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Telecommunications

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As of 2024 (starting from no. 110), the Sector Analyses publication will be published in English as well.



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Main sector indicators

Data from the Croatian Regulatory Authority for Network Industries (HAKOM) for the fourth quarter of 2023 show that the use of telephone services in the fixed network continues to decline. The total number of connections in the fixed network in the mentioned period was lower by 2.5 percent than in the same period in 2022. In addition, the total outbound traffic of operators in the fixed network in the last quarter of 2023 decreased year-on-year by as much as 12.7 percent. According to data from the same source, at the end of last year there were 1,115,144 users of publicly available telephone services in the fixed network, which is lower by 2.21 percent compared to the end of 2022. The largest decrease in the number of users was recorded in the category of users of stand-alone telephone service in a fixed network, as much as 12.16 percent on a year-on-year basis. At the same time, their number is lower compared to the number of users of different service packages. On the other hand, the number of users of telephone services in the fixed network in 4D packages was the only one to record an increase in the fourth quarter of 2023, i.e., by 3.64 percent compared to the same period in 2022.

Table 1
Fixed and mobile communication network in the fourth quarter of 2023

Source: HAKOM.

	Fixed network	Mobile network
Number of users	1,115,144	4,562,734
Outbound traffic (in min)	257,158,542	2,727,060,629
Total revenue (in euros)	31,489,501	152,235,051
Consumer price index [December 2023/December 2022]	100.0	103.0

The total outbound traffic of telephone service operators in the fixed network in the last three months of 2023 was lower by 12.7 percent than in the same period of 2022. In the mentioned period, a total of 257,158,542 minutes were spoken in the fixed network. As is to be expected given the decrease in the number of users as well as lower traffic, the total revenue from telephone services in the fixed network in the fourth quarter of 2023 was lower by 1.61 percent year-on-year and amounted to 31,489,501 euros.

“The number of private users with a subscription at the end of 2023 increased by 6.97 percent compared to the same period in 2022.

Unlike the fixed network, positive trends were achieved in the mobile network at the end of last year. The number of users at the end of last year was 1.84 percent higher than in the same period in 2022. Private users made up 81.8 percent of all users of telephone services in the mobile network and their number increased by 1.31 percent year-on-year. It should be noted that the number of private users with a subscription at the end of 2023 increased by 6.97 percent compared to the same period in 2022. At the same time, the number of private users without a subscription decreased by 5.95 percent year-on-year. As for business users of telephone services in the mobile network, their number increased by 4.29 percent in the last quarter of last year compared to the same period in 2022. The density of users of telephone services in the mobile network in the specified period was 117.84 percent, which is 1.84 percent more than in the fourth quarter of 2022.

At the end of 2023, Hrvatski Telekom still had the largest market share in the provision of telephone services in the mobile network. In the mentioned period, 44.1 percent of users used the services of Hrvatski Telekom in the mobile network, which is only 0.7 percentage points lower than at the same time in 2022. Hrvatski Telekom is followed by A1 Hrvatska with a share of 35.5 percent of users. Telemach's market share in the fourth quarter of 2023 was 20.4 percent, i.e., 0.6 percentage points higher than in the same period of 2022.

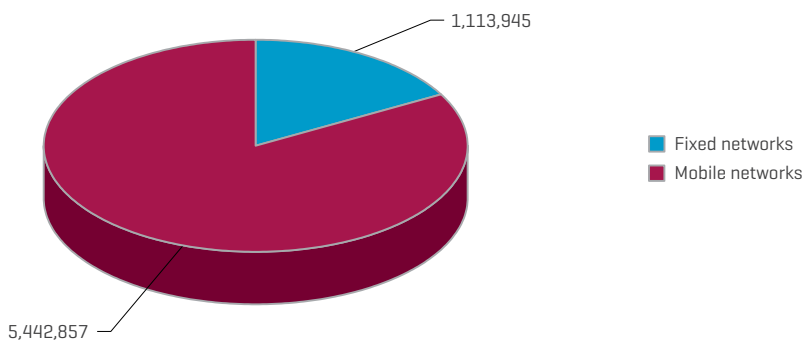
The total outbound traffic of telephone service operators in the mobile network at the end of last year increased by 3.3 percent compared to the same period in 2022. The duration of foreigners' roaming calls in national networks increased significantly. In the fourth quarter of last year, the duration of these calls was as much as 36.19 percent longer than in the same period in 2022. In that period, the duration of roaming calls of the companies' own users was reduced by 7.89 percent in international networks. At the end of last year, a 13.35 percent year-on-year decrease in the number of sent SMS messages was recorded as well.

The increase in the number of users as well as of outbound traffic in the mobile network also led to an increase in revenue from telephone service in the mobile network in the fourth quarter of 2023. In the mentioned period, the operators of telephone services in the mobile network achieved a total of 152,235,051 euros in revenue, which is an increase of 8.96 percent year-on-year. This increase is a consequence of the increase in retail revenue, which represents as much as 89.07 percent of the total revenue from telephone services in the mobile network. The increase in retail revenue in the fourth quarter of 2023 on a year-over-year basis was 15.46 percent.

