54.2	45.8	77.8	82.7	63.1	78.8	63.3
Electricity, gas and water supply	32.2	16.0	37.9	53.9	33.2	61.5	53.4
Construction	43.2	29.7	57.1	67.2	49.2	67.0	55.5
Wholesale and retail trade	53.4	50.6	63.1	74.8	61.6	72.9	63.8
Transport	38.5	25.1	48.2	60.0	44.9	62.9	55.5
Communications	60.8	54.4	68.0	76.8	67.5	80.6	72.0
Financial intermediation	53.6	45.9	61.7	69.5	62.7	79.7	64.2
Research and development	48.5	36.1	60.6	69.7	51.9	75.8	65.8
Public administration; compulsory social security	20.1	14.0	23.9	32.3	20.8	54.0	48.6
Higher education	47.6	42.6	64.1	67.3	50.5	84.8	69.8
Health and social work	27.9	21.4	43.0	51.1	31.1	59.8	50.7
Other activities	33.2	25.1	41.1	49.9	39.4	62.4	53.2

### 3.3.14. EFFECTS OF INTERNET USE IN ENTERPRISES BY OWNERSHIP: 2011

(as a percentage of the number of enterprises using the Internet)

	Reducing production and sales costs	Extending product range	Attracting new suppliers	Improving quality of interaction with suppliers/customers	Accelerating the production and sales of goods and services	Improving the enterprise's image	Changing the type of work, increasing its attractiveness, improving working conditions
<b>Total</b>	<b>33.6</b>	<b>25.8</b>	<b>42.9</b>	<b>51.8</b>	<b>38.1</b>	<b>63.0</b>	<b>54.0</b>
Ownership:							
Russian	32.2	24.7	41.5	50.2	36.4	62.2	53.4
public	30.4	23.9	41.7	51.3	34.9	62.8	53.6
municipal	22.8	16.5	26.8	35.1	24.4	54.3	49.0
private	47.6	36.8	62.3	70.6	55.3	72.3	59.0
joint	46.9	37.6	60.0	70.3	55.7	74.9	61.4
other	36.4	37.8	54.7	59.2	43.0	65.7	54.5
foreign	57.3	43.3	61.3	75.4	63.3	75.0	64.7
joint Russian and foreign	51.4	39.0	65.3	73.0	59.1	73.1	61.1

## 3.3.15. EFFECTS OF INTERNET USE IN ENTERPRISES BY SIZE OF EMPLOYMENT: 2011

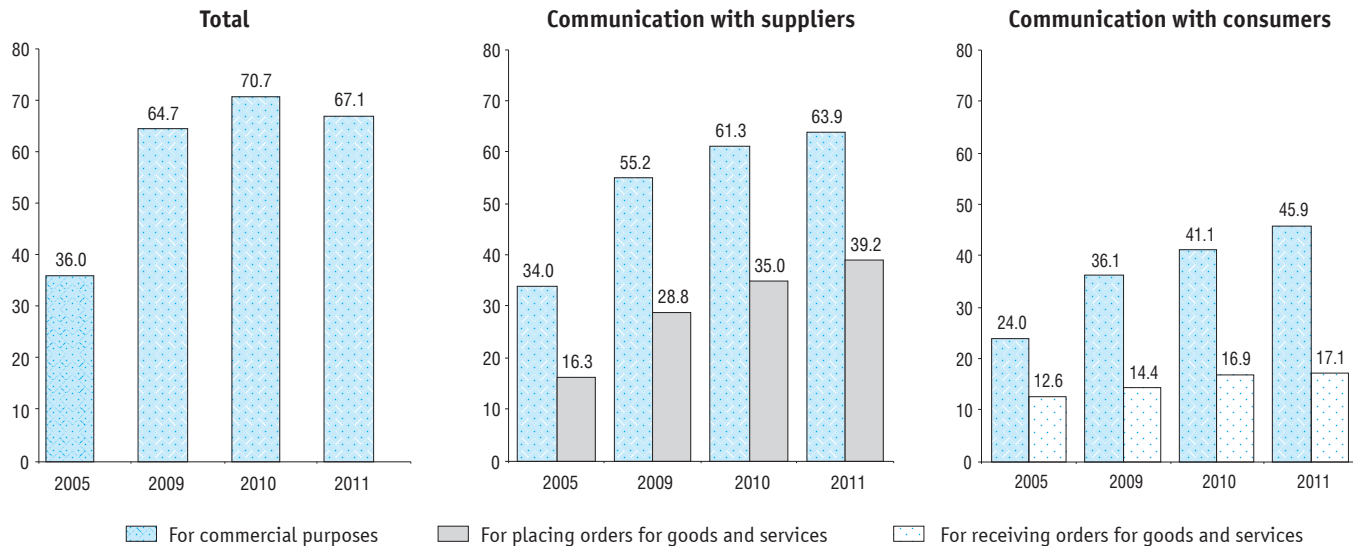
*(as a percentage of the number of enterprises using the Internet)*

	Reducing production and sales costs	Extending product range	Attracting new suppliers	Improving quality of interaction with suppliers/customers	Accelerating the production and sales of goods and services	Improving the enterprise's image	Changing the type of work, increasing its attractiveness, improving working conditions
<b>Total</b>	<b>33.6</b>	<b>25.8</b>	<b>42.9</b>	<b>51.8</b>	<b>38.1</b>	<b>63.0</b>	<b>54.0</b>
<i>Size of employment, head-count:</i>							
below 50	28.0	20.1	31.0	40.2	30.9	56.7	50.7
51–100	35.7	28.5	48.3	57.7	41.0	65.8	55.7
101–200	40.2	32.5	57.5	66.1	47.0	70.0	57.3
201–500	43.6	35.3	63.2	71.2	50.7	73.5	59.4
501–1000	46.1	37.8	68.3	76.5	53.6	76.6	62.1
1001–5000	50.4	42.9	74.4	81.2	56.7	83.0	66.1
5001–10 000	62.9	57.9	80.1	86.4	67.4	87.3	72.9
10 000 and above	63.0	53.1	85.2	92.6	70.4	91.4	75.3

## 3.4. Electronic Commerce

### 3.4.1. INTERNET USAGE FOR COMMERCIAL PURPOSES

(as a percentage of the total number of enterprises)



## 3.4.2. INTERNET USAGE FOR COMMUNICATION WITH SUPPLIERS IN ENTERPRISES BY ECONOMIC ACTIVITY

*(as a percentage of the total number of enterprises)*

	Getting information about goods and services		Providing information about the enterprise's need for goods and services		Placing orders for goods and services		Paying for goods and services		Acquiring electronic products	
	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011
<b>Total</b>	<b>52.5</b>	<b>54.8</b>	<b>37.6</b>	<b>41.0</b>	<b>35.0</b>	<b>39.2</b>	<b>23.0</b>	<b>26.2</b>	<b>21.7</b>	<b>21.4</b>
Mining and quarrying	76.3	74.3	51.1	51.8	33.7	35.1	38.6	38.6	36.9	33.2
Manufacture of food products and beverages	81.4	79.1	57.5	57.1	40.6	40.5	43.2	45.2	31.7	30.6
Manufacture of chemicals and chemical products	88.4	85.1	70.0	71.2	52.4	52.5	52.2	56.6	41.8	41.3
Manufacture of basic metals	86.3	83.6	66.9	67.8	47.2	47.1	47.2	49.3	34.2	34.7
Manufacture of machinery and equipment, n.e.c.	86.0	84.4	63.6	65.2	46.1	45.3	44.2	47.9	35.5	35.9
Manufacture of electrical machinery and apparatus	89.2	86.2	68.8	69.3	52.5	52.6	47.6	49.5	40.4	40.4
Electricity, gas and water supply	54.6	57.0	31.8	36.3	23.3	27.7	25.2	28.8	24.9	25.3
Construction	75.5	72.9	48.7	50.2	35.0	36.0	43.7	46.3	30.8	29.3
Wholesale and retail trade	74.0	72.3	57.6	57.6	43.3	41.2	43.9	45.5	26.2	23.4
Transport	59.2	58.2	38.1	39.2	28.8	30.8	28.4	30.2	24.5	23.8
Communications	79.6	78.2	62.5	61.8	45.8	49.8	38.0	41.9	43.0	43.1
Financial intermediation	66.6	68.2	41.9	42.3	28.4	30.2	25.5	27.7	37.1	36.3
Research and development	79.3	77.9	57.9	60.1	53.7	56.7	34.0	39.5	45.0	43.6
Public administration; compulsory social security	38.0	43.5	30.0	34.7	37.9	44.6	11.3	14.6	15.4	15.6
Higher education	73.4	72.7	59.2	59.0	51.4	53.4	31.4	36.4	50.3	49.0
Health and social work	60.0	66.6	46.1	54.0	49.4	58.5	22.9	29.3	19.9	21.0
Other activities	44.0	44.2	28.7	30.9	24.6	28.1	19.9	21.6	17.9	17.2

### 3.4.3. INTERNET USAGE FOR COMMUNICATION WITH SUPPLIERS IN ENTERPRISES BY OWNERSHIP

(as a percentage of the total number of enterprises)

	Getting information about goods and services		Providing information about the enterprise's need for goods and services		Placing orders for goods and services		Paying for goods and services		Acquiring electronic products	
	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011
<b>Total</b>	<b>52.5</b>	<b>54.8</b>	<b>37.6</b>	<b>41.0</b>	<b>35.0</b>	<b>39.2</b>	<b>23.0</b>	<b>26.2</b>	<b>21.7</b>	<b>21.4</b>
Ownership:										
Russian	51.2	53.7	36.6	40.2	34.7	39.3	21.8	24.9	20.9	20.8
public	59.1	63.7	45.4	50.9	48.9	55.3	22.3	27.3	23.6	24.3
municipal	35.2	39.1	23.7	28.4	26.1	32.4	11.8	14.7	13.5	13.4
private	68.4	66.5	48.4	48.1	34.4	34.4	38.1	39.2	29.8	28.5
joint	70.1	67.2	46.8	47.7	33.3	35.5	32.0	34.5	33.6	33.3
other	52.1	54.7	32.0	35.5	21.8	23.6	26.4	28.8	16.2	16.7
foreign	73.1	71.0	55.1	54.3	40.0	36.2	45.7	47.7	34.5	29.6
joint Russian and foreign	74.2	70.9	54.7	52.3	37.1	36.5	39.3	41.5	32.8	32.2

## 3.4.4. INTERNET USAGE FOR COMMUNICATION WITH SUPPLIERS IN ENTERPRISES BY SIZE OF EMPLOYMENT

*(as a percentage of the total number of enterprises)*

	Getting information about goods and services		Providing information about the enterprise's need for goods and services		Placing orders for goods and services		Paying for goods and services		Acquiring electronic products	
	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011
<b>Total</b>	<b>52.5</b>	<b>54.8</b>	<b>37.6</b>	<b>41.0</b>	<b>35.0</b>	<b>39.2</b>	<b>23.0</b>	<b>26.2</b>	<b>21.7</b>	<b>21.4</b>
Size of employment, <i>head-count</i> :										
below 50	37.1	40.4	25.4	28.9	25.8	29.8	15.6	18.1	13.9	13.7
51–100	68.0	70.5	48.0	52.8	44.1	49.4	29.5	33.6	25.8	26.0
101–200	76.5	78.0	56.3	59.5	48.5	52.7	35.5	39.5	31.9	31.2
201–500	81.1	81.3	60.9	64.1	51.1	55.6	38.0	42.4	37.2	37.0
501–1000	86.1	85.3	66.5	68.4	56.5	60.8	38.8	43.1	45.3	44.9
1001–5000	91.4	89.9	75.1	75.7	63.3	67.1	41.0	44.9	55.8	54.3
5001–10 000	95.8	95.9	84.7	87.8	71.6	78.3	49.3	48.9	75.3	68.8
10 000 and above	96.3	96.3	85.2	87.7	79.0	77.8	43.2	50.6	72.8	72.8



### 3.4.5. INTERNET USAGE FOR COMMUNICATION WITH CONSUMERS IN ENTERPRISES BY ECONOMIC ACTIVITY

(as a percentage of the total number of enterprises)

	Providing information about the enterprise and its goods and services		Receiving orders for goods and services		Electronic payment transactions with consumers		Distribution of electronic products		After-sales service	
	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011
<b>Total</b>	<b>36.4</b>	<b>40.1</b>	<b>16.9</b>	<b>17.1</b>	<b>16.4</b>	<b>16.8</b>	<b>4.4</b>	<b>5.8</b>	<b>4.8</b>	<b>6.7</b>
Mining and quarrying	50.2	50.4	23.0	22.3	29.3	28.7	4.3	5.0	5.5	7.1
Manufacture of food products and beverages	67.5	66.8	42.8	41.8	35.7	35.2	5.2	7.6	5.3	8.8
Manufacture of chemicals and chemical products	81.6	78.1	48.9	43.6	43.4	40.0	6.1	9.8	10.4	13.4
Manufacture of basic metals	77.9	75.2	48.9	44.6	39.8	39.7	6.1	8.9	8.6	13.7
Manufacture of machinery and equipment, n.e.c.	75.3	75.0	47.1	44.5	38.3	39.5	7.5	8.4	14.8	19.6
Manufacture of electrical machinery and apparatus	80.3	78.2	53.0	48.3	38.2	39.1	10.7	12.4	19.9	21.6
Electricity, gas and water supply	35.1	40.8	9.4	10.2	17.1	18.9	2.1	3.0	2.8	4.0
Construction	53.9	54.0	28.7	28.6	33.6	33.2	4.9	6.7	5.4	8.9
Wholesale and retail trade	54.7	52.4	33.7	30.1	32.4	29.6	6.9	7.5	10.4	11.0
Transport	38.4	39.5	19.8	20.4	21.5	22.1	3.1	4.7	3.7	6.2
Communications	70.0	69.4	40.7	42.3	39.5	41.1	20.1	23.5	30.4	32.8
Financial intermediation	64.2	65.7	28.2	29.4	35.2	34.0	12.7	15.2	17.3	21.0
Research and development	66.0	65.0	32.9	32.3	24.3	25.5	11.4	13.5	11.6	14.4
Public administration; compulsory social security	20.0	24.3	5.2	6.1	5.5	6.2	2.0	3.3	1.9	3.3
Higher education	74.1	73.9	26.0	25.9	19.3	20.0	16.0	18.3	9.1	11.0
Health and social work	30.5	43.0	10.5	13.3	11.5	13.6	2.2	4.0	2.5	4.8
Other activities	33.4	35.7	16.7	15.9	14.4	14.2	4.4	5.4	3.7	5.1

## 3.4.6. INTERNET USAGE FOR COMMUNICATION WITH CONSUMERS IN ENTERPRISES BY OWNERSHIP

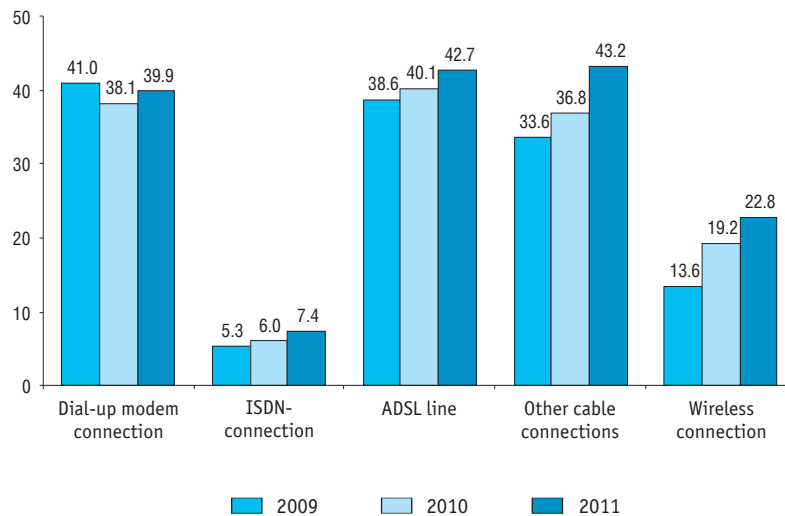
*(as a percentage of the total number of enterprises)*

	Providing information about the enterprise and its goods and services		Receiving orders for goods and services		Electronic payment transactions with consumers		Distribution of electronic products		After-sales service	
	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011
<b>Total</b>	<b>36.4</b>	<b>40.1</b>	<b>16.9</b>	<b>17.1</b>	<b>16.4</b>	<b>16.8</b>	<b>4.4</b>	<b>5.8</b>	<b>4.8</b>	<b>6.7</b>
Ownership:										
Russian	34.7	38.8	15.6	16.0	15.1	15.7	4.1	5.4	4.3	6.2
public	37.8	43.9	14.6	16.1	12.8	14.1	4.5	6.1	3.5	5.7
municipal	18.7	24.3	6.2	7.2	6.9	7.8	1.7	2.9	1.7	3.0
private	56.7	56.2	32.1	29.9	30.8	29.9	7.3	8.3	9.5	11.4
joint	59.4	59.1	28.7	28.6	30.2	30.1	7.7	10.6	9.5	13.8
other	35.8	37.0	17.8	18.5	18.5	18.5	3.6	5.0	2.6	5.3
foreign	63.1	57.6	38.9	33.9	37.1	33.4	9.7	11.0	12.8	15.7
joint Russian and foreign	64.9	60.6	36.8	34.5	36.1	34.2	10.3	11.9	14.4	15.2

### 3.4.7. INTERNET USAGE FOR COMMUNICATION WITH CONSUMERS IN ENTERPRISES BY SIZE OF EMPLOYMENT

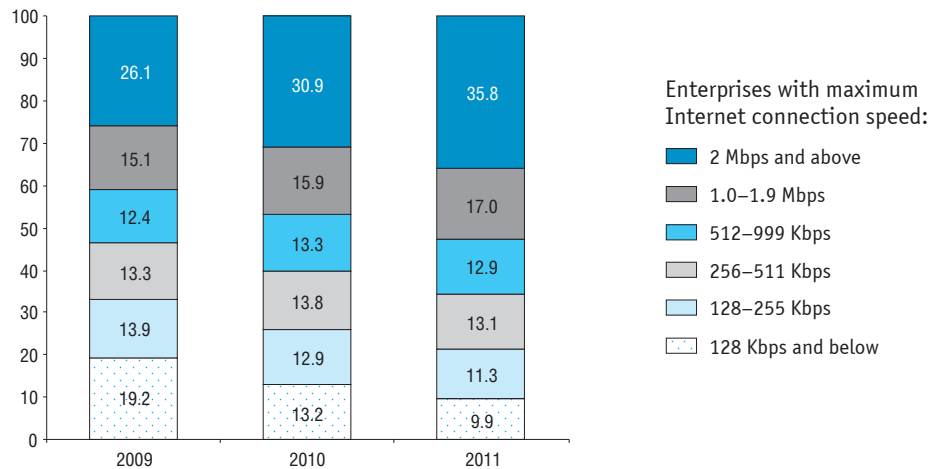
(as a percentage of the total number of enterprises)

	Providing information about the enterprise and its goods and services		Receiving orders for goods and services		Electronic payment transactions with consumers		Distribution of electronic products		After-sales service	
	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011
<b>Total</b>	<b>36.4</b>	<b>40.1</b>	<b>16.9</b>	<b>17.1</b>	<b>16.4</b>	<b>16.8</b>	<b>4.4</b>	<b>5.8</b>	<b>4.8</b>	<b>6.7</b>
Size of employment, <i>head-count</i>										
below 50	24.1	28.1	10.3	10.7	10.5	11.0	2.8	3.9	2.9	4.3
51–100	46.3	51.2	21.0	21.2	20.9	21.5	5.5	7.4	6.0	8.8
101–200	55.8	58.3	27.7	28.0	26.1	26.5	7.0	8.7	7.6	10.5
201–500	60.1	62.9	30.6	30.8	28.2	28.4	7.3	9.6	8.5	11.3
501–1000	64.6	67.0	32.0	32.1	28.8	29.8	7.9	9.0	9.7	11.7
1001–5000	74.3	75.7	35.6	35.9	32.0	31.8	11.2	13.0	14.0	15.6
5001–10 000	85.6	84.2	42.8	46.2	40.5	41.6	13.0	16.3	20.0	21.7
10 000 and above	85.2	90.1	58.0	53.1	42.0	40.7	18.5	14.8	23.5	19.8

**3.4.8. ENTERPRISES USING THE INTERNET FOR COMMERCIAL PURPOSES BY TYPE OF INTERNET CONNECTION***(as a percentage of enterprises using the Internet for commercial purposes)*

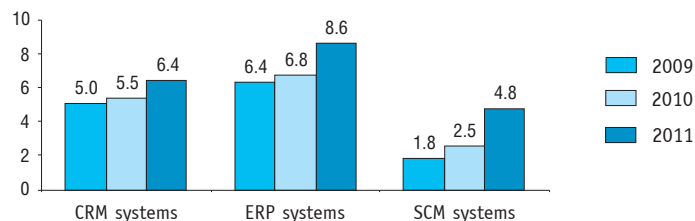
### 3.4.9. ENTERPRISES USING THE INTERNET FOR COMMERCIAL PURPOSES BY INTERNET CONNECTION SPEED

(as a percentage of enterprises using the Internet for commercial purposes)



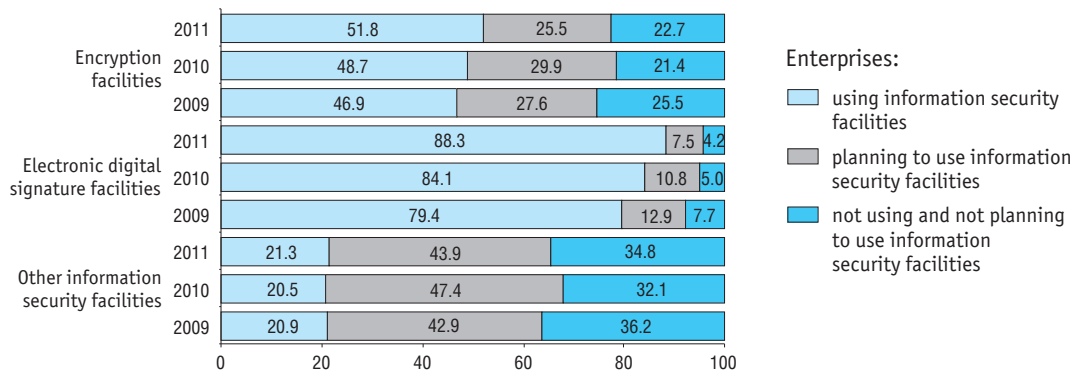
### 3.4.10. ENTERPRISES USING THE INTERNET FOR COMMERCIAL PURPOSES AND HAVING CRM, ERP, SCM SYSTEMS

(as a percentage of enterprises using the Internet for commercial purposes)



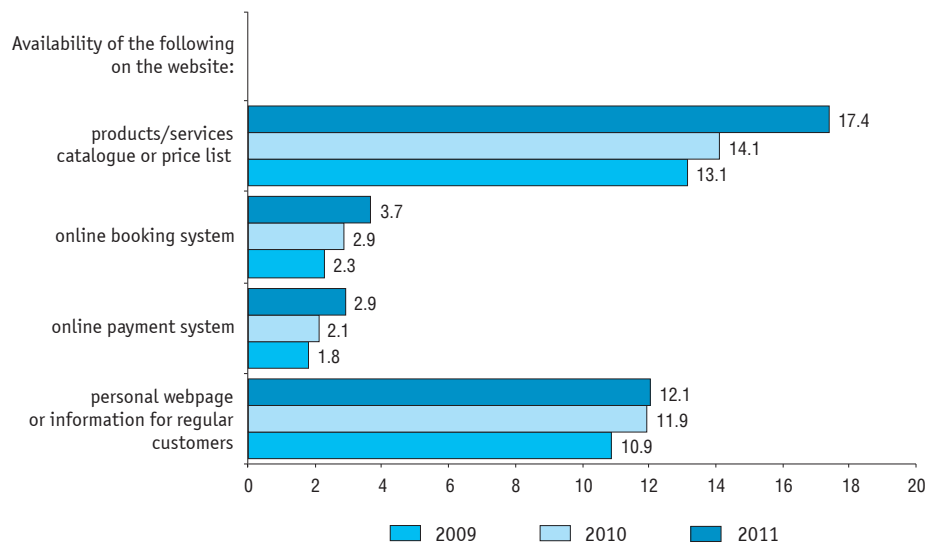
### 3.4.11. ENTERPRISES USING THE INTERNET FOR COMMERCIAL PURPOSES AND HAVING INFORMATION SECURITY FACILITIES FOR DATA TRANSMISSION VIA GLOBAL INFORMATION NETWORKS

(as a percentage of enterprises using the Internet for commercial purposes)



### 3.4.12. ENTERPRISES USING A WEBSITE FOR COMMERCIAL PURPOSES

(as a percentage of the total number of business enterprises\*)



\* The data is provided for enterprises engaged in economic activities with the following RCEA codes (Rev. 1.1): C, D, E, F, G, H, I, K.

### 3.5. ICT Expenditure

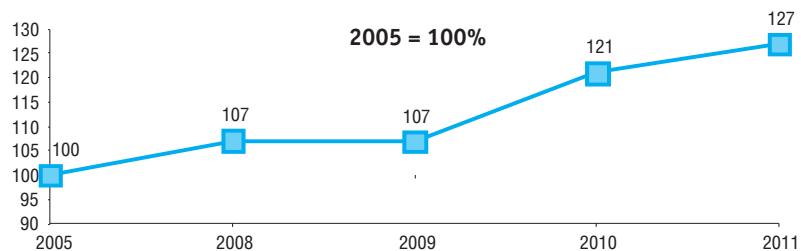
#### 3.5.1. ICT EXPENDITURE BY TYPE OF COSTS

(million roubles)

	2005	2009	2010	2011
<b>Total</b>	<b>215302</b>	<b>421378</b>	<b>515648</b>	<b>603007</b>
Acquisition of computer hardware	78509	85664	112726	139501
Acquisition of software	21914	69059	81228	104197
Telecommunications services	56704	142564	167923	184834
Of which – payment for Internet access	...	33162	39171	53336
ICT training	2200	5226	3733	4683
ICT services of external organisations and consultants (excluding telecommunications services and training)	34862	79992	98919	120012
Other ICT-related expenditure	21113	38873	51119	49780

#### 3.5.2. TRENDS IN ICT EXPENDITURE

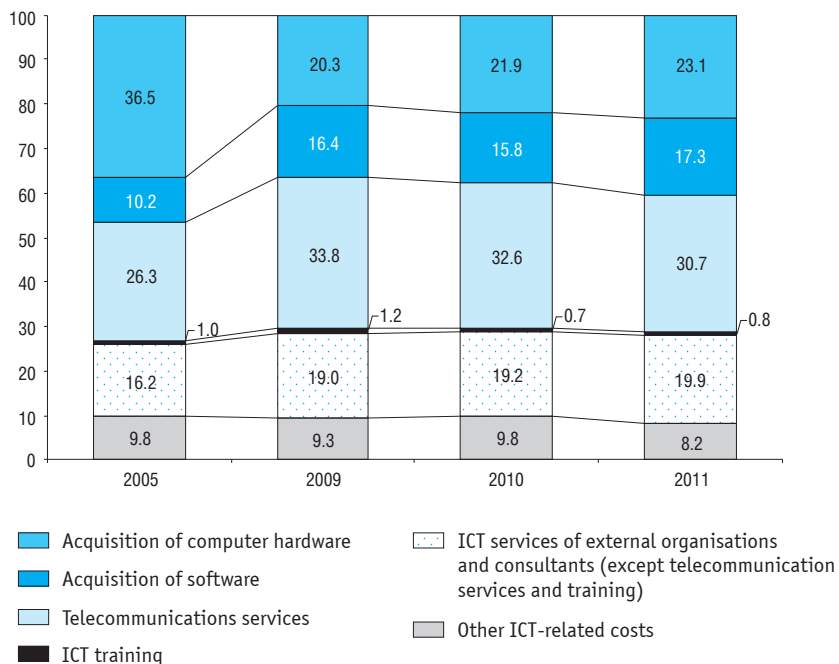
(at current prices)





### 3.5.3. PERCENTAGE DISTRIBUTION OF ICT EXPENDITURE IN ENTERPRISES BY TYPE OF COSTS

(as a percentage of enterprises' total expenditure on ICT)



## 3.5.4. PERCENTAGE DISTRIBUTION OF ICT EXPENDITURE IN ENTERPRISES BY ECONOMIC ACTIVITY

	ICT expenditure	Acquisition of computer hardware		Acquisition of software		Telecommunications services		Of which – payment for Internet access		ICT training		ICT services of external organisations and consultants (excluding telecommunications services and training)		Other ICT-related costs	
		2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011
<b>Total</b>	<b>100</b>	<b>21.9</b>	<b>23.1</b>	<b>15.8</b>	<b>17.3</b>	<b>32.6</b>	<b>30.7</b>	<b>7.6</b>	<b>8.8</b>	<b>0.7</b>	<b>0.8</b>	<b>19.2</b>	<b>19.9</b>	<b>9.8</b>	<b>8.2</b>
Mining and quarrying	100	13.4	13.0	15.2	15.9	18.5	18.1	2.2	2.3	0.3	1.8	44.0	43.2	8.6	8.0
Manufacture of food products and beverages	100	27.1	21.9	15.5	13.5	37.5	39.3	11.2	13.2	0.7	1.4	14.5	19.2	4.7	4.8
Manufacture of chemicals and chemical products	100	18.2	19.8	15.4	19.7	20.0	20.0	4.7	4.8	4.8	0.3	33.4	33.5	8.2	6.7
Manufacture of basic metals	100	14.2	15.9	15.4	13.9	28.2	24.5	5.5	4.1	0.3	0.3	32.8	35.1	9.1	10.3
Manufacture of machinery and equipment, n.e.c.	100	17.9	18.2	17.0	21.6	35.0	37.2	10.3	12.0	0.9	0.9	26.3	16.1	2.9	6.0
Manufacture of electrical machinery and apparatus	100	35.7	20.2	20.3	19.4	23.5	31.9	5.4	7.8	0.3	1.1	13.1	17.5	7.1	9.9
Electricity, gas and water supply	100	19.3	24.8	13.5	16.5	25.9	22.2	4.4	4.3	0.3	0.6	32.8	29.3	8.2	6.6
Construction	100	18.0	21.8	15.1	16.7	36.8	38.4	10.3	14.2	0.5	1.0	27.2	14.3	2.4	7.8
Wholesale and retail trade	100	21.2	25.5	14.9	19.0	39.4	30.9	14.6	13.1	0.4	0.5	20.5	19.8	3.6	4.3
Transport	100	15.4	14.0	14.8	11.9	44.6	41.7	5.1	5.0	0.3	0.5	17.9	24.3	7.0	7.6
Communications	100	16.3	13.8	15.2	20.6	47.4	47.0	9.9	8.8	1.5	0.5	8.7	9.2	10.9	8.9
Financial intermediation	100	27.9	27.5	22.9	22.9	26.5	25.0	5.8	9.5	0.8	0.3	15.5	16.2	6.4	8.1
Research and development	100	36.3	34.5	19.2	22.6	16.9	20.0	5.7	7.3	1.3	4.2	8.5	9.9	17.8	8.8
Public administration; compulsory social security	100	21.5	27.7	9.2	13.9	31.0	31.2	6.7	9.8	0.5	0.6	18.9	17.8	18.9	8.8
Higher education	100	48.0	48.1	15.2	11.7	24.1	17.9	10.5	7.0	1.0	0.8	7.3	7.3	4.4	14.2
Health and social work	100	25.6	22.0	13.7	10.9	40.9	41.9	11.2	12.5	0.7	1.0	12.3	15.5	6.8	8.7
Other activities	100	19.9	21.8	15.3	15.3	28.6	26.6	7.1	8.6	0.6	0.9	22.2	26.3	13.4	9.1

### 3.5.5. PERCENTAGE DISTRIBUTION OF ICT EXPENDITURE IN ENTERPRISES BY OWNERSHIP

	ICT expenditure	Acquisition of computer hardware		Acquisition of software		Telecommunications services		Of which – payment for Internet access		ICT training		ICT services of external organisations and consultants (excluding telecommunications services and training)		Other ICT-related costs	
		2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011
<b>Total</b>	<b>100</b>	<b>21.9</b>	<b>23.1</b>	<b>15.8</b>	<b>17.3</b>	<b>32.6</b>	<b>30.7</b>	<b>7.6</b>	<b>8.8</b>	<b>0.7</b>	<b>0.8</b>	<b>19.2</b>	<b>19.9</b>	<b>9.8</b>	<b>8.2</b>
Ownership:															
Russian	100	22.7	23.9	15.1	17.2	32.1	30.1	7.7	8.0	0.6	0.8	18.9	19.3	10.6	8.7
public	100	27.9	30.5	14.7	14.4	27.2	28.6	7.4	8.6	0.5	0.8	16.1	17.2	13.6	8.5
municipal	100	21.7	20.7	14.1	14.2	42.3	43.3	12.5	17.6	0.6	0.5	13.0	13.9	8.3	7.4
private	100	15.6	19.1	15.9	17.7	36.8	31.2	8.7	8.4	0.5	1.1	21.4	21.1	9.8	9.8
joint	100	29.5	24.3	14.7	21.0	26.2	26.2	3.4	3.1	1.1	0.3	21.3	20.8	7.2	7.4
other	100	50.8	30.5	10.8	25.8	19.9	17.4	7.4	4.2	0.7	0.8	14.7	20.1	3.1	5.4
foreign	100	19.7	20.8	19.1	19.8	29.1	33.6	9.5	13.6	0.6	0.6	26.7	19.5	4.8	5.7
joint Russian and foreign	100	16.9	18.0	18.0	15.9	37.9	33.1	6.0	12.8	1.6	0.6	16.3	26.0	9.3	6.4

