



# Convergence Processes and Digital Transformation in Polish Media Companies

**Łukasz Kołodziej**

**To cite this article:** Kołodziej, Ł. (2024). Convergence Processes and Digital Transformation in Polish Media Companies. *Social Communication. Online Journal*, 1(25), 99-111.

**To link to this article:** <https://doi.org/10.57656/sc-2024-0010>



© 2024 The Author(s). Published with Social Communication



Published online: 2 Dec 2024



Submit your article to this journal [↗](#)




View related articles [↗](#)



UNIVERSITY of INFORMATION  
TECHNOLOGY and MANAGEMENT  
in Rzeszow, POLAND

## Convergence Processes and Digital Transformation in Polish Media Companies

Łukasz Kołodziej  Wyższa Szkoła Informatyki i Zarządzania z siedzibą w Rzeszowie, [lukaszkolodziejmedia@gmail.com](mailto:lukaszkolodziejmedia@gmail.com)  
Instagram, journalist, social media, communication, personal brand

### ABSTRACT

The thematic scope of the paper outlines the direction of transformation of Polish media concerns and Polish branches of global concerns, which are transforming into media-technology concerns, as well as technology-based multi-business holdings. The aim of this paper and the research conducted is to find out how the use of convergence processes and digital transformation influence the activities of Polish media concerns. It is particularly important to establish what business activities Polish media concerns undertake in response to the dynamic development of technology and what role convergence plays in formulating the product offer of media concerns. The paper presents selected projects and business steps undertaken by the companies in 2020-2023 and the accompanying convergence processes. The research was carried out in 2023 at corporations: ZPR Media Group, Ringier Axel Springer Poland, TVN Warner Bros. Discovery, Wirtualna Polska Holding, Polska Press, Polityka, Agora Group. The selected years of activity of the Polish concerns included in the analysis corresponded to the dynamic growth in technology development and market changes that accompanied the COVID-19 pandemic.

### Introduction

The Polish media market is divided between large Polish and international concerns, with little participation from local publisher groups and associations. Adam Szyńol (2017) points out that the over-representation of foreign concerns in the Polish media market has been repeatedly addressed in the political, media and social space, although it gained new resonance after the 2015 presidential and parliamentary elections.

In the context of the digital transformation of the media, it is characterized by the process of media, meaning that 'traditional' media - the press, radio and television - are 'moving' to the Internet, and the mediatization of the Internet. In this case, it is the media that are 'mastering' the Internet, making it a super-media. The old media increasingly make use of the new technologies, while the new ones absorb their original functions and, according to the concept of remediation, become remediated, modified media adapted to the new technological environment (Jedrzejewski, 2019).

The digital transformation in media companies would not have been possible without the development of the offerings and rapid market response of global technology companies. They were the biggest beneficiaries of the global crisis. Alicja Jaskiernia (2021) wrote about the impact of technology and the development of conglomerate dominance on the basis of the pandemic, emphasizing that the radical transformation of everyday life on the planet, forced by the COVID-19 pandemic, resulted in an accelerated convergence of social and private space through online tools.

This process in the context of media communication has been addressed by Tomasz

Goban-Klas (2020), emphasizing that it has intensified in the form of mobile phone call, Internet audio and video communication, group communication, as well as the use of classic mass media - radio and television (in terrestrial, cable and satellite form) and streaming music and movie services (Spotify, Netflix and others). Jay Dawid Bolter and Richard Grusin (2000) have a similar perspective on the convergence processes presented; they define convergence as the mutual remediation of at least three important technologies - telephone, television and computer - each of them being hybrid of technical, social and economic practices offering its own path of immediacy. Convergence brings together all the media on the Internet to form integrated transmedia systems. At the same time, however, working in the opposite direction, divergence prevents the convergent environment from reaching any final form and solidifying into a total final assemblage (Kluszczyński, 2020).

The attempt to describe the transformation of media corporations in this paper comes down to presenting the ongoing processes that modify these entities into digital enterprises. Typically, this term refers to companies such as Amazon.com, Google, Facebook or Ticketmaster, which use computers and IT systems to automate most business processes and gain competitive advantage through increased employee productivity, improved efficiency, process effectiveness and a higher level of interactivity between suppliers and customers (King et al., 2018). In the corporations mentioned above, as in the described media concerns, the potential of a company is formed by three basic aspects of its operation: knowledge, organization, and finances, because of which we can speak of substantive, organizational and economic

potential, respectively (Lange-Sadzinska, 2017). The most important resource of the concerns described in this paper is data, and the increasing amount of data determines the increase of each of the company's potential. Multinational corporations are taking over a certain range of traditional state functions, covering a significant part of research costs protecting new technologies and intellectual property (Wątroba, 2009).

The transformations of the media environment under the influence of danetisation (a feature of deep mediatization) and the associated processes of analyzing and processing data - motivated by economic profits - are prompting media scholars to redefine the term 'media', which is fundamental to media studies (Ptaszek, 2019). One of the definitions correlating media with data was provided by Lev Manovich (2006), describing new media as analogue media converted to digital form, characterized by free access to data, the potential for lossless reproduction (quality-preserving copying) and interactivity, but it is data that has become today's most coveted and protected commodity, and due to data processing media corporations are transforming towards media technology concerns.

### Methodology of research

In light of the research conducted, information was obtained from a wide range of areas, whose structures and processes could be understood through in-depth interviews with the executives responsible for maintaining each of them. Experts included members of the management board, those responsible for the development of new models and channels for monetizing the product mix, product managers, and directors of publishing areas and content production. The vast majority covered technological and economic convergence processes.

The author conducted in-depth interviews on each of the seven concerns surveyed. In the Agora Group, two interviews were conducted with persons responsible for the indicated areas due to the in-depth study of the radio and Internet portals. Between April and September 2023, eight IDI interviews were conducted in a semi-structured format at the headquarters of the concerns (2 interviews) and online (6 interviews). The data was analyzed based on segregation into thematic blocks with questions that were developed for the interview. The interviews discussed, among other things, the internal processes that define the work of the concern, the areas of content production, the technological background and projects undertaken by own brands.

In the course of the research, the material thus obtained was verified on the basis of an analysis of the existing data using financial statements, activity reports, articles and press releases, reports and the content of the websites of the corporations under study. Due to methodological triangulation, in order to deepen the knowledge of cross-product convergence, a comparative analysis was used, juxtaposing two forms of a single product: traditional (in the case of newspapers) and online, and in the case of other products: a browser (desktop) version and a version designed for mobile devices.

### ZPR Media Group

The ZPR Media Group, which was subject to the research, belongs to an extended structure of the Zjednoczone Przedsiębiorstwa Rozrywkowe S.A. company established in 1991. The company is also the main direct and indirect shareholder of numerous entities operating in the following areas: radio (i.a. press (Super Express, Murator, among others), television and commercial production (ZPR Media, among others), business services (Super Media, Pollster), books and photography (HARDE Publishing House, Lekkie Publishing House,) gastronomy (Bio Smaki, Super Smaki), real estate management (Murator IBS, Murator FM) (Zjednoczone Przedsiębiorstwa Rozrywkowe, 2024). An in-depth interview was conducted with one of the group's board members. In it, the expert highlighted the perception of ZPR Media's growth rate, describing it as being a 'permanent start-up', which speaks to the dynamics of a changing market. The video production segment is one of the strongest growing segments in the ZPR Media Group, mainly through its subsidiary companies ZPR Media S.A. and TIME S.A. In 2022, the corporation launched three studios of 500 sq. m, 250 sw. m and 82 sq. m, with complete technological facilities (Studio TV. ZPR Media, 2023). The production of the video mentioned above content and the distribution strategy are based on the technological penetration of content consumption platforms with a particular emphasis on video-on-demand platforms. The content produced can be found on YouTube channels, portals, Facebook, and TikTok.

