The Information concerning key issues in radio and television broadcasting in 2021

The National Broadcasting Council - KRRiT, Warsaw, May 2022.

The National Broadcasting Council

RESOLUTION NO. 75/2022

OF 17 MAY 2022

Pursuant to Article 9(1) in conjunction with Article 12(1) and (2) of the Broadcasting Act of 29 December 1992 (Dz.U. of 2020 pos. 805 and of 2021 pos. 1676) the National Broadcasting Council

decides

1 Adopt *the Information concerning key issues in radio and television broadcasting in 2021,* which is attached to the resolution.

2. present *the Information concerning key issues in radio and television broadcasting in 2021:*

- to the Sejm of the Republic of Poland,
- to the Senate of the Republic of Poland,
- To the President of the Republic of Poland.

3. to present *the Information concerning key issues in radio and television broadcasting in 2021* to the Prime Minister.

The Chairman

of the National Broadcasting Council

/ - / Witold Kołodziejski

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Introduction

In accordance with the statutory obligation, together with *The Annual report on the activities of the National Broadcasting Council in 2021*, the KRRiT presents *the Information concerning key issues in radio and television broadcasting in 2021* . This year's *Information* devotes a lot of space to new segments of the media market (professional video creators and video sharing platforms) which, in connection with the implementation in 2018 of the amended *Audiovisual Media Services Directive* (AVMSD), are covered by regulations whose implementation is supervised by the KRRiT. The media horizon is constantly expanding. Content providers competing for the attention of viewers and listeners are constantly creating new offers available on various platforms. Competition from streaming services, social media or platform providers is increasing. These phenomena have therefore been dealt with extensively in Chapter 1*, Media consumption (Time and habits of audiovisual content's consumption, Watching on demand - VoD services* and *Video sharing platforms)*.

Although the encroachment of regulation into the space of Internet communication is always controversial, researchers have no doubt that both the reach of online video and the opinion-forming nature of this content require systems to protect the viewer, including children and young people. The experience of Russia's aggression in Ukraine and the associated increase in disinformation activity raises the question of the sufficiency of the means available to European Union Member States to stop this wave. The insufficiency of tools to provide security against online threats is to be addressed by the *European Digital Services Act* (DSA). Very large Internet platforms (VLOPs), used by millions of Europeans every day, pose a particular threat in terms of spreading illegal and socially harmful content. Therefore, the above mentioned act is to impose new obligations on online platforms related, among others, to the transparency of recommendation systems or the possibility of the user's resignation from being targeted on the basis of their online activity.

The *Information* presents in detail the phenomena of concentration in different market segments (Chapter 4 *Media markets - structure, origin of capital, ownership transformations).* Although the National Broadcasting Council is not a competition authority, these issues are of interest to it due to their impact on media pluralism. The analysis of the collected data indicates a high degree of concentration on the markets comprising the mass media and their distribution.

The intermingling of the activities of broadcasters, pay TV providers, advertising brokers and online publishers, as well as search engines and infrastructure providers, creates conditions for economically powerful actors to gain dominance and constrain the activities of other market players. In principle, this is not a negative phenomenon, but the lack of effective supervision over certain market practices specific to the media sector may lead to limited access to a diversified offer of programming, both through infrastructure and due to the business costs for smaller players. The European Commission, noticing this problem, undertook works on *Digital Markets Act* (DMA), the aim of which will be to limit domination of the so-called access gatekeepers over other service providers and, above all, to introduce prohibition of discrimination due to range and scale of operations. It seems that a similar solution should be adopted in the sphere of traditional media, e.g. pay TV, purchase of advertising space or broadcasting rights.

Despite the shift of media audiences to the online world, which has been anticipated for years, traditional television and radio broadcasting continue to be an important source of access to information and entertainment, although, after the pandemic of 2020, the trend towards an exodus of audiences to the online offer has returned. In fact, there has been a further decline in the total viewing time of linear television and the outflow of its audience is progressing (especially in younger groups), with a simultaneous increase in the audience share of the 60+ age group and in the consumption of content on mobile devices (smartphones).

This confirms the change in consumer habits and the way of media consumption, which are caused by the development of digital technologies and the already widespread access to the Internet. The share of households with Internet access in 2021 was 92.4%, and in terms of mobile Internet penetration Poland ranks first in Europe. There is also a steady increase in the volume of data transmission per capita, which in 2020 already amounted to 133 GB of data.

The year 2021 brought further fragmentation of TV audiences and was a historic period in which none of the programmes achieved an audience rating of more than 5 million viewers. Nevertheless, despite market saturation and the continuing dominance of the so-called 'Big Four' (TVP, TVN, Polsat, TV Puls), viewers gained access to new content over the past year, and the number of Polish and Polish-language programmes increased from 427 to 452 items.

The percentage of consumers of streaming services in Poland is not very high. At least in the next 2-3 years, the position of television will not be threatened, despite the announcement that more global VoD players will enter the market in 2022. Interest in VoD services may also be increased by the process of transition in terrestrial broadcasting from the DVB-T standard to DVB-T2/HEVC. Viewers may limit their TV access to terrestrial reception, hoping for an enriched programme offer and better signal quality, thus compensating for the need to access other content, especially films and series available through VoD.

Although there is a noticeable outflow of listeners using the traditional radio receiver from year to year, it still remains the most popular form of radio content consumption. Most often, radio accompanies Poles in the car, and fewer and fewer people listen to this medium at home. In 2021, only 34% of listeners declared that they receive radio in this way, what, compared to 2015, means a decrease of 13 percentage points. Although radio is a strong medium, listeners' commitment to linear reception has been declining in recent years. This applies mainly to young people, who are more likely to choose on-demand audio services over listening to live radio. This trend means that the future of radio will be its dual-platform nature, i.e. following the technological choices of listeners: those who listen to broadcasts via terrestrial antennas and those who want their favourite programmes online.

In the press publisher market, one of the main trends of 2021 was digitalisation and the contribution of in-house websites. Pandemic has also accelerated the shift to new forms of advertising using online platforms. A major challenge for the publishing industry is the rapidly rising inflation and the drastically increasing paper and print prices. These aspects will certainly affect business calculations and publishing decisions. Those publishers who have so far invested systematically in the digital development of their offer and encouraged readers to buy subscriptions are in a better position.

Undoubtedly, 2021 was a time of recovery for the advertising market after the Covid-19 pandemic crisis. Most media managed to return to or even exceed pre-pandemic advertising revenue levels. The value of the advertising market in Poland in 2021 exceeded the historical figure of PLN 10.5 billion, an increase of 16.2% compared to 2020. In 2021, the value of online advertising expenditures grew the most.

However, the current geopolitical situation caused by the Russian invasion of Ukraine may have a negative impact on the economy, which will also affect the advertising market in Poland. The scale of inflation will also have a major impact on this market.

The described phenomena constitute a challenge for the activities of the regulator, which requires the creation of new mechanisms for responding to threats resulting from online activities, including in particular disinformation and the so-called patostreams containing content harmful to minors. The impact of concentration and digitisation of broadcasting on the quality of the programme offer in the media also requires a new look at the role of the KRRiT. In the near future, important decisions will have to be taken in relation to the assignment of new tasks resulting from the EU legal acts being prepared. The National Broadcasting Council, as an independent constitutional authority, competent in media matters, seems to be a natural choice to be entrusted with these tasks due to its experience and competence accumulated in the almost thirty-year history of activity.

The chairman

of the National Broadcasting Council

/ - / Witold Kołodziejski

1. Media consumption

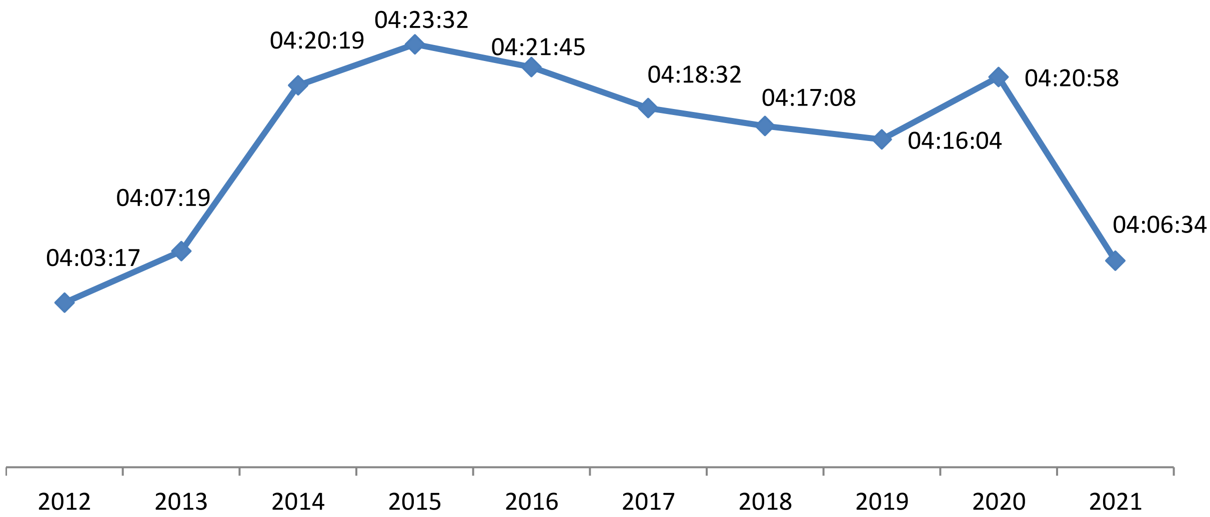
1.1 The market for audiovisual content consumers in 2021

1.1.1. Time and habits of audiovisual content's consumption

The year 2021 is a further period of dynamic technological development, including above all VoD (*Video on Demand*) streaming platforms and *Video-Sharing Platforms* (VSP), which are changing the landscape of the audiovisual market and causing the traditional model of media consumption and consumption of audiovisual content, i.e. via traditional (linear) television, to give way to modern technologies. In 2021, new players have entered the market, especially in the VoD sector, offering viewers access to new productions, including sports broadcasts. This is leading to increased pressure on traditional broadcasters, who are finding it more challenging to defend their position in the market due to increasingly difficult access to original content.

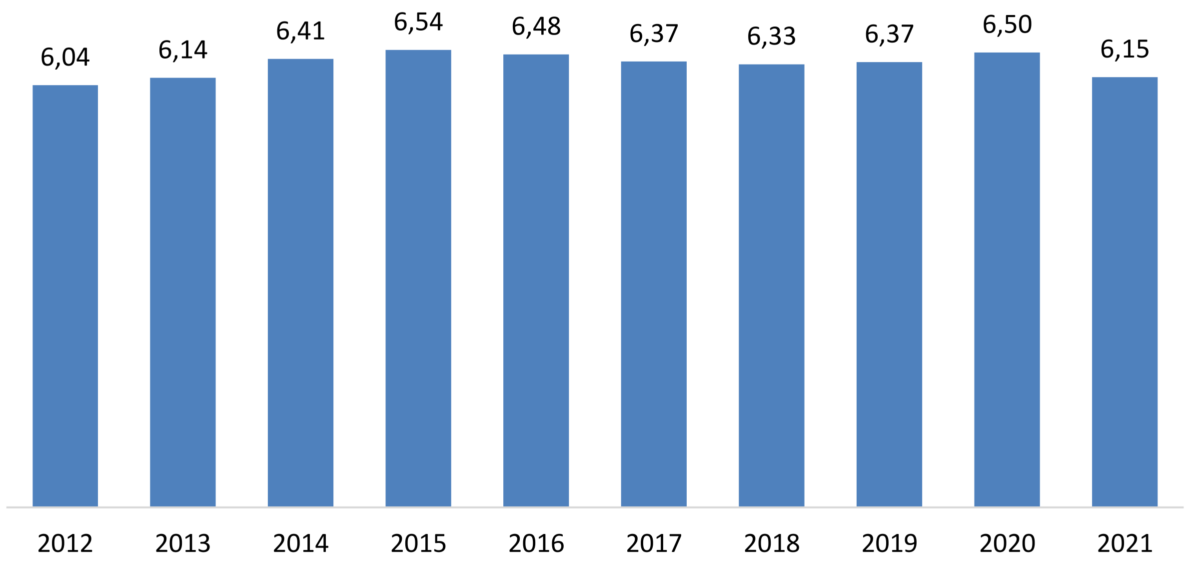
Films, series, news and sports programmes and other programme genres are increasingly watched at a time and place chosen by the viewer, resulting in the average TV viewing time in 2021 being reduced by 14 minutes, to 4 hours 06 minutes 34 seconds, roughly the level of 2013, when streaming platforms were just starting to expand. Thus, after the particular year of 2020, in which, as a result of pandemics and travel restrictions, the habits of viewers were reversed and the statistical Pole (age group 4+) watched linear TV for almost 5 minutes longer than the year before, in 2021 there was a significant decline in the average time spent watching traditional TV.

Chart 1. Average time spent watching linear TV (hh:mm:ss)



Source: Prepared by the KRRiT Office on the basis of Nielsen Audience Measurement data

Chart 2. Average viewership of linear TV between 2012 and 2021[1] (in millions of viewers)



Source: Prepared by the KRRiT Office on the basis of Nielsen Audience Measurement data

A decrease of 0.35 million TV viewers from 2020 means a return to the level of linear TV viewers in 2013. (6.15 million in 2021 and 6.14 million in 2013). This contradicts the thesis of an audience exodus to non-linear services, particularly online.

In the VoD sector, on the other hand, after a record-breaking pandemic year in 2020, although the percentage of users watching online content on a daily basis fell from 37% to 32%, the percentage of respondents declaring to pay for online video content increased since autumn 2020 by 3 percentage points (pp.) to 57%[2] . This indicates that watching VoD services online is becoming not so much an alternative as a complement to traditional pay TV, whose market share in 2021 increased by 2.3 pp. , amounting to 67%[3] . This indicates that in spite of the progressing phenomenon *of cord-cutting*, i.e. resignation from pay TV (especially in the USA), this segment is still stable in Poland. Pay TV operators adapt to market changes, diversify their offer by providing additional services or offering access to specific VoD platforms, and individual TV broadcasters, following the general trend, make their content available both on linear TV and in their own on-demand services.

The year 2021 also brought the further dynamic development of video sharing platforms (VSPs), including YouTube, Facebook, Instagram or TikTok, etc. In this view, the traditional audiovisual market model, where there is a strict division between sender and viewer, is shifting towards a market of users of video sharing platforms, who create, share and comment online on the content they watch and become active participants in the media market. This leads to the growing importance of VSP platforms and social media as a tool for shaping public opinion. For more information on VSP platforms, see chapter 1.1.5.

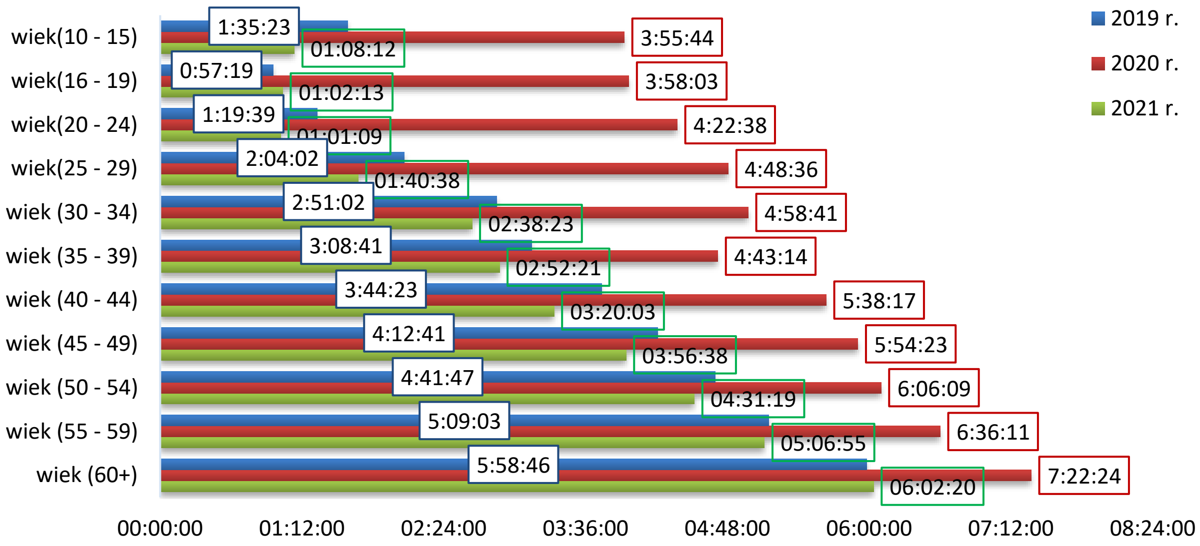
[1] AMR (Average Minute Rating) - Average minute viewership; the number of people watching television in one minute, averaged over consecutive years.

[2] VideoTrack VI survey, Wavemaker, February 2022.

[3] Nielsen, *Videonauts as viewers navigate a world of multiple screens, content, media*. Syndicated report, January 2022.

Time spent watching TV varied between age groups, however, it clearly decreased for each age group compared to 2020. This is due not only to increased social activity and the lifting of individual restrictions after the pandemic, but also because of a change in the way content is consumed and the development of VoD services (more on this in sections 1.1.3 Content consumption devices and 1.1.4 Watching on demand - VoD services). Traditionally, the longest TV viewing time was spent by people aged 60+, who spent on average over 6 hours 2 minutes a day in front of the TV (a decrease of 1 hour 20 minutes compared to the record year 2020).

Chart 3. Daily TV viewing time between 2019 and 2021 between 6:00 a.m. and 11:00 p.m. (hh.mm.ss)



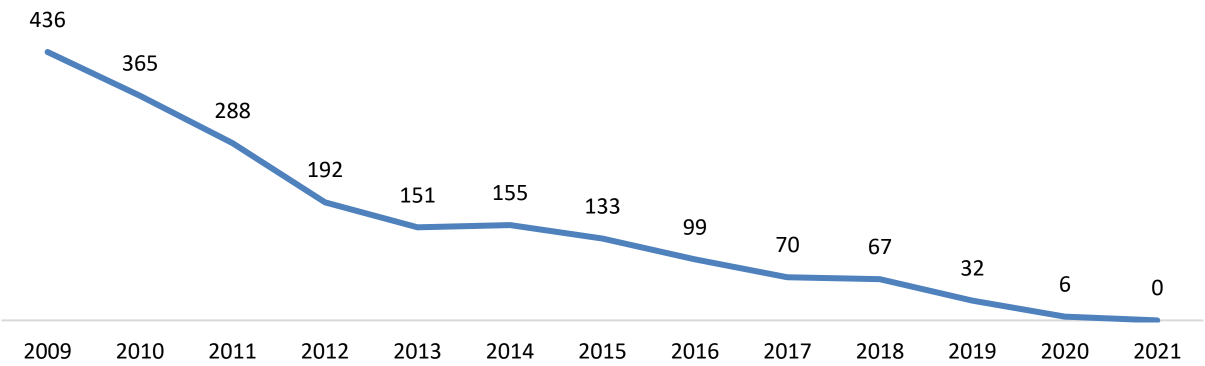
Source: Prepared by the KRRiT Office on the basis of Nielsen Audience Measurement data

Despite considerable market saturation, viewers have more and more channels to choose from each year. Over the last year, the list of Polish and Polish-language programmes grew from 427 to 452 items, and if foreign programmes offered by operators in Poland are taken into account, viewers have a total of 670 TV stations to choose from (this figure includes programmes duplicated in HD)[4] .

Such a diversity of programme offer causes a progressive fragmentation of the audience. In 2021, for the first time ever, the audience of not a single programme on TV stations exceeded the 5 million viewer mark (in 2009, there were 436 such programmes, in 2019 - 32, and in 2020 - only 6).

[4] https:/www.akpa.pl/stacje.php

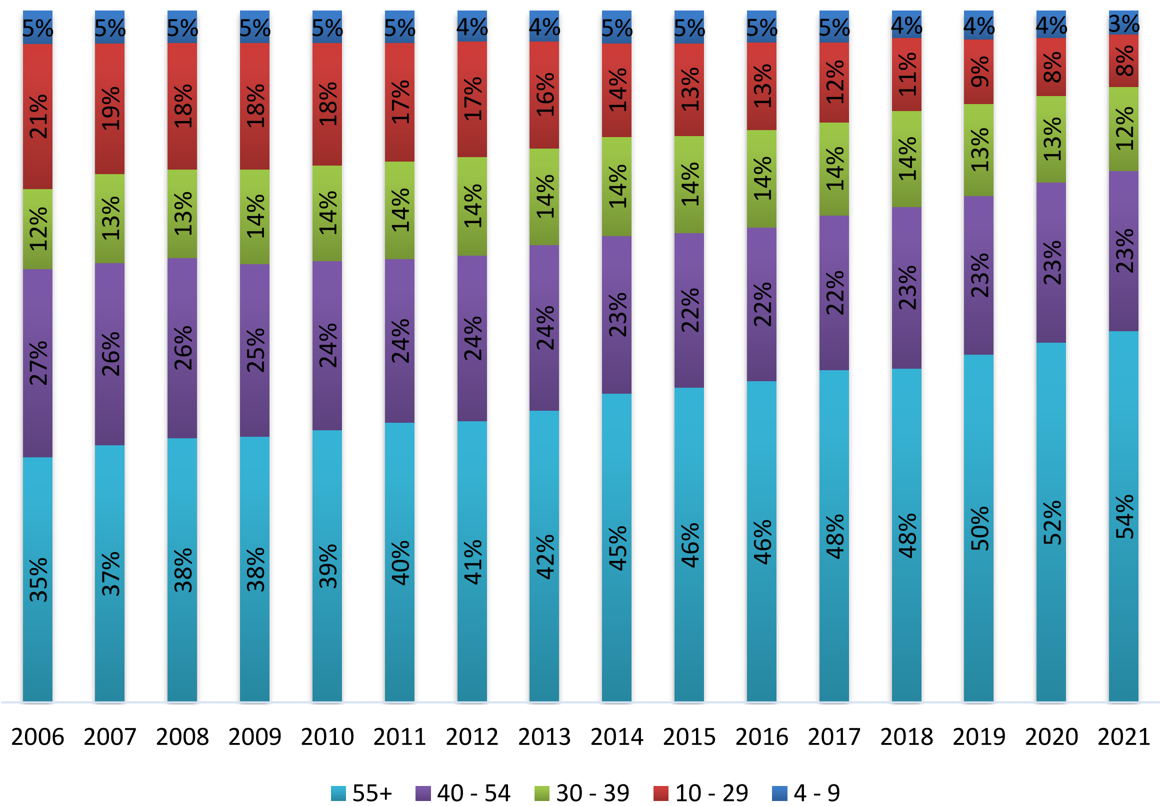
Chart 4. Audience fragmentation. Number of programmes with an audience exceeding 5 million



Source: *Wavemaker VI*, based on Nielsen Audience Measurement data

On the basis of data from the last years, it is possible to trace how the structure of the TV audience has changed. Currently, more than half of TV viewers (54%) are aged 55+. A year earlier this group accounted for 52%, and fifteen years ago - for 35%. It is also noted that significant changes since 2011 have taken place with regard to the audience 55+ (systematically growing) and 10-29 (systematically shrinking). In the remaining age brackets it remains almost constant (+/-1 pp.). This indicates not only progressive demographic changes, but also changing consumer habits and the way of watching content, resulting from the development of digital technologies and universal access to the Internet.

Chart 5. Age structure of the TV audience between 6 a.m. and 11 p.m.



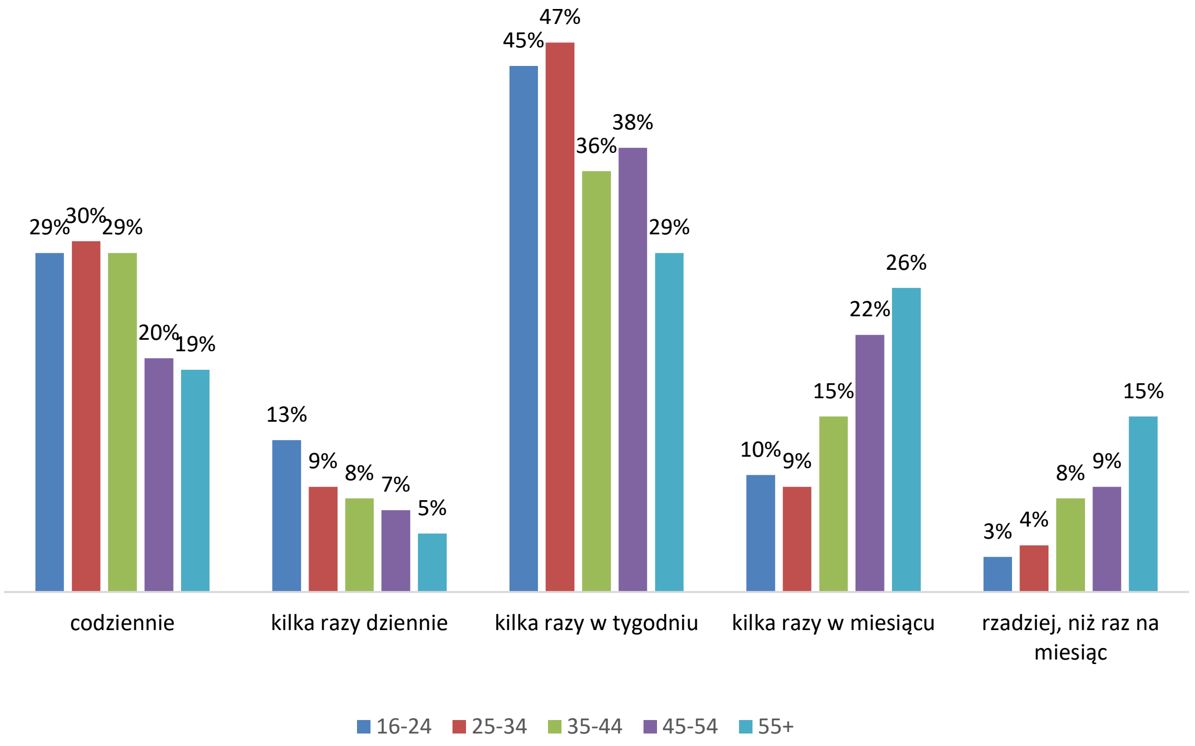
Age	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
4 - 9	5%	5%	5%	5%	5%	5%	4%	4%	5%	5%	5%	5%	4%	4%	4%	3%
10 - 29	21%	19%	18%	18%	18%	17%	17%	16%	14%	13%	13%	12%	11%	9%	8%	8%
30 - 39	12%	13%	13%	14%	14%	14%	14%	14%	14%	14%	14%	14%	14%	13%	13%	12%
40 - 54	27%	26%	26%	25%	24%	24%	24%	24%	23%	22%	22%	22%	23%	23%	23%	23%
55+	35%	37%	38%	38%	39%	40%	41%	42%	45%	46%	46%	48%	48%	50%	52%	54%

Source: Prepared by the KRRiT Office on the basis of Nielsen Audience Measurement data

2021 brought a further exodus of viewers aged 10-29 from traditional TV. In 2006, these people accounted for a total of one-fifth of the audience, and by 2021, only 8%. This is due to the increased activity of young people on social networks and more frequent use of video-on-demand services. Already 24 million Poles aged 16+ actively use this service. This indicator will grow as the generation changes and people , who treat the Internet and devices for its use in an intuitive and natural way[5] grow up. At the opposite end of the spectrum are people 55+, who, despite the increase in the use of VoD services (the percentage in this age group is 82%), are still the least active group in terms of time spent watching video online[6] . 26% of people in this group watch online video content several times a month, and 15% less than once a month.

Almost 30% of 16-44 year olds use online video daily. People aged 16-34 use online video most frequently and with comparable engagement (daily, several times a day, several times a week). Among people over 45, the frequency of watching online video content is slightly lower.

Chart 6. Frequency of using VoD by age (% of Internet users)



every day several times a day several times a week several times a month less than once a month

Source: Prepared by the KRRiT Office on the basis of data from *VideoTrack VI*, Wavemaker, February 2022.

[5] *Multiscreening 7, The world of new media,* 2020.
[6] *VideoTrack V* survey, Wavemaker, February 2022.

1.1.2. Television programme audiences[7]

Considering the reach, accessibility and content of TV programmes, they can be divided into the following groups:

- The so-called Big Four - national universal television channels (TVP1, TVP2, Polsat and TVN);
- other universal and specialised programmes available on terrestrial television (TVP3, TVP Info, TTV, TV4, TVN7, TV Puls, TV Puls2, TVP Kultura, TVP Historia, TVP ABC, TVP Sport, TVP Kobieta, TV6, Eska TV, Polo TV, Super Polsat, TV Trwam, Stopklatka TV, Fokus TV, Zoom TV, Nowa TV, Metro, WP, Antena HD);
- specialised programmes available on satellite platforms and in cable networks, among which programmes belonging to the three main television groups and Polish-language programmes of foreign broadcasters predominate.

In 2021, there were some minor changes in the Polish television market. In February, ATM Rozrywka ended its broadcasting, and in its place on the MUX1 multiplex, MWE Networks' new programme addressed to seniors Antena HD began broadcasting in May. Since March 2021, a new lifestyle programme TVP Kobieta has been broadcast on the MUX 8 multiplex instead of TVP Rozrywka. TVP Rozrywka is available on satellite platforms, cable networks and on a test basis on MUX 5.

Last year, programmes owned by Telewizja Polska SA TVN Discovery Polska and Telewizja Polsat Sp. z o.o. continued to play a key role.

[7] The information is based on data from a survey conducted by AGB Nielsen Media Research on a sample of the Polish population over 4 years old. This research is currently the only continuous telemetric measurement of television available on the Polish market. The structure of the research panel is constructed on the basis of data from the Central Statistical Office and results of the so-called founding survey conducted every year in two waves on a total sample of 8,000 households. Until 30 June 2021 (from 1 June 2020) the research panel consisted of 2540 households (more than 7000 people over 4 years old) located in: 800 villages, 124 cities with up to 10 thousand inhabitants, 111 cities with 10 to 19 thousand inhabitants ,111 cities with 20 to 49 thousand inhabitants, 46 cities with 50 to 99 thousand inhabitants, 22 cities with 100 to 199 thousand inhabitants, 11 cities with 200 to 499 thousand inhabitants and 5 cities with more than 500 thousand inhabitants. The households included in the panel were located in 990 municipalities (2477 all municipalities in Poland). As of 1 July 2021, the research panel was increased to 3050 households (i.e. 8200 persons over 4 years old) located in: 979 villages, 143 cities with up to 10 thousand inhabitants, 115 cities with 10 to 19 thousand inhabitants, 120 cities with 20 to 49 thousand inhabitants, 45 cities with 50 to 99 thousand inhabitants, 23 cities with 100 to 199 thousand inhabitants, 11 cities with 200 to 499 thousand inhabitants and 5 cities with more than 500 thousand inhabitants. The households included in the panel were located in 1135 municipalities.

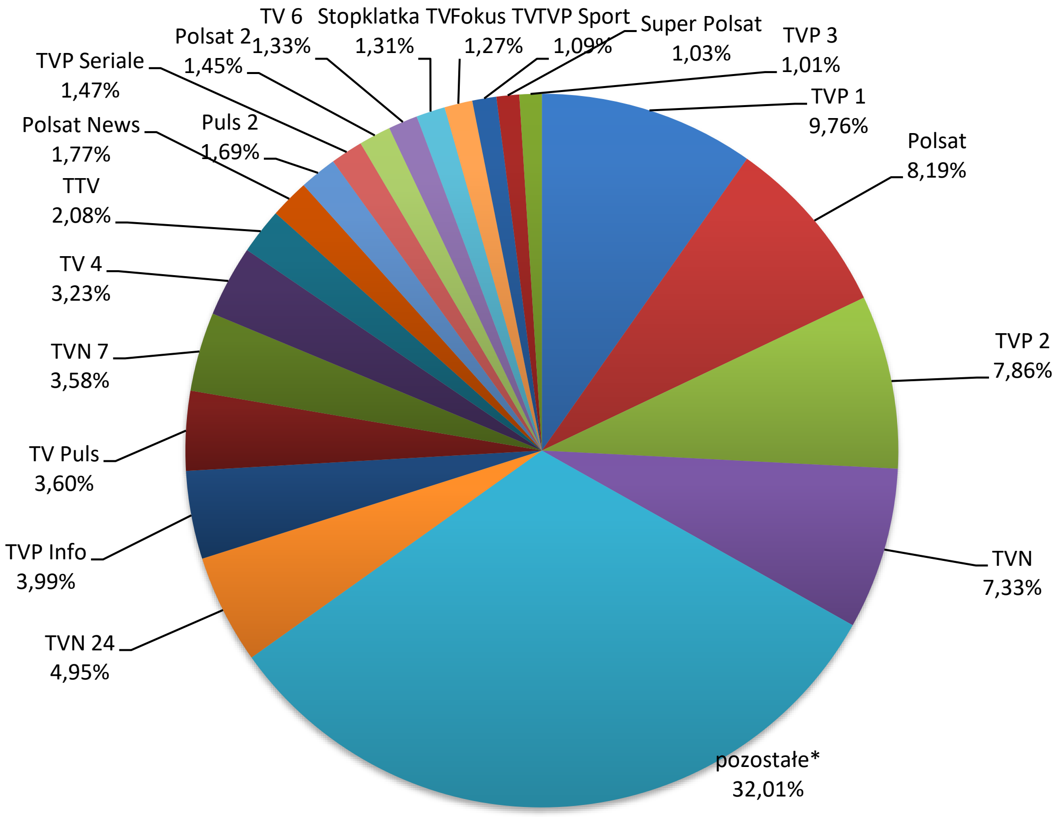
In 2021, the first place in terms of TV audience share, with an increase of 0.1 pp. or 1.03%, was held by TVP1[8] . Polsat was second in the ranking (down by 0.17 pp - 2.03%). It was followed by TVP2 (up 0.32pp - 4.24%) and TVN (down 0.16pp - 2.13%).

Despite the progressive audience segmentation resulting from an increasing number of specialised programmes and the growing popularity of VoD services, the decline in the market share of universal programmes of the so-called Big Four, observed for many years, was halted. This situation was mainly caused by an increase in audience for both programmes of the public broadcaster.

In 2021, the group of programmes with an audience market share above 1% remained at the same level (20 programmes). It was joined by TVP Sport, with TVP ABC below the threshold. The remaining programmes which did not reach the one per cent threshold accounted for a total of 32.01 per cent of the audience (1.1 percentage points more than in 2020, i.e. 3.56 per cent).

Shares below 1%, in the 0.8-0.5% range, were recorded for twelve channels (TVP ABC, TVP Historia, Polsat Play, Eurosport 1, TVN Turbo, Nick Jr, WP, Polsat Film, FOX, TV Trwam, Polsat Sport, Polo TV). On the other hand, the most numerous group below the 0.5% threshold is over 100 channels (chart below).

Chart 7. The structure of the television market in 2021 - audience shares

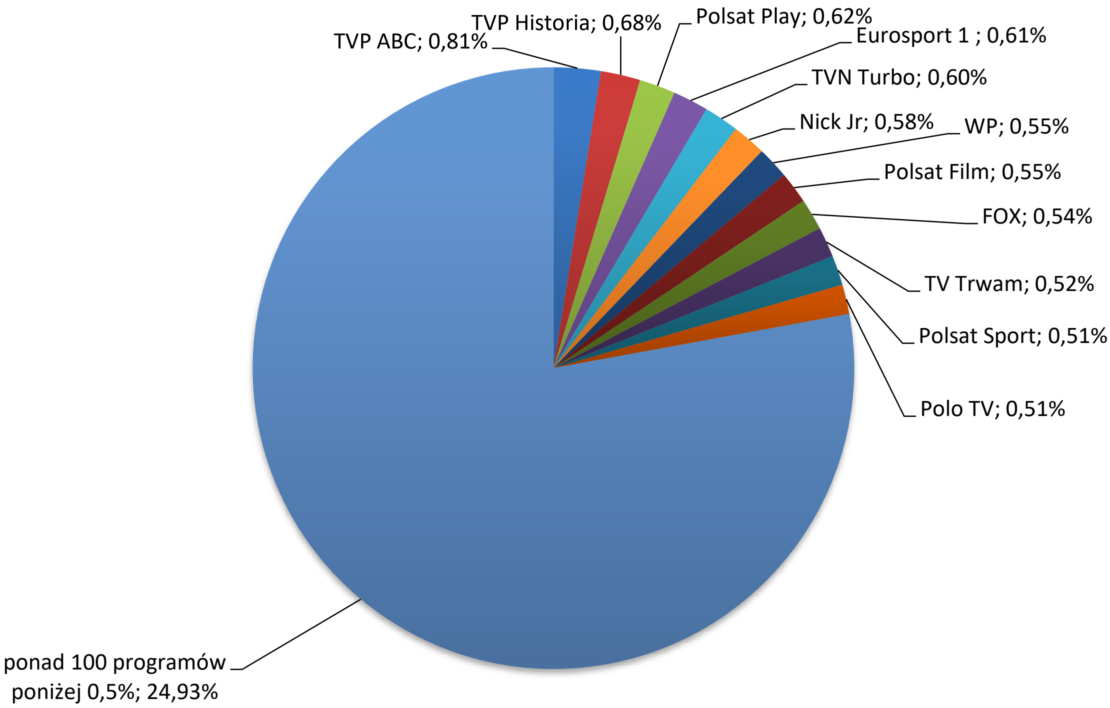


** the category "other" contains programmes with a share of less than 1%*

Source: Prepared by the KRRiT Office on the basis of Nielsen Audience Measurement data

[8] The increase or decrease in market share described in this section is the result of comparing this indicator to last year's statement, the result of which is expressed in percentage points (pp) and percentage (%).
In Tables 1 and 2 this change is shown in percentage points.

Chart 8. TV programmes with an audience share of less than 1% [9]



Source: Prepared by the KRRiT Office on the basis of Nielsen Audience Measurement data

[9] Together, these programmes account for over 32% of the market.

Table 1. Ranking of TV programmes in 2021 with a market share of more than 0.3% (indicating the direction of change compared to 2020)[10]

Lp.	Program	Widownia	Zmiana	Udział	Zmiana (pp.)	NTC
1.	TVP 1	599 995	-28 052	9,76%	0,10	MUX 3
2.	Polsat	503 682	-40 122	8,19%	-0,17	MUX 2
3.	TVP 2	483 196	-7 247	7,86%	0,32	MUX 3
4.	TVN	450 796	-36 054	7,33%	-0,16	MUX 2
5.	TVN 24	304 281	-44 179	4,95%	-0,41	
6.	TVP Info	245 444	-67 973	3,99%	-0,83	MUX 3
7.	TV Puls	221 682	-13 495	3,60%	-0,02	MUX 2
8.	TVN 7	220 405	-4 139	3,58%	0,13	MUX 2
9.	TV4	198 425	-38 365	3,23%	-0,41	MUX 2
10.	TTV	127 645	-12 826	2,08%	-0,08	MUX 1
11.	Polsat News	108 576	-23 602	1,77%	-0,26	
12.	Puls 2	103 893	-25 494	1,69%	-0,30	MUX 2
13.	TVP Seriale	90 120	-5 156	1,47%	0,00	
14.	Polsat 2	89 365	-6 276	1,45%	-0,02	
15.	TV 6	81 572	-22 185	1,33%	-0,27	MUX 2
16.	Stopklatka TV	80 613	4 741	1,31%	0,14	MUX 1
17.	Fokus TV	78 021	3 650	1,27%	0,13	MUX 1
18.	TVP Sport	67 294	24 830	1,09%	0,44	MUX 3
19.	Super Polsat	63 229	-2 862	1,03%	0,01	MUX 2
20.	TVP 3	61 895	-9 493	1,01%	-0,09	MUX 3
21.	TVP ABC	49 817	-16 546	0,81%	-0,21	MUX 1
22.	TVP Historia	41 960	5 792	0,68%	0,12	MUX 3
23.	Polsat Play	38 005	311	0,62%	0,04	
24.	Eurosport 1	37 777	10 667	0,61%	0,19	
25.	TVN Turbo	37 204	-4	0,60%	0,03	
26.	Nick Jr	35 827	-2 615	0,58%	-0,01	
27.	WP	33 765	-3 286	0,55%	-0,02	MUX 8
28.	Polsat Film	33 748	-2 686	0,55%	-0,01	
29.	FOX	33 458	4 244	0,54%	0,09	
30.	TV Trwam	32 131	-3 552	0,52%	-0,03	MUX 1
31.	Polsat Sport	31 472	12 183	0,51%	0,21	
32.	Polo TV	31 108	687	0,51%	0,04	MUX 1
33.	Zoom TV	30 005	-5 797	0,49%	-0,06	MUX 8
34.	Discovery	29 525	-1 438	0,48%	0,00	
35.	TVN Style	28 653	-1 895	0,47%	0,00	
36.	TVP HD	28 121	-2 679	0,46%	-0,01	
37.	Kino Polska	27 411	4 806	0,45%	0,10	MUX 1
38.	TVP Rozrywka	26 757	-6 197	0,44%	-0,07	
39.	TVN 24 Biznes i Swiat	25 819	-6 280	0,42%	-0,07	
40.	Polsat Cafe	24 521	1 321	0,40%	0,04	
41.	HGTV	23 848	-7 525	0,39%	-0,09	
42.	Warner TV	23 132	-488	0,38%	0,02	
43.	TVN Fabula	21 492	-2 522	0,35%	-0,02	
44.	TVP Kultura	21 429	3 417	0,35%	0,07	MUX 8
45.	Eska TV	20 132	-992	0,33%	0,01	MUX 1
46.	Polsat Comedy Central Extra	19 694	6 263	0,32%	0,11	
47.	Comedy Central	19 378	-879	0,32%	0,01	
48.	National Geographic	19 094	373	0,31%	0,02	
49.	Romance TV	18 741	2 061	0,30%	0,04	
50.	Disney Junior	18 443	-2 295	0,30%	-0,02	
51.	Cartoon Network	18 327	-2 766	0,30%	-0,02	
52.	History	18 264	-2 897	0,30%	-0,03	

Source: Prepared by the KRRiT Office on the basis of Nielsen Audience Measurement data

[10] Yellow indicates programmes available on terrestrial TV.

All of the top channels on the list above noted their audiences fall. Only the public broadcaster's programmes TVP1 and TVP2, and the licensed programme TVN7, increased their market share despite declining viewership.

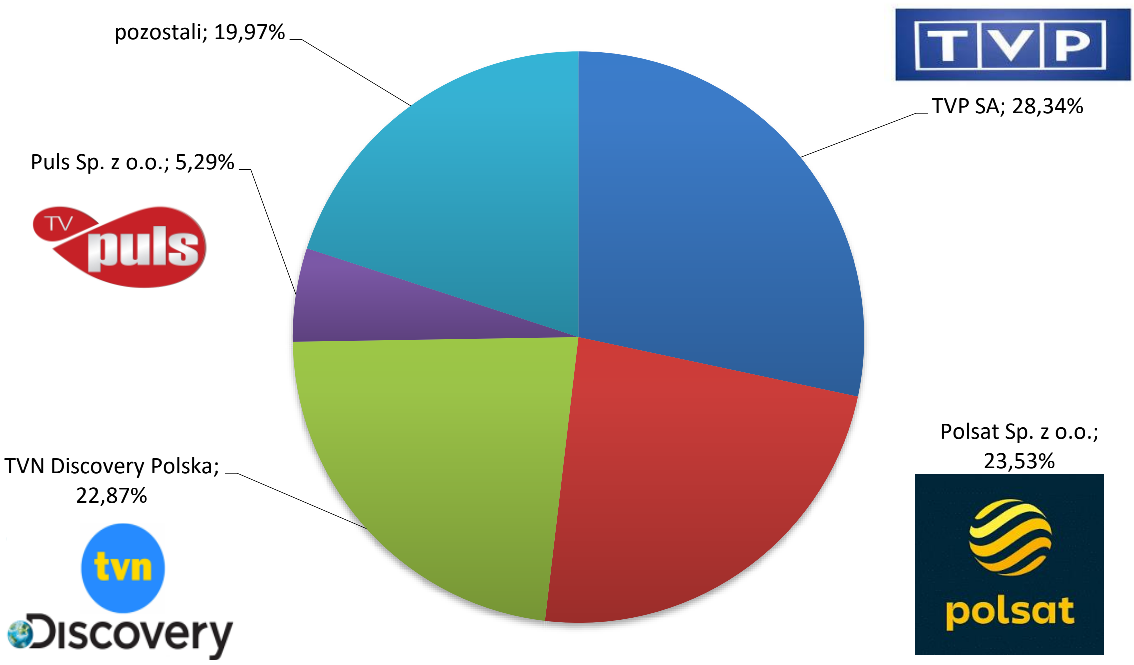
The biggest increases in market share were recorded for sports programmes: TVP Sport (up by 0.44 pp or 67.7%), Polsat Sport (up by 0.21 pp or 70%) and Eurosport 1 (up by 0.19 pp or 45.2%), which was mainly due to viewing of the broadcasts of two major sporting events, the Tokyo Olympics and the European Football Championships, held in 2021 due to the Covid-19 pandemic.

Still, around 80% of the audience market was captured by the four TV groups. The public broadcaster's TV programmes gained over 28% of the audience share, over 23.5% of this market belonged to programmes from the Polsat Group, and just under 23% to Discovery Poland's TVN.

Slightly smaller audiences than in the previous year were gathered by Puls programmes (approx. 5.3% in total), while the shares of the other broadcasters, which together gathered almost 20% of viewers, increased significantly.

The chart below shows the breakdown of the TV market by audience share of the main broadcasting groups.

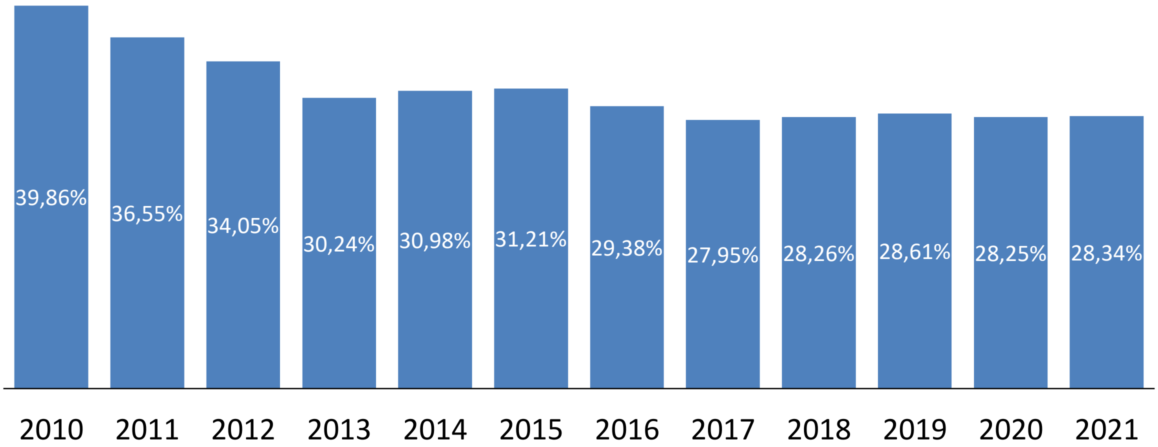
Chart 9. Audience shares by main broadcasting group in 2021.



Source: Study of the KRRiT Bureau based on Nielsen Audience Measurement

In 2021, 14 programmes of the public broadcaster (TVP 1, TVP 2, TV Polonia, TVP Info, TVP 3, TVP Rozrywka, TVP Kultura, TVP Seriale, TVP Sport, TVP HD, TVP Historia, TVP ABC, TVP Kobieta and TVP Dokument) owned a total of 28.34% of the market. Overall, public television gained 0.09 pp. Data illustrating this trend is presented in the chart below.

Chart 10. Public television's total audience market shares 2010-2021



Source: Prepared by the KRRiT Office on the basis of Nielsen Audience Measurement data

Among public TV channels, the biggest increase took place in the case of TVP Sport (by 0.44pp.). TVP2 (up 0.32pp) and the history channel TVP Historia (up 0.12pp) also recorded audience share increases. Audience declines were recorded for the news channel TVP Info and the children's channel TVP ABC (by 0.83pp and 0.21pp respectively). Detailed data on all public programmes, together with the change in relation to 2020, are presented in Table 2.

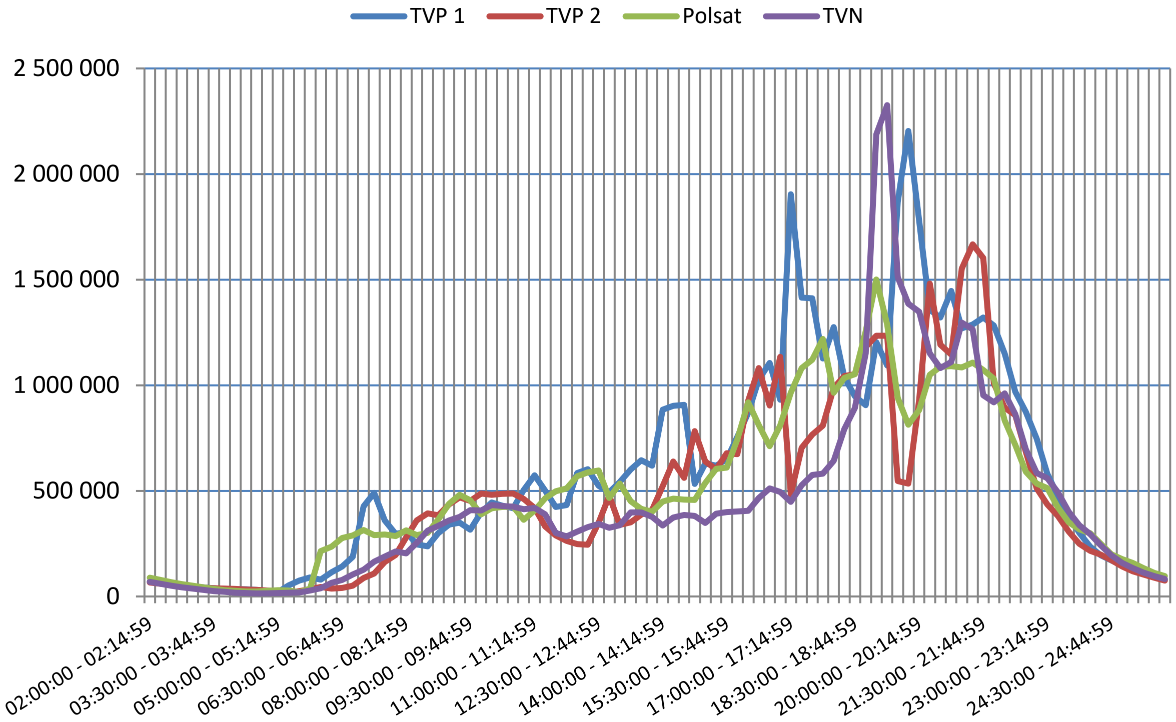
Table 2. Average audience and shares of public television programmes in 2021.