## 3.5.6. PERCENTAGE DISTRIBUTION OF ICT EXPENDITURE IN ENTERPRISES BY SIZE OF EMPLOYMENT

	ICT expenditure	Acquisition of computer hardware		Acquisition of software		Telecommunications services		Of which – payment for the Internet access		ICT training		ICT services of external organisations and consultants (excluding telecommunications services and training)		Other ICT-related costs	
		2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011
<b>Total</b>	<b>100</b>	<b>21.9</b>	<b>23.1</b>	<b>15.8</b>	<b>17.3</b>	<b>32.6</b>	<b>30.7</b>	<b>7.6</b>	<b>8.8</b>	<b>0.7</b>	<b>0.8</b>	<b>19.2</b>	<b>19.9</b>	<b>9.8</b>	<b>8.2</b>
<i>Size of employment, head-count:</i>															
below 50	100	20.4	21.3	12.8	15.8	43.1	39.5	16.4	18.6	0.4	0.6	15.6	17.0	7.6	5.8
51–100	100	20.6	24.8	11.5	15.4	46.0	39.4	15.2	13.6	0.6	0.7	14.3	13.1	7.1	6.6
101–200	100	19.9	20.3	11.9	13.2	40.6	40.0	11.2	12.9	0.5	0.7	16.7	16.9	10.4	8.9
201–500	100	20.9	22.2	13.7	13.3	33.6	36.4	8.4	13.2	0.8	1.2	17.6	17.1	13.3	9.8
501–1000	100	23.0	26.3	17.3	15.1	31.1	29.2	5.6	6.8	0.6	0.6	18.2	18.3	9.8	10.5
1001–5000	100	22.3	22.6	17.9	18.5	28.7	30.2	4.5	4.6	0.7	0.8	19.9	20.9	10.5	7.0
5001–10 000	100	24.9	30.2	18.3	20.8	23.2	15.5	2.9	4.2	2.0	0.7	24.9	25.5	6.7	7.3
10 000 and above	100	23.7	21.2	20.1	28.6	17.8	8.8	2.1	1.4	0.7	0.5	31.1	31.5	6.5	9.4

### 3.5.7. ICT EXPENDITURE PER ENTERPRISE BY ECONOMIC ACTIVITY

(thousand roubles)

	2005	2009	2010	2011
<b>Total</b>	<b>1426</b>	<b>2420</b>	<b>2918</b>	<b>3381</b>
Mining and quarrying	7304	14510	16911	18915
Manufacture of food products and beverages	764	1803	2270	2246
Manufacture of chemicals and chemical products	3350	5302	6005	6619
Manufacture of basic metals	4736	7522	6036	7612
Manufacture of machinery and equipment, n.e.c.	2624	2300	3589	3314
Manufacture of electrical machinery and apparatus	1806	2377	10185	3183
Electricity, gas and water supply	2106	4200	4223	5317
Construction	857	1933	2457	4952
Wholesale and retail trade	662	2663	2865	3248
Transport	1718	3342	4610	3928
Communications	19569	32275	39517	39591
Financial intermediation	6091	12381	12635	16668
Research and development	2973	4770	6121	6236
Public administration; compulsory social security	513	998	1199	1607
Higher education	5100	3613	4007	6990
Health and social work	544	759	1051	1247
Other activities	1097	1397	1725	1869

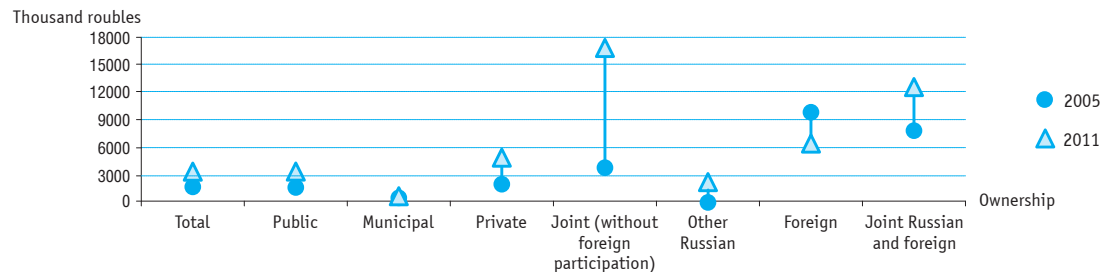
## 3.5.8. ICT EXPENDITURE PER ENTERPRISE BY OWNERSHIP

(thousand roubles)

	2005	2009	2010	2011
<b>Total</b>	<b>1426</b>	<b>2420</b>	<b>2918</b>	<b>3381</b>
Ownership:				
Russian	1231	2080	2524	3029
public	1434	2200	2879	3176
municipal	211	318	457	577
private	2096	3966	4646	5172
joint	3487	9461	10575	16715
other	97	250	1188	2267
foreign	9265	6593	6238	6244
joint Russian and foreign	7841	11537	13672	12100

## 3.5.9. TRENDS IN ICT EXPENDITURE PER ENTERPRISE BY OWNERSHIP

(thousand roubles)

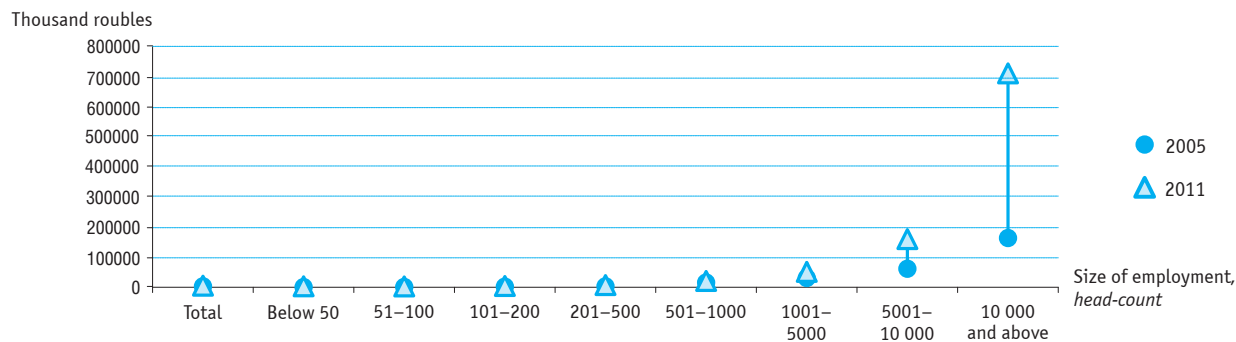


### 3.5.10. ICT EXPENDITURE PER ENTERPRISE BY SIZE OF EMPLOYMENT

(thousand roubles)

	2005	2009	2010	2011
<b>Total</b>	<b>1426</b>	<b>2420</b>	<b>2918</b>	<b>3381</b>
Size of employment, head-count:				
below 50	241	337	422	578
51–100	546	1278	1710	1681
101–200	979	1917	2424	2822
201–500	2562	4428	5553	6161
501–1000	7121	10664	11969	14450
1001–5000	13992	36893	42646	43038
5001–10 000	41543	98748	134743	159674
10 000 and above	175563	275396	422032	722075

### 3.5.11. TRENDS IN ICT EXPENDITURE PER ENTERPRISE BY SIZE OF EMPLOYMENT



### 3.6. Barriers to Internet Use

#### 3.6.1. FACTORS HAMPERING INTERNET USE

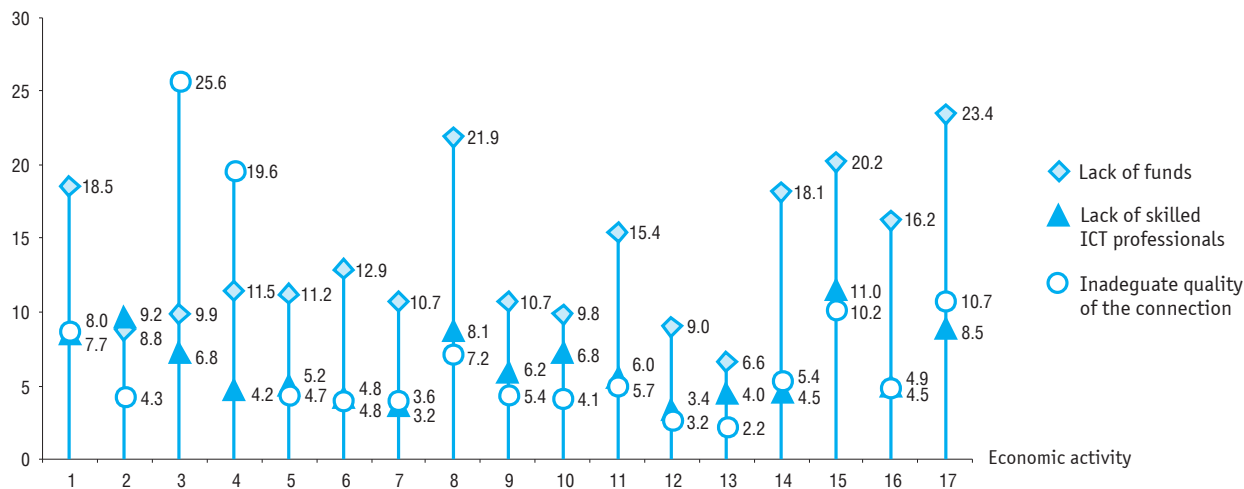
*(enterprises that indicated highly important hampering factors as a percentage of the total number of enterprises)*

	2005	2009	2010	2011
Technological factors:				
lack of technical ability to connect to the Internet	5.2	5.8	5.5	5.6
inadequate quality of the connection	5.4	7.2	7.7	8.0
technical complexities of telecommunications network usage	4.1	3.1	2.9	3.0
mismatch between available hardware and software and the needs of the enterprise	4.0	3.7	3.2	3.3
inadequate quality of the information obtained	1.4	2.9	2.4	2.5
insufficient protection of information	5.2	6.5	5.8	5.5
Legal factors:				
poor legal framework	2.5	3.2	2.8	2.7
Economic factors:				
lack of funds	32.5	24.6	21.2	18.5
security-related risks of the electronic payment transactions	3.8	5.7	5.2	5.5
uncertain economic benefits	4.1	4.5	3.9	3.9
insufficient use of computers by partners, suppliers and consumers	2.7	3.4	2.8	2.8
Production-related factors:				
no need to use the Internet due to the nature of the enterprise's economic activities and the goods and services it produces	6.6	5.3	4.9	5.5
shortage of knowledge and skills with the personnel	5.4	4.8	3.8	3.5
resistance to innovation	1.2	1.9	1.6	1.8
lack of skilled ICT professionals	8.0	8.3	7.6	7.7
waste of work time due to inappropriate use of ICT	1.5	2.4	2.6	2.9



### 3.6.2. MOST IMPORTANT FACTORS HAMPERING INTERNET USE IN ENTERPRISES BY ECONOMIC ACTIVITY: 2011

(enterprises that indicated highly important hampering factors as a percentage of the total number of enterprises)



1 – Total

2 – Mining and quarrying

3 – Manufacture of food products and beverages

4 – Manufacture of chemicals and chemical products

5 – Manufacture of basic metals

6 – Manufacture of machinery and equipment, n.e.c.

7 – Manufacture of electrical machinery and apparatus

8 – Electricity, gas and water supply

9 – Construction

10 – Wholesale and retail trade

11 – Transport

12 – Communications

13 – Financial intermediation

14 – Research and development

15 – Public administration; compulsory social security

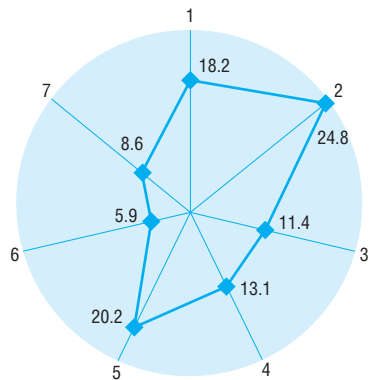
16 – Higher education

17 – Health and social work

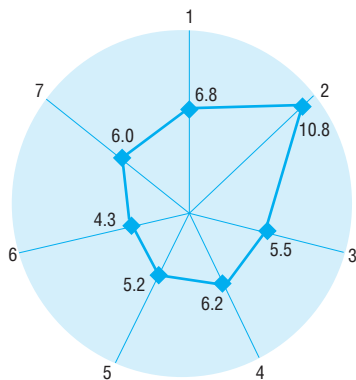
### 3.6.3. MOST IMPORTANT FACTORS HAMPERING INTERNET USE IN ENTERPRISES BY OWNERSHIP: 2011

(enterprises that indicated highly important hampering factors as a percentage of the total number of enterprises)

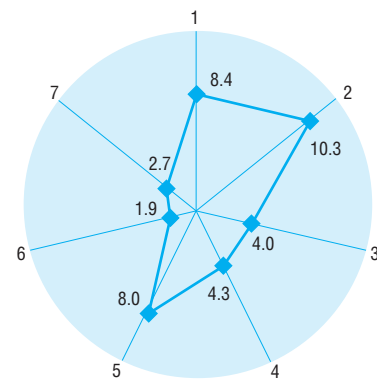
#### Lack of funds



#### Lack of skilled ICT professionals



#### Inadequate quality of the connection



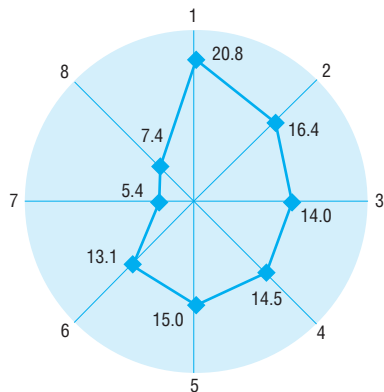
Ownership:

- |   |                               |
|---|-------------------------------|
| 1 – public                                | 5 – other Russian             |
| 2 – municipal                             | 6 – foreign                   |
| 3 – private                               | 7 – joint Russian and foreign |
| 4 – joint (without foreign participation) |                               |

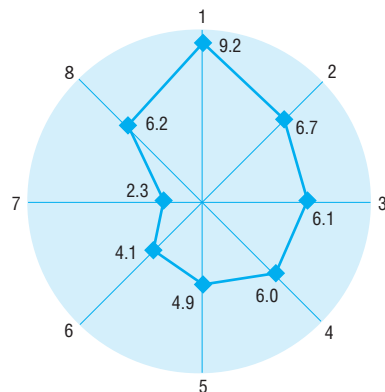
### 3.6.4. MOST IMPORTANT FACTORS HAMPERING INTERNET USE IN ENTERPRISES BY SIZE OF EMPLOYMENT: 2011

(enterprises that indicated highly important hampering factors as a percentage of the total number of enterprises)

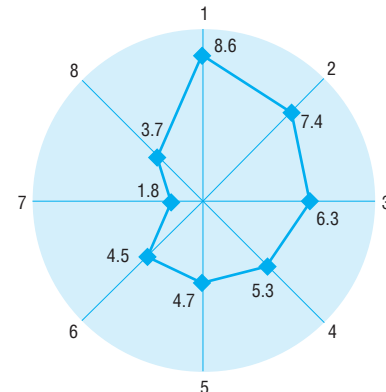
**Lack of funds**



**Lack of skilled ICT professionals**



**Inadequate quality of the connection**



Size of employment, *head-count*:

- |              |                      |
|--------------|----------------------|
| 1 – below 50 | 5 – 501–1000         |
| 2 – 51–100   | 6 – 1001–5000        |
| 3 – 101–200  | 7 – 5001–10 000      |
| 4 – 201–500  | 8 – 10 000 and above |

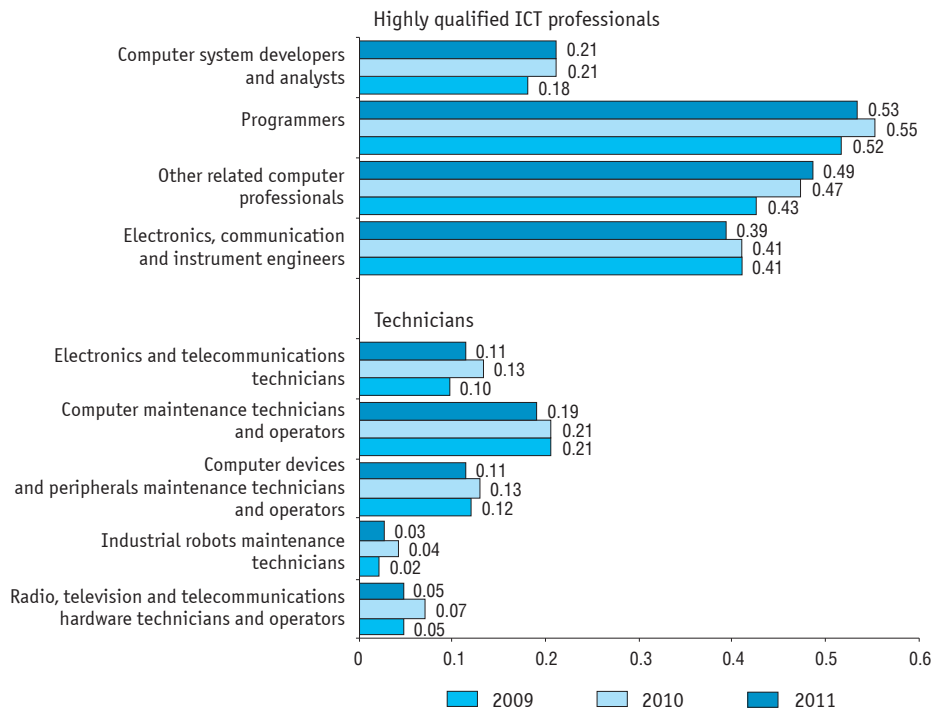
### 3.7. ICT Professionals and Employees with ICT Skills

#### 3.7.1. ICT PROFESSIONALS BY OCCUPATION AND QUALIFICATION LEVEL

	Thousand			As a percentage of the total		
	2009	2010	2011	2009	2010	2011
<b>The total number of employees in enterprises surveyed</b>	<b>25292.8</b>	<b>25638.6</b>	<b>25312.2</b>	-	-	-
Of which ICT professionals*:						
highly qualified ICT professionals:						
computer system developers and analysts	45.8	54.0	53.5	11.8	12.8	13.0
programmers	130.8	142.0	135.2	33.7	33.7	32.8
other computer related professionals	107.8	121.5	123.4	27.7	28.8	30.0
electronics, communication and instrument engineers	104.1	104.2	99.8	26.8	24.7	24.2
technicians:	124.2	152.0	125.1	100	100	100
electronics and telecommunications technicians	24.4	34.4	29.0	19.7	22.6	23.2
computer maintenance technicians and operators	51.9	55.0	48.1	41.8	36.2	38.5
computer devices and peripherals maintenance technicians and operators	30.4	33.5	28.9	24.3	22.0	23.1
industrial robots maintenance technicians	5.3	11.1	6.8	4.3	7.3	5.4
radio, television and telecommunications hardware technicians and operators	12.2	18.0	12.3	9.9	11.9	9.8

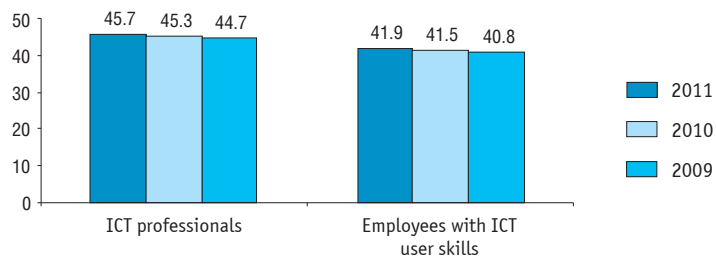
\* The data is presented according to the Russian Classification of Occupations (RCO).

### 3.7.2. ICT PROFESSIONALS AS A PERCENTAGE OF THE TOTAL EMPLOYMENT



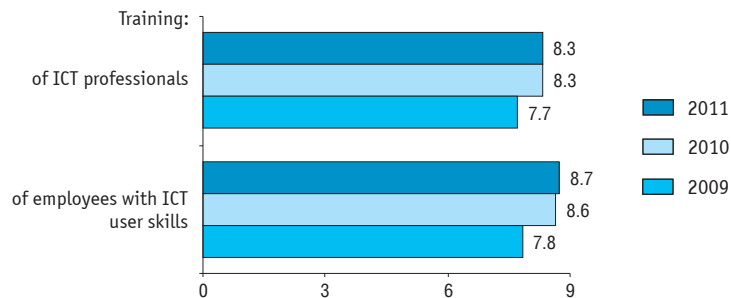
### 3.7.3. NEED OF ENTERPRISES FOR ICT PROFESSIONALS AND EMPLOYEES WITH ICT SKILLS

(as a percentage of the total number of enterprises)



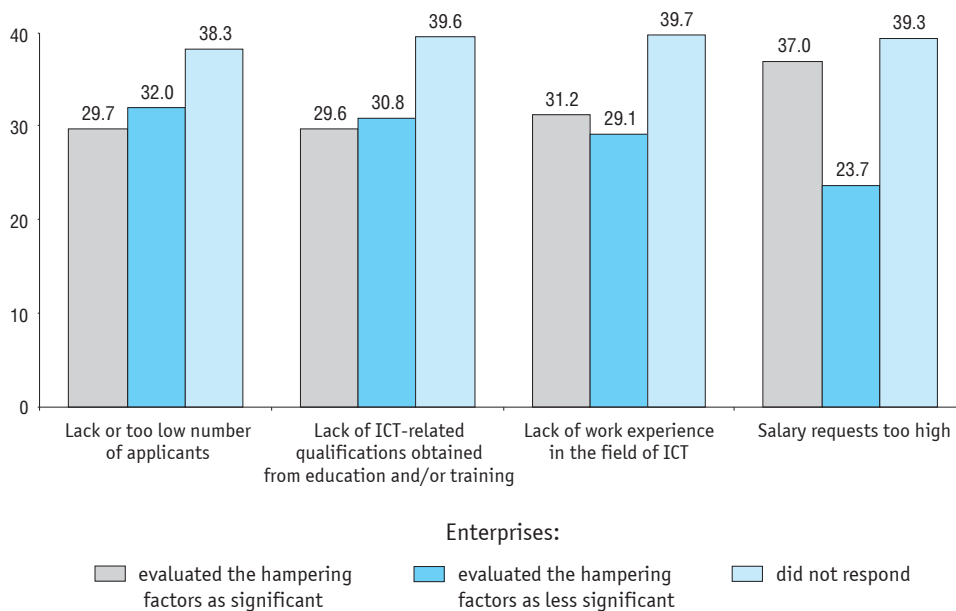
### 3.7.4. ENTERPRISES THAT PROVIDED TRAINING TO DEVELOP OR UPGRADE PERSONNEL'S ICT SKILLS

(as a percentage of the total number of enterprises)



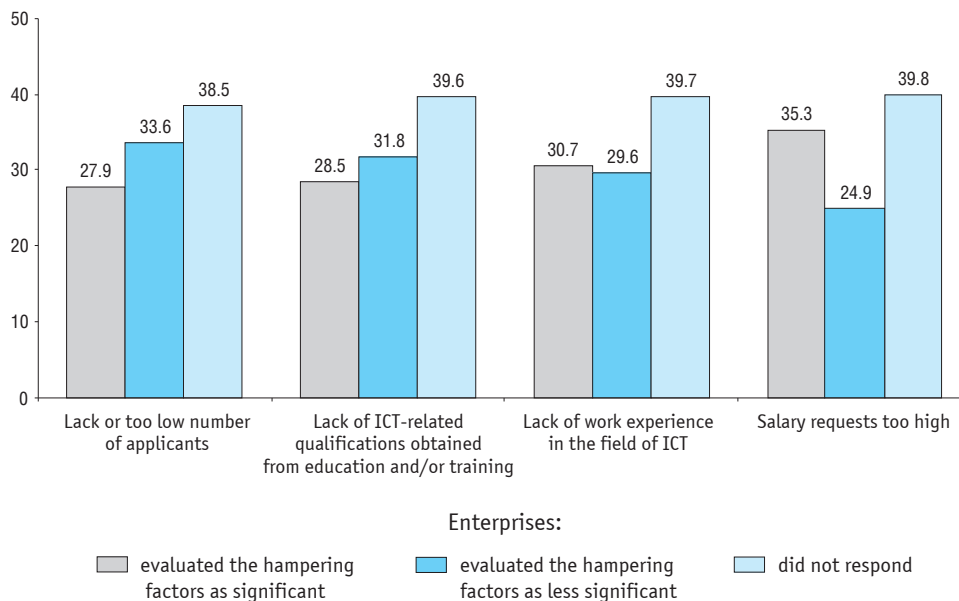
### 3.7.5. FACTORS HAMPERING THE RECRUITMENT OF ICT PROFESSIONALS: 2011

(enterprises that indicated hampering factors as a percentage of the total number of enterprises)



### 3.7.6. FACTORS HAMPERING THE RECRUITMENT OF EMPLOYEES WITH ICT SKILLS: 2011

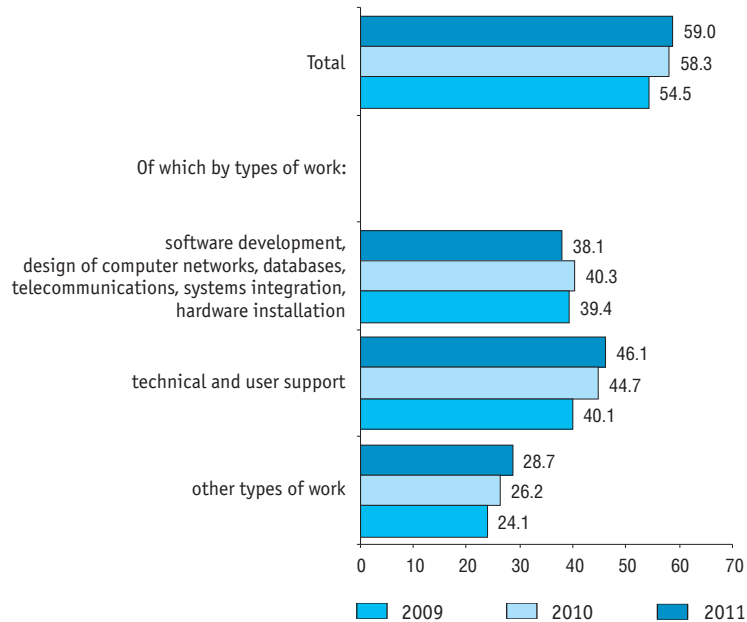
(enterprises that indicated hampering factors as a percentage of the total number of enterprises)





### 3.7.7. ENTERPRISES THAT OUTSOURCED ICT WORK

(as a percentage of the total number of enterprises)



## 3.7.8. HIGHLY QUALIFIED ICT PROFESSIONALS PER 10 000 EMPLOYEES BY ECONOMIC ACTIVITY

*(head-count)*

	Computer system developers and analysts			Programmers			Other computer-related professionals			Electronics, communication and software engineers		
	2009	2010	2011	2009	2010	2011	2009	2010	2011	2009	2010	2011
<b>Total</b>	<b>18</b>	<b>21</b>	<b>21</b>	<b>52</b>	<b>55</b>	<b>53</b>	<b>43</b>	<b>47</b>	<b>49</b>	<b>41</b>	<b>41</b>	<b>39</b>
Mining and quarrying	6	5	5	22	22	22	15	15	15	20	21	21
Manufacture of food products and beverages	8	10	11	26	27	27	16	18	21	11	10	11
Manufacture of chemicals and chemical products	11	13	12	27	28	28	21	23	22	24	24	26
Manufacture of basic metals	15	14	12	31	29	31	17	15	17	17	17	21
Manufacture of machinery and equipment, n.e.c.	9	8	8	32	34	30	20	24	26	26	24	26
Manufacture of electrical machinery and apparatus	24	23	26	75	84	74	42	45	41	93	97	87
Electricity, gas and water supply	7	7	8	41	40	39	26	28	32	31	31	30
Construction	5	5	5	20	19	18	15	17	17	11	15	13
Wholesale and retail trade	18	15	20	42	33	43	39	30	40	14	11	13
Transport	7	9	6	20	33	31	34	38	47	35	22	22
Communications	29	32	32	90	80	78	87	87	72	359	356	355
Financial intermediation	66	60	63	112	118	100	146	163	146	43	54	47
Research and development	106	119	130	177	182	179	97	91	81	190	195	197
Public administration; compulsory social security	11	12	11	55	55	51	96	104	110	17	18	18
Higher education	33	26	25	132	133	119	60	64	83	87	77	78
Health and social work	1	8	2	27	33	31	9	16	10	4	10	5
Other activities	25	35	40	61	73	76	44	56	61	30	33	30

### 3.7.9. TECHNICIANS PER 10 000 EMPLOYEES BY ECONOMIC ACTIVITY

(head-count)

	Electronics and telecommunications technicians			Computer technicians and operators			Computer maintenance technicians and operators			Industrial robots technicians and operators			Radio, television and telecommunications hardware technicians and operators		
	2009	2010	2011	2009	2010	2011	2009	2010	2011	2009	2010	2011	2009	2010	2011
<b>Total</b>	<b>10</b>	<b>13</b>	<b>11</b>	<b>21</b>	<b>21</b>	<b>19</b>	<b>12</b>	<b>13</b>	<b>11</b>	<b>2</b>	<b>4</b>	<b>3</b>	<b>5</b>	<b>7</b>	<b>5</b>
Mining and quarrying	3	2	3	9	6	7	3	2	2	0.3	0.6	0.3	3	3	3
Manufacture of food products and beverages	3	3	3	9	11	11	6	7	15	2	3	8	1	1	1
Manufacture of chemicals and chemical products	4	4	5	9	9	9	4	3	5	2	2	10	2	3	3
Manufacture of basic metals	10	9	7	18	16	14	9	8	8	3	2	2	2	2	2
Manufacture of machinery and equipment, n.e.c.	5	5	4	12	12	10	9	9	8	15	15	16	2	3	2
Manufacture of electrical machinery and apparatus	12	11	12	20	19	19	15	15	18	8	9	8	5	5	8
lectricity, gas and water supply	5	7	7	8	8	8	6	5	5	2	2	2	3	2	3
Construction	3	4	5	7	6	6	5	5	5	0.3	0.3	0.2	2	1	1
Wholesale and retail trade	5	5	7	21	14	14	14	11	13	0.4	0.4	0.7	1	1	2
Transport	5	12	12	11	12	13	10	4	7	0.1	0.2	0.2	3	3	3
Communications	106	130	145	26	23	18	14	13	17	0.2	0.1	1.4	48	46	48
Financial intermediation	8	9	10	26	19	22	18	16	21	0.2	0.4	0.7	0.5	1	1
Research and development	22	27	24	38	36	34	17	30	30	4	4	4	5	5	6
Public administration; compulsory social security	4	4	5	23	24	25	14	12	11	0.2	0.1	0.1	3	2	4
Higher education	24	26	20	67	60	54	36	31	24	0.4	0.3	0.2	8	8	6
Health and social work	1	10	2	26	33	26	7	15	6	0.1	9	0.1	0.6	9	1
Other activities	8	13	8	21	26	21	16	20	15	5	10	4	7	13	7

## 3.7.10. ENTERPRISES THAT NEED ICT PROFESSIONALS AND EMPLOYEES WITH ICT SKILLS BY ECONOMIC ACTIVITY

*(as a percentage of the total number of enterprises)*

	Total			Of which need					
				ICT professionals			employees with ICT user skills		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
<b>Total</b>	<b>49.6</b>	<b>49.1</b>	<b>48.3</b>	<b>45.7</b>	<b>45.3</b>	<b>44.7</b>	<b>41.9</b>	<b>41.5</b>	<b>40.8</b>
Mining and quarrying	44.7	43.2	43.7	40.5	39.4	38.1	37.0	34.9	36.3
Manufacture of food products and beverages	46.1	44.2	42.7	41.0	39.1	37.4	39.1	37.9	36.3
Manufacture of chemicals and chemical products	51.5	51.4	46.8	45.6	44.3	42.1	43.4	44.0	41.2
Manufacture of basic metals	49.4	47.4	43.5	43.6	42.1	39.3	42.7	39.8	35.6
Manufacture of machinery and equipment, n.e.c.	48.2	46.0	44.8	43.8	41.1	40.8	41.3	39.3	38.3
Manufacture of electrical machinery and apparatus	53.1	51.7	49.2	49.0	47.7	45.6	45.7	45.1	41.8
Electricity, gas and water supply	45.8	45.5	46.1	41.9	41.7	42.3	38.1	37.7	37.9
Construction	43.1	41.8	39.7	38.8	37.3	35.7	36.0	34.6	32.7
Wholesale and retail trade	39.5	40.1	35.6	34.8	36.0	31.5	33.8	34.0	30.0
Transport	43.2	40.1	39.5	39.3	36.5	36.1	36.5	33.8	33.6
Communications	55.1	52.3	50.5	50.1	47.1	46.1	49.1	46.2	45.4
Financial intermediation	44.1	44.7	42.6	39.2	40.4	37.4	37.2	38.5	35.8
Research and development	55.6	52.2	51.2	52.4	48.8	48.2	47.7	44.8	43.2
Public administration; compulsory social security	57.7	58.2	58.0	54.3	54.7	54.6	48.6	49.1	48.8
Higher education	56.7	55.5	53.4	53.8	52.1	49.7	47.4	47.3	45.0
Health and social work	59.5	60.0	58.9	55.3	55.7	54.9	50.6	51.3	50.5
Other activities	43.0	42.3	42.7	39.3	38.6	39.3	36.3	35.7	36.1

### 3.7.11. ENTERPRISES THAT PROVIDED TRAINING TO DEVELOP OR UPGRADE ICT SKILLS OF PERSONNEL BY ECONOMIC ACTIVITY

(as a percentage of the total number of enterprises)

	Total			Of which provided training of					
	2009	2010	2011	ICT professionals			employees with ICT user skills		
				2009	2010	2011	2009	2010	2011
<b>Total</b>	<b>8.9</b>	<b>9.8</b>	<b>10.0</b>	<b>7.7</b>	<b>8.3</b>	<b>8.3</b>	<b>7.8</b>	<b>8.6</b>	<b>8.7</b>
Mining and quarrying	10.2	11.7	11.7	9.7	10.7	10.7	8.5	10.0	9.5
Manufacture of food products and beverages	8.2	8.7	8.9	7.3	7.8	7.7	6.8	7.2	7.6
Manufacture of chemicals and chemical products	18.1	18.2	17.9	17.0	16.7	16.3	15.5	15.4	14.6
Manufacture of basic metals	12.0	12.0	12.8	10.6	11.0	11.6	9.8	10.3	10.7
Manufacture of machinery and equipment, n.e.c.	10.4	11.5	11.7	9.2	9.9	10.6	9.2	10.1	10.5
Manufacture of electrical machinery and apparatus	15.4	17.4	18.3	14.2	15.6	16.3	13.6	15.3	15.7
Electricity, gas and water supply	10.3	10.5	10.5	9.4	9.4	9.5	8.3	8.4	8.7
Construction	7.4	8.8	9.4	6.3	7.2	8.1	6.6	7.7	7.9
Wholesale and retail trade	7.8	8.0	6.9	7.0	7.1	5.9	7.0	7.3	5.9
Transport	9.5	9.8	9.2	8.5	8.6	8.0	8.2	8.3	7.9
Communications	28.6	27.4	30.1	27.2	26.3	27.9	24.9	23.8	26.1
Financial intermediation	18.8	15.9	15.3	17.7	14.9	14.1	16.1	13.1	12.4
Research and development	17.2	19.4	20.2	15.5	17.4	17.6	15.6	17.6	18.4
Public administration; compulsory social security	9.0	10.6	10.4	7.4	8.5	8.3	7.9	9.5	9.1
Higher education	21.5	22.1	21.4	18.8	19.8	19.2	20.4	20.8	19.8
Health and social work	7.6	9.8	11.1	6.2	7.7	8.5	6.5	8.6	9.6
Other activities	6.5	7.0	7.6	5.5	5.8	6.1	5.8	6.3	6.7