THERE WERE A TOTAL OF 6,556,802 BROADBAND INTERNET ACCESS CONNECTIONS AT THE END OF 2023.

Figure 1
The number of broadband connections in 2023

Source: HAKOM.

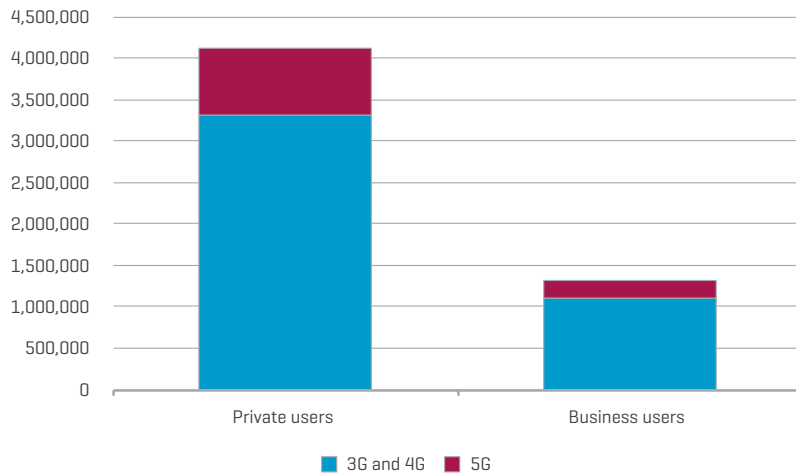


The end of last year was also marked by an increase in the number of broadband connections. At the end of 2023, there were 6,556,802 broadband connections in total, which is an increase of 6.12 percent in relation to the same period a year earlier. At the end of last year, there were a total of 1,113,945 broadband connections via fixed networks. This is an increase of 2.98 percent compared to the same period in 2022. The greater part, i.e., 83.03 percent of the total number of connections, refers to connections via mobile networks. Their number increased by 6.79 percent in the fourth quarter of last year.

It should be noted that the share of private users accessing the internet via 3G and 4G networks is still the largest, but also that their number has decreased year-on-year, while the number of private users accessing the internet via the 5G network is significantly higher. According to HAKOM data, in the fourth quarter of 2023 there were 3,307,436 private users who access the internet via 3G and 4G networks, which is a decrease of 7.01 percent on a year-on-year basis. At the same time, there were only 817,762 private users of broadband internet access via the 5G network, but it is an increase of 143.19 percent compared to the same period in 2022.

Figure 2
Number of broadband connections via mobile networks in the fourth quarter of 2023

Source: HAKOM.



“Data traffic in fixed networks in the fourth quarter of 2023 compared to the same quarter of 2022 increased by 28.26 percent.

The increase in the number of users of broadband internet access who use the 5G network is present in the segment of business users as well. At the end of last year, there were 210,622 of them, that is, 125.07 percent more than at the end of 2022. The number of business users of broadband internet access via 3G and 4G networks decreased by 0.28 percent year-on-year. Thus, last year ended with a total of 1,107,037 business users of broadband internet access via 3G and 4G networks.

At the end of last year, an increase in internet traffic was recorded, i.e., by 26.63 percent year-on-year. Data traffic in fixed networks in the fourth quarter of 2023 compared to the same quarter of 2022 increased by 28.26 percent. The increase in data traffic in mobile networks in the same period amounted to 22.63 percent. Moreover, 71.93 percent of the total data traffic was achieved through fixed networks in the fourth quarter of 2023.

“71.93 percent of the total data traffic was achieved through fixed networks in the fourth quarter of 2023.

As expected, due to the increase in the number of users and data traffic in the fourth quarter of 2023, there was also an increase in total revenue from internet access services. Specifically, in that period, a total of 189,939,718 euros of revenue from internet access was realized. This is an increase of 9.77 percent year-on-year. The largest part of this revenue, as much as 70.38 percent, was generated from internet access via a mobile network. In the fourth quarter of 2023, 133,673,340 euros were generated precisely from internet access via a mobile network. Compared to the same period in 2022, the increase was 11.30 percent. Although they have the smallest share in the structure of revenue from internet access services, revenue from access via satellite connections achieved a year-on-year increase of as much as 294.51 percent. They amounted to 219,447 euros, which is only 0.12 percent of the total revenue from internet access in the last quarter of 2023.

IN 2023, THE AVERAGE NUMBER OF PERSONS EMPLOYED IN THE TELECOMMUNICATIONS SECTOR WAS 9,394.

Figure 3
Revenue from internet access services in the fourth quarter of 2023, in euros

Source: HAKOM.

