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INTELLECTUAL PROPERTY

The "HUDI Spending Study" was developed by MOMENTUM Vienna (momentum.wien) and conducted by Ipsos (ipsos.com) for Hrvatska udruga digitalnih izdavaca (hudi.hr).

Distribution of the "HUDI Spending Study" is permitted only with the explicit consent of HUDI.

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For questions of any kind: Ozren Kronja, <u>ozren.kronja@hudi.hr</u>



PREFACE

The year 2022 is a significant milestone in the development of the digital advertising market in Croatia: For the first time, a study based on the majority of international AdEx studies will be published, which will provide a well-founded overview of the retrospective and prospective development of digital advertising spending. Hrvatska udruga digitalnih izdavača (HUDI) has commissioned the Austrian communications agency MOMENTUM Vienna, which has been responsible for compiling the iab austria AdEx study for many years, to design an AdEx study for an initial period of three years.

One of the most important concerns of the HUDI is the strengthening and sustainable development of Croatia as a media location. With the new AdEx study by MOMENTUM Vienna, another decisive step is taken to boost the digital advertising business in our country.

The good news right at the beginning: the skepticism that some market participants had towards the project before the AdEx study was conducted has largely been dispelled. Media houses, marketers, and agencies are now pulling together to achieve the best possible presentation of the digital advertising market.

Now, for the first time, using the methodology based on reported investment in specific publishers and platforms, the figures, data, and facts of this inventory of the development and distribution of digital advertising spending in Croatia are available, which you can read about on the following pages. But, as time and development do not stand still, we at HUDI, together with all market participants and the agency MOMENTUM Vienna, will endeavor to turn the screws and further optimize the AdEx study in the upcoming year.

Support us in this project!



METHODOLOGY

The basis of the "HUDI Spending Study" is the methodology developed over the past 15+ years for the Austrian Digital Spending Study by MOMENTUM Wien.

In cooperation with Ipsos 20 structured interviews with media agencies and publishers were conducted between February and April 2022. The study will surely become more accurate over the next years as more media agencies and publishers will provide data and allow an even more precise analysis.

For the calculation of the revenues of social media and paid search, the global revenues were taken from the respective financial reports of the platforms and applied to the number of users in Croatia. The number of users were taken from the platform's ad managers. Calculation includes revenue from clients who organize their campaigns via agencies and/or directly from publishers, smaller clients who work directly with social media and paid search, and international clients who do not advertise in local media but only use social media and paid search in local markets.

To be precise, current census data were also used, which were not available until after the sneak preview of the study in the summer. In addition, the purchasing power in Croatia was taken into account.



ONLINE AD SPENDINGS

CROATIA 2021

THE ADVERTISING YEAR 2021



GROSS SPENDINGS

Category	Ad Spendings	Share	Growth¹
Classical Online Ads (Display, Video, Mobile, Native)	100.100.000€	42,1%	26,1%
Social Media Marketing	64.300.000€	27,0%	44,2%
Paid Search	72.400.000€	30,4%	59,4%
Miscellaneous ²	1.000.000€	0,5%	34,5%
Total	237.800.000 €	100,0%	39,8%

¹ compared to 2020

² All other forms of advertising that are not listed separately; all forms of advertising explained under <u>Definitions</u>

THE ADVERTISING YEAR 2021



NET SPENDINGS

Category	Ad Spendings	Share	Growth ¹
Classical Online Ads (Display, Video, Mobile, Native)	52.900.000€	27,7%	27,0%
Social Media Marketing	64.300.000€	33,8%	44,2%
Paid Search	72.400.000€	38,0%	59,4%
Miscellaneous ²	1.000.000€	0,5%	34,5%
Total	190.600.000€	100,0%	44,0%

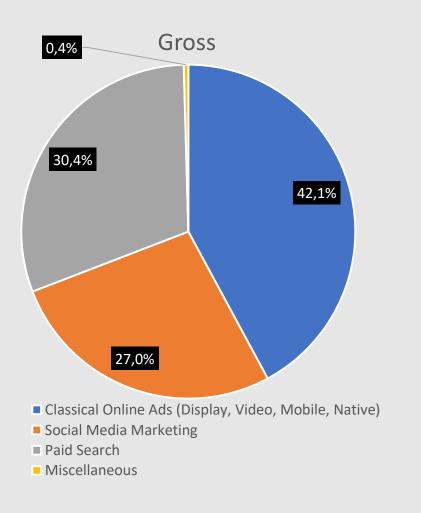
¹ compared to 2020

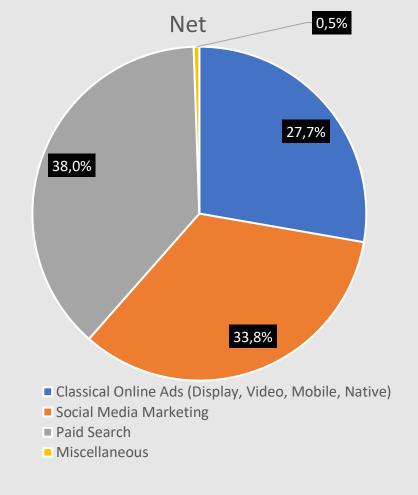
² All other forms of advertising that are not listed separately; all forms of advertising explained under Definitions