## 3.7.12. ENTERPRISES THAT OUTSOURCED ICT WORK BY ECONOMIC ACTIVITY

*(as a percentage of the total number of enterprises)*

	Total			Of which for the following types of work								
				software development, design of computer networks, databases, telecommunications, system integration, hardware installation			technical and user support			other types of work		
	2009	2010	2011	2009	2010	2011	2009	2010	2011	2009	2010	2011
<b>Total</b>	<b>54.5</b>	<b>58.3</b>	<b>59.0</b>	<b>39.4</b>	<b>40.3</b>	<b>38.1</b>	<b>40.1</b>	<b>44.7</b>	<b>46.1</b>	<b>24.1</b>	<b>26.2</b>	<b>28.7</b>
Mining and quarrying	63.9	66.8	66.8	47.7	50.5	48.8	50.5	53.0	51.2	34.8	34.5	36.7
Manufacture of food products and beverages	59.7	63.9	63.0	44.7	45.6	44.2	41.6	45.6	45.3	25.9	27.8	30.0
Manufacture of chemicals and chemical products	69.8	70.1	70.4	53.3	52.8	49.5	48.2	51.4	53.2	36.8	36.6	36.3
Manufacture of basic metals	65.7	66.5	68.5	47.7	47.2	47.4	50.1	51.1	52.4	29.3	31.8	33.1
Manufacture of machinery and equipment, n.e.c.	62.8	66.2	65.8	44.1	45.7	43.7	45.2	48.6	50.1	28.7	29.3	32.4
Manufacture of electrical machinery and apparatus	62.9	68.8	68.3	44.4	45.3	44.5	42.8	48.5	49.2	28.6	32.3	32.0
Electricity, gas and water supply	55.2	58.7	59.7	41.3	43.2	40.9	40.2	42.5	44.0	25.0	25.9	28.7
Construction	62.7	67.1	66.1	46.2	46.8	43.0	47.5	53.8	52.6	27.1	30.0	32.1
Wholesale and retail trade	50.8	54.5	52.4	37.2	39.3	34.6	37.0	41.8	39.9	22.6	25.0	25.6
Transport	59.4	61.3	59.7	43.3	44.5	40.5	45.8	47.2	47.6	27.7	29.3	29.1
Communications	54.1	57.4	58.8	38.1	40.6	39.8	36.7	42.6	44.9	25.4	29.3	30.1
Financial intermediation	57.7	58.0	56.9	41.2	39.4	36.8	35.3	38.5	37.2	27.7	29.9	28.2
Research and development	61.0	67.3	66.9	46.2	46.0	43.0	38.9	51.7	51.7	26.1	31.2	32.1
Public administration; compulsory social security	55.1	60.4	62.7	38.7	40.5	39.1	40.5	46.4	49.5	24.5	27.5	31.5
Higher education	64.1	68.7	69.6	45.6	46.4	43.2	44.5	49.6	51.6	30.2	35.0	35.9
Health and social work	66.2	71.0	72.5	50.1	51.3	49.2	52.0	56.9	59.6	28.4	30.9	35.0
Other activities	46.5	49.3	49.8	33.3	33.5	31.2	34.3	38.2	39.3	19.9	21.1	23.3

### 3.7.13. HIGHLY QUALIFIED ICT PROFESSIONALS PER 10 000 EMPLOYEES IN ENTERPRISES BY OWNERSHIP

(head-count)

	Computer system developers and analysts			Programmers			Other related computer professionals			Electronics, communication and instrument engineers		
	2009	2010	2011	2009	2010	2011	2009	2010	2011	2009	2010	2011
<b>Total</b>	<b>18</b>	<b>21</b>	<b>21</b>	<b>52</b>	<b>55</b>	<b>53</b>	<b>43</b>	<b>47</b>	<b>49</b>	<b>41</b>	<b>41</b>	<b>39</b>
Ownership:												
Russian	16	19	19	50	53	52	41	46	47	38	37	39
public	19	21	20	63	67	62	56	61	64	52	47	46
municipal	3	13	3	30	41	35	20	32	25	6	16	7
private	20	21	25	46	48	49	35	37	40	34	32	32
joint	20	19	17	59	56	57	55	57	54	65	68	98
other	3	9	13	21	25	27	22	28	35	6	21	27
foreign	47	57	62	79	90	80	67	69	68	24	28	29
joint Russian and foreign	30	28	27	63	65	58	52	54	58	125	114	51

## 3.7.14. TECHNICIANS PER 10 000 EMPLOYEES IN ENTERPRISES BY OWNERSHIP

	Electronics and telecommunications technicians			Computer maintenance technicians and operators			Computer devices and peripheral maintenance technicians and operators			Industrial robots maintenance technicians			Radio, television and telecommunications hardware technicians and operators		
	2009	2010	2011	2009	2010	2011	2009	2010	2011	2009	2010	2011	2009	2010	2011
<b>Total</b>	<b>10</b>	<b>13</b>	<b>11</b>	<b>21</b>	<b>21</b>	<b>19</b>	<b>12</b>	<b>13</b>	<b>11</b>	<b>2</b>	<b>4</b>	<b>3</b>	<b>5</b>	<b>7</b>	<b>5</b>
Ownership:															
Russian	9	12	11	21	22	19	12	13	11	2	4	2	5	7	5
public	10	12	11	28	27	25	15	13	11	2	1	1	7	7	7
municipal	2	17	2	23	37	23	9	24	10	1	16	1	2	17	3
private	10	9	11	14	13	12	11	10	10	2	2	3	5	4	4
joint	18	19	29	18	17	17	11	9	11	5	7	7	6	5	4
other	4	5	6	14	10	12	13	11	14	1	0.1	0.3	2	4	6
foreign	8	14	20	18	14	17	13	10	22	4	2	9	2	4	4
joint Russian and foreign	23	32	11	16	17	21	9	9	15	5	4	2	4	5	3



### 3.7.15. ENTERPRISES THAT NEED ICT PROFESSIONALS AND EMPLOYEES WITH ICT SKILLS BY OWNERSHIP

(as a percentage of the total number of enterprises)

	Total			Of which need					
				ICT professionals			employees with ICT user skills		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
<b>Total</b>	<b>49.6</b>	<b>49.1</b>	<b>48.3</b>	<b>45.7</b>	<b>45.3</b>	<b>44.7</b>	<b>41.9</b>	<b>41.5</b>	<b>40.8</b>
Ownership:									
Russian	50.2	49.8	49.4	46.4	46.0	45.7	42.5	42.1	41.7
public	54.4	54.0	54.2	50.5	50.2	50.5	45.8	45.4	45.8
municipal	53.5	53.9	53.9	50.0	50.2	50.5	45.4	45.9	45.8
private	40.0	38.3	36.9	35.7	34.3	32.9	33.7	32.0	30.7
joint	46.4	44.6	41.7	42.4	40.8	37.9	39.4	37.9	35.5
other	40.3	40.9	39.2	36.2	37.6	36.3	34.2	34.0	32.4
foreign	35.1	37.0	31.4	30.7	33.0	27.2	29.8	32.3	26.3
joint Russian and foreign	39.5	38.2	36.0	34.7	33.4	31.6	33.7	32.5	31.0

### 3.7.16. ENTERPRISES THAT PROVIDED TRAINING TO DEVELOP OR UPGRADE ICT SKILLS OF PERSONNEL AND ICT PROFESSIONALS BY OWNERSHIP

(as a percentage of the total number of enterprises)

	Total			Of which provided training of					
				ICT professionals			employees with ICT user skills		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
<b>Total</b>	<b>8.9</b>	<b>9.8</b>	<b>10.0</b>	<b>7.7</b>	<b>8.3</b>	<b>8.3</b>	<b>7.8</b>	<b>8.6</b>	<b>8.7</b>
Ownership:									
Russian	8.7	9.6	10.0	7.5	8.1	8.2	7.7	8.5	8.7
public	12.5	14.3	15.1	10.9	12.0	12.4	11.0	12.7	13.2
municipal	5.3	6.3	6.5	4.0	4.7	4.9	4.7	5.7	5.7
private	9.5	9.5	9.7	8.6	8.5	8.7	8.3	8.2	8.3
joint	14.4	14.6	13.7	13.3	13.4	12.3	12.0	12.1	11.4
other	4.8	6.0	7.2	3.9	5.0	6.1	4.4	5.4	6.2
foreign	11.0	11.8	10.2	10.3	11.3	9.3	9.7	10.4	8.4
joint Russian and foreign	13.8	13.2	11.8	12.8	12.7	10.9	12.0	11.4	10.3

### 3.7.17. ENTERPRISES THAT OUTSOURCED ICT WORK BY OWNERSHIP

(as a percentage of the total number of enterprises)

	Total			Of which for the types of work								
				software development, design of computer networks, databases, telecommunications, systems integration, hardware installation			technical and user support			other types of work		
	2009	2010	2011	2009	2010	2011	2009	2010	2011	2009	2010	2011
<b>Total</b>	<b>54.5</b>	<b>58.3</b>	<b>59.0</b>	<b>39.4</b>	<b>40.3</b>	<b>38.1</b>	<b>40.1</b>	<b>44.7</b>	<b>46.1</b>	<b>24.1</b>	<b>26.2</b>	<b>28.7</b>
Ownership:												
Russian	54.6	58.5	59.4	39.4	40.4	38.3	40.3	44.9	46.5	24.0	26.3	28.9
public	63.0	67.7	69.6	45.8	46.8	45.6	47.0	53.1	55.7	28.5	31.6	35.3
municipal	48.7	53.1	54.3	34.8	36.4	34.1	36.2	40.7	42.8	20.7	22.5	25.6
private	54.6	57.0	56.3	39.6	39.7	37.1	39.3	42.9	42.7	24.4	26.3	27.0
joint	58.3	62.2	61.5	41.7	43.0	40.4	39.5	44.4	45.0	26.4	29.6	31.5
other	47.8	53.0	53.6	36.0	37.7	36.2	36.6	41.1	43.1	18.6	22.2	23.1
foreign	51.5	52.7	51.7	37.7	38.1	33.9	37.6	41.0	39.0	24.5	24.6	25.4
joint Russian and foreign	53.8	55.9	55.0	40.0	39.8	36.6	38.6	41.8	41.1	25.6	27.5	28.3

## 3.7.18. HIGHLY QUALIFIED ICT PROFESSIONALS PER 10 000 EMPLOYEES BY SIZE OF EMPLOYMENT

*(head-count)*

	Computer system developers and analysts			Programmers			Other computer-related professionals			Electronics, communication and instrument engineers		
	2009	2010	2011	2009	2010	2011	2009	2010	2011	2009	2010	2011
<b>Total</b>	<b>18</b>	<b>21</b>	<b>21</b>	<b>52</b>	<b>55</b>	<b>53</b>	<b>43</b>	<b>47</b>	<b>49</b>	<b>41</b>	<b>41</b>	<b>39</b>
Size of employment, <i>head-count</i> :												
below 50	11	12	20	78	74	43	78	78	43	21	21	38
51–100	15	18	13	68	69	75	63	65	81	28	28	22
101–200	23	23	23	64	61	63	55	57	60	35	33	33
201–500	18	20	19	48	50	35	38	41	34	35	34	32
501–1000	20	20	41	46	48	110	39	45	100	41	39	62
1001–5000	19	23	22	47	50	51	34	36	44	51	50	51
5001–10 000	17	18	19	48	51	46	29	27	29	60	70	63
10 000 and above	15	30	23	39	68	49	40	67	49	49	48	43

### 3.7.19. TECHNICIANS PER 10 000 EMPLOYEES BY SIZE OF EMPLOYMENT

(head-count)

	Electronics and telecommunications technicians			Computer maintenance technicians and operators			Computer devices and peripherals maintenance technicians and operators			Industrial robots maintenance technicians			Radio, television and telecommunications hardware technicians and operators		
	2009	2010	2011	2009	2010	2011	2009	2010	2011	2009	2010	2011	2009	2010	2011
<b>Total</b>	<b>10</b>	<b>13</b>	<b>11</b>	<b>21</b>	<b>21</b>	<b>19</b>	<b>12</b>	<b>13</b>	<b>11</b>	<b>2</b>	<b>4</b>	<b>3</b>	<b>5</b>	<b>7</b>	<b>5</b>
Size of employment, head-count:															
below 50	7	6	8	34	28	15	23	21	11	1	1	2	8	7	2
51–100	7	7	8	22	21	28	15	15	22	1	1	1	6	7	8
101–200	11	12	11	20	19	19	12	11	14	1	1	2	6	6	6
201–500	8	9	9	18	16	15	10	9	6	2	1	1	6	5	3
501–1000	11	9	21	18	18	37	8	9	21	1	1	6	4	4	13
1001–5000	10	14	14	19	19	19	11	10	11	2	2	3	4	4	3
5001–10 000	14	18	15	20	18	15	13	9	14	3	3	6	3	2	2
10 000 and above	9	42	9	27	47	17	17	39	13	11	37	2	3	33	3

## 3.7.20. ENTERPRISES THAT NEED ICT PROFESSIONALS AND EMPLOYEES WITH ICT SKILLS BY SIZE OF EMPLOYMENT

*(as a percentage of the total number of enterprises)*

	Total			Of which need					
				ICT professionals			employees with ICT user skills		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
<b>Total</b>	<b>49.6</b>	<b>49.1</b>	<b>48.3</b>	<b>45.7</b>	<b>45.3</b>	<b>44.7</b>	<b>41.9</b>	<b>41.5</b>	<b>40.8</b>
Size of employment, <i>head-count</i> :									
below 50	46.0	46.0	45.6	42.5	42.5	42.3	38.6	38.7	38.4
51–100	52.7	51.9	50.7	48.4	47.9	46.9	44.3	43.8	42.7
101–200	52.6	51.4	50.0	48.2	47.2	45.8	44.6	43.3	42.2
201–500	54.5	53.5	51.9	49.9	48.7	47.2	46.8	45.9	44.2
501–1000	60.2	59.5	58.5	55.1	54.4	53.9	52.0	51.8	50.8
1001–5000	71.3	70.5	69.6	67.4	66.4	65.7	62.8	61.9	60.5
5001–10 000	85.5	83.3	86.4	84.2	81.4	82.8	81.0	75.8	76.0
10 000 and above	78.4	84.0	82.7	76.1	82.7	79.0	65.9	70.4	74.1

### 3.7.21. ENTERPRISES THAT PROVIDED TRAINING TO DEVELOP OR UPGRADE ICT SKILLS OF PERSONNEL BY SIZE OF EMPLOYMENT

(as a percentage of the total number of enterprises)

	Total			Of which provided training for					
				ICT professionals			employees with ICT user skills		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
<b>Total</b>	<b>8.9</b>	<b>9.8</b>	<b>10.0</b>	<b>7.7</b>	<b>8.3</b>	<b>8.3</b>	<b>7.8</b>	<b>8.6</b>	<b>8.7</b>
Size of employment, <i>head-count</i> :									
below 50	5.2	5.9	6.0	4.1	4.6	4.5	4.7	5.4	5.3
51–100	9.4	11.1	11.6	8.2	9.4	9.5	8.1	9.7	10.0
101–200	12.6	13.3	14.1	11.3	11.5	12.1	11.1	11.7	12.1
201–500	15.3	16.8	17.5	13.8	14.9	15.4	13.1	14.3	14.9
501–1000	22.1	23.7	24.4	20.2	21.4	22.0	18.9	20.1	20.5
1001–5000	34.8	37.7	36.9	32.6	35.2	34.4	30.8	33.0	32.1
5001–10 000	66.5	67.9	66.1	63.3	65.6	62.0	62.9	64.2	61.1
10 000 and above	73.9	75.3	75.3	69.3	71.6	74.1	71.6	72.8	69.1

## 3.7.22. ENTERPRISES THAT OUTSOURCED ICT WORK BY SIZE OF EMPLOYMENT

*(as a percentage of the total number of enterprises)*

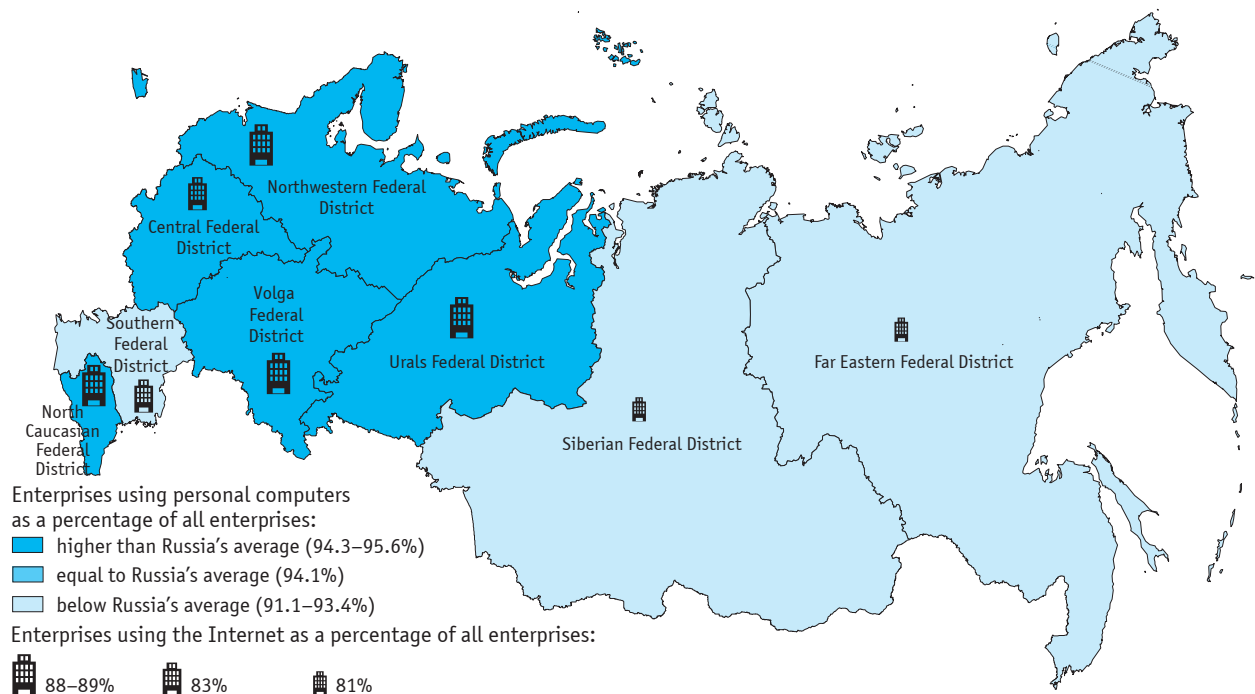
	Total			Of which for the types of work								
				software development, design and computer networks, databases, telecommunications, systems integration, hardware installation			technical and user support			other types of work		
	2009	2010	2011	2009	2010	2011	2009	2010	2011	2009	2010	2011
<b>Total</b>	<b>54.5</b>	<b>58.3</b>	<b>59.0</b>	<b>39.4</b>	<b>40.3</b>	<b>38.1</b>	<b>40.1</b>	<b>44.7</b>	<b>46.1</b>	<b>24.1</b>	<b>26.2</b>	<b>28.7</b>
Size of employment, <i>head-count</i> :												
below 50	45.2	49.4	50.3	31.1	32.5	30.3	33.6	38.3	39.9	19.2	21.2	23.7
51–100	64.4	68.7	69.3	47.0	48.1	45.4	48.3	53.9	55.2	28.3	30.5	33.5
101–200	68.3	71.7	72.4	51.0	51.1	48.6	50.8	55.8	56.7	30.3	33.1	35.6
201–500	69.5	73.2	73.2	52.6	53.9	51.6	49.4	54.3	55.2	32.1	34.9	37.3
501–1000	74.0	77.3	77.2	59.0	60.3	58.4	51.2	54.1	55.4	36.3	39.2	41.5
1001–5000	78.3	81.7	83.2	66.2	67.7	68.6	52.4	57.1	59.0	43.3	47.4	49.3
5001–10 000	88.2	91.2	88.7	81.0	80.0	80.1	64.7	68.4	70.1	52.0	54.9	59.3
10 000 and above	88.6	87.7	93.8	83.0	86.4	85.2	68.2	77.8	77.8	61.4	64.2	64.2



## 3.8. ICT Usage in Regions of the Russian Federation

### 3.8.1. ICT USAGE IN ENTERPRISES BY FEDERAL DISTRICT: 2011

(as a percentage of the total number of enterprises)



## 3.8.2. ENTERPRISES USING PERSONAL COMPUTERS AND THE INTERNET

*(as a percentage of the total number of enterprises)*

	Personal computers			Internet		
	2009	2010	2011	2009	2010	2011
<b>Russian Federation</b>	<b>93.7</b>	<b>93.8</b>	<b>94.1</b>	<b>78.3</b>	<b>82.4</b>	<b>84.8</b>
<b>Central Federal District</b>	<b>93.9</b>	<b>94.1</b>	<b>94.3</b>	<b>75.5</b>	<b>80.3</b>	<b>82.8</b>
Belgorod Region	97.3	97.2	97.3	82.6	85.8	87.6
Bryansk Region	86.9	88.8	88.5	65.4	69.4	71.8
Vladimir Region	96.1	97.2	95.3	83.8	87.9	88.3
Voronezh Region	98.7	98.0	94.1	74.0	80.1	78.2
Ivanovo Region	89.7	91.0	94.8	69.0	78.5	84.7
Kaluga Region	93.1	93.4	93.3	67.6	73.3	76.9
Kostroma Region	94.5	93.7	96.7	68.7	76.4	84.9
Kursk Region	90.4	89.4	89.5	52.4	56.1	64.4
Lipetsk Region	93.7	95.2	96.3	70.2	78.9	80.7
Moscow Region	95.5	95.8	95.7	81.4	86.4	86.2
Oryol Region	88.3	86.0	87.3	67.0	71.4	74.6
Ryazan Region	99.9	99.2	99.5	80.0	84.0	85.8
Smolensk Region	97.2	97.9	98.3	61.2	74.9	81.4
Tambov Region	77.6	77.1	82.8	62.5	65.4	75.1
Tver Region	100	100	97.6	74.9	82.5	82.6
Tula Region	88.4	87.4	88.1	69.8	71.9	76.8
Yaroslavl Region	92.9	94.9	94.2	82.2	85.8	87.0
Moscow	100	100	100	98.1	98.5	98.5
<b>Northwestern Federal District</b>	<b>94.6</b>	<b>94.8</b>	<b>95.2</b>	<b>80.6</b>	<b>85.7</b>	<b>88.6</b>
Republic of Karelia	99.0	98.5	99.8	92.3	93.7	98.1
Republic of Komi	80.5	81.7	84.2	65.5	71.3	76.1

(continued)

	Personal computers			Internet		
	2009	2010	2011	2009	2010	2011
Arkhangelsk Region	96.7	96.9	97.1	82.7	87.4	90.1
Of which Nenets Autonomous District	98.1	96.5	97.7	79.0	82.2	89.4
Vologda Region	95.5	95.8	95.8	66.2	76.5	80.4
Kaliningrad Region	91.9	91.8	92.7	76.5	82.0	85.0
Leningrad Region	97.7	97.3	97.6	87.9	90.8	93.3
Murmansk Region	96.1	97.6	96.9	78.8	84.7	87.6
Novgorod Region	99.1	98.3	98.2	85.2	89.8	94.8
Pskov region	93.8	92.4	93.4	78.0	83.5	87.5
Saint-Petersburg	98.5	98.6	98.6	93.3	96.0	96.2
<b>Southern Federal District</b>	<b>91.3</b>	<b>91.3</b>	<b>92.2</b>	<b>77.6</b>	<b>80.2</b>	<b>83.0</b>
Republic of Adygeya	100	99.6	100	86.8	88.0	92.1
Republic of Kalmykia	97.9	98.1	98.1	70.4	90.5	87.7
Krasnodar Territory	97.3	97.5	96.3	86.5	87.7	87.8
Astrakhan Region	90.6	86.8	98.9	77.1	76.8	86.1
Volgograd Region	86.6	87.5	88.5	70.1	73.8	77.9
Rostov Region	89.1	89.5	89.2	76.5	78.9	81.1
<b>North Caucasian Federal District</b>	<b>95.3</b>	<b>93.7</b>	<b>95.6</b>	<b>81.6</b>	<b>85.5</b>	<b>89.0</b>
Republic of Dagestan	98.0	98.4	98.9	93.2	94.7	94.5
Republic of Ingushetia	95.6	94.9	93.5	57.8	71.8	87.1
Kabardino-Balkarian Republic	100	100	99.1	87.0	91.6	92.0
Karachaevo-Cherchessian Republic	80.8	76.3	85.1	61.9	65.4	76.2
Republic of North Ossetia–Alania	92.3	87.4	88.4	79.5	80.3	81.2
Chechen Republic	100	100	100	51.6	69.7	78.7
Stavropol Territory	99.2	99.2	99.9	90.2	93.6	96.1

(continued)

	Personal computers			Internet		
	2009	2010	2011	2009	2010	2011
<b>Volga Federal District</b>	<b>94.6</b>	<b>95.1</b>	<b>95.1</b>	<b>81.4</b>	<b>86.0</b>	<b>87.8</b>
Republic of Bashkortostan	95.9	98.2	96.0	90.0	94.7	92.5
Republic of Mari El	92.0	93.0	94.5	69.3	76.8	82.5
Republic of Mordovia	96.6	88.3	88.0	80.8	80.7	81.5
Republic of Tatarstan	98.9	98.4	99.1	92.9	95.4	95.9
Udmurtian Republic	95.9	95.0	96.3	83.1	84.0	88.5
Chuvash Republic	95.0	94.2	94.0	87.8	87.8	90.1
Perm Territory	89.4	93.0	95.0	75.7	81.4	85.3
Kirov Region	89.5	89.7	88.9	68.0	73.9	75.7
Nizhni Novgorod Region	97.3	98.2	98.3	84.8	92.0	92.2
Orenburg Region	99.0	99.4	99.2	80.6	86.0	90.6
Penza Region	95.6	93.2	92.4	75.7	78.5	79.8
Samara Region	96.5	96.6	95.8	83.5	88.7	89.1
Saratov Region	92.8	94.4	94.8	75.7	80.8	84.4
Ulyanovsk Region	88.2	90.6	91.1	75.7	82.8	85.9
<b>Urals Federal District</b>	<b>95.1</b>	<b>95.6</b>	<b>95.3</b>	<b>83.5</b>	<b>87.1</b>	<b>88.9</b>
Kurgan Region	99.0	99.7	100	84.4	89.5	92.0
Sverdlovsk Region	97.2	97.0	97.1	84.5	86.8	90.0
Tyumen Region	95.1	94.8	95.3	84.9	87.9	90.3
Of which:						
Khanty-Mansi Autonomous District–Yugra	96.0	95.7	96.1	87.9	89.9	92.2
Yamalo-Nenets Autonomous District	97.6	97.7	98.1	89.3	92.9	92.8
Chelyabinsk Region	91.1	93.6	91.3	79.4	85.1	84.1

(continued)

	Personal computers			Internet		
	2009	2010	2011	2009	2010	2011
<b>Siberian Federal District</b>	<b>91.8</b>	<b>92.4</b>	<b>93.4</b>	<b>73.2</b>	<b>77.6</b>	<b>81.2</b>
Republic of Altai	95.6	96.7	95.2	78.5	83.6	86.3
Republic of Buryatia	98.7	97.5	97.1	76.6	80.8	81.8
Republic of Tuva	100	99.7	97.8	39.6	68.0	72.7
Republic of Khakasia	100	99.2	97.2	91.6	91.6	91.8
Altai Territory	86.7	88.8	88.4	65.5	70.2	72.3
Zabaikalsk Territory	98.0	99.7	100	70.5	76.8	82.7
Krasnoyarsk Territory	92.3	90.0	93.1	70.8	72.3	78.9
Irkutsk Region	96.9	97.4	97.8	83.2	81.1	86.0
Kemerovo Region	97.3	97.4	97.2	87.1	90.7	92.2
Novosibirsk Region	87.4	88.4	92.0	70.4	75.4	80.4
Omsk Region	84.8	87.1	86.3	65.5	72.1	74.8
Tomsk Region	99.4	99.4	98.5	95.5	96.7	96.4
<b>Far Eastern Federal District</b>	<b>94.3</b>	<b>92.0</b>	<b>91.1</b>	<b>78.0</b>	<b>79.1</b>	<b>80.7</b>
Republic of Sakha (Yakutia)	94.9	94.7	91.3	71.5	72.6	72.8
Kamchatka Territory	97.0	96.6	96.3	84.4	87.7	87.7
Primorsky Territory	93.7	87.5	89.4	84.1	80.3	83.3
Khabarovsk Territory	98.9	99.6	99.5	86.3	89.2	92.6
Amur Region	89.0	84.1	81.1	68.4	68.8	69.5
Magadan Region	95.3	95.8	93.0	74.7	85.9	85.2
Sakhalin Region	94.6	91.8	92.5	83.8	85.1	88.2
Jewish Autonomous Region	92.4	90.9	90.9	68.5	72.0	76.4
Chukotka Autonomous District	99.0	98.7	99.1	92.7	80.6	82.4

## 3.8.3. AVAILABILITY OF PERSONAL COMPUTERS IN ENTERPRISES BY FEDERAL DISTRICT: 2011

*(computers per 100 employees)*

### 3.8.4. AVAILABILITY OF PERSONAL COMPUTERS IN ENTERPRISES

(computers per 100 employees)

	Personal computers			Personal computers with access to the Internet		
	2009	2010	2011	2009	2010	2011
<b>Russian Federation</b>	<b>34.6</b>	<b>36.2</b>	<b>39.4</b>	<b>15.3</b>	<b>17.8</b>	<b>20.5</b>
<b>Central Federal District</b>	<b>39.6</b>	<b>42.5</b>	<b>45.0</b>	<b>20.0</b>	<b>23.4</b>	<b>25.6</b>
Belgorod Region	30.7	29.8	32.3	13.3	15.2	17.5
Bryansk Region	26.1	28.0	29.4	8.4	10.5	13.0
Vladimir Region	29.7	32.8	36.4	10.9	13.7	16.2
Voronezh Region	31.2	34.0	36.8	11.2	13.7	16.3
Ivanovo Region	32.4	35.1	37.4	12.3	15.2	19.1
Kaluga Region	33.4	34.9	38.8	13.4	15.6	18.8
Kostroma Region	32.1	34.7	38.8	11.0	13.5	16.8
Kursk Region	29.9	31.1	35.0	9.9	11.6	14.9
Lipetsk Region	27.8	28.3	32.1	10.3	12.2	15.1
Moscow Region	31.1	32.6	35.0	15.0	17.6	20.1
Oryol Region	31.0	33.1	34.9	11.7	14.5	16.1
Ryazan Region	30.8	33.3	36.2	11.3	13.9	16.4
Smolensk Region	28.5	30.8	31.4	8.3	11.1	13.3
Tambov Region	28.4	30.5	32.7	11.0	13.2	16.5
Tver Region	29.5	33.8	35.8	10.7	14.1	16.0
Tula Region	27.8	28.7	32.7	9.9	11.9	14.3
Yaroslavl Region	34.3	35.4	40.2	14.1	15.3	17.9
Moscow	59.2	63.3	65.7	36.8	41.8	43.3
<b>Northwestern Federal District</b>	<b>38.0</b>	<b>39.6</b>	<b>42.8</b>	<b>17.3</b>	<b>19.5</b>	<b>22.4</b>
Republic of Karelia	39.2	41.5	40.9	18.5	20.8	18.7
Republic of Komi	34.4	36.9	38.0	12.8	15.6	17.7

(continued)

	Personal computers			Personal computers with access to the Internet		
	2009	2010	2011	2009	2010	2011
Arkhangelsk Region	31.9	29.1	37.8	11.0	11.3	15.5
Of which Nenets Autonomous District	29.8	33.0	35.4	11.4	15.6	17.2
Vologda Region	35.3	37.2	39.3	12.6	14.3	18.0
Kaliningrad Region	39.1	44.1	45.4	16.0	19.3	22.3
Leningrad Region	27.2	33.4	32.9	13.6	17.5	18.8
Murmansk Region	34.6	35.9	37.1	13.7	16.1	18.6
Novgorod Region	31.3	34.2	37.0	12.3	15.6	18.6
Pskov Region	29.4	31.4	33.2	11.0	13.9	16.1
Saint-Petersburg	45.0	46.2	50.2	23.5	25.5	28.8
<b>Southern Federal District</b>	<b>30.8</b>	<b>33.2</b>	<b>37.2</b>	<b>11.9</b>	<b>14.3</b>	<b>17.8</b>
Republic of Adygeya	30.6	34.3	37.1	10.1	13.3	16.5
Republic of Kalmykia	35.5	38.1	43.8	11.2	15.4	19.5
Krasnodar Territory	28.8	31.8	38.7	10.9	13.0	17.8
Astrakhan Region	31.7	32.9	35.8	11.8	13.2	16.3
Volgograd Region	30.1	31.2	34.1	11.2	13.7	16.7
Rostov Region	33.2	35.8	38.0	13.6	16.2	18.9
<b>North Caucasian Federal District</b>	<b>27.9</b>	<b>31.0</b>	<b>32.8</b>	<b>9.6</b>	<b>11.9</b>	<b>14.5</b>
Republic of Dagestan	27.0	27.4	27.1	6.9	7.7	10.9
Republic of Ingushetia	18.4	22.4	29.4	3.9	6.1	12.1
Kabardino-Balkarian Republic	28.3	30.6	32.5	9.8	11.7	14.7
Karachaevo-Cherchessian Republic	28.3	30.2	32.7	8.6	11.0	14.2
Republic of North Ossetia–Alania	24.3	27.2	29.0	8.0	10.3	12.4
Chechen Republic	12.8	25.3	25.1	2.4	7.2	10.0
Stavropol Territory	33.2	34.8	37.6	13.0	15.1	17.4



(continued)