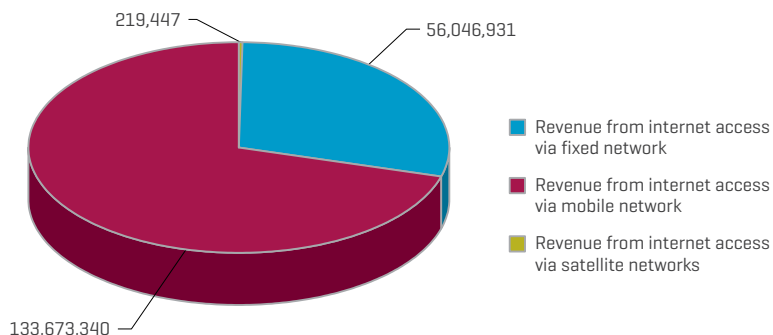


Figure 4 shows a comparison of the total revenue generated at the end of last year from the provision of internet access services and telephone services in mobile and fixed networks. From these data, it is clear that the telephone services in the fixed network for the telecommunications sector represent a less important source of revenue. In addition, as already mentioned, the total revenue from the provision of telephone services in the fixed network has a multi-year negative trend. Bearing in mind the rapid spread of broadband internet access, it is to be expected that the revenue that operators receive from the provision of telephone services in the fixed network will continue to decrease. The number of users of stand-alone telephone service is already significantly lower than the number of users who use this service in one of the service packages. In addition, their number is further decreasing. It can also be concluded that users give less importance to this form of electronic communication, which is expected considering its limited possibilities of responding to contemporary trends.

According to data from the Croatian Bureau of Statistics, the average number of persons employed in the telecommunications sector in 2023 was 9,394, which represents 0.65 percent of the average number of persons employed in 2023 at the level of the Republic of Croatia. On a monthly basis, the highest number of persons employed in this sector was recorded in November 2023, when it amounted to 9,543 (Figure 5). After a decline in the following months, in March of this year, the number of persons employed in the telecommunications sector already surpassed

the maximum from 2023. In March 2024, 9,624 employees worked in the telecommunications industry, which is 5 percent more than in the same month of 2023 and 2.4 percent more than the average number of persons employed in telecommunications in 2023.

Figure 4
Revenue from internet access and telephone services in fixed and mobile networks in the fourth quarter of 2023, in euros

Source: HAKOM.

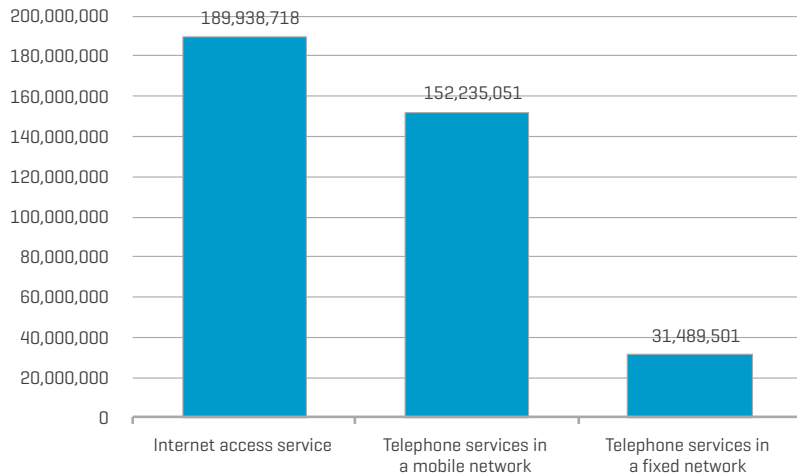
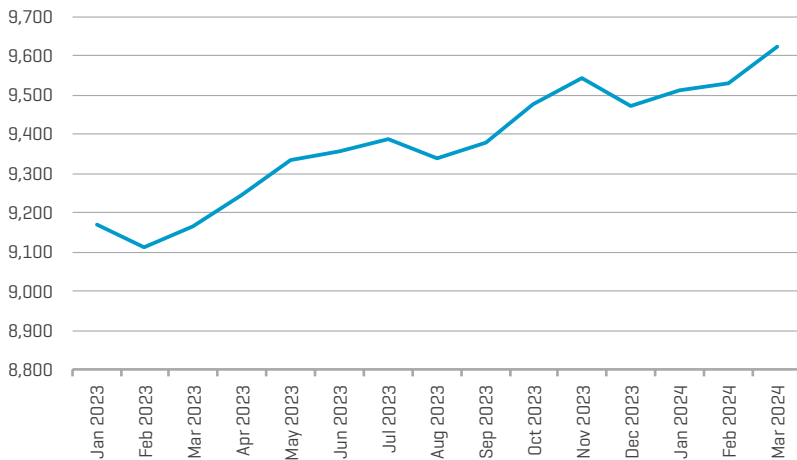


Figure 5
Number of persons employed in the telecommunications sector in 2023 and 2024, by month

Source: Croatian Bureau of Statistics.



