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ICT usage in enterprises in Montenegro in 2012

The survey on ICT usage in Montenegro was conducted for the first time in 2011. The aim of the survey is to collect the data on presence and usage of ICT by enterprises in sectors: administrative and support service activities; financial and insurance activities; construction; information and communication; real estate activities; manufacturing, electricity, gas, steam and air conditioning; water supply, sewerage, waste management and remediation activities; professional, scientific, and technical activities; transport and storage; wholesale and retail trade; repair of motor vehicles and motorcycles; accommodation.

The target populations are enterprises with 10 employees and over interviewed by the phone in period from 1 to 15 April 2012.

The survey on ICT usage in enterprises was conducted on the representative sample of 617 enterprises at the territory of Montenegro.

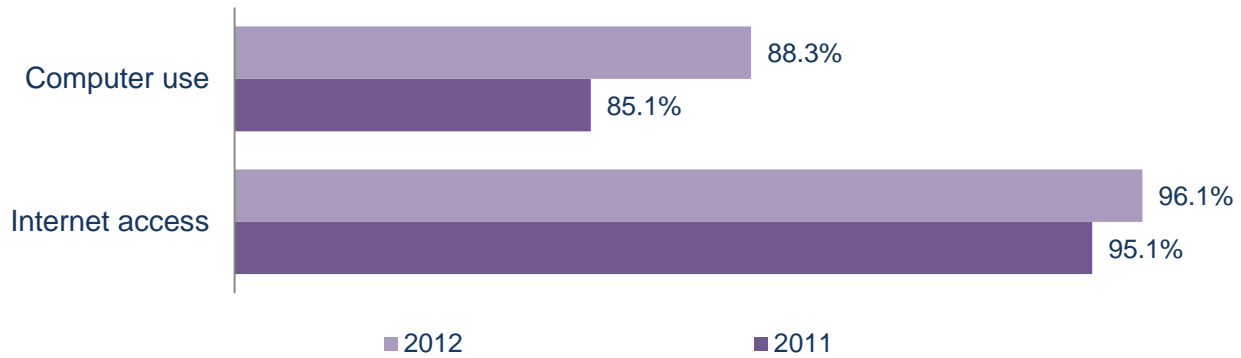
In Montenegro, 88.3% of surveyed enterprises reported on the use of computers in their activities during January 2012. **All other data in this release refers only on enterprises which were used computers during January 2012.**

Results of survey showed that 53.3% of enterprises allowed their employees remote access to e-mail system, enterprise application or documents, in January 2012.

When it comes to the Internet, the results of survey show that 96.1% of the enterprises, who use computers, have access to the Internet in January in 2012. This is increase of 1% referred to previous year.

Of the enterprises that had access to the Internet, 53.1% enterprises responded that they had Web Site/Home Page, in January 2012.

Graph 1. Use of computers and Internet access in enterprises



It is notable increase of 3.2% enterprises which were used computers in January 2012 referred to 2011 year. Also, percent of enterprises which had Internet access increase for 1.0%.

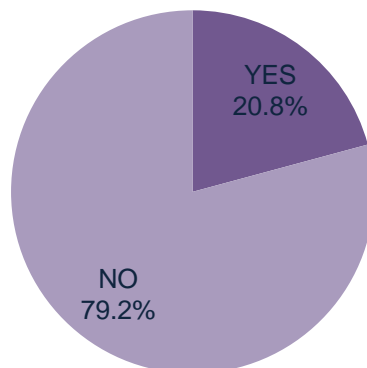
If we look to enterprises by sectors, percent of enterprises in:

- Financial sector is 100.0%,
- Manufacturing, energy and construction 91.8%,
- Nonfinancial sector 86.8%.

On the question about employment ICT/IT specialists in January 2012 20,8% enterprises answered that they employed ICT/IT specialists, persons whose main job is ICT

By sectors/areas, the most of enterprises from financial sector were employing ICT/IT specialists 56.7%.