THE ADVERTISING YEAR 2021



GROSS VS. NET



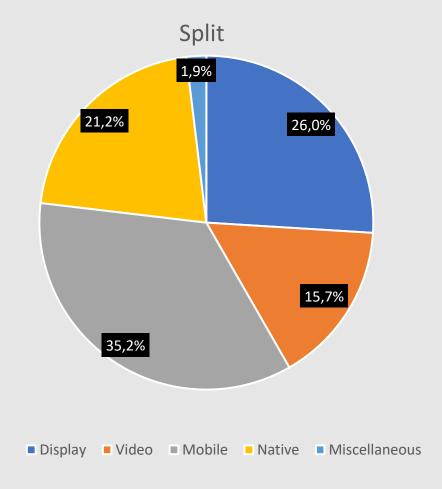




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THE CROATIAN MARKET 2021

Category	Revenue
Display	14.000.000€
Video	8.500.000€
Mobile ¹	19.000.000€
Native	11.400.000€
Miscellaneous ²	1.000.000€
Total	53.900.000€



¹ Specific sales on mobile devices (includes different formats)

² All other forms of advertising that are not listed separately; all forms of advertising explained under <u>Definitions</u>



	Display	Video	Mobile ⁴	Native	Miscellaneous ¹	Total
Domestic Market	11.900.000 €	3.400.000 €	15.900.000 €	11.400.000 €	1.000.000 €	43.600.000 €
Google Display ²	1.800.000 €	500.000 €	2.500.000 €	0€	0€	4.800.000 €
YouTube ³	300.000 €	4.600.000 €	600.000 €	0€	0€	5.500.000 €
Total	14.000.000 €	8.500.000 €	19.000.000 €	11.400.000 €	1.000.000 €	53.900.000 €

¹ All other forms of advertising that are not listed separately; all forms of advertising explained under <u>Definitions</u>

² Modelled using global company revenue, Croatian and worldwide population data, GDP and online population

³ Modelled using global company revenue and Croatian users

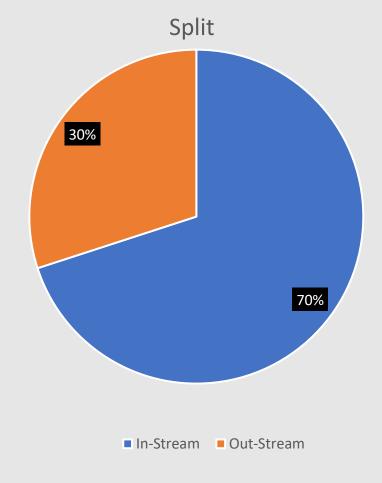
⁴ Specific sales on mobile devices (includes different formats)



DOMESTIC VIDEO ADVERTISING 2021

Video	Spendings	Growth ¹
In-Stream	2.400.000€	32%
Out-Stream	1.000.000€	27%
Total	3.400.000€	30%

Google Display & YouTube not included.



¹³



PROGRAMMATIC

From the perspective of publishers and ad networks¹



	Total	Display	Video	Mobile²
2020	13.380.000 €	3.850.000 €	50.000 €	9.480.000 €
2020	37%	32%	2%	77%
2024	15.950.000 €	3.700.000 €	120.000 €	12.130.000 €
2021	37%	31%	3%	76%

This table is read as followed: According to data provided by publishers and ad networks, 31% of the spendings in the display category in 2021 are programmatic.

¹ Programmatic only reported by type of advertising, not by RTB or non-RTB

² Specific sales on mobile devices (includes different formats)



PROGRAMMATIC

From the perspective of agencies¹



	Total	Display	Video	Mobile ²
2020	13.210.000 €	7.060.000 €	2.730.000 €	3.420.000 €
2020	21%	30%	19%	14%
2024	26.280.000 €	10.620.000 €	10.420.000 €	5.240.000 €
2021	25%	36%	38%	17%

This table is read as followed: According to data provided by agencies, 36% of the spendings in the display category in 2021 are programmatic.