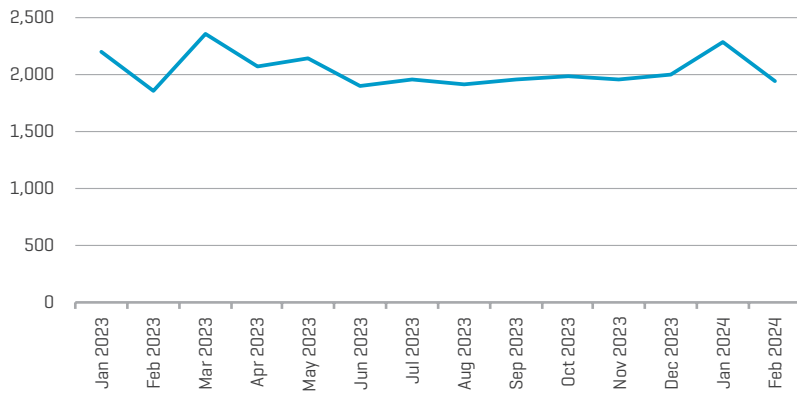
“In 2023, the average monthly gross wage of persons employed in the telecommunications sector was 2,021 euros.

The average monthly gross wage of persons employed in the telecommunications sector in 2023 was 2,021 euros. Compared to the average of 2022, the gross wage of persons employed in the telecommunications sector increased by 5.76 percent last year. Gross wages of persons employed in the telecommunications sector in the first two months of this year recorded a year-on-year increase. The average gross wage paid in the telecommunications sector in January this year increased by 3.88 percent year-on-year. The average gross wage of persons employed in the telecommunications sector in February this year was 1,945 euros, which is 4.63 percent more than in February 2023.

THE AVERAGE ANNUAL RATE OF CHANGE IN TELEPHONE SERVICE PRICES IN 2023 COMPARED TO 2022 WAS 2.4 PERCENT.

Figure 6
Average monthly gross wage in the telecommunications sector in 2023 and 2024, in euros

Source: Croatian Bureau of Statistics.



Data on the price trends of telecommunications services in the last year indicate a significant increase. The average annual rate of change in telephone service prices in 2023 compared to 2022 was 2.4 percent. According to data from the Croatian Bureau of Statistics, in 2023, mobile telephony prices increased by 3.4 percent. The prices of packages of telecommunications services were 1.7 higher last year than in 2022. In the analyzed period, only the price of internet access decreased, by as much as 7.3 percent. In 2023, the prices of fixed telephony services remained at the price level of 2022.

Digitalization and market development

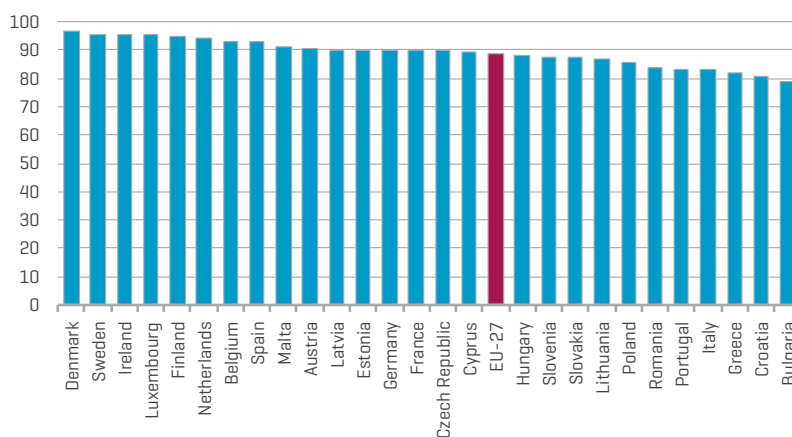
“Despite progress in the last five years, Croatia is still the penultimate country in terms of the share of citizens who use the internet.

We are witnessing the accelerated proliferation of the internet and its increasing use in Croatia, as indicated by the HAKOM data presented in the previous chapter. It is particularly important to look at trends in internet usage in Croatia in the context of approaching the European Union average. For this purpose, the Digital Economy and Society Index can be used. It provides data on the success and progress of EU member states in the field of digitalization.

According to data on internet usage among citizens aged 16 to 74, Croatia still falls behind the European Union average. In 2023, 80.65 percent of citizens aged 16 to 74 used the internet in Croatia at least once a week. The European Union average in the same year was 88.59 percent. Despite progress in the last five years, Croatia is still the penultimate country in terms of the share of citizens who use the internet [Figure 7].

Figure 7
Percentage of individuals aged 16 to 74 who use the internet at least once a week in EU countries in 2023

Source: European Commission, DESI 2023 dashboard for the Digital Decade.