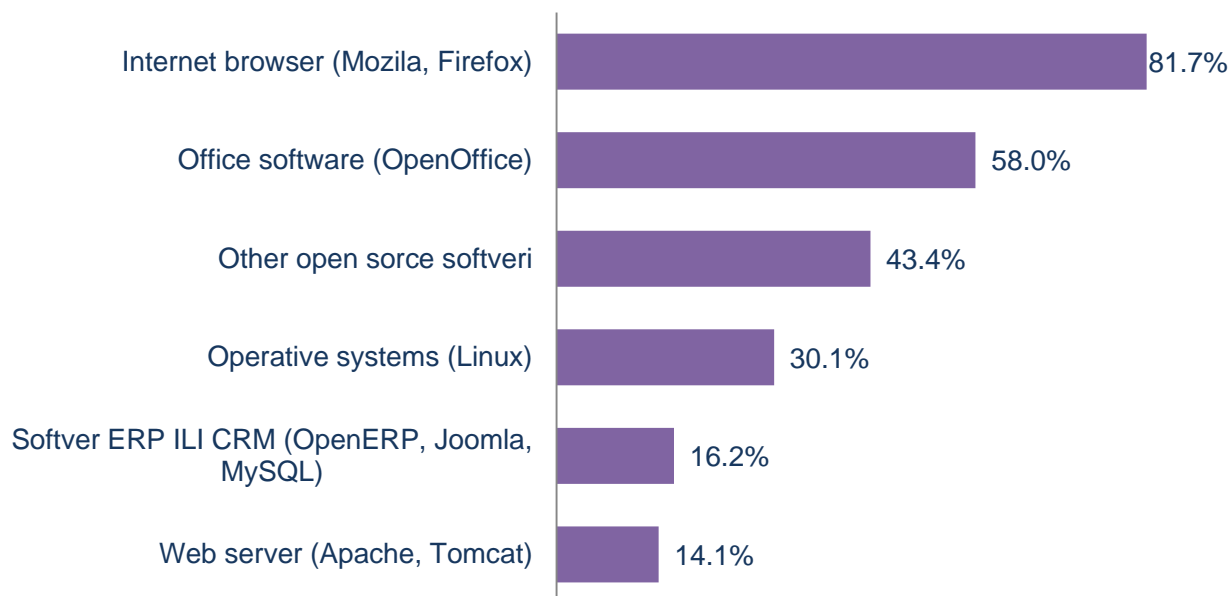
Graph 2. Employment ICT/IT specialists in enterprises



On the question about using open source software in January 2012, 81.7% of the enterprises answered that they used Internet browser (i.e. Mozilla, Firefox), what is the highest percentage in comparison to other open source software.

Internet browser (i.e. Mozilla, Firefox) was mostly used by the enterprises from non-financial sectors 82.1%, while to this percentage are the nearest enterprises from sector for manufacturing, energy and constructions 81.0%, and then are enterprises from financial sectors 75.0%.

Graph 3. Use of open source software in enterprises (%)

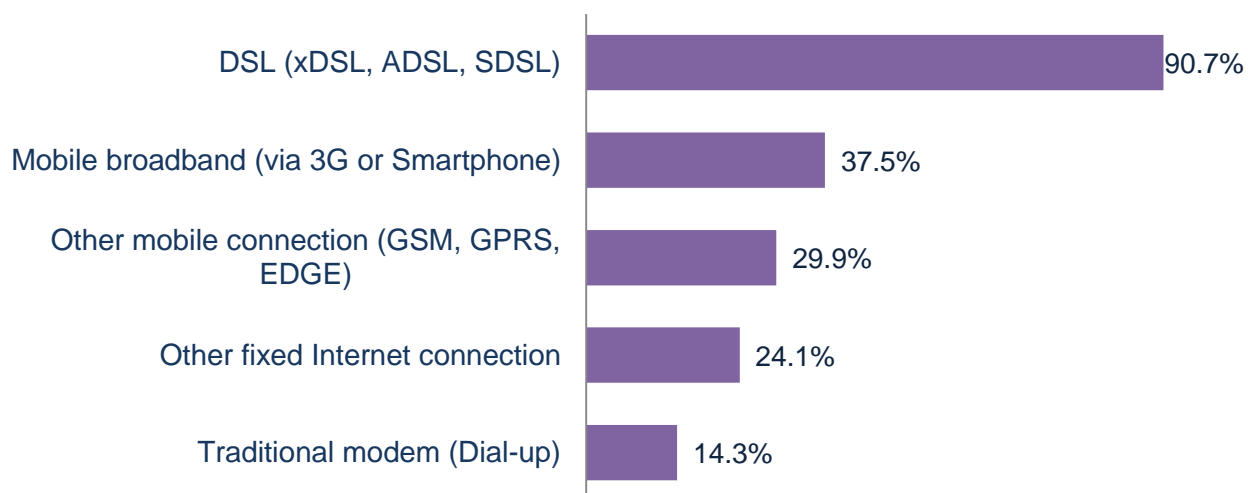


The enterprises that had access to the Internet in January 2012 used the following type of external connection to the Internet:

- ✓ DSL (xDSL, ADSL, SDSL ect)
- ✓ Mobile connection (at least 3G modem or 3G handset or Smartphone) using e.g. UMTS, CDMA2000 1xEVDO, HSDPA, PDA
- ✓ Other mobile connection using e.g. analogue mobile phone, GSM, GPRS, EDGE
- ✓ Other fixed Internet connection, e.g. cable, leases line, Frame Relay
- ✓ Dial-up access over normal telephone line or ISDN connection

As we can see at Graph 4 90,7% enterprises have some of DSL connection types, if they had Internet access in January 2012. It presents increase of 3% related to the previous year.

Graph 4. Use of external connection with Internet in enterprises (%)

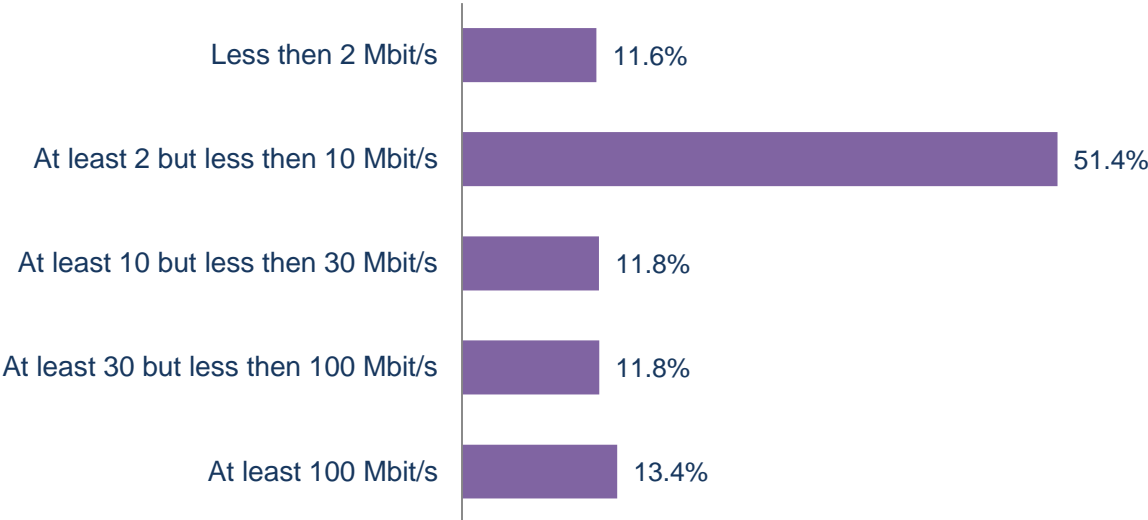


Apart from type connection which was used by the enterprises, also very interesting question about maximum contracted download speed of the fastest Internet connection, which enterprises used in January 2012.

Survey results show that the in 51.4% enterprises maximum contracted download speed of the fastest Internet connection, mostly, was at least 2 Mbit/s but less than 10 Mbit/s. Just 11.6% of enterprises said that contracted maximum download speed less then 2 Mbit/s, but there is a small number of enterprises which contracted maximum download speed more than 30 Mbit/s.

According to the sectors/areas speed of the Internet connection, with at least 2 Mbit/s but less than 10 Mbit/s, was the most represented in financial sector (68.3%). In manufacturing, energy and construction sector there are 52.0% enterprises which used maximum download speed at least 2 Mbit/s but less than 10 Mbit/s. Percent of enterprises in nonfinancial sector is 50.7%.

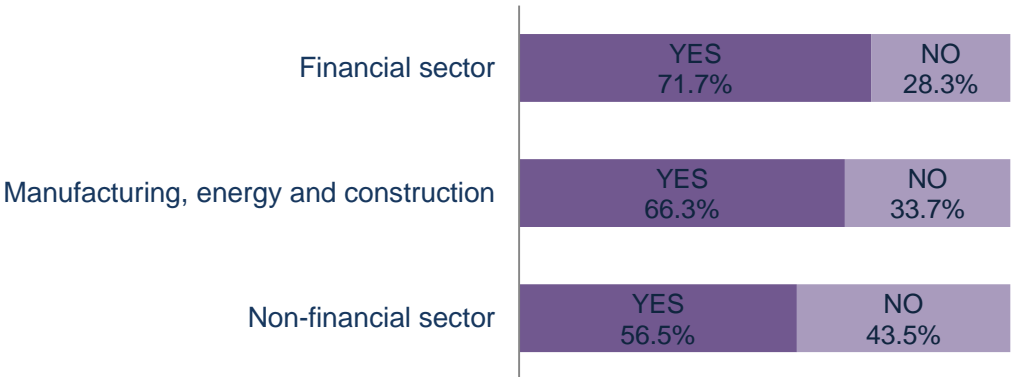
Graph 5. Maximum contracted download speed of the fastest Internet connection (%)