¹ Programmatic only reported by type of advertising, not by RTB or non-RTB

² Specific sales on mobile devices (includes different formats)



AGENCIES 2021 GROSS

Online advertising revenue	Gross value
Classical online advertising (Display, Video, Mobile, Native)	169.290.000€
Social Media Marketing	15.540.000€
Paid Search	5.720.000€
Affiliate Marketing	10.000€
Influencer Marketing	2.070.000€
E-Mail Marketing	50.000€
In-Game Advertising	1.870.000€
Unassignable ¹	30.000€
Total	194.580.000€

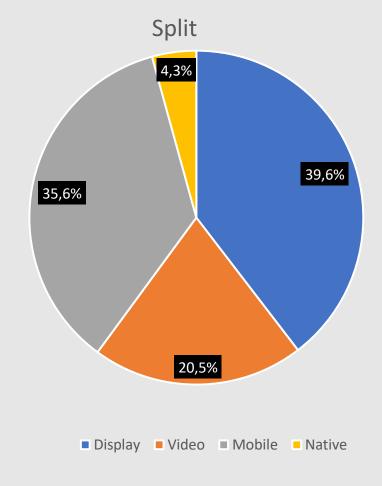
¹ Revenue of agencies that cannot be allocated to any category



AGENCIES 2021 GROSS

Category	Revenue	Growth ¹
Display	67.010.000€	18%
Video	34.690.000€	37%
Mobile ²	60.340.000€	23%
Native	7.250.000 €	36%
Total	169.290.000 €	21%

Based on the reported figures and data of the agencies



¹ compared to 2020

² Specific sales on mobile devices (includes different formats)



AGENCIES 2021 NET

Online advertising revenue	Gross value
Classical online advertising (Display, Video, Mobile, Native)	91.090.000€
Social Media Marketing	15.540.000€
Paid Search	5.720.000€
Affiliate Marketing	10.000€
Influencer Marketing	2.070.000€
Email Marketing	50.000€
In-Game Advertising	1.870.000€
Unassignable ¹	30.000€
Total	116.380.000€

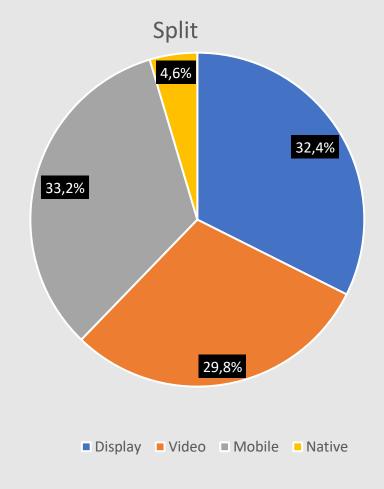
¹ Revenue of agencies that cannot be allocated to any category



AGENCIES 2021 NET

Category	Revenue	Growth ¹
Display	29.500.000€	19%
Video	27.180.000€	48%
Mobile ²	30.210.000€	18%
Native	4.190.000€	41%
Total	91.090.000€	35%

Based on the reported figures and data of the agencies



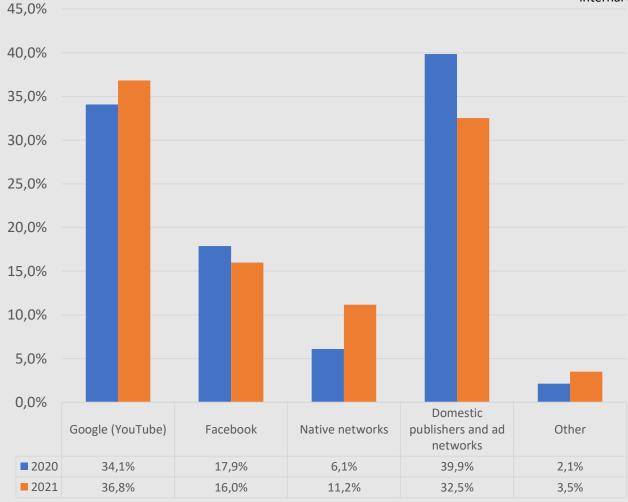
¹ compared to 2020

² Specific sales on mobile devices (includes different formats)