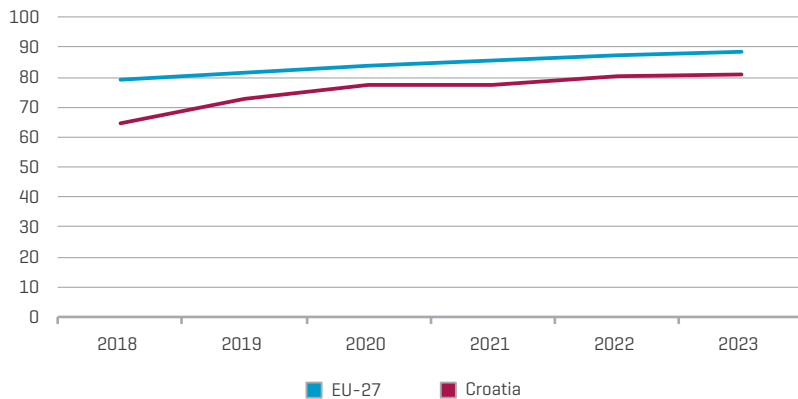
In Croatia, in the period from 2018 to 2023, the share of citizens using the internet increased from 64.66 percent to 80.65 percent. The EU average in 2018 was approximately at the level of the current situation in Croatia. According to the data shown in Figure 8, the gap between Croatia and the average of the 27 EU countries is somewhat smaller, but still significant.

IN CROATIA, IN THE PERIOD FROM 2018 TO 2023, THE SHARE OF CITIZENS USING THE INTERNET INCREASED FROM 64.66 PERCENT TO 80.65 PERCENT.

According to this indicator, Croatia is significantly below the leading EU countries [Denmark, Sweden, Ireland, and Luxembourg], where more than 95 percent of citizens aged 16 to 74 use the internet at least once a week.

Figure 8
Percentage of individuals aged 16 to 74 who use the internet at least once a week in EU countries, from 2018 to 2023

Source: European Commission, DESI 2023 dashboard for the Digital Decade.



“In terms of use of mobile internet access in 2023, Croatia is once again among the countries with the smallest share.

In terms of use of mobile internet access in 2023, Croatia is once again among the countries with the smallest share. Last year, there were 80.94 mobile data access subscriptions per 100 inhabitants in Croatia. The EU average was 86.53 percent. On the other hand, Ireland, for example, reached a figure of 98.39 mobile data access subscriptions per 100 inhabitants in 2023.

Croatia is currently roughly at the level of the EU average from 2021 [Figure 10]. Data on the trend in the number of mobile internet access subscriptions in the last six years testify to positive developments, but they are still insufficient to reach the EU average.

Figure 9
Number of mobile data access subscriptions per 100 inhabitants in 2023

Source: European Commission, DESI 2023 dashboard for the Digital Decade.

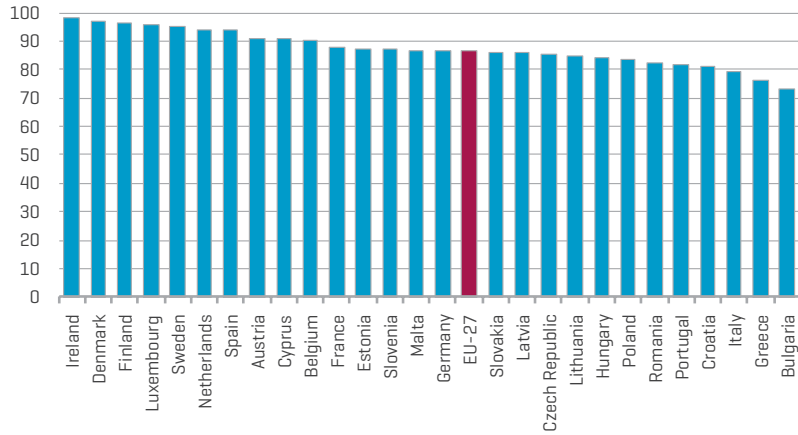
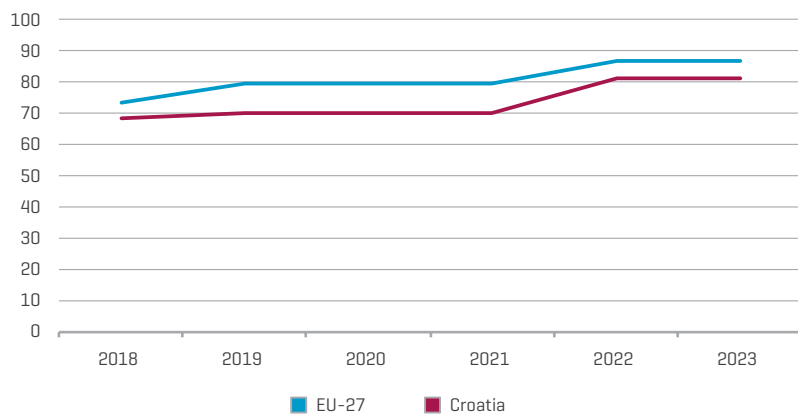


Figure 10
Number of mobile data access subscriptions per 100 inhabitants in the EU and Croatia from 2018 to 2023

Source: European Commission, DESI 2023 dashboard for the Digital Decade.



According to HAKOM’s data from the previous chapter, the number of users of mobile internet access via the 5G network is significantly increasing. Data of the European Commission testify to the existence of a good infrastructure necessary for a 5G network. At least one 5G network is available for 82.49 percent of households in Croatia, which is above the average of 27 European Union countries, which is 81.87 percent of households. In two EU countries, Cyprus and Malta, the percentage of coverage of populated areas with at least one 5G network in 2023 was already 100 percent. The Netherlands and Italy have almost achieved full coverage of households in populated areas with the 5G network (Figure 11).