	Personal computers			Personal computers with access to the Internet		
	2009	2010	2011	2009	2010	2011
<b>Volga Federal District</b>	<b>30.6</b>	<b>32.7</b>	<b>35.4</b>	<b>12.0</b>	<b>14.6</b>	<b>17.2</b>
Republic of Bashkortostan	29.2	32.4	35.0	9.9	13.5	16.8
Republic of Mari El	27.5	29.4	31.2	9.7	12.5	14.6
Republic of Mordovia	28.4	31.7	35.3	10.0	13.4	15.4
Republic of Tatarstan	31.0	31.7	34.8	13.0	15.4	17.9
Udmurtian Republic	30.1	32.1	33.6	11.7	13.7	15.8
Chuvash Republic	30.9	32.9	34.1	13.1	15.5	17.7
Perm Territory	33.2	34.9	38.2	14.3	16.2	18.7
Kirov Region	30.2	32.9	36.4	10.0	12.5	15.8
Nizhni Novgorod Region	32.9	35.3	37.3	11.5	14.1	17.6
Orenburg Region	28.7	30.0	31.6	10.1	12.0	14.3
Penza Region	32.4	34.9	36.8	11.4	11.6	15.9
Samara Region	30.4	32.9	36.2	14.8	17.4	19.5
Saratov Region	29.5	30.4	34.2	11.3	14.3	16.8
Ulyanovsk Region	30.2	33.1	34.4	11.4	14.2	16.0
<b>Urals Federal District</b>	<b>32.8</b>	<b>30.0</b>	<b>36.6</b>	<b>13.4</b>	<b>13.5</b>	<b>18.1</b>
Kurgan Region	32.3	32.8	35.9	13.7	15.1	19.5
Sverdlovsk Region	34.1	24.0	37.6	14.7	10.8	19.2
Tyumen Region	33.5	36.7	37.3	12.8	16.4	17.9
Of which:						
Khanty-Mansi Autonomous District–Yugra	75.7	34.0	35.8	27.3	14.3	16.8
Yamalo-Nenets Autonomous District	27.3	33.7	30.2	9.9	13.0	13.6
Chelyabinsk Region	30.1	31.6	34.4	12.6	14.1	16.6

(continued)

	Personal computers			Personal computers with access to the Internet		
	2009	2010	2011	2009	2010	2011
<b>Siberian Federal District</b>	<b>33.4</b>	<b>35.6</b>	<b>37.3</b>	<b>14.9</b>	<b>18.0</b>	<b>19.7</b>
Republic of Altai	44.0	45.0	46.5	14.5	17.0	23.2
Republic of Buryatia	32.5	36.1	38.5	12.7	15.7	18.0
Republic of Tuva	32.0	38.0	39.2	8.7	13.0	17.0
Republic of Khakasia	32.7	37.2	38.8	15.4	19.6	21.2
Altai Territory	31.6	32.3	34.6	11.3	14.7	16.5
Zabaikalsk Territory	32.5	35.6	38.6	9.4	12.1	15.1
Krasnoyarsk Territory	33.9	37.1	39.9	14.8	17.9	20.9
Irkutsk Region	28.3	35.2	35.0	13.2	19.9	17.4
Kemerovo Region	26.3	26.6	27.7	11.4	14.0	14.8
Novosibirsk Region	41.6	41.6	42.9	21.8	23.8	25.5
Omsk Region	32.6	34.8	37.0	13.0	15.9	18.5
Tomsk Region	44.9	45.9	49.3	26.7	28.8	32.5
<b>Far Eastern Federal District</b>	<b>34.1</b>	<b>36.5</b>	<b>38.6</b>	<b>14.2</b>	<b>16.8</b>	<b>19.2</b>
Republic of Sakha (Yakutia)	33.7	35.4	38.4	14.2	16.4	19.6
Kamchatka Territory	38.3	39.7	32.7	16.9	19.3	16.1
Primorsky Territory	31.6	33.4	36.0	15.5	16.9	19.5
Khabarovsk Territory	35.6	38.7	42.5	12.9	16.1	19.6
Amur Region	29.8	33.6	34.8	9.9	13.4	15.0
Magadan Region	41.9	43.1	46.8	14.5	17.5	21.2
Sakhalin Region	37.0	39.6	41.4	18.8	21.5	23.8
Jewish Autonomous Region	37.7	42.6	43.2	10.4	14.1	18.1
Chukotka Autonomous District	40.9	42.1	46.9	14.4	19.1	19.1

### 3.8.5. ENTERPRISES USING THE INTERNET FOR COMMERCIAL PURPOSES BY ENTERPRISES

(as a percentage of the total number of enterprises)

	Internet usage for communication with					
	suppliers			consumers		
	2009	2010	2011	2009	2010	2011
<b>Russian Federation</b>	<b>55.2</b>	<b>61.3</b>	<b>63.9</b>	<b>36.1</b>	<b>41.1</b>	<b>45.9</b>
<b>Central Federal District</b>	<b>52.5</b>	<b>58.6</b>	<b>61.6</b>	<b>37.0</b>	<b>41.7</b>	<b>46.2</b>
Belgorod Region	50.3	57.0	60.6	35.1	39.4	43.6
Bryansk Region	36.8	43.1	46.3	22.5	27.1	33.0
Vladimir Region	56.4	63.6	67.9	38.7	44.9	52.6
Voronezh Region	48.6	55.7	55.8	32.1	35.9	42.0
Ivanovo Region	42.7	51.4	59.4	27.0	33.6	41.3
Kaluga Region	45.4	52.3	57.5	30.2	35.5	39.7
Kostroma Region	39.0	44.3	52.2	25.7	30.1	37.3
Kursk Region	30.9	34.6	40.9	19.5	21.3	29.5
Lipetzk Region	45.7	54.2	59.1	29.2	34.7	41.0
Moscow Region	60.5	67.4	67.7	41.8	48.8	51.3
Oryol Region	40.7	47.0	49.7	27.6	31.5	34.6
Ryazan Region	51.5	59.5	63.7	33.8	38.9	47.0
Smolensk Region	39.8	49.7	55.3	26.0	31.2	39.6
Tambov Region	33.0	38.0	46.1	20.2	25.3	31.9
Tver Region	49.4	56.6	56.1	31.2	37.5	38.4
Tula Region	47.0	53.8	57.9	31.9	35.1	41.3
Yaroslavl Region	59.0	66.8	68.9	41.2	47.6	50.0
Moscow	87.0	89.0	89.0	74.2	76.3	76.3
<b>Northwestern Federal District</b>	<b>60.8</b>	<b>67.3</b>	<b>70.2</b>	<b>41.8</b>	<b>47.0</b>	<b>52.2</b>
Republic of Karelia	70.6	73.5	80.0	50.7	54.2	61.0
Republic of Komi	46.9	53.2	59.1	29.1	31.9	39.0

(continued)

	Internet usage for communication with					
	suppliers			consumers		
	2009	2010	2011	2009	2010	2011
Arkhangelsk Region	60.6	69.5	69.5	36.5	42.9	48.3
Of which Nenets Autonomous District	58.9	68.3	69.9	31.3	38.1	41.7
Vologda Region	46.3	56.7	60.4	29.8	36.5	43.3
Kaliningrad Region	54.8	59.5	62.7	39.0	43.2	47.2
Leningrad Region	64.9	71.9	74.7	41.1	48.7	55.2
Murmansk Region	61.9	67.5	68.9	36.5	43.4	47.3
Novgorod Region	54.5	62.6	70.7	36.4	43.2	51.9
Pskov Region	52.0	57.1	62.1	30.7	33.7	41.1
Saint-Petersburg	81.2	86.4	85.3	66.9	71.5	72.0
<b>Southern Federal District</b>	<b>58.4</b>	<b>61.5</b>	<b>64.6</b>	<b>34.4</b>	<b>38.5</b>	<b>42.6</b>
Republic of Adygeya	54.3	58.6	59.2	28.1	33.8	37.0
Republic of Kalmykia	41.5	60.4	56.2	24.0	34.0	35.4
Krasnodar Territory	63.9	66.6	67.3	40.1	43.9	48.8
Astrakhan Region	56.7	56.1	83.3	35.2	35.6	50.5
Volgograd Region	51.7	56.8	59.5	30.9	34.3	38.2
Rostov Region	61.2	62.9	63.2	33.7	39.2	40.7
<b>North Caucasian Federal District</b>	<b>48.2</b>	<b>56.5</b>	<b>59.9</b>	<b>28.3</b>	<b>33.2</b>	<b>42.7</b>
Republic of Dagestan	50.2	54.2	55.0	25.1	29.5	43.6
Republic of Ingushetia	33.3	33.3	51.6	22.2	20.5	29.0
Kabardino-Balkarian Republic	46.5	60.3	58.5	28.8	34.9	43.7
Karachaevo-Cherchessian Republic	33.4	36.6	46.6	15.7	19.5	31.2
Republic of North Ossetia–Alania	38.0	42.0	44.4	23.5	26.5	32.2
Chechen Republic	29.1	46.0	41.0	9.8	27.5	31.6
Stravropol Territory	61.1	72.0	75.9	38.5	43.3	52.5

(continued)

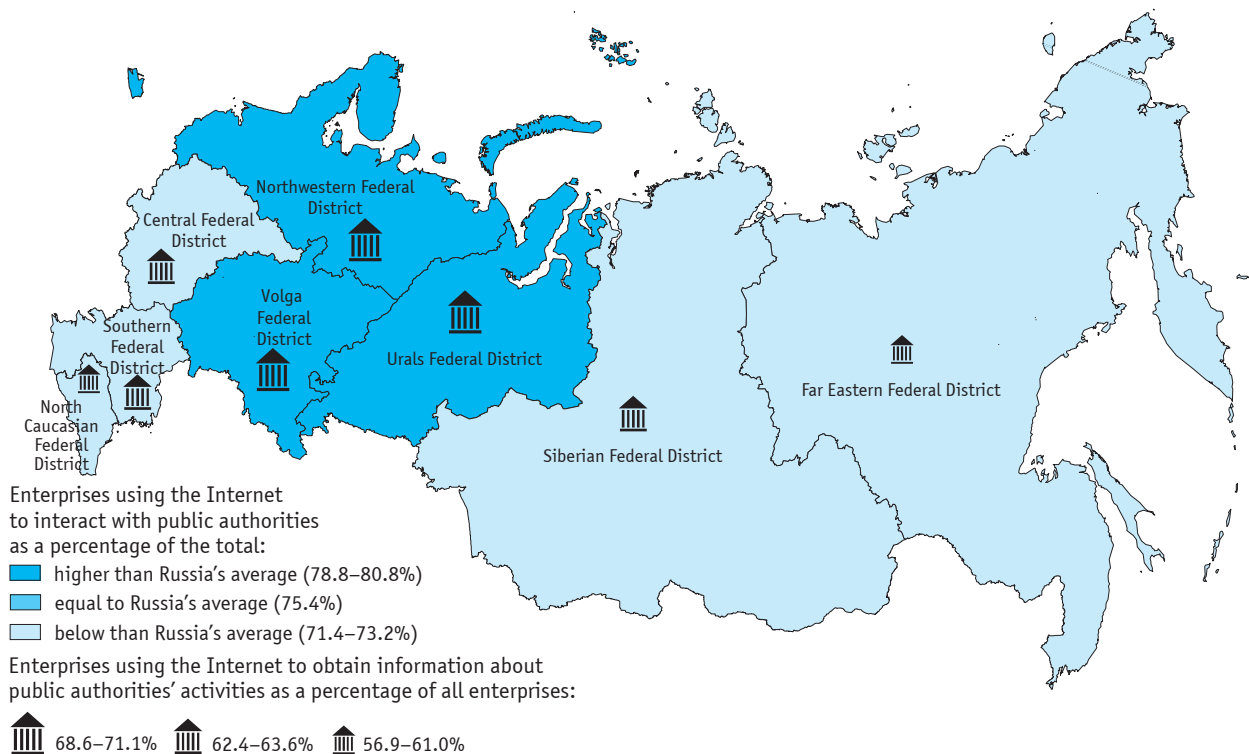
	Internet usage for communication with					
	suppliers			consumers		
	2009	2010	2011	2009	2010	2011
<b>Volga Federal District</b>	<b>55.3</b>	<b>62.7</b>	<b>64.7</b>	<b>35.3</b>	<b>41.0</b>	<b>45.7</b>
Republic of Bashkortostan	62.6	71.5	70.5	37.7	46.1	49.0
Republic of Mari El	42.7	52.3	60.0	25.7	32.3	40.5
Republic of Mordovia	38.9	41.9	48.9	23.9	27.6	35.7
Republic of Tatarstan	64.3	70.3	69.7	42.7	46.9	51.7
Udmurtian Republic	59.7	67.0	69.2	40.6	45.8	49.9
Chuvash Republic	58.1	59.4	59.5	37.9	39.3	45.1
Perm Territory	54.3	63.5	66.5	35.5	41.3	45.9
Kirov Region	43.9	50.1	53.9	26.3	32.9	35.9
Nizhni Novgorod Region	60.1	70.6	71.4	38.8	47.7	51.0
Orenburg Region	52.5	61.7	65.8	31.4	39.1	45.6
Penza Region	44.5	45.4	49.4	25.2	27.0	35.4
Samara Region	58.4	64.3	65.7	41.3	46.1	49.8
Saratov Region	56.3	64.1	67.5	32.6	36.9	41.9
Ulyanovsk Region	48.0	57.4	62.5	32.6	37.5	43.6
<b>Urals Federal District</b>	<b>61.9</b>	<b>68.9</b>	<b>71.0</b>	<b>40.5</b>	<b>47.0</b>	<b>52.2</b>
Kurgan Region	48.8	59.3	63.0	29.8	36.2	44.1
Sverdlovsk Region	65.8	70.8	74.3	42.5	48.5	56.3
Tyumen Region	64.3	70.5	72.7	41.9	48.5	52.5
Of which:						
Khanty-Mansi Autonomous District–Yugra	70.4	75.1	78.1	45.6	52.2	55.1
Yamalo-Nenets Autonomous District	69.6	77.0	76.5	39.6	44.4	52.2
Chelyabinsk Region	58.2	67.2	67.1	39.9	46.3	49.6

(continued)

	Internet usage for communication with					
	suppliers			consumers		
	2009	2010	2011	2009	2010	2011
<b>Siberian Federal District</b>	<b>50.2</b>	<b>56.6</b>	<b>59.5</b>	<b>32.6</b>	<b>37.6</b>	<b>42.7</b>
Republic of Altai	52.4	58.2	59.4	28.8	34.8	37.8
Republic of Buryatia	52.7	58.2	56.9	31.5	37.9	42.6
Republic of Tuva	22.9	40.8	42.1	10.7	20.7	28.2
Republic of Khakasia	64.1	65.6	68.2	37.6	43.9	44.5
Altai Territory	37.2	46.2	46.9	23.2	31.4	33.7
Zabaikalsk Territory	42.1	51.7	53.2	22.4	28.2	35.0
Krasnoyarsk Territory	50.4	53.2	59.7	29.0	32.7	41.0
Irkutsk Region	62.1	62.1	65.6	45.4	42.0	45.8
Kemerovo Region	63.4	70.8	72.3	43.3	48.3	54.4
Novosibirsk Region	49.7	55.6	60.2	35.3	40.0	45.5
Omsk Region	41.9	50.6	54.1	27.8	34.4	38.3
Tomsk Region	79.1	81.9	81.8	54.6	57.1	62.8
<b>Far Eastern Federal District</b>	<b>55.3</b>	<b>58.9</b>	<b>60.5</b>	<b>32.9</b>	<b>36.9</b>	<b>40.9</b>
Republic of Sakha (Yakutia)	48.4	52.1	51.8	25.2	29.7	31.6
Kamchatka Territory	59.0	66.3	65.7	34.8	42.0	42.9
Primorsky Territory	59.8	59.8	64.1	39.4	41.7	48.0
Khabarovsk Territory	68.3	74.3	77.4	44.1	49.2	53.2
Amur Region	45.4	48.4	47.3	24.1	27.8	32.7
Magadan Region	52.5	60.8	65.7	26.7	32.0	38.5
Sakhalin Region	60.4	64.3	65.1	38.6	41.6	46.2
Jewish Autonomous Region	44.5	49.4	54.7	27.2	31.2	35.4
Chukotka Autonomous District	72.9	62.9	66.7	39.6	31.5	39.2

### 3.8.6. ENTERPRISES USING THE INTERNET TO INTERACT WITH PUBLIC AUTHORITIES BY FEDERAL DISTRICT: 2011

(as a percentage of the total number of enterprises)



## 3.8.7. ENTERPRISES USING THE INTERNET TO INTERACT WITH PUBLIC AUTHORITIES

*(as a percentage of the total number of enterprises)*

	Obtaining information about public authorities' activities			Obtaining blank forms (e.g. statistical and tax forms)			Submitting filled forms (e.g. statistical and tax forms)		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
<b>Russian Federation</b>	<b>45.1</b>	<b>51.5</b>	<b>55.5</b>	<b>59.0</b>	<b>65.0</b>	<b>67.9</b>	<b>56.8</b>	<b>63.0</b>	<b>65.5</b>
<b>Central Federal District</b>	<b>42.4</b>	<b>48.7</b>	<b>53.2</b>	<b>55.8</b>	<b>62.3</b>	<b>65.4</b>	<b>53.9</b>	<b>60.5</b>	<b>63.6</b>
Belgorod Region	42.9	48.3	56.7	62.0	67.4	72.2	61.9	65.8	70.4
Bryansk Region	31.7	37.5	42.1	48.5	53.1	57.1	48.9	53.0	55.2
Vladimir Region	48.1	55.8	59.5	61.5	69.1	69.3	62.1	69.6	68.3
Voronezh Region	40.5	46.2	48.9	52.7	59.8	59.0	50.3	58.6	57.6
Ivanovo Region	37.2	45.9	52.1	46.3	55.5	64.8	47.4	56.1	63.7
Kaluga Region	35.5	41.1	45.7	49.4	54.8	58.1	45.9	52.0	54.7
Kostroma Region	33.9	42.7	51.4	47.4	56.4	66.4	45.3	55.2	65.5
Kursk Region	23.5	27.2	34.2	36.0	38.8	48.1	36.5	39.5	46.6
Lipetsk Region	35.9	43.6	48.6	50.5	61.9	65.7	49.2	58.9	62.9
Moscow Region	43.6	51.6	54.9	58.0	66.3	67.0	54.2	63.3	65.6
Oryol Region	31.9	36.4	41.9	46.7	52.7	55.9	45.8	52.1	54.0
Ryazan Region	43.9	50.4	54.3	59.7	67.9	68.5	59.1	67.5	67.9
Smolensk Region	31.1	39.0	47.7	43.1	54.5	61.0	42.4	52.8	59.1
Tambov Region	38.3	40.6	49.5	45.7	49.6	58.9	42.0	46.2	54.7
Tver Region	37.9	47.4	49.2	49.6	57.4	58.7	46.6	54.3	55.7
Tula Region	36.1	40.8	48.1	49.4	54.5	59.9	47.5	52.2	58.6
Yaroslavl Region	49.5	58.1	61.6	61.9	68.2	72.5	60.3	65.7	69.6
Moscow	70.4	75.1	75.2	84.0	87.1	86.0	81.1	85.1	84.8
<b>Northwestern Federal District</b>	<b>48.2</b>	<b>55.5</b>	<b>59.7</b>	<b>62.2</b>	<b>68.5</b>	<b>70.7</b>	<b>59.4</b>	<b>65.6</b>	<b>68.6</b>
Republic of Karelia	57.0	63.1	71.3	74.4	79.0	81.6	72.9	78.4	82.2
Republic of Komi	36.4	43.6	50.1	53.9	60.5	64.0	52.9	59.2	63.4



(continued)

	Obtaining information about public authorities' activities			Obtaining blank forms (e.g. statistical and tax forms)			Submitting filled forms (e.g. statistical and tax forms)		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
Arkhangelsk Region	49.2	58.2	61.8	61.0	68.2	71.6	60.9	66.9	70.2
Of which Nenets Autonomous District	48.1	59.4	62.5	55.6	61.4	67.6	54.2	63.9	66.7
Vologda Region	36.1	44.4	50.6	48.2	56.8	61.7	44.9	53.4	58.0
Kaliningrad Region	47.9	55.1	55.5	55.2	61.9	63.8	53.1	58.8	60.9
Leningrad Region	48.7	55.0	58.7	67.5	72.7	72.1	65.4	70.5	70.3
Murmansk Region	48.9	58.5	62.0	62.1	68.5	70.4	58.1	62.9	65.7
Novgorod Region	44.7	55.7	63.1	61.1	69.7	77.2	56.8	63.9	72.4
Pskov Region	38.5	43.7	50.4	53.9	58.2	65.3	50.3	56.5	64.9
Saint-Petersburg	64.4	70.0	71.3	77.6	82.8	80.0	73.3	79.5	78.6
<b>Southern Federal District</b>	<b>42.1</b>	<b>47.8</b>	<b>51.5</b>	<b>55.5</b>	<b>60.5</b>	<b>64.8</b>	<b>54.0</b>	<b>59.5</b>	<b>62.4</b>
Republic of Adygeya	44.4	53.8	49.4	57.4	60.7	57.9	54.8	54.5	55.4
Republic of Kalmykia	35.2	44.9	47.9	46.5	59.8	63.3	47.9	64.3	65.1
Krasnodar Territory	48.5	53.4	54.6	61.9	67.3	69.7	58.9	65.8	66.1
Astrakhan Region	42.5	46.3	63.9	54.7	57.2	70.4	51.9	55.9	67.1
Volgograd Region	38.0	43.7	48.3	52.6	58.3	62.9	53.9	58.0	61.7
Rostov Region	40.5	47.1	49.3	53.5	58.3	62.0	51.4	57.2	59.4
<b>North Caucasian Federal District</b>	<b>38.6</b>	<b>44.6</b>	<b>49.9</b>	<b>54.2</b>	<b>59.6</b>	<b>61.7</b>	<b>52.5</b>	<b>57.0</b>	<b>56.9</b>
Republic of Dagestan	31.4	38.0	48.7	43.9	49.9	56.4	40.7	43.1	50.0
Republic of Ingushetia	20.0	28.2	29.0	31.1	35.9	41.9	28.9	30.8	41.9
Kabardino-Balkarian Republic	40.6	45.2	50.3	58.7	67.9	57.1	53.3	61.6	49.6
Karachaevo-Cherchessian Republic	28.8	31.7	43.6	40.5	43.8	54.8	37.4	42.9	50.7
Republic of North Ossetia–Alania	32.9	39.1	39.9	51.2	54.0	58.0	48.7	50.6	52.7
Chechen Republic	16.9	30.3	27.0	24.4	38.9	29.1	21.7	33.6	24.2
Stavropol Territory	49.1	56.0	60.2	66.3	71.2	73.8	67.3	71.2	70.3

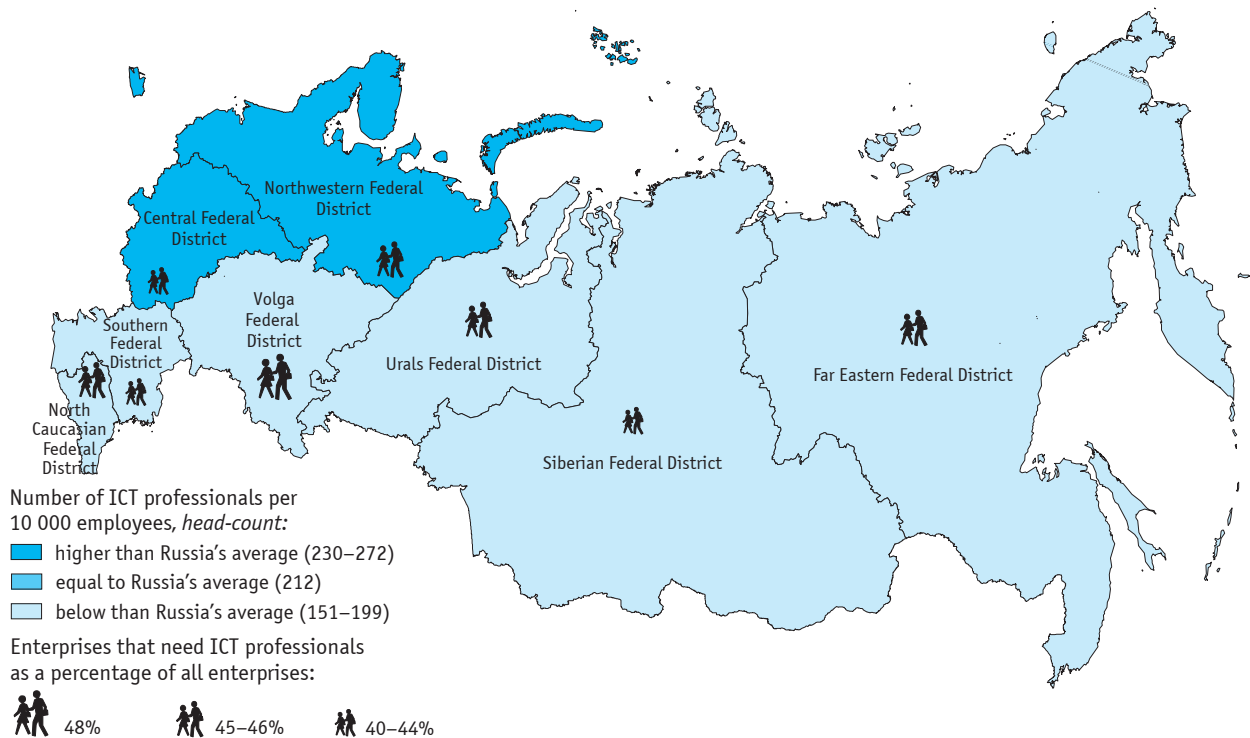
(continued)

	Obtaining information about public authorities' activities			Obtaining blank forms (e.g. statistical and tax forms)			Submitting filled forms (e.g. statistical and tax forms)		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
<b>Volga Federal District</b>	<b>47.0</b>	<b>53.9</b>	<b>58.0</b>	<b>61.8</b>	<b>68.6</b>	<b>71.6</b>	<b>59.9</b>	<b>66.6</b>	<b>69.4</b>
Republic of Bashkortostan	50.7	59.1	61.9	72.5	80.7	82.4	69.8	78.6	79.3
Republic of Mari El	37.8	45.4	51.0	48.5	58.5	64.6	51.4	61.0	64.7
Republic of Mordovia	39.2	46.2	51.0	57.8	61.8	68.7	60.1	62.7	68.6
Republic of Tatarstan	54.6	61.6	65.8	76.2	81.8	84.0	76.0	81.3	82.8
Udmurtian Republic	49.6	56.5	62.5	63.4	68.9	74.8	58.7	65.4	70.2
Chuvash Republic	62.3	63.6	66.0	66.9	67.7	69.3	65.2	66.0	67.8
Perm Territory	45.6	53.2	58.6	58.5	66.6	69.6	57.1	65.5	69.1
Kirov Region	36.0	43.9	47.7	48.9	57.4	60.6	47.7	56.1	58.5
Nizhni Novgorod Region	46.3	55.8	58.9	64.2	73.6	76.5	61.5	72.0	73.8
Orenburg Region	49.0	55.1	60.1	63.8	70.5	76.9	60.1	65.8	74.8
Penza Region	41.4	43.5	48.6	53.7	57.0	59.4	51.5	54.3	57.2
Samara Region	51.1	56.9	60.5	64.0	71.0	71.1	62.4	68.3	69.2
Saratov Region	39.1	44.0	49.0	49.5	54.2	57.1	45.9	50.0	52.2
Ulyanovsk Region	43.0	51.7	57.0	54.3	62.8	67.7	50.8	58.6	64.7
<b>Urals Federal District</b>	<b>51.7</b>	<b>59.0</b>	<b>61.7</b>	<b>66.3</b>	<b>72.5</b>	<b>73.7</b>	<b>63.7</b>	<b>70.2</b>	<b>71.1</b>
Kurgan Region	48.9	58.6	61.1	64.0	71.8	77.3	63.0	68.4	71.9
Sverdlovsk Region	53.2	59.6	64.1	67.4	72.7	74.6	63.6	70.0	73.6
Tyumen Region	54.8	62.1	64.4	68.5	74.3	74.7	65.6	71.6	71.5
Of which:									
Khanty-Mansi Autonomous District–Yugra	58.0	64.7	65.9	70.0	76.0	74.5	67.8	73.3	72.1
Yamalo-Nenets Autonomous District	60.5	67.0	69.6	74.1	77.4	79.1	67.5	72.0	74.2
Chelyabinsk Region	45.8	53.1	54.3	62.2	69.4	69.7	61.1	68.5	67.1

(continued)

	Obtaining information about public authorities' activities			Obtaining blank forms (e.g. statistical and tax forms)			Submitting filled forms (e.g. statistical and tax forms)		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
<b>Siberian Federal District</b>	<b>43.1</b>	<b>49.5</b>	<b>53.5</b>	<b>56.3</b>	<b>62.4</b>	<b>66.2</b>	<b>54.5</b>	<b>60.6</b>	<b>63.2</b>
Republic of Altai	42.9	52.5	55.7	55.2	64.8	70.0	53.7	62.8	65.6
Republic of Buryatia	47.1	53.6	52.2	59.6	65.0	64.6	58.5	63.6	58.2
Republic of Tuva	22.1	41.1	41.3	27.4	50.8	54.2	27.2	50.1	53.9
Republic of Khakasia	50.4	56.8	61.9	69.4	70.8	73.9	68.5	72.3	71.2
Altai Territory	37.2	44.4	46.1	50.0	57.5	58.1	50.1	56.9	56.4
Zabaikalsk Territory	40.9	47.1	50.4	52.1	57.5	65.8	49.5	55.8	63.1
Krasnoyarsk Territory	43.9	47.1	53.9	55.2	59.3	65.2	52.2	56.5	62.0
Irkutsk Region	47.5	51.6	56.9	66.2	65.7	71.4	64.8	63.6	68.2
Kemerovo Region	51.3	57.3	61.5	68.3	74.0	74.9	68.1	73.1	73.7
Novosibirsk Region	40.8	47.7	52.1	53.5	59.4	64.4	50.2	56.6	60.5
Omsk Region	36.5	43.5	46.8	48.4	57.6	61.4	46.7	55.5	58.1
Tomsk Region	66.8	72.0	77.4	80.6	85.0	84.7	78.3	83.6	82.6
<b>Far Eastern Federal District</b>	<b>46.0</b>	<b>49.9</b>	<b>53.3</b>	<b>59.5</b>	<b>62.1</b>	<b>64.3</b>	<b>55.3</b>	<b>58.8</b>	<b>61.0</b>
Republic of Sakha (Yakutia)	39.8	44.5	45.0	52.8	55.5	57.5	47.9	51.6	52.6
Kamchatka Territory	56.1	60.9	64.3	71.1	75.6	77.7	65.3	70.3	72.1
Primorsky Territory	52.0	53.2	58.3	66.9	65.3	67.4	63.0	63.0	65.8
Khabarovsk Territory	54.0	59.1	63.4	71.9	75.8	77.7	68.1	72.3	74.2
Amur Region	37.4	40.2	42.4	47.7	49.4	52.1	43.9	46.8	50.1
Magadan Region	47.4	52.1	59.6	56.5	61.8	73.2	52.5	58.7	69.8
Sakhalin Region	45.7	51.9	53.4	61.0	65.6	62.0	56.9	61.8	59.8
Jewish Autonomous Region	37.9	42.4	50.7	42.7	49.8	56.1	38.4	45.9	49.7
Chukotka Autonomous District	61.5	48.3	62.2	80.2	66.8	73.0	78.1	65.9	72.5

## 3.8.8. ICT PROFESSIONALS IN ENTERPRISES BY FEDERAL DISTRICT: 2011



### 3.8.9. ENTERPRISES THAT NEED ICT PROFESSIONALS AND EMPLOYEES WITH ICT SKILLS: 2011

(as a percentage of the total number of enterprises)

	Total	Of which need	
		ICT professionals	employees with ICT user skills
<b>Russian Federation</b>	<b>48.3</b>	<b>44.7</b>	<b>40.8</b>
<b>Central Federal District</b>	<b>46.2</b>	<b>42.9</b>	<b>39.2</b>
Belgorod Region	49.3	46.0	41.5
Bryansk Region	42.2	39.7	34.3
Vladimir Region	48.5	45.2	41.4
Voronezh Region	45.3	41.7	38.8
Ivanovo Region	51.6	47.7	44.1
Kaluga Region	45.6	42.7	39.3
Kostroma Region	50.4	46.1	41.2
Kursk Region	49.8	48.0	43.0
Lipetzki Region	53.3	49.4	43.8
Moscow Region	37.5	34.9	32.3
Oryol Region	44.6	41.7	37.9
Ryazan region	54.1	49.9	46.6
Smolensk Region	48.5	45.3	41.2
Tambov Region	39.0	37.0	33.6
Tver Region	47.2	43.8	40.3
Tula Region	48.4	45.4	41.1
Yaroslavl Region	47.4	42.9	41.1
Moscow	50.9	46.3	42.9
<b>Northwestern Federal District</b>	<b>49.0</b>	<b>44.8</b>	<b>41.6</b>
Republic of Karelia	53.7	50.2	44.8
Republic of Komi	48.5	44.6	41.0

(continued)

	Total	Of which need	
		ICT professionals	employees with ICT user skills
Arkhangelsk Region	55.0	51.5	46.6
Of which Nenets Autonomous District	55.1	53.7	48.1
Vologda Region	53.6	48.9	45.6
Kaliningrad region	41.0	37.2	34.4
Leningrad Region	46.0	41.0	39.0
Murmansk Region	46.4	42.4	37.4
Novgorod Region	55.2	50.5	45.9
Pskov Region	51.0	47.0	44.3
Saint-Petersburg	46.5	42.0	40.4
<b>Southern Federal District</b>	<b>43.2</b>	<b>39.8</b>	<b>36.8</b>
Republic of Adygeya	37.9	35.1	31.2
Republic of Kalmykia	52.4	49.0	45.6
Krasnodar Territory	40.4	36.5	34.4
Astrakhan Region	50.5	46.7	42.6
Volgograd Region	44.5	41.2	37.9
Rostov Region	42.1	39.0	35.9
<b>North Caucasian Federal District</b>	<b>48.5</b>	<b>45.6</b>	<b>42.3</b>
Republic of Dagestan	39.7	38.8	37.3
Republic of Ingushetia	61.3	61.3	61.3
Kabardino-Balkarian Republic	52.3	48.5	45.6
Karachaevo-Cherchessian Republic	43.5	40.9	37.5
Republic of North Ossetia–Alania	50.3	48.4	43.5
Chechen Republic	35.2	34.8	35.2
Stavropol Territory	52.0	48.0	44.3