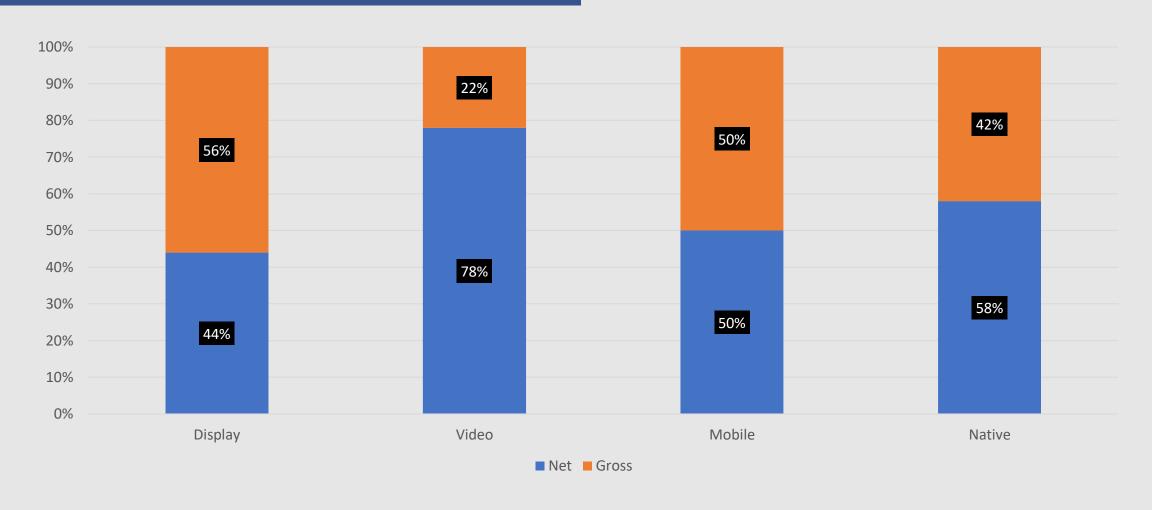
VIDEO ADVERTISING 2021

Through which channels Croatian agencies display video advertising.





GROSS-NET-RATIO





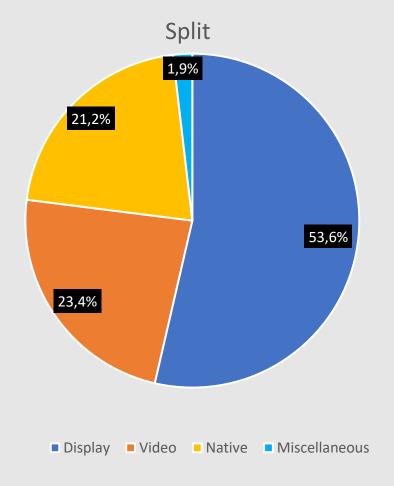
MAIN FORMATS VIEW ONLY



THE CROATIAN MARKET 2021

For purpose of determining revenue per specific formats, mobile category which includes display advertising, rich media advertising and online video advertising was split into video & display

Category	Revenue
Display	28.900.000€
Video	12.600.000€
Native	11.400.000€
Miscellaneous ¹	1.000.000€
Total	53.900.000€



²³



THE ADVERTISING YEAR 2021 IN DETAIL

For purpose of determining revenue per specific formats, mobile category which includes display advertising, rich media advertising and online video advertising was split into video & display

	Display	Video	Native	Miscellaneous ¹	Total
Domestic Market	24.300.000 €	6.900.000 €	11.400.000 €	1.000.000 €	43.600.000 €
Google Display ²	4.300.000 €	500.000 €	0€	0€	4.800.000 €
YouTube ³	300.000 €	5.200.000 €	0€	0€	5.500.000 €
Total	28.900.000 €	12.600.000 €	11.400.000 €	1.000.000 €	53.900.000 €

¹ All other forms of advertising that are not listed separately; all forms of advertising explained under <u>Definitions</u>

² Modelled using global company revenue, Croatian and worldwide population data, GDP and online population

³ Modelled using global company revenue and Croatian users



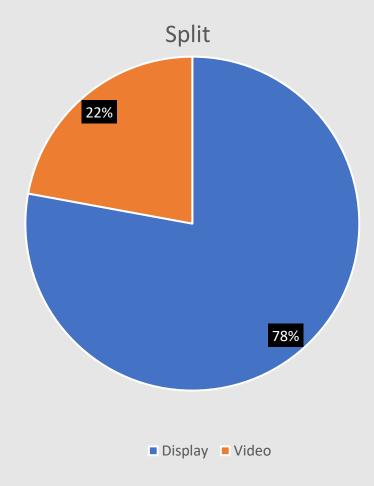
DOMESTIC ADVERTISING 2021

For purpose of determining revenue per specific formats, mobile category which includes display advertising, rich media advertising and online video advertising was split into video & display

Domestic	Spendings	Growth ¹
Display	24.300.000€	20%
Video	6.900.000€	35%
Total	31.200.000€	23%

Google Display & YouTube not included.

Same share applied for mobile & desktop devices to get a split between display and video.