One of the new video projects by Super Express (SE) based on the penetration of technology was the first footage produced in augmented reality, which was used to prepare the special programme 'Year of War'. It was broadcast on March 2 2023. The set design was based on the use of so-called assets, which

in this case were 3D models - scanned Ukrainian cities that had suffered in the war. Content-wise, the editorial team of SE was responsible for the release, while technically, Veles Productions company. The virtual scenography was based on the real-time graphics engine Unreal Engine 5.1.

Super Express, one of ZPR Media's flagship press titles, underwent a metamorphosis responding to current trends in content consumption. In July 2022, se.pl web portal, the online version of Super Express, introduced a new graphic design. The aim of the changes was to reflect the tabloid character of the daily newspaper, introducing a responsive design, highlighting photos and video content. Ninety percent of the se.pl audience are mobile phone users, thus, the portal focused on their comfort (Press.pl, July 2022). The paper version of Super Express underwent similar changes.

In the course of the comparative analysis, ten articles published in SE between 21 and 27 October 2023 in the browser version of the portal (desktop) and in the traditional edition were juxtaposed, attempting to obtain data on the number of photographs and graphics used, videos relating to the content of the article, the number of links relating to content-wise connected articles, the number of advertisements placed in the immediate vicinity of the article, the compatibility of the text layer between the browser version and the mobile app, and additional functionalities embedded in the article, such as posts from social networks, maps, weather forecasts.

Concerning the text layer, there are significant differences in the design and content of articles in the printed and online versions, where the latter have a more elaborate formula. Four out of ten articles analyzed share exactly the same content. Considering the use of photos, the online version of Super Express has a definite advantage due to its technical preconditions. The number of photographs used in the traditional version ranges from 1 to 5, while in the online version, it ranges from 2 to 18, with the majority of the above ten photographs. Both the data obtained during the in-depth interview, the comparative analysis, and the analysis of the existing data indicate a priority for the use of graphic materials (especially photos) in both traditional and digital press publications. The change in graphic design, which follows proven solutions (playing with the image and the title) in the traditional form of Super Express, responds to the process of convergence, in this case, the exact similarity between the digital form of the press title and the traditional version.

ZPR Media and its subsidiary companies

produce a large amount of content every day, and the distribution of it requires the involvement of significant technological resources. One example is video content, which is reduced to a content consumption identifier across all platforms. This identifier indicates locations and viewing levels. The expert recalls the technological trend focused on Big Data, while in his opinion, it is important to use the data as Smart Data, hence the work done by analysts in the Business Intelligence department to establish the predictability of consumption on the indicated platform before the material is published. ZPR Media has been using Chat GPT from its 2.5 version.

Based on GPT, the Data Scientist department has developed its own neural network for writing articles that do not require uniqueness, such as weather forecasts for different locations in Poland.

The Technology and Analytics departments play a very large role in the corporation, working in particular on increasing reach and enhancing sales, audience extension and market share. These goals are mostly realized through in-house resources (ZPR has a data warehouse, having collected data for several years), especially using Accorp Sp. z o.o. Company managing Instytut Badań Pollster (Pollster Research Institute) and Internetowy Dom Mediowy net S. A. is a technological firm operating in the programmatic ecosystem and offering, among other things, ads automation. Accorp plays a key role at ZPR, which is focused on data scientists and business intelligence. Amongst other things, its task is to establish consumption predictability on a designated platform. It manages Instytut Badań Pollster, a research panel of 200,000 panellists. Pollster also performs political surveys for external parties. ZPR Group's surveys are certified by, among others, Organizacja Firm Badania Opinii i Rynku (Organisation of Opinion and Market Research Firms).

During the interview, the expert emphasized the Data Science department's great importance to him: 'We have been collecting data for several years now. We have terabytes of data and a subsidiary company in the group with very capable young people. They are Data Science specialists, not analysts. There is a timeline and a clear division: Business Intelligence works backwards and Data Science works forwards. That's why I say Data Science, because they create their own models to recommend content in search of people who are interested in that content.'

### **Ringier Axel Springer Polska**

Ringier Axel Springer Polska has more than a

dozen brands in the print and Internet business. In addition, the company is active in classifieds (Gratka.pl, Morizon.pl, No Fluff Jobs), technology (Ring Publishing - formerly DreamLab) and e-commerce, including Skąpiec and Opineo brands. Ringier Axel Springer Polska's main media platform is Onet.pl. To a large extent, it consists of content originating from the Onet domain, i.e. Onet Wiadomości, Onet Kultura, Onet Podróże, but it also features content from other media portals - Auto Świat, Komputer Świat, Business Insider.

The corporation has been undergoing centralization in the recent past due to the dispersion of the structure into separate companies. When the merger of all the companies of the Onet-RAS Polska Group into the new legal entity Ringier Axel Springer Polska was completed in 2018, it was noted that only centralization and observing from a distance makes it possible to see the profit of the whole organization and not of individual brands (Pallus, 2017).

During the research, attention was drawn to the clause 'care for the quality of press products', which, when juxtaposed with the data analyzed and the business decisions made by the concern, is not clearly directed towards preserving its own traditional press on the market. In the run-up to the IDI interview, RASP HQ announced in March 2023 the start of the roll-out of the third phase of its digital transformation. The first saw the development of an online offering, and the second saw the introduction of digital subscriptions. The corporation announced the transition of the daily newspapers Bild and Die Welt exclusively to online versions (Stawiany, 2023). The activities of the corporate management and the Polish branch indicate a focus on the digital version of the publication and Internet activity orientation. While analyzing the existing data, information on changes in Ringier Axel Springer Polska's internal structure was found to indicate the chosen direction. Maria Ballaun took up the newly created position of head of strategy and portfolio for digital services in August 2022 (Wirtualne Media, April 2023). In the same year, RASP created the Data Journalism team (Ringier Axel Springer Polska, 2022). In May 2023, Jolanta Molińska took up the newly created position of head of editorial for Onet Premium (Portal Medialny, 2023).

The expert also commented on the changing business environment during the in-depth interview: 'We are not the only ones who have strategies developed several years ahead. Of course, it is very difficult because, one month since the launch of artificial intelligence, many things have been turned

upside down. Three months ago, as if we were talking about whether any profession besides the doctor would never be exhausted, we would have said programmer. Today, we know that AI is capable of taking over a very large scope that entry-level programmers handle.'

In its financial statement filed for 2020, Ringier Axel Springer Polska lists among the objectives to be achieved, among others, increasing user engagement by extending the time spent on websites, increasing the quality of advertising space, the share of targeted and data-driven advertising, and providing users with the broadest possible spectrum of content. As for the plan to increase revenue, the conglomerate mentions paid content, content commerce, technology services, and cooperation with its own ad services. These assumptions are replicated in each successive report but are closely linked to the digital space without the involvement of traditional publishing (Ringier Axel Springer Polska Sp. z o.o., financial report, 2020).

The decision to centralize structures within RASP also had publishing implications. In August 2022, the corporation launched a new sports website, PrzegladSportowy.onet.pl, which combined content from Sport.onet.pl and PrzegladSportowy.pl (Erling, 2022). In December 2022, RASP withdrew the paper version of Auto Świat from the market, leaving the website Autoswiat.pl (Sewastianowicz, 2022). In January 2023, Ringier Axel Springer Polska closed the Komputer Świat Plus website in order to develop editorial and subscription content on Komputerswiat.pl. The analysis of the existing data provided a broader picture of the corporation's activities, seeking to acquire technological solutions, start-ups and specialists that can enhance Ringier Axel Springer Polska's ability to operate as a technology media corporation.