During 2011, public authorities services over the Internet had used 59.6% of the enterprises. The enterprises were able to used more public authorities services over the Internet, from which mostly were represented:

- ✓ Obtain information 92.2%,
- ✓ Obtain forms 82.4%,
- ✓ Return filled in forms electronically 71.3%.

Graph 6. Use of public authorities services



Enterprises which contact with public authorities mostly obtained information from public authorities' Web sites or Home pages, so from financial sector 93.0% enterprises use information from public authorities, 88.5% enterprises from sector for manufacturing, energy and construction, and 93.9% enterprises from non financial sector.

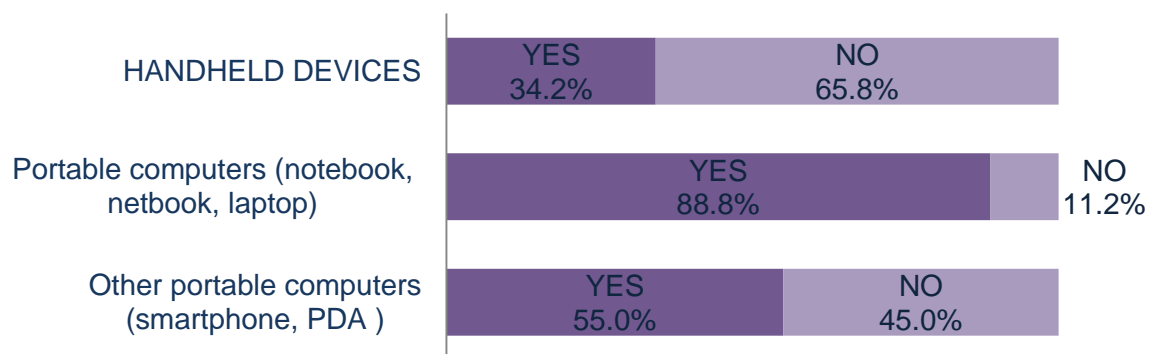
Mobile Internet connection means the use of handheld devices to connect to the Internet via mobile phone networks. Portable devices are portable computers (notebook, netbook, laptop, tablet, etc.) And other portable devices (smartphone, PDA, phone, etc.).

Result of survey shows that 34.2% of the enterprises was providing to their employees portable devices that enabled the mobile connection to the Internet for business purposes, in January 2012.

From the enterprises that provided its employees mobile devices, 88.8% of them provide portable devices, while 55.0% of enterprises provide the devices other portable devices such as Smartphone or PDA phone.

From the financial sector, even 73.3% of enterprises reported that they had provided the mobile devices to their employees, while in the non-financial sector and the manufacturing sector, this percentage is smaller and is around 33%.

Graph 7. Use of handheld devices in enterprises (%)