Regarding the distribution and allocation of pioneer frequency bands of the 5G network, Croatia, together with Germany, reached the level of 100 percent and ranked among the leading EU countries. Pioneer bands for the 5G network in Croatia were awarded through two auctions in which all three leading telecom operators participated, together with smaller operators that competed for regional frequencies. The providers of telecommunication services for 5G frequency bands paid 386.4 million euros into the state budget, which is twice as much as expected (Ivančić, 2023).

REGARDING THE DISTRIBUTION AND ALLOCATION OF PIONEER FREQUENCY BANDS OF THE 5G NETWORK, CROATIA, TOGETHER WITH GERMANY, REACHED THE LEVEL OF 100 PERCENT AND RANKED AMONG THE LEADING EU COUNTRIES.

Figure 11
Percentage of coverage of populated areas with at least one 5G network (percentage of households)

Source: European Commission, DESI 2023 dashboard for the Digital Decade.

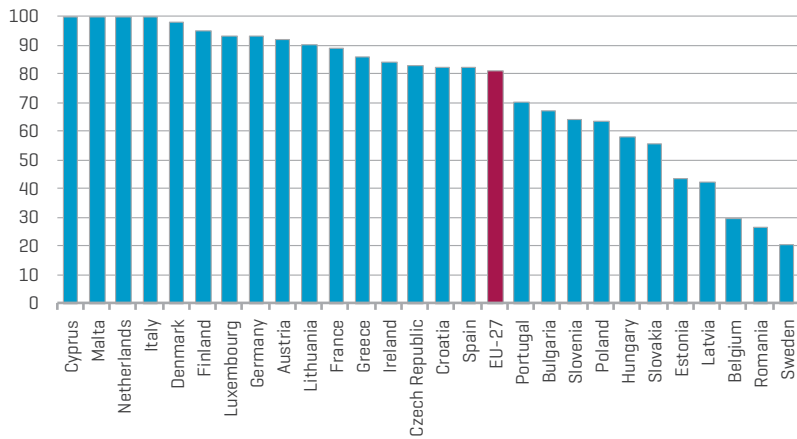
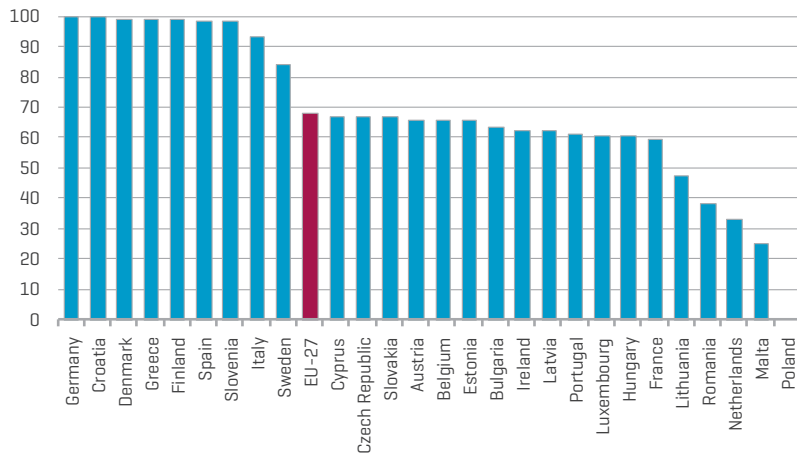


Figure 12
Part of the spectrum allocated and ready for use within pioneering frequency bands of the 5G network

Note: It includes frequency bands of 700 MHz, 3.6 GHz, and 26 GHz.

Source: European Commission, DESI 2023 dashboard for the Digital Decade.



Leading companies

The list of ten leading companies in the telecommunications sector by total revenue in 2022 includes two new companies: Roaming Networks d.o.o. and Roaming Networks Beograd. In terms of the amount of revenue achieved in 2022, these two companies are in seventh and ninth place, respectively. The remaining eight leading companies of the sector are HT d.d., A1 Hrvatska d.o.o., Telemach Hrvatska d.o.o., Iskon Internet d.d., Odašiljači i veze d.o.o., HEP-telekomunikacije d.o.o., Printec Croatia d.o.o., and Terrakom d.o.o., i.e., companies that are usually among the ten leading telecommunications companies.

Table 2
Performance indicators of leading companies in the telecommunications sector in 2021 and 2022

Note: Debt ratio = total liabilities/total assets; current ratio = current assets/current liabilities; gross margin = gross profit/total revenue * 100; labor productivity = total revenue/number of persons employed.

Source: The author's calculation according to Poslovna Hrvatska data.

	2021	2022	Index 2022/2021
Total revenue (million euros)	1,590.53	1,673.23	105.20
Gross profit (million euros)	180.26	176.45	97.91
Number of persons employed	6,144	6,076	98.89
Labor productivity (euros)	258,874.57	275,383.29	106.38
Gross margin [%]	11.33	10.55	93.07
Current ratio	1.70	1.49	87.80
Debt ratio	0.30	0.36	119.96

“In 2022, the total revenue of the ten leading companies increased by 5.20 percent compared to 2021.