In 2021, Ringier Axel Springer Tech ran a broad recruitment campaign under the slogan 'The future of media is written in code', targeting programmers and technology specialists. RASP Tech develops technology for digital media, supporting brands in the group's portfolio (Wirtualne Media, October 2021). In April 2021, Ringier Axel Springer Media and investment company APX announced a programme to support Central and Eastern European start-ups (Ringier Axel Springer Polska, 2021). In 2022, the conglomerate realized investments in the IT recruitment market by acquiring a 70% stake in job search engine No Fluff Jobs. In doing so, RASP is pursuing a strategy of supporting start-ups and turning them into scale-ups (Business Insider Polska, 2022).

The corporation has carried out activities to strengthen RASP's image as a technology company. In March 2021, Business Insider and Forbes announced a competition for the best managers responsible for digitalization - 'Chief Digital Officer of the Year. The Future is Today'. It included a series of expert debates and thematically related texts (Wirtualne Media, March [2021](#)). Also in March 2021, the first episode of the podcast 'Digital Means Future', hosted by Nell Przybylska from the Digital Poland Foundation, was published on Forbes.pl and the Onet homepage. The programme featured the winners of the Digital Shapers Award (Forbes, [2021](#)). In May 2021, the Business Insider TRENDS platform was launched, which brings together activities on business trends and business-changing technologies (Business Insider Polska, [2021](#)).

After the IDI interview, during the analysis of the existing data, information was obtained about the launch of the next edition of the RAS START ME UP programme by RASP in October 2023, taking place under the motto 'AI Awesome Inventors'. The conglomerate was looking for ideas for the media of the future, inviting start-ups using generative AI in four areas to be recruited: AI for editorial, multimedia of the future, marketplace of the future and human engagement in the AI era (Ringier Axel Springer Polska, October 18 [2023](#)).

### TVN Warner Bros. Discovery

TVN Group Warner Bros. Discovery has the resources and offers to conduct in-depth research in the TV segment, considering classic linear TV as well as any TV hybrids related to the digital area. The conglomerate reached its position in April 2022 when Discovery and AT&T finalized a merger agreement. The merger between Discovery and WarnerMedia resulted in the creation of Warner Bros. Discovery. The group is the broadcaster of, among others, TVN, TVN Seven, TTV, TVN 24, TVN 24 BIS, TVN Style, TVN Turbo, HGTV and TVN Fabuła. In addition, it runs news websites included in the research conducted, as well as the premium service TVN24 GO. Much of the information about the corporation's work was obtained due to collaboration with the person responsible for directing the production and coordination of video content in the TVN Group Warner Bros. Discovery (Press.pl, [2021](#)).

According to the expert, there has been a very intense time of technology development recently - moving from 4:3 to 16:9, from SD to full HD. During this period, TVN Group Warner Bros. Discovery focused, among other things, on the creation of

a digital archive. The interlocutor points out that approximately 20 years ago, TVN was one of the first stations to introduce digital file processing. TVN24 in 2020 was the first European TV station to deploy Sony's PXW-Z750 camcorders, enabling improved image quality and providing the basis for 4K production (Sony Polska, [2020](#)), while in 2021 satellite operator Eutelsat signed a multi-year agreement for additional satellite capacity on Hot Bird 13E with the TVN Discovery Group, enabling the group to launch, among other things, channels in 4K (HDTVPolska, [2021](#)).

The expert also stresses the great importance of the development of drones, which has initiated the development of other technologies, such as small camera cars used in the broadcast of speedway races, moving at 80km/h, very fast camera taps, high-speed carts moving on rails, the so-called dolly. The interlocutor points to changes in the technological background of the group, which has a large IT staff and, in his opinion, TVs are slowly becoming technology companies.

In July 2021, TVN Discovery Group, in cooperation with Wizja Multimedia Sp. z o.o., launched the XR studio, operating with augmented reality technology (TVN, [2021](#)), where in March 2022, in cooperation with Wizja Multimedia and Heliograf film rental, it organized the Warsaw Virtual Experience workshop. During this event, the companies' experts presented the possibilities of augmented reality technology and the solutions available at the studio. The meetings were aimed at television, film and advertising professionals (Zawiślak, [2022](#)).

With regard to how video content is prepared and distributed, the expert referred to the described production processes, known as 'production book' and the convergence processes taking place between the ecosystems found in television. The first relates to classic linear television, the second is an extension of television on the Internet, and the third is related to VOD platforms, and the content between them is constantly converging. The MMA gala 'Strife' was pointed out as an example, which, in addition to its TV airing, has a broadcast on online channels, including YouTube.

The expert also draws attention to a rather important problem: 'Here, of course, we can also talk about the borderline of content cannibalization. Cannibalization and its monetization take us on a slippery slope towards rapid content exploitation, as it has been exploited in television for years. It is very apparent, and it is a global trend, that this content has to make money on three platforms: online, VOD and

TV.'

In August 2020, the TVN Discovery Poland concern created a new position of chief technology officer, responsible for coordinating operations in IT, IT infrastructure and cloud systems (Bochyńska, 2020). In turn, in October 2023, TVN Warner Bros. Discovery created the position of head of digital, which is responsible for the group's intensive work on the development of its digital offer (Pallus, 2023). One of the most important projects implemented in 2022 in the TVN S.A. capital group was the development of tool requirements plan assumptions and the implementation of artificial intelligence tests related to the automatic creation of programme content (TVN S.A., financial report, 2022).

The platform on which video content produced by the corporation can be found is Player.pl, which has been a paid platform since February 2021. TVN opted for a subscription model at the expense of advertising reach (Staroń, 2021). Another important moment was the targeting of Player.pl's offer to the e-gaming community - due to economic and technological convergence. In May 2023, the Player service was made available to users of Xbox gaming consoles, thanks to a platform from Redge Technologies (Wamej, 2023).

An important project of the corporation is Player Labs, a web service with the character of an innovation laboratory. Here, Player users act as experts and participate in discussions, missions and tasks concerning the development and future of the service (Player.pl, 2023). The service was one of the most developed projects in 2022. As was Player.pl itself, where a new recommendation and search engine was created (TVN S.A., financial report, 2022).

In the context of format convergence processes, the partnership of two concerns is worth mentioning. In October 2023, Ringier Axel Springer Polska and TVN Warner Bros. Discovery announced the launch of a joint package combining the TVN24 GO and Onet Premium service (Ringier Axel Springer Polska, October 6 2023). TVN24 GO is a paid streaming platform offering the TVN24 and TVN24 BiS news channels, live broadcasts and a database of news and current affairs programmes. The development of the TVN24 GO service itself has been part of the TVN S.A. Group's strategy for several years. In 2020, the emphasis was laid on the application - the development and implementation of the PWA (Progressive Web App) model, one application for web, web mobile, Android and iOS (TVN S.A., financial report, 2020). In 2021, TVN24 GO was integrated into the TVN24.

pl service (TVN S.A., financial report, 2021). And in 2022, a tool for dynamic embedding of programmes from TVN24GO in external services was designed (TVN S.A., financial report, 2022).

Interesting results were obtained during a comparative analysis of 10 articles published on the TVN24 website between 14 and 20 December 2023. Publications published in the desktop browser version and in the mobile app were taken into account. They show consistency in terms of content, images, and hyperlinks. The greatest differences were noted in additional functionality, where 5 out of 10 publications analyzed were compatible in this area. The remainder used embedded boxes with related article videos, which were not present in the mobile version.