Lp	Program	AMR	SHR %	Widownia	Zmiana	Udział	Zmiana pp	NTC
1.	TVP 1	628 047	9,66%	599 995	-28 052	9,76%	0,10	MUX 3
2.	TVP 2	490 443	7,54%	483 196	-7 247	7,86%	0,32	MUX 3
3.	TVP Info	313 417	4,82%	245 444	-67 973	3,99%	-0,83	MUX 3
4.	TVP Seriale	95 276	1,47%	90 120	-5 156	1,47%	0,00	
5.	TVP Sport	42 464	0,65%	67 294	24 830	1,09%	0,44	MUX 3
6.	TVP 3	71 388	1,10%	61 895	-9 493	1,01%	-0,09	MUX 3
7.	TVP ABC	66 363	1,02%	49 817	-16 546	0,81%	-0,21	MUX 1
8.	TVP Historia	36 168	0,56%	41 960	5 792	0,68%	0,12	MUX 3
9.	TVP HD	30 800	0,47%	28 121	-2 679	0,46%	-0,01	
10.	TVP Rozrywka	32 954	0,51%	26 757	-6 197	0,44%	-0,07	
11.	TVP Kultura	18 012	0,28%	21 429	3 417	0,35%	0,07	MUX 3
12.	TVP Polonia	10 974	0,17%	11 580	606	0,19%	0,02	
13.	TVP Kobieta	0	0,00%	9 364	9 364	0,15%	0,15	MUX 8
14.	TVP Dokument	200	0,00%	5 160	4 960	0,08%	0,08	
	Ogółem	1 836 506	28,25%	1 742 132	-94 374	28,34%	0,09	

Source: Prepared by the KRRiT Office on the basis of Nielsen Audience Measurement data

The Big Four (TVP1, TVP2, Polsat and TVN) remained the most popular channels between 6 p.m. and 11 p.m., even though *prime time* for the individual channels was subject to individual shifts.

Chart 11. Daily audience of TVP1, TVP2, Polsat and TVN in 2021.



Source: Prepared by the KRRiT Office on the basis of Nielsen Audience Measurement data

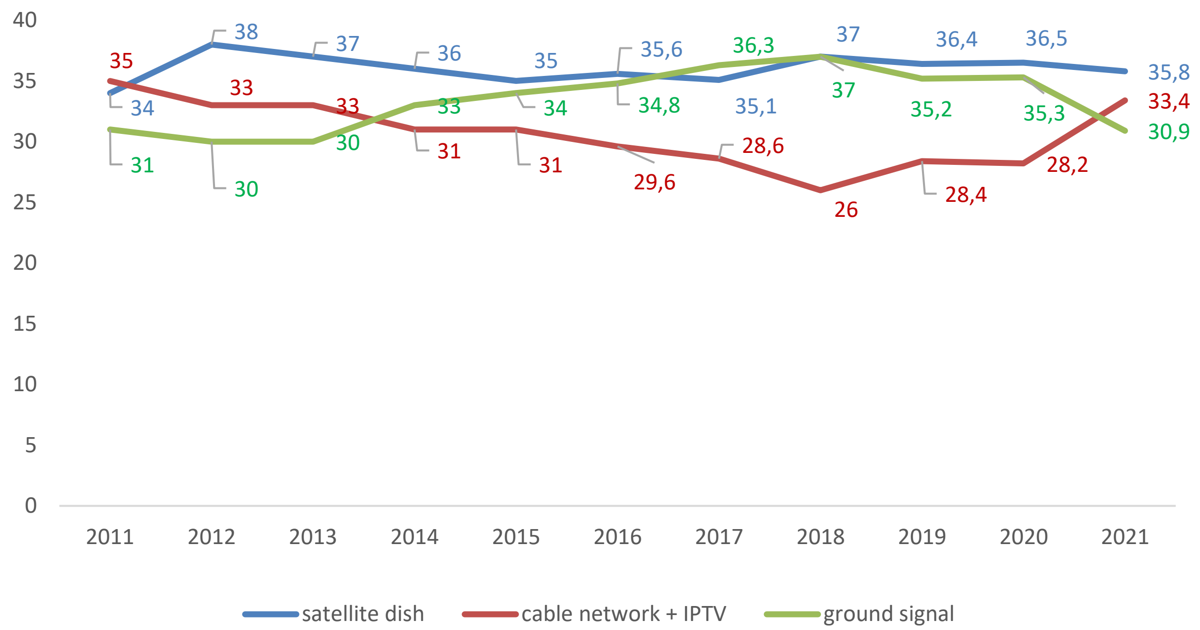
As in previous years, TVP1 saw its highest ratings increase at 5.00pm and 7.30pm (*Teleexpres* and *News*), and TVP2 between 8.00pm and 10.00pm (TV series). TVN and Polsat also had the highest average daily viewing figures at 6.50pm (Polsat's '*News*') and 7.00pm (TVN's '*Facts*'), as well as after 8.00pm (Polsat's film slot) and after 9.00pm (TVN's series and films).

1.1.3. Content reception devices

Television is still the most important medium in Poland, with 95.6% of households equipped with a TV set in 2020[11] . In 2021, the percentage of households using pay TV (satellite or cable) also increased (to 67%), what indicates that the Polish market is relatively immune to the phenomenon of *cord-cutting*.

[11] In previous years, the share was: 2015 - 96,8%, 2016 - 96,4%, 2017 - 95,2%, 2018 - 97,1, 2019 - 95,9%. CSO, *Statistical Yearbook of the Republic of Poland* 2016, 2017, 2018, 2019, 2020, 2021.

Chart 12. Polish TV households by source of linear TV signal (in % of households)



Source: Prepared by the KRRiT Office on the basis of Nielsen Audience Measurement data

In turn, a survey conducted by the National Media Institute (NMI) shows that the most commonly used signal source for watching TV is cable (35%), followed by terrestrial (31%) and satellite TV at 29%[12].

In almost 12.4 million households (85%), traditional television is watched (i.e., watching programmes live, according to a TV listings). Television is watched more often in households with at least two persons and more often in households where the technological leader is over 53 years old[13].

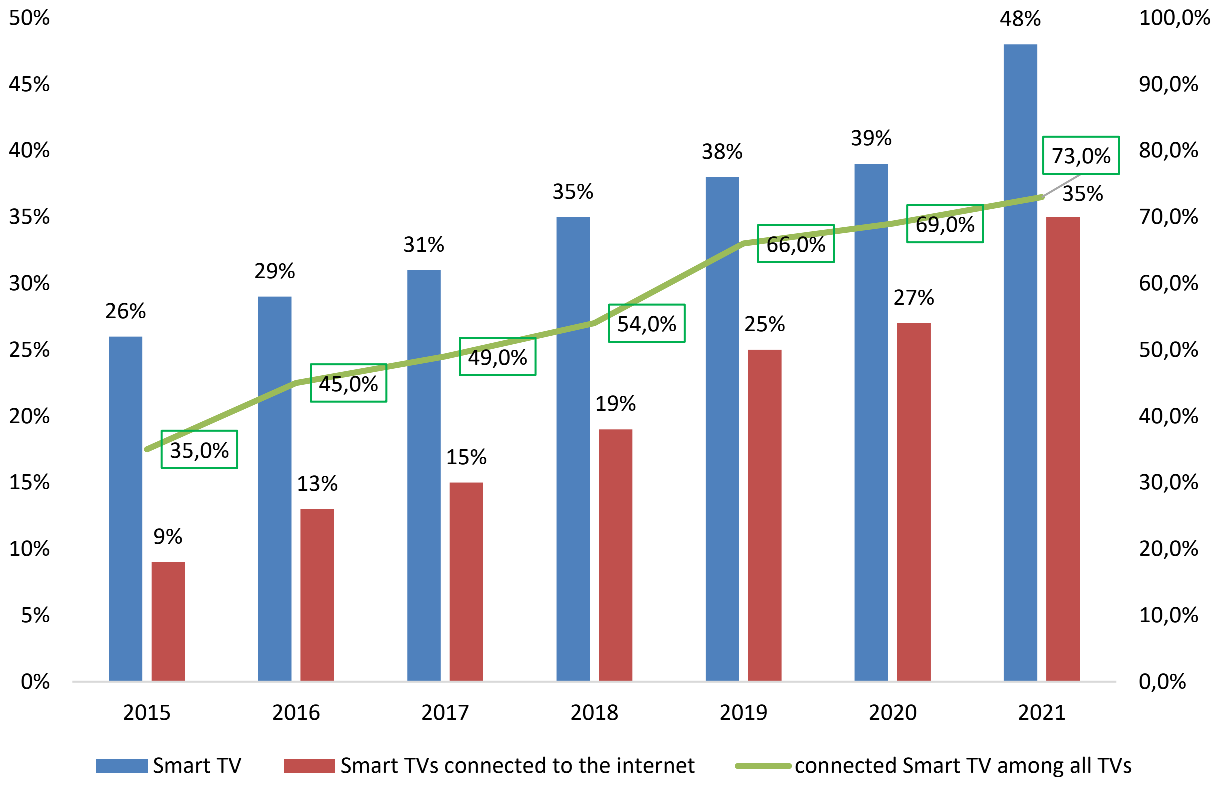
Annual sales of TVs in 2021 amounted to around 2.1 million units, which is slightly lower than in the previous year (sales of around 2.2 million units). However, there is a steady increase in the number of TVs with Smart functionality, i.e. with network connectivity, which gives access to video streaming applications via an internet connection. In 2021. 35% of households had a Smart tv connected to the internet, what constitutes an increase of 8% compared to 2020.

Not everyone, however, connects the appliance to the Internet - 48% of Polish households have a TV set with Smart function, but almost one in four of them (24%) has not connected itto the Internet. As the main reasons Poles pointed out: lack of knowledge and competence, lack of infrastructure and fear of costs[14] .

It is predicted that sales of internet-connected TVs may increase in 2022 due to the change in the standard of terrestrial television broadcasting, which for some households will involve the replacement of the TV set with a more modern one.

[12] National Media Institute (NMI), survey conducted in 2021 on a sample of 2,000 households.
[13] idem.
[14] Nielsen, *Videonauts, how viewers navigate a world of multiple screens, content, media,* Syndicated report, January 2022.

Chart 13. TV households with a Smart TV device

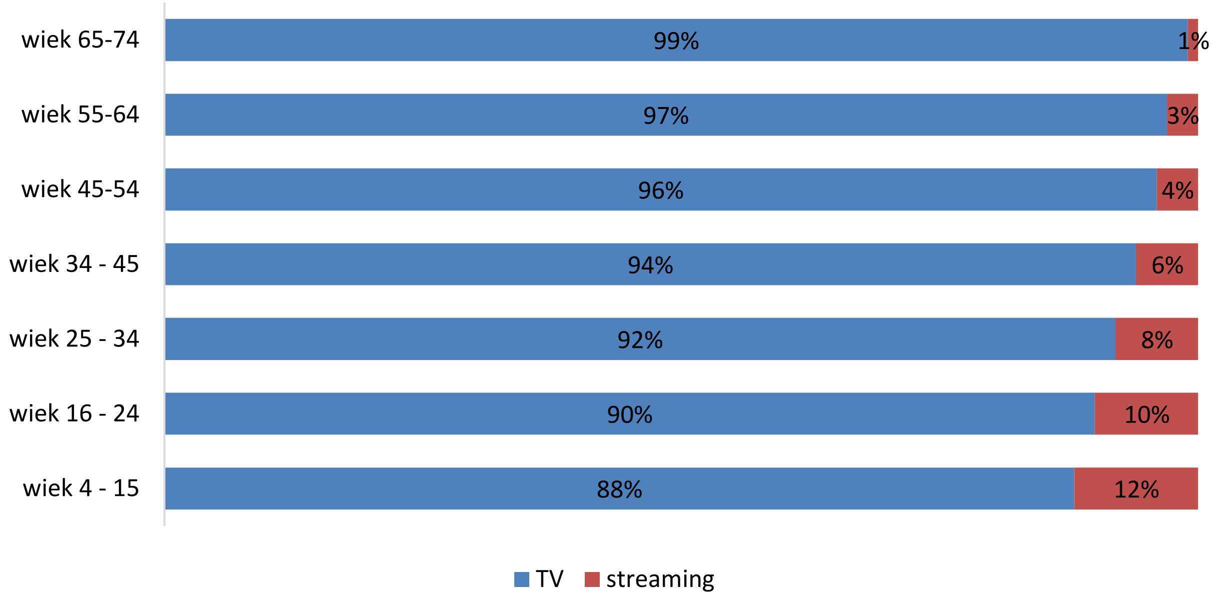


Source: Nielsen, *Videonauts as viewers navigate a world of multiple screens, content, media,* Syndicated Report, January 2022. Establishment Survey 2015-2021, N=8000/wave (in 2020 N=6000) Basis for percentage: TV households

Although linear TV dominates both traditional TV and those with Smart features, analysts believe that the growth of Smart tv will consistently contribute to the weakening of the traditional TV market.

The streaming function on Internet-connected TV screens is most often used by people aged 4-34, who spend on average 10% of their time on streaming. It can be assumed that as more groups of "digital natives" grow up, this percentage will increase.

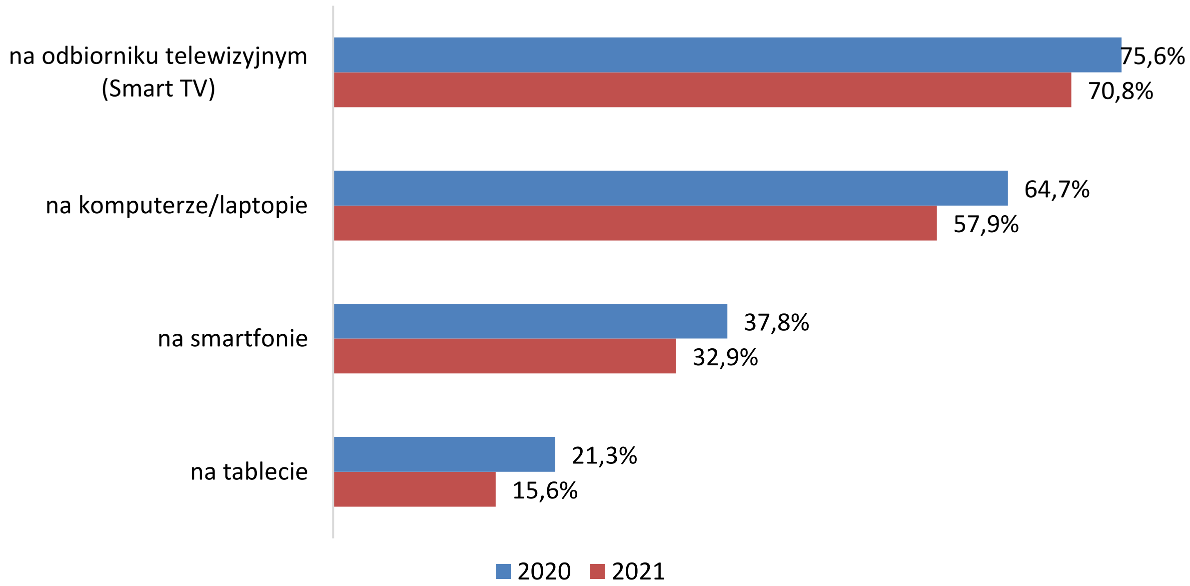
Chart 14. Share in viewership on TV screens connected to the Internet



Source: : Prepared by the KRRiT Office on the basis of Nielsen report, *Videonauts as viewers navigate a world of multiple screens, content, media,* Syndicated report, January 2022. Data comes from Nielsen's telemetry panel taking into account the measurement of streaming in the home internet network.

According to the PMR report, a vast majority of Polish households watch VoD content on TV (almost 71%), followed by computers/laptops (58%), what is related to the comfort of watching video content.

Chart 15. Households watching VoD content in Poland, by device

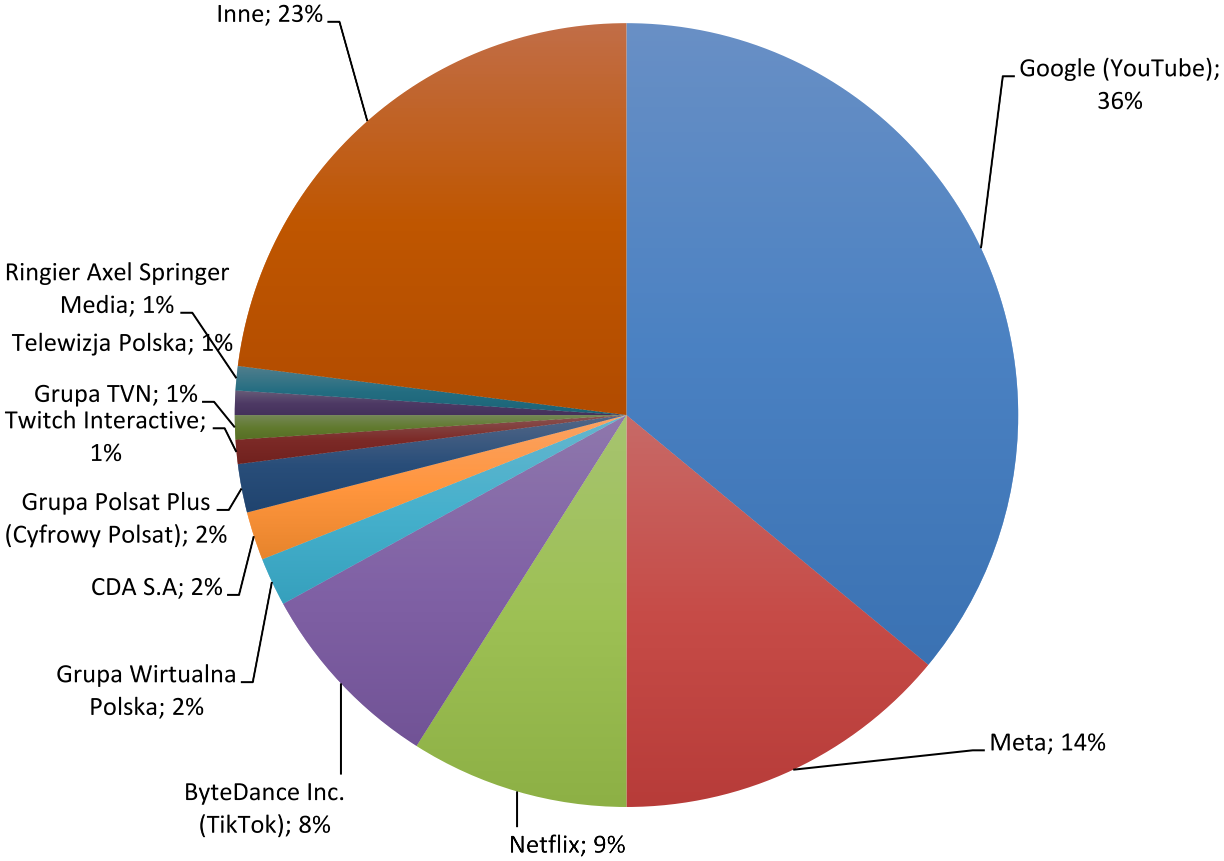


from up to down: on Smart TV, on PC/laptop, on smartphone, on tablet

Source: PMR, *Pay TV and VoD services market in Poland*, 2021

Poles spend on average 40 minutes a day streaming video content (on various devices), and 52 minutes per statistical Pole in the 16-49 age group. Invariably, the most popular platforms are Google (YouTube), Meta Platforms (Facebook and Instagram), as well as Netflix and ByteDance (TikTok), which have respectively - 36%, 14%, 9% and 8% market share in the 4-74 age group[15] .

Chart 16. Online video viewership by ownership group in the 4-74 age group

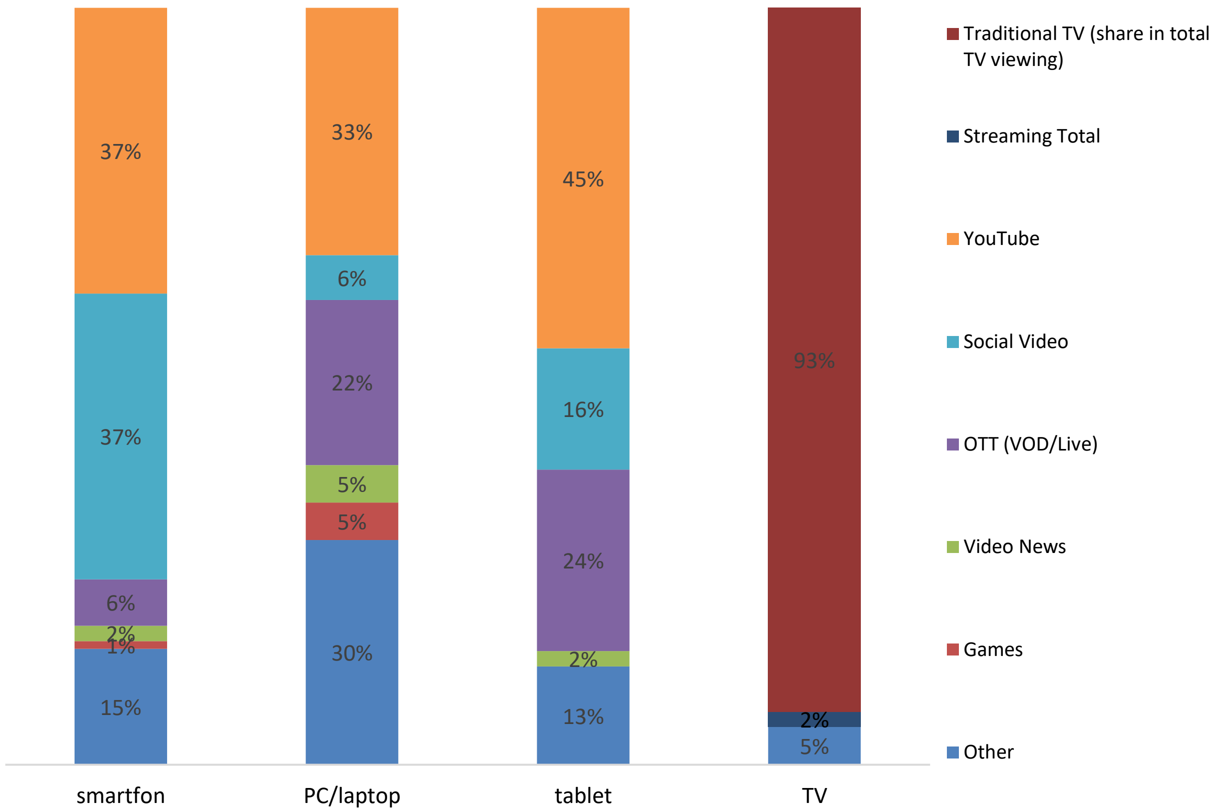


Source: : Prepared by the KRRiT Office on the basis of Nielsen report, *Videonauts as viewers navigate a world of multiple screens, content, media,* Syndicated report, January 2022. Data comes from Nielsen's telemetry panel taking into account the measurement of streaming in the home internet network.

The smartphone is mainly used for streaming YouTube and social media, the PC/laptop and tablet mainly for streaming YouTube and, to a lesser extent, long OTT content. TV, on the other hand, is used overwhelmingly for watching traditional TV (93%), with streaming accounting for only 2% of total viewing. The majority of streaming time (over 58%) is for long OTT content such as movies and series. This is due to comfort and convenience - the bigger the screen, the more comfortable it is to watch long forms of video.

[15] Nielsen, *Videonauts as viewers navigate a world of multiple screens, content, media,* Syndicated report, January 2022.

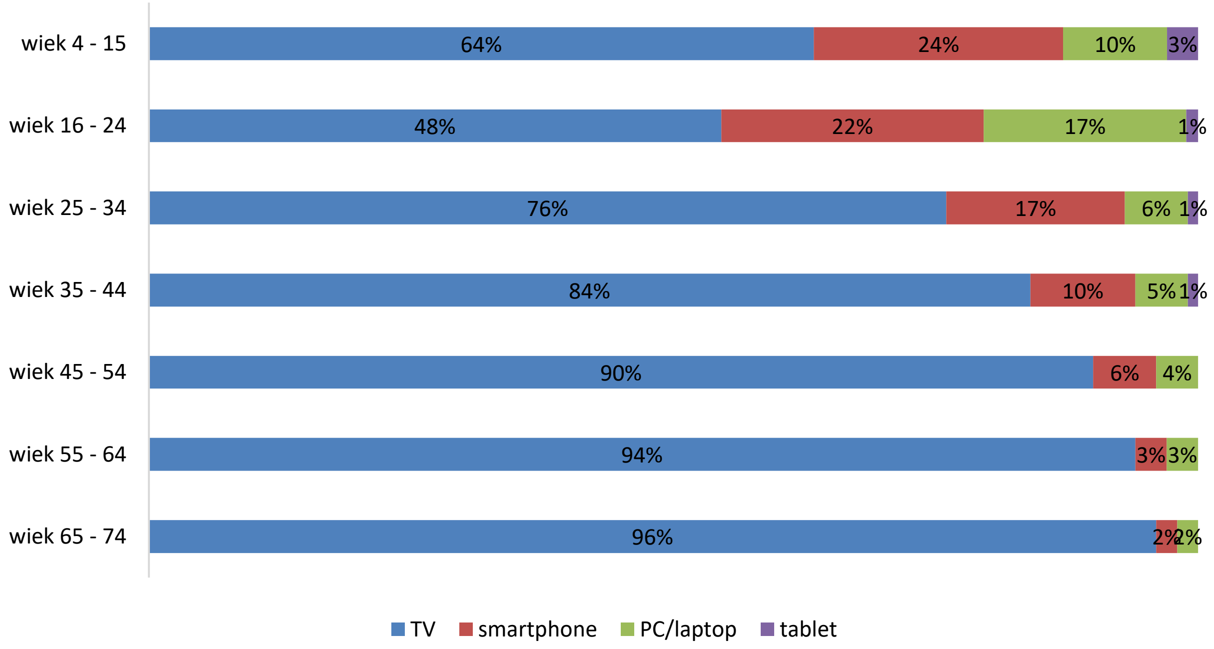
Chart 17. Share of different types of video in viewership on 4 screens



Source: : Prepared by the KRRiT Office on the basis of Nielsen report, *Videonauts as viewers navigate a world of multiple screens, content, media,* Syndicated report, January 2022. Data comes from Nielsen's telemetry panel taking into account the measurement of streaming in the home internet network.

Characteristically, the younger the group, the more time they spend watching video on smaller screens. Those aged 16-24 are most interested in watching content on mobile screens.

Chart 18. Share of screens in home video viewing by age group



Source: Nielsen, *Videonauts - how viewers navigate a world of multiple screens, content, media,* Syndicated report, January 2022. Data is from Nielsen's telemetry panel taking into account home internet streaming measurement.

Study on the readiness of households for the new terrestrial TV signal DVB-T2/HEVC

A quantitative study carried out by the National Media Institute (KIM)[16] showed a low level of awareness of the upcoming change of the standard among the Polish population (awareness at the level of 27% of those receiving DTT signal, of which 15% of households were able to indicate at least one effect of the change). At the same time, 2.27 million of households using only the terrestrial signal source did not have DVB-T2/HEVC TV sets in the surveyed period.

[16] National Institute of Media (NIM), a quantitative study conducted on a sample of 1,000 households and a qualitative study including ethnography (*Bulletin Board Discussion*) - a moderated online community with 36 technology leaders in households across Poland and 6 FGIs with people over 60 using different TV sources. The research was conducted between July and October 2021. NMI will continue in 2022 to quantitatively measure households' readiness for the change to the DVB-T2/HEVC broadcasting standard, as well as the visibility of the awareness campaign on this topic.

Chart 19. Willingness to change the broadcasting standard to DVBT2/ HEVC

Source: National Media Institute

Households unprepared for the new terrestrial TV signal were less well equipped and consisted mainly of older people with lower purchasing power.

Viewing on several screens (multiscreening)[17]

The ever-increasing range of content and technological developments in terms of the availability of devices, encourage people to engage in different viewing activities at the same time. Multiscreening, i.e. using multiple screens simultaneously, is a phenomenon common to people of different ages. 83% of people use additional devices while watching TV, more often women (85%) and people in the 15-24 age group (91%).

For years, four devices have played the biggest role in multiscreening - TV, computer (usually a laptop), tablet and smartphone.

While watching TV, viewers are most likely to use a smartphone (75%) or a laptop (48%). A third of internet users (31%) simultaneously play games on another device while watching TV.

Distractions and activities on another device occur most often while watching news programmes, advertising blocks and TV series. Additional activities on another screen are undertaken least often while watching educational programmes or documentaries.

Watching content out of home

With technological developments and the emergence of smartphones, users' viewing habits have begun to change, as well as where and how they watch content. Thanks to mobile Internet, widespread wifi and the wide availability of devices for the reception of content (smartphones, tablets), viewers are increasingly less restricted by the place and time of access to their favourite media. They can watch them anytime and anywhere. Such access is an attractive solution for viewers, 72% of whom aged 16-74 declare that they sometimes watch video content outside their homes[18] .

The most viewed sites are: YouTube (73%), social networks - Facebook/Instagram/TikTok (67%) and TV (58%). The social context dominates as the place of viewing - with family (56%) or friends (52%).

[17] Data for 2020 *Multiscreening 7* The *world of new media*, 2020
[18] Nielsen, *Videonauts as viewers navigate a world of multiple screens, content, media,* Syndicated report, January 2022.

The third most common occasion for consuming video content outside the home is commuting/travelling (44%)[19] .

1.1.4. Watching on demand - VoD services[20]

The Broadcasting Act, amended in August 2021, which implemented the Audiovisual Media Services Directive 2018/1808, extended the existing regulations for VoD services and introduced regulations for video sharing platforms (VSPs), which also include the VoD services described in this chapter.

VoD providers have been obliged to notify their services to a list maintained by media regulators. The obligation also covers authors who conduct audiovisual activity and publish their works on video sharing platforms (e.g. YouTube, TikTok or Facebook, etc.). The KRRiT is obliged by European regulations to provide information on all audiovisual services under Polish jurisdiction, including on-demand services, to the European Audiovisual Observatory, which publishes data collected from 41 European countries and Marocco in the MAVISE database.

The obligation to report to the list maintained by the KRRiT (National Broadcasting Council)[21] applies only to those entities that conduct business activity, i.e. carry it out for profit, continuously and in an organised manner (Article 5 of the Business Law), and their monthly income exceeds PLN 1505 gross[22] .

In assessing whether a service is a VoD service, it is important to determine whether:

- the service is available as part of a business activity;
- The catalogue of VoD services can be separated from the rest of the service;
- access is additional or complementary to the principal activity.

Until 1 November 2021. KRRiT maintained a list of VoD service providers on its website based on a platform allowing these entities to log in. The information provided by these entities was voluntary and aimed at facilitating mutual communication between the authority and the service providers. The list included 125 VoD service providers, which could be divided into the following categories:

- services provided by television broadcasters, including separately for each programme;
- services run by pay TV operators with nationwide and local coverage;
- services run by various institutions;
- services run by press and web portal publishers.

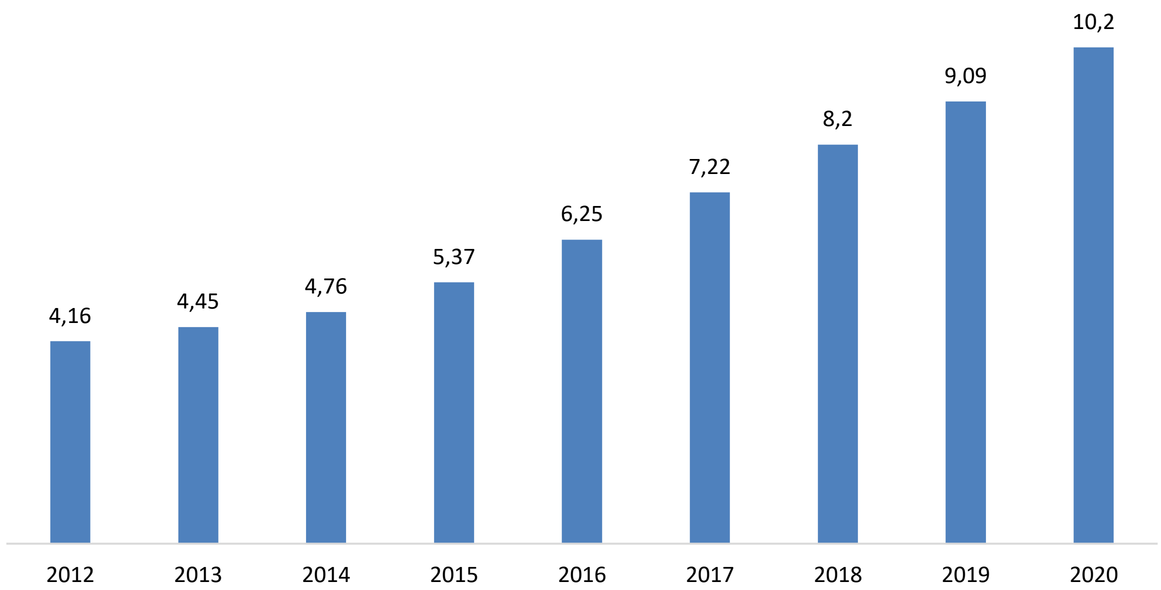
In 2021, there has been an increase in the popularity of existing VoD services, although the market growth rate has been slowing over the past three years due to increasing saturation with services, mainly in the free model. At the same time, the popularity of paid services (SVoD) is increasing, which is

[19] Nielsen, *Videonauts as viewers navigate a world of multiple screens, content, media,* Syndicated report, January 2022.
[20] When describing this part of the market KRRiT cites current data available at the time of preparing the current *Information*. These are often data for 2020 and, where possible, for 2021.
[21] https://www.gov.pl/web/krrit/formularze-zgloszenia-o-wpis-do-wykazow
[22] According to Article 5 of the Act of 6 March 2018. Entrepreneurs' Law does not constitute business activity performed by a natural person whose income due from this activity does not exceed in any month 50% of the amount of the minimum remuneration (currently it is PLN 1505) referred to in the Act of 10 October 2002 on the minimum remuneration for work (Journal of Laws of 2018, item 2177 and of 2019, item 1564), and who did not perform business activity during the last 60 months.

related to the growing habit of Poles to pay for online video content. It is estimated that users paying for access constitute about 57% of Internet users[23] . The increase in popularity of paid services is due to unique content, original series, on which large budgets are spent.

The majority of users (65%) prefer a monthly subscription, 13% indicate an annual subscription as the preferred model for paying for films and series online. 5% consider paying for a single programme or series episode as the most convenient form of access to paid content, 4% for a package of episodes, and 3% each for a weekly and daily subscription[24] .

Chart 20. Number of households in Poland using VoD services in 2012-2020 (in millions)



Source: PMR, *Pay TV and VoD services market in Poland in 2021. Market analysis and development forecasts for 2021-2026*

The number of households using both free and paid VoD services in 2020 was 10.2 million[25] . The share of paid services in the total VoD market is above the share of free services.

4.5 million households use only free VoD services, although this number may be higher, as it is common to use both models simultaneously. It is estimated that one in ten households uses only paid services, bringing the number of households using free VoD to around 9 million.

These data indicate that the penetration rate of these services is about 70% of all households and 77% of households with Internet access, which may indicate a certain maturity of the market.

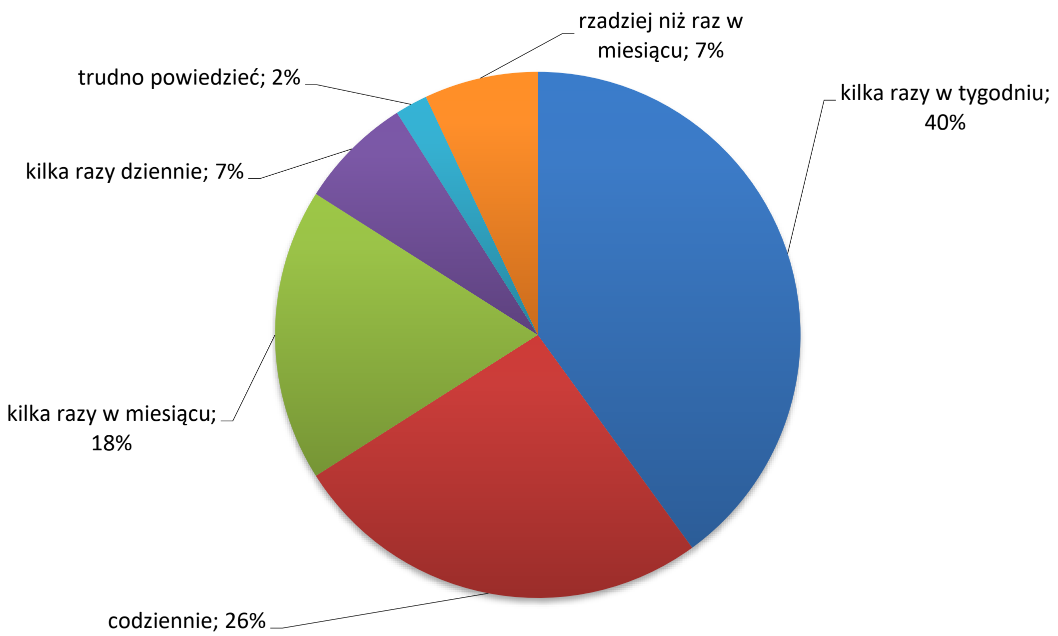
[23] *VideoTrack VI* survey, Wavemaker, February 2022.
[24] idem.
[25] The number of users is slightly higher at around 11 million. This is due to the effect of several SVoD subscriptions per household. PMR, *Pay TV and VoD market in Poland. Market analysis and development forecasts for 2021-2026.* According to CSO data, there are 14.9 million households in Poland, including 3.9 million single-person households (2019).

Netflix is the dominant paid service in Polish households. Most Polish households pay between PLN 31 and 50 per month for VoD services, and the range of spending between PLN 30 and 100 indicates different strategies for constructing a VoD offer[26] .

In 2021, two global video providers merged, i.e. AT&T Group (owner of HBO channels, CNN and HBO Max service) with Discovery Group (owner of TV stations and services such as Discovery+, Player). Viaplay, a streaming service combining world-class sports content, original productions and Hollywood films and series, was launched in Poland. The previous streaming service Ipla.tv has been replaced by Polsat Box Go, which offers more than 100 TV channels, films, series, entertainment, sport and various thematic packages - with its own content and content from external providers - for a fee. This means that users of Ipla.tv will no longer be able to use some of the content free of charge.

A study by *Wavemaker* found that the pandemic favours TV and video viewing, although viewing frequency rates were down slightly in 2021 compared to the previous year: around 26% of households used VoD catalogues daily and 40% several times a week[27] .

Chart 21. Frequency of using VoD services in Poland



every day several times a day several times a week several times a month less than once a month it's hard to say

Source: Prepared by the KRRiT Office on the basis of the *VideoTrack VI*, Wavemaker, February 2022

7% of Internet users use VoD services several times a day, the same number uses them less than once a month. Every third user spends up to an hour a day watching VoD, and half say it takes them 2-3 hours. *Prime time* in VoD overlaps with television, which means that these media compete with each other for viewers' time and attention. People aged 16-24 and 25-34 use online video most often. Those 45+ use it the least often, a few times a week at most.

[26] Nielsen, *Videonauts. How viewers navigate a world of multiple screens, content, media,* Syndicated Report, January 2022.
[27] *VideoTrack VI* survey, Wavemaker, February 2022.

Ampere Analysis data shows that there were 6.015 million subscriptions to streaming services in Poland at the end of 2021. They reached 29% of the population. The average household with such platforms paid for 1.5 services. The value of the streaming market in Poland was EUR 350 million, while the value of the pay TV market (cable networks, satellite platforms, IPTV operators) was as high as EUR 1.920 billion[28] .

The most popular VoD service among Poles is Netflix, which is used by around 86% of households with access to VoD services in general. In the previous year this indicator was 70%. The increased activity in this segment can be explained by further *lockdown* caused by the Covid-19 pandemic.

In Q4 2021. Netflix was visited by 9.6 million Polish users, giving it over 30% reach[29] . At the end of 2021 Netflix had 2.5 million subscriptions. This is significantly less than the number of internet users using the service each month. Many users share a subscribed account with family, friends and even strangers. In the standard package, the platform can be used by two people at a time, and in the premium package - by four people. Within one account it is possible to create five profiles with their own playlists. In practice, however, it happens that one subscription is used by more people, provided that none of them spends all day on the website[30] .

The authors of some analyses claim that Netflix will invest in Polish content. Earlier, besides the United States, Netflix clearly started to invest in productions from South Korea, Mexico and South America. A characteristic feature of the company's strategy is that productions from other companies or broadcasters are bought first, then individual productions of its own are made available, until they are introduced on a large scale[31] . Projections indicate that Netflix will order 16 titles in Poland over the next two years, including four original films. Companies such as Banijay Group and ITV Studios estimate that Poland will join the significant markets producing series in the world. Analysts indicate that Netflix sees potential in Poland comparable to countries in Western Europe or Latin America.

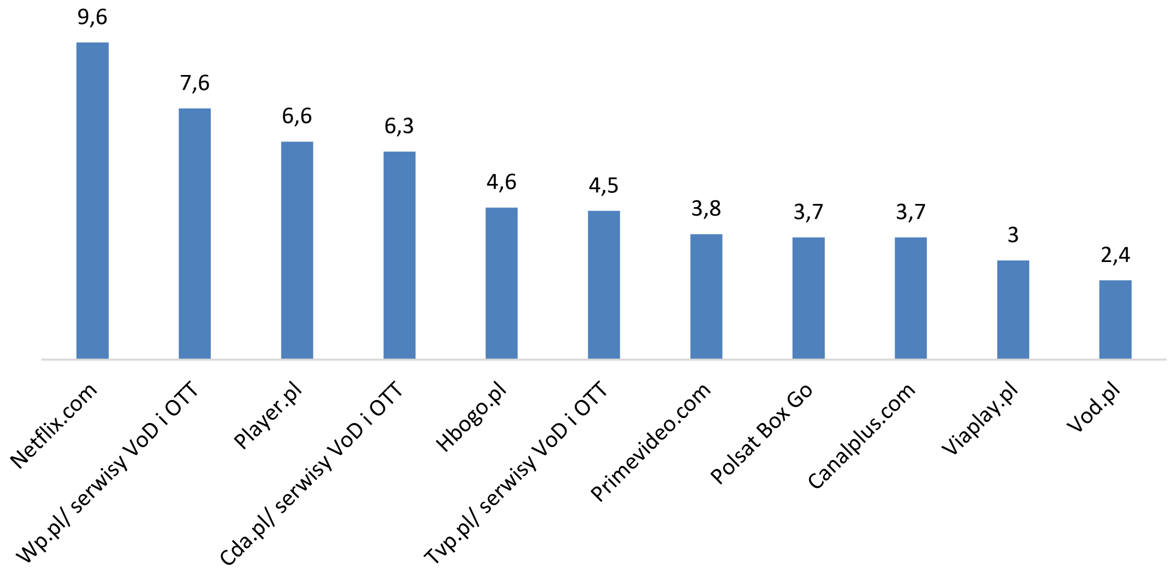
Another streaming service valued by Polish users is Hbogo.pl, which is used both within the framework of a pay TV operator's subscription, as well as by paying directly for a VoD service. Also popular are services that offer some content for free, e.g: Player, TVP.pl or until August 2021. Ipla.tv.

The Polish market of VoD services, despite a considerable number of players present on it, is still capable of absorbing new players. In the context of the premiere of Disney+ and SkyShowtime services in 2022, the question of demand for new content may arise. A PMR study[32] shows that 8 out of 10 households would be willing to use another new service. The diversity of content offered by individual services, mainly subscription-based, and the availability of original productions on an exclusive basis are important. A large group of respondents, i.e. approx. 73%, does not rule out replacing the currently subscribed service with a new one, should it appear on the market.

[28]https://www.wirtualnemedia.pl/artykul/viaplay-ampere-analysys-polska-serwis-streamingowy-netflix-amazon-prime-video-hbo-max
[29] Internet user reach - an indicator expressing the ratio of the number of Internet users, who visited a selected website (group of websites) in a specified period of time, to the total number of Internet users using the Internet in a specified period of time. The indicator is expressed as a percentage.
[30]https://www.wirtualnemedia.pl/artykul/jakie-serwisy-streamingowe-w-polsce-ceny-oferta-jak-zamowic-liczba-uzytkownikow
[31] www.wirtualnemedia.pl/artykul/platforma-streamingowa-netflix-filmy-seriale-raport-ampere-analysis-polska
[32] The survey was conducted in June 2021 on a sample of 1,000 households.

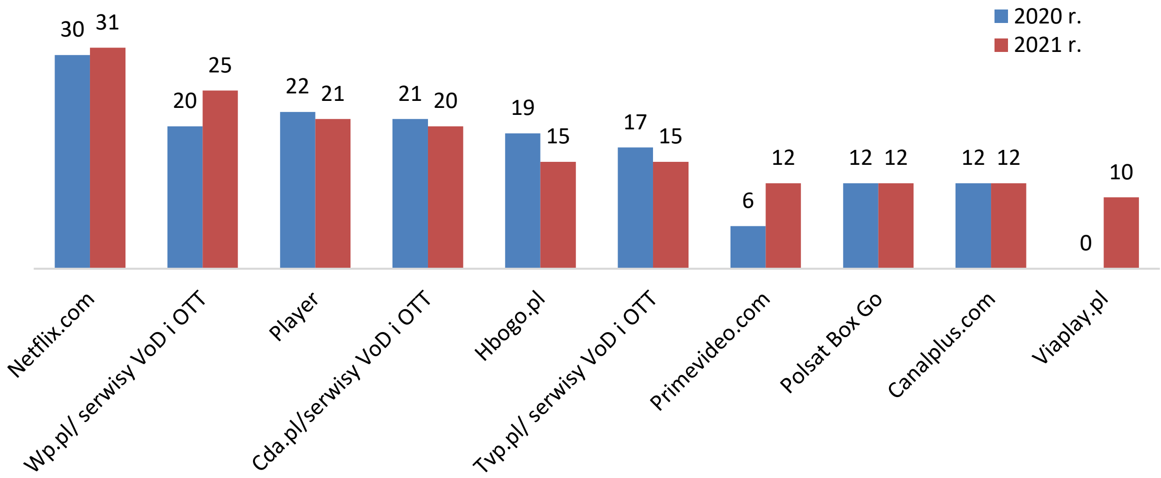
Data for Q4 2021 for VoD services with the highest indicators (number of users, time, reach) are presented below[33] .

Chart 22. The most popular VoD services - users (in millions)



Source: Prepared by the KRRiT Office on the basis of Gemius/PBI data, Q4 2021.

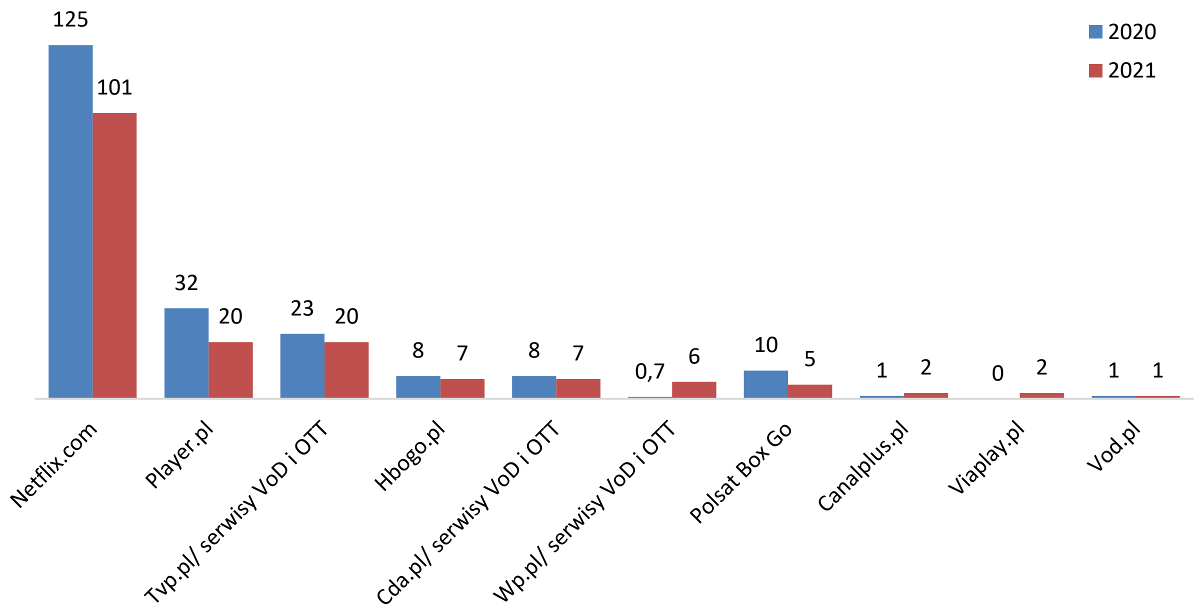
Chart 23. The most popular VoD services - reach (percentage)



Source: Prepared by the KRRiT Office on the basis of Gemius/PBI data, Q4 2021. Coverage does not add up to 100 due to co-viewing sites

[33] Mediapanel is a website and application audience measurement provided by Gemius and Polskie Badania Internetu. It has been the standard internet measurement on the Polish market for over 15 years. The results of the study provide knowledge about the number of Internet users who access this medium using PCs, phones or tablets. It also provides knowledge about the time they spend on the Internet and the number of page views (events consisting in loading a web page) and related facts.