According to the data shown in Table 2, the total revenue of the ten leading companies in 2022 increased by 5.20 percent compared to 2021. Last year, the total revenue at the level of the ten leading companies amounted to EUR 1,673.23 million. The largest part of this revenue, as in previous years, was achieved by Hrvatski Telekom d.d. In 2022, the total revenue of this company alone was 829.58 million euros, which is almost half of the total revenue of ten leading companies in the telecommunications sector. In addition, in 2022, the total revenue of this company increased by 2.58 percent year-on-year [Table 3].

IN 2022, THE GROSS PROFIT ACHIEVED AT THE LEVEL OF TEN LEADING COMPANIES WAS LOWER BY 2.09 PERCENT COMPARED TO 2021.

Table 3
Performance indicators of leading companies in the telecommunications sector in 2022

	Total revenue (million euros)	Index 2022/2021	Debt ratio	Current ratio	Gross margin [%]	Labor productivity (million euros)
HT d.d.	829.58	102.58	0.11	3.87	13.06	0.25
A1 Hrvatska d.o.o.	476.31	103.38	0.64	0.44	10.04	0.30
Telemach Hrvatska d.o.o.	224.34	116.57	0.82	0.56	6.22	0.43
Iskon Internet d.d.	53.61	100.99	0.76	0.40	-9.22	0.38
Odašiljači i veze d.o.o.	34.17	107.07	0.08	4.31	12.91	0.11
HEP-telekomunikacije d.o.o.	19.49	100.88	0.11	0.60	0.14	0.48
Roaming Networks d.o.o.	11.46	388.72	1.22	0.79	5.72	0.11
Printec Croatia d.o.o.	9.58	121.43	0.41	1.76	7.70	0.12
Roaming Networks Beograd	7.38	117.71	2.07	0.48	0.04	3.69
Terrakom d.o.o.	7.31	101.55	0.38	1.81	11.99	0.22

Note: Debt ratio = total liabilities/total assets; current ratio = current assets/current liabilities; gross margin = gross profit/total revenue * 100; labor productivity = total revenue/number of persons employed.

Source: The author's calculation according to Poslovna Hrvatska data.

From the data on the year-on-year change in revenue presented in Table 3, it is evident that the total revenue of all ten leading companies increased in 2022. By far, the largest increase in the analyzed year was achieved by the company Roaming Networks d.o.o.

Unlike total revenues, the gross profit achieved at the level of ten leading companies in 2022 was lower by 2.09 percent compared to 2021. That year, the total gross profit of the ten leading companies amounted to 176.45 million euros.

IN 2022, LABOR PRODUCTIVITY AT THE LEVEL OF TEN LEADING COMPANIES OF THE SECTOR WAS 275.38 THOUSAND EUROS.

“In 2022, the total number of persons employed at the level of ten leading companies in the telecommunications sector was 6,076, which is 1.11 percent less than in 2021.

In 2022, the total number of persons employed at the level of ten leading companies in the telecommunications sector was 6,076, which is lower by 1.11 percent than in 2021. In 2022, the leading company in terms of the number of persons employed, despite a decrease of 4.03 percent, is Hrvatski Telekom, which employed 3,261 employees, or almost 60 percent of the persons employed at the level of the ten leading companies of the sector. The biggest increase in the number of persons employed in 2022 year-on-year was recorded for the company Roaming Networks, which went from 27 persons employed in 2021 to 103 persons employed in 2022.

Labor productivity at the level of ten leading companies of the sector in 2022 was 275.38 thousand euros and, at the year-on-year level, it increased by 6.38 percent. This trend is expected given the increase in total revenue followed by a decrease in the number of persons employed at the level of ten leading companies in the sector. In the analyzed year, Roaming Networks Beograd had the highest labor productivity, far above other leading companies. The labor productivity of this company in 2022 was 3.69 million euros. For the record, this company had 2 persons employed in 2022 and generated a revenue of more than 7 million euros.

“The gross margin of ten leading companies in the telecommunications sector in 2022 was 6.93 percent lower than in 2021.

In 2022, the gross margin of ten leading companies in the telecommunications sector was lower by 6.93 percent than in 2021. Hrvatski Telekom had the highest gross margin, in the amount of 13.06 percent. In 2022, the company Odašiljači i veze also had a high gross margin. More precisely, it amounted to 12.91 percent. Given the realized loss in 2022, Iskon Internet recorded a negative gross margin.

Iskon Internet is the only company among the top ten companies that closed the year 2022 with a loss, in the amount of 4,895,680 euros. In April this year, Iskon Internet merged with Hrvatski Telekom and was deleted from the court register as an independent company. Hrvatski Telekom achieved the highest gross profit in 2022. It amounted to 117.37 million euros.