²⁵

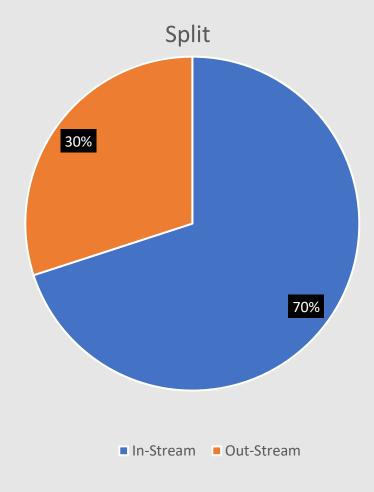


DOMESTIC VIDEO ADVERTISING 2021

For purpose of determining revenue per specific formats, mobile category which includes display advertising, rich media advertising and online video advertising was split into video & display

Video formats	Spendings	Growth ¹
In-Stream	4.900.000 €	40%
Out-Stream	2.000.000€	25%
Total	6.900.000€	35%

Google Display & YouTube not included.



²⁶



SOCIAL MEDIA MARKETING

SOCIAL MEDIA MARKETING



Social Network	Revenue in Croatia	Share
Meta ¹	54.200.000€	84,3%
LinkedIn ²	2.200.000€	3,5%
Twitter ²	3.000.000€	4,7%
Snapchat ³	4.900.000€	7,6%
Total	64.300.000€	100,0%

¹ Modelled using global company revenue, Croatian, European population data, and average growth

² Modelled using global company revenue and Croatian users

³ Modelled using global company revenue, Croatian and worldwide population data and GDP

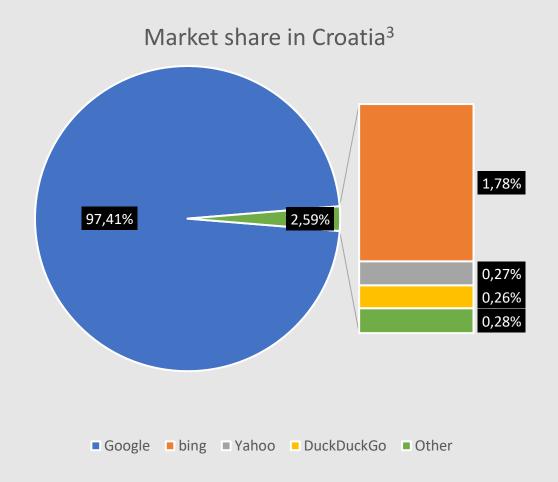


PAID SEARCH

PAID SEARCH



Search engine	Revenue	
Google ¹	70.500.000 €	
Others ²	1.900.000€	
Total	72.400.000€	



¹ Modelled using global company revenue, Croatian and worldwide population data, GDP and online population

² Revenue corresponds to the 2,59% market share of the other relevant search engines

³ Average of all 12 months 2021, Source: <u>statcounter.com</u>



CROATIA 2021



CROATIA 2021

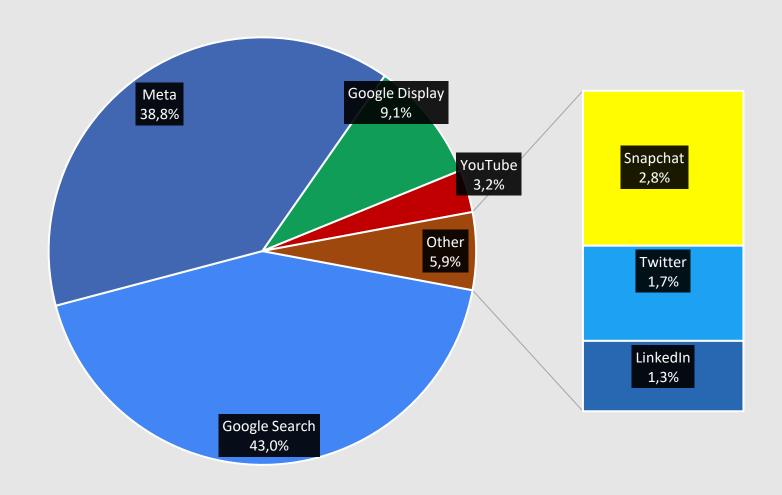
Due to the lack of figures published by the individual platforms for the domestic market, an attempt was made to determine valid figures for Croatia with the help of various auxiliary variables.

The table provides an overview of the key figures used for the calculation.

Key figure	2020	2021
GDP/capita (global)	\$11.110	\$12.290
GDP/capita (USA)	\$63.360	\$63.380
GDP/capita (Europe)	\$28.200	\$31.650
GDP/capita (Croatia)	\$14.130	\$16.820
Population (global)	7.700.000.000	7.875.000.000
Population (Croatia)	4.047.680	3.878.981
Internet users (Croatia)	78%	80%
Exchange rate Dollar/HRK	6,18	6,61