### **Wirtualna Polska Holding**

Wirtualna Polska Holding, through its subsidiary companies, is present in many segments of the media and advertising market, some of which it has managed to dominate thanks to its acquisitions. The holding owns websites with the content of the WP Group, led by the portals WP.pl, o2.pl, Money.pl and Pudelek.pl, as well as e-mail websites Poczta WP and Poczta o2. The company owns 100% of its shares in Mediapop, the publisher of i.a. Jastrzabpost.pl, Pyszności.pl and Genialne.pl. It is also the owner of the Benchmark.pl technology website and the Audioteka audiobook service. Wirtualna Polska Holding dominated the e-commerce version of tourism, owning the Wakacje.pl, Nocowanie.pl and Noclegi.pl brands. The company has also made an investment in the crowdfunding platform Patronite. Wirtualna Polska Holding (WP) is trying to strengthen the direction of development towards building a technology concern. An investment was made in another photovoltaic farm in Lower Silesia, and green energy from its own production already covered almost 80% of WP's demand for powering the server room (Wirtualna Polska, 2023).

One of the most important sources of traffic is the homepage of the Wp.pl portal, which uses the Big Data system and the automated distribution system. An in-depth interview was conducted with the person responsible for this area, but information on the group's technological aspirations should be sought from the holding's other activities. In the management board's report on the company's operations in 2020 and subsequently in the following years, Wirtualna Polska Holding indicates the overarching goal of maintaining the position of the largest Polish technology holding in the media and

e-commerce industry. The group wanted to reach this target by implementing its strategic objectives and development directions. The first was the development of technology, which included the implementation of mechanisms and technologies that enable better and better adaptation of services and content to the expectations of recipients.

Other factors included e-commerce with the potential of the rapidly growing e-commerce market in key product categories, Big Data with the use of the group's key competitive advantage, i.e. various data sets on the consumer behaviour of Poles, and Mobile with the achievement and maintenance of the leading position in Poland in the field of advertising for mobile devices. In January 2020, the company launched a video production space with three studios and a total area of 1500 sq. m. The studios were equipped with production facilities - including camera robots, a 1000-inch video wall, and a set design based on 28 light sectors (Wirtualna Polska, management board report, [2020](#)). In 2021, Wirtualna Polska increased the number of published video materials. It started producing regular news programs covering current news from the country and the world (WP News, WP Newsroom) (Wirtualna Polska, management board report, [2021](#)).

In the area of Big Data, in 2022, Wirtualna Polska Holding continued the goal adopted in previous years to create a data-driven organization with WP, implementing further business dashboards based on developed technologies that support the entire organization's work. In the following years, the company announced the continuation of the development of the analytical hub, implementing new dashboards, expanding data sets and improving their quality (Wirtualna Polska, management board report, [2022](#)).

A significant piece of information signalling a turn towards technology was the transaction carried out by a subsidiary company of the Wirtualna Polska holding in 2022, which bought 100% of the shares in the company managing the Benchmark.pl technology service. It is one of the leading Internet portals for computers, new technologies, video games and electronic equipment. The transaction amounted to approximately PLN 14.1 million (WP Reklama, [2023](#)).

A popular project aimed at young audiences, which achieved market success, was the Vibez service launched in September 2020, using solutions known from social media applications, such as stories from Instagram or Snapchat. The website was developed in cooperation with Google as part of the Google Digital

News Initiative. It is the only publishing initiative of this kind in this part of Europe that has been qualified in the category of large projects (from EUR 300,000 to one million in funding) (WP Reklama, Vibez, [2023](#)).

A distinctive direction of development of Wirtualna Polska Holding in recent years has been e-tourism, using technology and economic convergence processes taking place between traditional tourism – in the context of tourist traffic management and the developing electronic form of regulating and managing tourist traffic, especially in combination with monetization related to the e-commerce market. In the third quarter of 2023, Wirtualna Polska Holding recorded higher revenues from tourism than from advertising for the first time in history (Wojtas, [2023](#)). In the second half of June 2021, Wirtualna Polska Media, a subsidiary of the Wirtualna Polska holding, bought 8.5% shares of the company Nocowanie.pl, gaining 93.5% of the capital and votes at the general meeting of the company (Wirtualne Media, August [2021](#)).

In 2022, the concern developed companies operating in the e-commerce market, taking over, i.a., the Sallas Group, which made it one of the largest tourist groups in the region of Central and Eastern Europe. In September 2022, Wirtualna Polska Holding S.A. bought Szallas Group, which operates the largest domestic travel portals in Hungary, the Czech Republic, Romania, Poland and Croatia. In November 2022, Wirtualna Polska Holding began integrating Nocowanie.pl with the acquired Noclegi.pl (Wojtas, [2023](#)).

## Polska Press

The Polska Press Group is a media group whose ownership structure and internal organizational division have undergone frequent changes in recent years. On March 1, 2021, an agreement was signed for the sale of 100% of shares in Polska Press by HKM Beteiligungs GmbH to PKN Orlen S.A. (Słomski, [2021](#)). The research was conducted at a time when Orlen still had full control over Polska Press.

Polska Press, like other media companies, also experienced a decline in the sales of paper editions. In its 2022 financial statement, the group emphasized that it is in the process of business transformation: with falling revenues from 'old businesses' (printed press and printing), new types of business are being developed (a nationwide web portal and new business projects). In 2023, the company's management articulated the needs related to the transition from a press publishing house to a media and technology



company, with particular emphasis on developing an offer tailored to the end user's needs. Regarding the transformation process of Polska Press, in April 2022, CEO Tomasz Przybek spoke in one of the interviews. The statement was related to the employment of a new member of the management board of Polska Press Group, who was responsible for new technologies, including the construction of the announced new horizontal publisher portal. He pointed out that the transformation process has already begun, and the group will invest in both MarTech, AdTech and e-commerce (Wirtualne Media, April [2022](#)).

In the management board's report on the activities of Polska Press Sp. z o.o. for 2022, in the section devoted to achievements in the field of research and development, the company showed work on solutions that, when implemented, were to improve the efficiency of its operations: expansion of sales automation mechanisms and ad creation, implementation of additional functionalities in sales processes, development of analytical systems, expansion of the online services platform to increase efficiency, optimization of server infrastructure (Polska Press Sp. z o.o., management board report, [2022](#)).

Back in 2021, as part of its development work in the area of technology, Polska Press implemented IT services contributing to increasing the concern's efficiency, including expanding the online platform as part of Nasze Miasto in new Polish districts. It implemented [stronapodrozy.pl](#), [stronakuchni.pl](#), [stronazdrowia.pl](#), [gra.pl](#), [strefaedukacji.pl](#) websites and a new version of the [naszahistoria.pl](#) website. A new technological solution, 'photo repository,' was implemented in the area of online services and solutions integrating Polska Press systems with social media. The process of migrating server services (data centers) to the most important locations in Gdańsk and Warsaw was completed (Polska Press Sp. z o.o., management board report, [2021](#)).

Polska Press is the owner of the [i.pl](#) website, which has nationwide and international content in its tone. The portal, in addition to traditional text forms, publishes video podcasts and interactive reportages ([i.pl](#), [2022](#)). The [i.pl](#) portal was launched on September 5, 2022 during the XXXI Economic Forum in Karpacz (Press.pl, [2023](#)). In the management board's report on the activities of Polska Press Sp. z o.o. for 2022, the company described that such a medium would allow Polska Press to implement the best solutions for all the group's websites, working on economies of scale. This creates a potential that affects the economic efficiency of the entire group (Polska

Press Sp. z o.o., management board report, [2022](#)). According to the assumptions, the horizontal portal was to actively support the directions included in the ORLEN Group's 2030 Strategy and its investments (Wirtualne Media, April 28 [2022](#)). In July 2023, the [i.pl](#) portal was visited by over 7 million users. A study conducted by Mediapanel indicated that the service has become one of the most popular in Poland, ahead of [wprost.pl](#) and [natemat.pl](#) (Wirtualne Media, September [2023](#)).