In 2022, the current ratio of ten leading companies in the sector was 1.49. Compared to the previous year, the current ratio decreased by 12.20 percent. Its level, despite the decrease, is at an acceptable level and indicates a good ability to settle current liabilities. Very liquid companies from the group of ten leading companies in the sector are Odašiljači i veze [4.31] and Hrvatski Telekom [3.98]. On the other hand, six leading companies in the sector had problems with maintaining current liquidity in 2022: A1 Hrvatska, Telemach Hrvatska, Iskon Internet, HEP-telekomunikacije, Roaming Networks, and Roaming Networks Beograd.

“The debt ratio at the level of ten leading companies in the telecommunications sector of 0.36 indicates a low level of debt in 2022.

The debt ratio at the level of ten leading companies in the telecommunications sector of 0.36 indicates a low level of debt in 2022. However, if they are analyzed separately, it is evident that several companies do have a high level of indebtedness. This is primarily the case with companies Roaming Networks and Roaming Networks Beograd, whose debt ratios exceed 1, which means that total liabilities exceed the value of total assets. In 2022, Telemach Hrvatska [0.88], Iskon Internet [0.76], and A1 Hrvatska [0.64] also had a debt ratio higher than the optimal 0.5.

Conclusion and expectations

According to the first performance data in 2023, telecom operators achieved good results. The performance data of the leading companies for the year 2023 show mostly very good achievements and positive business results, with the exception of Iskon Internet, which stopped operating as an independent entity in April this year and merged with Hrvatski Telekom. An example of good performance results in the last year is Hrvatski Telekom, which increased total revenue on a year-on-year level by 5.7 percent and achieved a total profit in the amount of 132.0 million euros [Hrvatski Telekom, 2024].

News about successful performance in 2023 also comes from the company A1 Hrvatska. In 2023, this company achieved an increase in total revenue of 11.7 percent and operating profit of 17.1 percent compared to 2022 [Hina, 2024]. According to data from the consolidated financial statements of the United Group, to which Telemach Hrvatska belongs, the previous year was successful. Total revenue and operating profit at the group level increased by 7 percent and the group achieved record financial results [Telemach, 2024]. However, according to performance data of Telemach Hrvatska available through Poslovna Hrvatska, the year 2023 was less successful for this company. Despite the increase in total revenue compared to 2022 of as much as 24.16 percent, Telemach ended the previous year with a loss of 254,957 euros.

An indication of another successful business year comes from Hrvatski Telekom, whose performance data in the first quarter of 2024 show that total revenue increased by 4.8 percent. This company also states that there was an increase in operating costs of 5.5 percent year-on-year and a decline in net profit of 1.7 percent [tportal, 2024].

Leading companies emphasize the problems of increased costs due to marked inflation. However, it should be noted that the ability to adjust the prices of telecommunication services according to inflation makes it significantly easier for telecommunication service providers to cope with

THE ABILITY TO ADJUST THE PRICES OF TELECOMMUNICATION SERVICES WITH INFLATION MAKES IT SIGNIFICANTLY EASIER FOR TELECOMMUNICATION SERVICE PROVIDERS TO COPE WITH BUSINESS CHALLENGES.

business challenges. Last year, all three operators increased the prices of their services in order to adjust to inflation. The same will be the case this year, as they have already announced the application of the index clause. The first to do so was A1 Hrvatska, which increased prices from June 1 of this year by 6.9 percent [Jutarnji list, 2024]. It was followed by Hrvatski Telekom, with a price increase of 6.5 percent from July 2024 [Novi list, 2024], and Telemach, whose prices also increased by 7.2 percent since July [Index Vijesti, 2024].

“In the past period, telecom operators invested in the development of the 5G network and made it available to Croatian citizens.

In the past period, telecom operators invested in the development of the 5G network and made it available to Croatian citizens. According to HAKOM's data on the number of users, this network is currently used much less compared to 4G or 3G. Over time, there will be a significant acceptance of the 5G network and its spread among users in Croatia. In this context, it is necessary to once again refer to internet usage in Croatia, which was discussed in the chapter on digitalization. Apart from the fact that, generally, the percentage of individuals who use the internet at least once a week in Croatia is relatively small compared to other countries and the EU average, the lagging behind is also present in other indicators of internet use. Data from the DESI index for 2023 show that 68.72 percent of Croatian citizens who use the internet use the electronic services of state bodies. The average of the 27 EU countries for the same indicator in 2023 is 74.2 percent. In 2023, only 8.93 percent of internet users in Croatia performed activities related to financial services on the internet, while the average was 16.39 percent at the EU level. Furthermore, according to data from EUROSTAT for 2023 on internet use, Croatia is falling behind the EU average when it comes to using the internet to make phone and video calls, attending online courses and education, and participating in public consultations. According to data from the same source, Croatian citizens use the internet above the average of 27 EU countries to create content on social networks, search for information about products and services, and read news. As long as citizens in Croatia use mobile internet access to a lesser extent and use only “basic” services, i.e., do not need faster data transfer enabled by the 5G network, its proliferation among users may be quite slow.

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