REVENUE SPLIT IN CROATIA





RESULTS IN DETAIL

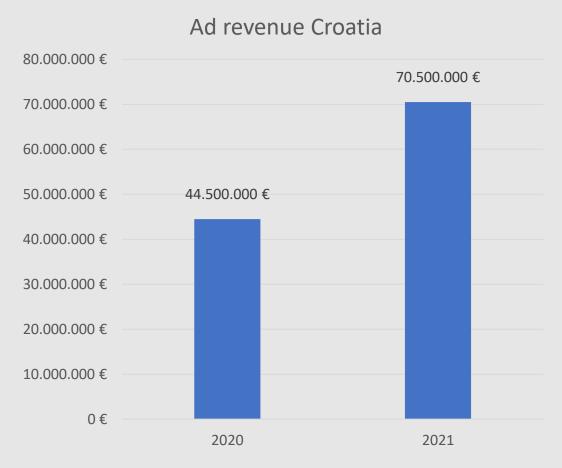
REVENUE OF THE DIGITAL GIANTS



GOOGLE SEARCH

2021		
Revenue worldwide	130.674.400.000€	
Revenue Croatia	70.500.000€	
Revenue/User Croatia	22,71 €	

Based on global advertising revenue, GDP/capita globally vs. Croatia and internet users in Croatia.

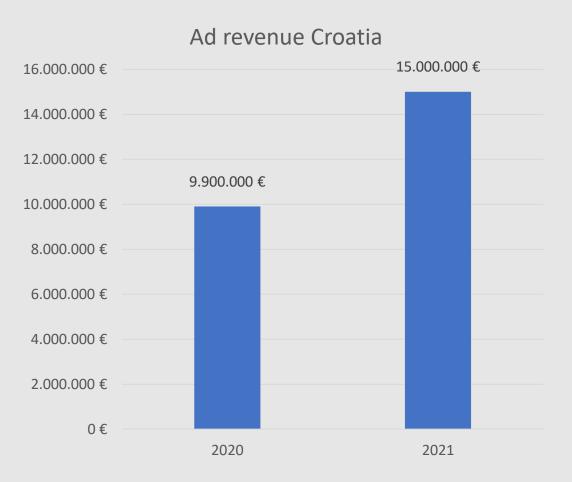




GOOGLE DISPLAY

2021		
Revenue worldwide	27.811.200.000€	
Revenue Croatia	15.000.000€	
Revenue/User Croatia	4,83 €	

Based on global advertising revenue, GDP/capita globally vs. Croatia and internet users in Croatia.

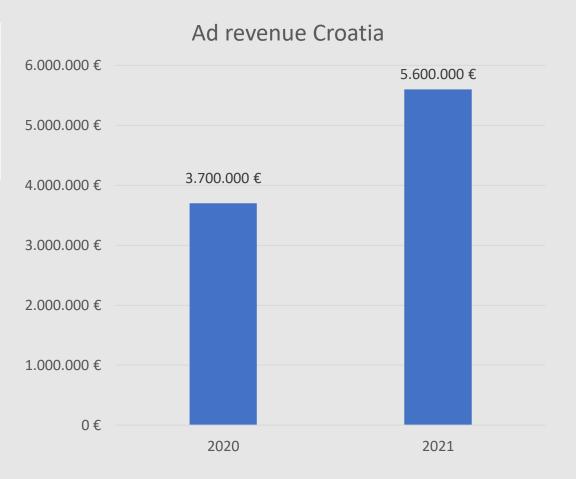




YOUTUBE

2021			
Revenue worldwide	25.305.700.000€		
Revenue Croatia	5.500.000€		
Revenue/User Croatia	12,65 €		

Based on the global advertising revenue and users in Croatia.

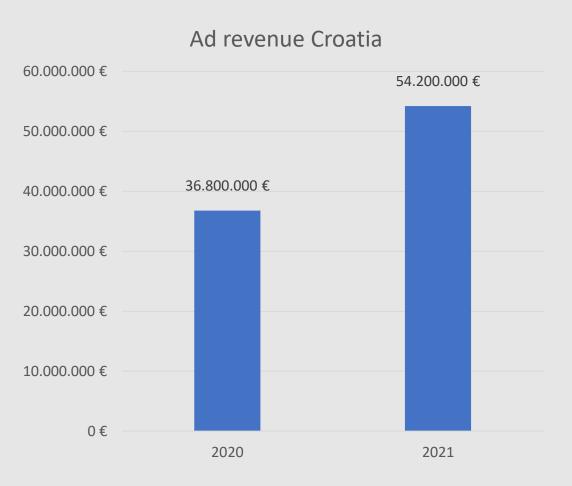




META (FACEBOOK, INSTAGRAM, WHATSAPP)

2021			
Revenue worldwide	100.831.300.000€		
Revenue Croatia	54.200.000€		
Revenue/User Croatia	25,77€		

The share of monthly active users of Facebook in Europe was applied to the monthly active users of the app family (Facebook, Instagram, WhatsApp). Using advertising revenue in Europe and the GDP/capita in Europe vs. Croatia.