## Polityka

Polityka Sp. z o.o. S.K.A., which is the publisher of the weekly and at the same time the oldest press title Polityka analyzed in this paper, is an example of a company with a permanent and well-established position on the Polish market for decades. In recent years, Polityka has expanded its press portfolio thanks to the acquisition of the monthly *Wiedza i Życie* and the magazine *Świat Nauki* from Prószyński Media. Based on their websites, it created a scientific platform Project Pulsar, with content available in a subscription model.

The weekly Polityka still constitutes the core of the entire publishing house, but it also had to succumb to the influence of digitization and the search for new business solutions, along with its digital counterpart and website. Nevertheless, in 2023, the weekly Polityka defended its first place in the ranking of opinion weekly sales (Zdzieborska, [2024](#)). The digital version of the company is gaining more and more importance in Polityka's development strategy, which was discussed in an in-depth interview with the director of the publishing department.

The editorial structure in Polityka takes into account the division into traditional and online editing. Not always does the content produced for the online version find its place in the traditional edition, while all content from the paper edition is published at the [Polityka.pl](#) and other available packages. According to the interlocutor, the process of convergence between the paper and online medium is smooth. In the past, the paper's editorial office was the dominant editorial office. Currently, the online editorial office, in the digital part of the [Polityka.pl](#), is dominant. The editor-in-chief of the online version supervises that information, comments and opinions are sent at the right time to editor Baczyński, who is responsible for the paper weekly.

A similar situation occurs in support activities – with the publishing department, which is led by the interlocutor, and the digital department, which

Joanna Chmielecka manages. This division also covers the entire area of the world of social media and the area related to editorial production for the needs of Polityka.pl and reworking what has already appeared in print, including Polityka and all special editions: Pomocnik Historyczny (Historical Helper), Poradnik Inteligentna (Intelligent's Guide), Poradnik Psychologiczny (Psychological Guide), as well as books.

The publication's basic version is on paper and has many more buyers. Its sales remain at the level of 80,000 copies, of which 24,000 are digital editions – the rest are printed editions, which are subject to the highest monetization. After preparing the newspaper for printing, it is transferred to the Internet and then packed in PDF, Epub or Mobi. These formats are then sent to all possible readers.

In the latest management board report on the company's operations analyzed by the researcher, as in previous years (since 2020), the publication indicates the digital direction of the company's development in the 'Expected development of the company' section. In 2023, the company planned to continue its publishing activities and strategy to maintain the market leader position among opinion weeklies. The management board also intended to continue or even increase its involvement in the development of the Internet, with particular emphasis on the intensification of digital sales of Polityka and the development of online products launched in 2022, such as podcasts or the popular science portal Pulsar. In addition, the management intended to continue investing in publishing projects, i.e. special editions obtaining grants (Polityka Sp. z o.o., management board report, 2022).

The Pulsar ([projekt-pulsar.pl](http://projekt-pulsar.pl)) project was launched in February 2022 as a popular science portal, created as a result of merging the websites of Świat Nauki and Wiedza i Życie (Wirtualne Media, February 2022). The website also publishes podcasts and digital editions of Świat Nauki and Wiedza i Życie. The digital part is dominated by young people under 40 years of age. At the same time, the share of older people in the digital part is higher than that of the young in the paper part. This means that the reader of 40 plus very often has the need to buy an additional paper version. This is especially true for readers 50 plus. Younger people (35 plus) choose the digital version. These recipients grew up in the digital world, which is completely different from the one in which the respondent's generation grew up. Readers who are 45 plus began their media adventure with one or two press titles, two TV stations and four

radio stations.

### **Agora Group**

The Polish entertainment and media group Agora S.A. is one of the largest surveyed concerns. Agora's activities include cinema and film, digital and printed press, publishing, outdoor advertising, the Internet, radio, culture, education, entertainment and gastronomy. Narrowing down the scope of research in order to limit it to the subject of the media, it was carried out on the horizontal portal Gazeta.pl and at Radio Żłote Przeboje. It is worth noting that the company is the only one of the analyzed concerns to use the term 'convergence' in its reports on operations. Gazeta.pl is a medium appropriate for the digital area, while at Radio Żłote Przeboje the digital transformation process is underway thanks to, i.a. the creation of the position of digital transformation director at the Agora Radio Group in 2022 (Agora S.A., 2022). In Gazeta.pl, an in-depth interview was conducted with the person responsible for coordinating the video area, while the station's program director was on the radio.

Gazeta.pl creates content intended for younger audiences, eagerly watched by TikTok and YouTube users. From the expert's perspective, there have been big changes in the media over the past 3 years: during the pandemic, people got used to consuming videos and learning about the world in this way. Gazeta.pl already started promoting new video formats available as part of the interactive player in 2020, using its virtual showroom or Click2Shop options (a feature that allows you to add a product to the cart while watching a video) (Agora S.A., 2020). 'What has really changed the most is this: the three years during which people had to spend time at home got them used to observing the world and its different places through video consumption. It has also changed the outlook of the media because they have noticed that they can do their business not only in the studio,' explains the person responsible for this area at Gazeta.pl during the interview.

Regarding the trends accompanying the development of the media (including Agora), the interlocutor emphasizes the direction of media adaptation to specific users and their preferences. Interaction with the audience is increasing because of the policies of social media platforms. Audiences want to comment, react and influence what is happening in videos. At the same time, the importance of live broadcasts can be seen, including streams that respond to the described needs. The directions for the development of the Gazeta.pl portal are also indicated

in the analyzed documents. In February 2022, the management board of Agora S.A. announced that it had decided to expand the process of reviewing strategic options for the Agora Group's Internet operations, including the process of integrating the existing Press segment with the Gazeta.pl division into one business area of the Agora Group (Agora S.A., management board report, [2021](#)).

In the context of the portal's development plans, in the fourth quarter of 2022, Gazeta.pl and its services focused on developing offer for recipients and business partners. The Sport.pl team prepared a multi-channel plan to cover the 2022 FIFA World Cup in Qatar, and the reports and comments of the three correspondents appeared regularly not only on Sport.pl and Gazeta.pl, but also on social media, including YouTube, Tik Tok, Instagram and Twitter. In October 2022 the journalistic cooperative Outriders, with the support of the Ukrayina.pl service and Ukrainian reporters, brought readers closer to the Gazeta.pl wartime realities of Ukrainian cities through a series of video reportages using VR/360 technology (Agora S.A., management board report, [2022](#)). In the radio segment, at the end of February 2023, Agora became the majority owner of Eurozet, increasing its potential in classical broadcasting and Internet broadcasting (Wirtualne Media, March [2023](#)).

Among the significant changes in the media industry over the last three years (2020-2023), the expert from Radio Żłote Przeboje mentions several important processes. According to him, the pandemic has led to the already established standard of the absence of the programme guest in the radio studio, which was not accepted years ago. Guests are already aware enough to realize that they do not need to visit the studio, but they still have a guaranteed presence in the media space. In the process, they have become more digitally educated and purchased equipment, partly due to the increasing demand to publish their social media content. It was the first change where the media and their audiences adapted to the new quality of broadcast conversations. Despite these changes, in the last three years, the Agora Radio Group recorded the highest growth rate of audience share among all broadcasters at over 21% (Wirtualne Media, February [2023](#)).

Software and hardware manufacturers for radio professionals have also come up with a number of interesting solutions, including an iPhone app for professional microphones. According to the expert, this clearly points in the direction of replacing studio solutions with technologies for mobile devices, including smartphones. With regard to the GRA's

technology development strategies, Agora and Radio ZET opted out of the DAB+ broadcasting competition in April 2022, deeming the technology obsolete and economically unjustified, while the position of director of Digital Transformation was created within the Agora Radio Group in July 2022. His remit included strategic development for GRA of the digital presence of its brands on the Internet and taking responsibility for all digital channel revenues and related products, including the TOK FM subscription offer (Agora S.A., [2022](#)). Since May 2023, a new research and analysis department has been in place within the structures of Eurozet Group, which was created by merging the research and analysis teams of Agora Radio Group and Eurozet (Wirtualne Media, April 27 [2023](#)).