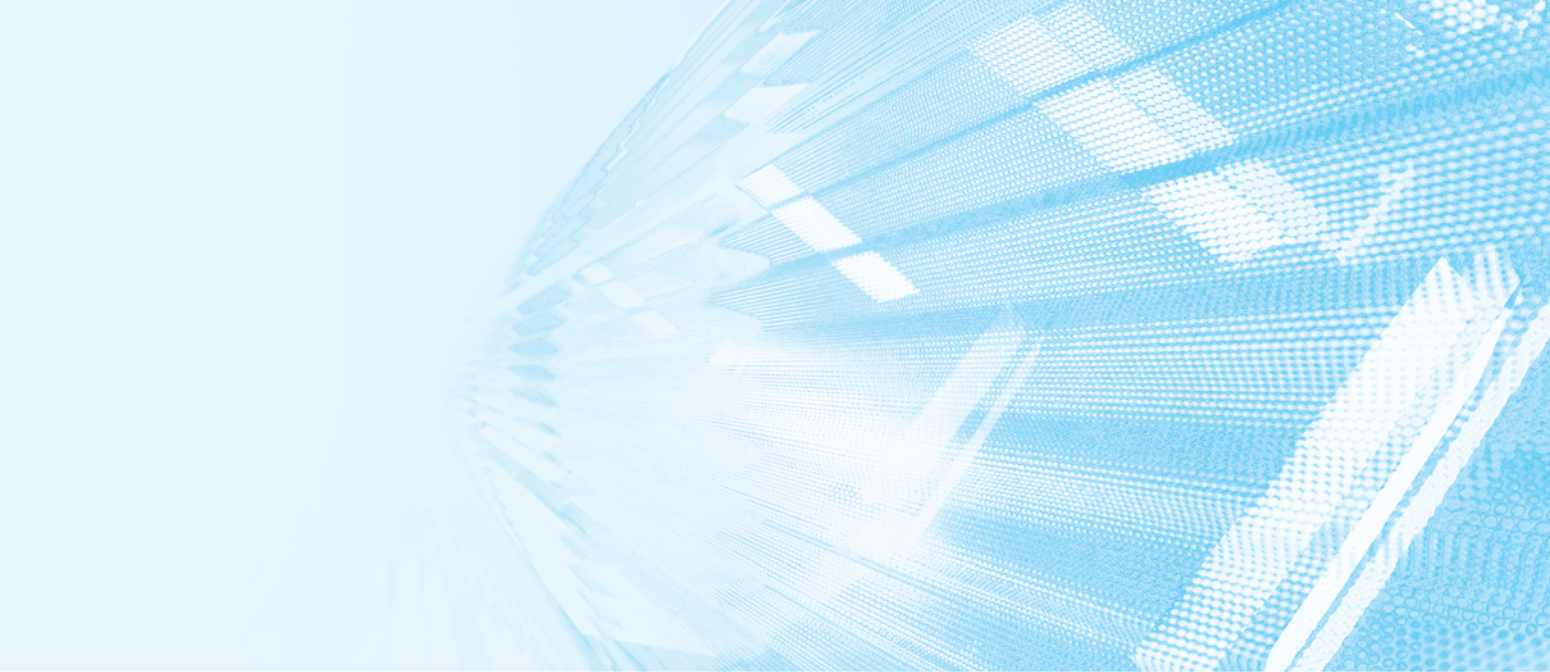
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	Total	Of which need	
		ICT professionals	employees with ICT user skills
<b>Volga Federal District</b>	<b>51.7</b>	<b>48.1</b>	<b>43.0</b>
Republic of Bashkortostan	52.5	48.8	44.5
Republic of Mari El	52.0	49.3	44.5
Republic of Mordovia	50.0	45.9	44.7
Republic of Tatarstan	51.9	48.6	44.5
Udmurtian Republic	56.4	51.9	46.7
Chuvash Republic	50.3	46.7	43.4
Perm Territory	48.1	44.1	40.0
Kirov Region	67.4	66.3	48.2
Nizhni Novgorod Region	52.9	48.5	43.3
Orenburg Region	57.6	53.5	47.6
Penza Region	46.8	43.8	41.3
Samara Region	46.2	42.7	38.5
Saratov Region	45.6	41.6	38.8
Ulyanovsk Region	47.3	44.0	40.8
<b>Urals Federal District</b>	<b>50.4</b>	<b>46.3</b>	<b>42.4</b>
Kurgan Region	58.5	54.6	49.2
Sverdlovsk Region	52.4	47.9	44.1
Tyumen Region	48.0	43.9	40.4
Of which:			
Khanty-Mansi Autonomous District–Yugra	51.1	46.7	42.9
Yamalo-Nenets Autonomous District	55.3	51.1	47.4
Chelyabinsk Region	49.0	45.3	41.4

(continued)

	Total	Of which need	
		ICT professionals	employees with ICT user skills
<b>Siberian Federal District</b>	<b>47.8</b>	<b>44.0</b>	<b>40.6</b>
Republic of Altai	49.3	45.6	41.0
Republic of Buryatia	54.8	49.7	44.8
Republic of Tuva	56.2	53.9	50.3
Republic of Khakasia	51.5	47.0	41.7
Altai Territory	47.6	44.0	40.2
Zabaikalsk Territory	53.4	50.0	45.6
Krasnoyarsk Territory	47.4	43.6	40.3
Irkutsk Region	52.5	47.7	43.8
Kemerovo Region	46.0	43.0	37.5
Novosibirsk Region	43.0	39.2	38.0
Omsk Region	42.8	39.3	35.9
Tomsk Region	56.7	52.0	50.3
<b>Far Eastern Federal District</b>	<b>50.3</b>	<b>46.2</b>	<b>42.4</b>
Republic of Sakha (Yakutia)	50.4	46.0	43.8
Kamchatka Territory	57.6	53.5	49.7
Primorsky Territory	46.7	42.5	38.5
Khabarovsk Territory	60.5	55.2	51.9
Amur Region	41.3	38.2	34.7
Magadan Region	52.7	49.3	42.0
Sakhalin Region	50.5	46.5	40.9
Jewish autonomous Region	53.4	49.3	42.9
Chukotka Autonomous District	52.3	48.6	48.2





## **4. ICT Usage by Households and Individuals**

## MAIN INDICATORS OF ICT USAGE BY HOUSEHOLDS AND INDIVIDUALS

*(per cent)***ICT Usage by Households: 2011**Households with, *as a percentage of the total number of households:*

personal computers	60
access to the Internet	50
fixed telephones	61
mobile cellular telephones	91
satellite antenna	17
cable television	36

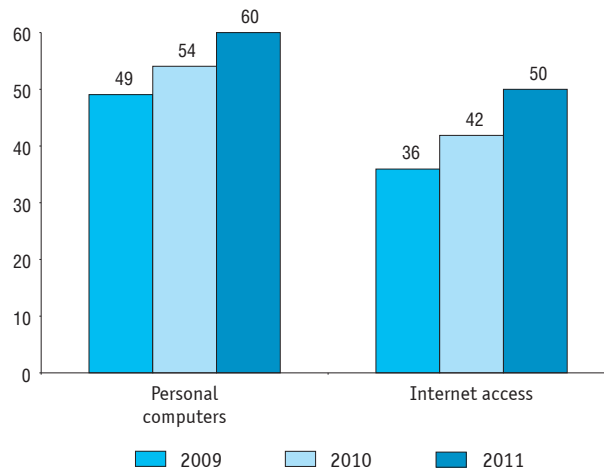
**Internet Usage by Individuals: 2012**

Individuals using the Internet every day or almost every day as a percentage of all individuals aged 18–74	41
Individuals who never used the Internet as a percentage of all individuals aged 18–74	34
Individuals using the Internet, <i>as a percentage of all individuals aged 16–74:</i>	
at home	58
at work	22
at an educational institution	8
at another person's home	14
Individuals' level of computer skills, <i>as a percentage of all individuals aged 16–74:</i>	
high	18
medium	21
low	15
Individuals' level of Internet skills, <i>as a percentage of all individuals aged 16–74:</i>	
high	11
medium	26
low	21
Individuals having access to the Internet, <i>as a percentage of all individuals aged 16–74</i>	66
Of which broadband	51

## 4.1. ICT Usage by Households

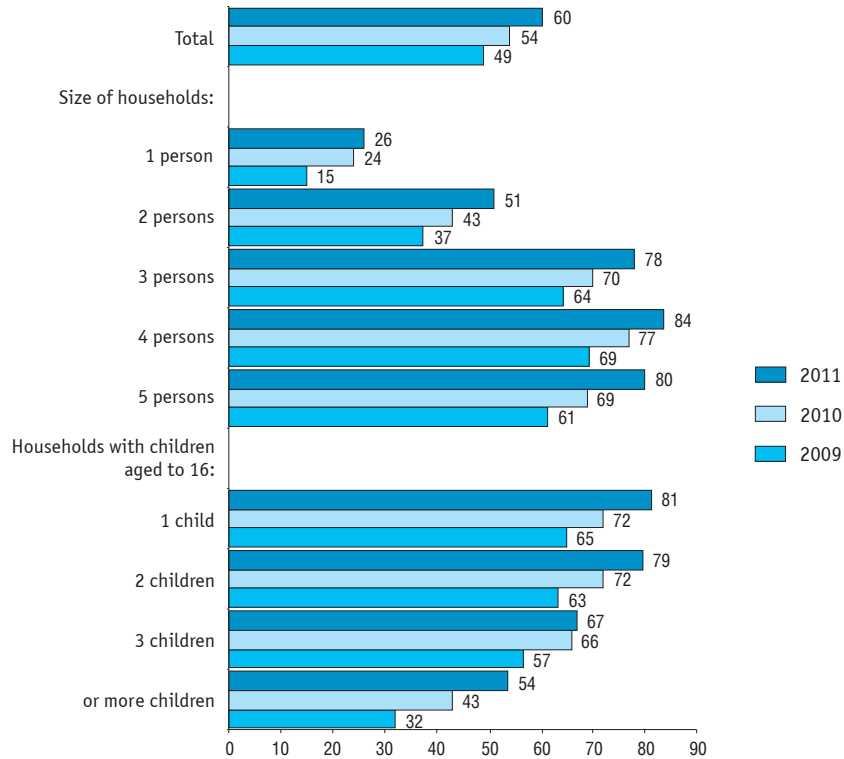
### 4.1.1. HOUSEHOLDS WITH PERSONAL COMPUTERS AND INTERNET ACCESS

(as a percentage of the total number of households)



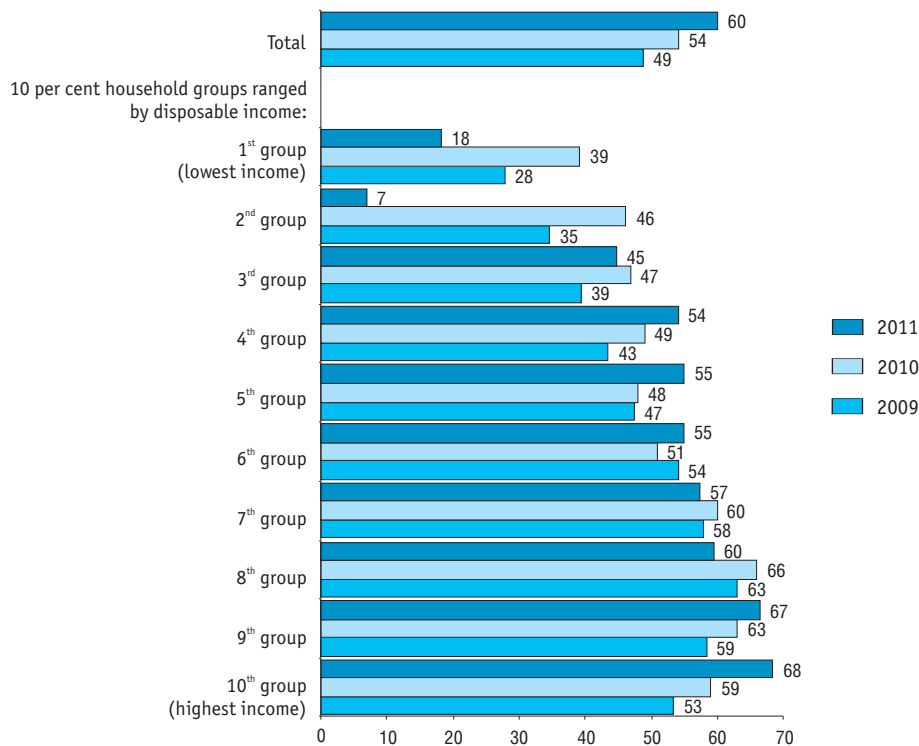
Source (here and below in sections 4.1.2–4.1.5): selective survey of household budgets conducted by Federal State Statistics Service.

## 4.1.2. HOUSEHOLDS WITH PERSONAL COMPUTERS AND INTERNET ACCESS BY SIZE

*(as a percentage of the total number of households)*

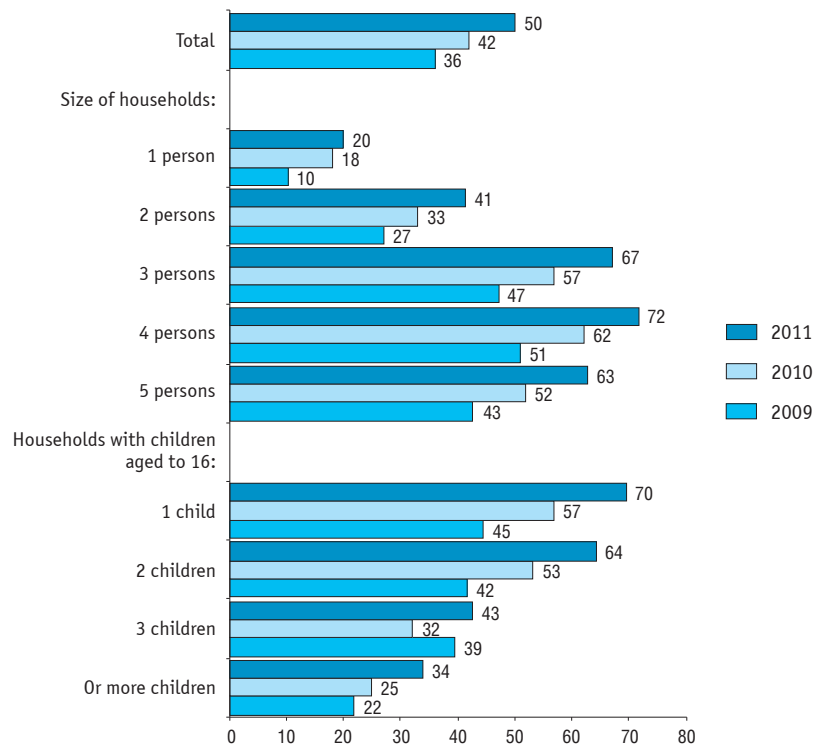
### 4.1.3. HOUSEHOLDS WITH PERSONAL COMPUTERS BY INCOME LEVEL

(as a percentage of the total number of households)



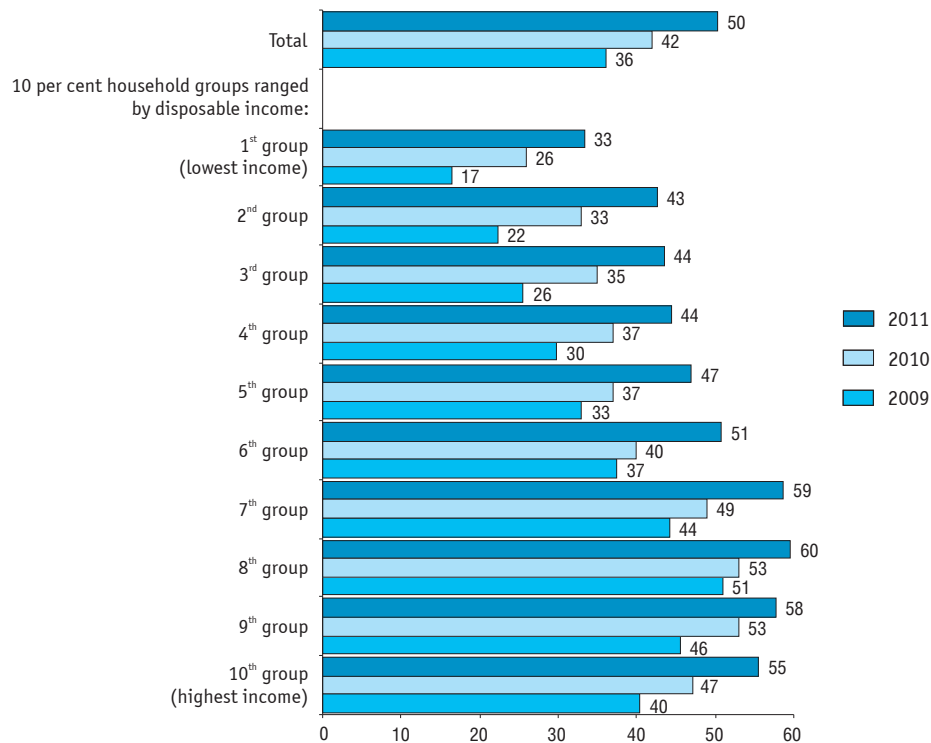
#### 4.1.4. HOUSEHOLDS WITH INTERNET ACCESS BY SIZE

(as a percentage of the total number of households)

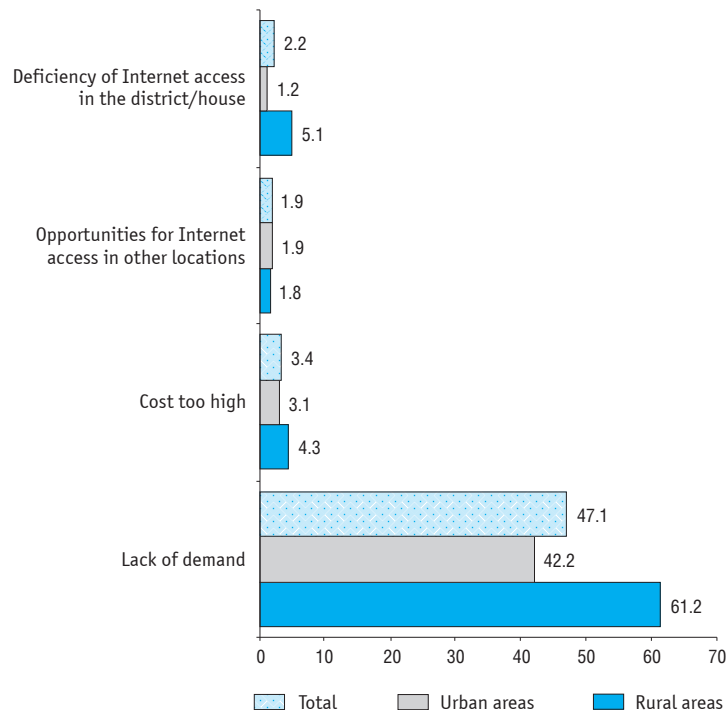


#### 4.1.5. HOUSEHOLDS WITH INTERNET ACCESS BY INCOME LEVEL

(as a percentage of the total number of households)



## 4.1.6. HOUSEHOLDS THAT EVALUATED REASONS FOR INTERNET ACCESS DEFICIENCY: 2011

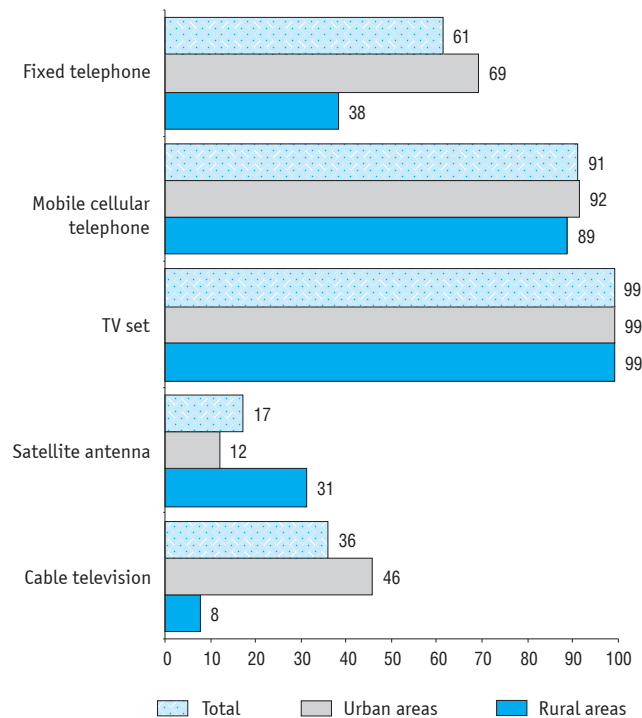
*(as a percentage of the total number of households having no access to the Internet)*

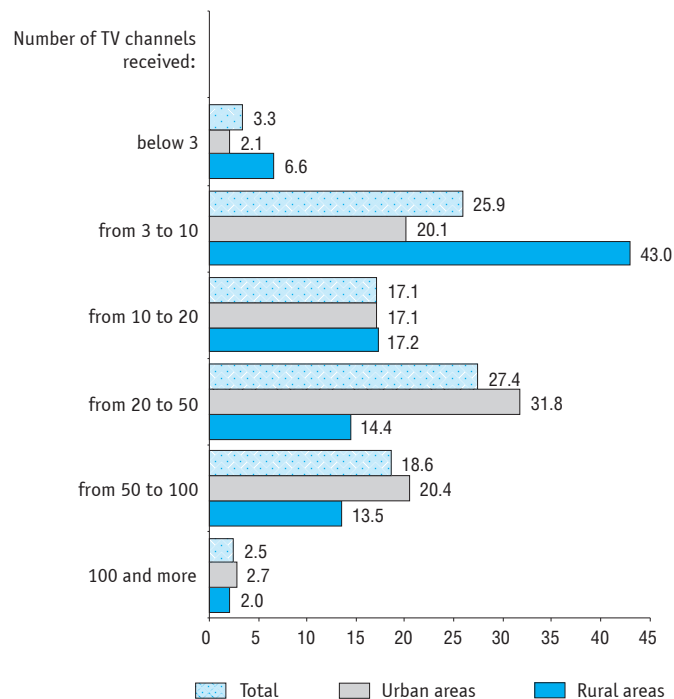
Source (here and below in sections 4.1.1.7, 4.1.1.8): data from a complex survey of living conditions conducted by Federal State Statistics Service.



#### 4.1.7. HOUSEHOLDS WITH FIXED TELEPHONES AND TV CHANNEL RECEIVING DEVICES: 2011

(as a percentage of the total number of households)

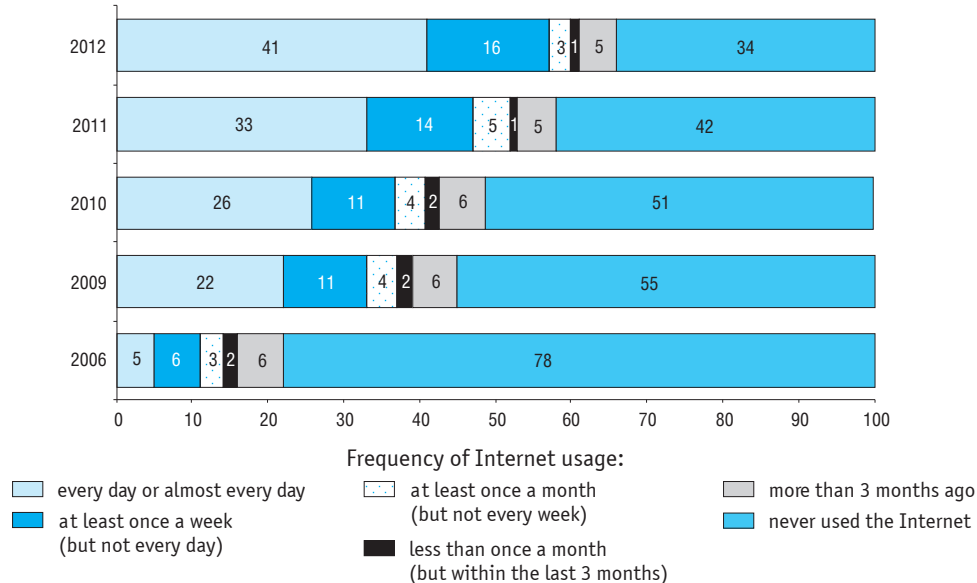


**4.1.8. PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY NUMBER OF TV CHANNELS RECEIVED: 2011***(as a percentage of households with TV channel receiving devices)*

## 4.2. Internet Usage by Individuals

### 4.2.1. FREQUENCY OF INTERNET USAGE

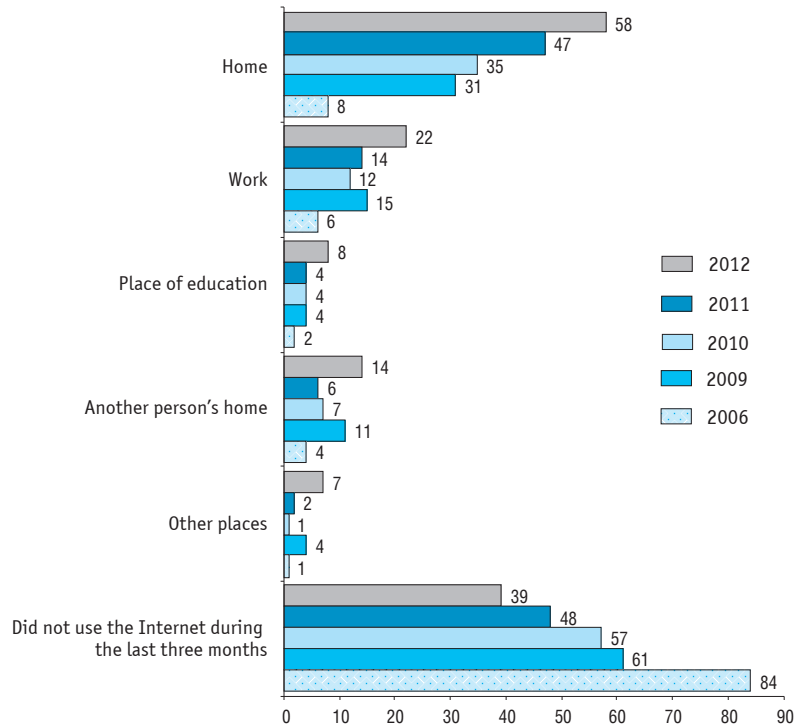
(as a percentage of all respondents aged 16–74\*)



\* 2012 – aged 18–74.

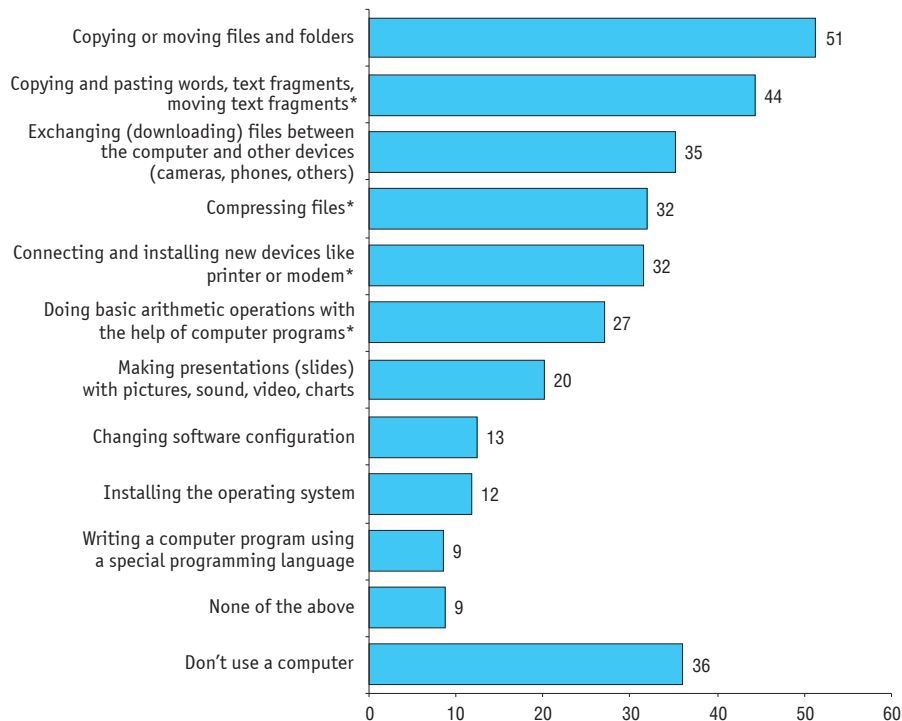
Source (here and below in the section): 2012 – the results of the special national representative survey of the adult population of the Russian Federation (1534 people aged 18–74 were interviewed in November 2012, 1610 people aged 16–74 were interviewed in August, 2012) conducted by HSE Institute for Statistical Studies and Economics of Knowledge in cooperation with the Levada Center within 'The Monitoring Survey of Innovative Behavior of the Population' as part of HSE Basic Research Programme; for 2009 and 2011 – Data book 'Information Society Indicators'; 2006 – 'Information Society Statistics in the Russian Federation: Harmonization with International Standards' / L. Gokhberg and P. Bough-Nielsen (eds.). Moscow: Higher School of Economics, 2007.

## 4.2.2. PLACES OF INTERNET USAGE

*(as a percentage of all respondents aged 16–74)*

### 4.2.3. COMPUTER SKILLS: 2012

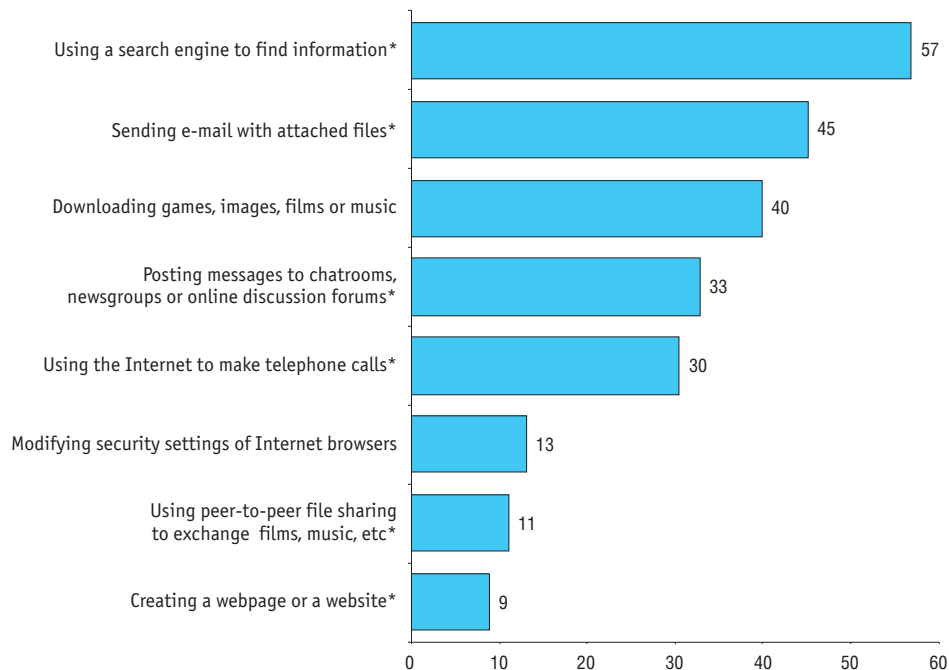
(as a percentage of respondents aged 16–74)



\* Marked items are used to calculate the level of computer skills (see chart 6.4.4). A high level means the respondent has five or six of these skills; a medium level – three or four skills; a low level – one or two skills.

#### 4.2.4. INTERNET SKILLS: 2012

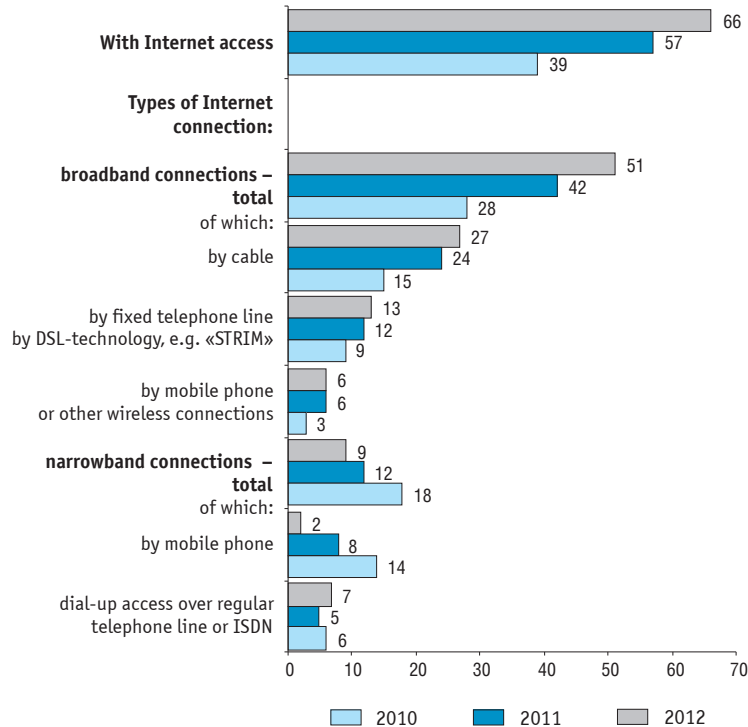
(as a percentage of all respondents aged 16–74)



\* Marked items are used to calculate the level of Internet skills (see chart 6.4.4). A high level means the respondent has five or six of these skills; a medium level – three or four skills; a low level – one or two skills.