Chart 24. The most popular VoD services - time in millions of hours[34]



Source: Prepared by the KRRiT Office on the basis of Gemius/PBI data, Q4 2021.

In the top ten (in terms of users, reach and time spent using the service), apart from Netflix, is also Wp.pl, which recorded 7.6 million users and 25% reach. Player.pl recorded 6.6 million users and 21% reach, Cda.pl - 6.3 million visitors and 20% reach, Hbogo.pl - 4.6 million users and 15% reach, Tvp.pl - 4.5 million users and 15% reach, and Primevideo.com - almost 3.8 million users and 12% reach.

It is worth noting that Tvp.pl maintained, as in 2020, the third position, after Netflix and Player.pl, in terms of time spent by users on the service.

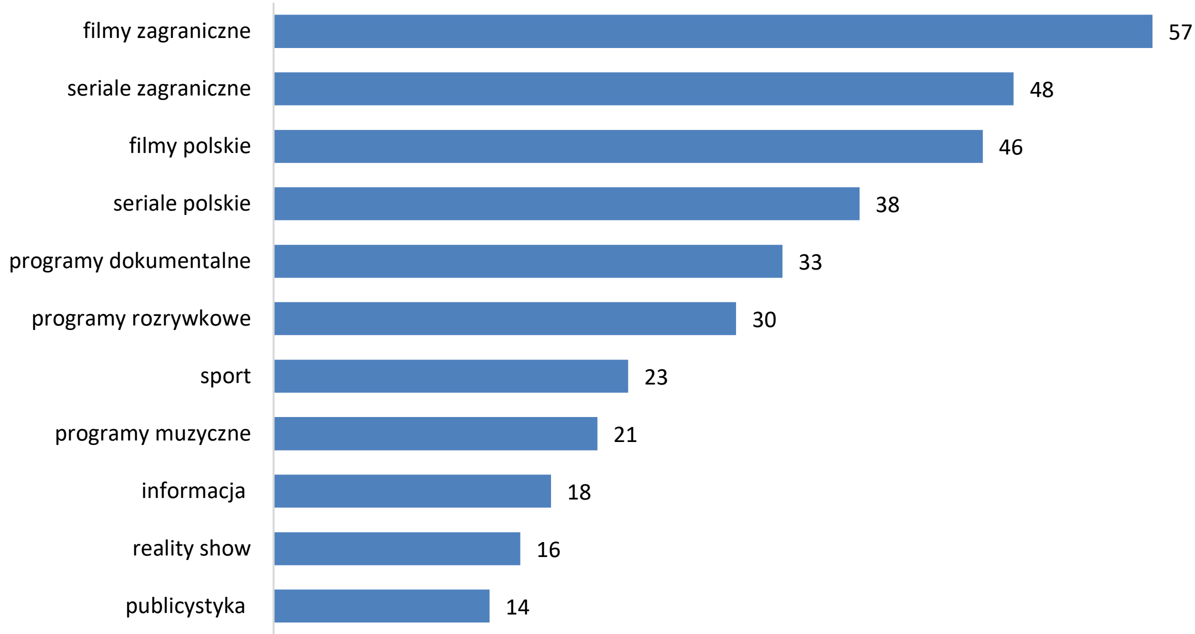
VoD content

Foreign films and series are the most watched VoD content, with Polish series' viewership falling from 44.4% in 2020[35] to 38% in 2021, which can be explained by the large number of foreign productions and a slightly lower number of Polish series premieres on services such as Netflix or Hbogo.pl. Other genres, such as documentaries or entertainment programmes, also recorded declines. Among young people, *reality show* content is very popular. News and journalism are watched by 18% and 14% of VoD customers, respectively.

[34] The total time spent by visitors in Q4 2021.101 million hours, for example, should be divided by 9.6 million users (Netflix), which means that an average internet user spent 10.5 hours on this service in Q4 2021.

[35] The *Information* for 2020 set this value at 44.8%. This was an estimate. The final year value was 44.4%, which is the same as stated in this *Information*.

Chart 25. Most popular VoD content (percentage of Internet users)



From up to down: foreign movies, foreign TV series, Polish movies, Polish TV series, documentaries, entertainment, sport, music, news, reality show, current affairs programs

Source: Prepared by the KRRiT Office on the basis of *VideoTrack VI*, Wavemaker, February 2022.

Some television and radio broadcasters allow their users to upload pictures, texts and video files to a specially marked directory on the broadcaster's portal. In accordance with current regulations, e.g. TVN24, TVP Info, RMF, they may be published both on the broadcaster's website and on Kontakt24, TwojeINFO, RMF FM Hotline. Editorial responsibility for updating, publishing or moderating content in catalogues lies with the broadcasters.

Internet channels on You Tube

VoD services are also provided by so-called creators on video sharing platforms (VSP). They provide a service on the platform (in particular on YouTube), creating conventional on-demand content offered in the form of catalogues, the so-called channels. Among the most popular in Poland in terms of the number of subscriptions are Blowek, Stuu, reZigiusz, Bazylland[36] . Two thirds of young YouTube users watch materials by specific creators (66% among 16-24 year-olds), and among 25-34 year-olds it is almost half (48%). They even subscribe to dozens of channels simultaneously. 26% of young users subscribe to between 11 and 50 channels and 17% to more than 50[37] . The number of channels subscribed to is a hallmark for young people, even though they actively watch content from around 10-20 sources.

Growing popularity of legal VoD sources

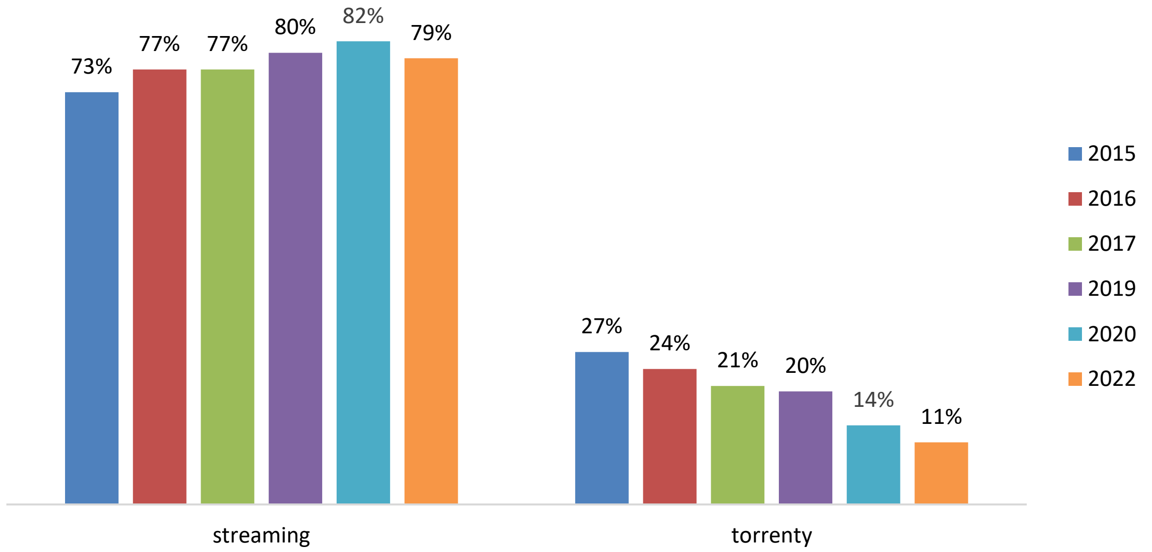
2021 will be another year of decline in the popularity of torrents in sourcing video content online. In 2015, long video content was obtained from illegal sources by 27% of Polish internet users, and in 2022 - 11%. The downward trend in sourcing content from illegal sources, which has persisted for several

[36] https://apynews.pl/ranking-youtuberów

[37] Nielsen, *Videonauts. How viewers navigate a world of multiple screens, content, media,* Syndicated Report, January 2022.

years, may indicate that thanks to the increasing number and availability of VoD services, Poles are becoming more convinced of legal sources for which the offer has to be paid.

Chart 26. Acquisition of long-form video content via torrents and streaming services - percentage of Internet users



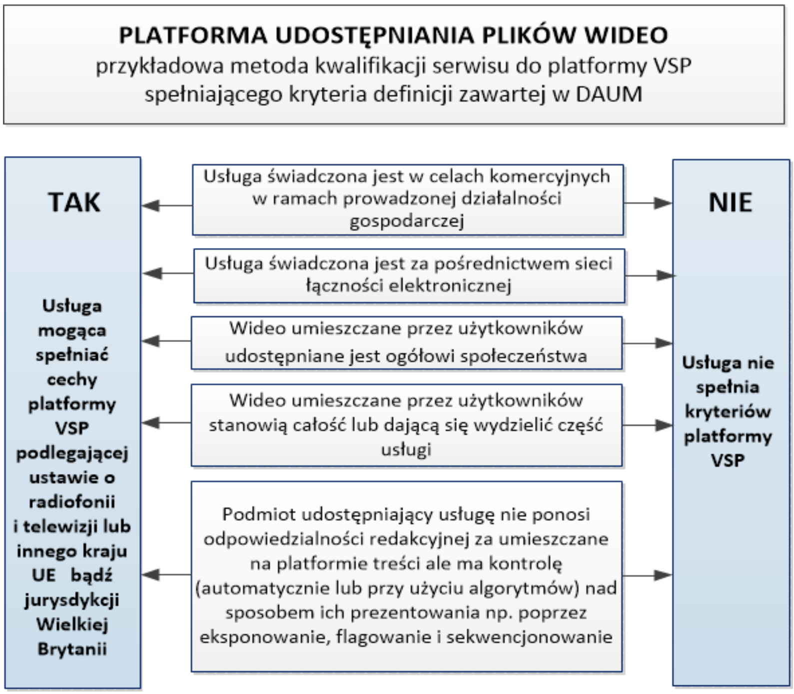
Source: Prepared by the KRRiT Office on the basis of *VideoTrack VI*, Wavemaker, February 2022.[38]

1.1.5. Video-sharing platforms

The amended Audiovisual Media Services Directive 2018/1808, in addition to regulating VoD services (see Chapter 1.1.4 Watching on demand - VoD services), also introduced into the Polish legal system regulations governing *video sharing platform* (VSP) providers, i.e. providers of those services whose main feature is to allow internet users to upload and share films with others. In addition to provisions related, inter alia, to the protection of viewers from content inciting violence and hatred, linked to terrorism or child sexual abuse, racism and xenophobia, and additionally, in the case of minors, from content that may harm their physical, mental or moral development, VSP providers subject to Polish jurisdiction are required to notify the Chairman of the National Broadcasting Council of their services.

[38] The graph shows the status as of February 2022. The survey was not conducted in 2021.

Chart 27. Characteristics of the VSP platform



Source: Prepared by the KRRiT Office

By May 2022, the aforementioned list included 13 video sharing platforms (VSPs) belonging to 8 of the following entities:

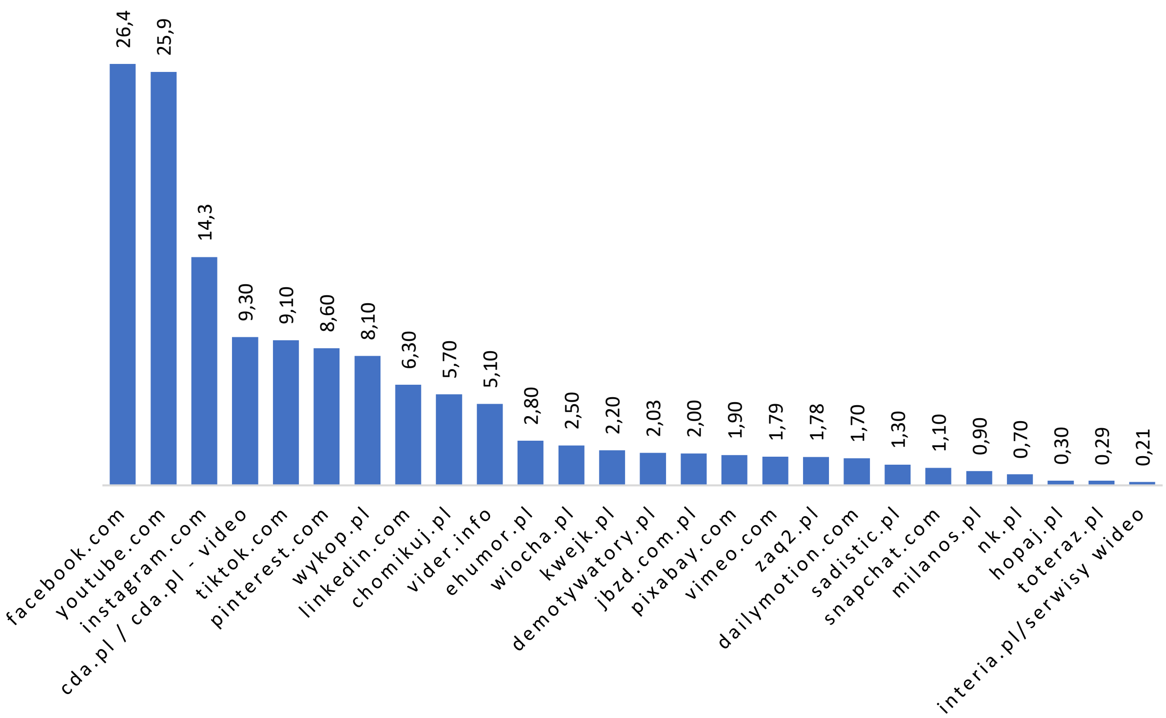
- BANBYE - Niezależne Polskie Media Sp. z o.o.
- CDA.PL - CDA S.A.
- DEMOTIVATORS - MSI Mariusz Składanowski
- MKLR - MSI Mariusz Składanowski
- JOEMONSTER - MSI Mariusz Składanowski
- KWEJK - Cube Investments Sp. z o.o.
- JBZD - Cube Investments Sp. z o.o.
- SADISTIC - Cube Investments Sp. z o.o.
- VIDER - PBR Sp. z o.o.
- ZAQ2 - PBR Sp. z o.o.
- CONTROLLED - SPECLAB Szymon Kłos
- WIOCHA.PL - of.pl Sp. z o.o.
- HRABI.TV - NOONATAQ Joanna Nogieć

The obligation to notify has not yet been fulfilled by several platforms, which should be subject to the Polish regulator due to their jurisdictional criteria and operational model indicating that they meet the definition of a VSP platform (cf. the Broadcasting Act, Art. 1a par. 5-6 and Art. 4 par. 22a)[39].

[39] Article 4(22a) of the TFEU: "A video-sharing platform is a service provided electronically in the course of a business, where the principal purpose or function of that service or a separable part thereof is to provide the general public with programmes, user-created video or other content for informational, entertainment or educational purposes, for which the provider of the service has no editorial responsibility, but which the provider decides on the manner of its aggregation, including automatically or by algorithms, in particular by displaying, flagging and sequencing.

Among the most popular Polish VSP platforms is Cda.pl, which recorded over 9 million users at the end of last year. This places it in fourth place among the most popular platforms, after Facebook, YouTube and Instagram. Still remaining popular are wykop.pl, chomikuj.pl, ehumor.pl or wiocha.pl, whose number of users ranged from 8.12 million (wykop.pl) to 1.31 million (sadistic.pl).

Chart 28. Websites meeting all or part of the VSP platform characteristics (million users)



Source: Prepared by the KRRiT Office on the basis of Gemius/PBI data, Q4 2021.

The chart above does not present all services that can meet the criteria of VSP platforms. The chart does not include websites with audience below the threshold of 0.2 million users and those which, due to the dynamics of the market, may have emerged recently or changed their business model.

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(5) A video-sharing platform provider shall be deemed to be established in the territory of the Republic of Poland if it has its registered office in the territory of the Republic of Poland. (6) A video sharing platform provider established in the territory of the Republic of Poland shall also be deemed to be a video sharing platform provider which does not have its registered office in the territory of the Republic of Poland, but has a parent entity in the territory of the Republic of Poland within the meaning of Article 3 (1) (37) of the Act of 29 September 1994 on accounting (Journal of Laws of 2021, item 217), a branch within the meaning of Art. 3 point 4 of the Act of 6 March 2018 on the principles of participation of foreign entrepreneurs and other foreign persons in economic turnover in the territory of the Republic of Poland (Journal of Laws of 2021, items 994 and 1641) or a representative office as referred to in Article 21 of that Act, or a subsidiary referred to in Article 3 section 1 point 39 of the Act of 29 September 1994 on accounting, unless it has: 1) the registered office in the territory of another EU Member State; 2) a parent company in the territory of another EU Member State established before the establishment of the parent company in the territory of the Republic of Poland, provided that the relation of that company established in the territory of another EU Member State with the economy of that country is actual and permanent; 3) a branch, representative office or other subsidiary in the territory of another EU Member State established before the establishment of the branch, representative office or subsidiary in the territory of the Republic of Poland, provided that their relation with the economy of that country is actual and permanent."

However, across the group of VSP platforms where users upload their videos, Facebook, YouTube and Instagram are consistently the most popular. The average internet user, in Q4 2021, spent more than 18 hours on them on average, resulting in a reach of 86%[40] .

In the case of Facebook, as the IRCenter *Multiscreening 7* study, *The World of New Media 2020,* indicates, entertainment in the form of funny videos ranks second in terms of user activity on this platform.

Most users of the above-mentioned websites look for video content published by vloggers or youtubers (16-24 and 25-34 year-olds are the two groups most likely to follow youtubers[41]), but pranks (humorous videos), news videos or instructional videos are also popular. For this reason, YouTube is the undisputed leader in video forms. Last year it was used by almost three quarters of Internet users. Most were under 40, from medium-sized cities, looking for videos on cooking, hobbies or sports. Viewers watch their favourite videos most often on mobile phones (56%) and computers (27%)[42] . 53% of YouTube users indicate that the main advantage of this service is access to the content posted there anytime and anywhere. Another large group (51%) appreciates the possibility to listen to music. In third place are diversity (43%) and easy searching for content (43%). Respondents who use YouTube indicate that they most often do so to relax (61%), to watch something in line with their interests (52%) or for educational purposes (44%). The latter function, i.e. using the site as a source of learning, is most often emphasised by people aged 55-75 years old[43] . However, the main strength of this platform is free access to music. For 58% of YouTube users, music, clips or concert broadcasts are the basic content watched on the website[44] .

Travel-related content is also becoming increasingly popular, especially the category known as 'vanlife', i.e. exploring the world in a van. There is also an increase in content that allows people to participate in a social event, such as a 'party'[45] . An interesting phenomenon that will grow in importance is the popularity of podcasts. Entertainment and industry podcasts are of particular interest.

The past year also favoured TikTok, which saw an increase in users of almost 4 million (from around 5 million users in 2020 to 9 million in 2021). Experts point out that the increased popularity was most likely due to a prolonged pandemic, as "young people bored with remote learning and parents struggling with the logistics of everyday life were looking for easy entertainment, becoming creators themselves on occasion"[46] . For these groups it was also a form of reaching out to others with a message about the pandemic, such as sharing fears, anxieties or experiences. TikTok content is most often viewed on a smartphone. This form of consumption was declared by 97% of respondents, among whom young people aged 4-15 and 16-24 predominate[47] .

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[40] PBI, *Internet users and consumption of audiovisual content.*
[41] Nielsen, *Videonauts. How audiences navigate a world of multiple screens, content, media,* October 2021.
[42] idem.
[43] Nielsen, *Videonauts. How audiences navigate a world of multiple screens, content, media,* October 2021.
[44] idem.
[45] idem.
[46] IRCenter, *Multiscreening 7, New media world* 2020.
[47] Nielsen, *Videonauts. How viewers navigate a world of multiple screens, content*, *media,* Syndicated Report January 2022.

Table 3. video content watched online (2019 vs 2020)

Video content viewed on the Internet		
Category	**Year 2020**	**Year 2019**
Videos of vloggers/youtubers	25%	22%
Pranks/humorous videos	24%	22%
News/information video	24%	22%
Instructional videos	23%	21%
Trailers	23%	20%
Educational video	23%	20%
Video on new technologies	20%	18%
Video on cosmeceuticals and beauty	19%	18%
Cartoons	17%	15%
Automotive video	17%	14%

Source: IRCenter*, Multiscreening 7, New Media World 2020*

Table 4. Video content viewed on YouTube in 2021.

Topics of video content watched on YouTube in 2021	
category	**% of viewers**
Music, video clips	58%
Instructional material	39%
Films related to hobbies	33%
Entertainment material	31%
Popular science curiosities	30%
Cooking/nutrition	30%
Technological innovations	23%
Cartoons	20%
Documentary films	17%
Nature films	17%

Source: Nielsen, *Videonauts. How viewers navigate a world of multiple screens, content, media,* Syndicated Report, January 2022.

The popularity of short-form video, material created not only by brands but also by ordinary users, is growing year on year, especially in situations of danger and social isolation. This is why regulation of these content distribution channels is becoming so important.

By virtue of the amended Audiovisual Media Services Directive and its implementation into national law, the KRRiT, similarly to other audiovisual market regulators from EU member states, was given the authority to regulate video sharing platform (VSP) providers, including keeping the list of entities that meet the characteristics of a VSP platform. The first experiences of the KRRiT and European regulators, resulting from the new regulations as a consequence of the changing media ecosystem, indicate that the responsibility for digital services will be one of the more difficult duties, especially those related to their effective enforcement. The main challenges relate to large, cross-border platforms where the video uploaded by users constitutes the whole or a large, separable part of the service. This is because their impact on society through content moderation, algorithmic processes or advertisements placed is very high. In order to develop an effective model of supervision of the obligations resulting from the implementation of the aforementioned directive by these providers, the relevant national regulatory authorities are strengthening their cooperation within the European Regulators Group for Audiovisual

Media Services (ERGA) and developing tools for the exchange of information and mutual assistance as part of the *ERGA Memorandum of Understanding.*

Enforcement of regulations introduced into the Polish legal system and addressed to platforms with smaller, national coverage will be primarily carried out with the use of 'soft law' tools (e.g. summonses, information). In the case of repeated infringements, after a thorough analysis of the services , the KRRiT will be able to use a number of administrative powers granted to it under the Broadcasting Act.

1.2 The market of audio content consumers in 2021

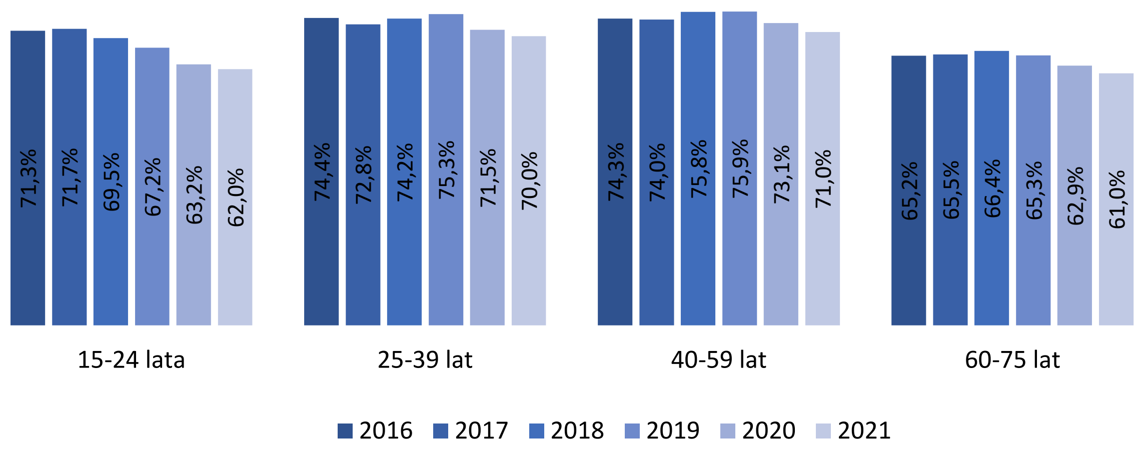
1.2.1. The audience

In 2021, radio in Poland was listened to daily on average by 20.1 million (67.2%) people in the age group of 15-75 years, devoting on average 4 hours and 19 minutes to it. As indicated by the Radio Track Kantar Polska study, prepared by the "I love radio" service[48] , this means that almost every third recipient had the radio on for at least 6 hours a day[49] .

The most numerous group of radio listeners are adults aged 25-59. In this group, around 70% of people are radio listeners. On the other hand, in the age groups 15-24 and 60-75 this percentage is just over 60%. However, there is a significant drop in listenership in the former group, which over six years has reached 9 percentage points. This indicates a clear, albeit slow, change in the reception of this medium.

In turn, a survey conducted by the National Media Institute (NMI) shows that radio is received in 11.2 million households (77%). Indeed, households with at least two persons, with children under 18 and with a slightly higher average net income[50] are more likely to use this medium.

Chart 29. Percentage of radio listeners in age groups



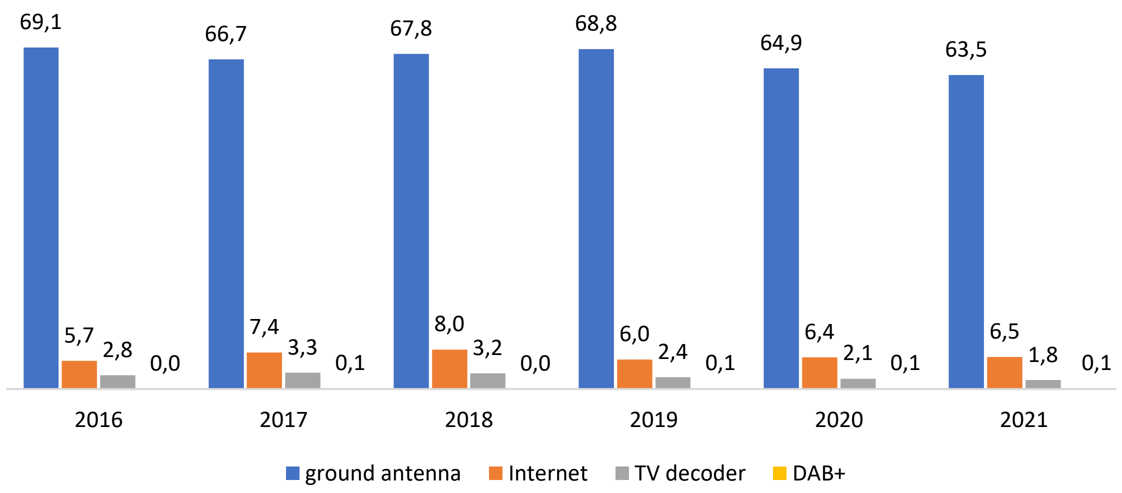
Source: Prepared by the KRRiT Office on the basis of *Radio Track* research, Kantar Polska SA

[48] https://iloveradio.pl/raport-radio-2021-podsumowanie-sluchalnosci-radia-raport/
[49] https://iloveradio.pl/raport-radio-2021-podsumowanie-sluchalnosci-radia-raport/
[50] National Media Institute (NMI), survey conducted in 2021 on a sample of 2,000 households.

In recent years, many radio reception options have become available to listeners. Apart from FM, the recipients can listen to their favourite radio programmes available on the Internet, in DAB+ and via a TV decoder. However, as the chart below shows, Poles most often listen to radio via a traditional radio receiver, with the number of users of this method of radio reception decreasing year on year (similarly to the number receiving this medium via a TV decoder).

Internet radio's audience is growing very slowly. After a peak in 2018 and a decline in 2019, the number of listeners of this platform, in the last two years, is at a level of no more than 6.5%. On the other hand, the least listeners use the digital terrestrial radio platform.

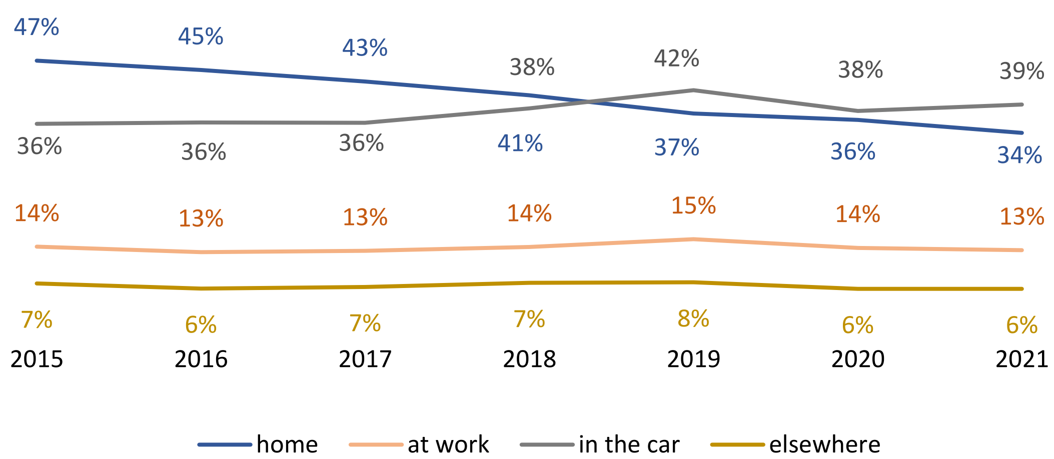
Chart 30. Radio listening in Poland in 2016-2021 by signal source (% of listeners)



Source: Prepared by the KRRiT Office on the basis of *Radio Track* , Kantar Polska SA

In 2021, the largest percentage of Poles (39%) listened to the radio in the car. This trend has remained unchanged for almost three years. In second place is listening to the radio at home, with the percentage of these listeners decreasing year on year - in 2015 it was 47% of listeners, and in 2021 - only 34% (down 13 pp). Only 13% of listeners listen to radio at work.

Chart 31. Location of radio listening (percent of listeners)

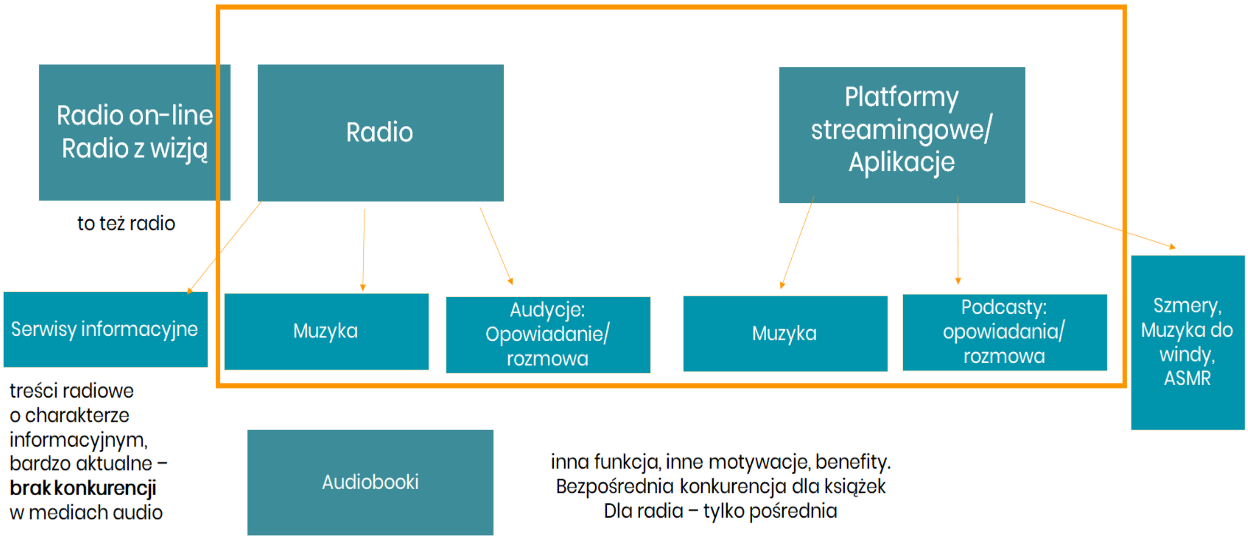


Source: Prepared by the KRRiT Office on the basis of *Radio Track* research, Kantar Polska SA

The above review indicates that although radio still has a fairly strong position, discreetly accompanying audiences throughout the day, the engagement of linear radio listeners has been declining year on year over the past six years (2016-2021). Increasingly widespread access to internet-connected devices offers an unlimited choice of content, which is mainly used by young people, most often opting for audio-on-demand services rather than listening to live radio. The future of radio will be shaped by its dual-platform nature - terrestrial broadcasting, which is still valued by a very large group of listeners, especially older people living in areas with limited internet infrastructure, and digital services, where IP services will play a significant role.

In December 2021, as part of the National Media Institute's (NMI) Foundational Research, an extrapolated qualitative study was conducted on listening to audio content, including radio[51] .

Chart 32. Map of audio categories



Source: National Media Institute

Chart 33. Distinguishing features of radio

Source: National Media Institute

[51] The study was carried out using the technique of in-depth individual online interviews (IDI). Sixteen online IDIs were conducted throughout Poland. People listening to various audio content were invited to the interviews. The qualitative study complements the knowledge about radio available through the quantitative measurement in the Foundational Study. The study was designed to understand the contemporary phenomenon of listening to audio content including answering the questions: what is 'listening' in general, what do we 'listen to', how is radio defined?

The survey found that radio is a live form of broadcasting, offering a variety of mixed content, i.e. presenters' opinions, music, news, weather, interviews and conversations. The access channel is a secondary factor - radio can be listened to in the traditional way, via a computer, via an app on a phone or on a channel on a TV - 'channel' does not define radio. The boundaries between radio and other media broadcasting audio content are blurring.

The basic immanent feature of radio, according to the respondents, is the live transmission that builds the definition of radio.

1.2.2. Audience of radio programmes[52]

The programme offer of radio broadcasters is aimed at a diversified audience due to the subject matter and specialisation (national, regional, local, socio-religious, news, music, for national and ethnic minorities) and music formats (classical music, film music, jazz, chillout, golden hits, contemporary pop hits, dance music, rock, alternative music). With regard to technical coverage and subject matter, radio programmes can be divided into:

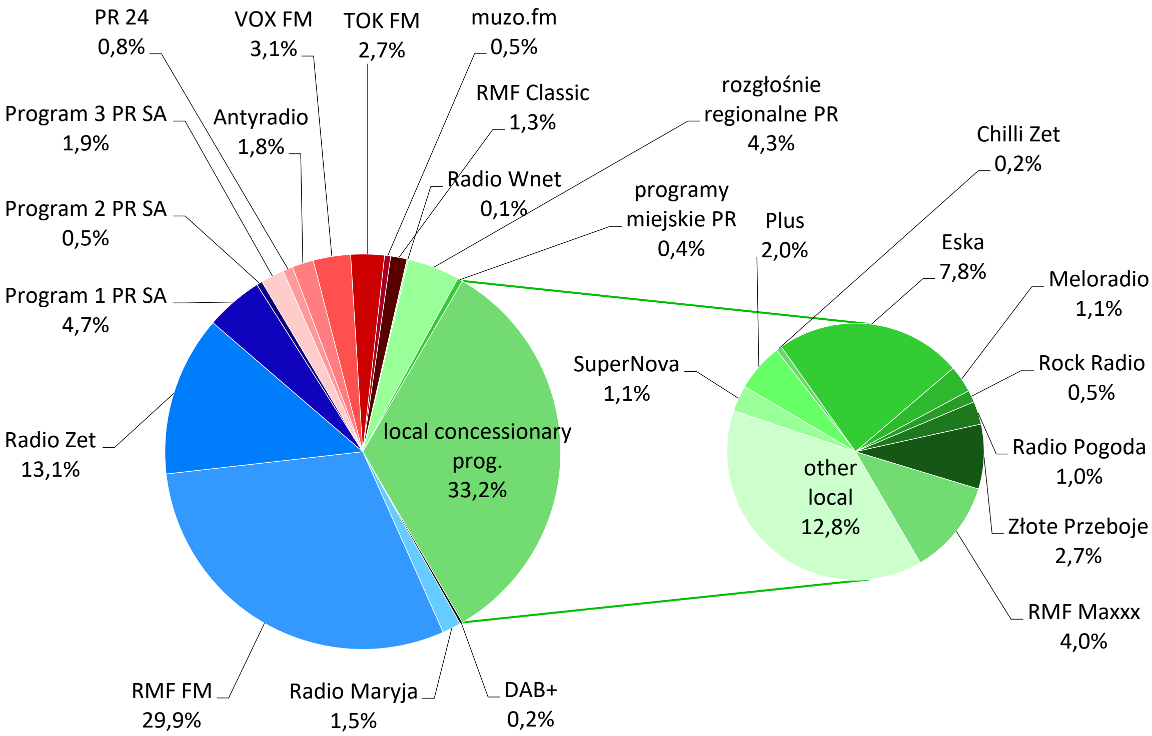
- national universal radio stations (RMF FM, Radio Zet, Polish Radio *One* and *Three*), playing popular music, mainly the AC format[53] ;
- national thematic: socio-religious Radio Maryja and Program 2 of the Polish Radio broadcasting classical, jazz and folk music;
- supra-regional, profiled by theme or music format (Antyradio, VOX FM, Tok FM, muzo.fm, RMF Classic, Polskie Radio 24 and Radio Wnet), which in 2019-2020 expanded their reach with new frequencies joining the group of supra-regional programmes. They broadcast the programme primarily in large cities;
- regional public radio;
- local, concentrated in radio networks (Eska, Plus, Meloradio, Zlote Przeboje, Rock Radio, Radio Pogoda, RMF Maxxx, SuperNova);
- independent local stations, including independent diocesan stations not affiliated to the Plus network;

[52] The information was prepared on the basis of the Radio Track audience survey conducted for the Radio Research Committee by Kantar Polska SA. The research is conducted on a nationwide sample of people aged 15-75 by means of computer assisted telephone interviews (CATI) using the Day After Recall method, which consists in recreating by the respondent the course of radio audience from the previous day and in this context recalling radio programmes listened to during the day. Approximately 7000 interviews are conducted per month. The data are combined into bundles, called waves, of three months. Each wave contains information from approximately 21,000 respondents. The selection of respondents is based on the following principle: half of the monthly research sample is selected proportionally to the distribution of the population in Poland, while the other half consists of additional respondents from large cities (over 100,000 inhabitants) - this is the so-called urban over-representation. For this reason, listenership rates for areas outside the overrepresentation are determined with significantly less precision. The sample size for the whole of 2021 was 83,796 respondents. The survey included radio programmes, public and licensed, broadcast around the clock (301 programmes).

[53] *Adult Contemporary* (AC) is the name of a music genre and radio format. Radio programmes in this format are mainly addressed to people aged 25-54. They broadcast hits ranging from the 1970s to the latest hits.

- programmes broadcast digitally in DAB+, which include those broadcast exclusively in digital form (including those not included in the *Radio Track* study) and those broadcast in parallel in analogue terrestrial mode.

Chart 34. Structure of the radio market in 2021. - Shares in listening time[54]



Source: Prepared by the KRRiT Office on the basis of *Radio Track* research, Kantar Polska SA

In 2021, the audience study (301 programmes) included new programmes: Radio Bezpieczna Podróż and Polskie Radio Kierowców (January), Super FM Szczecin (February), Radio Sudety 24 (April), Konin FM (June), Radio Tczew (July), SuperNova 106 FM in Konin (August). In addition, in May 2021, the name of the network of Wawa programmes was changed to SuperNova. In the case of some programmes, there were changes in the location and technical conditions of broadcasting stations, which resulted in changes in the technical coverage of these programmes.

[54] The pie chart shows the division of the radio market between individual programmes and groups of programmes in terms of audience share. The chart distinguishes national programmes: RMF FM, Radio Zet, Polish Radio Programmes 1, 2 and 3, Polskie Radio 24 and Radio Maryja. Then supra-regional programmes: Antyradio, VOX FM, TOK FM, muzo.fm, RMF Classic, Radio Wnet, regional and municipal programmes of public radio, local programmes as one group and programmes distributed digitally (DAB+). Local programmes are additionally presented on the smaller circle of the chart, broken down into programme networks: SuperNova, Plus, Chilli Zet, Eska, Meloradio, Rock Radio, Radio Pogoda, Zlote Przeboje, RMF Maxxx.

Table 5. listenership rates of radio programmes [55] in 2021 and their change in relation to the previous year

	Daily range		Share of listening time (%)		Daily listening time	
	value	change	value	change	value	change
ALL	67,2%	-1.7 pp.	100,0%	0.0 pp.	4:18:40	-4 min.
NATIONAL PROGRAMMES	43,7%	-1.6 pp.	51,6%	-1.0 pp.	3:25:15	-5 min.
Programme 1 PR SA	4,9%	-0.6 pp.	4,7%	-0.5 pp.	2:47:53	-3 min.
Programme 2 PR SA	0,7%	0.0 pp.	0,5%	0.1 pp.	1:58:25	4 min.
Programme 3 PR SA	2,5%	-1.6 pp.	1,9%	-1.9 pp.	2:12:58	-37 min.
Radio RMF FM	29,0%	-0.5 pp.	29,9%	0.6 pp.	2:59:05	0 min.
Radio Zet	15,0%	0.0 pp.	13,1%	0.6 pp.	2:32:07	1 min.
Radio Maryja	2,1%	0.1 pp.	1,5%	0.2 pp.	2:07:18	5 min.
SUPRA-REGIONAL PROGRAMMES	10,7%	0.4 pp.	10,3%	1.0 pp.	2:47:39	3 min.
PR 24	1,0%	0.1 pp.	0,8%	0.2 pp.	2:28:51	24 min.
Antyradio	2,0%	0.1 pp.	1,8%	0.1 pp.	2:32:38	0 min.
VOX FM	3,2%	-0.2 pp.	3,1%	0.1 pp.	2:47:49	9 min.
TOK FM	3,0%	0.3 pp.	2,7%	0.3 pp.	2:37:32	-4 min.
muzo.fm	0,5%	0.1 pp.	0,5%	0.1 pp.	2:48:44	5 min.
RMF Classic	1,8%	0.1 pp.	1,3%	0.1 pp.	2:10:15	-2 min.
REGIONAL PUBLIC RADIO STATIONS	5,0%	-0.3 pp.	4,3%	-0.1 pp.	2:28:16	0 min.
PUBLIC RADIO CITY PROGRAMMES	0,5%	0.0 pp.	0,4%	0.0 pp.	2:27:19	7 min.
CONCESSIONARY LOCAL PROGRAMMES	32,6%	-0.8 pp.	33,2%	0.0 pp.	2:57:07	-3 min.
Eska	11,0%	0.1 pp.	7,8%	0.4 pp.	2:03:37	0 min.
Golden Hits	3,3%	-0.3 pp.	2,7%	-0.2 pp.	2:23:02	-5 min.
RMF Maxxx	5,4%	-0.1 pp.	4,0%	0.0 pp.	2:08:01	-1 min.
Plus	2,4%	-0.1 pp.	2,0%	-0.1 pp.	2:24:25	-8 min.
Meloradio	1,3%	0.0 pp.	1,1%	-0.1 pp.	2:26:40	-16 min.
SuperNova	1,4%	-0.8 pp.	1,1%	-0.5 pp.	2:17:19	1 min.
Chilli Zet	0,4%	0.0 pp.	0,2%	0.0 pp.	1:50:32	-9 min.

[55] Listening time share of a programme/group of programmes: the ratio of the total time that listeners spent listening to a specific radio programme/group of programmes to the total listening time of all radio programmes included in the survey. Daily reach in %, or audience size: the proportion of people in a given population who listened to a programme at least once during the day. Coverage in quarters of a programme/group of programmes: the proportion of people in a given population listening to that programme/group of programmes in a specified quarter of an hour during a 24-hour period. Daily listening time: the average time spent by respondents listening to the programme during the 24-hour period.

	Daily range		Share of listening time (%)		Daily listening time	
	value	change	value	change	value	change
Rock Radio	0,6%	-0.1 pp.	0,5%	-0.1 pp.	2:21:45	-11 min.
Radio Pogoda	1,1%	0.0 pp.	1,0%	0.0 pp.	2:29:50	-6 min.
other local	13,1%	0.2 pp.	12,8%	0.6 pp.	2:49:46	-1 min.

Source: Prepared by the KRRiT Office on the basis of *Radio Track* research, Kantar Polska SA

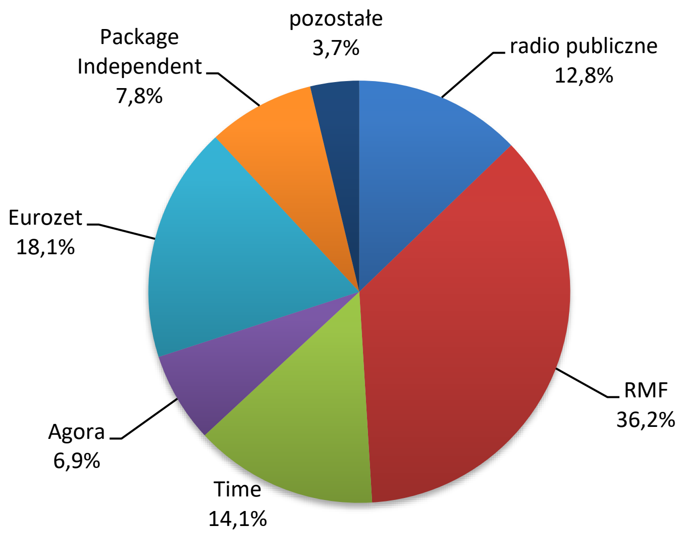
In 2021, the programmes covered by the *Radio Track* study were listened to by 67.2% of the Polish population aged 15-75. This was 1.7 pp less than in 2020.

The most popular national channels were the four universal ones: RMF FM, Radio Zet as well as Polish Radio Programmes 1 and 3. Nationwide thematic channels had a smaller share in listening time: the social and religious Radio Maryja and Classical Music Channel 2. Nationwide channels gained a total of 51.6% share in listening time, of which more than half (29.9%) went to RMF FM. This programme recorded an increase in this indicator for the fifth year in a row. In comparison with the previous year, its share in listening time increased by 0.6pp. (2%). Radio Zet's audience share also increased for the second year in a row (by 0.6pp - 4.8%). Program 1 and Program 3 of the Polish Radio continued their downward trends, reaching their lowest values ever. The share of Channel 1 fell last year by 0.5pp (9.4%), and Channel 3 by 1.9pp (50%). In comparison to 2020, Radio Maryja's audience share increased by 0.2pp (11.6%).

Due to the overall decline in radio listenership, the daily reach of nationwide programmes was lower than last year. The biggest loss was recorded by the broadcasters: Programme 3 (1.6 pp - 39%), Programme 1 (0.6 pp - 10.9%) and RMF FM (0.5 pp - 1.7%). Radio Zet and Channel 2 maintained their daily reach at last year's level, while Radio Maryja gained a 0.1pp. (5%).

The chart below shows the breakdown of the radio market by listening time share of the main groups of radio broadcasters.

Chart 35: Breakdown of the radio market by main groups of broadcasters in 2021 (share in listening time)



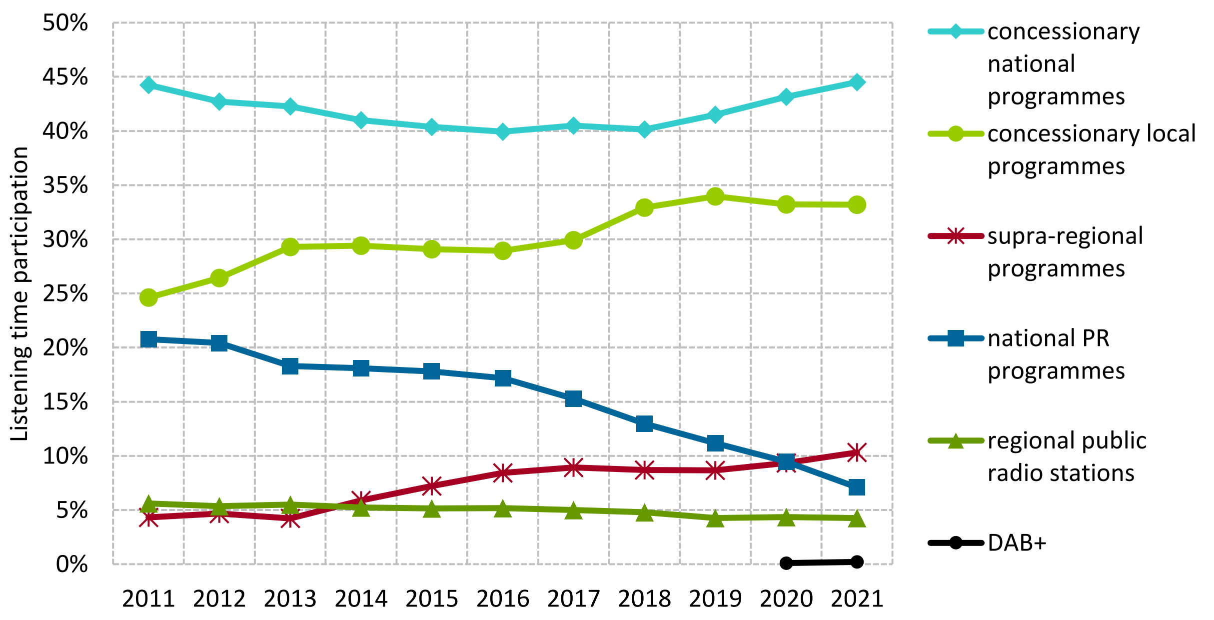
Source: Prepared by the KRRiT Office on the basis of *Radio Track* research, Kantar Polska SA

The Polish radio market in 2021 was divided between public radio, four commercial capital groups and the remaining local programmes, some of which are affiliated to the Independent Package:

- public radio comprises Polskie Radio SA and regional radio stations which are separate companies;
- RMF Group includes the nationwide RMF FM, the supra-regional RMF Classic, the network RMF Maxxx and four other local programmes;
- The Time group includes the Eska programme network, SuperNova (formerly Wawa), Radio VOX FM, nine programmes from the Plus network (the others are part of Eurozet) and the Eska Rock programme;
- Agora's group includes supra-regional TOK FM and the Rock Radio, Zlote Przeboje and Radio Pogoda networks;
- Eurozet broadcasts nationwide Radio Zet, supra-regional Antyradio, local programme networks Meloradio and Chilli Zet and part of the Plus network programmes. Eurozet Group's shareholder, as of February 2019, is Agora SA, which bought a 40% stake;
- Other programmes include the nationwide Radio Maryja and local programmes, 59 of which cooperate under a commercial arrangement with Eurozet called Pakiet Niezależnych.