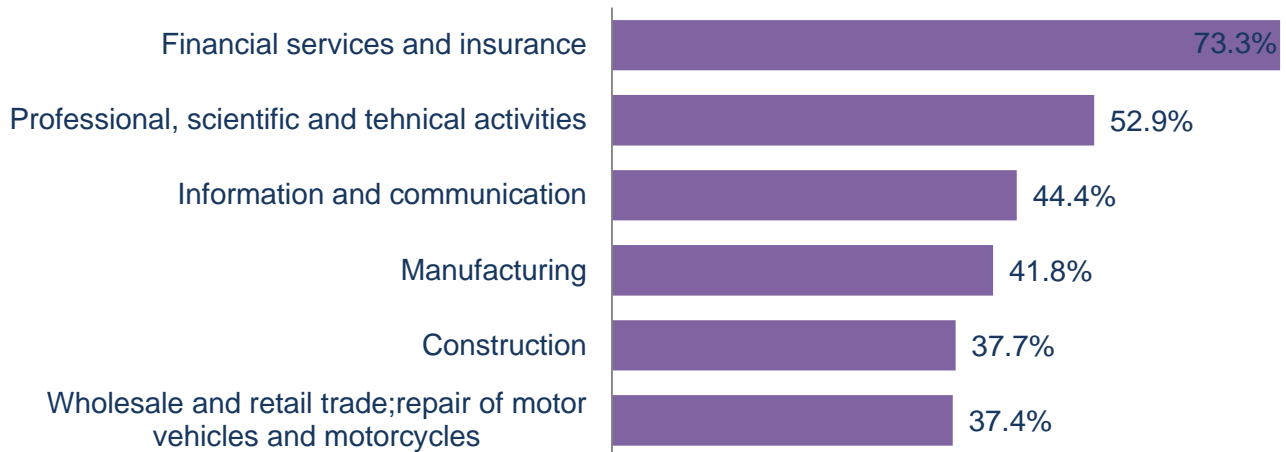


Automatic exchange of data between enterprises and other ICT systems outside the enterprise and messaging over the Internet or a computer network in an agreed format used by 37.7% of enterprises in Montenegro, during January 2012. Enterprises that are performed automatically messaging, are usually performed some of the following activities:

- 70.0% enterprises send payment instructions to financial institutions
- 78.8% send or receive product information
- 45.9% send or receive shipping documents

On the Graphic 8 can see the percentage of enterprises that have used the automatic exchange of data in January 2012 according to their activities. Thus we see that in the financial and insurance activities 73.3% of enterprises use the automatic exchange of data, while the percentage in other activities is much lower and, for example in the construction was only 37.7%.

Graph 8. Automatic exchange of data between enterprises and other ICT systems by activity

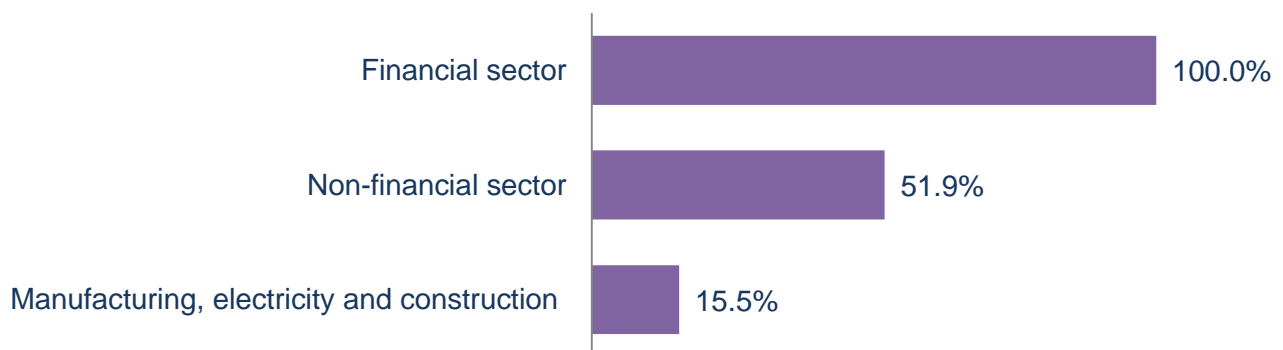


Related to the exchange of electronic information in the supply chain procurement management, 45.1% of enterprises regularly exchange information electronically with their suppliers or customers in January 2012. 96.2% of these enterprises regularly exchanged information electronically with their suppliers, while 87.6% of them regularly exchanged information electronically with their customers.

Very small percentage of enterprises that said that they received orders from the site in 2011. Only 8.1% of the enterprises receive orders via the web site, while 11.7% of the enterprises ordered products or services over the Internet.

When receiving orders via the Internet 38.7% of the enterprises used a security protocol, such as SSL or TLS. In the financial sector were fully use a security protocol, 100%, while companies in the manufacturing, electricity and construction only 15.5% used a security protocol when receiving orders over the Internet.

Graph 9. Use of a security protocol in enterprises by sectors



METODOLOGICAL NOTES

Statistical Office of Montenegro for the second time conduct research on the use of information and communication technologies in Montenegro. This research refers to the use of information and communication technologies in enterprises, as well as the use of ICT by households and individuals.

Enterprises

- ✓ The survey was conducted from 01 to 15 April 2012.
- ✓ Telephone interview.
- ✓ A stratified sample. Sample size 617 companies.
- ✓ The target population are companies with 10 or more employees by activity (NACE Rev. 2).
- ✓ Reference period for most questions is January 2012 while some issues related to the entire 2011th year.

Data are published on our website www.monstat.org

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