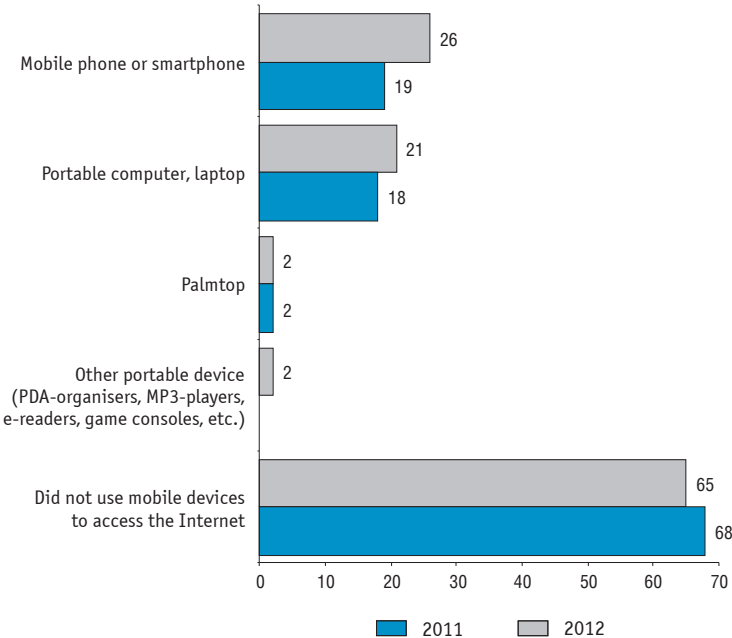
#### 4.2.5. INDIVIDUALS WITH INTERNET ACCESS IN HOUSEHOLDS

(as a percentage of all respondents aged 16–74)



### 4.2.6. USE OF MOBILE DEVICES TO ACCESS THE INTERNET

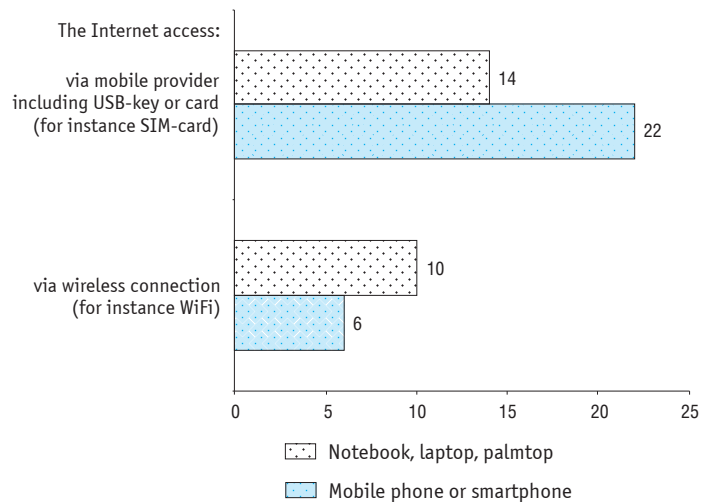
(as a percentage of all respondents aged 16-74)





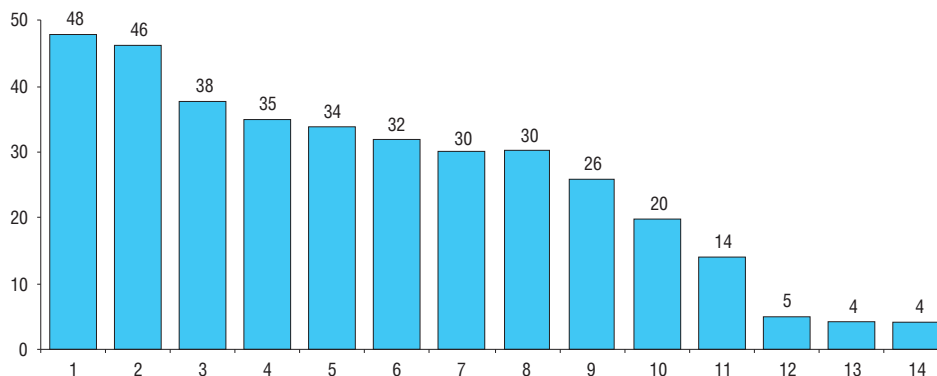
#### 4.2.7. TYPES OF INTERNET ACCESS VIA MOBILE DEVICES: 2012

(as a percentage of all respondents aged 16–74; for the last three months)



## 4.2.8. INTERNET ACTIVITIES: 2012

(undertaken by individuals; as a percentage of all respondents aged 16–74)

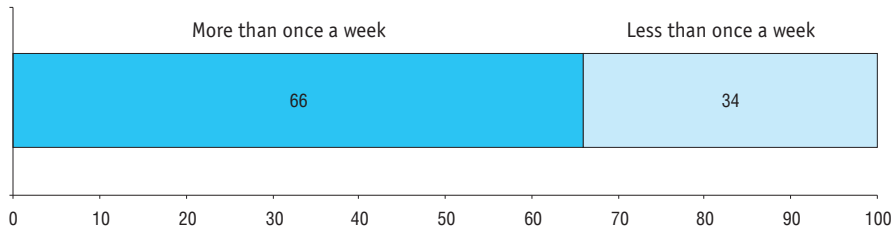


- 1 – Communicating in social networks, e.g., Facebook (creating user profile, commenting, posting ‘likes’/‘dislikes’, messages, etc.)
- 2 – Sending or receiving e-mail
- 3 – Reading online news, newspapers, magazines
- 4 – Making telephone or video calls (e.g. by skype) over the Internet
- 5 – Communicating on forums, online chatrooms, dating sites, posting comments to news, using the ‘instant messaging’ services

- 6 – Keeping information (texts, photos, music, video, programs, etc.) on shared sites
- 7 – Listening to the radio or watching TV over the Internet
- 8 – Playing online games with several participants
- 9 – Looking for a job, sending resumes, job applications
- 10 – Creating websites or blogs
- 11 – Applying for online medical consultations
- 12 – Distance learning, doing an online course (in any subject)

#### 4.2.9. FREQUENCY OF COMMUNICATION IN SOCIAL NETWORKS: 2011

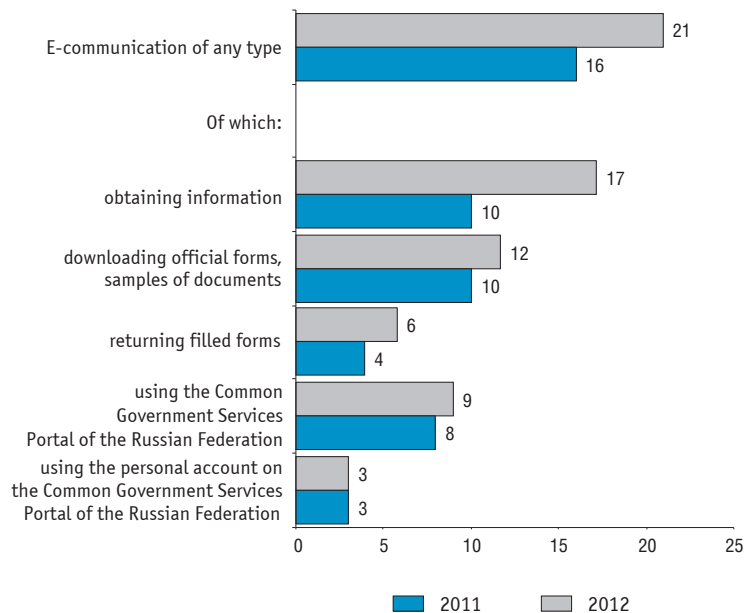
(as a percentage of all respondents aged 16–74, using the Internet to communicate in social networks)



Source: a complex survey of living conditions conducted by Federal State Statistics Service.

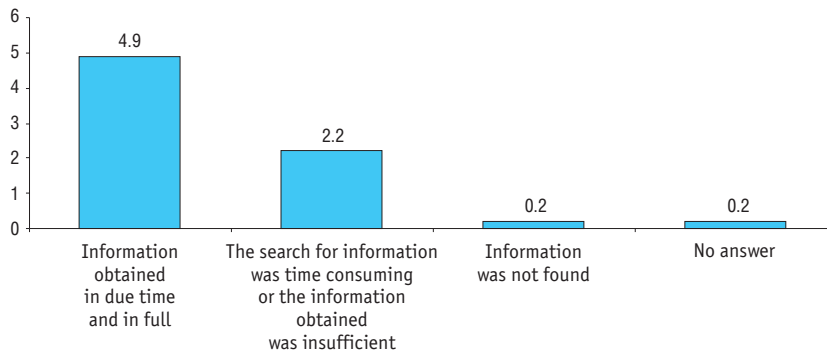
#### 4.2.10. INTERACTION WITH PUBLIC AUTHORITIES

(as a percentage of all respondents aged 16–74)



#### 4.2.11. ASSESSMENT OF THE QUALITY OF SERVICES PROVIDED ON THE WEBSITES OF PUBLIC AUTHORITIES: 2011\*

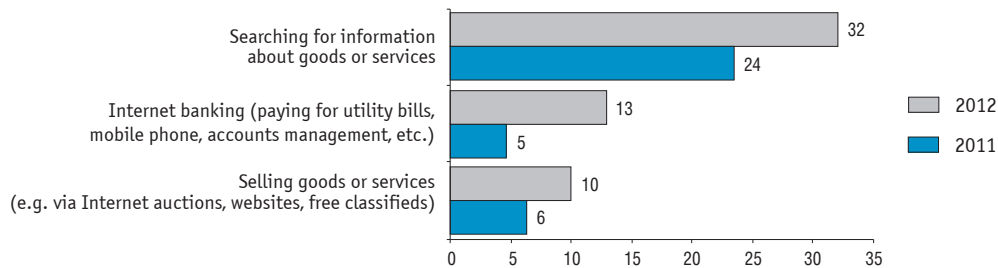
(as a percentage of all respondents aged 16–74)

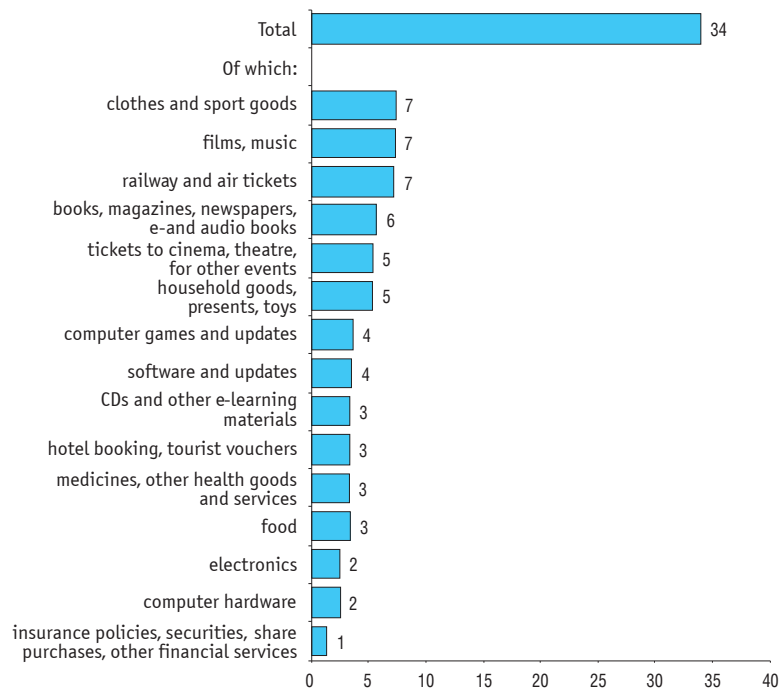


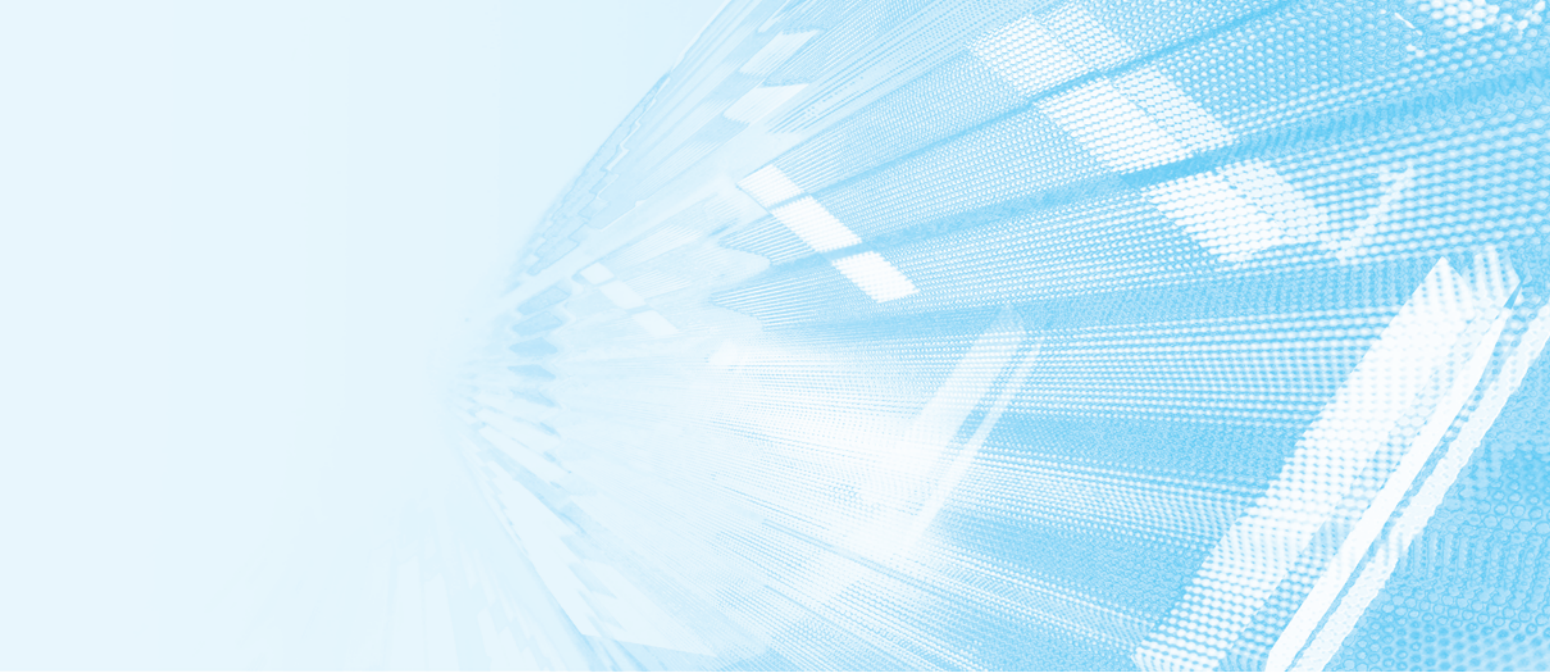
Source: a complex survey of living conditions conducted by Federal State Statistics Service.

#### 4.2.12. E-COMMERCE

(respondents having taken part in e-commerce as a percentage of all respondents aged 16–74)



**4.2.13. PURCHASE, ORDER OF GOODS AND SERVICES VIA THE INTERNET: 2012***(as a percentage of all respondents aged 16–74)*



## **5. Content and Media Sector**

## 5.1. MAIN INDICATORS OF CONTENT AND MEDIA SECTOR ENTERPRISES' ACTIVITY

	2009	2010	2011
Number of enterprises, <i>thousand; at the end of the year</i>	49.0	51.3	51.4
Employment, <i>thousand, head-count</i>	252.6	261.2	250.8
Gross value added*:			
billion roubles	189.8	206.4	219.0
as a percentage of GDP	0.56	0.52	0.46
Fixed capital investment, <i>billion roubles**</i>	5.4	5.4	7.8
Foreign investment received, <i>million US dollars</i>	88.7	168.0	54.1

\* Without news agency activities (RCEA code – 92.4).

\*\* Excluding data on small businesses.

Source (here and below in the section): estimated by HSE Institute for Statistical Studies and Economics of Knowledge on the basis of data provided by Federal State Statistics Service.



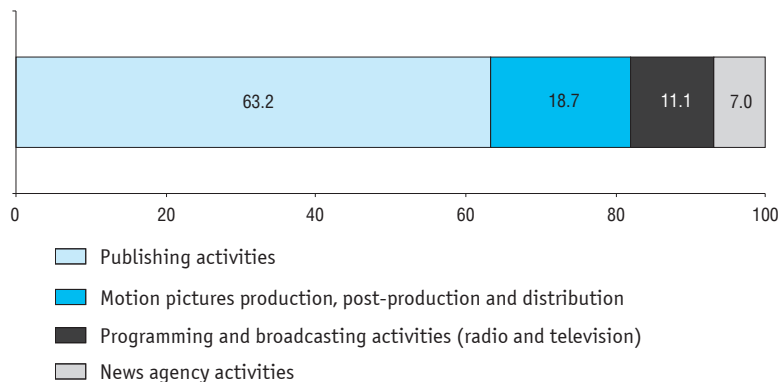
## 5.2. CONTENT AND MEDIA SECTOR ENTERPRISES BY ECONOMIC ACTIVITY

(thousand; at the end of the year)

	RCEA Code (Rev. 1.1.)	2009	2010	2011
<b>Total</b>		<b>49.0</b>	<b>51.3</b>	<b>51.4</b>
Publishing activities	22.1	31.8	32.9	32.5
Motion pictures production, post-production and distribution	92.1	8.8	9.3	9.6
Programming and broadcasting activities (radio and television)	92.2	5.2	5.6	5.7
News agency activities	92.4	3.2	3.5	3.6

## 5.3. PERCENTAGE DISTRIBUTION OF CONTENT AND MEDIA SECTOR ENTERPRISES BY ECONOMIC ACTIVITY: 2011

(at the end of the year)

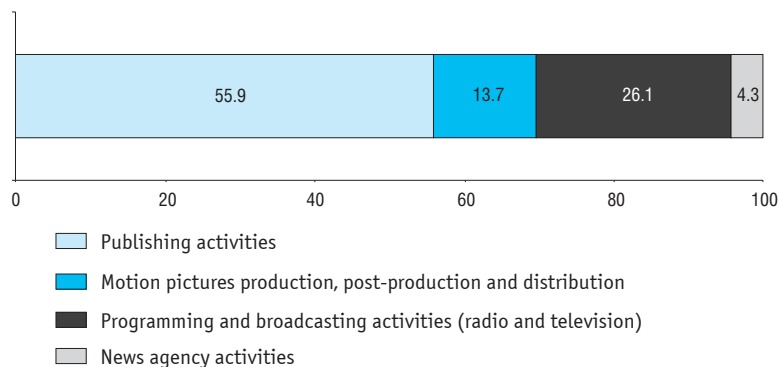


## 5.4. EMPLOYMENT IN CONTENT AND MEDIA SECTOR ENTERPRISES BY ECONOMIC ACTIVITY

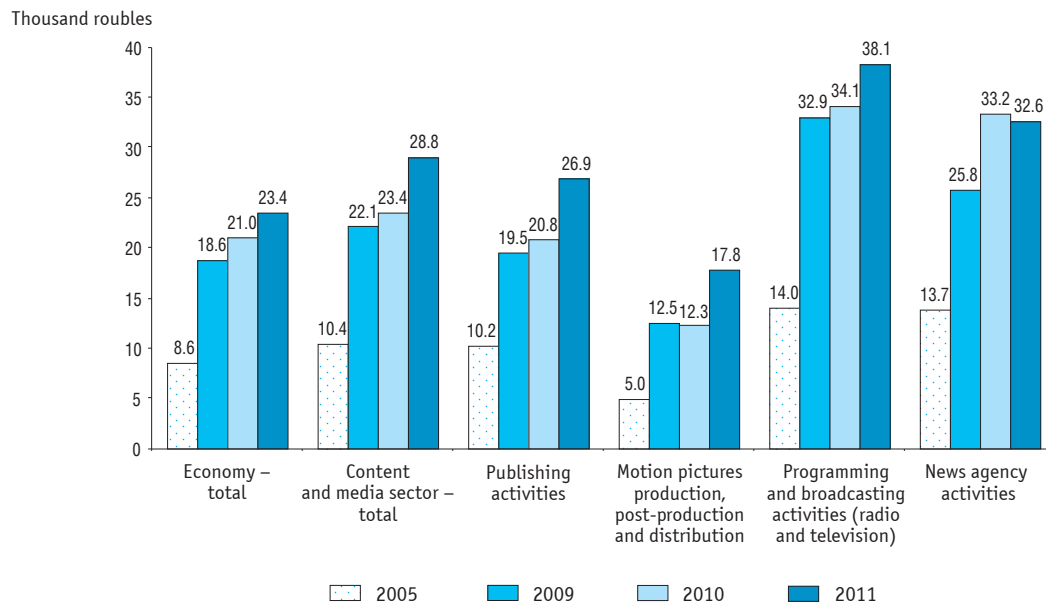
*(thousand, head-count)*

	RCEA Code (Rev. 1.1.)	2009	2010	2011
<b>Total</b>		<b>252.6</b>	<b>261.2</b>	<b>250.8</b>
Publishing activities	22.1	130.9	148.5	140.2
Motion pictures production, post-production and distribution	92.1	42.9	37.2	34.3
Programming and broadcasting activities (radio and television)	92.2	66.4	64.7	65.5
News agency activities	92.4	12.4	10.8	10.8

## 5.5. PERCENTAGE DISTRIBUTION OF EMPLOYMENT IN CONTENT AND MEDIA SECTOR ENTERPRISES BY ECONOMIC ACTIVITY: 2011



## 5.6. AVERAGE MONTHLY SALARIES IN ENTERPRISES BY ECONOMIC ACTIVITY



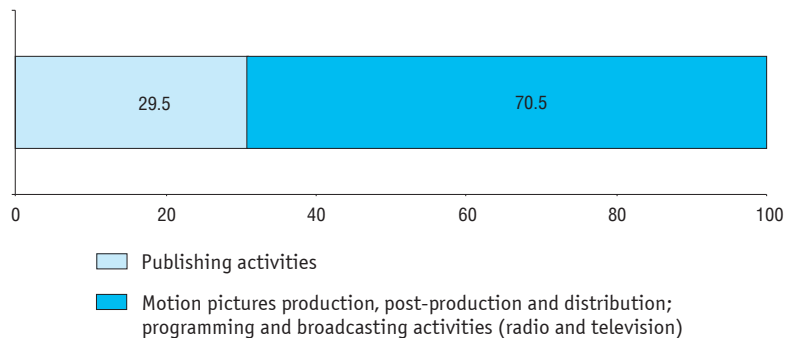
## 5.7. GROSS VALUE ADDED OF CONTENT AND MEDIA SECTOR ENTERPRISES BY ECONOMIC ACTIVITY

*(billion roubles)*

	RCEA code (Rev. 1.1.)	2009	2010	2011
<b>Total*</b>		<b>189.8</b>	<b>206.4</b>	<b>219.0</b>
Publishing activities	22.1	72.6	70.1	64.6
Motion pictures production, post-production and distribution; programming and broadcasting activities (radio and television)	92.1; 92.2	117.2	136.3	154.4

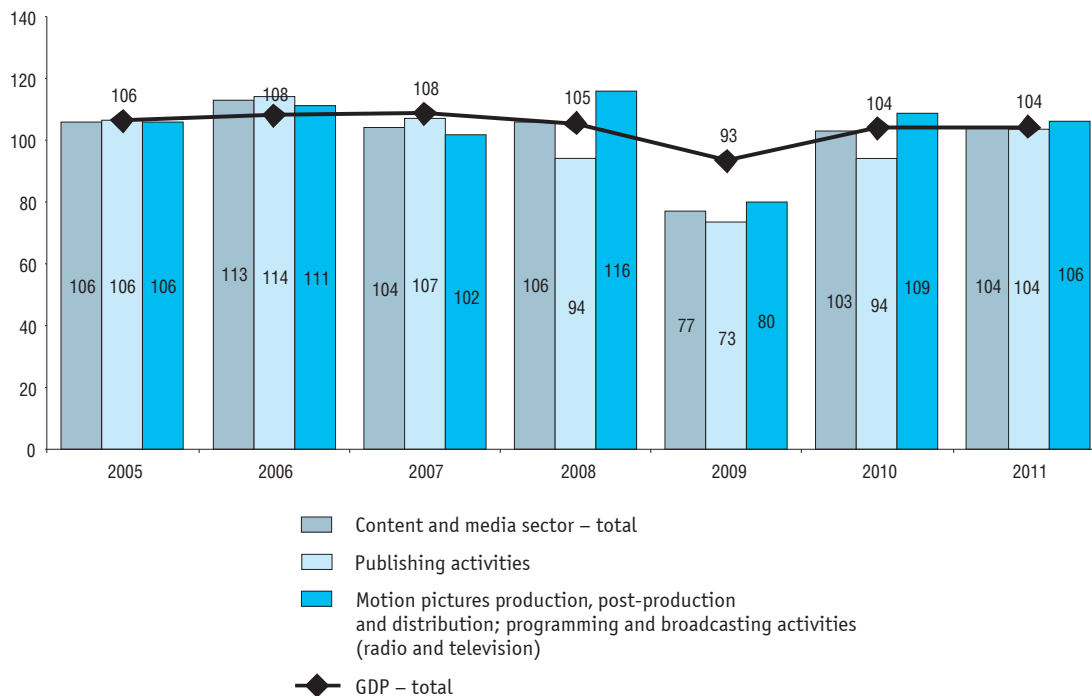
\* Excluding data of news agency activities (RCEA code – 92.4).

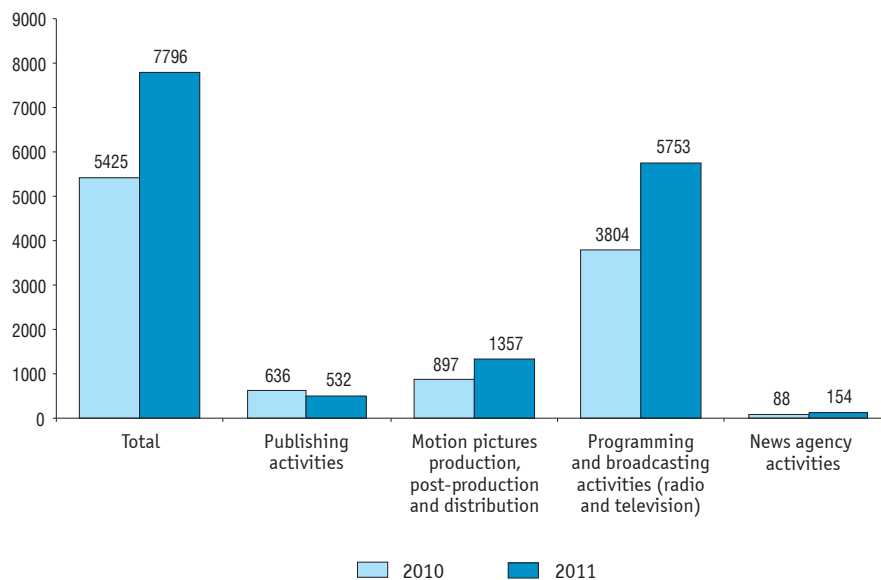
## 5.8. PERCENTAGE DISTRIBUTION OF GROSS VALUE ADDED OF CONTENT AND MEDIA SECTOR ENTERPRISES BY ECONOMIC ACTIVITY: 2011



## 5.9. GVA ACTUAL VOLUME INDICATORS OF CONTENT AND MEDIA SECTOR ENTERPRISES BY ECONOMIC ACTIVITY

(as a percentage of the previous year)



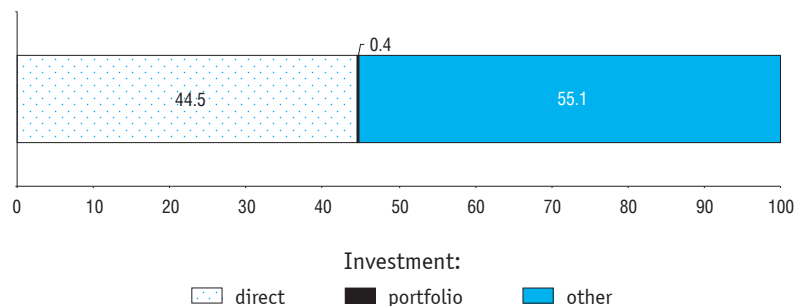
**5.10. FIXED CAPITAL INVESTMENT IN CONTENT AND MEDIA SECTOR ENTERPRISES BY ECONOMIC ACTIVITY\****(million roubles)*

\* Excluding data on small businesses.

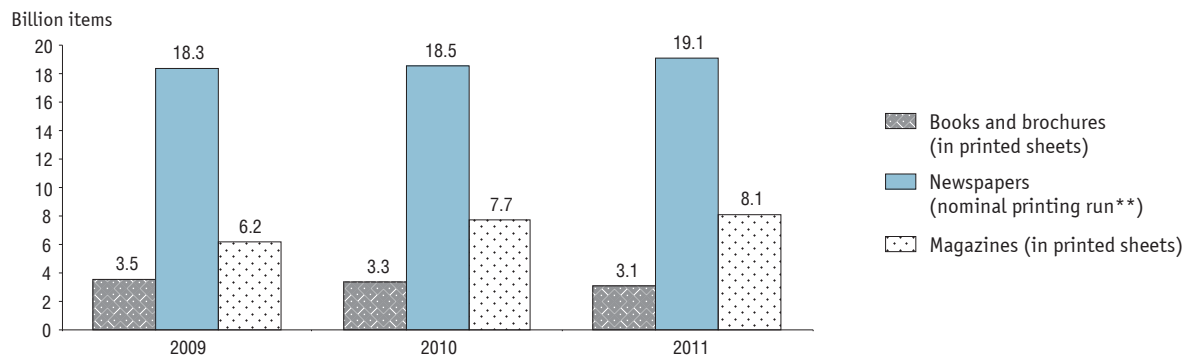
## 5.11. FOREIGN INVESTMENT IN CONTENT AND MEDIA SECTOR ENTERPRISES BY ECONOMIC ACTIVITY

	RCEA Code (Rev. 1.1.)	Total investment, <i>thousand US dollars</i>			As a percentage of the total		
		2009	2010	2011	2009	2010	2011
<b>Total</b>		<b>88674</b>	<b>167964</b>	<b>54133</b>	<b>100</b>	<b>100</b>	<b>100</b>
Publishing activities	22.1	45967	71263	43266	51.8	42.4	79.9
Motion pictures production, post-production and distribution	92.1	41375	42073	9928	46.7	25.0	18.3
Programming and broadcasting activities (radio and television)	92.2	1332	54519	743	1.5	32.5	1.4
News agency activities	92.4	0.3	109	196	0.0	0.1	0.4

## 5.12. PERCENTAGE DISTRIBUTION OF FOREIGN INVESTMENT IN CONTENT AND MEDIA SECTOR ENTERPRISES BY TYPE: 2011



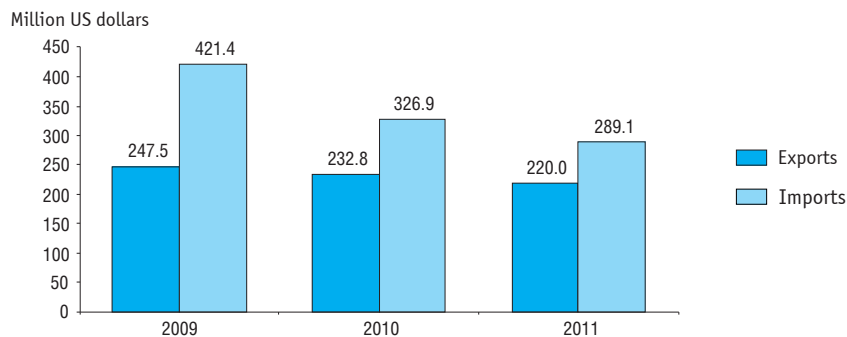
## 5.13. PRODUCTION OF BOOKS, NEWSPAPERS AND MAGAZINES\*



\* According to the Russian Classifier of Products by Economic Activity.

\*\* Four columns, A2 format.

## 5.14. EXPORTS AND IMPORTS OF PRINTED PUBLICATIONS





## 5.15. MAIN INDICATORS OF CONTENT AND MEDIA SECTOR ENTERPRISES' ACTIVITIES BY REGION OF THE RUSSIAN FEDERATION: 2011

	Number of enterprises, <i>at the end of the year</i>	Employment, <i>thousand, head-count</i>	Fixed capital investment, <i>million roubles*</i>
<b>Russian Federation</b>	<b>51437</b>	<b>250.8</b>	<b>7796.7</b>
<b>Central Federal District</b>	<b>24979</b>	<b>123.9</b>	<b>5348.3</b>
Belgorod Region	233	1.5	84.4
Bryansk Region	174	1.0	8.0
Vladimir Region	235	1.8	36.5
Voronezh Region	428	2.9	33.2
Ivanovo Region	223	0.9	2.2
Kaluga Region	227	1.1	77.1
Kostroma Region	145	0.9	3.7
Kursk Region	265	1.4	29.4
Lipetsk Region	229	1.2	16.0
Moscow Region	1614	5.4	68.0
Oryol Region	125	0.7	24.8
Ryazan Region	256	0.9	18.7
Smolensk Region	294	1.1	4.7
Tambov Region	176	1.1	7.3
Tver Region	386	2.6	5.4
Tula Region	256	1.4	6.8
Yaroslavl Region	374	1.1	72.5
Moscow	19339	96.9	4849.5
<b>Northwestern Federal District</b>	<b>6254</b>	<b>22.4</b>	<b>267.1</b>
Republic of Karelia	208	1.1	7.9
Republic of Komi	270	1.3	4.2

\* Excluding data on small businesses.