Groups with nationwide programmes had the highest share of listening time, led by the RMF group, whose programmes had in 2021 36.2% share. The RMF group gained 0.7 pp in comparison to the previous year. (2%). Eurozet group, the second largest in terms of share, gained 0.6 pp. (3,4%). Slightly higher shares than last year were also seen in Time (up 0.2pp - 1.4%) and Other (up 0.1pp - 2.8%). The Agora group and the Independent Package remained at the same level in terms of audience share. For the second consecutive year, the public broadcaster's programmes lost 2.1pp. (14,1%).

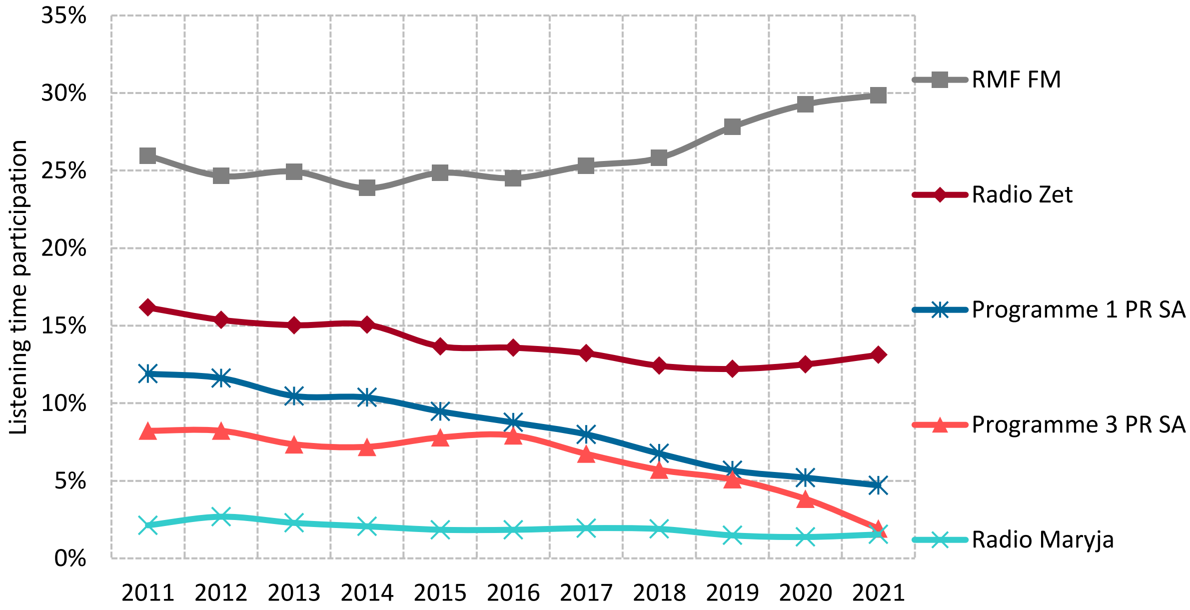
Chart 36. Share of time spent listening to national, supra-regional, regional and local programmes between 2011 and 2021



Source: Prepared by the KRRiT Office on the basis of *Radio Track* research, Kantar Polska SA

The year 2021 was the third year of growth in the share of time spent listening to nationwide licensed programmes (RMF FM, Radio Zet and Radio Maryja). The listening time share of the nationwide programmes of the Polish Radio continued to decline. Within ten years, their share in the listening time decreased almost threefold. Last year, the audience share of supra-regional programmes increased, whereas the share of licensed local programmes and regional public radio stations remained at the same level. For the first time, the list includes programmes broadcast digitally in DAB+.

Chart 37. Share in time spent listening to national radio programmes in 2011-2021

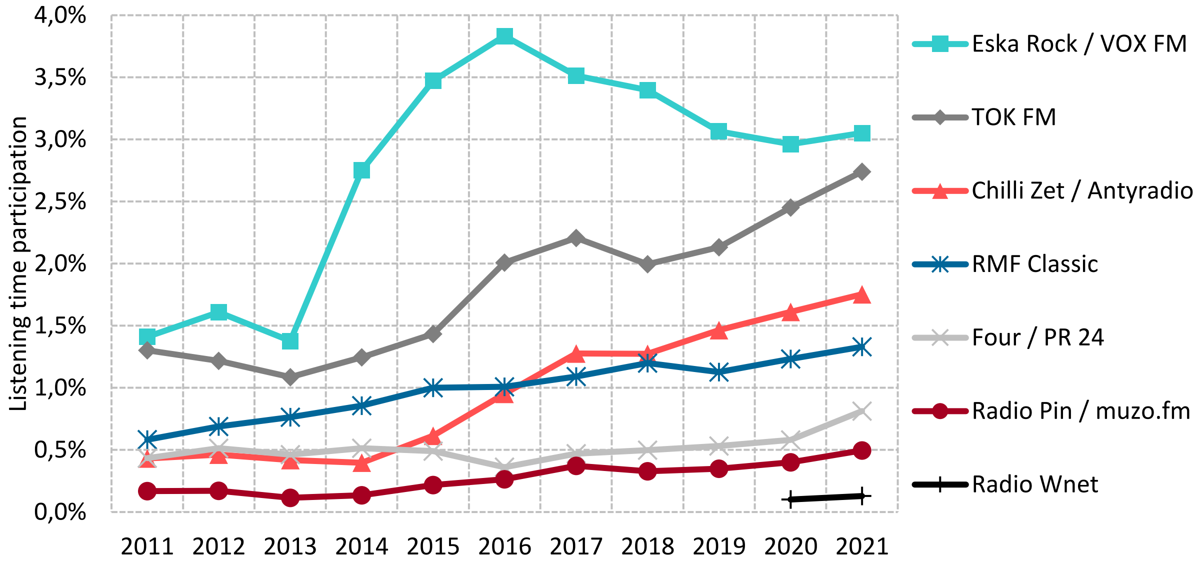


Source: Prepared by the KRRiT Office on the basis of *Radio Track* research, Kantar Polska SA

The year 2021 was another year of growth in the share of time spent listening to RMF FM, which clearly dominates this group of programmes. The decline in Radio Zet's audience share, visible in previous years, increased for the second year in a row to a value similar to that of five years ago. For many years, there has been a decline in the audience share of Polish Radio 1 (down by 7.2pp, or 60.5%, between 2011 and 2021) and Channel 3 (down by 6.3pp, or 76.8%), which achieved their lowest ever figures of 4.7 and 1.9% respectively.

Radio Maryja is the only thematic (social-religious) radio presented in Chart no. 35 -religious). Its share in listening time was higher in 2021 than in the previous year.

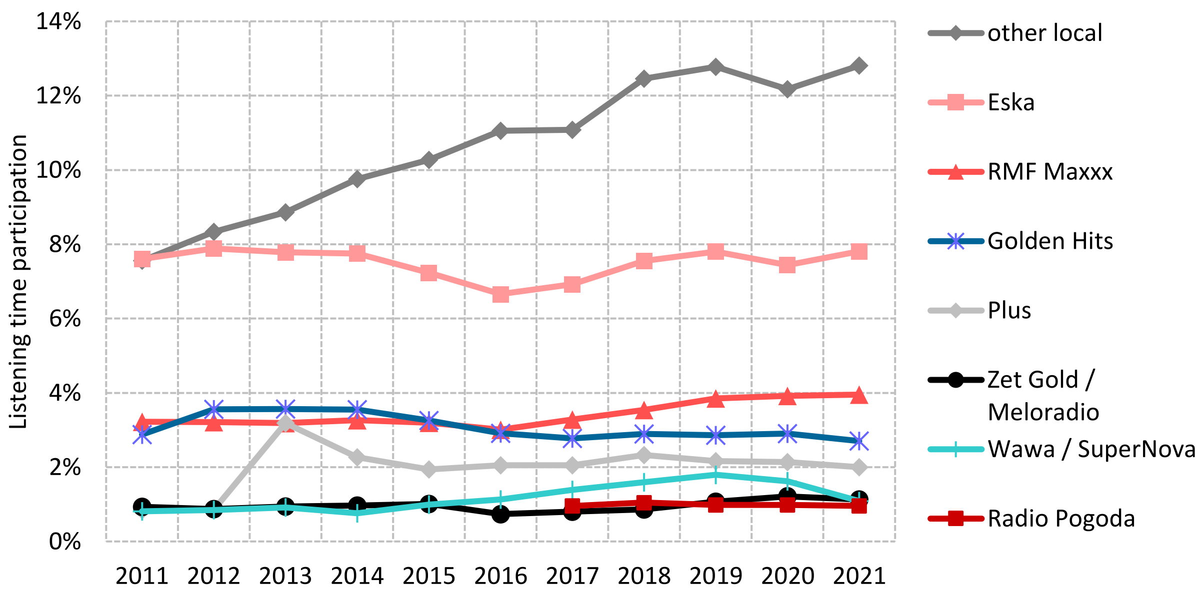
Chart 38. Share of time spent listening to programmes with supra-regional coverage in the years 2011-2021



Source: Prepared by the KRRiT Office on the basis of *Radio Track* research, Kantar Polska SA

In 2021, supra-regional programmes achieved a total audience share of 10.3%, up by 1pp. in comparison to the previous year. An increase was recorded for all programmes in this group. The most popular programme was the dance music channel VOX FM. Its share in listening time increased for the first time in four years by 0.1pp. (an increase of 3.3%) compared to the previous year. The second most popular radio station, TOK FM, gained 0.3pp. (11,8%). This radio station grew by 1.6pp or 145.4% between 2013 and 2021. Antyradio, next on the list, gained 0.1pp. (8.8%), RMF Classic - 0.1 pp. (8.0%), Polskie Radio 24 - 0.2 pp. (39.8%) and muzo.fm - 0.1pp. (24,2%). The youngest of the supra-regional channels, Radio Wnet, achieved a share in listening time of 0.1%.

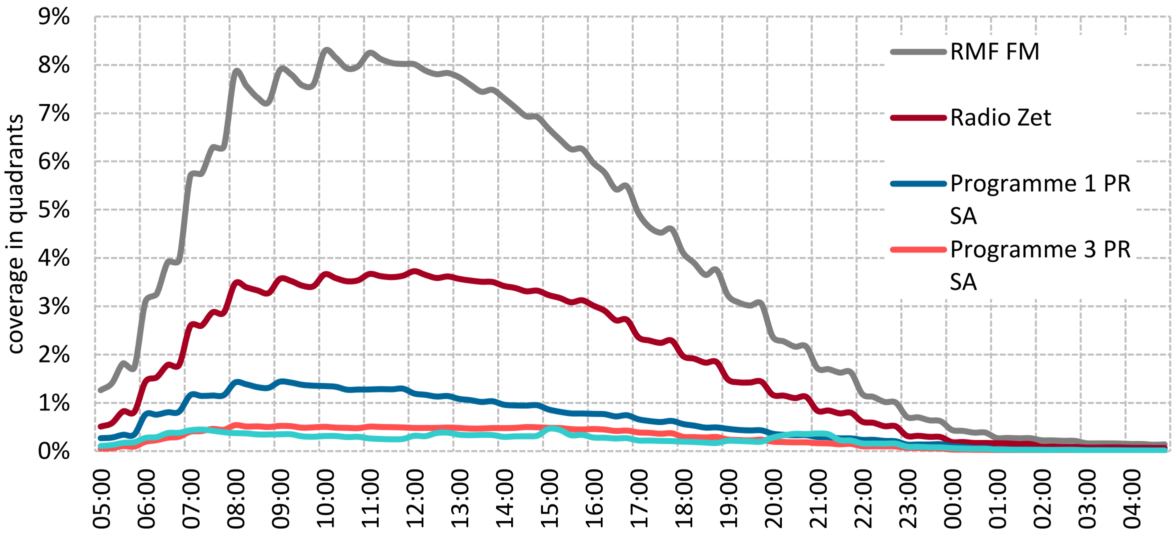
Chart 39: Share of listening time of groups of programmes with local coverage in the years 2011-2021



Source: Prepared by the KRRiT Office on the basis of *Radio Track* research, Kantar Polska SA

The total share in the listening time of licensed programmes with local coverage, similarly to the previous year, amounted to 33.2%. The largest market share among the programmes in this group was held by programmes marked on the chart as other local (110 programmes - mainly programmes not affiliated with any programme network), which gained 0.6pp. (or 5.2%). This was followed by networks with music targeted at young listeners - Eska (42 local channels, whose total share in listening time increased by 0.4pp, or 5%) and RMF Maxxx (22 local channels, whose total share in listening time remained stable). A decrease in audience share was noted for SuperNova (by 0.5pp - 33.0%), Zlote Przeboje (by 0.2pp - 6.9%), Puls (by 0.1pp - 6.2%), Meloradio (by 0.1pp - 6.9%) and Rock Radio (by 0.1pp - 13.8%).

Chart 40: Daily listening distribution of the five national programmes in 2021.



Source: Prepared by the KRRiT Office on the basis of *Radio Track* research, Kantar Polska SA

The two nationwide universal channels, RMF FM and Radio Zet, maintained a high (above 75% of the maximum) audience level between 7:30 and 16:00. After that, the number of their listeners gradually decreased. At its listening peak at 10:00, RFM FM had a quarter-hour reach of 8.3%. Programme 1 had the most listeners between 8 a.m. and 12 p.m. (reach in quarters of more than 1.2%). After this time, its audience declined steadily. *Programme 3 's* audience peaked between 8 am and *3 pm,* almost all the time at the same level and amounted to 0.5% in each quarter. Radio Maryja attracted listeners primarily during prayer time (7:00 - Holy Mass, 12:00 - Angelus prayer and Rosary, 15:00 - Chaplet of Divine Mercy and 20:30-21:15 - Rosary and Appeal of Jasna Góra), with most listeners switching on the programme at 15:00.

1.2.3. Internet radio

Despite the thirty years that have passed since the beginning of broadcasting of the first internet radio[56] and despite the rapid development of internet technologies, the online radio platform has not only not replaced analogue broadcasting, but has not even come close to it in terms of listenership. Despite the growing choice of different radio listening options, FM, Internet, DAB+, listeners still, in the first place, choose the traditional model, i.e. analogue. This is probably due to such issues as: being used

[56] https://pl.wikipedia.org/wiki/Radio

to the traditional form of radio listening, free access to the offered programmes, nationwide coverage, good signal quality and universality of reception devices. Internet radio, on the other hand, although it is characterised by the availability of favourite programmes from virtually anywhere in the world, the variety and quantity of programme content on offer or the possibility to receive it on various devices (e.g. telephone, tablet, laptop), depends on the quality and cost of the Internet connection and the skills of the users, which is particularly important in the case of older people.

Confirmation of Poles' cautious approach to internet radio is provided by the 2021 Radio Track survey conducted by Kantar Polska. Listening to programmes broadcast on the Internet increased only slightly compared to 2020. Listeners who used streaming radio stations last year were around 1.9 million[57] .

If the recipients decided to listen to a radio station on the Internet, they most often chose commercial stations with a music profile. The most popular three were: radiozet.pl, rmf24.pl and eska.pl[58] . Most of the stations in the top ten recorded a significant drop in the number of users. Radiomaryja.pl was below the top ten, as was chillizet.pl. Polskieradio.pl also recorded a significant drop; although it did not move out of the top ten, it lost over 548,000 listeners. Only two stations had more users - tokfm.pl and planeta.pl.

The reach and number of users of the ten most listened to radio stations on the Internet is shown in the table below.

Table 6. Popularity of selected websites of radio stations and broadcasters on the Internet

domain	January 2020		January 2021		January 2022	
	users	coverage	users	coverage	users	coverage
radiozet.pl	9 424 981	33,57%	12 380 040	42,58%	10 789 848↓	35,75%
rmf24.pl	4 988 207	17,77%	6 856 488	23,58%	5 997 888↓	19,87%
eska.pl	4 292 935	15,29%	5 938 920	20,43%	5 218 344↓	17,29%
rmf.fm	2 865 720	10,21%	5 043 384	17,35%	4 880 898↓	16,17%
chillizet.pl	2 495 732	8,89%	Outside the top ten		Outside the top ten	
antradio.pl	2 013 019	7,17%	1 440 504	4,95%	1 418 472↓	4,70%
tokfm.pl	1 433 617	5,11%	1 737 288	5,98%	1 853 280↑	6,14%
polskieradio.pl	1 348 924	4,80%	1 512 432	5,20%	963 576↓↓	3,19%

[57] https://antyweb.pl/tradycyjna-antena-fm-ukf-glownym-zrodlem-sygnalu-radia
[58] Polish Internet Research, January 2022.

rmfmaxxx.pl	1 190 955	4,24%	2 928 960	10,07%	2 544 372↓	8,43%
radiomaryja.pl	380 697	1,36%	1 160 568	3,99%	Outside the top ten↓↓	
planeta.pl (Eurozet)	-	-	1 353 672	4,66%	1 493 802↑	4,95%

Source: Prepared by the KRRiT Office on the basis of Gemius/PBI data

Despite last year's decline on the Polish market, global trends indicate that this form of radio listening is growing year on year. This is not only the result of changing technology and the possibilities offered by the Internet - its availability and speed, but also of media consumption by the generation of "digital natives" (people born after 1980). A study commissioned by the UK government found that young people rarely listen to radio from a traditional radio receiver and see no need for one[59] .

Although in Poland the trend away from one-dimensional radio to streaming services, radio-on-demand services and functionalities enabling interaction with the recipient is not yet as popular as it is abroad, it will undoubtedly change, mainly due to demographic changes and new patterns of behaviour associated with the dynamic development of technology.

1.2.4. Listening on demand - streaming services

Invariably, music has been the most popular on-demand audio service for many years. According to the *Engaging with Music 2021* report[60] prepared by the International Federation of the Phonographic Industry (IFPI), globally, the average weekly time spent by audiences listening to music was 18.4 hours (18 hours in 2019). This service complementary to radio streaming is most often chosen for its personalisation, with 62% of respondents listening to songs from *playlists they* create. On the other hand, 68% use this service because of the possibility to search for specific songs.

In Poland, compared to the global average, music is listened to more. Data from the above report shows that Polish listeners devote 22.8 hours a week to it, which is an hour more than in 2019. Pop, rock, music of the 80s and 90s are listened to most often, but also reggae (last place on the list of ten favourite music genres)[61] .

Polish music listeners most often choose video streaming (24% of respondents) available on the YouTube platform. Such consumption is declared by 8 out of 10 users[62] . Paid audio streaming is used by 17%, and free streaming by 10%[63] . Poles are moving away from listening to music on media (CDs, DVDs,

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[59] Department for Digital, Culture, Media & Sport, https://www.gov.uk/government/publications/digital-radio-and-audio-review.
[60] https://www.ifpi.org/wp-content/uploads/2021/10/IFPI-Engaging-with-Music-report.pdf
[61] https://www.msn.com/pl-pl/rozrywka/news/polacy-s%C5%82uchaj%C4%85-coraz-wi%C4%99cej-muzyki-badania-wykaza%C5%82y-kt%C3%B3ry-gatunek-jest-najpopularniejszy/ar-AAQ0Fwu?li=AAHxCqM.
[62] https://www.wirtualnemedia.pl/artykul/radio-internetowe-podcasty-podsumowanie-2021-prognozy-trendy-2022
[63] https://iloveradio.pl/radio-na-czele-zrodel-muzyki-w-polsce-badanie.

mp3 files). It is estimated that the last few years brought a decrease in this market reaching approx. 25%[64] . This is confirmed by respondents, only one in ten of whom declares such audio consumption[65] .

The above trends translate into the popularity of music services in Poland. Practically all of the services listed in the top ten increased their reach among Internet users over the past year. The largest number of real users visited spotify.com. New services such as radiozet.pl, soundcloud.com, disco-polo.info, which were not in the top ten in 2020, also appeared on the list of the most popular ones.

Table 7. The most popular music services. Comparison November 2020 vs November 2021.

service	November 2020.			November 2021		
	real users	coverage among internet users	views	real users	coverage among internet users	views
interia.pl/music and audio services	4 222 368	14,55%	13 143 669	8 098 542	↑ 26,41%	33 350 809
eska.pl/music and audio services	3 078 000	10,60%	11 000 169	7 436 286	↑ 24,25%	39 570 219
textowo.pl	3 070 872	10,58%	13 511 448	6 879 978	↑ 22,44%	26 214 192
spotify.com	1 953 072	6,73%	10 768 464	6 143 202	↑↑ 20,03%	37 748 268
rmfmaxxx.pl	4 212 648	14,51%	22 413 439	5 142 852	↑ 16,77%	27 000 224
onet.pl/music and audio services	3 064 392	10,56%	7 005 483	5 139 288	↑ 16,76%	15 345 518
radiozet.pl/music and audio services	*	*	*	2 508 732	8,18%	7 776 377
soundcloud.com	*	*	*	2 262 168	7,38%	5 573 772
disco-polo.info	*	*	*	2 105 190	6,87%	5 119 200
rmfon.pl	1 335 528	3,52%	8 888 214	2 068 416	↑ 6,75%	26 228 118

*outside the top 10 in 2020

Source: Prepared by the KRRiT Office on the basis of Gemius/PBI data

In addition to music, podcasts are becoming an on-demand listening force. According to a study conducted by Tandem Media in 2020. 31% of Polish Internet users listen to them regularly[66] . The most frequent recipients of this audio form are young people in the 25-34 age range (25%). The second group (24%) consists of people aged 35-44. The study also indicates that the main consumers of podcasts are people with higher education (47%), living in the countryside (34%) and in cities up to 100 thousand (33%)[67] . The main source of podcasts is social media. It is from social media that almost one third of the respondents learned about podcasts, choosing most often audio on historical, social, psychological, literary, lifestyle or informational and political topics[68] .

Currently, the podcast market is highly fragmented and unmonetized. Nevertheless, this trend is set to change, indicating that podcasts may soon become a similarly important channel to VoD.

[64] https://www.wirtualnemedia.pl/artykul/radio-internetowe-podcasty-podsumowanie-2021-prognozy-trendy-2022
[65] https://iloveradio.pl/radio-na-czele-zrodel-muzyki-w-polsce-badanie/
[66] https://www.wirtualnemedia.pl/artykul/prawie-jedna-trzecia-internautow-slucha-regularnie-podcastow
[67] https://agora.pl/kim-jest-polski-sluchacz-podcastow-informacje-z-badania-tandem-media-sluchacz-podcastow-w-polsce-202
[68] https://www.wirtualnemedia.pl/artykul/prawie-jedna-trzecia-internautow-slucha-regularnie-podcastow

2. The value of the media market

This chapter presents a picture of the markets in terms of revenue generated from the provision and distribution of media services, based on information contained in the annual reports of specialised research companies such as Publicis Media Groupe and PMR Market Experts. These companies make annual estimates based on an accepted methodology and their own data resources. Information on how the reports are compiled can be found on the websites of both companies.

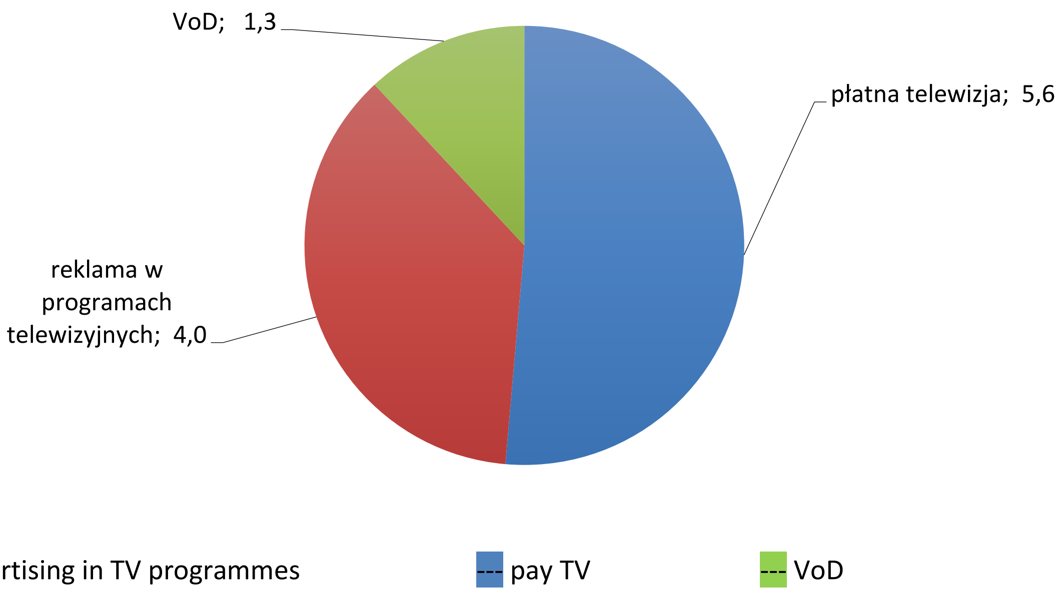
Irrespective of the above, in order to continue the hitherto presentation of the economic and financial situation of TV and radio broadcasters and operators distributing TV programmes (pay TV providers), this chapter presents and discusses data in a different time perspective, i.e. for 2020 based on financial statements submitted by broadcasters to the KRRiT until the end of the year, in which they were sent to the National Court Register (KRS).

For obvious reasons, the data presented in these two perspectives will differ, but both provide an insight into the shape of media markets, the situation in which they are developing and the directions of this development.

2.1. Share of revenues from audiovisual services (TV programmes and VoD) and their distribution (pay TV) in 2020

The value of audiovisual services in Poland (TV programmes and VoD) together with their distribution (pay TV) in 2020 amounted to PLN 10.9 billion. This result consists of: nearly PLN 4 billion from advertising in TV programmes, PLN 1.3 billion from pay-per-view (VoD) services and PLN 5.6bn in revenues from pay TV (satellite platforms and cable networks).

Chart 41. Shares in the value of revenues from audiovisual services and their distribution in 2020 in billion PLN



Source: Prepared by the KRRiT Office[69]

It is worth noting that revenues generated by paid VoD services already account for more than 20% of total revenues from the audiovisual content market derived from the distribution of TV programmes and the provision of VoD catalogues.

At the same time, operators' revenues from pay TV (i.e. the distribution market) remain higher than revenues from the content market. This picture would be more complete if data were available on broadcasters' revenues from contracts with cable and satellite platform operators, IPTV or the dynamically growing market for OTT services. It can be presumed that revenues from these sources at least balance the value of the content market against the value of the distribution market.

2 .2. Advertising market value in 2021

The information about the advertising market in Poland is based on data from Publicis Groupe reports[70] .

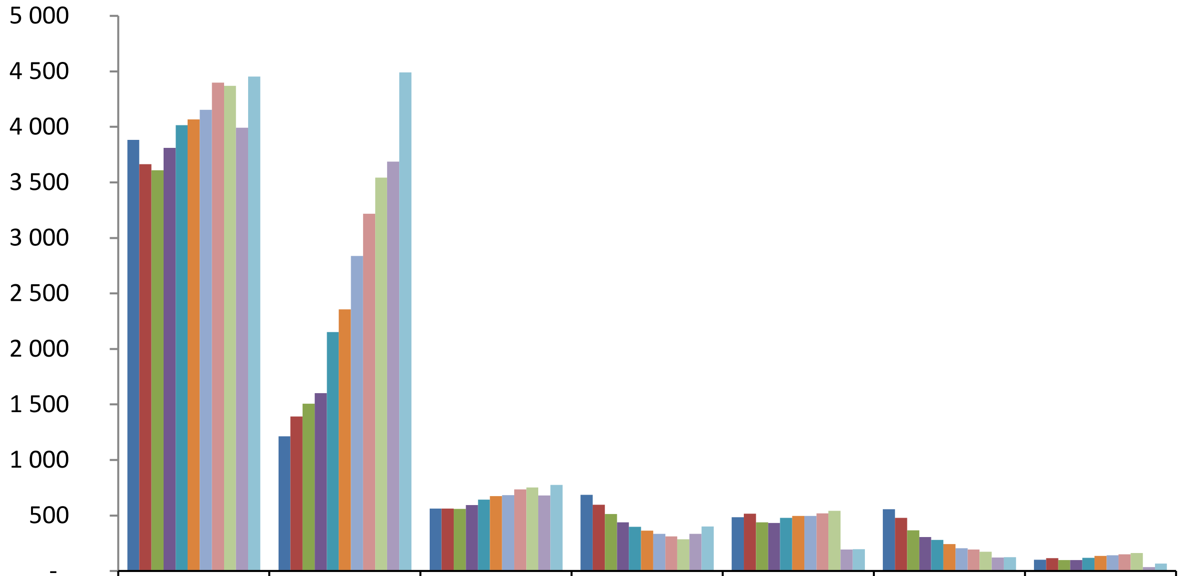
[69] Data for the pay TV and VoD market based on PMR, *Pay TV and VOD market in Poland 2021. Market analysis and development forecasts for 2021-2026*. Data for the advertising market based on Publicis Groupe's report Advertising market *in 2021*. Final annual data for 2021 will be prepared, as every year, in the second half of the year in the next edition of the PMR report.

[70] A cyclical report by Publicis Groupe agency entitled *Advertising market in Poland in 2020,2021.* The data presented in the report are net estimates of investment in advertising, i.e. the estimated amounts of media advertising revenues after discounts but before VAT. The starting point is monitoring data (gross value - before discounts, excluding VAT) provided by Kantar Media (all media excluding TV) and Nielsen Audience Measurement (TV). Macroeconomic indicators were taken from CSO analyses, and forecasts from the National Bank of Poland and the Gdansk Institute for Market Economics. The data on net advertising investment on the Internet are based on the Publicis Groupe know-how model, while the data on net advertising investment in outdoor are based on Kantar Media and the Economic Chamber of Outdoor. Data on press sales comes from ZKDP and on cinema attendance from boxoffice.pl. Radio data comes from Millward Brown. Mobile market data comes from

The data, year-on-year, may differ compared to that presented in the *Information on Basic Broadcasting Problems* for 2020 due to adjustments made by the authors of the reports.

The value of the advertising market in Poland after four quarters of 2021 exceeded PLN 10.5bn, up 16.2% or PLN 1.5bn in relation to 2020. In 2021, the advertising market recovered from the crisis caused by the Covid-19 pandemic. Increases in revenue, compared to the previous year, were recorded by all media.

Chart 42. Value of the advertising market in Poland in 2011-2021 (PLN mln)



	Telewizja	Internet	Radio	Magazyny	Outdoor	Dzienniki	Kina
2011	3 883	1 214	561	687	483	555	101
2012	3 665	1 392	561	597	515	479	115
2013	3 608	1 506	559	512	437	367	99
2014	3 810	1 602	594	438	434	307	98
2015	4 014	2 152	644	397	478	280	119
2016	4 068	2 355	673	363	496	241	135
2017	4 154	2 838	682	334	495	206	141
2018	4 398	3 217	734	311	519	193	150
2019	4 371	3 542	753	285	542	174	161
2020	3 993	3 686	681	333	193	122	34
2021	4 454	4 489	776	400	196	125	65

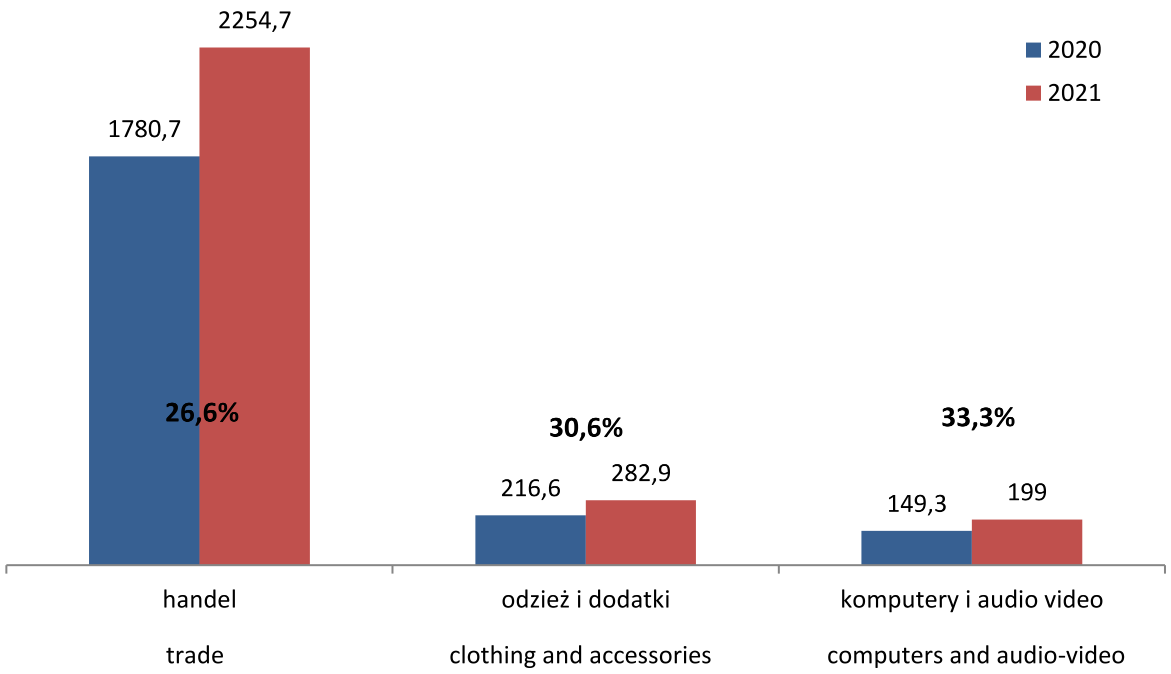
Source: Starlink/Starcom reports, Publicis Groupe, *Advertising market in Poland in* the years 2011-2021

Eight business sectors allocated more resources to advertising than in 2020. The leader in terms of growth rate across all media types in 2021 was the computer and audio video sector (growth rate 33.3%). The trade sector increased advertising investments by 26.6% year-on-year. The clothing and accessories sector also stood out for its noticeable growth in advertising expenditure (dynamics of

eMarketer reports, SMG/KRC Millward Brown: Startrack (a survey of Internet users commissioned by SMG - the only single-source study of all media). Data on e-commerce and m-comerce comes from a study by the Chamber of Electronic Economy.

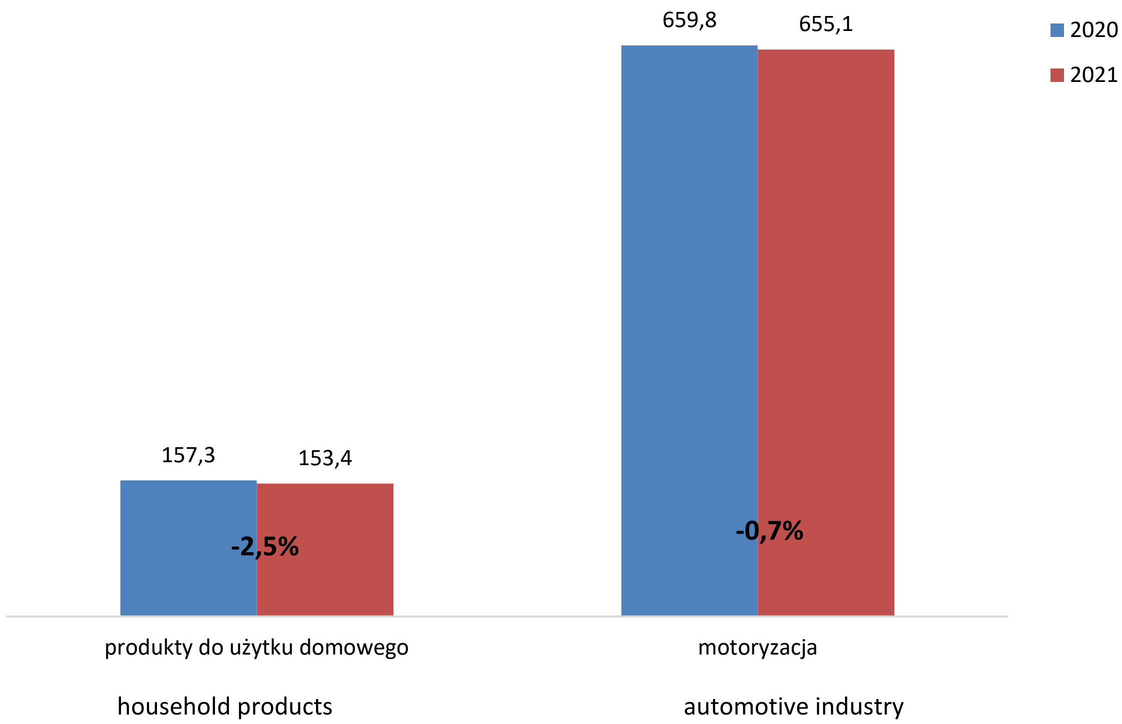
30.6%). Sectors which decreased their advertising budgets were: household products (2.5%) and automotive (0.7%).

Chart 43. Dynamics of change in sectors with the highest advertising expenditure in 2021 (in PLN million)



Source: Publicis Groupe, *Advertising market in Poland in 2021.*

Chart 44. Sectors with the largest drops in advertising expenditure in 2021 (in PLN million)



Source: Publicis Groupe, *Advertising market in Poland in 2021.*

In 2021, we see the biggest growth in advertising revenue in online, which gained 21.8%, compared to 2020.

Television also gained - 11.5% and radio - 13.9%. The slowest growth in advertising expenditure was recorded by the press, including dailies and magazines - 2 %. Advertising spending in cinemas was 94.1% higher. This is a result of the cinema’s decision to return to business after the pandemic *lockdown.* However, this does not mean in this segment a return to pre-pandemic advertising revenues, i.e. in 2019, when cinema advertising was worth PLN 161 million, and in 2020 its value dropped to PLN 34 million.

According to the National Bank of Poland's forecast, GDP will grow by around 5.5% in 2022. Such predictions would be a good prognosis for the advertising market. However, inflationary pressure and high uncertainty related to the geopolitical and pandemic situation makes it necessary to verify these predictions. Everything depends on the time it will take for the situation to normalise. At present, no one can responsibly predict the consequences of this state of affairs for the advertising market.

2.3 TV advertising revenues in 2021

Based on information from the Publicis Groupe report[71] the value of the TV advertising market in 2021 amounted PLN 4,454m. Compared to the revenues of 2020, there was an increase of 11.5%. The increase in revenue in 2021 was due to a 13.6% increase in the price of advertising spots. This was driven by a number of factors, including an amendment to the Broadcasting Act, which introduced greater availability of advertising time, and a change in the standard of audience measurement, which added to the data the size of the audience consuming media content outside the home *out of home* (OOH), meaning media consumption on media other than the traditional TV screen. The OOH data reduced the decline in TV viewing by an average of 6 minutes.

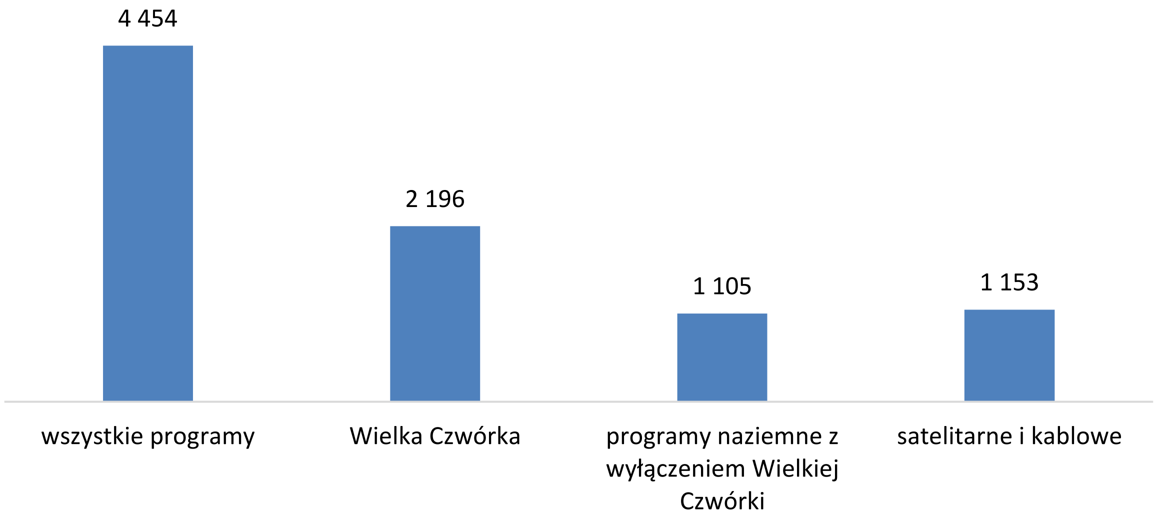
In 2021, advertising revenues from the four main programmes (TVP1, TVP2, Polsat and TVN) amounted to approximately PLN 2,196 million, i.e. 149 million (7.3%) more than in 2020, when they reached PLN 2 046 million[72] .

Advertising revenues including sponsorship, product placement and advertisements in programmes available on digital terrestrial television grew by 14.7% to PLN 1,105 million, up by PLN 141.7 million from 2020. However, when analysing spot advertising revenues alone, the increase amounted to PLN 133.7 million or 14.5%.

Revenues from other programmes, available only on cable networks and satellite platforms, grew by 16.9% year-on-year to PLN 1,099 million, taking into account the value of advertising spots alone, i.e. without sponsorship and product placement.

[71] Publicis Groupe, *Advertising market in Poland in 2021*.
[72] Due to the source of origin, these data differ from the data given in the section on financial results of broadcasters. The figures quoted here are net estimates of advertising investment, i.e. estimated amounts of media advertising revenues after discounts but before VAT published by Publicis Groupe on the basis of information about advertising contracts. On the other hand, in the part concerning financial results of broadcasters, the data have their source in the financial statements of the broadcasters, i.e. they present information provided by the broadcasters in their annual financial reports submitted to the National Court Register (KRS).

Chart 45. Advertising revenues (spots only) from TV programmes, including the so-called Big Four (TVP1 TVP2, TVN and Polsat) programmes on terrestrial television as well as satellite and cable programmes in 2021.

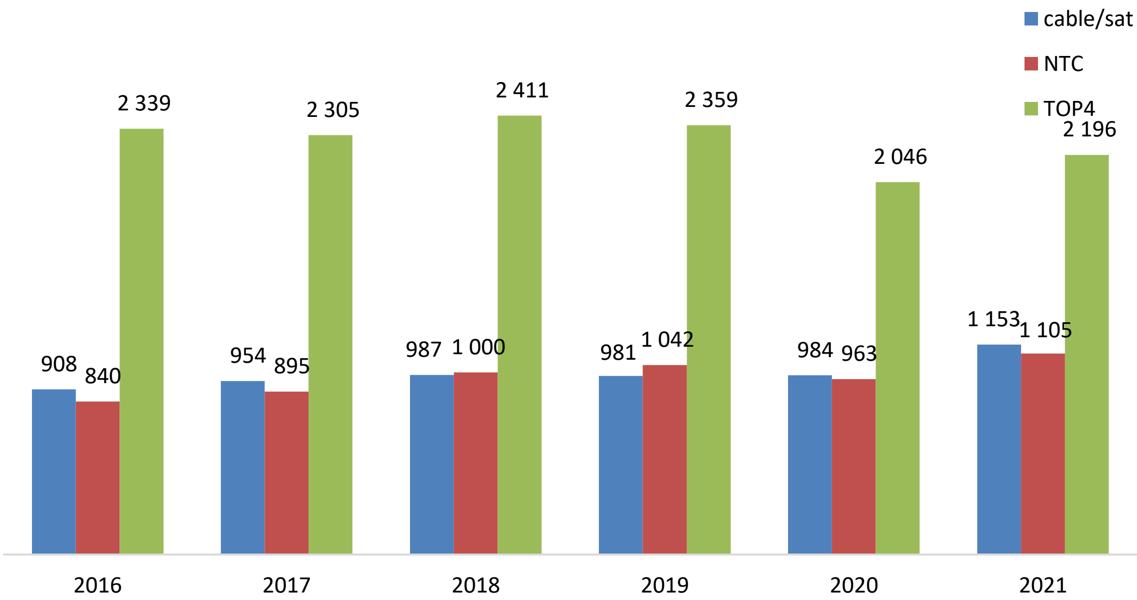


all TV programmes Big Four terrestrial TV without Big Four satellite and cable

Source: Prepared by the KRRiT Office on the basis of the Publicis Groupe report, *Advertising market in Poland in 2021.*

Despite a steady downward trend in the Big Four broadcasters' share of TV advertising revenues, these programmes account for around half of TV advertising spending.

Chart 46. Revenues from advertising activities of television programmes, including the so-called Big Four (TVP1 TVP2, TVN and Polsat), programmes on terrestrial digital television as well as satellite and cable programmes in 2016-2021 in PLN million

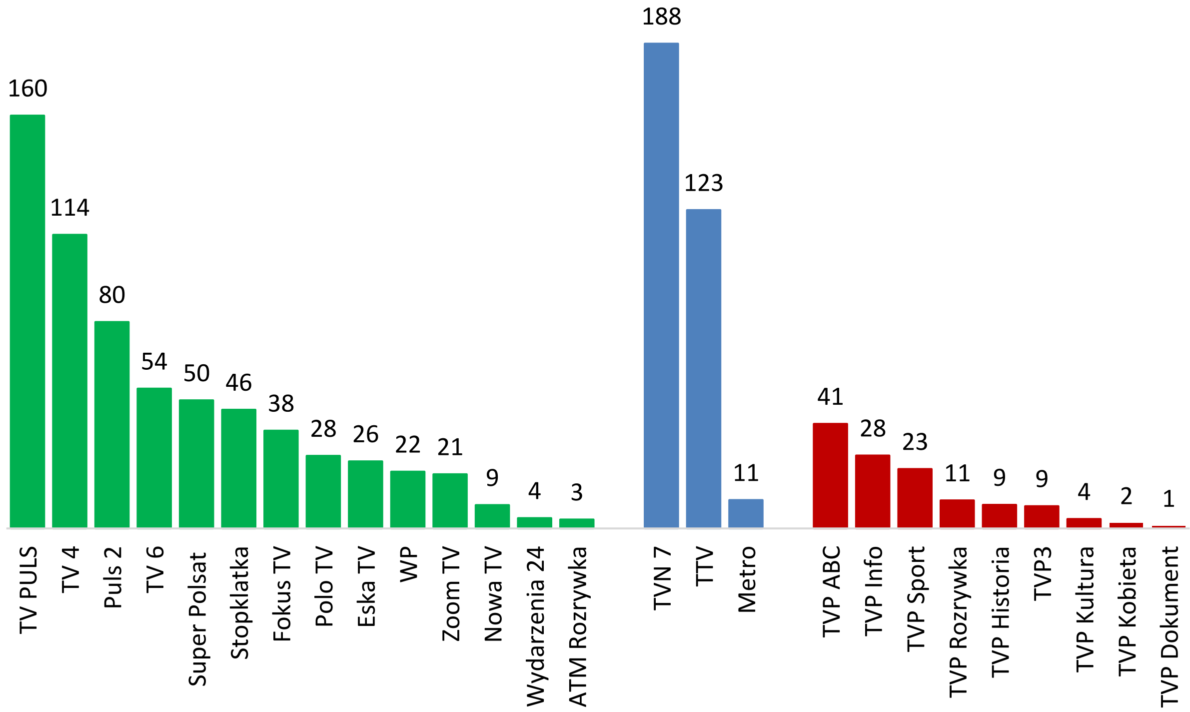


Source: Prepared by the KRRiT Office on the basis of Publicis Groupe reports, *Advertising market in Poland in 2016-2021*

Broadcasters' revenues in digital terrestrial television

Terrestrial television, which has been rolled out in digital since 2013, has significantly increased its offer. Since the conversion, it has almost quadrupled the number of TV channels available via this route. Revenues of the channels available on digital terrestrial TV in 2021 amounted to PLN 1,105 million, an increase of 142 million or 14.7 per cent compared to the 2020 results.