In October 2021, the latest version of the TOK FM mobile application was integrated with Android Auto. This allows users of cars with this system to listen to the station's live programme and podcasts while out of range of traditional radio transmitters (Agora S.A., management board report, [2021](#)).

## Conclusions

The convergence processes in each of the media concerns under investigation are, in vast majority, technological and economic. Ringier Axel Springer Polska and ZPR were able to obtain the most information from the broad spectrum of concern activities. Technological and economic convergence processes are used systemically in these companies, constituting the engine for the media portfolio and the data science hubs, representing an increasing percentage of the companies' activities and evolving into separate companies. The financial outlays towards building the advantage of technical facilities (production studios) are correlated with the strategic direction of content distribution and sales, focusing on video on demand (VOD). Like ZPR, RASP has aspirations to increase its market share as a media technology company. It is pursuing this goal by acquiring technology solutions, start-ups, and specialists to enhance Ringier Axel Springer Polska's ability to operate in this area.

In the case of large corporations, such as TVN Warner Bros. Discovery, the aspirations to expand their operations to include technological services are actually a necessity determined by the development of modern video technology. However, the concern was able to complement its offer with the potential of another media giant by creating a partnership programme with Ringier Axel Springer Polska.

Wirtualna Polska Holding is an example of a concern taking over many areas of the market (commerce, services) step by step, which potentially cannot interact with each other. However, WP Holding has created a number of technological solutions, e.g. in the area of leisure, which are able to integrate various industries into one conglomerate of interconnected services. The company clearly indicates its primary objective of maintaining its position as the largest Polish technology holding in the media and e-commerce sector.

The research confirmed the direction of digital services at Polska Press. The group's largest project was the i.pl portal launched in 2022 by its subsidiary company, PL24. Furthermore, in the management board's report for 2022, the concern describes that having such a medium will allow Polska Press to implement the best solutions to all the group's websites, working on economies of scale. The intention was to create the potential to influence the economic efficiency of the entire group. The portal was also to support the activities contained in the Orlen Group's Strategy 2030.

Research conducted at Polityka Sp. z o.o. S.K.A. indicated methods and tools for the use of convergence processes occurring at the border of the traditional publishing and online areas, which in the concern itself has already been incorporated into the basic and smallest elements of the organizational structure. In the management boards' reports on the company's activities, analyzed from the 2020 report onwards, in the section 'Anticipated development of the company', the publisher indicates the digital direction of the concern. It is pursuing a strategy that allows it to increase its involvement in the development of the Internet, with a particular focus on the intensification of sales of Digital Policy and the development of online products launched in 2022, such as podcasts and the popular science portal Pulsar.

In the Agora Group's surveyed products, one can most clearly read the use of convergence processes at Gazeta.pl. The portal, which creates, or even recently based on, video content, has processes in place to determine how content is prepared for a particular medium or audience. The development of mobile solutions and devices was touched upon while conducting research at Radio Złote Przeboje (Golden Hits). Like their guests, radio hosts are fully aware of the technological convergence that has gained momentum in recent years, mainly due to the COVID-19 pandemic. Potential guests are already equipped with good-quality studio equipment to

produce their own content, and editors have no choice but to exploit this phenomenon in their business.

## References

- Agora S.A. Grupa Medialna. (June 23 2020). *Gazeta.pl z interaktywnym playerem i nowymi formatami wideo*. <https://www.agora.pl/gazeta-pl-z-interaktywnym-playerem-i-nowymi-formatami-wideo>, access 23.11.2024
- Agora S.A. Grupa Medialna. (July 12 2022). *Marcin Kowalczyk dyrektorem ds. transformacji cyfrowej w Grupie Radiowej Agory*. <https://www.agora.pl/marcin-kowalczyk-dyrektorem-ds-transformacji-cyfrowej-w-grupie-radiowej-agory>, access 23.11.2024
- Bochyńska, N. (4 June, 2020). *Krzysztof Kozłowski szefem działu technologii TVN*. Wirtualne Media. <https://www.wirtualnemedi.pl/arttykul/krzysztof-kozlowski-szef-dzialu-technologiei-tvn>, access 23.11.2024
- Bolter, J. D., Grusin, R. (2000). *Remediation. Understanding New Media*. MIT Press. p. 224.
- Business Insider Polska. (May 27 2021). *Rusza platforma Business Insider Trends. Inteligentna medycyna na początek*. <https://businessinsider.com.pl/wiadomosci/rusza-platforma-business-insider-trends-inteligentna-medycyna-na-poczatek/49mc9e7>, access 21.11.2024
- Business Insider Polska. (March 30 2022). *Grupa RASP kupiła większościowy pakiet w No Fluff Jobs*. <https://businessinsider.com.pl/firmy/grupa-rasp-kupila-wiekszosciowy-pakiet-w-no-fluff-jobs/rd81snl>, access 20.11.2024
- Erling, B. (August 10 2022). *Ruszył serwis tworzony przez połączone redakcje „Przeglądu Sportowego” i Onetu*. *Press*. <https://www.press.pl/tresc/72175,ruszy-serwis-tworzony-przez-polaczone-redakcje-przegladu-sportowego-i-onetu>, access 22.11.2024
- Forbes. (March 15 2021). *Liderzy cyfrowej transformacji w Polsce. Podcast Digital Means Future*. <https://www.forbes.pl/wiadomosci/digital-means-future-zapowiedz-serii-podcastow-na-forbespl/dkbv124>, access 21.11.2024
- Goban-Klas, T. (2020). *Media w płynnej pandemii 2020. Komunikacja w czasie lockdownu: oddzielnie, ale razem*. *Studia Medioznawcze*, 4(21). p. 720, DOI:10.33077 uw.24511617.ms.2020.4.288
- HDTVPolska. (21 October 2021). *TVN szykuje kanały w jakości 4K? Nadawca pozyskał*