(continued)

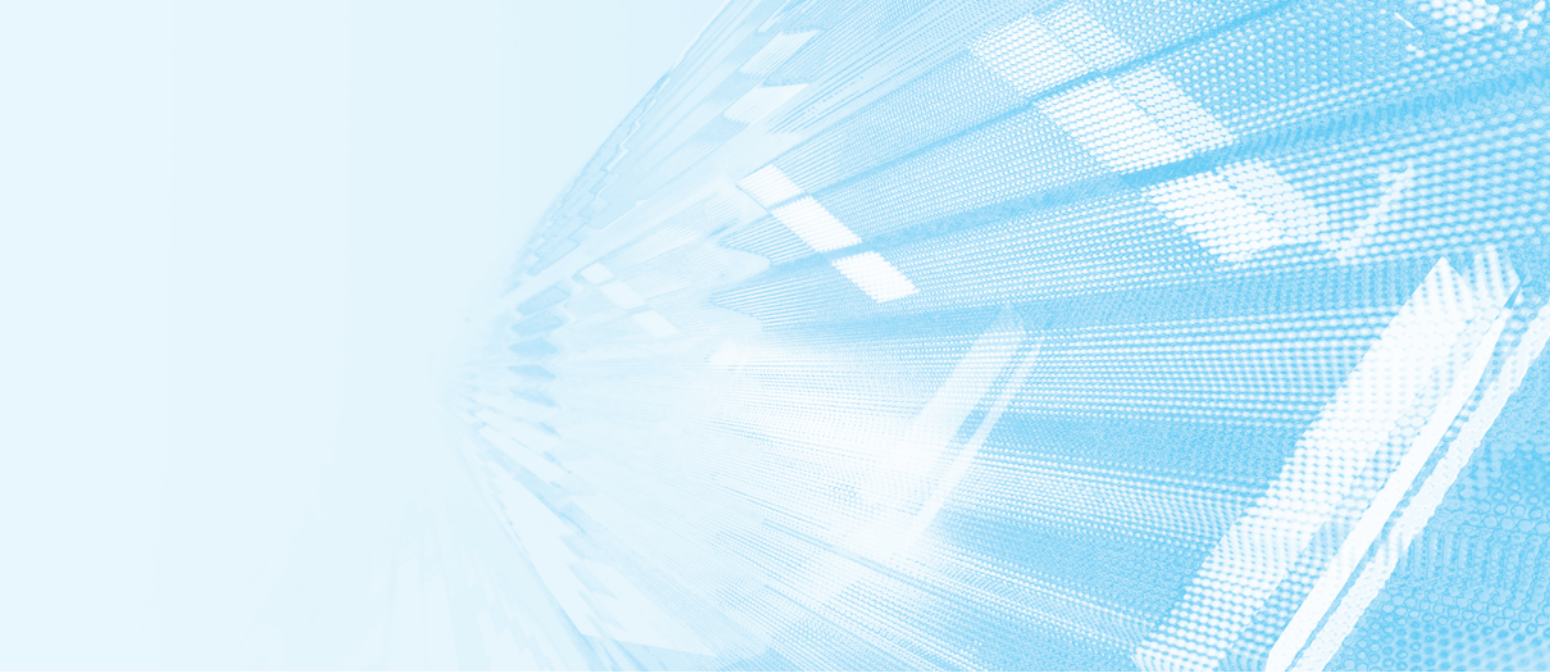
	Number of enterprises, <i>at the end of the year</i>	Employment, <i>thousand, head-count</i>	Fixed capital investment, <i>million roubles*</i>
Arkhangelsk Region	352	1.3	6.4
Of which Nenets Autonomous District	22	0.1	2.2
Vologda Region	296	1.2	27.7
Kaliningrad Region	364	2.4	5.9
Leningrad Region	215	1.1	0.2
Murmansk Region	185	1.1	10.2
Novgorod Region	102	1.1	3.4
Pskov Region	129	0.8	3.0
Saint-Petersburg	4133	11.0	198.1
<b>Southern Federal District</b>	<b>2575</b>	<b>13.6</b>	<b>242.3</b>
Republic of Adygeya	76	0.7	1.2
Republic of Kalmykia	48	0.4	1.7
Krasnodar Territory	979	4.5	123.7
Astrakhan Region	177	1.0	2.7
Volgograd Region	427	2.8	22.2
Rostov Region	868	4.3	90.8
<b>North Caucasian Federal District</b>	<b>1056</b>	<b>7.7</b>	<b>167.8</b>
Republic of Dagestan	299	2.1	0.0
Republic of Ingushetia	33	0.3	12.8
Kabardino-Balkarian Republic	91	0.7	0.5
Karachaevo-Cherkceccian Republic	45	0.4	1.9
Republic of North Ossetia–Alania	109	0.7	1.2
Chechen Republic	80	1.1	85.6
Stavropol Territory	399	2.3	65.8

(continued)

	Number of enterprises, <i>at the end of the year</i>	Employment, <i>thousand, head-count</i>	Fixed capital investment, <i>million roubles*</i>
<b>Volga Federal District</b>	<b>6353</b>	<b>36.8</b>	<b>454.4</b>
Republic of Bashkortostan	726	6.3	108.4
Republic of Mari El	150	0.9	0.7
Republic of Mordovia	116	1.0	2.6
Republic of Tatarstan	1011	6.3	137.7
Udmurtian Republic	304	1.5	10.0
Chuvash Republic	185	1.0	25.3
Perm Territory	752	2.8	13.2
Kirov Region	281	1.5	6.6
Nizhni Novgorod Region	743	4.4	74.1
Orenburg Region	342	3.0	28.2
Penza Region	191	1.1	4.7
Samara Region	869	3.5	34.5
Saratov Region	466	2.3	4.4
Ulyanovsk Region	217	1.3	3.9
<b>Urals Federal District</b>	<b>3715</b>	<b>15.6</b>	<b>592.9</b>
Kurgan Region	142	0.9	4.1
Sverdlovsk Region	1717	4.5	42.7
Tyumen Region	972	6.8	504.4
Of which		0.0	
Khanty-Mansi Autonomous District–Yugra	400	2.7	241.5
Yamalo-Nenets Autonomous District	115	2.2	178.1
Chelyabinsk Region	884	3.4	41.7

(continued)

	Number of enterprises, <i>at the end of the year</i>	Employment, <i>thousand, head-count</i>	Fixed capital investment, <i>million roubles*</i>
<b>Siberian Federal District</b>	<b>4840</b>	<b>22.0</b>	<b>410.5</b>
Republic of Altai	40	0.3	0.7
Republic of Buryatia	172	1.0	4.6
Republic of Tyva	45	0.3	5.9
Republic of Khakasia	111	0.8	10.9
Altai Territory	506	2.2	15.0
Zabaikalsk Territory	130	1.1	18.2
Krasnoyarsk Territory	750	4.1	32.0
Irkutsk Region	597	2.6	11.2
Kemerovo Region	482	2.6	35.2
Novosibirsk Region	1270	3.6	261.9
Omsk Region	429	2.6	9.5
Tomsk Region	308	0.8	5.5
<b>Far Eastern Federal District</b>	<b>1665</b>	<b>8.8</b>	<b>313.5</b>
Republic of Sakha (Yakutia)	286	2.1	216.9
Kamchatka Territory	103	0.3	0.9
Primorsky Territory	490	1.6	29.5
Khabarovsk Territory	366	2.1	19.8
Amur Region	194	1.2	32.3
Magadan Region	57	0.4	4.8
Sakhalin Region	129	0.7	0.3
Jewish Autonomous Region	29	0.3	6.7
Chukotka Autonomous Region	11	0.2	2.2



## **6. International Comparisons**

## 6.1. ICT Sector by Country

### 6.1.1. SHARE OF THE ICT SECTOR IN THE TOTAL NUMBER OF EMPLOYEES IN ENTERPRISES BY ECONOMIC ACTIVITY

(per cent)

	ICT sector – total			Of which					
	2005	2007	2009	ICT manufacturing			ICT services**		
				2005	2007	2009	2005	2007	2009
Russia*	2.8	2.7	2.7	1.0	1.0	0.9	1.8	1.7	1.8
Austria	2.8	2.5	2.3	0.9	0.6	0.4	2.0	1.9	1.9
Belgium	3.0	3.0	2.9	0.6	0.5	0.4	2.4	2.5	2.5
Bulgaria	...	1.7	...	0.3	0.3	...	...	1.4	...
Denmark	3.6	3.6	...	0.5	0.6	...	3.1	3.1	...
Estonia	3.0	3.2	3.0	1.4	1.3	0.8	1.5	1.9	2.2
Finland	4.8	4.5	4.1	1.9	1.8	1.2	2.9	2.8	2.9
France	3.1	3.2	...	0.9	0.8	...	2.3	2.4	...
Germany	2.6	2.7	2.3	0.9	0.9	0.3	1.7	1.8	2.0
Greece	1.4	1.4	...	0.2	0.2	...	1.3	1.2	...
Hungary	3.6	3.7	3.4	1.8	1.7	1.2	1.9	2.0	2.2
Italy	2.7	2.6	...	0.7	0.6	0.3	2.0	2.0	2.2
Latvia	1.7	1.7	1.8	0.3	0.3	0.1	1.5	1.5	1.7
Lithuania	1.8	1.6	...	0.8	0.4	...	1.1	1.2	1.3
Poland	...	...	1.6	0.5	0.6	0.3	...	...	1.3
Portugal	1.5	...	1.5	0.4	...	0.2	1.1	1.2	1.3
Romania	1.3	1.7	1.5	0.3	0.4	0.2	1.0	1.3	1.3
Slovakia	...	2.9	2.2	...	1.5	0.9	1.3	1.4	1.3
Slovenia	...	2.7	...	1.2	1.0	...	...	1.7	1.9
Spain	1.9	1.9	2.0	2.0	0.3	0.1	1.7	1.7	2.0
Sweden	4.8	4.8	4.4	1.2	1.1	...	3.6	3.7	...
United Kingdom	3.7	3.6	...	0.6	0.5	...	3.1	3.1	...

\* 2011: the ICT sector total – 2.7%, ICT manufacturing – 0.9%, ICT services – 1.8%.

\*\* Wholesale of ICT goods, telecommunications and ICT services.

Sources: estimates of HSE Institute for Statistical Studies and Economics of Knowledge on the basis of data provided by Federal State Statistics Service (for Russia); Eurostat (for other countries).

## 6.1.2. SHARE OF THE ICT SECTOR IN GDP BY ECONOMIC ACTIVITY

	ICT sector - total			ICT manufacturing			ICT services**		
	2005	2007	2009	2005	2007	2009	2005	2007	2009
<b>Russia*</b>	3.6	3.6	3.8	0.5	0.5	0.4	3.1	3.1	3.4
Austria	4.5	3.8	3.2	1.3	0.9	0.5	3.1	2.9	2.8
Belgium	5.2	4.9	4.6	0.8	0.7	0.5	4.4	4.2	4.1
Bulgaria	...	6.0	...	0.6	0.5	...	...	5.5	...
Denmark	4.9	5.2	...	0.6	0.7	...	4.4	4.6	...
Estonia	4.9	4.6	5.1	1.1	0.8	0.6	3.8	3.7	4.5
Finland	8.1	9.1	5.3	4.3	5.3	1.4	3.8	3.8	3.9
France	4.5	4.4	4.1	0.9	0.8	0.3	3.6	3.6	3.9
Germany	4.6	4.7	4.3	1.2	1.3	0.4	3.5	3.4	3.9
Greece	2.8	2.7	...	0.2	0.2	...	2.6	2.5	...
Hungary	7.0	5.8	5.9	3.0	1.8	1.7	4.0	4.0	4.2
Ireland	...	...	...	...	...	...	...	...	6.8
Italy	3.9	3.9	...	0.7	0.7	0.3	3.3	3.2	3.2
Latvia	...	...	3.5	...	...	0.2	4.5	3.5	3.3
Lithuania	2.8	2.7	...	0.4	0.3	...	2.4	2.4	2.4
Poland	...	...	3.2	0.6	0.6	0.4	...	...	2.8
Portugal	4.0	...	3.5	0.6	...	0.2	3.4	3.5	3.4
Romania	...	...	3.3	...	...	0.3	3.5	3.1	3.1
Slovakia	...	4.8	3.8	...	1.5	0.5	3.3	3.3	3.3
Slovenia	...	4.1	...	1.0	0.8	...	...	3.3	3.0
Spain	3.8	3.9	3.5	0.3	0.3	0.1	3.6	3.5	3.5
Sweden	7.0	6.5	6.3	2.1	1.9	...	4.9	4.6	...
United Kingdom	6.7	6.7	...	0.7	0.7	...	5.9	5.9	5.7

\* 2011: the ICT sector total – 2.7%, ICT manufacturing – 0.9%, ICT services – 1.8%.

\*\* Wholesale of ICT goods, telecommunications and ICT services.

Sources: estimated by HSE Institute for Statistical Studies and Economics of Knowledge on the basis of data provided by Federal State Statistics Service (for Russia); Eurostat (for other countries).

## 6.1.3. EXPORTS AND IMPORTS OF ICT GOODS: 2009

*(billion US dollars)*

	Exports	Imports		Exports	Imports
<b>Russia*</b>	<b>0.9</b>	<b>12.4</b>	Israel	7.9	4.6
Australia	1.6	16.7	Italy	8.1	24.6
Austria	5.3	8.1	Japan	70.2	62.7
Belgium	9.3	13.6	Luxembourg	0.4	1.0
Brazil	2.9	14.4	Mexico	50.5	45.9
Canada	10.9	27.0	Netherlands	50.3	54.9
Chile	0.1	2.7	New Zealand	0.3	2.2
China	356.3	220.2	Norway	1.8	5.2
Czech Republic	16.3	16.5	Poland	9.5	14.6
Denmark	3.1	6.6	Portugal	1.8	4.4
Estonia	0.5	0.6	Republic of Korea	79.5	41.9
Finland	6.7	6.2	Slovakia	9.4	8.4
France	19.8	38.2	Slovenia	0.5	1.1
Germany	54.6	78.0	South of Africa	0.7	5.5
Greece	0.5	3.7	Spain	5.4	28.2
Hungary	19.5	16.2	Sweden	11.8	12.7
Iceland	0.0	0.1	Switzerland	2.7	8.9
India	6.1	20.7	Turkey	2.0	7.1
Indonesia	6.9	8.6	United Kingdom	23.4	47.6
Ireland	12.8	8.3	USA	113.2	230.6

\* 2011: exports – 1.5 bn USD, import – 21.9.

Sources: estimated by HSE Institute for Statistical Studies and Economics of Knowledge on the basis of data provided by Federal State Statistics Service (for Russia); Eurostat (for other countries).



## 6.2. ICT INFRASTRUCTURE BY COUNTRY

### 6.2.1. TELEPHONE DENSITY

(telephones per 100 inhabitants)

	Telephones of public fixed telephone network		Mobile cellular telephones	
	2010	2011	2010	2011
<b>Russia</b>	31.4	30.9	166.3	179.0
Argentina	24.7	24.9	132.9	134.9
Australia	47.6	46.6	101.0	108.3
Austria	40.5	40.3	145.8	154.8
Azerbaijan	16.4	18.1	99.0	108.7
Belarus	43.1	44.0	107.7	111.9
Belgium	43.3	43.1	113.5	116.6
Brazil	21.6	21.9	104.1	123.2
Bulgaria	29.7	31.0	136.1	140.7
Canada	50.0	47.9	70.7	75.3
China	21.9	21.2	64.0	73.2
Czech Republic	22.9	20.9	121.7	121.6
Denmark	47.1	45.1	125.8	126.5
Estonia	36.0	35.1	123.2	139.0
Finland	23.3	20.1	156.4	166.0
France	56.2	55.9	100.7	105.0
Georgia	25.4	31.0	91.4	102.3
Germany	64.2	63.0	127.0	132.3
Greece	51.7	49.9	108.2	106.5
Hungary	29.8	29.4	120.3	117.3
Iceland	60.5	58.4	106.5	106.1

Sources: Federal State Statistics Service (for Russia), for other countries – Eurostat (Measuring the Information Society 2012).

(continued)

	Telephones of public fixed telephone network		Mobile cellular telephones	
	2010	2011	2010	2011
Ireland	46.5	45.2	105.2	108.4
Italy	35.5	34.6	149.6	151.8
Japan	51.9	51.1	97.4	102.7
Kazakhstan	25.3	26.1	121.1	142.5
Latvia	23.6	23.0	102.4	102.9
Lithuania	22.1	21.9	147.2	151.3
Luxembourg	53.7	54.1	143.3	148.3
Mexico	17.5	17.1	80.6	82.4
Norway	45.4	42.7	115.7	116.8
Poland	20.0	18.1	122.7	128.5
Republic of Korea	59.2	60.9	105.4	108.5
Republic of Moldova	32.5	33.3	88.6	104.8
Slovakia	20.1	19.3	108.5	109.3
Slovenia	44.9	42.9	104.5	106.6
Spain	43.9	42.3	112.0	114.2
Sweden	52.5	48.7	116.1	118.6
Switzerland	64.0	60.8	125.8	130.1
Turkey	22.3	20.7	84.9	88.7
Ukraine	28.5	28.1	118.6	123.0
United Kingdom	53.9	53.2	130.8	130.8
USA	48.7	47.9	89.9	105.9

## 6.2.2. BROADBAND INTERNET SUBSCRIPTIONS

(per 100 inhabitants)

	Fixed (wired) broadband Internet subscriptions		Wireless broadband Internet subscriptions	
	2010	2011	2010	2011
<b>Russia</b>	11.0	12.2	34.7	47.9
Australia	23.2	23.9	30.5	42.8
Austria	24.7	26.5	29.3	43.3
Azerbaijan	5.0	10.7	5.0	21.5
Belarus	17.4	21.9	12.5	18.9
Belgium	31.5	33.0	9.7	19.4
Brazil	6.8	8.6	10.6	20.9
Bulgaria	14.5	15.5	8.0	14.5
Canada	29.8	32.0	30.5	32.9
Czech Republic	14.5	15.7	34.1	43.1
Denmark	37.7	38.2	63.9	80.2
Estonia	25.1	27.1	24.0	42.0
Finland	29.3	29.5	84.3	87.1
France	33.9	36.1	36.6	44.0
Georgia	5.8	7.6	14.8	20.5
Germany	31.7	32.5	25.8	34.8
Greece	19.9	21.6	24.5	31.8
Hungary	20.6	22.2	7.8	13.2
Iceland	33.4	33.9	45.3	60.7

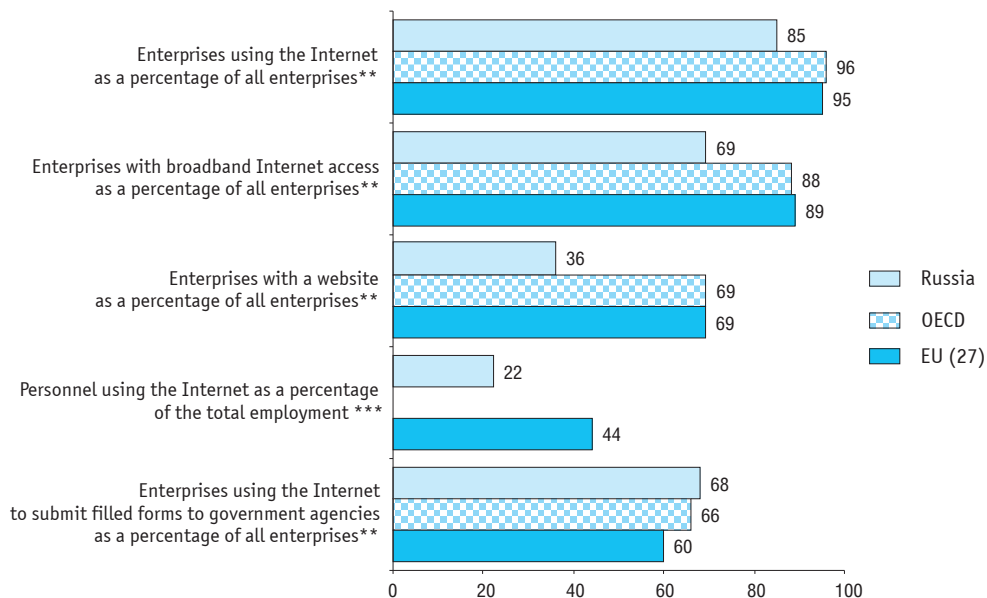
Sources: Federal State Statistics Service (for Russia), for other countries – Eurostat (Measuring the Information Society 2012).

(continued)

	Fixed (wired) broadband Internet subscriptions		Wireless broadband Internet subscriptions	
	2010	2011	2010	2011
Ireland	21.1	22.1	67.6	59.4
Israel	23.8	23.8	32.4	41.0
Italy	21.6	22.8	27.6	31.3
Japan	26.9	27.4	88.2	93.7
Kazakhstan	8.9	7.5	23.1	38.4
Lithuania	20.6	22.1	14.2	17.2
Malta	28.1	30.0	19.7	32.6
Netherlands	38.1	38.7	38.0	49.2
Norway	35.3	36.5	19.4	24.4
Poland	13.0	14.4	50.0	48.4
Portugal	19.9	21.0	24.0	27.4
Republic of Korea	35.7	36.9	98.2	105.1
Republic of Moldova	7.5	9.9	3.4	3.5
Slovenia	23.7	24.8	24.4	29.3
Spain	22.9	23.5	25.7	40.9
Sweden	31.8	31.8	82.9	91.5
United Kingdom	30.8	32.7	43.2	62.3
USA	27.6	28.7	52.7	65.5
Uzbekistan	0.4	0.5	15.0	18.4

## 6.3. ICT Usage in Enterprises by Country

### 6.3.1. MAIN INDICATORS OF ICT USAGE BY ENTERPRISES: 2011\*



\*Or other nearest years for which data is available. This section contains data on businesses enterprise engaged in economic activities with the following RCEA codes (Rev. 1.1): Russia – C, D, F, G, H, I, K; other countries – D, F, G, I, K, 92.

\*\* As a percentage of all enterprises.

\*\*\* As a percentage of all employees at enterprises.

Sources (here and below in the section): estimated by HSE Institute for Statistical Studies and Economics of Knowledge on the basis of data provided by Federal State Statistics Service (for Russia); Eurostat (for other countries).

## 6.3.2. ENTERPRISES USING PERSONAL COMPUTERS AND THE INTERNET

*(as a percentage of all enterprises in the business sector)*

	Enterprises using					
	personal computers			the Internet		
	2009	2010	2011	2009	2010	2011
<b>Russia</b>	<b>92</b>	<b>92</b>	<b>92</b>	<b>82</b>	<b>84</b>	<b>85</b>
Australia	...	...	...	98	...	...
Austria	99	98	99	98	97	98
Belgium	99	99	97	97	97	96
Bulgaria	89	90	90	84	85	87
Canada	...	...	...	95*	...	...
Cyprus	95	92	93	92	88	91
Czech Republic	97	96	97	96	95	96
Denmark	99	98	99	98	97	98
Estonia	96	97	96	95	96	96
Finland	100	100	100	100	100	100
France	99	98	97	97	97	96
Germany	99	98	98	98	97	97
Greece	95	92	95	92	90	93
Hungary	90	91	92	88	90	89
Iceland	...	98	...	...	98	...
Ireland	97	93	94	95	92	93
Italy	97	95	96	95	94	94
Japan	...	...	...	...	99	...

(continued)

	Enterprises using					
	personal computers			the Internet		
	2009	2010	2011	2009	2010	2011
Latvia	94	95	95	88	91	92
Lithuania	97	97	98	95	96	98
Luxembourg	98	98	98	97	96	97
Malta	96	96	97	95	94	95
Mexico	...	...	...	92**	...	...
Netherlands	100	100	100	96	98	100
New Zealand	...	...	...	96	...	...
Norway	99	98	98	98	97	97
Poland	93	97	96	91	96	94
Portugal	97	97	97	95	94	95
Republic of Korea	...	...	...	99	...	...
Romania	81	82	83	73	79	79
Slovakia	99	98	98	98	98	97
Slovenia	98	98	98	96	97	97
Spain	99	98	98	96	97	97
Sweden	97	97	97	95	96	96
Turkey	...	92	...	...	91	...
United Kingdom	96	92	95	95	91	95

\*2007.

\*\*2008.

## 6.3.3. ENTERPRISES USING BROADBAND INTERNET CONNECTION

*(as a percentage of all enterprises in the business sector)*

	2009	2010	2011		2009	2010	2011
<b>Russia*</b>	<b>56</b>	<b>64</b>	<b>69</b>	Latvia	62	68	90
Australia	...	94	...	Lithuania	58	81	95
Austria	77	82	89	Luxembourg	89	87	93
Belgium	89	90	87	Malta	93	92	95
Bulgaria	70	62	74	Mexico	51**	...	...
Canada	94	...	...	Netherlands	87	91	92
Cyprus	87	85	89	New Zealand		94	...
Czech Republic	78	86	89	Norway	90	87	90
Denmark	80	87	...	Poland	58	69	77
Estonia	86	88	92	Portugal	85	85	86
Finland	94	96	99	Republic of Korea	...	98	...
France	93	93	94	Romania	41	52	57
Germany	89	89	91	Slovakia	78	78	81
Greece	84	81	82	Slovenia	85	88	95
Hungary	76	79	87	Spain	94	95	96
Iceland	...	95	...	Sweden	89	91	95
Ireland	80	87	91	Turkey	...	89	...
Italy	84	84	88	United Kingdom	88	88	93
Japan	...	...	83				

\* Enterprises with Internet connection with the maximum Internet connection speed of 256 Kbps and above.

\*\* 2008.



### 6.3.4. ENTERPRISES WITH A WEBSITE

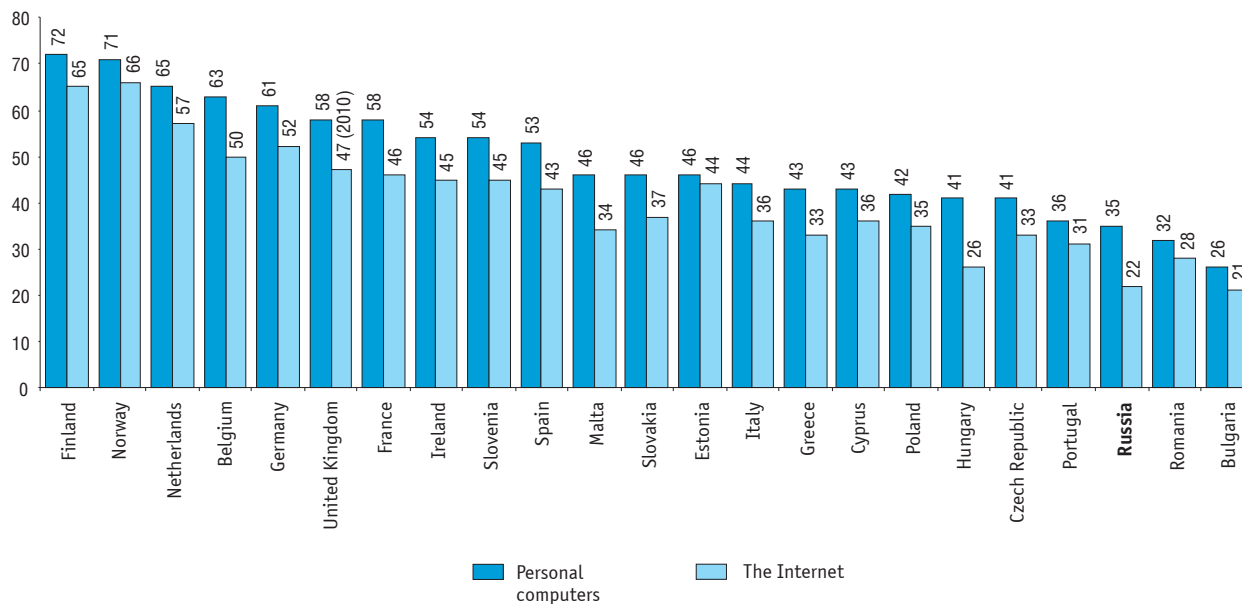
(as a percentage of all enterprises in the business sector)

	2009	2010	2011		2009	2010	2011
<b>Russia</b>	<b>30</b>	<b>34</b>	<b>36</b>	Latvia	44	48	53
Australia	66	66	...	Lithuania	62	65	68
Austria	80	80	83	Luxembourg	68	70	75
Belgium	76	78	77	Malta	65	66	73
Bulgaria	36	37	45	Mexico	50**	...	...
Canada	70*	...	...	Netherlands	84	81	82
Cyprus	52	52	56	New Zealand	...	69	...
Czech Republic	74	74	77	Norway	76	78	78
Denmark	88	88	89	Poland	58	65	65
Estonia	68	70	73	Portugal	48	52	54
Finland	85	87	93	Republic of Korea	60	...	...
France	55	58	60	Romania	28	35	34
Germany	80	81	81	Slovakia	72	74	76
Greece	65	58	64	Slovenia	70	73	74
Hungary	52	57	60	Spain	57	62	64
Iceland	...	77	...	Sweden	87	89	89
Ireland	66	68	70	Turkey	...	53	...
Italy	60	61	63	United Kingdom	79	76	79
Japan	...	86	...				

\* 2007.

\*\* 2008.

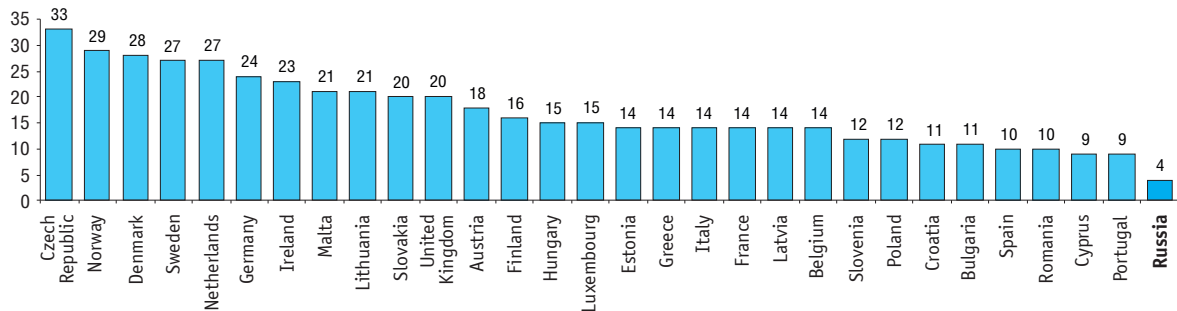
## 6.3.5. EMPLOYEES USING PERSONAL COMPUTERS AND THE INTERNET: 2011

*(as a percentage of all employees in the business sector)*

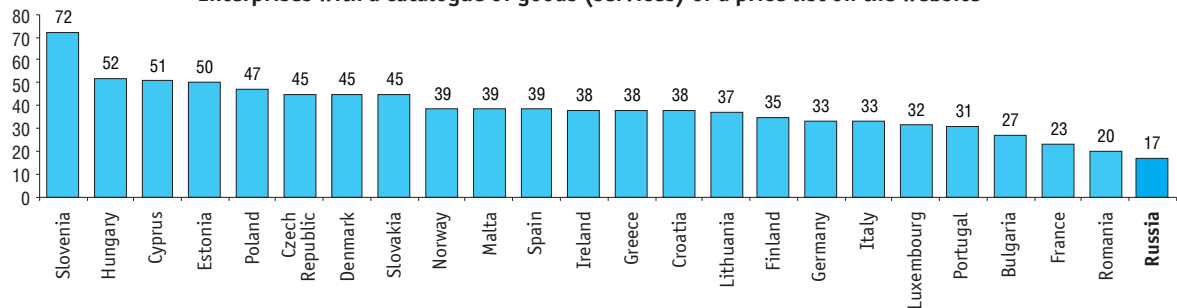
### 6.3.6. ENTERPRISES USING THE INTERNET TO INTERACT WITH CUSTOMERS: 2011

(as a percentage of all enterprises in the business sector)

#### Enterprises with an online booking system on the website (e.g. shopping cart)



#### Enterprises with a catalogue of goods (services) or a price list on the website



## 6.3.7. ENTERPRISES USING THE INTERNET TO INTERACT WITH PUBLIC AUTHORITIES

*(as a percentage of all enterprises in the business sector)*

	Obtaining information about public authorities' activity		Downloading blank forms (e.g. statistical and tax forms)		Returning completed forms (e.g. statistical and tax forms)	
	2009	2010	2009	2010	2009	2010
<b>Russia*</b>	45	51	64	69	62	67
Australia	...	...	...	...	82**	...
Austria	70	68	75	71	58	55
Belgium	73	69	64	59	67	66
Bulgaria	56	59	54	57	47	53
Cyprus	70	73	62	61	15	17
Czech Republic	63	83	61	83	36	57
Denmark	85	88	85	87	66	71
Estonia	77	79	75	77	64	68
Finland	89	90	92	92	83	86
France	66	70	68	71	67	72
Germany	54	57	57	59	52	55
Greece	65	73	61	71	61	67
Hungary	65	69	65	69	58	62
Iceland	...	90	...	85	...	86
Ireland	83	82	83	82	66	67
Italy	75	76	72	72	48	51
Latvia	59	68	57	65	51	65
Lithuania	88	87	90	95	85	91

\* 2011 – 54, 70 and 68% accordingly.

\*\* 2008.

\*\*\* 2006.

(continued)

	Obtaining information about public authorities' activity		Downloading blank forms (e.g. statistical and tax forms)		Returning completed forms (e.g. statistical and tax forms)	
	2009	2010	2009	2010	2009	2010
Luxembourg	83	85	85	87	42	48
Malta	77	75	73	72	51	53
Mexico	...	...	...	...	64**	...
Netherlands	75	63	77	94	74	93
New Zealand	...	...	...	...	62***	...
Norway	77	72	78	74	71	68
Poland	53	77	56	80	57	89
Portugal	69	67	70	68	70	64
Republic of Korea	...	...	...	...	54	...
Romania	40	47	38	45	25	33
Serbia	...	...	...	...	...	...
Slovakia	86	84	87	85	59	60
Slovenia	85	84	85	86	75	80
Spain	60	61	59	61	46	49
Sweden	84	88	83	86	61	68
Turkey	...	59	...	60	...	42
United Kingdom	65	63	61	59	57	55

## 6.4. ICT Usage by Households and Individuals by Country

### 6.4.1. HOUSEHOLDS WITH PERSONAL COMPUTERS AND INTERNET ACCESS

(as a percentage of all households)

	Personal computers*			Internet**		
	2009	2010	2011	2009	2010	2011
<b>Russia</b>	49	54	60	36	42	50
Australia	78	81	83	72	74	79
Austria	74	76	78	70	73	75
Belgium	71	77	79	67	73	77
Bulgaria	32	35	47	30	33	45
Canada	82	84	86	78	79	83
Chile	44	47	51	31	35	39
Cyprus	61	61	64	53	54	57
Czech Republic	60	64	70	54	61	67
Denmark	86	88	90	83	86	90
Estonia	65	69	71	63	68	71
Finland	80	82	85	78	81	84
France	69	76	78	63	74	76
Germany	84	86	87	79	82	83
Greece	47	53	57	38	46	50
Hungary	63	66	70	55	60	65
Iceland	92	93	95	90	92	93

\* Including those portable.

\*\* Internet access via any electronic device (personal computer (including portable), TV set, mobile phone, etc.) is considered.

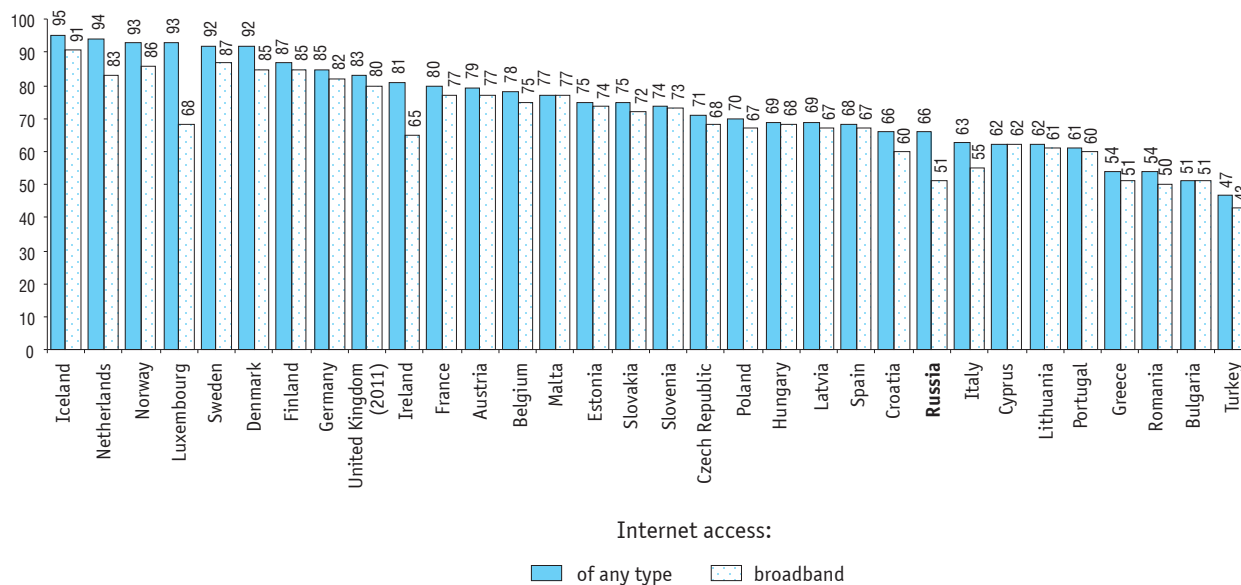
Sources: Federal State Statistics Service (for Russia); Eurostat (for other countries).