Chart 47. Revenues of broadcasters distributing programmes in digital terrestrial television in 2021 in PLN million, excluding programmes of the so-called Big Four, i.e. TVP1, TVP2 Polsat and TVN



Source: Prepared by the KRRiT Office on the basis of Publicis Groupe report, *Advertising market in Poland in 2021.*
ATM was a broadcaster until February 2021.
The green colour indicates TV channels in which Polsat Media sells advertising, the blue colour is TVN Media, and the red colour is TVP Reklama

Leaving aside the Big Four programmes, and after adding up the revenues of the programmes from the group of a given broadcaster present on digital terrestrial television, the leading position is held by Polsat (TV Puls, TV4, Puls2, TV6, Super Polsat, Stopklatka, Focus TV, Polo TV, Eska TV, WP, Zoom TV, Nova TV, Wydarzenia 24, ATM Rozrywka), which generated revenues of PLN 655m in 2021. TVN (TVN 7, TTV, Meteo) also achieved high revenues from digital terrestrial programmes - PLN 322m. TVP's specialist terrestrial channels (TVP ABC, TVP Info, TVP Sport, TVP Entertainment, TVP Historia, TVP 3 , TVP Kultura, TVP Kobieta, TVP Dokument) generated revenues of PLN 128m. Apart from them, TV PULS (TV Puls and Puls2) revenues of PLN 240 million were high. Programmes: Stopklatka, Eska TV, Zoom TV, WP and Metro together earned PLN 126 million.

TV brokers' market

In 2021. TVN Media's special offer TVN Premium, together with all TVN Discovery Group channels, had a 39.5% share of the TV ad buying market[73] , while also being a broker for:

- own programmes: TVN, TVN7, TVN24, TTV - Your Television, TVN Fabula, TVN Turbo, TVN Style, HGTV, Discovery, Metro, Investigation Discovery, TLC, TVN24 Business and World, Discovery Science, Discovery Historia, Discovery Life, Animal Planet HD;
- Canal+ (MiniMini+, Domo+, Planete+, kuchnia+, Ale Kino+, teleTOON+, Canal+ Sport, nSport+, Canal+ Sport2, Canal+ Family, Canal+ Premium, Canal+, Canal+ Documentary);
- Disney (Disney Junior, Disney Channel, Disney XD);
- Viacom CBS (Comedy Central, Nick Jr, Paramount Channel HD, Polsat Comedy Central Extra, Nickelodeon, Nicktoons, VH 1);
- FOX (FOX, National Geographic, National Geographic Wild, FOX Comedy, Nat Geo People);
- MTV Poland, MTV Music Poland;
- Eurosport 1, Eurosport 2;
- and others such as Polsat Food (Food Network), Travel Channel, DTX, Mainstream Networks (Romance TV), IKO Media Group (Sportklub, Fightklub), Motowizja (Motowizja), Esport (e-sport tv), Edusat (Red Carpet TV), Idea4 Broadcasting (StudioMED TV), ULTRA TV (ULTRA TV).

In 2021. Polsat Media had a 41% share of the TV advertising buying market and was a broker for:

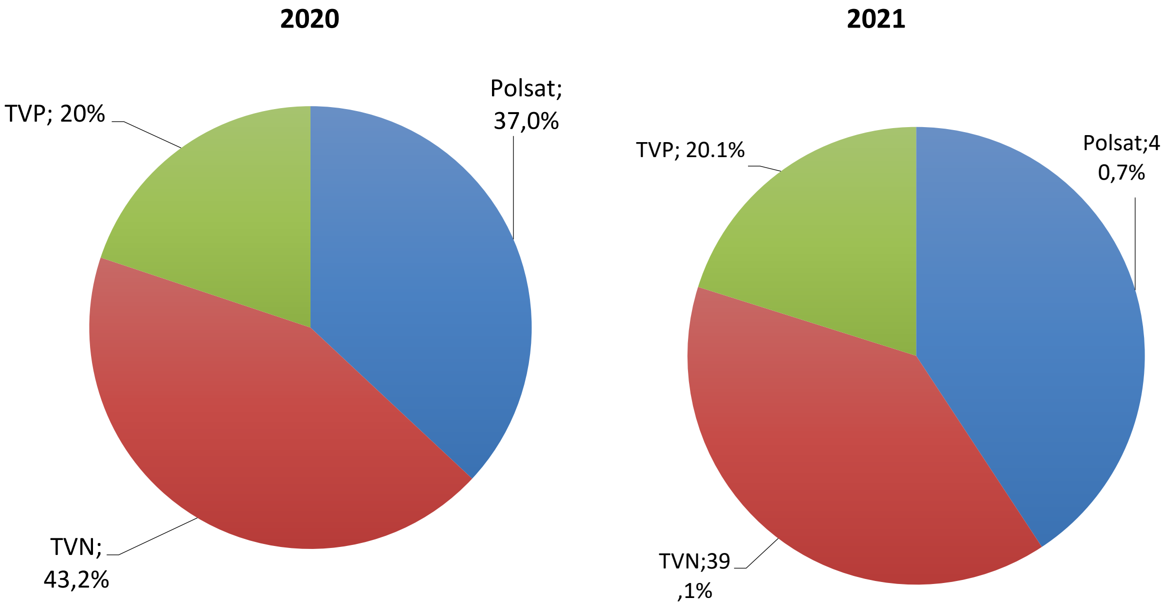
- Polsat's own channels (TV4, TV6, Polsat News, Polsat2, Super Polsat, Fokus TV, Polsat Film, Eska TV, Polo TV, ATM Rozrywka, Polsat Play, Polsat Café, Nowa TV, Polsat Seriale, Disco Polo Music, Polsat Sport, Eleven Sports 1, Vox Music TV, Polsat Doku, Eska TV Extra, Polsat Music HD, Polsat Rodzina, Polsat Sport Extra, Polsat News 2, Eleven Sports 2, Eska Rock TV, Superstacja, Polsat Sport News HD, Polsat Games, Polsat Romans, Polsat Sport Fight);
- Pulse, Pulse 2;
- Kino Polska (Stopklatka, Zoom TV, Kino Polska, Kino TV, Kino Polska Muzyka, Gametoon;
- Fratria (Telewizja WPOLSCE.PL), TV Republika (TV Republika);
- Warner (TNT, Cartoon Network, Boomerang);
- A&E Television Networks (HISTORY, CI Polsat, History2, Lifetime);
- Wirtualna Polska (WP);
- AXN (Sony) (AXN, AXN Black, AXN Spin, AXN White);
- Viasat (Epic Drama, Polsat Viasat History, Polsat Viasat Explore, Polsat Viasat Nature);
- 4fun Media (4FUN.TV, 4FUN DANCE, 4FUN KIDS, 4FUN GOLD HITS);
- BBC (BBC Earth, BBC Brit, BBC CBeebies, BBC Lifestyle, BBC First);
- AMC Networks (Polsat JimJam, AMC, Extreme Sports, Sundance Channel);
- Universal (13th Street, Scifi Universal, E!Entertainment, Golf Channel Poland);
- ViacomCBS (CBS Europa, CBS Reality);

[73] According to Publicis Groupe estimates for 2022.

- and others such as Polcast Television (Tele5, Polonia1, Water Planet, Novela TV), JBD SA (Stars.tv), Da Vinci Media (Da Vinci).

The third broker in terms of market share is public television. TVP's advertising bureau serves TVP1, TVP2 and thematic programmes, giving it a market share of 20% in 2021.

Chart 48. TV brokers' market shares in 2020-2021



Source: Prepared by the KRRiT Office on the basis of *Publicis Groupe*

As predicted last year, TVN Media's market share of TV brokers declined in 2021 due to the transfer of advertising time sales of Telewizja Puls programmes to Polsat Media[74] .

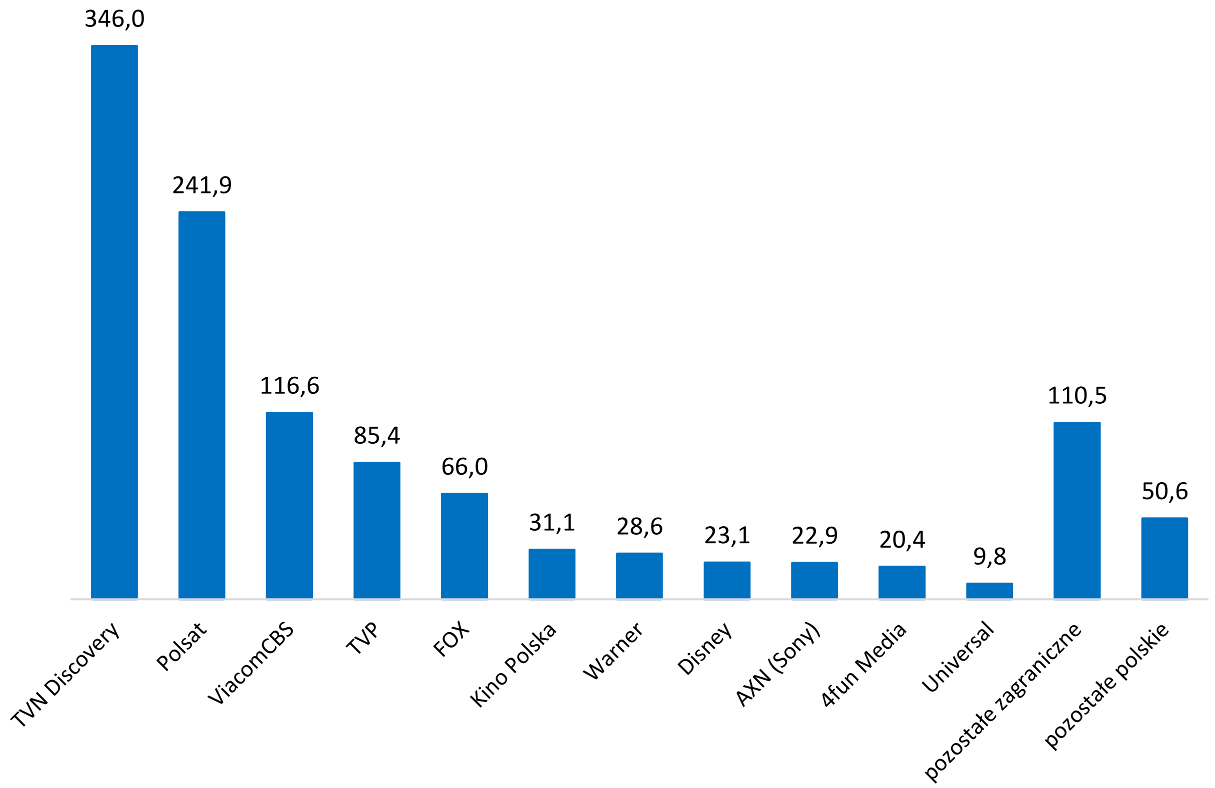
Advertising revenues of broadcasters available in satellite and cable networks

The situation in the satellite/cable group is similar to that in digital terrestrial TV. Here, too, the leading positions are occupied by the programmes of the main TV operators.

In 2021, advertising revenues of the remaining programmes available only on cable networks and satellite platforms amounted to PLN 1,153 million. Compared to 984 million in 2020, this represents an increase of PLN 168 million or 17.1% year-on-year.

[74] https://www.wirtualnemedia.pl/komentarze/telewizja-puls-przenosi-obsluge-brokerska-z-tvn-media-do-polsat-media/page:2

Chart 49. Advertising revenues of broadcasters available in satellite and cable networks in million PLN in 2021

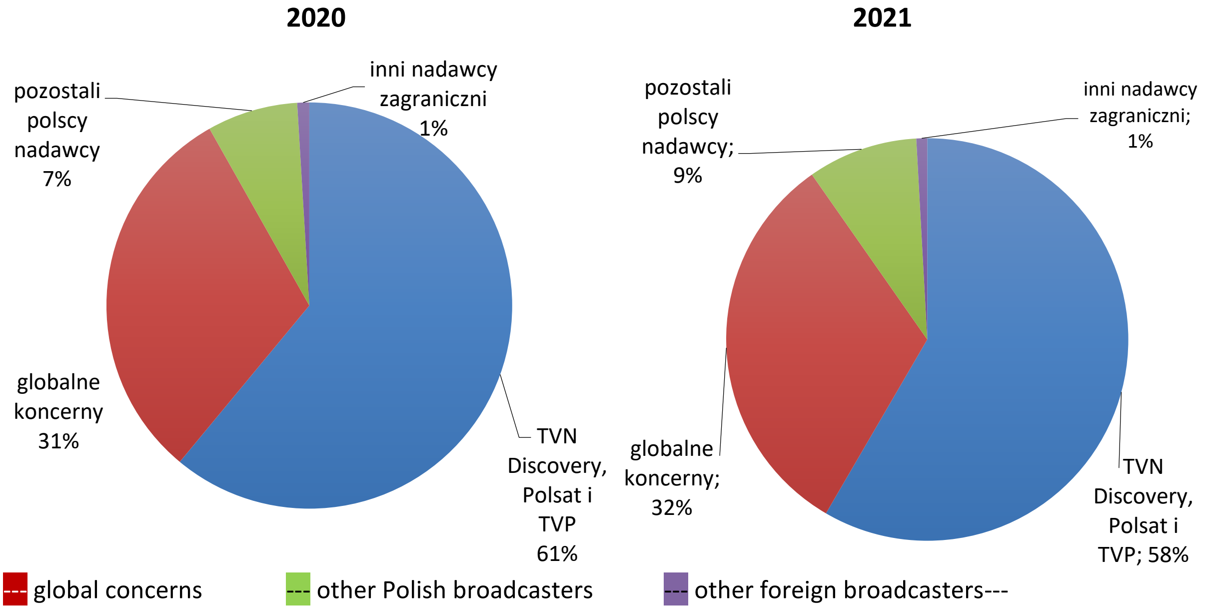


Source: Prepared by the KRRiT Office on the basis of Publicis Groupe report, *Advertising market in 2021*.

The programmes of TVN Discovery, Polsat and TVP managed to earn PLN 673.3 million of this amount. Programmes of other Polish broadcasters such as MWE Networks Winnicki, Edusat WSEE, Idea4Brodcasting, TV Republika, Fratria, wPolsce.pl earned PLN 50.6 million in revenues. In total, Polish satellite and cable broadcasters earned almost PLN 775 million, i.e. 67% of all revenues from this market segment.

The remaining 32% of revenues, amounting to PLN 377.5 million, were generated by programmes of global companies targeting the Polish market (Sony, Warner, CBS Viacom, Universal, Fox and Disney - PLN 267 million) and programmes of broadcasters from other countries (Italy, the Czech Republic, Germany or the UK - PLN 110.5 million).

Chart 50. Share of Polish and foreign satellite and cable broadcasters in advertising revenues in 2020 and 2021.



Source: Prepared by the KRRiT Office on the basis of the Publicis Groupe report Advertising market in 2021.

The advertising revenue market is dominated by the shares of groups owning packages of programmes. The chart above shows the combined shares of broadcasters with licenses in Poland (Polsat and TVN Discovery, as well as TVP) and together the global TV companies (Sony, Warner, CBS Viacom, Universal, Fox and Disney) and other Polish and foreign broadcasters operating outside the large groups. Advertising time in these programmes is sold by national brokers, i.e. TVN or Polsat advertising bureaus and TVP.

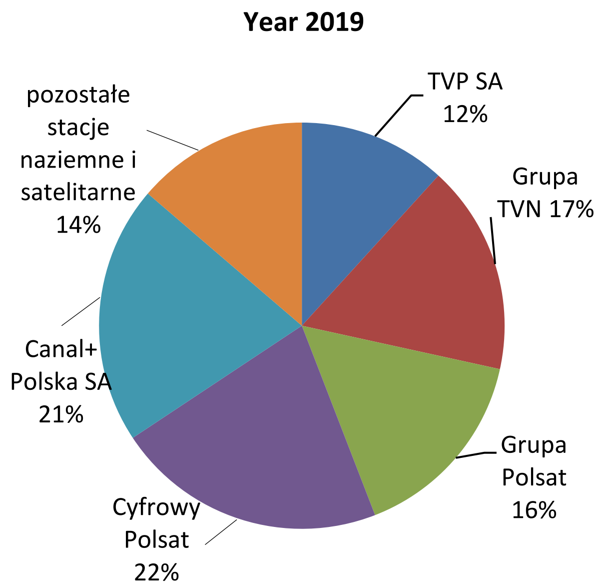
2.4 Financial performance of TV broadcasters based on data from 2020 financial statements

In financial statements, filed in accordance with the provisions of the Accounting Act, there is no obligation to distinguish revenues and costs of each service separately. For entrepreneurs whose activity consists in distributing radio and television programmes and providing VoD catalogues, this obligation was introduced, starting from 2022, in connection with the amendment of the Broadcasting Act implementing the amended Audiovisual Media Services Directive[75] . Thus, for the last time in the *Information* we present here aggregate data relating to television services in total (television, programme distribution, VoD services).

With regard to radio broadcasting, the situation is easier to describe. As is well known, the main source of revenue from radio broadcasting is advertising, so it can be roughly assumed that the information in the financial statements relates to this aspect of the business.

[75] Act of 11 August 2021 on amending the Broadcasting Act and the Cinematography Act (Journal of Laws of 2021, item 1676).

Chart 51. TV broadcasters' shares of operating revenue in 2019-2020

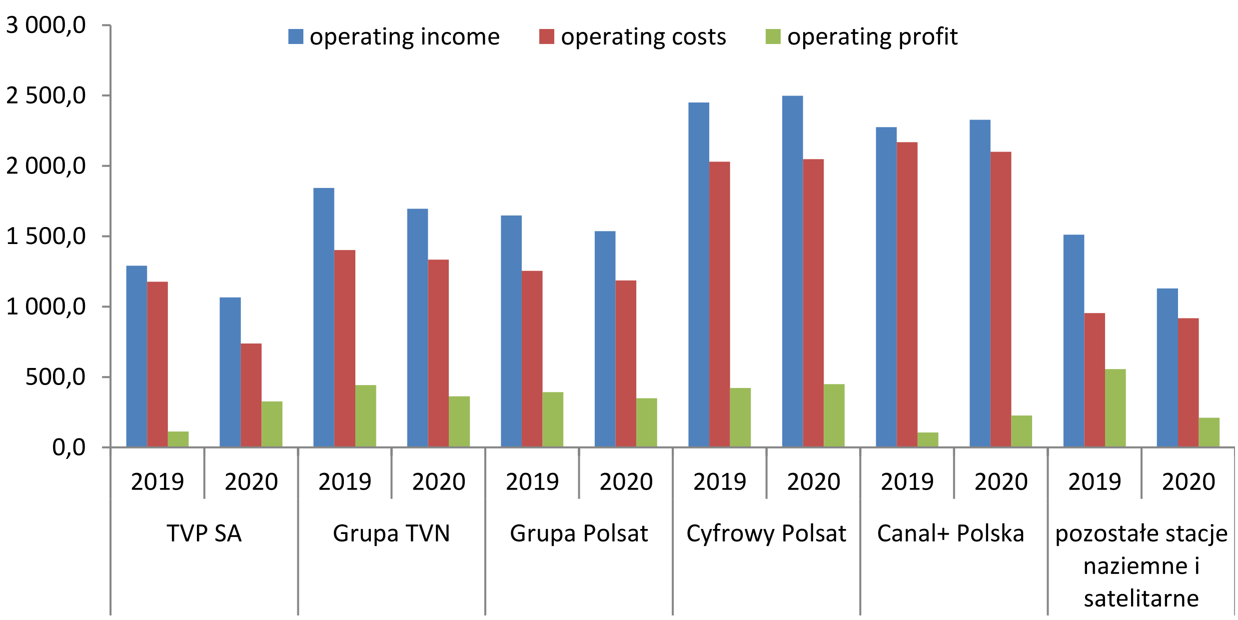


--- other terrestrial and satellite TV

Source: Prepared by the KRRiT Office on the basis of the 2019-2020 financial statements

In 2020, revenues from commercial activities of the main players among TV broadcasters (programme distribution and distribution and VoD) amounted to PLN 10,253 million and were 7.5% lower (i.e. PLN 766.4 million) compared to 2019. In 2020, Cyfrowy Polsat (2 pp) and Canal+ Polska (2 pp) recorded the highest increase in share, while the remaining terrestrial and satellite broadcasters, not associated in groups, showed a clear decrease in share, which decreased from 14% in 2019 to 11% in 2020.

Chart 52. operating activities of broadcasters and operators in 2019-2020 (in PLN million)



other terrestrial and satellite TV

Source: Prepared by the KRRiT Office on the basis of the 2019-2020 financial statements

TVN Group and the satellite operator Canal+ Polska SA (formerly ITI Neovision SA) together accounted for approximately 40% of the operating revenues of all participants in the market so defined (up 2 pp year-on-year). The operating revenues of these entities in both service segments together amounted to PLN 4,024.2 million and were 2.3% lower compared to 2019.

The companies of Grupa Polsat and Cyfrowy Polsat S.A. generated a 39% share in operating revenues. Their result was lower by 1.6% (i.e. by PLN 66 million) compared to the previous year, and amounted to PLN 4,033.5 million.

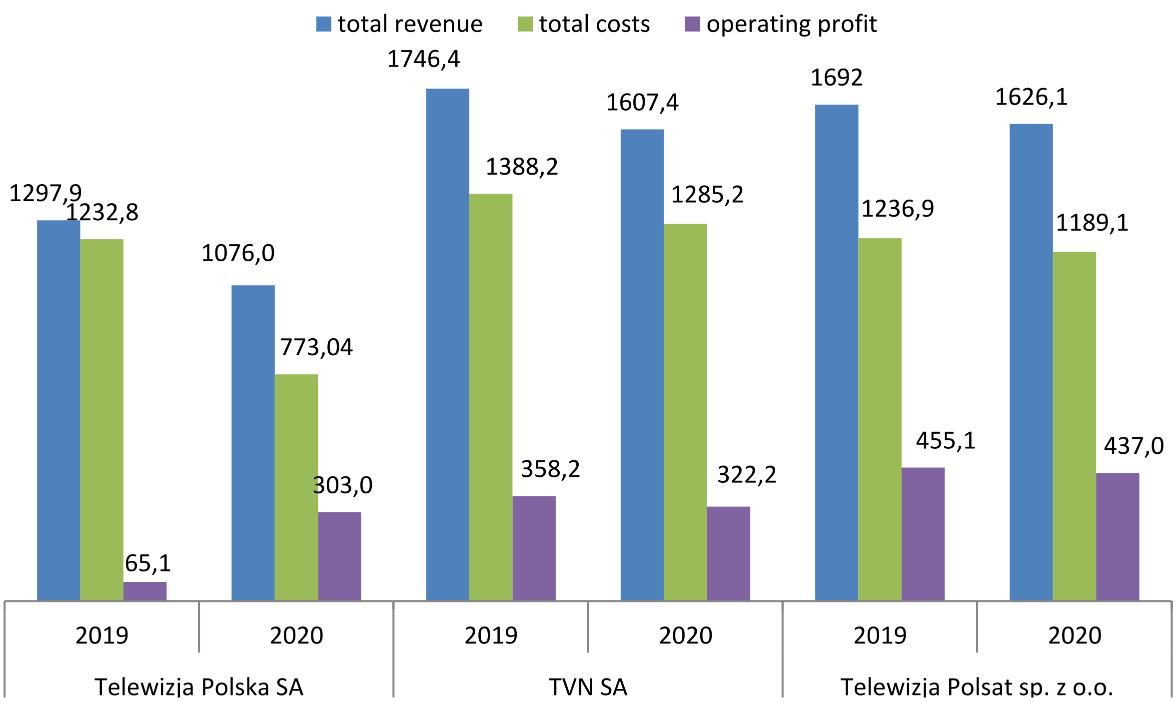
Telewizja Polska SA does not operate as a pay TV operator. Its commercial revenues in 2020 were PLN 1,065.4 million, down 17.4% in comparison to 2019. TVP thus gained a 10% share of the combined broadcasting and operator market (down 2%).

The remaining terrestrial and satellite stations collectively accumulated revenues of PLN 1,129.9 million in 2020, down 25% (by PLN 381.4 million) compared to 2019.

Revenue of the main broadcasters derived exclusively from the activity of television broadcasting

Comparing the financial results of the main broadcasters, i.e. Telewizja Polsat sp. z o.o., TVN SA and TVP SA, relating only to the creation and distribution of television programmes, with data from 2020, the above-mentioned broadcasters achieved a drop by ca. 9%, i.e. by PLN 426.8 million. The broadcasters in question jointly generated PLN 4,309.5m in revenue in the period.

Chart 53. Revenues, costs and result on the activities of the main TV broadcasters in 2019-2020 (in PLN million)



Source: Prepared by the KRRiT Office on the basis of the 2019-2020 financial statements

TVP SA[76] (excluding subscription revenues) had a 25% (down 2 pp) share of the largest broadcasters in 2020, with revenues of PLN 1,076 million, which were approximately 17%, or PLN 221.9 million lower than in 2019.

TVN SA[77] , as in the previous year, achieved a revenue share of 37% for the main TV broadcasters in 2020. The Company's revenues amounted to PLN 1,607.4 million and were lower by approximately 8%, or PLN 139 million, compared to 2019.

Telewizja Polsat sp. z o.o.[78] generated revenues of PLN 1,626.1m in 2020. These were lower by 3.9% (i.e. by PLN 65.9 million) compared to the previous year. The company's market share increased by 2 pp, to around 38%. Polsat has for years maintained the lowest cost-to-revenue ratio compared to TVN or TVP, resulting in the highest profitability, as well as the highest gross results (2019 gross profit of PLN 455.1 million, 2020 gross profit of PLN 437 million).

Other financial indicators for the television sector

The total assets of terrestrial and satellite TV broadcasters at the end of 2020 amounted to PLN 11,508 million (a 13% decrease compared to the previous year). In its structure, 71% were fixed assets. Assets in 68% were financed with entrepreneurs' equity. Net working capital (current assets - current liabilities) in this group of broadcasters amounted to PLN 1 675 million, while the financial liquidity ratio was 2, what means a value in the optimal range. The result on sales in this segment of activity amounted in 2020 to PLN 1,547 million (down 11% in value compared to 2019).

2.5 Revenues from on-demand audiovisual services (VoD) in 2020

According to PMR estimates, the value of the paid VoD services market approached PLN 1.3 billion in 2020. Compared to 2019, this means an increase in providers' revenues by nearly 30% . The dynamics of the market should be associated primarily with the development of SVoD in Poland and the associated increase in the number of subscribers to such services, whose share in the revenue from VoD services exceeds 85%. More than half of the share in sales of SVoD subscriptions is made through direct sales. A much smaller share is held by revenues from SVoD services in the so-called operator channel, mostly generated by HBO GO.

VoD providers use different models for paid access to content: subscription (SVoD) or purchase of a single film/series (TVoD)[79] .

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[76] In 2020. TVP SA broadcasts: TVP 1, TVP 2, TVP3 Regional, 16 regional programmes, TVP Polonia, TVP Bielsat, TVP Vilnius, TVP World and 12 specialised programmes (TVP Info, TVP Kultura, TVP ABC, TVP Entertainment, TVP Seriale, TVP Sport, TVP HD, TVP 4K, TVP Dokument, TVP Muzyka, TVP Nauka, TVP Kobieta).

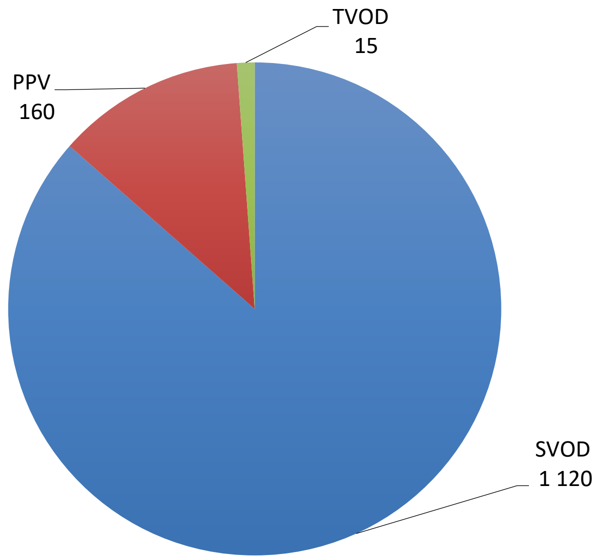
[77] In 2020, the following programmes were broadcast: TVN Television, TVN Seven, HGTV, TVN International, TVN Style, TVN Turbo, TVN 24 Business and World, TVN International West, TVN International Extra, TVN 24, TVN Fabula.

[78] In 2020 the following programmes were broadcast: Polsat, Polsat Sport, Polsat 2, Polsat Cafe, Polsat Sport Extra, Polsat Play, Polsat News, Polsat Film, TV 4, TV 6, Super Polsat, Polsat Sport Fight, Polsat Seriale, Polsat Film 2, Polsat Music, Disco Polo Music, Polsat 1, Polsat News 2, Polsat Doku, Polsat Reality, Polsat Sport Premium 1, Polsat Sport Premium 2, Polsat X, Polsat Sport News, Polsat Games, Polsat Family and smart DOM.

[79] The most popular services include: Netflix.com, Wp.pl, Player.pl, Cda.pl, Hbogo.pl, Tvp.pl, Primevideo.com, Ipla/Polsat Box Go, Canalplus.com, Viaplay.pl, Vod.pl.

Access to live transmissions (PPV), e.g. of sports events, is provided by cable operators and Cyfrowy Polsat as part of Ipla (Polsat Box Go).

Chart 54. Revenue structure from various models of paid VoD services in 2020 (in PLN million)



Source: Prepared by the KRRiT Office on the basis of PMR report, *Pay TV and VoD market in Poland 2020*. Market *analysis and development forecasts for 2021-2026*

Among subscription services, the majority of revenues are generated by the Netflix service (about 1/3). The total value of revenues of domestic services: Player.pl, Ipla.tv, Cda.pl-premium, vod.tvp.pl (catalogue made available by public television[80]) together with services provided by local cable operators balance the share of global content providers such as Netflix, HBO or Amazon's Prime Video in this market.

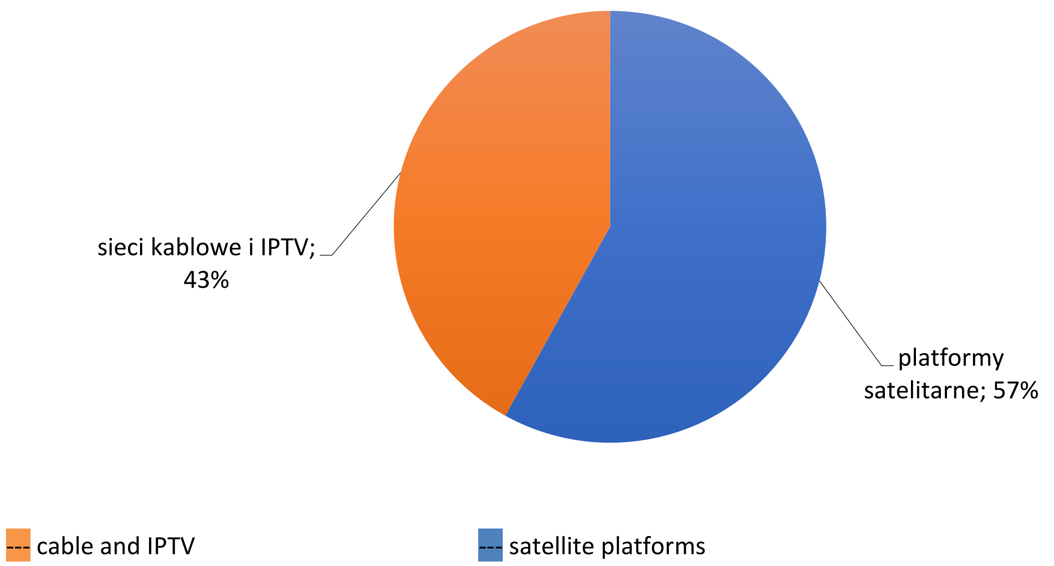
Apart from services in the SVoD model, the second largest segment of the on-demand paid audiovisual services market are services and content available in the transaction model (payment before broadcasting), i.e. TVoD and PPV. However, this form of access to content is losing its importance in parallel with the development of SVoD in the subscription model. TVoD and PPV services often accompany SVoD as an additional option.

2.6 Pay TV revenues in 2020

According to PMR estimates[81] , the value of the pay TV market in 2020 approached PLN 6.2bn and was slightly higher than the year before.

[80] From SVoD - PLN 1,202,160, from advertising in VoD - PLN 23,586,152.
[81] PMR, *Pay TV and VOD market in Poland in 2020. Market analysis and development forecasts for 2020-2025*, June 2020.

Chart 55. Structure of the pay TV market in Poland by revenues from different types of services in 2020[82]

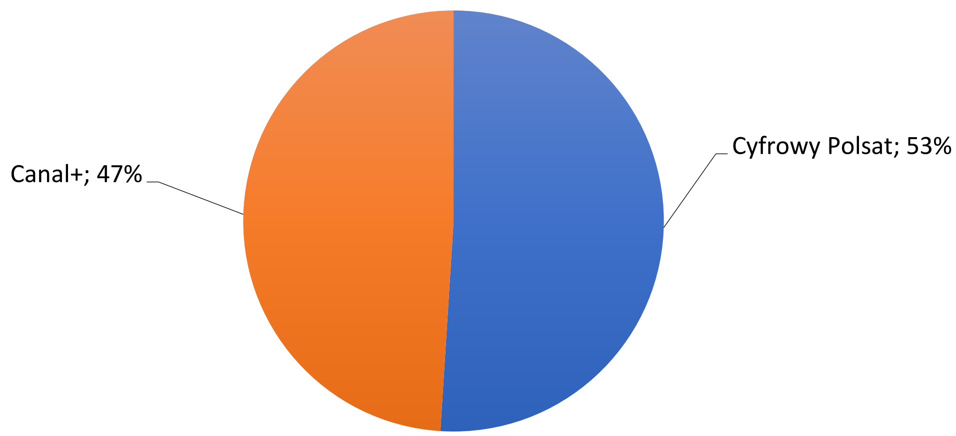


Source: PMR, *Pay TV and VoD market in Poland in 2020. Market analysis and growth forecasts for 2020-2025*

Satellite TV

According to PMR estimates, digital satellite platforms generated in 2020 PLN 3.5bn in revenues. This marked a year-on-year decline, while the market was characterised by slight increases between 2016 and 2018.

Chart 56. Revenue share of digital satellite platforms in 2020.



Source: PMR, *Pay TV and VoD market in Poland in 2020. Market analysis and growth forecasts for 2020-2025*

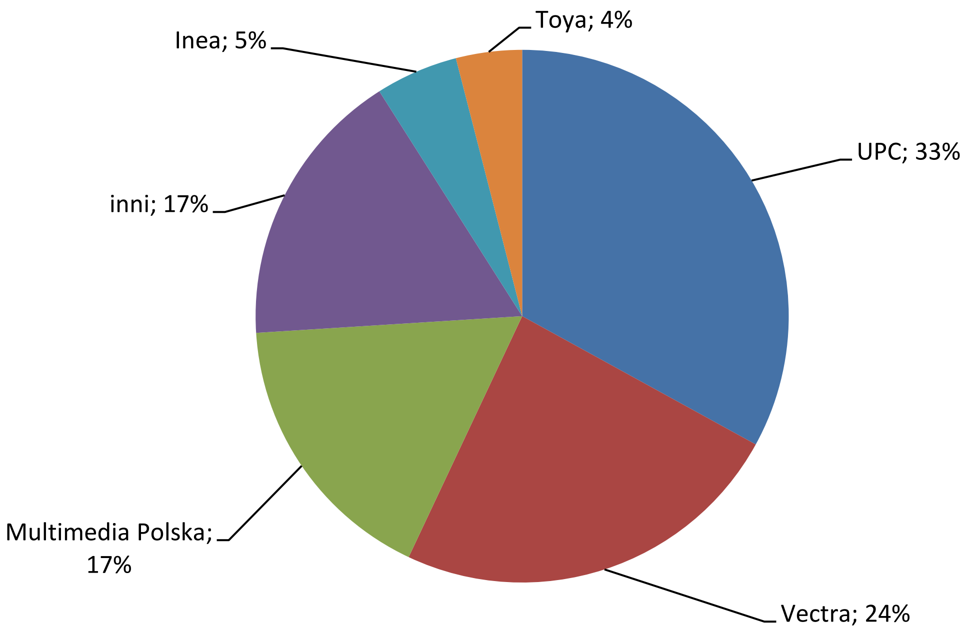
[82] The names of satellite platforms and cable operators are given in the following charts.

In 2020, as in previous years, the two satellite TV operators - Cyfrowy Polsat Group and Canal+ Polska - will share this market between themselves in almost equal parts. The third operator, Orange, with a much smaller subscriber base, does not report financial results for this part of its business.

Cable TV

Cable TV operators' revenues in 2020 amounted to around PLN 2.1 billion and remained almost unchanged year-on-year.

Chart 57. Operators' share of cable TV revenues in the market in 2020.



Source: PMR, *Pay TV and VoD market in Poland in 2020. Market analysis and development forecasts for 2021-2026*

The dominant position in the market is held by the three largest players - Vectra, UPC and INEA, which control a total of 80% of its volume. Following the acquisition of Multimedia Polska in January 2020, Vectra has become the leader among cable TV operators (previously, for over a decade, it was UPC). According to PMR data, the combined proforma base of Multimedia Polska and Vectra in 2020 accounted for over 40% of the market's volume.

IPTV and OTT services

The share of IPTV (television distributed via the Internet protocol) in 2020 was approximately 9% of the total pay TV market. In nominal terms, the market gained almost PLN 100 million, and the year-on-year growth of providers' revenues was 20%, according to PMR estimates.

As in the previous year, this growth has stopped the whole pay TV market from falling. According to PMR's analysis, the IPTV offer is able to attract new customers, with the important factor being the bundling of the TV service with broadband internet access, mainly via fibre-optic cable. This activity is carried out as part of a broad package of other services, mainly by telecom operators: Orange and Netia.

No data is available on revenues from pay TV services on OTT platforms for the entire segment. The main Polish broadcasters make their programmes available on the Internet as part of the so-called OTT services. These include TVP Stream offering public TV programmes, Ipla.tv providing access to Polsat's programmes[83] or Player.pl with programmes from the TVN Discovery group. However, OTTs of broadcasters are limited to their own content and therefore cannot be an alternative to pay TV in cable networks or satellite platforms. According to information published by the same company, the only such service with a wider reach was WP Pilot[84] . The platform, which debuted five years ago, generated revenues of almost PLN 10 million in 2019 (up 134% in comparison to 2018). WP Pilot reports that its revenue comes mostly from subscriptions for the service it provides than from advertising revenue, although non-paying users outnumber paying users. The company says that around 2 million users use its service each month, of which around 300,000 are paying for subscription.

2.7 Advertising revenues in radio programmes 2020-2021

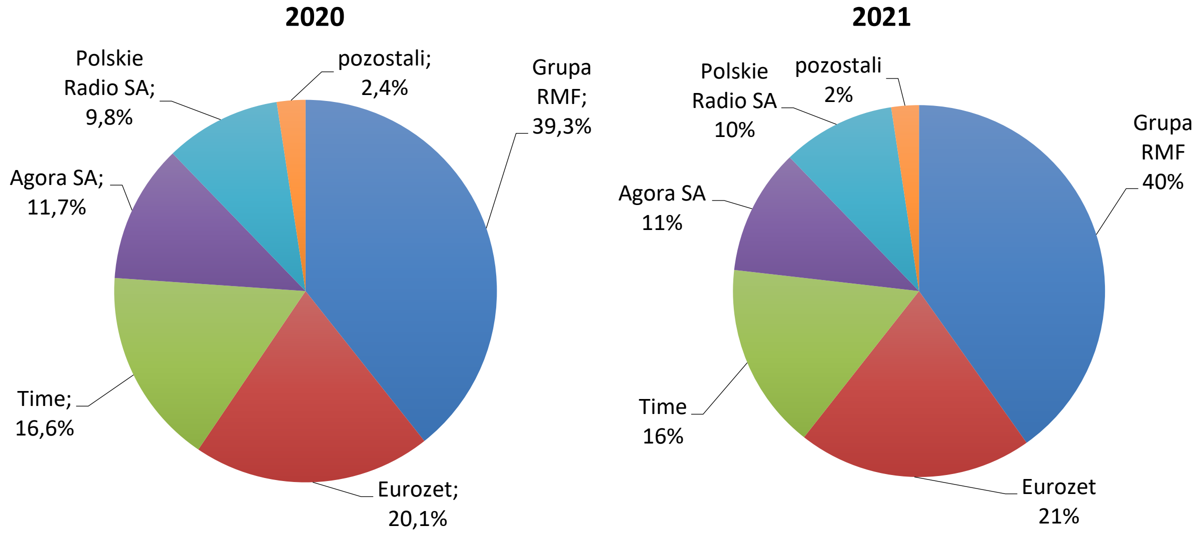
The estimated value of radio advertising in 2021 was PLN 776.4 million. The growth rate of advertising revenue in radio compared to 2020 was 13.9 %.

The radio advertising market looks different from the television advertising market. Advertisers can buy advertising space directly from each broadcaster, i.e. they do not necessarily use brokers. If a broadcaster has a campaign planning tool (soft), it can also be a broker. Having this tool is the greatest advantage of radio brokers. It enables them to plan campaigns involving several broadcasters and then broker the purchase of advertising packages. Thus, roughly speaking, the revenues of radio brokers reflect the actual revenues of individual groups of broadcasters.

In 2021, in the advertising revenue market, RMF FM Group was in first place with a share of 40%. Radio group Eurozet had 21%, and third place went to Time Group with a 16% share. Fourth place was taken by Agora with a share of 11%, followed by Polskie Radio with a share of 10%.

[83] https://www.benchmark.pl/aktualnosci/darmowa-telewizja-internetowa-jak-i-gdzie-ogladac.html
[84] https://www.wirtualnemedia.pl/artykul/wp-pilot-platforma-wplywy-134-proc-w-gore-strata-zmalala-do-1-7-mln-zl-wirtualna-polska-doplacila-16-mln-zl-do-kapitalu

Chart 58. Market shares of radio brokers in 2020-2021 (according to Kantar Media)



--- others

Source: Prepared by the KRRiT Office on the basis of *Publicis Groupe*

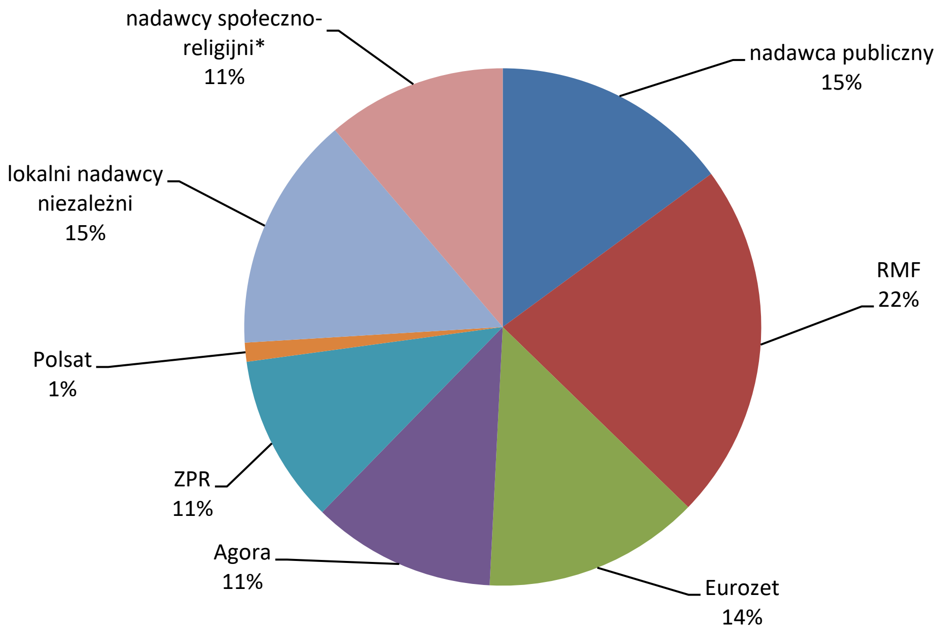
2.8 Revenues of radio broadcasters in 2020

Based on Publicis Groupe estimates, the value of radio advertising budgets in 2020 amounted to 681.5 and decreased by 9.5% compared to 2019.[85]

In fact, however, this sum was significantly lower. According to data from the financial statements, in 2020 the radio broadcasters collectively achieved operating revenues[86] of PLN 541.9 million. These were 12% lower than those obtained in 2019.

[85] Publicis Groupe *Advertising market in Poland in 2020*. The data presented herein are net estimates of advertising investment, i.e. estimated amounts of media advertising revenues after discounts but before VAT.
[86] In Polskie Radio and its regional broadcasters,operating revenue was reduced by licence fee income and subsidies.

Chart 59. Radio broadcasters' shares of operating revenues in 2020.



*including Plus network

--- local independent broadcasters --- socio-religious broadcasters --- public broadcaster

Source: Prepared by the KRRiT Office on the basis of the broadcasters' financial statements for 2020.

In 2020, commercial radio broadcasters increased their market share by 6 pp compared to the previous year and reached a total of 85% of the operating revenue share of all radio. The remaining 15% market share belonged to public service broadcasters.

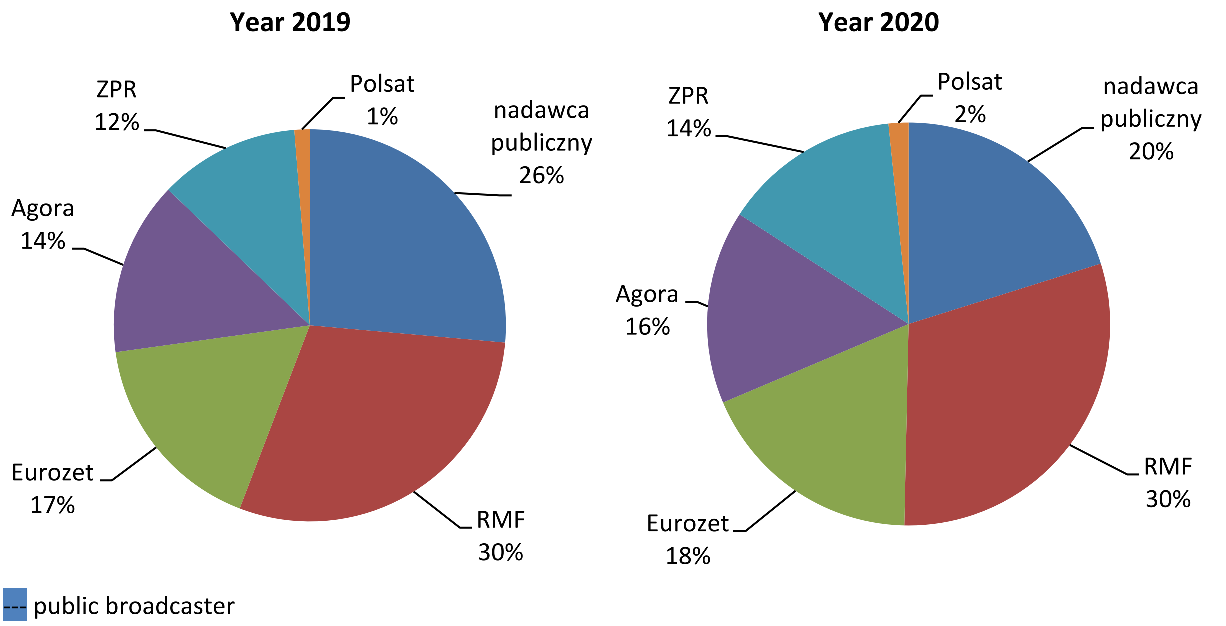
In 2020, local independent broadcasters recorded a 3 pp increase in their share, reaching a 15% market share (this increase was influenced by the emergence of new entrants under newly granted licences), the shares of Eurozet Group, ZPR Group and socio-religious broadcasters also increased by 1%, RMF Group's share decreased, while the shares of Agora and Polsat Groups remained unchanged compared to the previous year.

Radio groups

Polskie Radio, RMF, Eurozet, ZPR, Agora and Polsat[87] had combined operating revenues of PLN 401.2 million in 2020. These were lower by PLN 80.3 million, or 16.7%, compared to 2019.

[87] One muzo.fm station.

Chart 60. Radio groups' share of operating revenue in 2019-2020



Source: Prepared by the KRRiT Office on the basis of broadcasters' financial reports for 2019 and 2020

In 2020, the share of public broadcasters in the market of revenues of all radio groups amounted to 20%. Revenues of public broadcasters (Polskie Radio SA and regional radio companies)[88], minus subscription revenues and subsidies, amounted to PLN 80.9 million. These revenues were lower by PLN 46.3 million, i.e. by 36.4% compared to 2019.

RMF Group generated operating revenues of PLN 121.1m in 2020. These were lower by 14.5% (i.e. by PLN 20.5 million) compared to 2019. The Group's market share in 2020, as in the previous year, remained at up to 30%. The Group closed the financial year with an operating income of PLN 16.2 million.

Eurozet Group generated operating income of PLN 73.4 million in 2020, lower by 10.3% (i.e. by PLN 8.4 million) compared to 2019. The Group closed the financial year with operating income of PLN 7.7 million. The Group's market share in 2020 was 18%, up 1 pp in comparison to the previous year.

The Agora Group generated operating revenues of PLN 62.3 million in 2020. They were lower by approximately 10% (i.e. by PLN 6.8 million) compared to 2019. Agora's market share increased from 14% to 16% in 2019. The Group closed the financial year with an operating income of PLN 10.4 million.

In 2020, the ZPR Group generated operating income of PLN 57.1 million, which was 2.6% (or PLN 1.4 million) higher than in the previous year. The Group closed the financial year with an operating income of PLN 16.7 million. The Group's market share increased by 2 percentage points and amounted to 14%.

The Polsat Group, the broadcaster of one programme with limited reach (muzo.fm), had the lowest share of operating revenue of all broadcasting groups (2%), as in 2019. The Group's radio revenue in 2020 was 5% higher (by PLN 0.3 million) than in 2019 and amounted to PLN 6.4 million. On the radio business, the Group recorded an operating profit of PLN 1.8 million.