- dotatkową przestrzeń na satelicie! Co może się pojawić?. <https://hdvtpolska.com/tvn-4k-kanal-satelita-eutelsat-hot-bird/>, access 23.11.2024
- i.pl (5 September 2022). *i.pl* nowy, informacyjny portal Polska Press Grupy: „i” łączy ludzi. <https://i.pl/ipl-nowy-informacyjny-portal-polska-press-grupy-i-laczy-ludzi/ar/c1-16821085>, access 22.11.2024
- Jaskiernia, A. (2021). Pandemia COVID-19 i „nowa normalność” w systemie komunikowania. Wyzwania regulacyjne epoki cyfry. *Media Biznes Kultura*, 2(11). p. 9, <https://doi.org/10.4467/25442554.MBK.21.011.15152>
- Jędrzejewski, J. (2019). Cyfryzacja radia i telewizji w Polsce – przebieg i skutki społeczne. W Hess A. (Red.), Nowina Konopka A. (Red.), Świerczyńska-Głownia M. (Red.) *Dynamika przemian w mediach*. Wyd. Instytutu Dziennikarstwa, Mediów i Komunikacji Społecznej Uniwersytetu Jagiellońskiego. p. 189
- Kluszczyński, R. W. (2020). *Hipermedialność i remediacja druku. Zarys zagadnień*. In A. Hącia, A. Kluszczyński R. W Hącia, K. Kłosińska, P. Zbróg (red.), *Polszczyzna w dobie cyfryzacji*. Polska Akademia Nauk. p. 314
- Kłosińska, K., Zbróg, P. (2020). *Polszczyzna w dobie cyfryzacji*, Polska Akademia Nauk, p. 314
- Lange-Sadzińska, K. (2017). Decyzje inwestycyjne w zakresie informatyzacji biznesu. W A. Gąsiorkiewicz, A., Sitarski, K., O. Sobolewska, Wiśniewski M., *Gospodarka cyfrowa 2016. Zarządzanie, innowacje, społeczeństwo i technologie*. Wydział = Zarządzania Politechniki Warszawskiej. p. 80
- Manovich, L. (2006). *Język nowych mediów*. WAIp. pp. 119-120
- Pallus, P. (December 11 2017). *Ważna zmiana w Grupie Onet-RAS Polska. Powstanie jedna spółka*. *businessinsider.com*. <https://businessinsider.com.pl/biznes/media/grupa-onet-ras-polska-laczy-spolki/8242zlh>, access 0.11.2024
- Pallus, P. (October 31 2023). *Były prezes J T-Mobile Polska w TVN Warner Bros. Discovery, zajmuje się ofertą cyfrową*. *Wirtualne Media*. <https://www.wirtualnemedi.pl/artykul/adam-sawicki-prezes-t-mobile-polska-head-of-digital-tvn-warner-bros-discovery>, access 24.11.2024
- Player Centrum Pomocy. [https://pomoc.player.pl/player\\_labs](https://pomoc.player.pl/player_labs), access 24.11.2024
- Portal Medialny. (May 4 2023). *Jolanta Molińska wzmocni redakcyjny zespół Onet Premium*. <https://portalmedialny.pl/art/85804/jolanta-molinska-wzmocni-redakcyjny-zespo-onet-premium.html>, access 20.11.2024
- Press.pl. (April 11 2021). *Po fuzji powstał koncern Warner Bros. Discovery. Jest w nim TVN*. [https://www.press.pl/tresc/70288,po-fuzji-powstal-koncern-warner-bros\\_-discovery\\_-jest-w-nim-tvn](https://www.press.pl/tresc/70288,po-fuzji-powstal-koncern-warner-bros_-discovery_-jest-w-nim-tvn), access 21.11.2024
- Press.pl. (July 22 2022). *„Super Express” odświeżył serwis internetowy, ale nie cały*. [https://www.press.pl/tresc/71882,---super-express---odswiezyl-serwis-internetowy\\_-ale-nie-caly](https://www.press.pl/tresc/71882,---super-express---odswiezyl-serwis-internetowy_-ale-nie-caly), access 21.11.2024
- Press.pl. (September 12 2023). *Należący do Polska Press portal i.pl po roku powyżej założeń. Nie unika propagandy*. [https://www.press.pl/tresc/78265,nalezacy-do-polska-press-portal-i\\_pl-po-roku-powyzej-zalozen-biznesowych\\_-nie-unika-tresci-ropagandowych](https://www.press.pl/tresc/78265,nalezacy-do-polska-press-portal-i_pl-po-roku-powyzej-zalozen-biznesowych_-nie-unika-tresci-ropagandowych), acces 22.11.2024
- Ptaszek, G. (2019). *Edukacja medialna 3. Krytyczne rozumienie mediów cyfrowych w dobie Big Data i algorytmizacji*. Wydawnictwo Uniwersytetu Jagiellońskiego. p. 12
- Ringier Axel Springer Polska. (April 20 2021). [https://ringieraxelspringer.pl/press\\_room/ringier-axel-springer-media-we-wspolpracy-z-apx-bedzie-wspierac-startupy-z-europy-srodkowo-wschodniej](https://ringieraxelspringer.pl/press_room/ringier-axel-springer-media-we-wspolpracy-z-apx-bedzie-wspierac-startupy-z-europy-srodkowo-wschodniej), access 19.11.2024
- Ringier Axel Springer Polska. (September 8 2022). [https://ringieraxelspringer.pl/press\\_room/michal-rogalski-i-jakub-kapiszewski-dolaczaja-do-zespołu-data-journalism-onetu](https://ringieraxelspringer.pl/press_room/michal-rogalski-i-jakub-kapiszewski-dolaczaja-do-zespołu-data-journalism-onetu), access 9 . 1 1 . 2 0 2 4
- Ringier Axel Springer Polska. (October 6 2023). *Ringier Axel Springer Polska i TVN Warner Bros. Discovery tworzą wspólny pakiet Onet Premium & TVN24 GO*. [https://ringieraxelspringer.pl/press\\_room/ringier-axel-springer-polska-i-tvn-warner-bros\\_-discovery-tworza-wspolny-pakiet-onet-premium-tvn24-go](https://ringieraxelspringer.pl/press_room/ringier-axel-springer-polska-i-tvn-warner-bros_-discovery-tworza-wspolny-pakiet-onet-premium-tvn24-go), access 19.11.2024
- Ringier Axel Springer Polska. (October 18 2023). [https://ringieraxelspringer.pl/press\\_room/ras-polska-oglasza-start-programu-ras-start-me-up-ai-awesome-inventors](https://ringieraxelspringer.pl/press_room/ras-polska-oglasza-start-programu-ras-start-me-up-ai-awesome-inventors), access 19.11.2024
- Sewastianowicz, S. (December 18 2022). *Ostatnie wydanie „Auto Świata” w sprzedaży*. *Auto Świat*. <https://www.auto-swiat.pl/wiadomosci/aktualnosci/nowy-auto-swiat-50512022-ostatnie-wydanie-w-sprzedazy/hjlwkv1>, access 22.11.2024
- Słomski, D. (2 March 2021). *PKN Orlen przejął Polska Press. Transakcja sfinalizowana*.