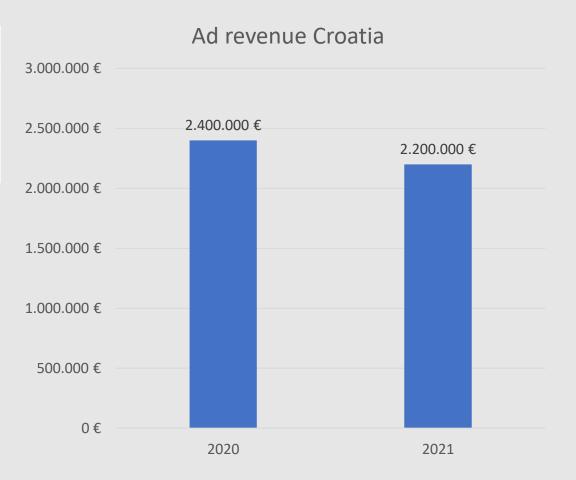




LINKEDIN

2021			
Revenue worldwide	2.349.700.000€		
Revenue Croatia	2.200.000€		
Revenue/User Croatia	3,04 €		

LinkedIns advertising revenue surpassed \$1 billion for the first time in Q4 2021. Annual revenue modeal and total user users in Croatia was used.

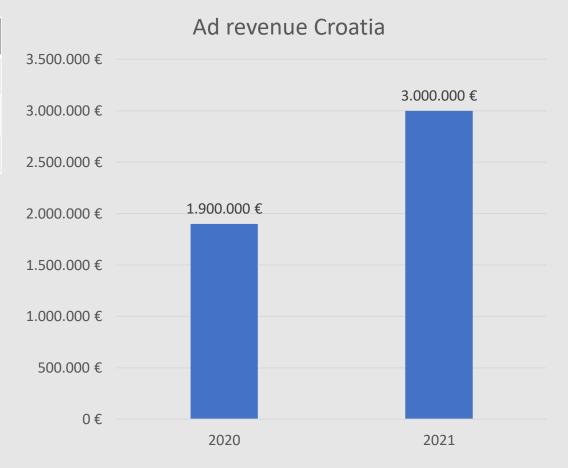




TWITTER

2021			
Revenue worldwide	3.953.100.000€		
Revenue Croatia	3.000.000€		
Revenue/User Croatia	9,11 €		

Based on the global advertising revenue and users in Croatia.

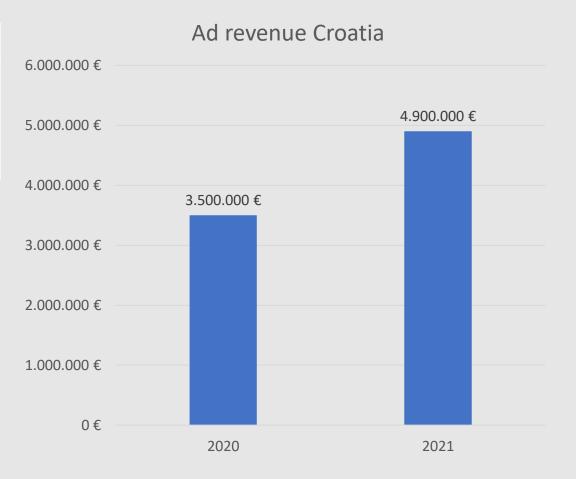




SNAPCHAT

2021			
Revenue worldwide	3.611.900.000€		
Revenue Croatia	4.900.000€		
Revenue/User Croatia	9,31 €		

Based on the global advertising revenue, GDP/capita global vs. Croatia and Croatian users.





ONLINE AD SPENDINGS FORECAST

CROATIA 2022

THE ADVERTISING YEAR 2022



NET FORECAST

Category	Ad Spendings	Share	Growth¹
Classical Online Ads (Display, Video, Mobile, Native)	60.900.000€	29,0%	15,1%
Social Media Marketing	70.100.000 €	33,3%	9,0%
Paid Search	78.200.000€	37,2%	8,0%
Miscellaneous ²	1.100.000€	0,5%	9,0%
Total	210.300.000 €	100,0%	10,3%

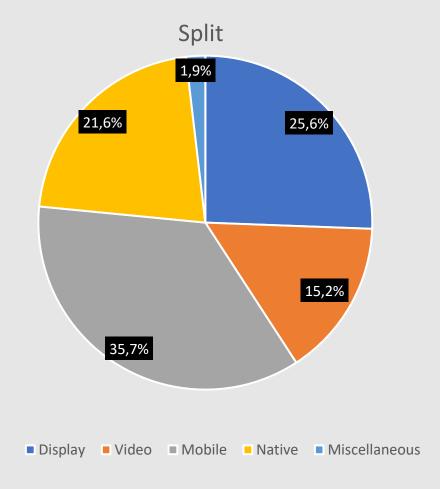
¹ compared to 2021

² Average market growth of 8.9 percent assumed; All other forms of advertising that are not listed separately; all forms of advertising explained under <u>Definitions</u>