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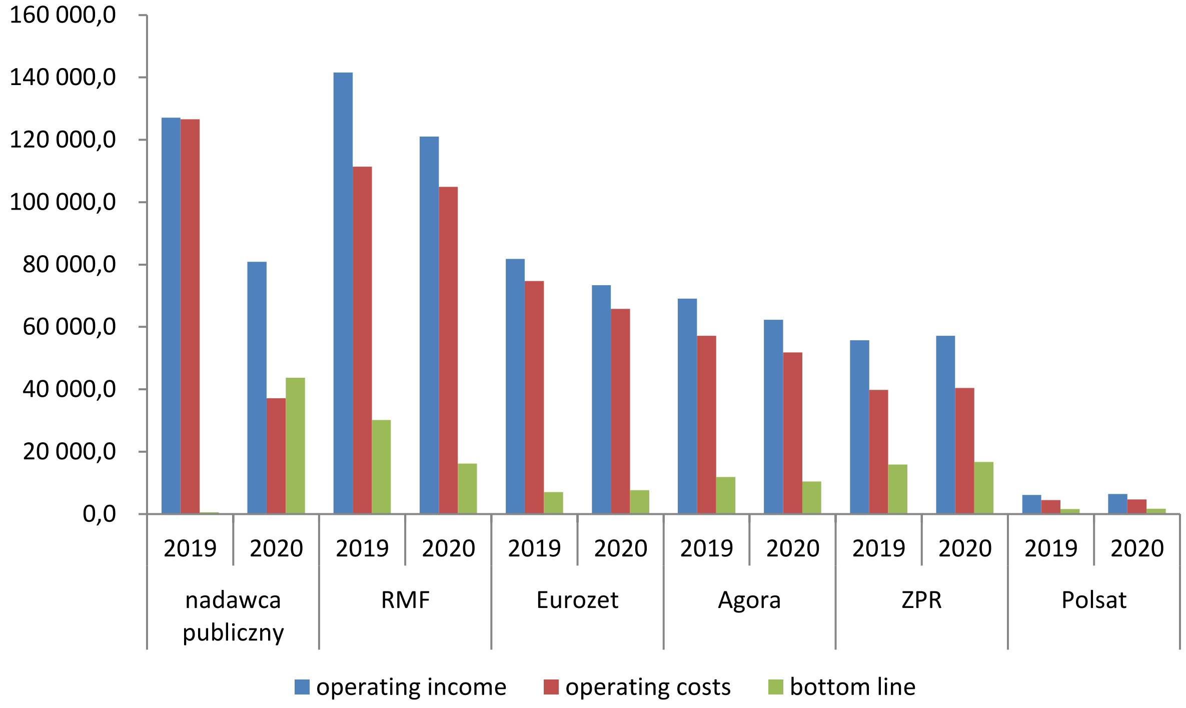
[88] Information obtained from thepublic broadcasters' 2020financial statements.

Chart 61. Comparison of operating activities and financial results of radio groups in 2019-2020 (in thousands)



*In the case of Polskie Radio, revenues and costs have been decreased by the amount of the licence fee and subsidies

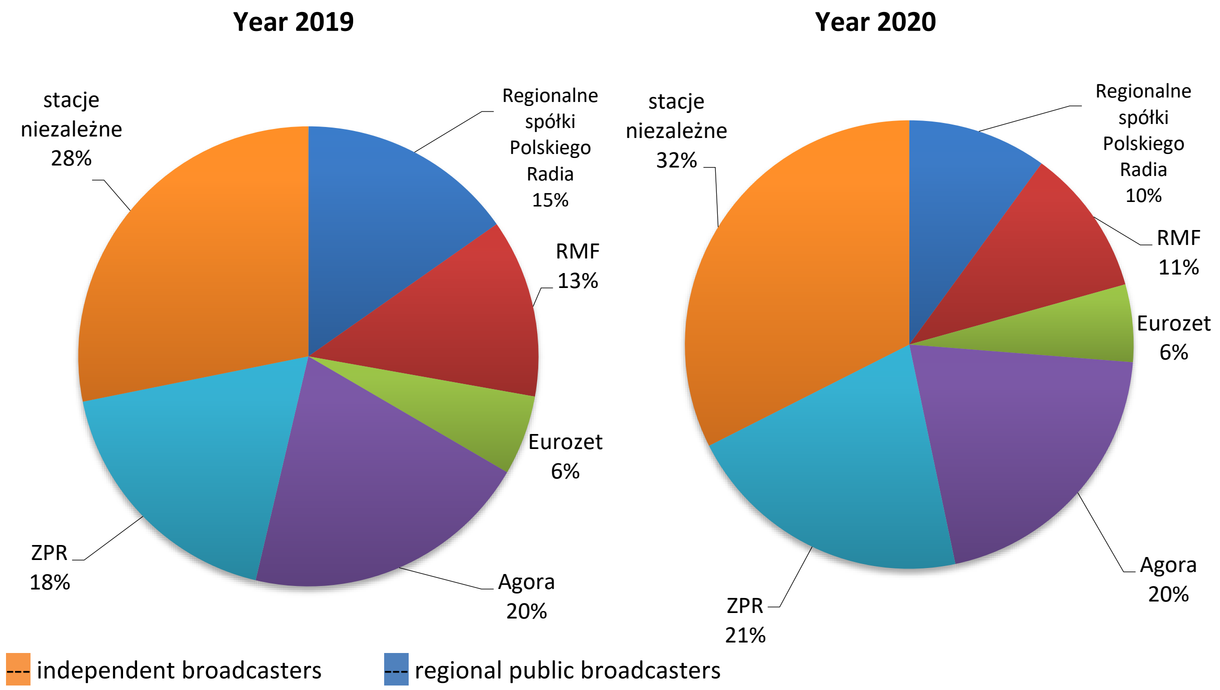
Source: Prepared by the KRRiT Office on the basis of broadcasters' financial reports for 2019 and 2020

In 2020 , with the exception of ZPR and Polsat Group, all radio groups recorded a decrease in the value of operating revenues compared to the previous year. All groups generated a positive financial result on operating activities.

Broadcasters with local coverage

In 2020, regional public radio companies and local commercial broadcasters obtained revenues of PLN 247.8 million from the advertising market. The revenues of this group of broadcasters, compared to 2019, were lower by 8.6%, i.e. by PLN 23.4 million.

Chart 62. Local broadcasters' shares of operating revenue in 2019-2020



Source: Prepared by the KRRiT Office on the basis of broadcasters' financial reports for 2019 and 2020

Regional public radio companies reported a 40.3% decrease in total operating revenue (less the value of subscriptions) in 2020 compared to 2019. This revenue amounted to PLN 24.7 million, down by PLN 16.7 million compared to the previous period.

Among licensed local broadcasters, independent stations still retained the largest market share in 2020 (32% - up 4 pp). Their operating revenues amounted to PLN 79.8 million and were 4.5% higher (i.e. by PLN 3.5 million) compared to 2019.

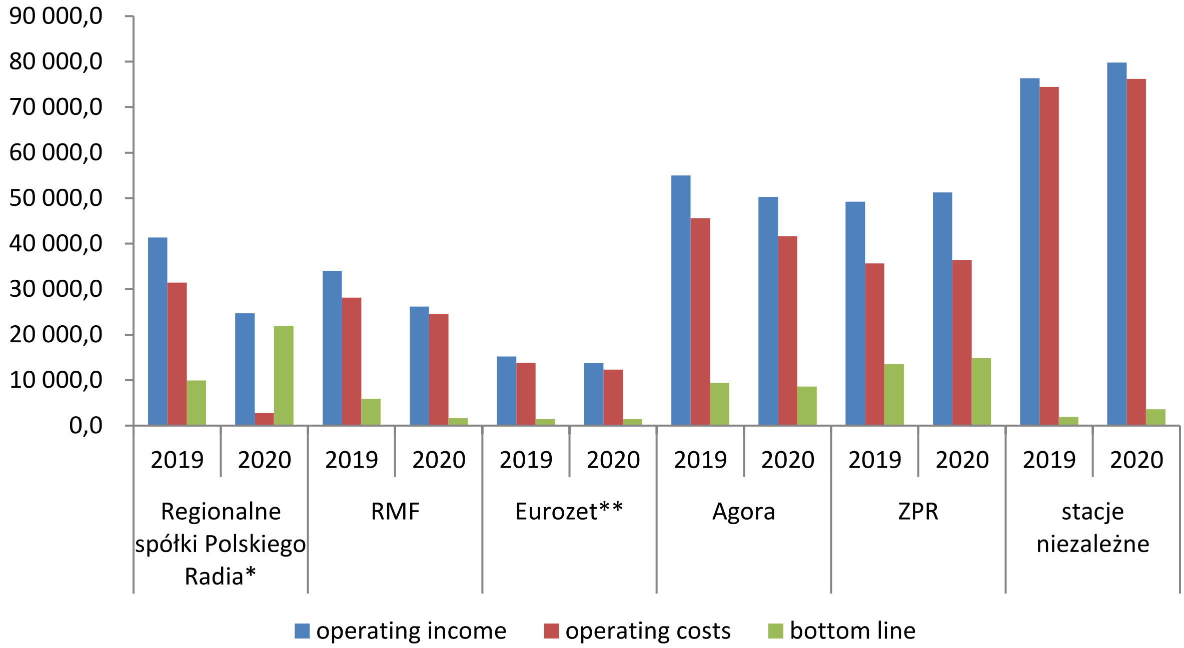
Agora Group's stations maintained their market share, as in the previous year, at 20%, and their operating revenues amounted to PLN 50.3 million, down by 8.5% (i.e. by PLN 4.7 million) compared to 2019.

ZPR Group's local broadcasters increased their market share to 21% (up 3 pp) in 2020. Their operating revenues increased by 4.1% (i.e. by PLN 2 million) compared to 2019 and reached PLN 51.3 million.

In relation to 2019, the RMF Group's local broadcasters achieved operating revenues lower by PLN 7.9 million, or 23%; they amounted to PLN 26.1 million. The market share of these broadcasters decreased by 2 pp and stood at 11%.

The share of local broadcasters belonging to the Eurozet Group in the market of operating revenues in 2019 was estimated on the basis of proportions resulting from financial data from previous years[89] . In 2020, operating revenues in this group of broadcasters amounted to PLN 15.6 million[90] . This allowed, as in the previous year, for a 6% market share.

Chart 63. Comparison of operating activities and financial results of local broadcasters in 2019-2020 (in thousands)



regional public broadcasters independent broadcasters

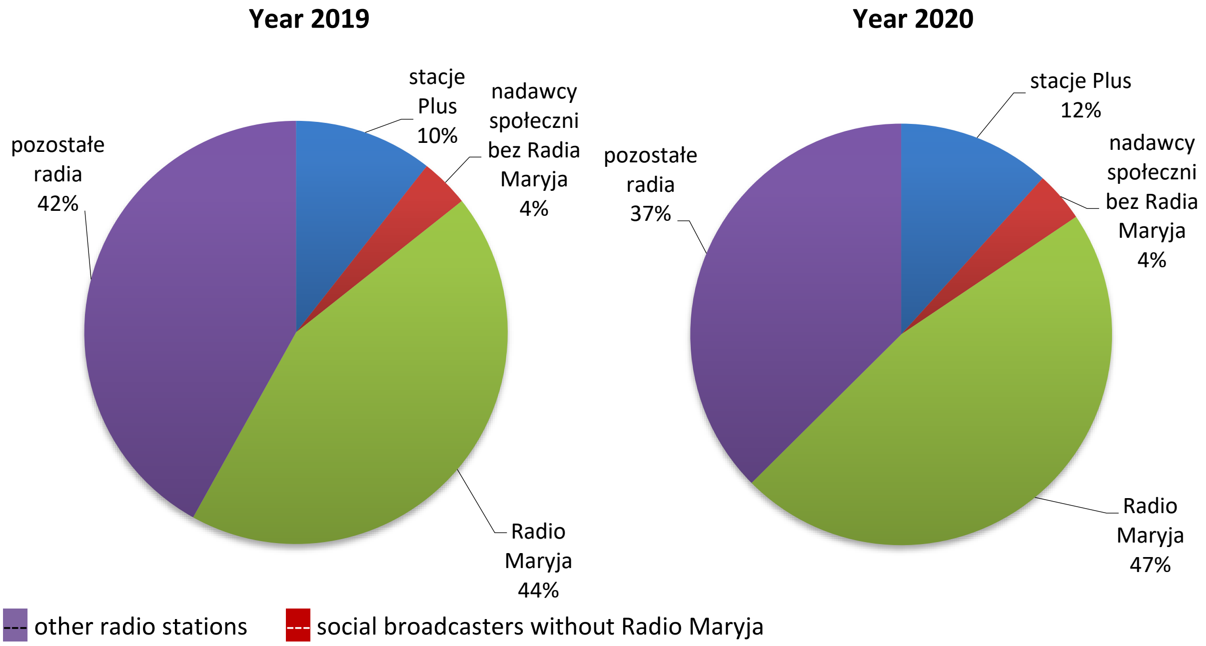
*In order to compare the commercial activity of the PR regional radio stations with that of commercial entities, the totals of revenue and operating costs are reduced by funds from the rtv licence fee and compensation from the state budget for lost licence fee revenue. The reason for the significant difference in revenue and operating expenses in 2019 - 2020 is the amount of compensation, which in 2020 amounted to PLN 119,300 thousand and was PLN 46,600 thousand higher than in 2019 (PLN 72,741.5 thousand). This difference affected the data presented in the chart for regional broadcasters between 2019 and 2020.
** Eurozet Group financial data based on estimates.
Source: Prepared by the KRRiT Office on the basis of broadcasters' financial reports for 2019 and 2020

Socio-religious broadcasters

Socio-religious broadcasters collectively generated revenues of PLN 60.9 million in 2020. These were higher by PLN 1.9 million (by 3.3%) compared to 2019.

[89] In 2015, the rights under the concession for broadcasting a nationwide programme were transferred to Eurozet Radio sp. z o.o., which had previously exercised concessions for local radio programmes. Since 2015. The Company submits a single financial report covering the combined revenues of the broadcaster of the nationwide programme and the local programmes.
[90] Revenues in 2019 were estimated in proportion to the share of revenues of local companies in total revenues for 2014, the last year in which it was possible to calculate the percentage share of local companies in the revenues of the Eurozet Group, while the figures for 2020 come from Eurozet Radio Sp. z o.o. (from November 2021 the statutory obligation to present information on revenues and costs concerning individual media services).

Chart 64. Shares of socio-religious broadcasters in total revenue (from advertising market and grants, donations and contributions) in 2019-2020



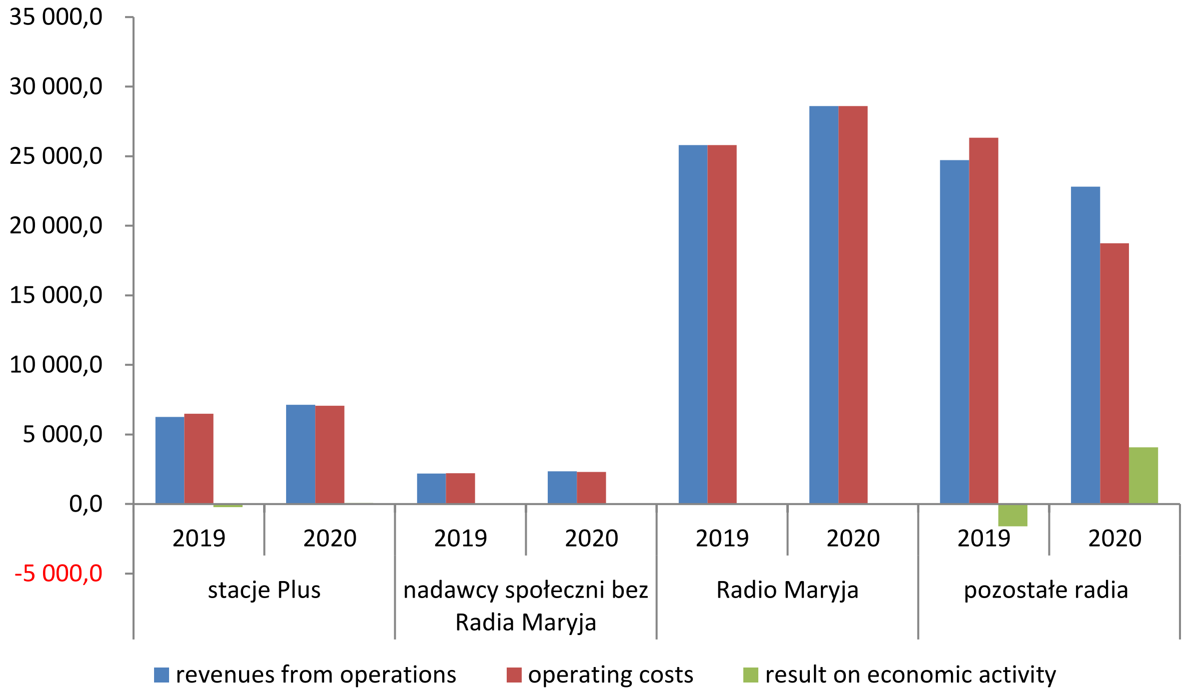
Source: Prepared by the KRRiT Office on the basis of broadcasters' financial reports for 2019 and 2020

Broadcasters with the status of a social broadcaster achieved a total share of 51% in operating revenues. The highest revenue of PLN 28.6 million, up by 10.9% on the previous year, was generated by Radio Maryja. This revenue accounted for 47% of the revenues of the entire group of social and religious broadcasters. The remaining socially-owned broadcasters recorded a total share of 4% in operating revenues, i.e. at a level similar to the previous year.

Plus stations in 2020 recorded an increase in operating revenue of PLN 0.9 million, up 14.1% on 2019. Their market share increased to 12%.

Other radio stations recorded a 7.7% decrease in operating revenue compared to 2019, amounting to PLN 22.8 million. The market share of these radio stations in operating revenue decreased to 37%.

Chart 65. Comparison of revenues and results for socio-religious broadcasters in 2019-2020 (in thousands)



social broadcasters without Radio Maryja other radio stations

Source: Prepared by the KRRiT Office on the basis of broadcasters' financial reports for 2019 and 2020

Other financial indicators for the radio sector

The financial statements show that at the end of 2020, the total assets of commercial radio broadcasters amounted to PLN 528.5 million, an increase of approximately 1.3% compared to 2019. The equity to assets ratio was 78.9% and remained at a similar level to the previous year. The debt ratio also remained at a similar level to the previous period, at 21.1%. The total positive net result of all commercial radio broadcasters in 2020 decreased by 38.7%, i.e. by PLN 28.5 million, and amounted to PLN 45.2 million.

3. Neighbouring markets in 2021

3.1 Press

According to experts, significant challenges for the press market in 2021 include rapidly rising inflation and drastically increasing print prices. These two aspects will definitely affect publishing plans and decisions in the following years. It is predicted that these problems, not only in Poland but also worldwide, will affect publishers, paper manufacturers, as well as owners of printing houses[91] .

Publishers are therefore focusing on strengthening and developing their online services and are looking for new ways to reach their readers through the use of online platforms. The situation of publishers who initiated digital development earlier and systematically encouraged the purchase of subscriptions as the most effective way to reach the latest content is better than those who limited themselves to print editions.

In addition to fast access to content, the advantages of e-issues for the reader are attractive prices, the ability to buy anytime and anywhere, the possibility to purchase wider packages with supplements and access on multiple devices. It is also important to match the needs of the market, to promote the magazine more widely and to be able to gather information about readers' preferences[92]

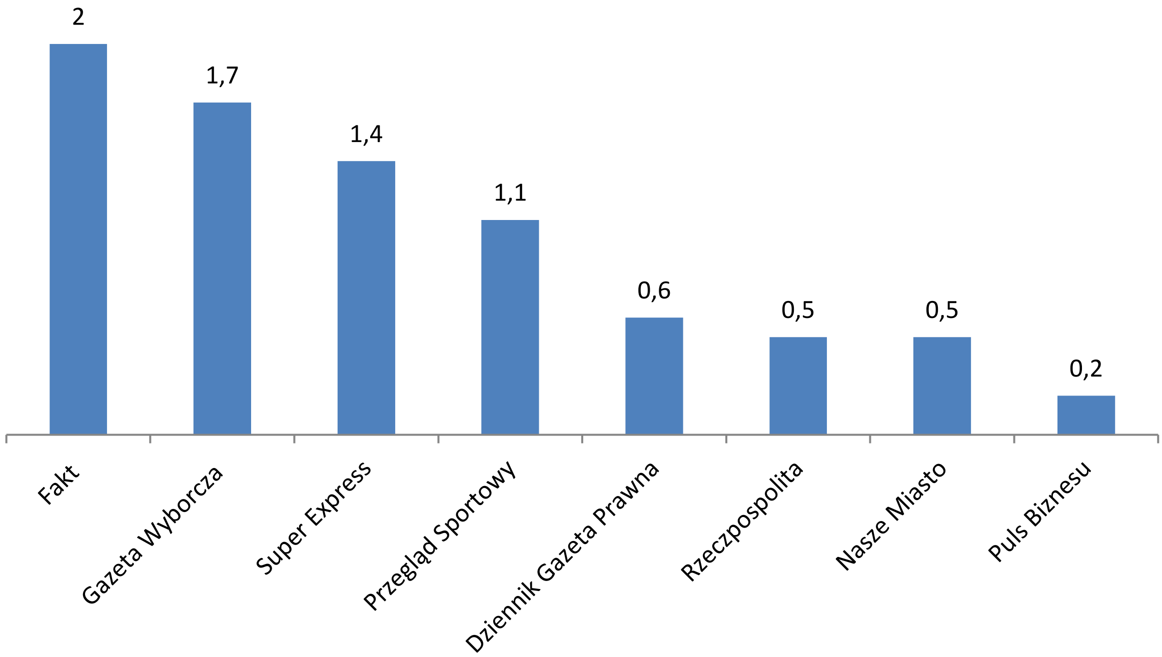
Some publishers have not escaped title closures, salary cuts and staff dismissals. Problems affected not only local press, but also big publishers. After years of competition for the Polish market of women's magazines, *Burda Media Polska*, owned by a German company, signed an agreement with the Swiss *Edipresse Group* to buy its Polish publishing company, *Edipresse Polska*. The President of the Office of Competition and Consumer Protection (UOKiK) has given his consent for the transaction.

Daily newspapers

As in previous years, *Fakt* remains the most popular daily newspaper. According to the results of the Kantar Polska study[93] , contact with this title (reading or browsing) is declared by 2% of the respondents. *Gazeta Wyborcza* remains in second place (1.7%). *Super Express* remains popular at the same level as last year (1.4%).

[91]https://www.wirtualnemedia.pl/artykul/podumowanie-roku-rynek-prasy-co-sie-wydarzylo-prognoza_1
[92] https://www.pbc.pl/e-wydania-prasa-w-dobie-koronawirusa/
[93] Kantar Polska, *Polish Readership Survey*, August 2021 - January 2022; CPW; target group: persons aged 15-75, N=14,202, implementation: Kantar Polska, Ariadna National Research Panel, ARC Rynek i Opinia. CPW Indicator means the average percentage of respondents who encountered (read or browsed) an average magazine issue. Population Estimation Index means the average number of readers who have encountered (read or viewed) an average issue of a magazine. CPW: 2.0% of respondents read the average edition of Fact magazine. Population estimation: 604,000 Poles read the average edition of Fakt magazine. Number of respondents surveyed in the period N=12 350. https://www.pbc.pl/rynek-prasowy/

Chart 66. Average percentage of respondents who have been in contact with an average issue of a magazine



Source: Prepared by the KRRiT Office on the basis of Kantar Polska SA, *Nationwide Press Readership Survey*[94]

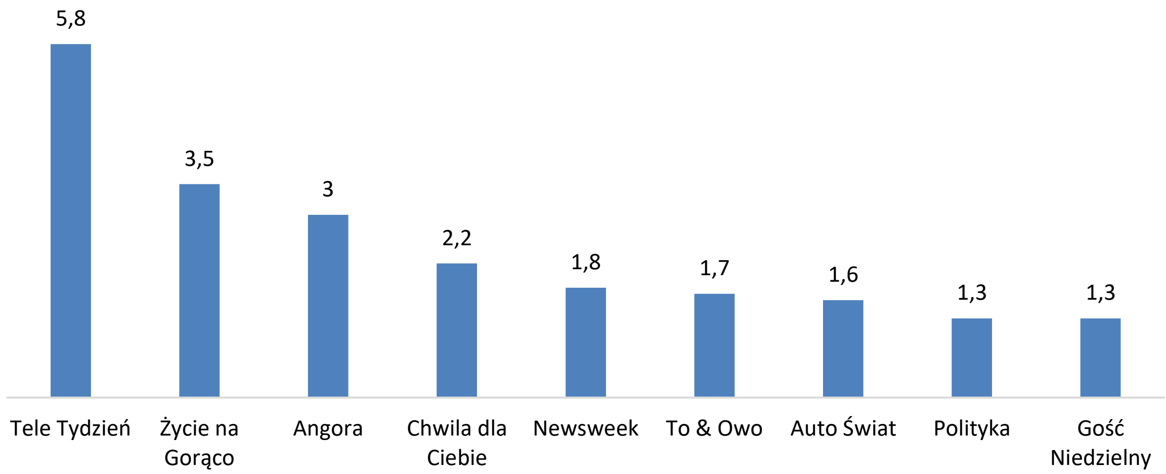
Weekly newspapers

As in previous years, *Tele Tydzień* remains the most recognisable weekly, providing information on television programmes, and *Życie na gorąco,* describing current events from the world of show business. In third place is *Angora,* publishing reprints of articles from the national and world press.

The popularity of opinion weeklies is lower: they are ranked in: 5th place - *Newsweek,* 8th - *Polityka,* 9th - *Gość Niedzielny,* which covers religious, social, ethical and political topics.

[94] https://www.pbc.pl/rynek-prasowy Presentation of data for the period August 2021 - January 2022. The survey was conducted using the CAPI method - the interviewer conducts a direct interview with the respondent using a computer, on which answers to questions asked in the form are recorded. Number of surveyed respondents (aged 15-75) in a given period N= 12 350. N stands for the number of people participating in the survey.

Chart 67. Average percentage of respondents who have been in contact with an average edition of a magazine

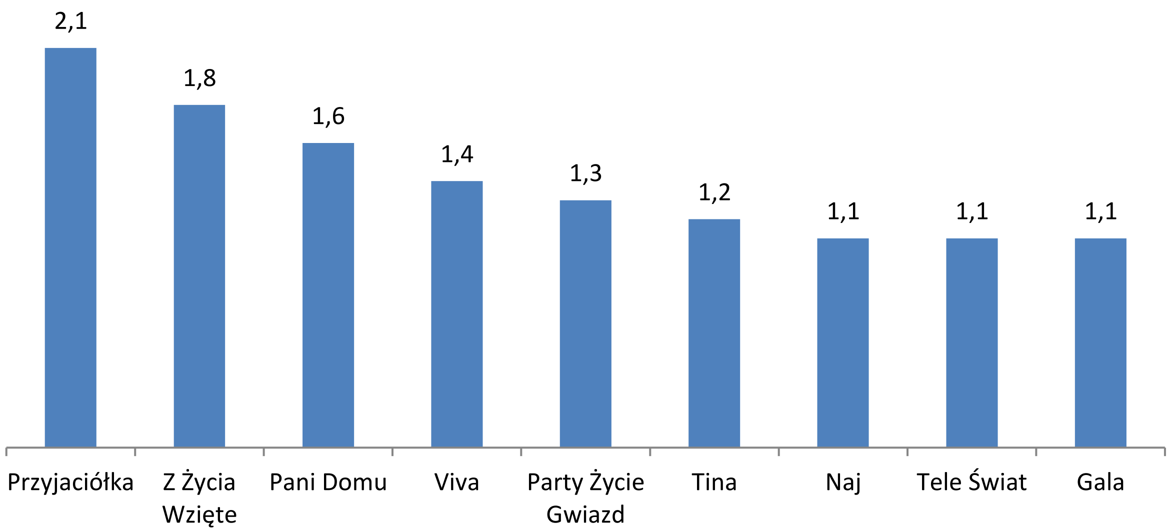


Source: Prepared by the KRRiT Office on the basis of Kantar Polska SA, *Nationwide Press Readership Survey*[95]

Biweekly magazines

Just like last year, readers are most likely to reach for *Przyjaciółka, while Z Życia Wzięte* remains in second place, with a slight drop.

Chart 68. Average percentage of respondents who were exposed to an average issue of a magazine



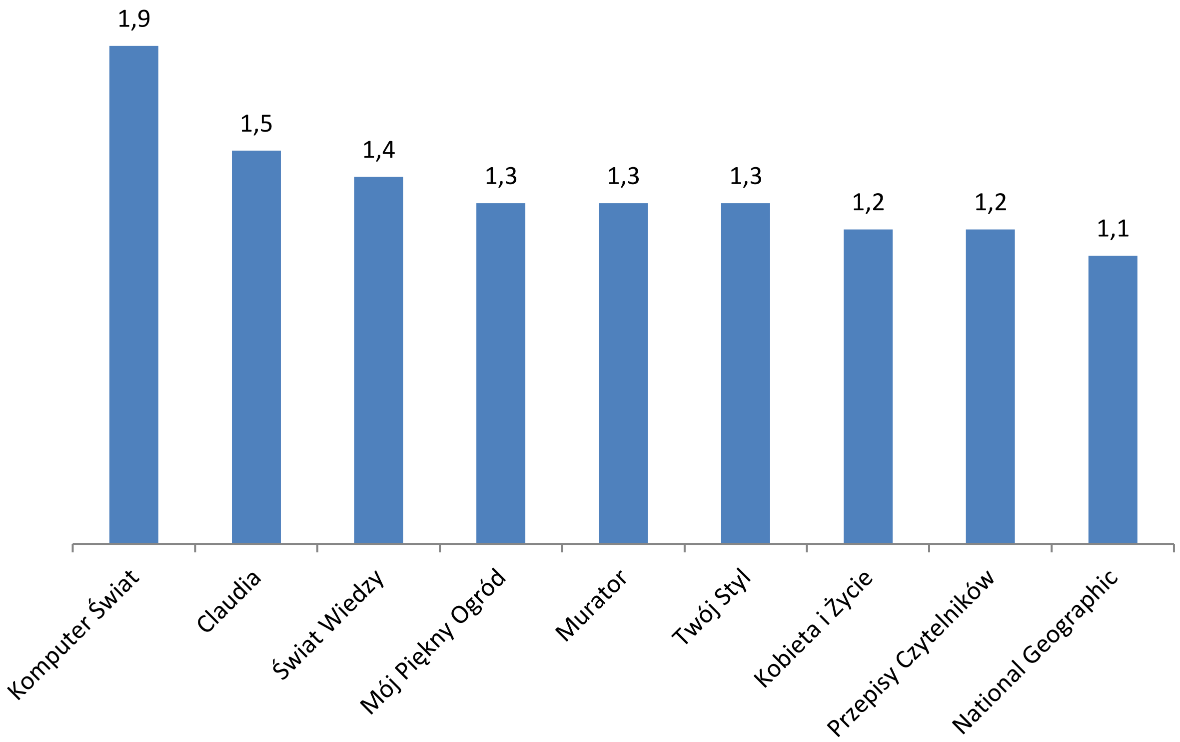
Source: Prepared by the KRRiT Office on the basis of PBC data; August 2021-January 2022; CPW; target group: persons aged 15-75, Kantar Polska SA, *Nationwide Press Readership Survey*[96]

[95] idem.
[96] idem.

Monthly magazines

In 2021, the computer-themed title *Komputer Świat* remained in first place, with *Claudia moving* up to second. *Świat wiedzy* moved up to third place from fifth. The remaining monthlies achieved similar results.

Chart 69. Average percentage of respondents who have been in contact with an average issue of a magazine



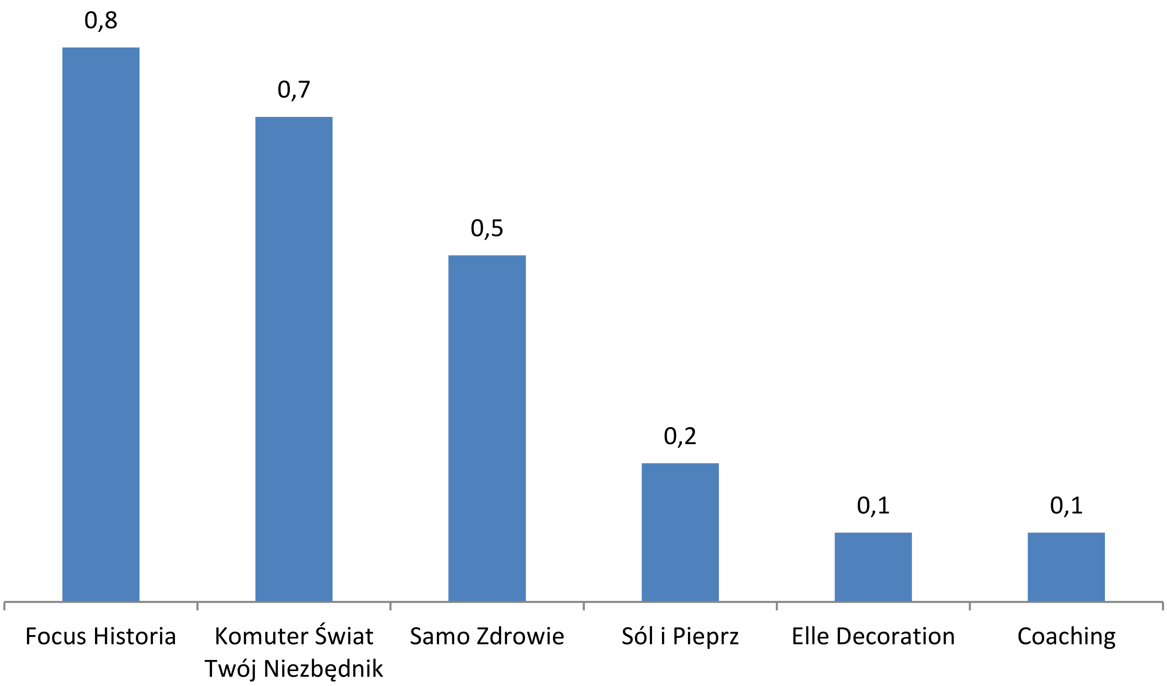
Source: Prepared by the KRRiT Office on the basis of Kantar Polska SA, *Nationwide Press Readership Survey*[97]

Bimonthly magazines

The first position in the ranking is occupied by *Focus Historia*, a popular science magazine which devotes a lot of space to World War II and recent history. In second place is *Komputer Świat Twój Niezbędnik. The* next places, just like in the case of monthlies, were occupied by guides on health, cooking, interior design and personal training.

[97] https://www.pbc.pl/rynek-prasowy. Presentation of data for the period August 2021 - January 2022. The survey was conducted using the CAPI method - the interviewer conducts a direct interview with the respondent using a computer, on which answers to the questions asked in the form are recorded. Number of surveyed respondents (aged 15-75) in a given period N=12 350. N stands for the number of people participating in the survey. Realisation: Kantar Polska*, Ogólnopolski Panel Badawczy Ariadna, ARC Rynek i Opinia.*

Chart 70. Average percentage of respondents who had contact with an average issue of a magazine



Source: Prepared by the KRRiT Office on the basis of Kantar Polska SA, *Nationwide Press Readership Survey*

Press sales

As of 2021. Polskie Badania Czytelnictwa took over the tasks of the Press Distribution Control Association related to providing information on press circulation and distribution. They are supervised by the Chamber of Press Publishers[98] . Together with the publishers, new regulations for press distribution were prepared and the way of reporting press distribution was changed from monthly to quarterly.

Currently, paid circulation is the sum of copy sales of printed editions, copy sales of e-editions, subscriptions to printed editions and subscriptions to e-editions as well as other paid forms of distribution of printed editions and other paid distribution of e-editions. Due to a different way of reporting press sales, it is not possible to provide information as presented in previous years.[99]

National daily newspapers

The average circulation of paid newspapers in the fourth quarter of 2021 totalled 418,516 copies. Sales of daily newspapers decreased by 7.47% compared to the same period in 2020.

In the fourth quarter of 2021, the average circulation of *Fakt* was 150,562 copies, 10.09% less than in the same period of 2020. *Super Express* remains in second place with 89,555 copies, with a loss of 3.36%. The podium is completed by *Gazeta Wyborcza, which* at the same time recorded the largest

[98] https://www.wirtualnemedia.pl/artykul/koniec-miesiecznych-danych-o-sprzedazy-prasy-od-stycznia-tylko-kwartalne
[99] https://www.wirtualnemedia.pl/artykul/wyniki-sprzedazy-dziennikow-iv-kwartal-2021-fakt-rzeczpospolita

decline from 66 thousand copies to 56 975 copies (by 13.24%).. *Rzeczpospolita* followed with 36,482 copies. (a 10.62% fall) and *Dziennik Gazeta Prawna* (32,106 copies). (down by 1.86%)[100] .

Sales of regional daily newspapers

Average sales of regional dailies in 2021 , mostly published by Polska Press, fell by 17.5% compared to 2020. The biggest declines were recorded by *Dziennik Bałtycki and Dziennik Zachodni*.

The average sales of regional dailies covered by the PBC survey in 2021 amounted to 158,399 copies compared to 191,905 copies in 2020[101] .

Gazeta Pomorska remained the leader among regional dailies with an average sale of 17,927 copies, which was 18.1% lower than in 2020. In second place was *Dziennik Zachodni* with average sales of 12,935 copies (a 20.4% decrease), and *Głos Wielkopolski was* third *with 12,*250 copies (18.7% decrease).

Sales of weekly opinion magazines

Among opinion weeklies, sales of only two titles increased in 2021 compared to 2020: *Polityka* and *Tygodnik do Rzeczy*.

Polityka's average total sales in 2021 were 93,543 copies, 0.7% higher than in the previous year[102] .

Newsweek Polska sold an average of 70,597 copies and noted a fall of -6.3%, *Sieci* - 34,941 copies (a fall of 7.1%), *Tygodnik do Rzeczy* - 28,396 copies (an increase of 0.3%), *Tygodnik Powszechny* - 24,355 copies (the biggest drop i.e. 8%), , and *Gazeta Polska* - 20,774 copies (a drop of 7.5%), and *Przegląd* - 13,562 copies (a 4.2% decrease).

The average sale of *Gość Niedzielny* was 85 789 copies. The average sale of the weekly with reprints *Angora* amounted *to* 193,943 copies (a drop of 2.4%). (a 7.3% fall).

Among weekly opinion magazines there is also the nationwide weekly *Niedziela*, published by the Metropolitan Curia in Częstochowa*.* Apart from religious subjects it presents socio-political, economic, historical and cultural issues. The average circulation of the paper, according to the information given by the publisher[103] , ranges from 75 to 100 thousand copies depending on the subject and circumstances. Distribution takes place through: parishes (60%), the Polish Post Office, Kolporter and other distribution companies (40%). This weekly is not among the magazines described by the Polish Readership Survey.

Sales of biweeklies

In 2021. *Przyjaciółka* maintained its popularity and recorded the smallest drop in sales among the biweekly guide magazines compared to 2020.[104]

[100]https://www.wirtualnemedia.pl/artykul/wyniki-sprzedazy-dziennikow-iv-kwartal-2021-fakt-rzeczpospolita
[101] idem.
[102] https://www.press.pl/tresc/69460,_polityka_-liderem-sprzedazy-tygodnikow-opinii-w-2021-roku
[103] https://www.niedziela.pl/
[104]https://www.press.pl/tresc/69652,_przyjaciolka_-liderem-sprzedazy-dwutygodnikow-poradnikowych-w-2021-roku

The average total sales of *Przyjaciółka* amounted to 118,545 copies and was 6% lower than the year before. *Tina* sold an average of 56,752 copies (a drop of 20.2%), *Pani Domu* sold 44,868 copies (a drop of 7.3%), and Naj sold 27,919 copies (the highest decline, i.e. by 22%).

Sales of luxury monthlies

The leading position was maintained by *Twój Styl*. The average sales of this title decreased from 109,031 copies in 2020 to 98,156 copies in 2021, i.e. by 10%.

In 2021 Zwierciadło, as the only luxury monthly, increased its average sales compared to 2020 by 5.1%, to 78,954 copies.

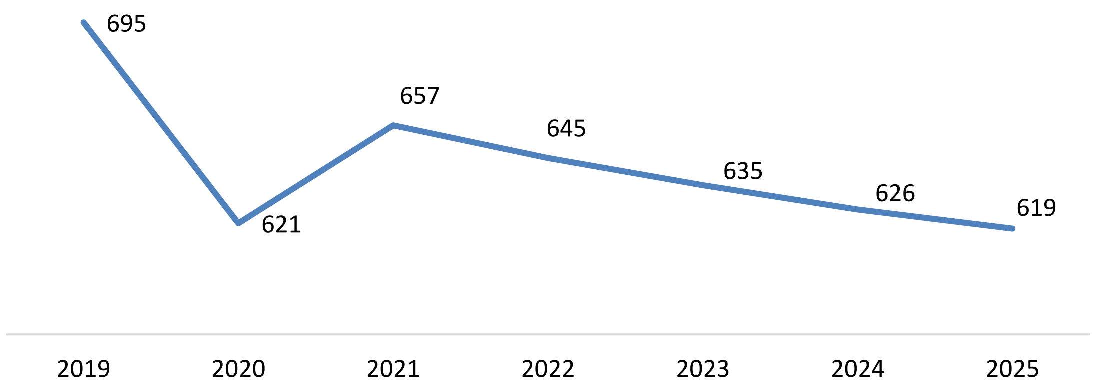
Wysokie Obcasy Extra sold an average of 49,761 copies (a drop of 8.1%), , *Pani* - 37 744 copies (5.1% decrease), Elle - 24 510 copies (5.1% decrease), *Elle sold* 24 510 copies (a fall of 19.6%), while *Glamour* sold 19,849 copies and noted an 8.3% drop[105] .

The value of the press market

In 2020, the newspaper and magazine market in Poland, like other industries, was affected by a pandemic. The market in 2019 was valued at USD 722 million and in 2020 - at USD 638 million (a decrease of 11%).

There was a nearly 6% rebound in 2021, with revenues in the print segment rising from $621m to $657m, but declines will dominate the following years, according to a forecast of experts at PricewaterhouseCoopers (PwC) - for both newspapers and magazines. The largest of these has affected advertising in printed magazines. It will shrink at an average annual rate of 2.79% until 2025. Although the value of electronic editions and advertising of newspapers and magazines will grow at an average annual rate of 3.3% by 2024, it will not be able to offset the decline in sales of paper editions, hence the numerous efforts by publishers to attract digital subscribers[106] .

Chart 71. Value of the newspaper and magazine market in Poland (in USD million)

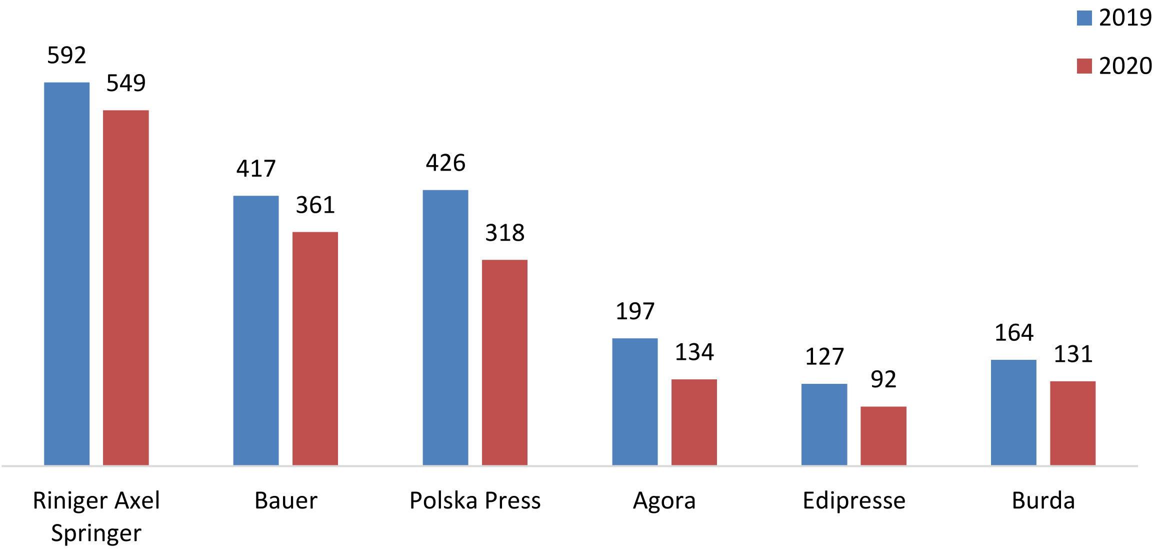


Source: Prepared by the KRRiT Office on the basis of Newspaper and Magazine market data, PwC[107] , *Global Entertainment & Media Outlook 2021-2025*

[105] https://www.wirtualnemedia.pl/artykul/miesieczniki-luksusowe-traca-czytelnikow
[106] https://www.pwc.pl/pl/pdf-nf/2021/rynek-mediow-2021.pdf
[107] PwC - Price WaterhouseCoopers - a global network of companies providing accounting, auditing and advisory services. It belongs to the so-called Big Four audit companies (alongside Deloitte, EY and KPMG).

Main publishers

Chart 72. largest publishers - revenues from sales of press titles and from press advertising in 2019 - 2020 (in PLN million)



Source: Prepared by the KRRiT Office[108]

In 2020, all publishers suffered a loss. More than 20 magazines have disappeared from the market since the outbreak. Publishers have also closed paper editions of magazines, some of them, i.a. *Wprost, Logo, Avanti, Podróże, Żagle, Gala, PC Format or Uroda Życie,* moved exclusively to the Internet. Many of them strongly accelerated the digitisation process and the development of subscription models.

The Swiss-German publishing house Riniger Axel Springer remains in first place in terms of revenue. The group owns, among others, the weekly *Newsweek*, the daily *Fakt, the Forbes* magazine and *Business Insider*. It also owns the Internet portal Onet. The publishing house noted a loss of 7.3% in 2020 compared to 2019.

The second position is maintained by the German publishing house Bauer, which had revenues of PLN 417 million in 2019. In 2020, its revenues decreased by 13.4% to PLN 360.8m.

In third place, as in 2019, is Polska Press, owned by Verlagsgruppe Passau Capital Group. Polska Press owns 20 of the 24 regional dailies and almost 120 local weeklies published in Poland, as well as

[108] https://www.wirtualnemedia.pl/artykul/ringier-axel-springer-polska-onet-ile-zarabia-zysk-wlasciciel-2021-r
https://www.press.pl/tresc/63640,wydawnictwo-bauer-mialo-ponad-100-mln-zl-zysku
https://www.wirtualnemedia.pl/artykul/polska-press-praca-portal-pl24
https://admonkey.pl/prezes-uokik-wydal-zgode-na-koncentracje-burda-media-polska-edipresse-polska/
https://www.agora.pl/wyniki-finansowe-grupy-agora-w-2020-
https://www.wirtualnemedia.pl/artykul/agora-w-2020-roku-miala-130-mln-zl-straty-netto-powrot-rynku-reklamowego-do-wartosci-sprzed-pandemii-zajmie-2-3-lata
https://www.wirtualnemedia.pl/artykul/edipresse-polska-wyniki-finansowe-spadek-wplywow-o-25-proc-zwiekszylo-zysk-wyplaci-55-mln-zl-dywidendy
https://rynek-ksiazki.pl/aktualnosci/spadek-przychodow-edipresse-polska/

500 online sites. Its revenues in 2020 amounted to PLN 318 million (a 25.4% decrease compared to 2019). In 2021. PKN Orlen bought Polska Press from its German owner.

Agora Publishing (a Polish listed company) is ranked fourth in this ranking. The value of the Group's revenue from publishing sales in 2020 amounted to PLN 133.8 million, down 3.9% compared to 2019.

Another publishing house, Switzerland's Edipresse, noted its sales revenues fall in 2020 significantly- by 25.1% , to PLN 92.36 million. In early May 2021, it was announced that Edipresse Group would sell its media business in Poland to Burda. At the same time, the company made a strategic decision to withdraw from its core media business in Poland.

In February 2022. The Office of Competition and Consumer Protection (UOKiK) has given its consent for the Burda Media Polska publishing house to take control over Edipresse Polska. According to UOKiK, this transaction will not lead to a restriction of competition[109] .

German conglomerate Burda Media Polska has reported a 20.1% drop in sales revenue in 2020. Burda Media Polska's revenues fell from PLN 163.67m to PLN 130.76m in 2020. The company publishes around 20 print titles, including luxury and popular science magazines.

Revenues from the print press advertising market have been declining for years. The value of print advertising alone in 2020 fell by 34.4% from PLN 459m to PLN 301m compared to 2019. Dailies noted a 29.9% drop from PLN 174 million to PLN 122 million, and magazines an even bigger drop of 37.2% from PLN 285 million to PLN 179 million[110] .

Origin of capital in the press

In 2020, the press market was dominated by foreign entrepreneurs: Bauer, Ringier Axel Springer, Edipresse Polska and Burda International Polska with German or Swiss capital. Other foreign publishers include Egmont Polska (an international group, whose activity was initiated in Denmark) and Bonnier Business Polska representing Swedish capital. Foreign capital prevails among publishers of colour specialist magazines and press for children and young people.

In 2021, despite PKN Orlen's purchase of Polska Press, foreign publishers will probably still control around 70% of the press market. The effects of Burda Media Polska's purchase of a stake in Edipresse Polska will be assessed in the following year.

Other publishers: Agora, ZPR Media, Gremi Group, Westa Druk Mirosław Kuliś, Infor Biznes, Gościa Niedzielnego Foundation, Polityka, PMGM Polskie Media (Platforma Mediowa Point Group and Orle Pióro), Fratria, Forum SA, Niezależne Wydawnictwo Polskie, Tygodnik Powszechny, Oratio Recta Foundation are mostly publishers of daily and weekly newspapers. These are publishing companies with national capital.