- Odchodzi prezes Stanek. Money.pl. <https://www.money.pl/gielda/pkn-orlen-przejal-polska-press-transakcja-sfinalizowana-6613738055903776a.html>, access 21.11.2024
- Sony Polska. (March 4 2020). TVN24 pierwszą europejską stacją telewizyjną wdrażającą najnowocześniejsze kamery reporterskie Sony PXW-Z750. [https://pro.sony/pl\\_PL/press/tvn24-becomes-first-worldwide-broadcaster-to-future-proof-news-production-capabilities-pxw-z750-pl](https://pro.sony/pl_PL/press/tvn24-becomes-first-worldwide-broadcaster-to-future-proof-news-production-capabilities-pxw-z750-pl), access 23.11.2024
- Staroń, M. (February 16 2021). Player.pl całkowicie płatny. Koniec oglądania za darmo. Rewolucyjne zmiany w serwisie. Radio RMF Classic. <https://www.rmflclassic.pl/informacje/Obraz,12/Player-pl-calkowicie-platny-Koniec-ogladania-za-darmo-Rewolucyjne-zmiany-w-serwisie,43529.html>, access 22.11.2024
- Stawiany, J. (6 March 2023). Axel Springer planuje zrezygnować z papieru. „Najdłużej przeżyją tabloidy”. Wirtualne Media. <https://www.wirtualnemedi.pl/artykul/koniec-gazeta-codziennie-axel-springer-rezygnuje-papier-koniec-fakt-bild-die-welt-gazeta-wyborcza-super-express-rzeczpospolita>, access 20.11.2024
- Studio TV. ZPR Media. <https://www.studiozpr.com.pl/>, access 19.11.2024
- Szynol, A. (2017). Czy Polsce wciąż potrzebna jest regionalna prasa codzienna?. *Zeszyty Prasoznawcze*, nr 3, t. 60. p. 469, DOI:10.4467/22996362PZ.17.029.7326
- Turban, E., King, D., Lee, J. K., Liang, T., Turban, D. C. (2018). *Electronic Commerce. A Managerial and Social Networks Perspective*. Springer. p. 22
- TVN. (5 July 2021). VN Grupa Discovery z innowacyjnym wirtualnym studiem telewizyjnym. <https://tvn.pl/aktualnosci/tvn-grupa-discovery-i-wizja-multimedia-sp-z-oo-uruchomili-studio-xr-ls5915565>, access 20.11.2024
- Wamej, M. (24 May 2023). Player.pl dostępny dla użytkowników Xbox. Jak to działa?. *Spider's Web*. <https://rozrywka.spidersweb.pl/player-xbox-vod-seris-vod>
- Wątroba, W. (2009). *Społeczeństwo konsumpcyjne*. Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu, p. 91
- Wirtualna Polska. Wirtualna Polska ma kolejną farmę fotowoltaiczną. <https://holding.wp.pl/inwestor/komunikaty-prasowe/wirtualna-polska-ma-kolejna-farme-fotowoltaicna-6843776909601344>, access 27.11.2024
- Wirtualne Media. (March 29 2021). *Business Insider i „Forbes” wyłonią najlepszych menedżerów odpowiadających za digitalizację* <https://www.wirtualnemedi.pl/artykul/chief-digital-officer-of-the-year-the-future-is-today-business-insider-forbes>, 23.11.2024
- Wirtualne Media. (August 25 2021). Wirtualna Polska za 5,9 mln zł kupiła 17banków.com, inwestuje 9,3 mln zł w firmę z mediów. <https://www.wirtualnemedi.pl/artykul/wirtualna-polska-za-5-9-mln-zl-kupila-17bankow-com-inwestuje-9-3-mln-zl-w-firme-z-mediow>, access 21.11.2024
- Wirtualne Media. (October 14 2021). Ringier Axel Springer Tech rusza z kampanią rekrutacyjną. <https://www.wirtualnemedi.pl/artykul/ringier-axel-springer-tech-jak-dziala>, access 22.11.2024
- Wirtualne Media. (February 23 2022). Polityka rusza z płatnym serwisem popularnonaukowym Pulsar. <https://www.wirtualnemedi.pl/artykul/pulsar-polityka-karol-jalochowski-cena-jak-placic>, access 20.11.2024
- Wirtualne Media. (April 5 2022). Małgorzata Skorwider w zarządzie Polska Press. <https://www.wirtualnemedi.pl/artykul/malgorzata-skorwider-zarzad-polska-press>, access 21.11.2024
- Wirtualne Media. (April 28 2022). Miłosz Szulc nowym prezesem spółki PL24 kupionej przez Polska Press. <https://www.wirtualnemedi.pl/artykul/milosz-szulc-polska-press-prezes-pl24>, access 19.11.2024
- Wirtualne Media. (February 28 2023). Agora wprowadza swoich menedżerów do zarządu Eurozetu. Jest nowy prezes, odchodzi Grzegorz Kossakowski. <https://www.wirtualnemedi.pl/artykul/eurozet-radio-zet-nowy-zarzad-agera-przes-maciej-strzelecki-kto-to-jest-odchodzi-grzegorz-kossakowski>, access 21.11.2024
- Wirtualne Media. (March 16 2023). Przejęcie kontroli nad Eurozetem da Agorze 45 mln zł zysku. <https://www.wirtualnemedi.pl/artykul/agera-kupila-eurozet-jak-zysk-z-wyceny-udzialow-zwolnienia>, access 21.11.2024
- Wirtualne Media. (April 8 2023). Z Berlina do Warszawy. Maria Ballaun szefem strategii serwisów cyfrowych w RASP. <https://www.wirtualnemedi.pl/artykul/maria-ballaun-head-of-strategy-and-portfolio-for-digital-services-ringier-axel-springer-polska>, access 21.11.2024
- Wirtualne Media. (April 27 2023). Dariusz Kostrzewski dyrektorem działu badań i analiz

- Grupy Eurozet. <https://www.wirtualnemedi.pl/artykul/dariusz-kostrzewski-dyrektor-dzial-badan-i-analiz-grupa-eurozet>, access 19.11.2024
- Wirtualne Media. (September 8 2023). *i.pl po roku od startu odwiedza nawet 7 mln użytkowników*. <https://www.wirtualnemedi.pl/artykul/i-pl-polska-press-liczba-uzytkownikow-ko-kieruje>, access 20.11.2024
- Wojtas, T. (23 November 2022). *Wirtualna Polska łączy platformy turystyczne. Wzrost e-reklamy zmaleje*. Wirtualne Media. <https://www.wirtualnemedi.pl/artykul/wirtualna-polska-laczy-platformy-turystyczne-wzrost-e-reklamy-zmaleje>, access 20.11.2024
- Wojtas, T. (22 November 2023). *Wirtualna Polska wychodzi z reklamami za granicę. Chce obsługiwać spółki funduszu Sorosa*. Wirtualne Media. <https://www.wirtualnemedi.pl/artykul/wirtualna-polska-wychodzi-z-reklamami-za-granice-chce-obslugiwac-spolki-funduszu-sorosa>, access 11.11.2024
- WP Reklama. *Vibez – serwis mobile first dla młodych*, <https://reklama.wp.pl/artykul/vibez-serwis-mobile-first-dla-mlodych>, access 11.11.2024
- WP Reklama. *Portal Benchmark.pl trafia do Wirtualnej Polski*, <https://reklama.wp.pl/artykul/portal-benchmarkpl-trafia-do-wirtualnej-polski>, access 20.11.2024
- Zawiślak, Z. (18 March 2022). *Warsaw Virtual Experience - warsztaty technologii XR już 20-21 marca*. <https://www.signs.pl/warsaw-virtual-experience---warsztaty-technologiei-xr-juz-20-21-marca.395157.artykul.html>, access 19.11.2024
- Zdzieborska, M. (24 February 2024). *„Polityka” najlepiej sprzedającym się tygodnikiem w 2023. Wyniki poprawił tylko „Newsweek”*. Press. [https://www.press.pl/tresc/80562,\\_polityka\\_-najlepiej-sprzedajacym-sie-tygodnikiem-w-2023-roku\\_-wyniki-poprawil-tylko-newsweek](https://www.press.pl/tresc/80562,_polityka_-najlepiej-sprzedajacym-sie-tygodnikiem-w-2023-roku_-wyniki-poprawil-tylko-newsweek)  
<https://zpr.pl/o-nas>, access 03.06.2024
- Management Board on the activities of Polska Press Sp. z o.o. for 2021, p.10
- Polska Press Sp. z o.o. (2022). Report of the Management Board on the activities of Polska Press Sp. z o.o. for 2022, p.10
- Polityka Sp. z o.o. (2022), Report of the Management Board on the activities of Polityka Spółka z ograniczoną odpowiedzialnością Spółka Komandytowo-Akcyjna with its registered office in Warsaw, 6 Słupecka Street 02-309 Warsaw for the year 2022, p.3
- Ringier Axel Springer Polska Sp. z o.o. (2020). Financial statements for the financial year from January 1 to December 31 2020, together with the independent auditor’s audit report, p.31
- TVN S.A. (2020). Management report on the operations of the TVN S.A. capital group for the financial year ending December 31 2020, p.4
- TVN S.A. (2021). Management report on the activities of the TVN S.A. capital group for the financial year ending December 31 2021, p. 5
- TVN S.A. (2022). Report of the Management Board on the activities of the TVN S.A. capital group for the financial year ending December 31 2022, p. 5
- Wirtualna Polska Holding. (2020). Report of the Management Board on the activities of the Company and the Group for the year ended December 31 2020, pp. 12-13
- Wirtualna Polska Holding. (2021). Report of the Management Board on the activities of the Company and the WP Group for the 3 and 12 months ended December 31, 2021, p.32
- Wirtualna Polska Holding. (2022). Report of the Management Board on the activities of the Company and the WP Capital Group for the 3 and 12 months ended December 31, 2022, p.35
- Financial statements and management boards reports:
- Agora S.A. (2021). Report of the Management Board on the activities of the Agora S.A.Group for the year 2021 to the consolidated financial statements, pp. 45, 49
- Polska Press Sp. z o.o. (2021). Report of the