(continued)

	Personal computers*			Internet**		
	2009	2010	2011	2009	2010	2011
Ireland	73	76	81	67	72	78
Israel	74	77	79	66	68	70
Italy	61	65	66	53	59	62
Japan	...	83	86	...	81	84
Latvia	60	63	64	58	60	64
Lithuania	57	59	62	60	61	62
Luxembourg	88	90	92	87	90	91
Malta	67	73	76	64	70	75
Mexico	27	30	32	18	22	27
Netherlands	91	92	94	90	91	94
New Zealand	80	84	87	75	79	83
Norway	88	91	91	86	90	92
Poland	66	69	71	59	63	67
Portugal	56	59	64	48	54	58
Republic of Korea	81	82	82	96	97	97
Romania	46	48	51	38	42	47
Slovakia	64	72	75	62	67	71
Slovenia	71	70	74	64	68	73
Spain	66	69	72	54	59	64
Sweden	88	90	92	86	88	91
Turkey	37	44	48	30	42	43
United Kingdom	81	83	85	77	80	83
USA	...	76	77	69	72	76

## 6.4.2. INDIVIDUALS WITH INTERNET ACCESS IN HOUSEHOLDS: 2012

(as a percentage of all respondents aged 16–74)

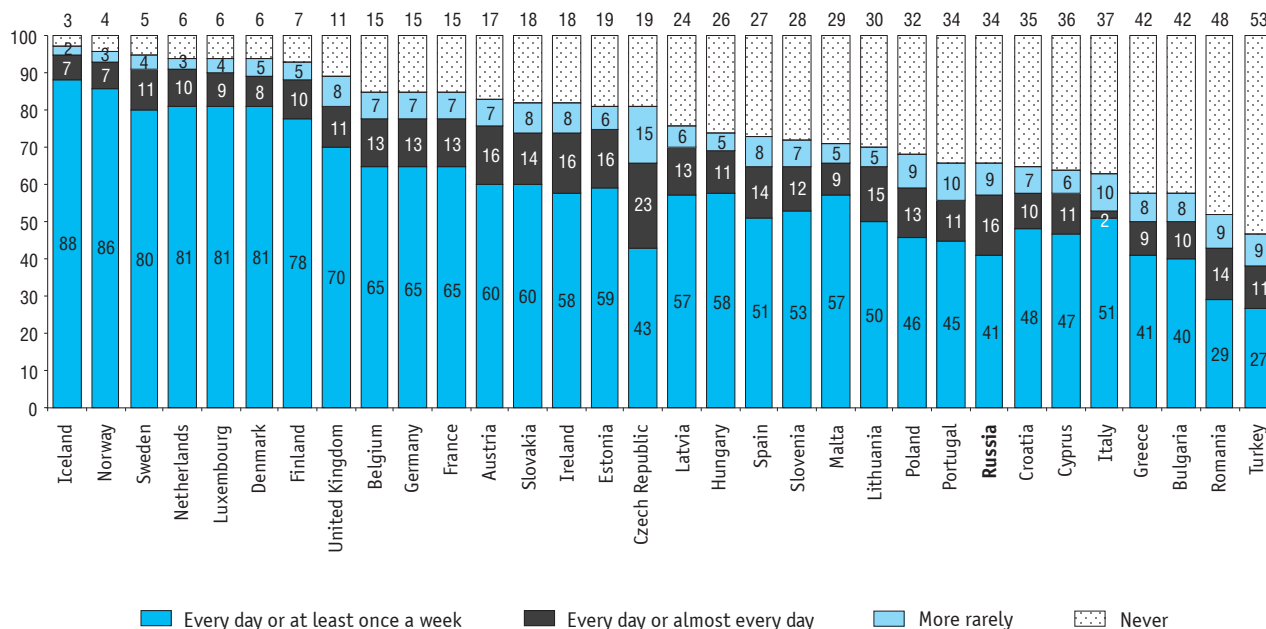


Sources (here and below in the section): the results of the special national representative survey of the adult population of the Russian Federation conducted by HSE Institute for Statistical Studies and Economics of Knowledge in cooperation with the Levada Center within 'The Monitoring Survey of Innovative Behavior of the Population' as part of HSE Basic Research Programme (for Russia); Eurostat (for other countries).



### 6.4.3. FREQUENCY OF INTERNET USAGE BY INDIVIDUALS: 2012

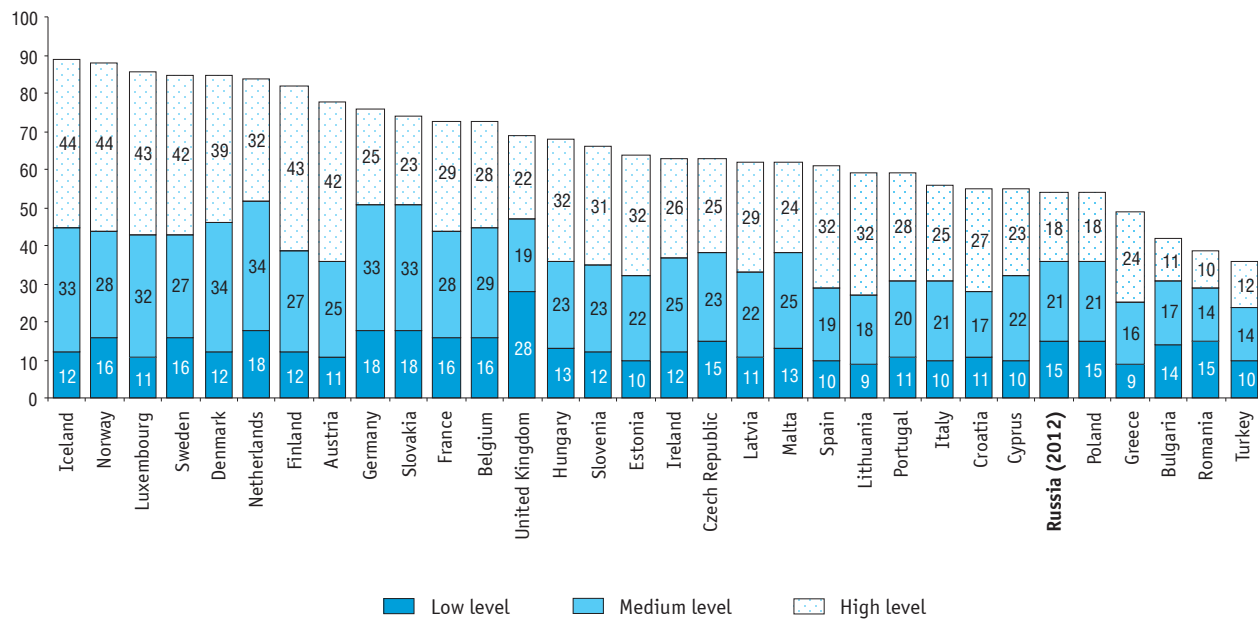
(as a percentage of all respondents aged 16–74\*)



\* In Russia – respondents aged 18–74.

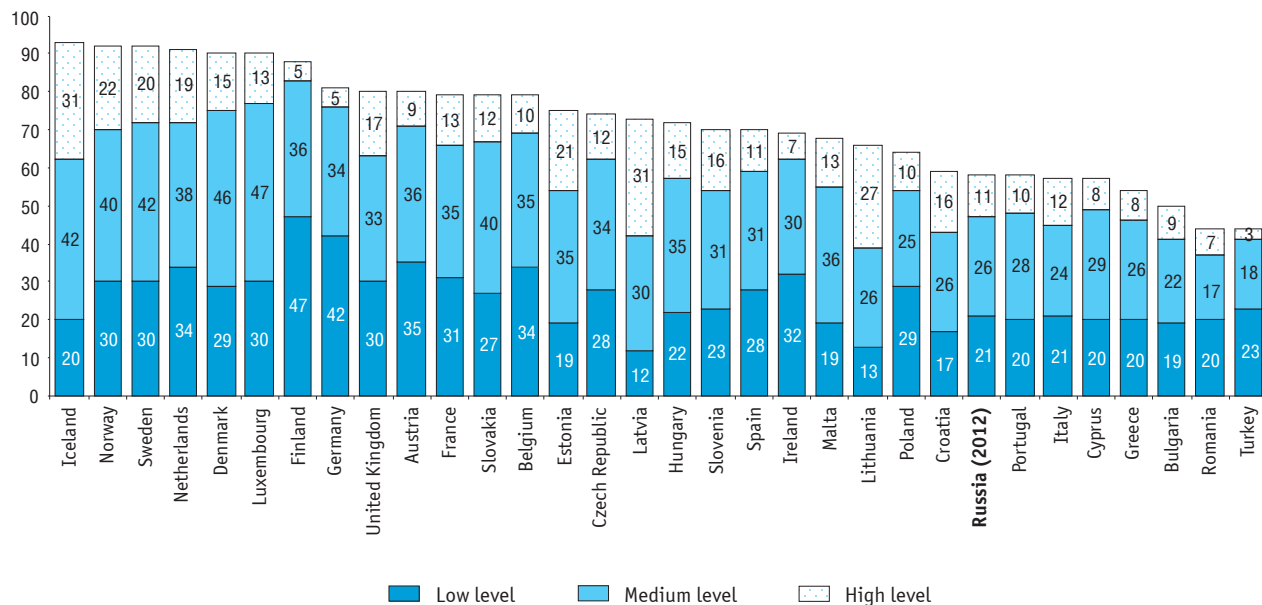
## 6.4.4. INDIVIDUALS' LEVEL OF COMPUTER SKILLS: 2011

(as a percentage of all respondents aged 16–74)



## 6.4.5. INDIVIDUALS' LEVEL OF INTERNET SKILLS: 2011

(as a percentage of all respondents aged 16–74)



## 6.5. Content and Media Sector by Country

### 6.5.1. CIRCULATION OF DAILY NEWSPAPERS

	Year	Number of edition types	Daily circulation	
			total, <i>thousand items</i>	per 1000 inhabitants, <i>items</i>
<b>Russia</b>	2009	793	15445	109
Algeria	2004	17	...	...
Armenia	2004	5	23	8
Australia	2004	49	3114	155
Austria	2004	17	2570	311
Azerbaijan	2003	24	...	...
Belarus	2004	13	800	81
Belgium	2004	29	1706	165
Brazil	2004	532	6552	36
Bulgaria	2006	63	653	85
Canada	2004	103	5578	175
Chile	2004	59	816	51
China	2004	963	96704	74
Czech Republic	2004	81	1861	183
Denmark	2004	35	1906	353
Estonia	2004	13	257	191
Finland	2007	53	2202	416
France	2005	103	9973	164
Germany	2004	347	22100	267
Hungary	2004	34	2195	217
Ireland	2004	7	742	182

Source: Federal State Statistics Service (for Russia); UNESCO (for other countries).

(continued)

	Year	Number of edition types	Daily circulation	
			total, <i>thousand items</i>	per 1000 inhabitants, <i>items</i>
Italy	2004	96	8017	137
Japan	2004	108	70446	551
Kyrgyzstan	2004	2	5	1
Latvia	2004	23	357	154
Lithuania	2008	14	364	108
Luxembourg	2004	6	115	255
Mexico	2002	300	...	...
Netherlands	2004	37	5001	308
Norway	2004	74	2378	516
Poland	2004	42	4345	114
Portugal	2004	27	...	...
Republic of Korea	2004	139	...	...
Republic of Moldova	2000	6	...	...
Romania	2004	163	1528	70
Slovakia	2008	8	...	...
Slovenia	2004	5	...	...
Spain	2004	151	6183	144
Sweden	2004	93	4324	481
Switzerland	2004	96	3105	420
Turkmenistan	2004	2	45	9
Ukraine	2004	55	6192	131
United Kingdom	2004	109	17375	290
USA	2007	1422	50742	168
Uzbekistan	2004	5	...	...

TECHNICAL NOTES

**Information Society statistics** is the newest branch of social and economic statistics aimed at studying all aspects of activities related to the production of ICT goods and services, distribution and usage of ICT in the economy, social and public sector, and private life.

**Information and communication technologies (ICT)** – technologies using microelectronics for collection, storage, processing, retrieval, transmission, and presentation of data, texts, images, and sound.

***ICT sector***

ICT sector indicators are calculated by Institute for Statistical Studies and Economics of Knowledge, National Research University – Higher School of Economics (HSE ISSEK) on the basis of the data from the Statistical Register, surveys conducted by Federal State Statistics Service, customs statistics data, and data provided annually by Federal State Statistics Service on gross value added for each type of economic activity.

ICT sector comprises enterprises involved in the production of ICT-related goods and provision of ICT services. These should meet at least one of the requirements listed below.

1) The goods must:

- a) be designed for telecommunications or information processing, including its transmission and presentation;
- b) use electronic devices to detect, change and/or record physical phenomena, or control physical processes;
- c) constitute individual components intended primarily for usage within the products described above.

2) The services must:

- a) allow for the processing and transfer of information via electronic devices;

- b) be related to the sale or lease of hardware and/or software;
- c) directly create new information technologies or support the implementation, adaptation and/or use of the existing ones.

In Russian Information Society Statistics the ICT sector is represented by economic activity according to international standards and Russian Classification of Economic Activities – RCEA (Rev. 1.1):

RCEA code (Rev. 1.1)	Economic activity
30	Manufacture of office, accounting and computing machinery
31.3	Manufacture of insulated wire and cable
32	Manufacture of radio, television and communication equipment and apparatus
33.2	Manufacture of instruments and appliances for measuring and checking
33.3	Manufacture of industrial process control equipment
51.43.2	Wholesale of radio and television equipment, data storage devices (with and without recorded information)
51.84	Wholesale of computers, computer peripheral equipment and software
51.86	Wholesale of other electronic equipment and parts
51.87.5	Wholesale of industrial electrical equipment, machinery, hardware and supplies
64.2	Telecommunications
71.33	Renting of office machinery and equipment, including computers
72	Computer and related activities

**Gross value added** is calculated at the level of industries and sectors of an economy as goods and services output minus intermediate consumption. Output is the total value of goods and services produced as a result of the residents' activities in the national economy within the reported period. Intermediate consumption is the total monetary value of goods and services consumed or transformed (used up as inputs) in production within the reported period. Fixed capital consumption is not included in intermediate consumption.

**Total turnover of enterprises** includes the value of sales of manufactured goods, provided services, and revenues from sales of goods previously bought from third parties (minus VAT, excise duties and similar compulsory payments).

**Fixed capital investment** is total expenditure on purchase of tangible capital goods or the replacement of depreciated capital goods (construction of new buildings, extension of existing ones, reconstruction / upgrading of facilities, which increase their original value and are accounted as the company's revaluation reserve; acquisition of machinery, equipment, vehicles, etc.).

**Foreign investment** in the Russian economy is funds invested in the Russian business enterprise sector by foreign investors and branches of Russian legal entities and aimed at revenue. There are the following types of investment: direct, portfolio and other. **Direct investments** are performed by legal or physical entities – enterprises' owners or owners of at least 10% share of an enterprise's fixed capital. **Portfolio investment** is acquisition of shares, bonds, bills and other securities. Share of these papers is less than 10% in the fixed capital. Investments which cannot be characterised as direct or portfolio investments are

referred to as **'other'**. Foreign investment size is indicated in US dollars as an equivalent of Russian rubles.

**Research and development (R&D)** – the term comprises creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications.

**Expenditure on innovation** is the actual expenditure related to implementation of various types of innovative activity performed within an enterprise (a sector, region, country). Innovation expenditure comprises current and capital expenditure. Innovation statistics covers the expenditure of technological, organizational and marketing innovations.

**Innovative activity of an enterprise** characterises the degree of involvement an enterprise has in innovation in general, or in specific innovative activities, within a certain period. The level of innovative activity is generally defined as the ratio of enterprises engaged in technological, organisational, and marketing innovations to the total of enterprises surveyed in the country, sector, region, etc. within a specific period of time.

**Innovative activities** are all types of economic activities related to the transformation of ideas (usually the results of research and development or other scientific achievements) into technologically new or significantly improved goods and services, introduced to the market, as well as new or significantly improved technological processes used in service production (transfer) or implemented in manufacturing modes. Innovation activities incorporate scientific, technological, organisational, financial and commercial actions that lead to innovation.

**Innovative goods and services** are products (goods and services) that have undergone technological modification in the last three years.

These include newly introduced (or technologically modified) and improved products.

**Marketing innovation** includes newly implemented or significantly improved marketing methods that incorporate major changes in product package and design, innovative sales as well as the presentation and promotion of products, new pricing strategies. Marketing innovations are aimed at better addressing customer needs and the expansion of consumer goods and services, and developing new markets with the objective of increasing a range of sales.

**Organisational innovation** is the implementation of a new organisational method in a firm's business practices, workplace organisation or external relations. Organisational innovations are aimed at increasing organisational performance by reducing administrative and transaction costs, improving workplace organisation (working time) and thereby increasing labour productivity, gaining access to the market assets, and reducing supply costs.

**Enterprises engaged in innovative activity** are those involved in development and introduction of technologically new or improved products or services, technologically new or improved processes or techniques of service production (transfer), and other types of innovative activities.

**Enterprises engaged in technological innovation** are those involved in development and introduction of technologically new or improved products or services, technologically new or improved processes or techniques of service production (transfer), and other types of innovative activities.

**Technological innovations** are the final result of innovative activities, embodied in a technologically new or improved product or service introduced on a market, a technologically new or improved process or technique of ser-

vice production (transfer) used in practice. An accomplished innovation is one introduced to the market or implemented into the production process.

**Balance** (balanced financial result, profit minus loss) is a final financial result of economic activity of an enterprise. Balance represents the sum of profits (losses) from sales of goods, services, capital assets, other property and income from non-operational deals minus expenditure on these operations. Non-operational deals are: penalties, fines, damages for contract terms violations; profit (loss) of previous years revealed in current year, exchange rates fluctuations, etc.

**Profitability of goods and services sales** is the ratio of balance from sales of goods and services (profits minus losses) to their cost. When balance is negative, losses prevail.

**Profitability of assets** is the ratio of a company's balance (profits minus losses) to the value of its assets. When balance is negative, losses prevail.

**Current assets** of enterprises are any assets reasonably expected to be sold, consumed, or exhausted through the normal operations of a business within the operating cycle. In the form of circulating capital, they include finished and sold goods, accounts receivable and monetary funds. Current assets minus current liabilities constitute working capital, which includes raw materials, fuel, auxiliary materials, spare parts, inventory and operational items, as well as unfinished goods, semi-finished products and future expenditures.

**Financial sustainability of enterprises** is availability of financial resources which provide permanent production and sales of goods and services based on actual profits increase. One of the main indicators of financial sustainability is equity ratio representing share of working capital in total funds of enterprises and their self-support degree.



**Solvency** is an indicator of an enterprise's payment ability in due time. One of the indicators of solvency is liquidity ratio calculated as the ratio of actual cost of current assets available at the enterprise to the most urgent enterprise's obligations like short-term credits and credit debt.

**Indicators of business activity of enterprises rendering ICT services** are presented on the basis of the results of a pilot business tendency survey of the service sector conducted by HSE ISSEK. The survey covered more than 30 regions of Russia and 4.6 thousand enterprises (including more than 600 enterprises engaged in activities related to the use of computers and information technologies).

In addition to official statistical data, business tendency surveys gather the following information from entrepreneurs: short-term qualitative assessments of the current business situation and its main trends, peculiarities of the economic agents' functioning and their intentions, degree of adaptation to operational and current business environment, as well as the most important factors restricting enterprise's activities.

The survey programme complies with international standards and is based on the harmonized European system of business tendencies surveys. Assessments of the current situation are based on a comparison of the actual and 'normal' (usual, sufficient in the current conditions

at the time of the survey) levels of business activity indicators. When assessing changes in the indicators' values over time the following criteria were used: 'increased' ('improved'), 'remained unchanged', 'decreased' ('deteriorated'). **Balance of estimates** is the difference between the shares of the respondents giving positive estimates ('increase' compared to the previous period or 'above normal' current level) and those giving negative estimates ('decrease' compared to the previous period or 'below normal' current level), given as a percentage of the total.

In compliance with the international practice, **business confidence indicator** in the service sector is calculated as the arithmetic mean of the estimates of business situation and demand for services (development compared to the previous period) and demand expectation (over the next period), given as a percentage of the total.

Indicators of the **international trade in ICT-related goods** use the data provided by Federal State Statistics Service; data on **international trade in ICT-related services** is provided by the Bank of Russia. ICT goods are grouped by exports (imports) according to the Commodity Nomenclature of Foreign Economic Activity (CNFEA) harmonised with the OECD classification of ICT goods which is based on the Harmonized Commodity Description and Coding System (HS 2007).

Group	Code of Commodity Nomenclature of Foreign Economic Activity
Computers and peripheral equipment	844331, 844332, 847050, 8471, 847290, 847330, 847350, 852351, 852841, 852851, 852861
Of which – computers and related equipment	8471
Telecommunications equipment	8517, 852550, 852560, 853110

(continued)

Group	Code of Commodity Nomenclature of Foreign Economic Activity
Of which – telephone and telegraph equipment	8517
Consumer electronic equipment	8518, 8519, 8521, 8522, 852580, 8527, 852849, 852859, 852869, 852871, 852872, 852873
Of which	
Video equipment	8521
TV receivers	852871, 852872, 852873
Other ICT goods and parts	852321, 852352, 852359, 852380, 8529, 8534, 8540, 8541, 8542, 901320

**Exports/imports of computers and information services** comprise the export and import of services related to the installation of computer equipment; application of software; processing and creation of databases; and maintenance of computational equipment. This category does not include the export and import of magnetic media (diskettes, laser disks) which do not contain software, or mass-produced goods recorded on magnetic media for mass consumer.

**ICT Infrastructure**

ICT infrastructure is characterised on the basis of data from statistical surveys conducted by Federal State Statistics Service and the Ministry of Telecom and Mass Media of the Russian Federation.

**Coverage of the population by radio and television** describes the ratio of inhabitants able to receive TV and radio programmes to the total population of the Russian region under consideration.

**Communication tools (facilities)** are hardware and software used for compiling, receiving, processing, storing, transmitting, delivering telecommunications messages and emails; the term also comprises other

technical and programming means used for providing communication services or managing communication networks.

**IMT-2000 cellular communication standard** is an international mobile cellular communication system 2000 (3G based third generation mobile technology).

**Public payphones** are public telephones used for making local, long distance and international calls.

**Telephones** comprise general and additional telephony devices connected to the network or to the enterprises' telephony stations linked to the network, and all types of public payphones enabling local, long distance, and international communication.

**Home telephones** are telephones installed at apartments (in houses).

**Telephone density** is calculated as the ratio of the number of telephones (including mobile cellular telephones) to the total population.

**Level of network digitalization** is the ratio of the installed capacity of digital telephone stations to the total installed capacity of telephone stations.

### ICT usage by enterprises

The data on ICT usage by enterprises is collected in the annual federal statistical survey 'Information on ICT Usage, Production of Hardware and Software, and Rendering ICT Services' (#3-Infrom). The survey methodology was developed by HSE ISSEK in compliance with international statistical standards and the requirements of the state statistical system. The survey covers large and medium scale enterprises engaged in the following economic activities:

RCEA code (Rev. 1.1)	Economic activity
02.0	Forestry and service activities incidental to forestry
B	Fishing
C	Mining and quarrying
D	Manufacturing
E	Electricity, gas and water supply
F	Construction
G	Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods
H	Hotels and restaurants
I	Transport and communication
J	Financial intermediation
K	Real estate, renting and business activities
L	Public administration and defence; compulsory social security (codes 75.23.4 and 75.24.1 are excluded)
80.3	Higher education
N	Health and social work
92	Recreational, cultural and sporting activities

A **global information network** incorporates an aggregate of computers, which can be located in any part of the world, connected with each other via telecommunications channels provided by telephone companies or other communications organisations. A global network can be either generally accessible (e.g., the Internet) or closed (e.g. corporate or departmental networks such as Extranet and Intranet).

**Internet** is a worldwide web of independent computer networks connected with each other to exchange data via standard open protocols.

**Intranet** is a distributed corporate computer network based on Internet technologies, characterized by intensive data security and designed to provide personnel with authorised access to corporate electronic information resources.

**Extranet** is an extension of the Intranet with dedicated sections accessible to external users. E.g. external users may be granted partial access to corporate data about processing their orders, or about availability of products in warehouses.

**Local area network** connects two or more computers (possibly of different types) as well as printers, scanners, fire and security alarm systems and other equipment and periphery devices located within one building or several adjacent buildings, without using public communication facilities. The connection of one computer with equipment and periphery devices is not a local or global network.

**Website** is the Internet location which has a specific address and an owner, and comprises web pages. For statistical purposes, an organisation is considered a website owner if it has at least one Internet page with regularly updated information (at least once every six months).

**Specialised software** is used to solve special tasks independently no matter how this software was obtained (developed within the enterprise, acquired or ordered from other software developers or acquired on any other terms). This group of software does not include general purpose software like operation systems, compiler programs, standard software used for special purposes (e.g. text or graphic editors, electronic spreadsheets, databases treatment programs) unless any specialised software applications are developed on their basis (e.g. anti-virus and email programs, etc.)

**ERP system** (Enterprise Resource Planning) consists of one or several software applications that integrate information and functions (processes) of an enterprise's divisions. Typically ERP integrates planning, procurement, sales, marketing, customer relationship, finance and human resources.

**CRM system** (Customer Relationship Management) is a system for managing a company's interactions with customers. It is used to collect and process information on different aspects of customer's activity: availability / demand for goods and services, sales cycles, data on prices, etc.

**SCM system** (Supply Chain Management) is a system providing automatic communication with suppliers' / customers' orders management system.

**Maximum Internet connection speed** is the highest possible data transfer rate with bandwidth as main characteristic measured by number of bits transmitted within a timeframe (bit per second).

**The Internet connection type** describes the way an enterprise's computer network is connected with the Internet service provider. Currently the following Internet connection types are identified for the purposes of ICT statistics: dial-up modem connection; ISDN connection;

digital subscriber line (xDSL, etc.); other cable connections (including dedicated lines, fibre optic lines, etc.); wireless connection (satellite, radio, etc.).

**Modem connection** (dial-up connection over public switched telephone network) is a temporary connection set up via standard modem using switched telephone line. It converts digital data into analogue (modulated-wave) signals suitable for transmission over analogue telecommunications circuits (e.g., traditional phone lines) and demodulates received analogue signals to recover the digital data transmitted. Dial-up connection is a telephone connection in a system having a large number of lines and users. It is established and maintained within a limited time period. Dial-up connection can be set manually or automatically via a modem connected to a computer or another device.

**ISDN connection** is a temporary Internet connection with access over public switched telephone network. ISDN connection provides digital (other than analogue) data and voice transmission via copper telephone cables with higher quality and transmission speed than analogue systems.

**Digital Subscriber Line** (xDSL technology, etc.) includes a group of technologies that provide permanent digital Internet connection over the copper wires of the local telephone network. Key DSL technologies are ADSL (Asymmetric Digital Subscriber Line, a technology in which a wider bandwidth is given for loading data than for unloading it) and HDSL (High Rate Digital Subscriber Line). DSL can transmit both data and voice signals; the part of the channel through which data is transmitted is connected permanently. Other cable services involve the use of leased lines, fiber optics, cable television con-

nection with a cable modem, etc. These connections are among the high-speed permanent fixed Internet connections.

**Wireless connection** includes satellite connection, radio connection, etc.

**Personnel using personal computers** (the Internet, Intranet, Extranet, other global information networks) are employees using personal computers (or other ICTs) during working hours at least once a week.

**Purposes of the Internet usage** can be roughly divided into general, commercial and Internet usage for communication with public authorities.

**General purposes** include: using the Internet to search for any information needed in an enterprise's activity; emailing; information exchange in electronic form; transmission of files of any nature (texts, data, spreadsheets, computer programs); interactive training and educational courses via the Internet; staff recruitment; phone communication; videoconferences.

**Commercial purposes of Internet usage** include purchase of materials, equipment and parts as well as goods and services sales (excluding orders received or submitted via of e-mail).

**Internet usage for interaction with public authorities** comprises obtaining information about Russian public authorities' activity; obtaining blank forms for further submitting filled forms to the public authority; full electronic case handling.

**ICT expenditure** is the enterprise's (industry's, region's, country's) actual expenses related to acquiring computer hardware and software, paying for communication services, training of personnel in ICT, paying for ICT services of external organisations and consultants including expenses on software development. Current and capital

expenditures are taken into account. Cost data on ICT is given in current prices.

**ICT professionals** are employees having the following ICT skills: design, development, installation, use of ICT, as well as support, evaluation and scientific research in the field of ICT. According to the Russian Classification of Occupations (RCO) ICT professionals and employees with ICT user skills are classified into groups listed below. Highly qualified ICT professionals are computer system developers and analysts (RCO code 2131), programmers (2132), other computer-related professionals (2139), electronics, communication and instrument engineers (2144). The term 'technicians' refers to electronics and telecommunications technicians (3114), computer maintenance technicians and operators (3121), computer devices and peripherals maintenance technicians and operators (3122), industrial robots maintenance technicians and operators (3123), radio, television and telecommunications hardware technicians and operators (3132).

**Employees with ICT skills** may have general research skills (i.e. effectively use standard software) and profound user skills (professional use of specialised facilities for various economy sectors). This group of specialists regularly uses ICT as every day work tool.

#### ***ICT usage by households and individuals***

Data on ICT usage by households is based on the results of the annual survey on household budgets conducted by Federal State Statistics Service. The survey is conducted in all regions of the Russian Federation and covers 47.8 thousand households. Since 1997 a two-stage random sampling procedure, built up by territorial principle, has been used to form the sample frame of households. The unit of this survey is a household (excluding cooperative and institutional), i.e., a total of individuals

who live together, may or may not be related to each other, and make common provision for food and other essentials for living, uniting and spending their financial resources wholly or partially.

Indicators of **coverage of households by telephones and TV broadcasting** are presented on the basis of the results of the comprehensive observation of living conditions conducted by Federal State Statistics Service in 2011 and covering about 10 thousand families. For the formation of the total sample of the survey, multistage random sampling is used, built up by territorial principle and providing representativeness of observation results by basic parameters of its program. As a basis for the sampling of the observation, data set was used, based on the National Population Census 2002.

Information on **ICT usage by individuals** is collected in national Russia-wide representative surveys of adults aged 16–74, covering about 1600 respondents. The surveys are conducted by HSE ISSEK in cooperation with the Levada Center within 'The Monitoring Survey of Innovative Behavior of the Population' as part of HSE Basic Research Program. The statistical error does not exceed 3.4%.

Data on the **frequency of Internet usage for social networking and on the quality of services provided on the websites of public and local authorities** is given on the basis of the results of the comprehensive observation of living conditions conducted by Federal State Statistics Service.

**The level of computer skills of the population** is estimated on the basis of an individual's ability to perform operations from the following list:

- copying or moving files and folders,
- copying and pasting words, text fragments, moving text fragments,

- backing up files,
- doing basic arithmetic operations using computer programs,
- exchanging files / synchronizing data between the computer and other devices (cameras, phones, etc.)
- using specialised programs (working with databases, processing statistical data, photo and video editing, etc.)
- making presentations (slides) with pictures, sound, video, charts,
- installing or restoring the operating system,
- changing software configuration,
- writing a computer program using a specialised programming language.

High level of such skills means the respondent has five or six of these skills; a medium level – three or four skills; a low level – one or two skills.

**The level of Internet skills** is measured on the basis of the respondent's ability to fulfill the following tasks:

- using a search engine to find information,
- sending e-mails with attached files,
- downloading games, images, films or music,
- posting messages to chatrooms,
- newsgroups or online discussion forums,
- using the Internet to make telephone calls,
- modifying security settings of internet browsers,
- using peer-to-peer file sharing,
- to exchange films, music, etc.,
- creating a webpage or a website.

High level of such skills means the respondent has five or six of these skills; a medium level – three or four skills; a low level – one or two skills.

**Households with broadband Internet connection** are households having access to the Internet via a dedicated line, DSL, a mobile phone with 3G/UMTS or via other devices which support wireless connectivity.

### ***Content and Media Sector***

The content and media sector is represented by enterprises that are engaged in the production, publishing and/or distribution of content (information, educational, cultural and entertainment products).

It is presented according to international standards and the Russian Classification of Economic Activities - RCEA (Rev. 1.1):

RCEA Code (Rev. 1.1)	Economic activity
22.1	Publishing activities
92.1	Motion pictures production, post-production and distribution
92.2	Programming and broadcasting activities (radio and television)
92.4	News agency activities

### ***International Comparisons***

Sources for international comparisons comprise data provided by Eurostat, OECD, UNESCO, and ITU.

## ABBREVIATIONS USED FOR ECONOMIC ACTIVITIES

RCEA code (Rev. 1.1)	Economic activity	Abbreviation
33.2	Manufacture of instruments and appliances for measuring, checking, testing, navigating and other purposes, except industrial process control equipment	Manufacture of instruments and appliances for measuring and checking
DA	Manufacture of food products, beverages and tobacco	Manufacture of food products and beverages
DJ	Manufacture of basic metals and fabricated metal products	Manufacture of basic metals
DL	Manufacture of electrical and optical equipment	Manufacture of electrical equipment
G	Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods	Wholesale and retail trade
73	Research and development	Research and development
L	Public administration and defence; compulsory social security	Public administration; compulsory social security
N	Health and social work	Health and social work

## MAJOR HSE ISSEK PUBLICATIONS ON INFORMATION SOCIETY STATISTICS

**Published in Russian**

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## INFORMATION SOCIETY INDICATORS IN THE RUSSIAN FEDERATION

Data Book

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Desk-top publishing *V. Parshina, O. Egin*

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