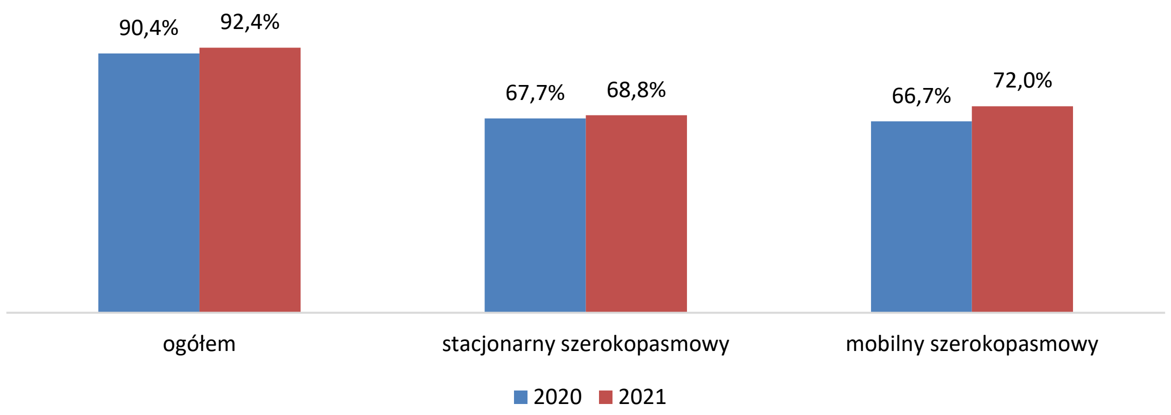
[109] https://www.bankier.pl/wiadomosc/UOKiK-zgoda-na-przejecie-przez-Burda-Media-Polska-kontroli-nad-Edipresse-Polska-8284722.html
[110] Publicis Groupe, Advertising market in Poland in 2020.

3.2 Internet and telecommunications[111]

Internet access

The Internet is in the vast majority of households in Poland one of the basic tools for work, education, access to information and entertainment, and its popularity is growing every year. In 2021, the share of households with access to the Internet was 92.4%, an increase of 2 percentage points compared to 2020. There is an increase in both access to fixed-line broadband Internet (by 1.1 percentage points) and mobile broadband Internet, whose development is characterized by greater dynamics - an increase of 5.3 percentage points compared to 2020.

Chart 73. Internet access in households



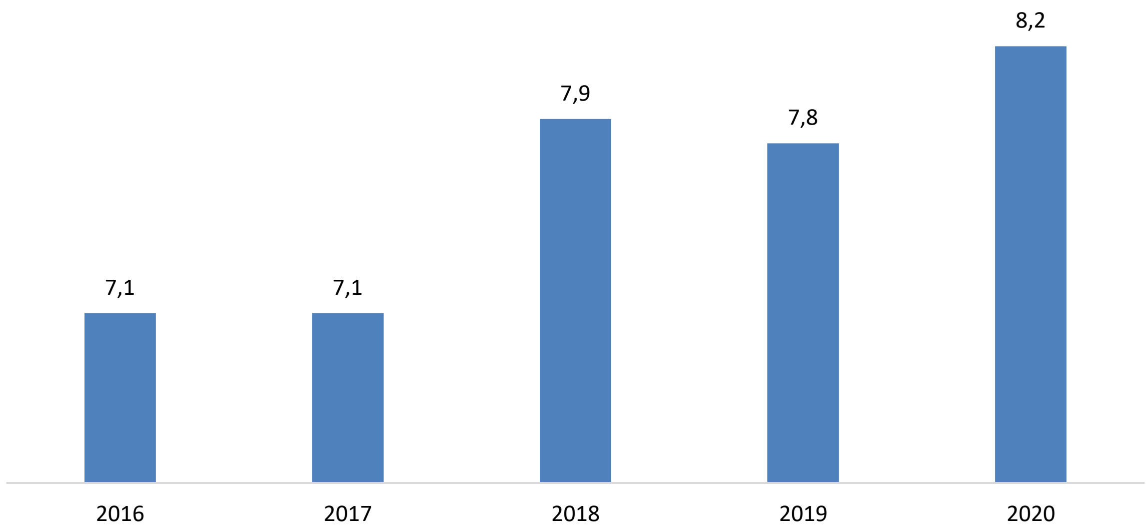
in general fixed broadband mobile broadband

Source: Prepared by the KRRiT Office on the basis of CSO research data, *Information society in Poland in 2021.* , Signal information, Warsaw, 24.11.2021.

Internet access preference surveys have shown[112] that residential users are 67% opting for fixed access due to better quality and stability of the connection. Although the number of fixed internet users has increased by 4 pp. , Poland ranks last in Europe in terms of fixed internet penetration per 100 inhabitants: 20.8% against a European average of 34.3%. At the same time, Poland is among the three countries with the lowest fixed access prices.

[111] In describing this part of the market, KRRiT relies on data for 2021 or for 2020, depending on the availability of up-to-date statistical data.
[112] ARC Market and Opinions research commissioned by UKE.

Chart 74. Number of users of fixed Internet access in 2020 (in millions)

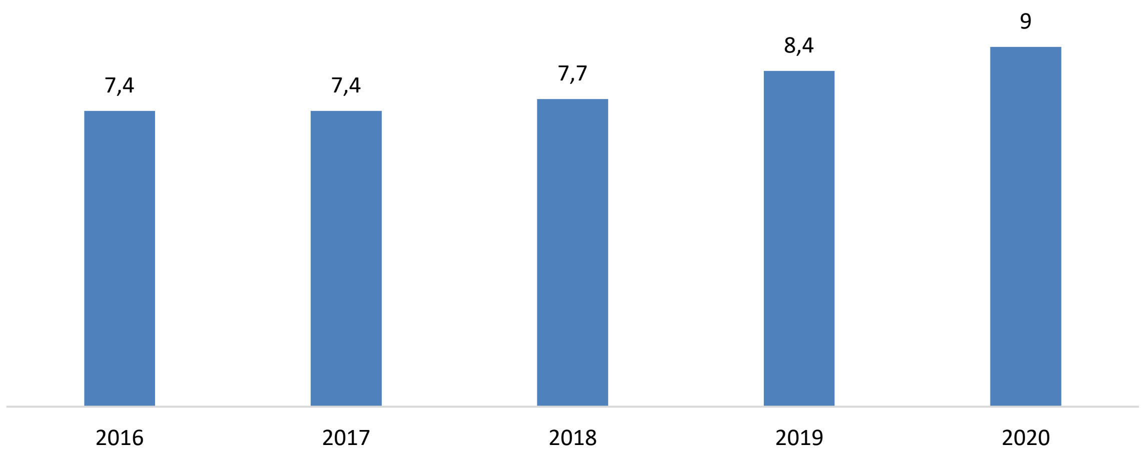


Source: *Report on the state of the telecommunications market in Poland in 2020*, UKE, June 2021.

The most frequently used access technologies are cable modem (35.2%) and fibre optic line (26.3%). In first place among fixed-line Internet providers is Orange with a 24.3% market share, followed by UPC with a 15.9% share.

The dynamic development of mobile access distinguishes Poland among European Union countries. Mobile internet penetration[113] in 2019 was 183.2%[114] (an increase of 14 pp. compared to 2018) which gives Poland first place in Europe.

Chart 75. Number of mobile Internet access users in 2020 (in millions)



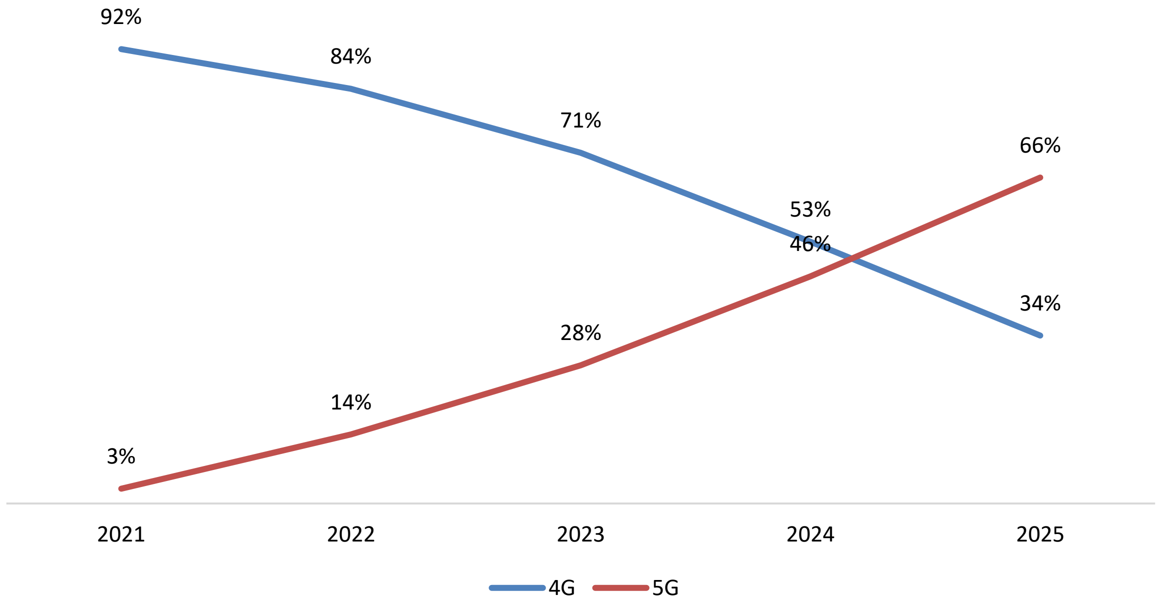
Source: *Report on the state of the telecommunications market in Poland in 2020*, UKE, June 2021.

[113] The mobile internet penetration rate was related to the number of population, the fixed internet to the number of households.
[114] UKE, *Report on the state of the telecommunications market in Poland in 2020* June 2021.

Among users of devices dedicated to mobile Internet, 4G technology is the most popular. Analysys Mason[115] predicts that its share will reach 92% in 2021 and will decrease in the following years in favour of 5G access, which will be used by 66% of users in 2025.

The coverage information reported by operators for 2020 shows that LTE technology continues to dominate among mobile technologies, with a share of 96.2% in 2020. As of this year, operators started reporting 5G technology coverage. 5G accounted for 3.3% of total mobile internet coverage.

Chart 76. Share of 4G and 5G technologies in the total number of dedicated mobile access devices - forecast



Source: *Report on the state of the telecommunications market in Poland in 2020*, UKE, June 2021.

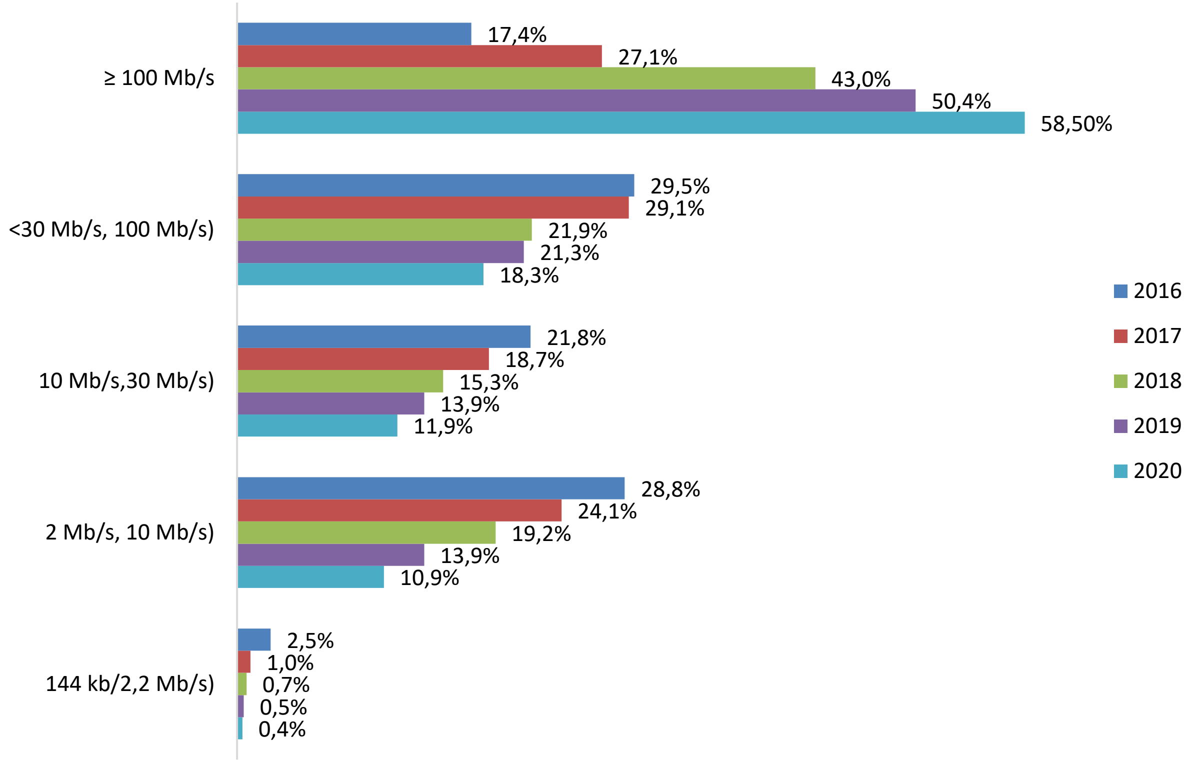
The first place among mobile Internet providers was taken by Orange Polska, which provided this service to 34% of users. In second place was P4 (18% of users), and in third place was T-Mobile (17.1%).

Rapid development of telecommunications networks makes it possible to achieve increasingly better parameters of network use, such as quality and speed of data transfer. This creates virtually unlimited access to Internet resources, including audiovisual media services.

In relation to 2019, the share of lines with the highest bit rate greater than or equal to 100 Mbps increased by 8.1 percentage points, while over the 5 years (2016 - 2020) it increased by as much as 41.1 percentage points.

[115] Analysys Mason - one of the leading consultancies in the telecommunications market.

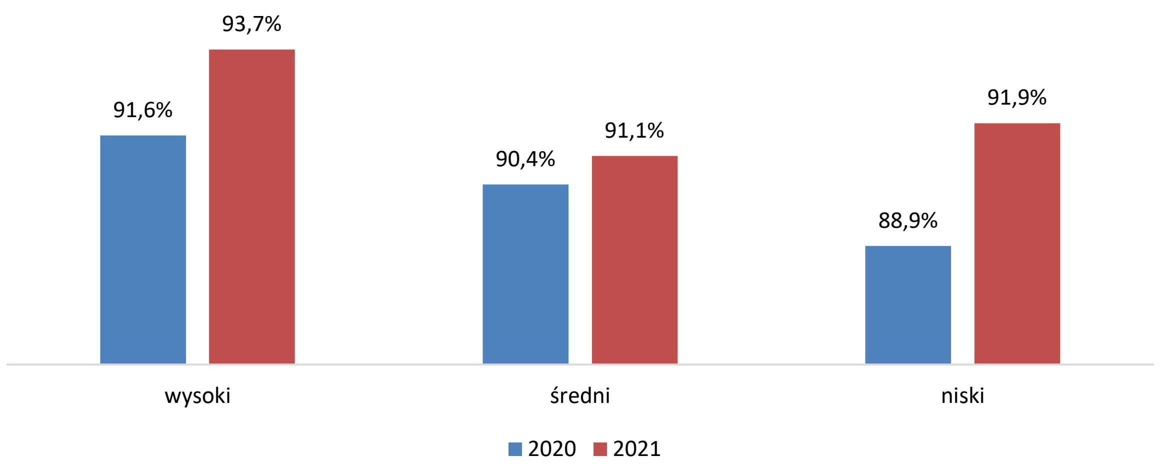
Chart 77. The share of Internet lines by bit rate



Source: Prepared by the KRRiT Office on the basis of the *Report on the state of the telecommunications market in Poland in 2020*, UKE, June 2021

Despite the dynamic development of access to Internet services, there is still a gap in Internet access between highly urbanised and rural areas.

Chart 78. Internet access in households by degree of urbanization



high medium low

Source: Prepared by the KRRiT Office on the basis of the Central Statistical Office research, *Information society in Poland in 2021*, Signal information.

Internet at home is most common in households with children (99.7%), in large cities (93.8%) and in more urbanised areas[116] .

The recent increase in the need to use the Internet due to the Covid-19 pandemic has resulted in an increased demand for high-speed connections. By 2020, nearly 59% of fixed Internet users will have access to speeds above 100 Mbps[117] .

Following the release in 2012 , the so-called first digital dividend (790 - 862 MHz) and its transfer for LTE technology, the World Radiocommunication Conference WRC-15 decided to allocate the second digital dividend (frequencies in the 694-790 MHz band, the so-called 700 MHz band) for mobile broadband services. Full harmonisation of the use of the 700 MHz band in Europe will be achieved by 2022 at the latest by means of a European Parliament Decision[118] .

In accordance with the timetable contained in the Ministry of Digitalisation's document entitled *National Action Plan for the Change of Allocation of the 700 MHz Band in Poland (2017)*, the years 2020 and 2021 were used to make the necessary changes in the management of the 700 MHz band, consisting, inter alia, in the transfer of DVB-T terrestrial digital television to lower frequency bands. It is planned to use the 700 MHz band after it has been fully released and internationally agreed for the needs of broadband Internet access, primarily for the 5G standard.

Until the process of preparing the 700 MHz band for the new technology is fully completed, the largest operators - mobile service providers (P4, Orange, T-Mobile and Polkomtel) - launched the provision of services in 5G technology in higher frequency bands (2.1 GHz, 2.6 GHz) based on frequency reservations issued by the Office of Electronic Communications for the right to provide a technology-neutral service. This enabled the launch of 5G instead of 4G LTE in large urban areas. After the Polish Parliament passes the *Act on the National Cyber Security System*, an auction will be announced by UKE, as a result of which telecommunications operators will obtain frequency reservations in the released bands, allowing them to provide 5G services. Full access to Internet access services in this technology will mean the removal of most technological barriers and revolutionary changes in the market.

Internet usage

In 2021 88.9% of people aged 16-74 used the Internet regularly, at least once a week (in the previous year 86.8%)[119] . The Internet is most often used at home. Much less frequently the net is used in other places such as work, school or public places[120] .

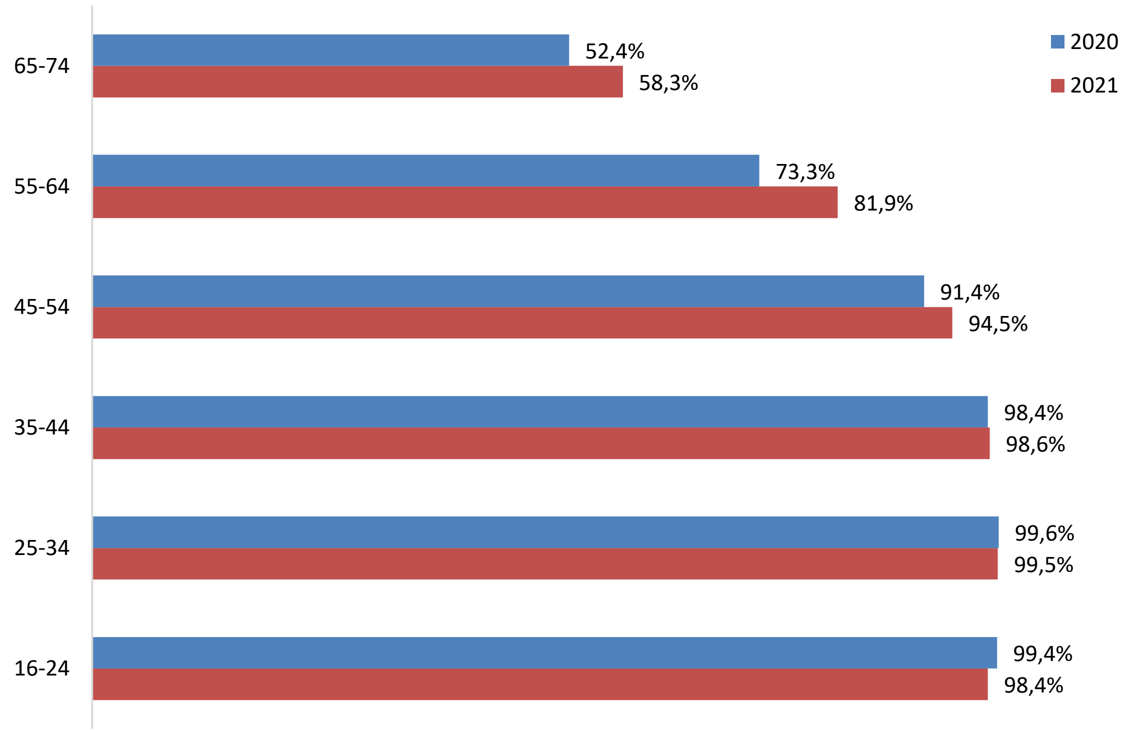
A study by the National Media Institute (NMI) shows that 12.2 million households (84%) use the Internet. These are significantly more often households with at least two persons, with children under 18, with higher average income, from cities[121] .

The frequency of Internet use is most strongly correlated with age. In principle, the entire population aged 18-24 uses the Internet, although this number decreased by 1 percentage point over the past year. There was a significant increase in the number of users aged 55+ (by 6.6 percentage

[116] *CSO, Społeczeństwo informacyjne w Polsce w 2021 r. [Information society in Poland in 2021]*, Signal information, Warsaw, 24.11.2021.
[117] Report on the state of the telecommunications market in Poland in 2020, EC June 2021.
[118] Decision (EU) 2017/899 of the European Parliament and of the Council of 17 May 2017 on the use of the 470-790 MHz frequency band in the European Union.
[119] CSO, *Use of information and communication technologies in public administration units, enterprises and households in 2021,* 24.01.2022.
[120] The study *ICT Usage* for 2021 did not include detailed data on where the Internet is used.
[121] National Media Institute (NMI), survey conducted in 2021 on a sample of 2,000 households.

points), as well as in the group of seniors (the difference compared to 2020 amounts to 5.9 percentage points).

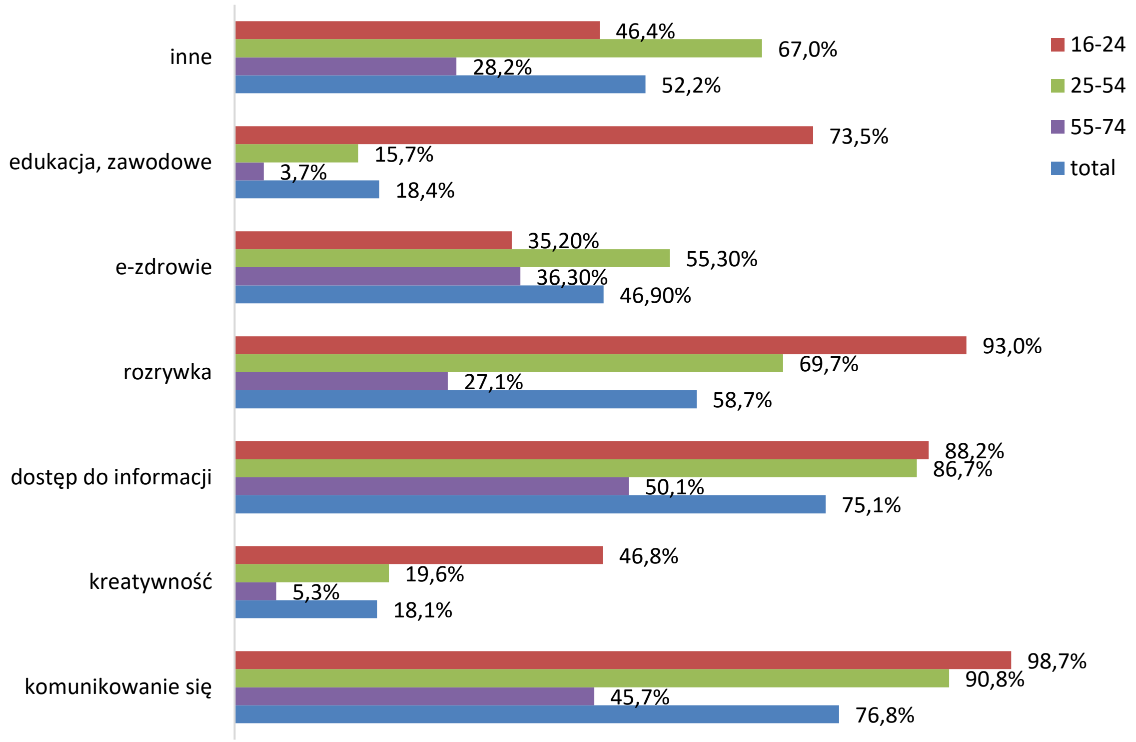
Chart 79. Regular Internet users by age group



Source: Prepared by the KRRiT Office on the basis of CSO data *Use of ICT in public administration units, enterprises and households in 2021*

The purposes for which the Internet is used nowadays cover almost all areas of life and satisfy a large number of the user's personal, family and social needs. However, the most important purpose for which the Internet is used is to communicate: via e-mail, social networking sites, text and visual messaging (Messenger, Skype, etc.).

Chart 80. Purposes of Internet use for private matters in 2021 as a percentage of the population in a given age bracket

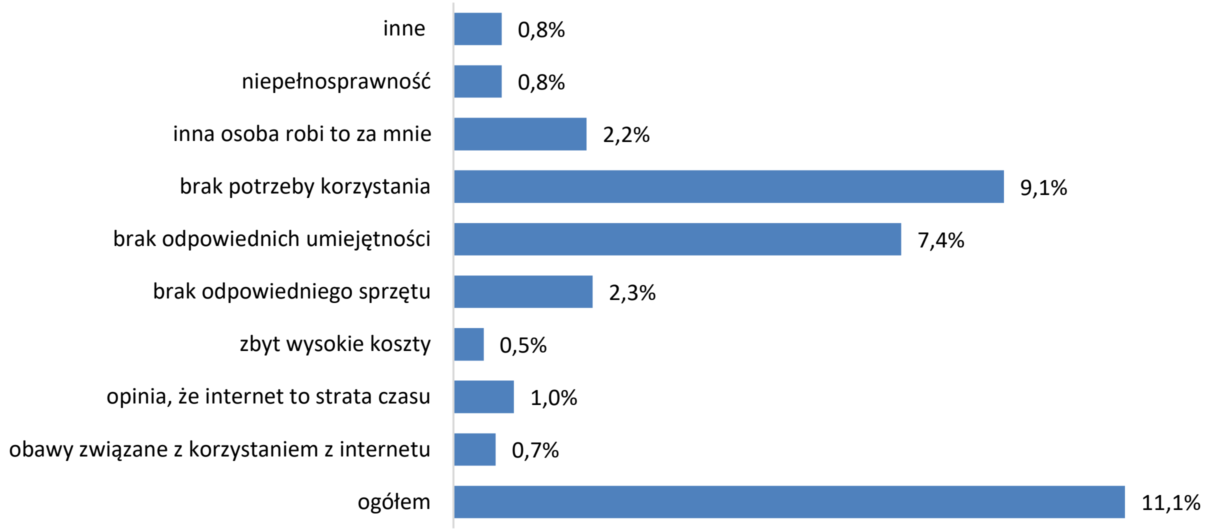


From up to down: others; education, job; e-health; entertainment; access to information; creativity; communication

Source: Prepared by the KRRiT Office on the basis of CSO data *Information society in Poland in 2021*

Despite the constantly growing number of people using the Internet, there is still a group that does not use it. It is about 11.1% of the population. The most common reason for this is the lack of need to use it (9.1%) and the lack of appropriate skills (7.4%).

Chart 81: Reasons why people aged 16 - 74 did not use the internet in 2021.

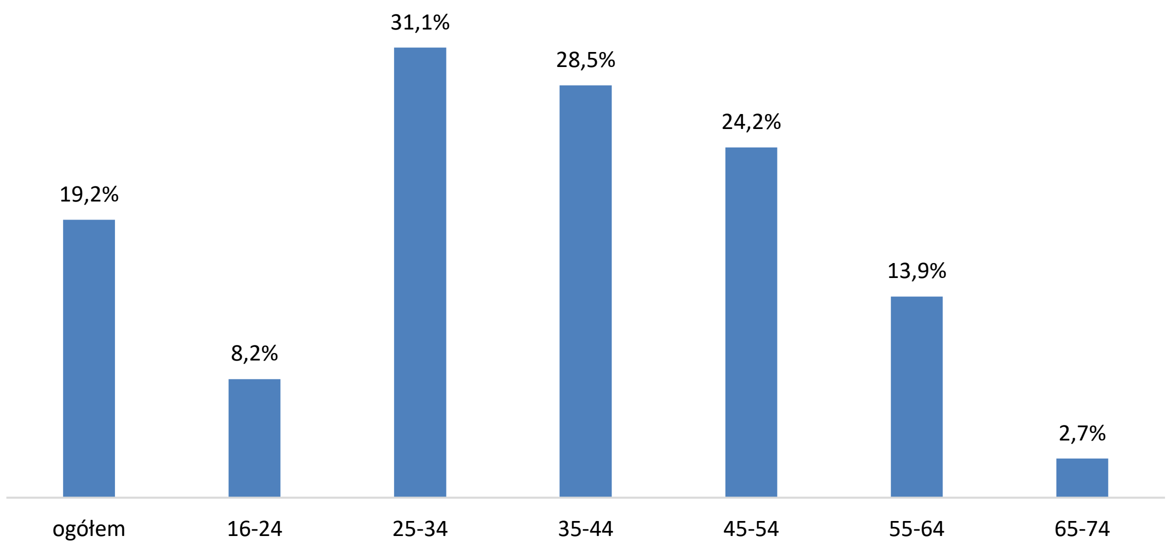


From up to down: others; disability; another person is doing it for me; no need to use; lack of appropriate skills; lack of appropriate equipment; too high cost; the opinion that the internet is a waste of time; concerns about using the internet; in general

Source: Prepared by the KRRiT Office on the basis of CSO data *Use of ICT in public administration units, enterprises and households in 2021*

In 2021, the restrictions still in place due to the Covid-19 pandemic demonstrated the importance for citizens of being able to use the Internet, which for a significant proportion of the population had become the main means of communication and enabled remote working and learning. The possibility to work remotely was used by 19.2%.

Chart 82. People aged 16 -74 using remote working in 2021.



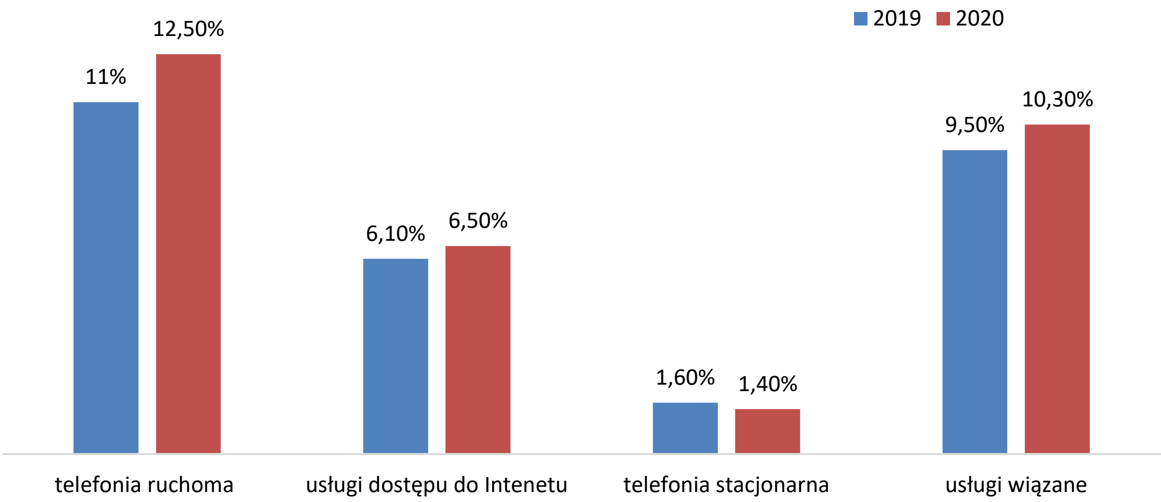
Source: Prepared by the KRRiT Office on the basis of CSO data *Use of ICT in public administration units, enterprises and households in 2021*

Telecommunications market

Telecommunications is one of the most important sectors of the Polish economy. The value of the telecommunications market increased from PLN 36.6 billion in 2019 to PLN 40.8 billion in 2020, i.e. by 2.7%. Meanwhile, the value of investments in the telecommunications sector in 2020 amounted to PLN 7.5 billion.

The mobile segment recorded an increase of approximately 13.8% and revenues generated from it accounted for 30.6% of revenues nationwide. The fixed-line telephony market continues to lose value in favour of growth in Internet access services. Growth of approx. 9% recorded the market for bundled services.

Chart 83. Shares of particular segments in revenues from the telecommunications market (in PLN billion)



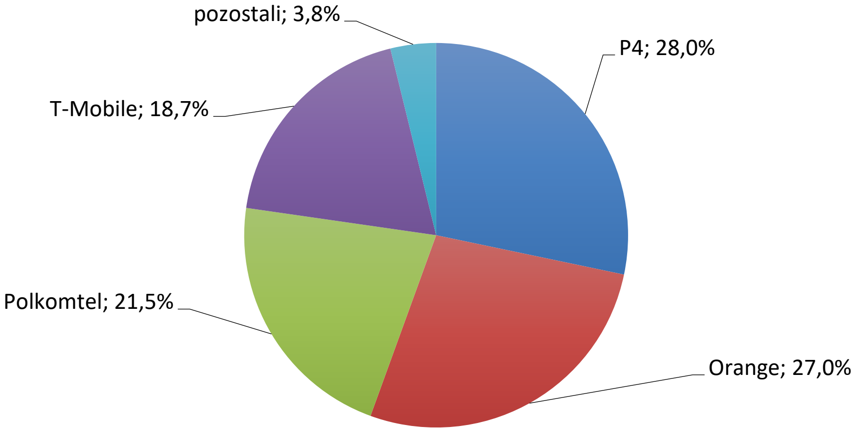
mobile telecommunications internet access services stationary telecommunications related services

Source: Prepared by the KRRiT Office on the basis of the *Report on the state of the telecommunications market in Poland in 2020* , UKE, June 2021

In 2020, 103 telecommunications entrepreneurs provided mobile services, The increase in the number of operators providing these services is due to the emergence of an increasing number of companies that have a contract with a mobile operator (MNO[122]) and resell services to other small operators. As a result of such cooperation, small MVNOs (MVNO[123]) provide mobile telephony services on the basis of a contract they have with an intermediary rather than directly with a mobile operator. As MNOs functioned in 2019: Orange Polska SA, Polkomtel Sp. z o.o., P4 Sp. z o.o. , T-Mobile Polska SA and Aero 2 Sp. z o.o.

[122] Mobile Network Operator.
[123] Mobile Virtual Network Operator.

Chart 84. Shares of mobile operators by number of users in 2020.



Source: Prepared by the KRRiT Office on the basis of *Report on the state of the telecommunications market in Poland in 2020* , UKE, June 2021

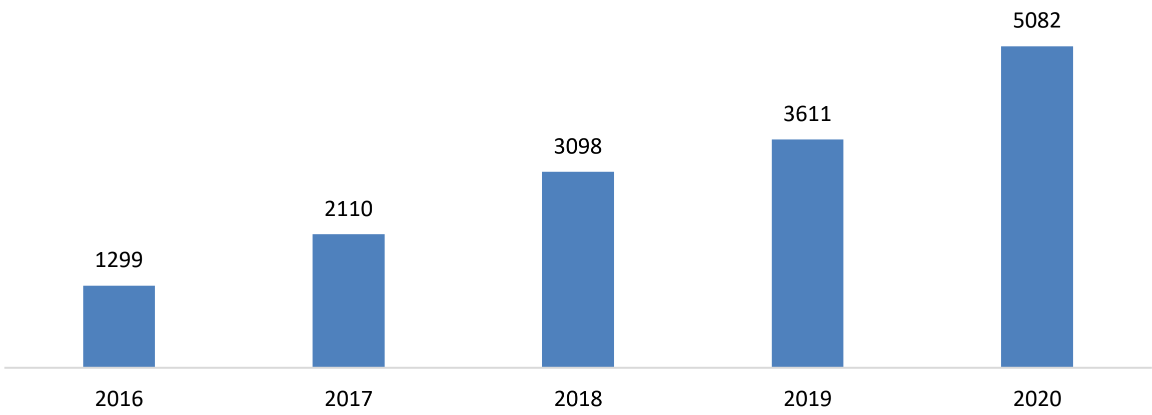
In terms of generated revenues, Orange took the first place (28.3%). As in previous years, the mobile telephony market had the character of an oligopoly[124] - four operators with a strong position had a total market share of 97.7%.

The number of active mobile SIM cards was 54.1 million units (52.2 million units in 2019). The penetration of mobile services is 141.5%, which gives Poland the fourth place in Europe, after Finland, Portugal and Latvia. The average length of calls during the year was 3232 minutes per Polish resident.

A service provided by mobile networks that has been growing extremely rapidly in recent years is data transmission. The volume of data transfer in 2020 was 40.7% higher than in the previous year, and statistically there was an average of 133 GB of data per person in Poland.

[124] As mobile telephony requires significant investment and the construction of costly technical infrastructure, there is a lack of strong players on the market that could compete with existing operators. The situation is similar in other European countries.

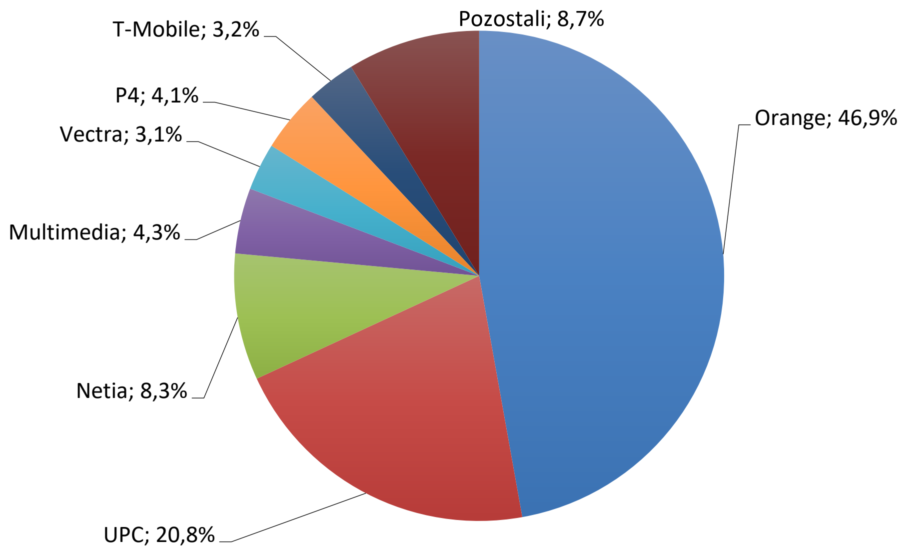
Chart 85. data transmission volumes in PB (petabytes) between 2016 and 2020



Source: *Report on the condition of the telecommunications market in Poland in 2020* , UKE, June 2021

The fixed telephony market has been in a downward trend for years. Both the number of subscribers and the value of the market have been steadily declining. In 2020, the number of fixed telephony subscribers was 3.1 million, compared to 3.4 million in the previous year, and the value of this market decreased by 11%.

Chart 86. Shares of fixed telephony operators in terms of subscribers in 2020.



Source: Prepared by the KRRiT Office on the basis of *Report on the state of the telecommunications market in Poland in 2020* , UKE, June 2021

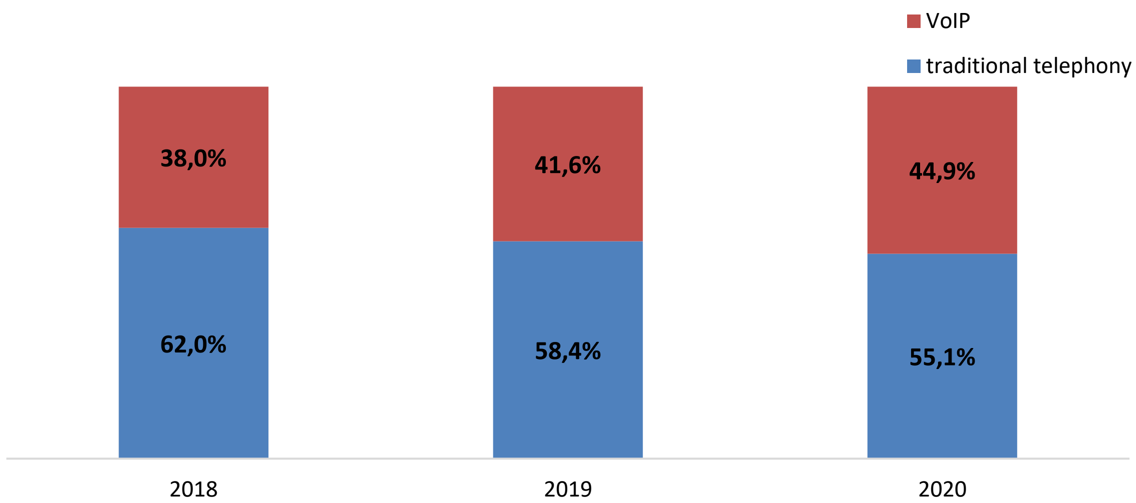
All operators, except UPC, reported a decrease in subscribers compared to 2019, with only UPC reporting an increase of 1.6pc.

VoIP services[125] are so far a small but growing segment of the telecommunications market. They are mainly used for international calls as a cheaper alternative to traditional telephony. In 2020, the number of VoIP users exceeded 2.5 million (0.8% more than last year) and the value of this market

[125] Voice over Internet Protocol - a telephone connection via the Internet.

segment amounted to PLN 0.3 billion (an increase of 10% compared to 2019). In the revenue structure, subscription services account for as much as 93.7%.

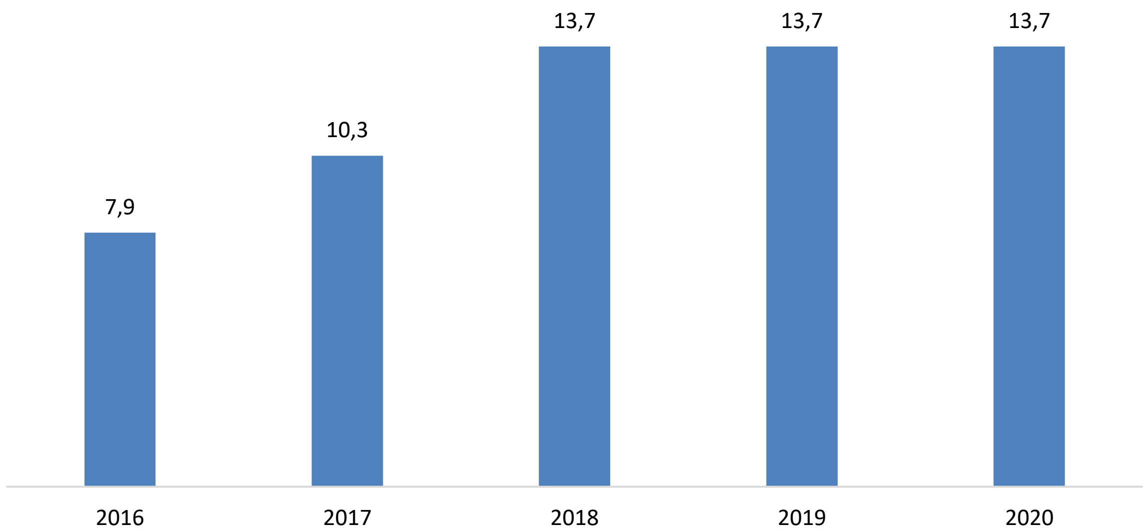
Chart 87. Share of VoIP and traditional telephony in the total number of fixed telephony users



Source: *Report on the condition of the telecommunications market in Poland in 2020* , UKE, June 2021

The bundled services market is very popular and is becoming saturated and more stable than in the last five years.

Chart 88. Number of users of bundled services in millions in 2020.



Source: *Report on the condition of the telecommunications market in Poland in 2020* , UKE, June 2021

As in 2019, the most popular service packages in 2020 were *double* play packages, chosen by 77.1% of users. *Triple play* packages were chosen by 16.5% and *quadruple play by* 6.4% of users. The remaining packages: *quintuple play* and *sextuple play* enjoyed negligible popularity (about 0.01% in total). Among the *double play* packages the most popular were *Mobile telephony + mobile Internet* (49.9%) with 42.8% share of the operator P4 and *Fixed-line Internet + Television* (10.8%) with 12% share of Orange.

As mentioned earlier, the whole of Europe, including Poland, is preparing for the commercial implementation of 5G technology. The 5G network allows to achieve high throughputs, is characterised by lower delays than in currently used standards, and it is easier to achieve universal coverage. It will serve both Internet delivery services and communication and data transfer services. Tests and studies are being undertaken on the possibility of effective delivery of television and radio programmes via 5G networks, which will significantly expand the area of service convergence.

The plans of the European Commission assumed covering one city in every European Union Member State with the 5G network by 2020. By 2025, not only all urban areas, but also major transport routes are to be within the reach of 5G networks. In the coming years, operators will look for new sources of revenue and diversify their service offerings, there will be increased interest in providing ICT services (services on the borderline between IT and telecommunications), creating their own data and financial services (credit cards, insurance, etc.).

3.3 Mobile devices, e-entertainment and social media

Smartphones and apps

Every third phone in Poland is a Samsung smartphone, every tenth person uses an iPhone. Most Poles (55%) will replace the phone they currently use within two years[126] .

In 2020, for the first time in the history of smartphones, both in Poland and globally, there was a several percent decline in sales of new devices, which was linked to the economic turbulence of pandemic time. The year 2021 was supposed to bring a rebound, but the crisis in the microchip market together with a logistics crisis pushed it back[127] .

Android devices dominate - nearly 90% of smartphones on the Polish market. The remaining 10% are iOS devices supplied by Apple.

One in three users replace their smartphone after two years (31%), with 24% doing so even sooner, 14% after two and a half years, and 19% after three years. This means that the vast majority of Poles (64%) use their phones in 2-3 year cycles. Such a cycle seems to coincide with typical subscription lengths at mobile operators, who provide a phone in the price of the service. However, it turns out that most Poles (62%) buy the phone and the subscription separately. According to the study, only one in four Poles chooses the package offered by operators.

The smartphone market is extremely competitive. Every year, almost all manufacturers present new devices. In 2020, 8.53 million smartphones with a total value of just over PLN 9 billion hit the shops in Poland. The undisputed leader of the ranking with a 37% market share is Samsung, followed by Huawei, Apple, Xiaomi, LG.

[126] Kantar survey conducted for Swappie. https://gsmonline.pl/artykuly/jakie-telefony-maja-polacy-jak-je-kupuja-badania

[127]https://interaktywnie.com/biznes/newsy/biznes/rynek-smartfonow-w-polsce-z-jakich-urzadzen-korzystamy-i-jak-czesto-je-wymieniamy-261790#google_vignette

Poles are using smartphones more and more often, and circumstances related to the epidemic, isolation, remote work and study have further increased the demand for applications: for communication with loved ones (e.g. Messenger, WhatsApp), at work and school (e.g. Microsoft Teams, Zoom), but also for entertainment. Entertainment is dominated by mobile games, music applications (e.g. Spotify and Tidal) and film platforms (e.g. Netflix, HBO Go). Poles are also reaching for utility software - the pandemic prompted mass downloads of the mojeIKP (Internet Konto Pacjenta) application, which provides easy and quick access to the most necessary health information. It is there that, among other things, the result of a coronavirus test can be displayed. This solution, only six months after its launch, was installed on their smartphones by 1.9 million Poles[128] .

In 2021, more than 130 billion apps were downloaded globally from the two mobile shops (App Store and Google Play). Of these, mobile games were the most popular, with global spending of around USD 90 billion. The number of games downloaded increased by 45% during the pandemic period.

In December 2021, the three most downloaded applications in our country were: the Shopee application (an online shopping platform), Stepler (used to count steps and convert them into points that can be exchanged for products or discounts) and mObywatel, developed by the Chancellery of the Prime Minister. The latter is a virtual wallet with reproduced data from identity and registration cards and driving licences, as well as a place with a QR code that informs about vaccination for Covid-19. Experts point out that Poles spend almost 5 hours a day in apps.

The latest PBI and Gemius data shows that Google and YouTube have the highest number of users in Poland, with 23.5 million and 22.2 million respectively. Just behind them are Facebook (22.1 million), Messenger (21.5 million) and Google Maps (18.6 million). Audited data shows that Allegro (9.7 million real users) and Jakdojade (2.2 million) lead the way.

Polish providers are doing well on the app market. AppMagic's data for December 2021 indicates that these are mainly gaming studios: BoomBit (with over 6 million installations and at least USD 5.2 million in revenue), Mobadu and T-Bull (over 1 million downloads each) or Huuuge Games (over USD 5 million in sales). Poles also reach for utility applications, including educational ones, e.g. the application of the Polish start-up Brainly, which helps students in learning, has been installed worldwide over 2 million times in December 2021[129] .

Video games[130]

Video games are the only area of the creative and cultural sector in which Poland has a favourable balance of exports and imports. The Polish games market has entered the world's top 20; revenues in the industry are growing even without the production of the leading Polish company CD Projekt. Poland produces over 600 games annually**[131]** .

The consumer video game market in Poland is worth over USD 924 million. With approximately 20 million players, 80% of whom are adults and 49% women, Poland is ranked as the 19th most

[128] https://www.rp.pl/biznes/art19200581-rynek-aplikacji-wystrzelil-pomogla-pandemia
[129] idem.
[130] Some of the data in the video games excerpt is from forecasts and is not an all-in figure for 2021. Usually such data appears in the middle of the following year.
[131] *The Game Industry of Poland 2021* Report prepared by the Polish Agency for Enterprise Development in cooperation with the Ministry of Development and Technology and Game Industry Conference.

profitable market. The value of the Polish video games market has grown by as much as 17% over the last 12 months. This dynamic growth is reflected, among others, in the number of Polish language versions of western games[132] .

The Polish language version is the ninth or tenth (depending on data sources) most frequently appearing language version in video games. In 2007-2008, only 7% of new games on the global *Steam* platform[133] had a Polish language version, and now it is 37%. The trend is growing - it is estimated that already in 2022 the value of the Polish video games market will exceed USD 1 billion.

Year-on-year revenue growth in the games industry in Poland has remained close to 30% for the past three years, and accelerated further in 2020. Among the companies listed on the Warsaw Stock Exchange that publish their financial reports, 73% reported revenue growth.

Poland is one of the leaders in PC game production. In the *Top 200 Steam Wishlists* (ranking of the most anticipated titles), Poland takes the global lead with 38 game titles in August 2021. For comparison, the US has 35 titles in this ranking, Canada - 16, the UK - 15. Analysing individual *Steam Wishlists* rankings, one can assume that Polish games have achieved a particular advantage in the indie segment[134] and AA+[135] .

In 2020, the Polish games industry reached a state where more games are exported than imported. This means that the industry recorded more revenue from selling games abroad than Polish consumers spent on foreign titles. Game production is the only creative sector industry to have achieved this. Poland imports far more foreign films, records and books than it exports. Despite this, exports generate almost 96% of the industry's revenue in Poland. The key export direction is the United States. The second largest market is the European Union, including primarily: Germany, the UK and France.

The games industry in Poland employs more than 12,000 people, an increase of 24% compared to 2020. 25% of employees are women. This puts our country in the global lead, with only the UK recording a higher percentage in this category. Year after year, the Polish games industry is also attracting more and more experienced employees from abroad, with over 1,000 foreigners currently working in the industry[136] .

E-sport

The e-sports market in Poland is constantly growing and is increasingly perceived as an important part of the entertainment industry. More than half (52%) of Poles aged 16-65 have encountered e-sports at least once, and 26% have paid at least once to purchase e-sports-related products, content or services[137] .

E-sport in Poland has been growing in popularity for several years now and Pandemic has greatly accelerated this trend. According to the report *Let's Play! - The European e-sports market*, more

[132] https://spidersweb.pl/2021/10/polska-branza-gier-2021-raport.html
[133] An American platform for downloading games to computers.
[134] Game production coming from independent studios.
[135] Medium-budget games, the highest budgets have games classified as AAA.
[136] https://www.parp.gov.pl/component/content/article/74701:the-game-industry-of-poland-2021
[137] https://www2.deloitte.com/pl/pl/pages/technology-media-and-telecommunications/articles/rynek-esportu-w-polsce-lets-play-2021.html

than half of Europeans surveyed watched e-sports games for the first time after the introduction of restrictions related to the Covid-19 pandemic. In Poland, the figure is 46% - Poles are the biggest fans of this type of entertainment among all the countries surveyed. However, the improved viewership has not affected the sector's financial surplus. There is further potential for growth, especially when it comes to raising awareness of e-sports.

E-sport, which is part of the gaming sector, is however not yet fully recognised. Almost two out of three people have heard of the term (61%), but only 39% can correctly define it. Compared to Europe, however, Poland, along with Spain and Italy, can be considered one of the bastions of e-sports in terms of consumer awareness and reach.

According to the company Newzoo about 16 million Poles play games using various platforms. The most popular e-sports games, referring to the popularity of the game as a product of passive viewing, are the so-called shooters (59% of e-sports consumers watched games of this type), sports simulations (54%) and Multiplayer Online Battle Arena (MOBA)[138] - 49%. Other popular e-sports genres include real-time strategy (RTS), Battle Royale, racing games, RPG and collectible card games, which range from 33% to 48% among Polish e-sports consumers.

One in four (26%) Poles aged 16 to 65 have made e-sports-related purchases, either for themselves or as a gift, the highest proportion compared to Europe. One in five e-sports consumers pays for membership to their favourite team, including services such as access to premium content or member login on the company website or app[139] .

Among e-sports consumers, 62% said they prefer online shopping to traditional shopping, 65% of e-sports consumers find advertising useful and informative, while among non-e-sports consumers only 42% agree with this statement.

The gaming and e-sports industry has benefited significantly from the mobility restrictions associated with the Covid-19 pandemic, with 46% of the Polish e-sports audience saying they watched e-sports for the first time in 2020 or 2021. , 44% of those who were already watching e-sports before the Covid-19 outbreak increased their consumption during this time.

As in other European markets, the increase in popularity did not translate into overall revenue growth. Revenue from ticket sales and merchandising almost disappeared as a result of cancelled events, and consumption was mainly limited to digital and TV channels. The industry's challenge is to retain the fans and users who came into contact with e-sports during the pandemic.

E-books and audiobooks

Over 300,000 Poles have used apps with audiobooks, e-books and podcasts, and in 2021 they will have spent 25 million hours listening to and reading digital books.

In 2021, there were tens of thousands of titles on the market, including high-profile original productions, which should be considered, next to podcasts, as the biggest trend of last year. Users of

[138] Real-time strategy games such as *DOTA 2* or *League of Legends.*

[139] https://www2.deloitte.com/pl/pl/pages/technology-media-and-telecommunications/articles/rynek-esportu-w-polsce-lets-play-2021.html

the Empik Go application spent 62% more time with audiobooks and podcasts than in 2000. E-book fans, meanwhile, read 23% more content than in 2020.[140]

The study taking into account reading and listening to books shows that in 2021 as many as 2/3 of Internet users in Poland have read or listened to at least one book[141] . Women reach for reading more often (80% women vs. 61% men). Although the traditional format is the most popular among respondents (almost 90% of indications), the survey shows that Poles also use e-books and audiobooks. Greater interest in this format also translates into the technical aspects of access to recordings. According to the YourCX study, 55% of respondents belonging to the "listeners" group used audiobooks via a dedicated application (streaming or downloading). Despite the popularity of streaming, audiobook lovers also listen to content via other media. About 30% of the respondents indicated that they listened to the content of a book in audio format via websites (e.g. YouTube), a similar group of respondents purchased an mp3 file in an online bookshop. 10% of people listening to audiobooks during the surveyed month used a recording on a CD, with the highest percentage of this response in the age group over 65 years old[142] .

The revenues of Legimi - one of the leading platforms with audiobooks and ebooks, in the fourth quarter of 2021 amounted to nearly PLN 13.4 million, an increase of 34% compared to the same quarter of 2020 r. , and the number of individual subscribers increased by 35%, reaching 116,000.[143]

Social media

Statistics show that Poles spend on average almost 2 hours a day on social media[144] .

Facebook[145] leads in terms of active users worldwide with the result of 2.74 billion[146] , including 423 million in Europe. The service and the Messenger communicator associated with it is also the most popular social media in Poland in terms of the number of users - it generates as much as 78.05% of all social media traffic available in our country[147] .

In the case of Facebook, the total number of users in Poland is 26.02 million and 87.56% reach[148] . Most users, as many as 25.2%, are between 25 and 34 years old. Women are the most frequent users of the popular platform, generating as much as 53.7% of traffic. The smallest group of users are people

[140]https://www.wirtualnemedia.pl/artykul/czy-audiobooki-zastapia-seriale-i-sluchanie-muzyki-empik-go-podsumowuje-2021-rok

[141]The survey was conducted by YourCX. https://yourcx.io/download/omnichannel-2021-subskrypcje/?wpdmdl=4441&refresh=61cc5459dddc61640780889

[142]https://interaktywnie.com/biznes/newsy/new-business/rynek-audiobookow-rosnie-ale-nie-zagraza-papierowej-ksiazce-oto-wyniki-badan-261931

[143] www.rynek-ksiazki.pl

[144] https://www.beeffective.pl/co-wydarzylo-sie-w-social-media-w-2021-roku/

[145] A name change for the social media monopoly has been announced for late 2021. Meta is the new name of the company (until now: Facebook), which will combine current and future applications and technologies of this most popular social platform.

[146] https://www.dreamgrow.com/top-15-most-popular-social-networking-sites/#1_Facebook_-_274_Billion_Active_Users

[147]https://gs.statcounter.com/social-media-stats/all/poland/#monthly-202102-202110-bar,%20luty-pa%C5%BAdziernik%202021

[148]https://www.wirtualnemedia.pl/artykul/co-wybrac-snapchat-instagram-tiktok-twitter-stracil-1-2-mln-polskich-uzytkownikow

over 65 years old, but also users between 13 and 17 years old[149] . Facebook is increasingly willing to be used for business development, promotion of socio-cultural activities and even conducting workshops and online meetings. This certainly contributes to its popularity and the growing involvement of users. Undoubtedly, it is also the channel with the greatest diversity in terms of age, social status and user interests. Not only young people interested in technological innovations, but also middle-aged and seniors have their own account.

Second-placed Instagram recorded a more than 40% lower result with 15.5 million users and 52.16% reach. Both platforms belong to Meta, which also owns Messenger and WhatsApp. Last December, Messenger's mobile app recorded 22.18 million Polish users and 74.6% reach, and WhatsApp's app recorded 14.76 million users and 49.7% reach.

Among social media platforms, the ceiling of 10 million Polish users was exceeded in December 2021. TikTok (owned by Chinese company ByteDance) - had 12.37 million visitors and 41.64% reach. For many months TikTok was the most downloaded mobile application by Internet users from all over the world.

Twitter was used in December 2021 by 8.71 million Polish internet users, which gave 29.31% reach. Further down the ranking are other global platforms: Pinterest with 7.95 million users and 26.77% reach, Blogspot.com with 7.43 million users and 24.99% reach and Snapchat with 7.08 million visitors and 23.82% reach[150] .

3.4 Cinematography

Since 2005, patronage over film production in Poland has been exercised on behalf of the state by the Polish Film Institute by awarding grants for film production, organisation of festivals and events, script scholarships, archiving and reconstruction activities, film education, training and professional development, modernisation of cinemas, as well as promotion of Polish film abroad.

Entrepreneurs in the audiovisual industry also have a significant share in film production, as according to the Cinematography Act (Article 19), television broadcasters, digital platform operators, film distributors, cinema owners and cable operators contribute to the PFI budget through a mandatory 1.5% write-off of advertising revenues. In 2020, the Cinematography Act was amended and the list of entities contributing 1.5% from advertising revenues to the PFI was extended to include providers of video on-demand services (VoD).

Table 8. Summary of revenues from Article 19 of the Cinematograph Act in 2021 by obliged entities (in PLN)[151]

Lp.	Scope of activity of the obliged entity	Value of revenues
1.	Cinemas	7 886 397,94

[149] https://napoleoncat.com/stats/facebook-users-in-poland/2021/11/
[150]https://www.wirtualnemedia.pl/artykul/co-wybrac-snapchat-instagram-tiktok-twitter-stracil-1-2-mln-polskich-uzytkownikow
[151] Data from the Polish Film Institute (PISF).

2.	Cinema distributors	350 745,79
3.	TV broadcasters	56 207 616,01
4.	Digital platform operators	53 164 570,12
5.	Cable TV operators	27 058 913,04
6.	Audiovisual media service providers	24 352 504,51
	Total:	**169 020 747,41**

Source: Prepared by the KRRiT Office on the basis of data from PISF

Since 2019, there is also an Act on Financial Support for Audiovisual Production, whose main objective was to introduce incentives to facilitate the comprehensive development of the Polish audiovisual industry, the development of culture and the promotion of Polish cultural heritage in the world.

The support mechanism is based on economic and legal criteria, not artistic ones, and funding is granted automatically. There is no expert body distributing funds. Direct beneficiaries of the new mechanism of financial support are producers, co-producers or entrepreneurs providing services for production of audiovisual works, who incur costs of film and series production in Poland. Individual productions may be granted financial support amounting to 30% of Polish eligible costs. The maximum amount of financial support granted for one audiovisual production cannot exceed PLN 15 million , and the amount of total financial support for one entrepreneur in a calendar year cannot exceed PLN 20 million. According to the act, a minimum of 10% must be allocated to support for animated productions. For a project to receive support, its producers must spend the prescribed amount of money in Poland, cooperate with Polish filmmakers and film crews and shoot in Polish locations or film studios. Once the required criteria are met, the support is granted automatically.

PFI revenues in 2021 amounted to over: PLN 427 million[152] . From these funds 53 projects were co-financed at the development stage[153] (28 documentaries, 20 feature films and 5 animated films), 75 projects were co-financed at the production stage (26 feature films, 36 documentaries and 13 animated films), 12 international minority co-productions and 11 Polish co-productions, 6 microbudget film projects, 10 projects for young viewers, 2 innovative films and 23 projects within the script development priority.

As part of its efforts to support the cinematographic sector affected by restrictions related to the Covid-19 pandemic, PFI granted 8 loans and supported the distribution of 28 Polish films.

In 2021, 323 films were released in Polish cinemas (217 feature films, 21 documentaries and 32 animated films), including 49 Polish productions. Attendance in cinemas was 26 million, an increase of over 9 million compared to 2020. Consequently, revenue from ticket sales also increased, reaching PLN 451 million compared to PLN 312 million in 2020.

[152] Data from PISF.

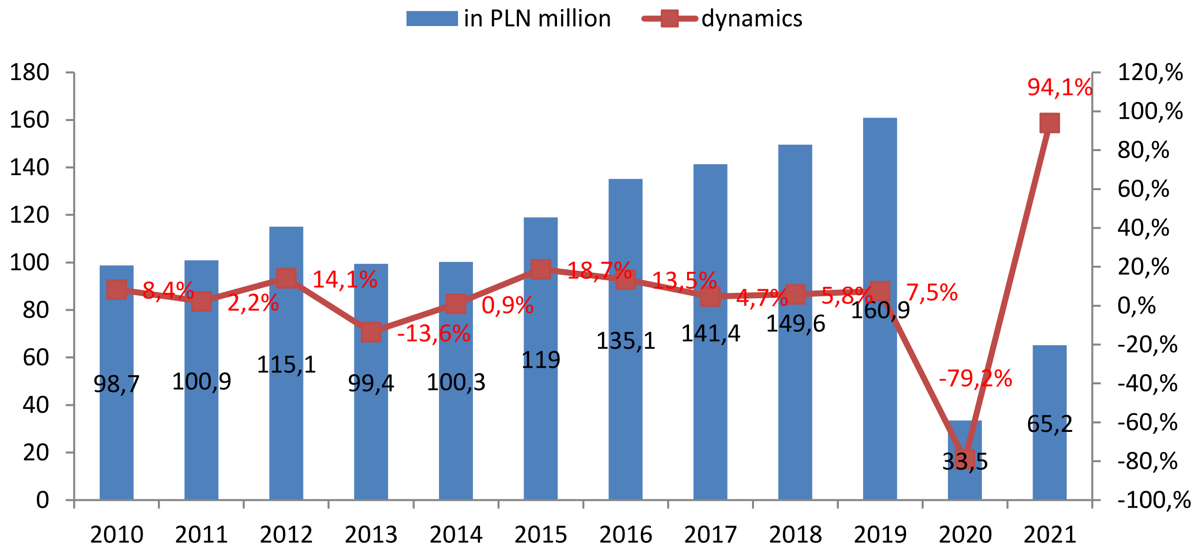
[153] Development of a film project (preliminary work leading to the production of a feature film, documentary film and animated film: preparation and writing of a script, script amendments, preparation of a storyboard, preparation of artistic designs, production of a pilot, production of a trailer, shooting of test footage, search for investors and/or co-producers, preparation of financial plans, production design documentation, etc.).

In 2021, among the 10 most popular films on Polish screens, according to the Box Office ranking[154] , the Polish film *Dziewczyny z Dubaju*, directed by Maria Sadowska, ranked second (over 1 million viewers), while the films *Furioza,* directed by Cyprian T. Olencki, ranked 9th (over 500 thousand viewers) and *Wesele*, directed by Wojciech Smarzowski, ranked 10th (nearly 490 thousand viewers).

In 2021, many Polish films won awards at international festivals, including:

- *Sweat*, dir. by Magnus von Horn - Cineuropa Award and Angelos Award at the Göteborg Festival;
- *The Charlatan*, directed by Agnieszka Holland - five awards of the Czech Film and Television Academy;
- *Aida,* dir. by Jasmila Zbanic - Oscar nomination for Best International Film and Independent Spirit Award, as well as Best Film of the Year at the European Film Awards;
- *Dalej jest dzień [Next Is the Day]*, dir. by Damian Kocur - award for the best short film at the Trieste Festival and award for the best European film at the Clermont-Ferrand Short Film Festival;
- *Even Mice Go to Heaven*, dir. by Iwona Siekierzyńska - award for the best animated film at the Ani Film Festival in Liberec (Czech Republic) and in Shanghai and Tallinn.

Chart 89. Value and dynamics of cinema advertising revenues between 2010 and 2021



Source: Publicis Group report *Advertising market in Poland in 2021.*

In 2021, cinema advertising revenues grew by 94.1% compared to significant declines in 2020. Although cinemas were open for 7 months, they made up for the losses in the fourth quarter when there was a more than 900% increase in cinema advertising spend[155] .

[154] Box Office 2021.
[155] Publicis Group report *Advertising market in Poland in 2021.*

4. Media markets - structure, origin of capital, ownership transformations

Media markets, due to their social role, are an important area of analysis from the point of view of antitrust. The degree of their concentration is of key importance for the level of pluralism understood as the multiplicity and diversity of sources of information, culture and entertainment. In studying the structure of media markets in this chapter, two indicators have been used:

- TOP 4, which indicates the percentage sum of the shares of the four largest players on a given market. According to the methodology used in the European study on the state of pluralism in the media *Media Pluralism Monitor*[156] , it is assumed that a high risk for pluralism in the context of competition is a situation where the share is above 50%;
- Herfindhal-Hischman Index (HHI) used in antitrust proceedings and sector regulation. The HHI is the sum of the squares of the market shares of all firms in the market. The value of the index ranges from near zero for fragmented markets to 10,000 for captive markets[157] .

Both indicators, and their changes over time, provide a measure of the market power of undertakings and of the direction in which competitive conditions are evolving on a given market. Excessive concentration in terms of market power of the main players on a given market, which limits the scope for growth of other players, has a negative impact on media pluralism.

A dominant position in competition law has not been expressed as a percentage share of an entrepreneur in a given relevant market. It has been assumed, however, that a share exceeding 40% may signify the achievement of a dominant position[158] . From an analysis of the solutions adopted in other European countries, where the limits of media entrepreneurs' market shares are regulated by law, it may be assumed that a warning state is exceeding 20% of this share, while the upper acceptable limit is 30%[159] .

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[156] The Media Pluralism Monitor (MPM) is a tool developed by the Centre for Media Pluralism and Media Freedom at the European University Institute to assess threats to media pluralism. https://cmpf.eui.eu/media-pluralism-monitor/

[157] When assessing market concentration in practice the HHI value:

- less than 1 000 indicates a low level of concentration;
- between 1 000 and 1 800 indicates a moderate degree of concentration;
- between 1 800 and 2 500 indicates a high degree of concentration;
- over 2 500 a very high degree of concentration, close to an oligopoly;
- equal to 10 000 means a monopoly.

[158] Having a dominant position means being able to have a very effective influence on the market, thus preventing effective competition, distorting it, and in extreme cases even preventing the functioning of competing enterprises. An entrepreneur with such a large share of the market is able to act independently, without any cooperation from competitors, and thus has the ability to impose business conditions on them, e.g. by setting prices or controlling distribution, etc.

[159] KRRiT Observer, *Regulating media ownership concentration in selected countries,* 2021 https://www.gov.pl/web/krrit/regulacja-koncentracji-wlasnosci-mediow-w-wybranych-krajach

An examination of media markets using competition law concepts would require the determination of relevant markets[160] . In this chapter, describing competition in particular media segments (TV, radio, VoD services or programme distribution), we have limited ourselves to presenting a general picture based on available data. The values of the TOP 4 and HHI indicators should therefore be regarded as illustrative.

Structure of the television market

TOP 4[161] for the TV audience market (TVP, Polsat, TVN Discovery and TVP Puls) in 2020 remained almost unchanged and amounted to 81.4% (the year before - 81.81%). The same was the case with the HHI[162] , which was at the level of 1965 (the year before 1995[163]). Despite the ever-increasing number of available programmes, the values of both indicators still imply a high degree of audience market concentration.

The TOP 4 for the TV market in revenue terms (advertising and other commercial communications) in 2020 was 87.8%, down from 2019 , when it was 89%. The level of concentration in the TV advertising revenue market, measured using the HHI, increased slightly in 2020 to 2447 (2019: 2404).

The values of both indicators indicate the existence of an oligopoly[164] . There is a clear asymmetry between entrepreneurs in the TOP4 group and other market participants. This creates the likelihood of the existence of a collective dominant position[165] . In the opinion of the KRRiT, the restriction of competition is largely influenced by: combining the functions of a broadcaster and an advertising broker, as well as the practice of the so-called programme bundling in sales offers for cable operators.

Antitrust proceedings against Telewizja Polsat and four companies from the Discovery corporation (owner of TVN) - Discovery Communications Europe, Discovery Communications Benelux, Discovery Polska and Eurosport - pending since the beginning of May 2021 before the President of the Office of Competition and Consumer Protection have not yet been concluded. According to the President of the Office for Competition and Consumer Protection, the reason for launching the proceedings was a practice applied by TVN Discovery and Cyfrowy Polsat, consisting in offering cable operators programmes in packages containing both channels perceived by consumers and cable operators as desirable or even necessary, and channels in which they were not interested. According

[160] The relevant market is the market for goods which, by reason of their intended use, price and characteristics (including quality), are regarded by their buyers as similar (substitutable) and are offered in an area in which, due to their nature, properties, consumer preferences or significant differences in prices and transport costs, there are similar conditions of competition.
[161] The share of the four main players in a given market. The TOP4 TV broadcasters included the same players that were included in the audience market study in Chapter 1.
[162] The HHI identifies the level of competition in a given market and helps assess the potential effects of corporate concentration.
[163] In 2018, this indicator was not calculated.
[164] Over 2500 - very high concentration, close to an oligopoly.
[165] A collective dominant position is where several entrepreneurs share a common policy and together (collectively) behave to a significant extent independently of other market participants, i.e. competitors, counterparties and consumers. The phenomenon of collective dominance usually occurs in markets dominated by only a few players.

to cable operators, the lack of these channels may result in the choice of an offer of another operator[166] . In this situation, consumers, in order to watch them, have to pay for the whole package of a given broadcaster, i.e. also for those programmes they are not interested in[167] .

In the TV audience market, the first place is held by the public broadcaster TVP SA, whose share is 28.3%. The TV audience market structure remained unchanged compared to 2020, with a slight decrease in the share of programmes from the TOP4 group (TVP, TVN Discovery, Polsat) to the benefit of other smaller broadcasters, including those distributing terrestrial programmes.

In the TV advertising revenue market[168] , probably due to a change in the way advertising time is purchased for Puls and Puls2 programmes (currently operated by the Polsat TV advertising bureau), the first place is held by the Polsat Group with a share of 40.7%. The increase in Polsat's share resulted in a corresponding decrease in TVN Discovery's market share. TVP's share remained unchanged.

Broadcasters with Polish capital: TVP S.A., Polsat and other companies distributing programmes in digital terrestrial television have combined shares in the TV audience market of ca. 60%. It seems that this share may decrease due to the growing popularity and availability of new foreign programmes in Polish language version in the offer of satellite and cable operators. As mentioned above, the advertising revenue market noted a change in leadership from TVN Discovery to Polsat, which together with TVP collectively holds a 61% share in this market.

In September 2021. Canal+ Group, through Canal+ Luxembourg s. à.r.l., entered into an agreement with Cooperative SPI International U.A. to acquire 70% of the shares in SPI International B.V, which holds 65.15% of the shares in Kino Polska TV, a concern that owns several TV programmes and distributes the FilmBox channels produced by SPI[169.]

The transaction received approval from the OCCP in December 2021 and was finalised in March 2022. , following a positive decision by the Hungarian competition authority (Gazdasági Versenyhivatal)[170] . The transaction will allow Canal+ Group to develop its offer, i.a. within its Canal+ platform, and to expand the distribution channels of the content it produces.

In addition, as a result of one of the largest transactions in recent years, valued at USD 43 billion - the merger of WarnerMedia and Discovery - TVN Group operating in Poland gained a new owner. The merger was preceded by an analysis by the European Commission, which in December 2021

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[166] UOKIK's findings in the course of the investigation indicate that the above state of affairs is a consequence of the sales policy of TV broadcasters or distributors. Pay TV operators have the possibility to buy channels in a package - 28 from Telewizja Polsat and at least six in the case of companies from the Discovery group. They can also buy individual channels, but this is not profitable for them. For example, buying just two channels from Telewizja Polsat may be more expensive than the entire package of channels, which also includes these two stations. In the case of the Discovery Group, on the other hand, the acquisition of three channels may be more expensive than buying any of the packages offered by the Discovery Group. In addition, bundle purchase agreements stipulate that pay TV operators must include a certain number of channels in the basic, or most common, packages that they themselves offer to their customers.

[167] https://www.wirtualnemedia.pl/artykul/uokik-wszczyna-postepowanie-przeciw-polsatowi-i-discovery-chodzi-o-sprzedaz-stacji-w-pakietach

[168] Taking into account both advertising revenue from our own programmes and revenue generated from our brokerage activities.

[169] https://satkurier.pl/news/208540/canal-inwestuje-w-spi-international.html

[170] https://www.wirtualnemedia.pl/artykul/canal-sfinalizowal-kupno-70-proc-udzialow-wlasciciela-kino-polska-tv

(Communication MEX/22/22) approved the acquisition of sole control over WarnerMedia by Discovery Inc[171] .

In its decision, the Commission concluded that the proposed acquisition would not be anticompetitive given that the combined company would continue to face sufficiently strong competition from other players, after the transaction. In addition, the Commission found no competition concerns arising from vertical and conglomerate links between the activities of the merging companies.

In early 2022, the merger was approved by AT&T shareholders, the Federal Trade Commission and the US Department of Justice and - in March - by Discovery shareholders.

The change of ownership could bring a number of benefits to TVN Group in the form of easier access to a rich video content library, production resources, facilitated development of content creation competencies, as well as better distribution capabilities.

Structure of the on-demand audiovisual media services market

The TOP4 ratio for the SVoD subscriber market in 2020 reached 82%, a slight decrease compared to 2019 when it was 84.32%. However, the still high position of the four major players is indicative of a highly concentrated market. This is influenced by the strong position of the US Netflix, whose subscribers in Poland account for 37.6% of all users of pay-on-demand services. However, the remaining players, included in the TOP4 group, i.e. the domestic services Ipla.tv, Player.pl and CDA Premium, together gained more users than Netflix in 2020.

A survey of the VoD user market in 2020 using the HHI gave a result of 2215, which compared to the previous year (the index was 2097 at that time) indicates a slight further increase towards concentration, which is also indicated by the TOP4.

The estimated TOP4 indicator for the on-demand audiovisual media services subscription revenue market in 2020 was 87.25%. Compared to 2019, this represents a slight decrease in the measure[172]). However, a very high concentration in 2020 is indicated by the HHI for the VoD revenue market, which is 3140. Compared to 2019. (score 2629) the HHI has increased significantly, which may indicate a significant increase in subscriber fees introduced by the major services.

Netflix remains the market leader for subscription services, both in terms of SVoD subscribers and subscription revenue. The respective figures are 37.7% and 51%.

Services provided by foreign-owned entities (Netflix, Player.pl, Hbogo.pl, Primewideo.com, Canal+ and other foreign) comprise 79.5% of revenues from this market. In 2019, this share was 77%.

In August 2020. The European Commission has announced that, at the request of UOKiK, it has been forwarded for consideration the proposed concentration between Cyfrowy Polsat (Ipla.tv) and TVN Discovery (Player.pl), which intend to create a new streaming platform with local, Polish productions[173] . The commencement of operations by the new platform is subject to obtaining the relevant antimonopoly approval. The evidence gathered by the EC confirmed that the conditions for a

[171] The EC examined a Notification of Intent to Concentrate - Case M.10343 - Discovery/WarnerMedia, under EU Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings.
[172] In 2019. TOP4 for the subscription revenue market was 91.54%.
[173] https://www.bankier.pl/wiadomosc/Gieldowe-serwisy-VoD-Polacy-w-pogoni-za-Netfliksem-8069303.html

referral to the competent authorities of a Member State under Article 9 of the EU Merger Regulation are met and that the national Office for Competition and Consumer Protection (UOKiK) is best placed to assess the impact of the transaction in Poland. The Commission decided to refer the case to the Polish authorities under national law, but the entities withdrew from the transaction[174] .

Satellite pay TV market structure

The TOP4 ratio for the satellite platform subscriber market in 2020, as in 2019, was 100%. The situation was identical in the satellite pay TV revenue market. The HHI for the subscriber market in 2020 was 5094 (in 2019 - 4878), as for the revenue market - 5018 (in 2019 - 5002). The established duopoly of the Cyfrowy Polsat and Canal+ platforms (together with Orange) is a natural phenomenon due to the high, economic and technological barriers to entry.

The domestic entity Cyfrowy Polsat has been gaining an advantage over Canal+ owned by international capital for several years. Its share of the subscriber market in 2020 was 61.1% and 53% of the revenue market.

Structure of the cable pay TV market

The TOP 4 ratio (Vectra, UPC, Inea and Toya) for the pay TV subscriber market in cable networks was 81% in 2020, i.e. slightly lower than the year before (84%). High concentration is also confirmed by the HHI value for this market, which in the discussed year amounted to 2879, while in the previous year it was at the level of 2897.

The figures for TOP 4 and HHI on a revenue basis are similar to those quoted above and are respectively: 84% (2019 - 84%) and 3103 (2019 - 2897). The market is concentrated in the form of a duopoly.

Polish players - Vectra, Inea and Toya and smaller local cable operators (about 200) together hold 65% of the subscriber market and 64% of the revenue market. The remaining shares belong to the American concern Liberty Global, which owns the company UPC.

Structure of the radio market

The TOP4 index (RMF, Polskie Radio, Time and Eurozet) in 2020 for the audience of radio programmes is 81.8% compared to the previous year (81.6%), i.e. no significant change. The HHI was at 1983, a slight increase compared to 2019 - 1910.

The TOP4 group for the radio advertising revenue market includes slightly different players (RMF, Eurozet, Time and Agora). This indicator in 2020 was higher than for the audience, at 87.7%. The second indicator, the HHI in this market remained at a similar level as in 2019 (1269) and was 1033. The radio market is a mature market with no significant changes. This is due to limited access to spectrum

[174] https://www.wirtualnemedia.pl/artykul/uokik-a-nie-ke-zdecyduje-ws-wspolnej-platformy-vod-cyfrowego-polsatu-i-discovery; https://www.money.pl/gospodarka/polsat-i-tvn-zmieniaja-plany-nie-bedzie-wspolnej-platformy-6703942798863232a.html

resources. Noticeable changes may occur after the implementation of DAB+ or as a result of consolidations and acquisitions.

In February 2019. Agora SA bought a 40% stake in Eurozet. As part of the agreement, it also gained the option to acquire the remaining 60% of its shares from the Czech company SFS Ventures by 2022. The transaction required the approval of the Office of Competition and Consumer Protection. In January 2021. The President of the Office of Competition and Consumer Protection prohibited the acquisition of Eurozet by Agora SA. On February 8, 2021 Agora SA filed an appeal against this decision with the District Court in Warsaw - the Court of Competition and Consumer Protection[175] . To date, no ruling has been made in this case.

Owned by the German Bauer Media Group, RMF FM is the radio market leader. Its shares are 35.5% (audience) and 30% (advertising). The remaining broadcasters belong to the Polish capital[176] .

Table No. 9. Value of TOP 4 and HHI indicators for individual media markets

I. Television		
Audience		
TOP 4	81,74 (81,81%)	TVP, Polsat, TVN Discovery, Puls
HHI	**1965 (1995)**	High concentration
Advertising		
TOP 4	87,8% (89%)	TVP, Polsat, TVN Discovery, Puls
HHI	**2447 (2404)**	High concentration

II. VoD		
Users		
TOP 4	82% (84,32%)	Netflix, Ipla, Player, cda premium
HHI	**2215 (2097)**	High concentration
Subscription revenues		
TOP 4	87,25%(91,54%)	Netflix, Ipla, Player, cda premium
HHI	**3140 (2629)**	Very high concentration close to oligopoly

III. Pay TV - satellite platforms
Subscribers

[175] https://www.press.pl/tresc/65857,uokik-przekazal-do-sadu-odwolanie-agory-od-decyzji-ws_-eurozetu
[176] With the exception of a minority stake in Eurozet by Czech investor SFS Ventures.

TOP 4	100%(100%)	Polsat Cyfrowy, Canal+, Orange
HHI	**5094 (4878)**	duopoly
Subscription revenues		
TOP4	100% (100%)	Polsat Cyfrowy, Canal+, Orange
HHI	**5018 (5002)**	duopoly

IV. Pay TV - cable networks		
Subscribers		
TOP 4	81% (84%)	Vectra + Multimedia, UPC, Inea and Toya
HHI	**2879 (2897)**	Very high concentration close to oligopoly
Subscription revenues		
TOP4	84% (85,47%)	UPC, Vectra, Inea and Toya
HHI	**3103 (2758)**	Very high concentration close to oligopoly

V. Radio		
Auditorium		
Top 4	81,8% (81,6%)	RMF, Eurozet, Public Radio, Time
HHI	**1893 (1910)**	High concentration
Advertising revenue		
TOP 4	87,7% (68%)	RMF, Time, Eurozet, Agora
HHI	**1033 (1269)**	Moderate concentration

Source: Prepared by the KRRiT Office

Cross-market concentration in television, radio, press and telecommunications

The table below presents approximate, due to the lack of uniform sources, estimated shares of the main entrepreneurs operating on a number of media and telecommunications markets.

Market positions are particularly noteworthy:

– Cyfrowy Polsat (television, internet, pay satellite television, telecommunications)

- TVN Discovery (TV, brokerage services for advertising campaigns of other broadcasters, shares in nc+ - a satellite platform, access to copyrights to audiovisual works),
- Bauer Group (radio, press, Internet)
- Agora (Internet, radio, press).

The KRRiT draws attention to threats to media pluralism that may arise as a result of entrepreneurs gaining positions in markets that are subsequent elements of the value chain, such as: rights to works, own production, content distribution (broadcasting, redistribution and VOD), technical conditions of content delivery (networks or applications). This situation favours concentration and may significantly limit the possibility for other content providers to develop or for new ones to enter the market.

Together with the merger cases already described in this chapter, there were 85 M&A transactions in the technology, media and telecommunications (TMT) sector in 2021, a significant increase on the previous year, which noted 52 transactions.

The largest investments included the acquisition of Polkomtel Infrastruktura by Cellnex Telecom from Cyfrowy Polsat for PLN 7.1 billion, the acquisition of UPC Polska by Play Communications for PLN 7 billion and the final buyout of Netia by the Polsat Plus Group and its withdrawal from public trading after 22 years (transaction value approx. PLN 515 million).

Cellnex Telecom is the leading European operator of wireless telecommunications infrastructure. Under an agreement with the Polsat Plus Group, it acquired 99.99% of the shares of Polkomtel Infrastruktura, which is part of the Group, allowing for the acquisition of passive (7,000 locations) and active telecommunications infrastructure (37,000 radio carriers) in Poland. The value of the transaction made it the second largest on the Polish M&A market in 2021. By virtue of the agreement the Polsat Plus Group will receive permission to use the sold infrastructure for a period of 25 years with the possibility of extending the agreement for subsequent periods. In addition, last year also saw the finalisation of the transaction announced in October 2020, under which Cellnex acquired 60% of the shares in On Tower Poland, which manages the telecommunications infrastructure of the Play network, from Illiad (owner of Play) for EUR 0.8bn, making the Spanish company the leading operator of telecommunications infrastructure in Poland[177] .

Another significant transaction in the TMT sector was carried out by Play Communications, owned by French conglomerate Illiad Group, which in September 2021 concluded an agreement to buy 100% of UPC Polska - an entity offering access to television, internet and mobile telephony - from Liberty Global for PLN 7bn. The stock exchange release said the price "corresponds to a 2020 EBITDAaL multiplier of 9.3x before synergies and approximately 7x including revenue and cost synergies". Based on financial data for 2020, the combined revenue of Play and UPC Polska is PLN 9bn and the combined EBITDAaL is PLN 3.2bn.[178.]

On 11 March 2022. The Commission issued Notice MEX/22/1711, in which it concluded that the transaction (Case M.10515) did not raise competition concerns as it leads to a small horizontal overlap in the retail provision of mobile, fixed internet, audiovisual and multiple play services. Moreover, the vertical overlap does not create a risk of foreclosure in the wholesale mobile market.

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[177] M&A Index Poland Mergers & Acquisitions in 2021 + Q4 2021 report prepared by Navigator Capital & FORDATA.

[178] https://www.wirtualnemedia.pl/artykul/play-kupuje-upc-nowa-oferta

Thanks to the acquisition, Play Communications will enlarge its user base to 17 million people and become the third entity providing a full package of integrated services (mobile and fixed), the so-called convergent operator, after Orange and the Polsat Plus Group , which thanks to the buyout and integration of Netia - a nationwide telecommunications operator - will become an integrated media and telecommunications group providing television services, fixed and mobile Internet, fixed-line telephony and mobile telephony[179] .

Additionally, at the beginning of 2021, Telewizja Polsat (which is part of the Polsat Plus capital group) acquired 60% of the shares of Tako Media, a production company producing local TV content, which after the acquisition changed its name to Polot Media.

Thanks to the acquisition, Telewizja Polsat has strengthened its presence in the local TV content production segment, which may enable it to expand its programming offer with new, locally produced content delivered to viewers through various distribution channels within the integrated Group. [180.]

[179] idem.

[180] https://www.wirtualnemedia.pl/artykul/polot-media-polsat-kupil-tako-media-producent-zygmunt-solorz-wartosc-transakcji-okil-khamidov-tamara-aagten-margol-opinie

Share of the main players in the TV, radio, press and telecommunications markets in different media sectors

Table 10. Television and other media sectors

Entity	Advertising revenue market share in 2020[181] and audience market share in 2021.[182]		Market share SVoD- number of subscribers[183]	Pay TV operators' revenue market share[184]	Internet user reach[185]	Telecommunications Subscriber market share and revenue market share of mobile operators[186]
	advertisement	audience				
Polsat	29% (34%)	23,53% (24,8%)	Ipla.tv (from August 2021 Polsat Box Go) 13.23% (12.6%)	Cyfrowy Polsat 53% (51%)	Polsat-Interia Group 69% (Cyfrowy Polsat Group 35.56%)	Polkomtel and P4 subscribers 39.5% (2019: advertising 50.3%, revenue 45.1%)
TVN	31% (33%)	22,87% (23,0%)	Player.pl 15.73% (22%)	Canal+[187] 47% (49%)	TVN Group 41.5% (40,82%)	
TVP	24% (16,6%)	28,34% (28,6%)	Vod.tvp.pl no data (10,09%)	Not applicable	TVP Group No data (24.14%)	
WP	0,66% (0,36%)	0,55% (0,47%)	Not applicable	No data available	Wirtualna Polska Group 72.6% (73.49%)	

[x] Values in brackets for the previous year are given for comparison.

[181] Based on Publicis Groupe report *Advertising market in Poland 2021.*
[182] Based on data from the Nielsen Audience Measurement TV audience survey in Poland for 2021.
[183] Based on PMR *Pay TV and VoD services market in Poland 2021, Market analysis and development forecasts for 2021-2026*.
[184] Based on PMR *Pay TV and VoD services market in Poland 2021, Market analysis and development forecasts for 2021-2026*.
[185] https://www.gemius.pl/wszystkie-artykuly-aktualnosci/wyniki-badania-mediapanel-za-grudzien-2021.html
[186] Based on *UKE's Report on the state of the telecommunications market in Poland in 2020,* June 2021.
[187] 32% interest through TVN Group Discovery Company.

Table 11. Radio vs. other media sectors

Entity	Advertising revenue market share in 2020[188] and audience market share in 2021[189]		Share of selected services of radio stations and broadcasters in the Internet (reach)[190]	Market share in revenue from sales of titles and advertising in press (newspapers and magazines) in PLN million
	advertisement	auditorium		
RMF	22% (23%)	36,2% (33,8%)	Rmfmaxxx.pl 4.24% (4.55%) Rmffm.pl 10.21% (17.35%) Rmf24.pl 17.77% (23.58%)	Bauer Media Group 15%[191] (15%)
PR and Regional Broadcasting	15% (21%)	12,8% (16,5%)	5,20% (4,80%)	Not applicable
Eurozet	14% (13%)	18,1% (16,8%)	Radiozet.pl 33.57% (42.58%) Planeta.pl 4.66% (no data available) Antyradio 7.17% (4.95%)	Not applicable
Time	11% (9%)	14,1% (14,5%)	Eska.pl 15.29% (20.43%)	Time Group 2.05% (3.35%[192])
Agora	11% (11%)	6,9% (6,4%)	Tokfm.pl 5.11 (5.98%)	Agora 5.58% (7.1%[193])

[188] Based on 2020 financial statements and Publicis Groupe report, *Advertising market in Poland 2021.*
[189] Based on data from Radio Track survey, Kantar Polska for 2021.
[190] Based on the Gemius/PBI study Popularity of selected websites of radio stations and broadcasters on the Internet, data for 2020 - 2022(January to January).
[191] Bauer Group's revenues in 2020 amounted to PLN 361 million. The PwCreport, *Newspaper and magazine market Entertainment & media Outlook 2021 - 2025,* shows that the value of the press market (sales and advertising combined) amounted to USD 638 million i.e. PLN 2,398 million (PLN 3.76 at the average exchange rate for 2020) http://rss.nbp.pl/kursy/TabRss.aspx?n=2020/a/20a255
[192] Time Group's 2020 revenue was 49.29m from sales of newspapers, magazines and books https://www.wirtualnemedia.pl/artykul/wydawca-super-expressu-i-broker-reklamowy-grupy-radiowej-time-wplywy-11-proc-w-dol-32-mln-zl-zysku-netto
[193] Agora's revenues in 2020 amounted to PLN 134 million. PwC's report, *Newspaper and Magazine Market Entertainment & media Outlook 2021 - 2025*, shows that the value of the press market (sales and advertising combined) in 2020 amounted to USD 638 million or PLN 2,398 million (according to the average exchange rate for 2020: PLN 3.76). http://rss.nbp.pl/kursy/TabRss.aspx?n=2020/a/20a255

[x] Values in brackets for the previous year are given for comparison.

Table 12. Newspapers versus other media sectors

Entity	Market share of revenue from sales of titles and advertising in the press (newspapers and magazines) [190]	Advertising revenue market share[194] and audience market share[195]	Market share of music services (reach)[196]	Audience market shares[197]	Internet user reach[198]
Bauer Group	15,5% (15,04%)	RMF advertising 22 (23%) audience 35.5% (33.8%)	Rmfmaxxx.pl 14.51% (4.5%) Rmfon.pl 4.6% (3.5%)	Not applicable	RMF Group 35.0% (no data available)
Polska Press	13,6% (15,36%)	Not applicable	Not applicable	Not applicable	Polska Press Group 60.0% (58.47%)
Ringier Axel Springier	23,5% (21,35%)	Not applicable	Not applicable	Not applicable	RAS Polska Group 74.9% (70.65%)
Edipresse	3,9% (4,58%)	Not applicable	Not applicable	Not applicable	Edipresse.pl Group No data (28.17%)
Burda	5,6% (5,91%)	Not applicable	Not applicable	Not applicable	No data available No data available
Agora	5,7% (7,1%)	Agora advertising 11% (11%) Audience 6.9% (6.4%)	Open.fm 3.08%	Not applicable	Gazeta.pl Group 59.6% (55.41%)

194 Based on 2020 financial statements and Publicis Groupe report, *Advertising market in Poland in 2020.*
195 Based on data from Radio Track, Kantar Polska survey for 2020.
196 Based on Gemius/PBI survey of leading music websites, data as of November 2020.
197 Based on data from the 2020 TV audience survey in Poland, Nielsen Audience Measurement.
198 Based on the Gemius/PBI study on the market share of 20 publishers (owners of websites and internet programmes) for: Wirtualnemedia.pl, data for November 2020.

ZPR	2,1% (3,35%)	TIME advertising 9% (9%) audience 13.9% (14.5%)	Eska.pl - music - 10,6% (9,34%)	ESKA TV 0.32% (0,36%)	ZPR Media Group 55.6% (46.51%)

x Values in brackets for the previous year are given for comparison.

Table 13. Telecommunications versus other sectors

Entity	Telecommunications Share in the number of mobile phone users[199]	Revenue market share of satellite pay TV operators[200] or cable	TV advertising revenue market share[201] and audience market share[202]	VoD market share - coverage[203]	Internet user reach[204]
Polkomtel	21,5% (21,3%)	Cyfrowy Polsat 53% (51%)	Polsat advertising 23% audience 23.53% (24.8%)	Ipla.tv - 13.23 % among SVoD services (4.08%)	Polsat Group - Interia 68,0% (Cyfrowy Polsat Group 35.56%)
Orange	27,0% (27,3%)	Not applicable	Not applicable	Not applicable	Not applicable
T-Mobile	18,7% (18,9%)	Not applicable	Not applicable	Not applicable	Not applicable

x Values in brackets for the previous year are given for comparison.

199 Based on *UKE's Report on the state of the telecommunications market in Poland in 2020,* June 2021.
200 Based on PMR, *Pay and VoD market in Poland 2021, Market analysis and development forecasts for 2021-2026*.
201 Based on the 2019 financial statements and the Publicis Groupe report *Advertising Market in Poland 2020.*
202 Based on data from the 2020 TV audience survey in Poland. Nielsen Audience Measurement.
203 Based on the Gemius/PBI research of top VoD sites, November 2020, after: Wirtualnemedia.pl.
204 Based on the Gemius/PBI study on the market share of 20 publishers (owners of websites and internet programmes) for: Wirtualnemedia.pl, data for November 2020.

Table 14. Ownership structure of the main entities active on the markets: television, radio, press and telecommunications - as at the end of 2021.

Entity	Shareholders - share in capital
TELEVISION	
polsat	Zygmunt Solorz 100% through subsidiaries
tvn	Discovery, Inc. - 100%
TVP TELEWIZJA POLSKA	State Treasury - 100%
TV puls	Telewizja Puls Sp. z o.o. - Dariusz Dąbski - 100%.
WP wirtualna polska	Michał Brański, Krzysztof Sierota, Jacek Świderski, who hold jointly 55.84% at the general meeting of WP Holding S.A. Other shareholders (below 5%).
RADIO	
RMF	Bauer Media Invest GmbH - 99.99%
POLSKIE RADIO	State Treasury - 100%
eurozet	SFS Venture - 60% and Agora SA - 40%

Entity	Shareholders - share in capital
time INVOLVE YOUR CUSTOMERS	Time Radio Group United Entertainment Enterprises SA - approx. 90%.
AGORA SA	Agora-Holding Sp. z o.o. - 11.60%, holds 35.36% of votes at the General Meeting Powszechne Towarzystwo Emerytalne PZU SA - 16.30%, holds 11.92% of votes at the General Meeting Media Development Investment Fund, Inc - 11.49%, holds 8.4% of votes at the general meeting Nationale-Nederlanden Powszechne Towarzystwo Emerytalne SA - 9.65%, holds 7.05% of votes at the General Meeting Other shareholders (below 5%) - 50.96%, hold 37.27% of votes at the general meeting
PRESS	
BAUER Group POLSKA Sp. z o.o.	Bauer Media Invest GmbH - 100%
POLSKA PRESS GRUPA	PKN Orlen SA - 100%
ringier axel springer	Ringier Axel Springer Media Holding: Axel Springer SE - 50% Ringier AG - 50%
EDIPRESSE POLSKA	Edipresse Group (Switzerland) - 100% acquisition of 100% by Burda Media 2021. UOKiK decision - February 2022.
burda	Hubert Burda Media Holding GmbH & Co. KG
AGORA SA	Agora-Holding Sp. z o.o. - 11.60%, holds 35.36% of votes at the General Meeting Powszechne Towarzystwo Emerytalne PZU SA - 16.30%, holds 11.92% of votes at the General Meeting

Entity	Shareholders - share in capital
	Media Development Investment Fund, Inc - 11.49%, holds 8.4% of votes at the general meeting Nationale-Nederlanden Powszechne Towarzystwo Emerytalne SA - 9.65%, holds 7.05% of votes at the General Meeting Other shareholders (below 5%) - 50.96%, hold 37.27% of votes at the general meeting
grupa zpr media	ZPR Media Group SA
TELECOMMUNICATIONS	
Mobile telephony	
plus Polkomtel Sp. z o.o.	Cyfrowy Polsat Group - 100%
orange™	Orange SA - 50.67% Other shareholders - 26.14%
T Mobile	Deutsche Telekom Group - 100%
Fixed-line telephony	
orange™	idem.
upc	Liberty Global, Inc. (LGI)

Entity	Shareholders - share in capital
NETIA	Polsat Plus Group - 100%
multiMedia Polska	Vectra - 100%
vectra	Capricorn Ventures Holding GmbH, Austria, 49.99% Prudentia Ventures Holding GmbH, Austria, 49.99%
PLAY	Iliad Purple S.A.S. - 59.82% Kenbourne Invest II S.à r.l. - 20.09% Nikelo Holdings Limited - 20.09%
T Mobile	idem.
Cyfrowy Polsat SA	Zygmunt Solorz - 100% through subsidiaries

Source: Study of the KRRiT Office