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THE CROATIAN MARKET 2022

Category	Revenue
Display	15.900.000€
Video	9.500.000€
Mobile ¹	22.100.000€
Native	13.400.000€
Miscellaneous ²	1.100.000€
Total	62.000.000€



¹ Specific sales on mobile devices (includes different formats)

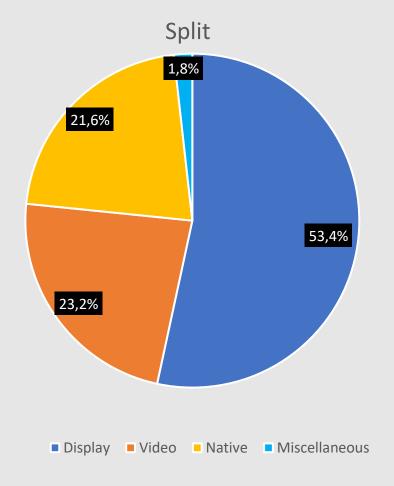
² All other forms of advertising that are not listed separately; all forms of advertising explained under <u>Definitions</u>

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THE CROATIAN MARKET 2022

For purpose of determining revenue per specific formats, mobile category which includes display advertising, rich media advertising and online video advertising was split into video & display

Category	Revenue
Display	33.100.000€
Video	14.400.000€
Native	13.400.000€
Miscellaneous ¹	1.100.000€
Total	62.000.000€



¹ All other forms of advertising that are not listed separately; all forms of advertising explained under Definitions



THE ADVERTISING YEAR 2022 IN DETAIL

	Display	Video	Mobile ⁴	Native	Miscellaneous ¹	Total
Domestic Market	13.600.000 €	3.900.000 €	18.800.000 €	13.400.000 €	1.100.000 €	50.800.000 €
Google Display ²	1.900.000 €	500.000 €	2.500.000 €	0€	0€	4.900.000 €
YouTube ³	400.000 €	5.100.000 €	800.000 €	0€	0€	6.300.000 €
Total	15.900.000 €	9.500.000 €	22.100.000 €	13.400.000 €	1.100.000 €	62.000.000 €

¹ All other forms of advertising that are not listed separately; all forms of advertising explained under <u>Definitions</u>

² Modelled using global company revenue, Croatian and worldwide population data, GDP and online population

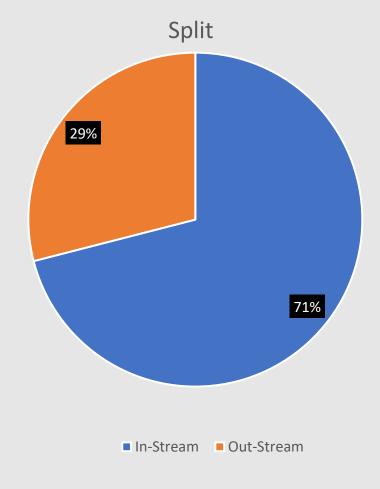
³ Modelled using global company revenue and Croatian users

⁴ Specific sales on mobile devices (includes different formats)



DOMESTIC VIDEO ADVERTISING 2022

Video	Spendings	Growth ¹
In-Stream	2.800.000€	17%
Out-Stream	1.100.000€	12%
Total	3.900.000€	15%





PROGRAMMATIC

From the perspective of publishers and ad networks¹



	Total	Display	Video	Mobile
2020	13.380.000 €	3.850.000 €	50.000 €	9.480.000 €
2020	37%	32%	2%	77%
2021	15.950.000 €	3.700.000 €	120.000 €	12.130.000 €
2021	37%	31%	3%	76%
2022	23.340.000 €	5.730.000 €	580.000 €	17.030.000 €
2022	49%	42%	15%	90%

This table is read as followed: According to data provided by publishers and ad networks, 42% of the spendings in the display category in 2022 will be programmatic.

⁴⁸



PROGRAMMATIC

From the perspective of agencies¹



	Total	Display	Video	Mobile
2020	13.210.000 €	7.060.000 €	2.730.000 €	3.420.000 €
2020	21%	30%	19%	14%
2024	26.280.000 €	10.620.000 €	10.420.000 €	5.240.000 €
2021	25%	36%	38%	17%
2022	32.640.000 €	13.440.000 €	13.390.000 €	5.810.000 €
2022	15%	39%	46%	18%

This table is read as followed: According to data provided by agencies, 39% of the spendings in the display category in 2022 will be programmatic.

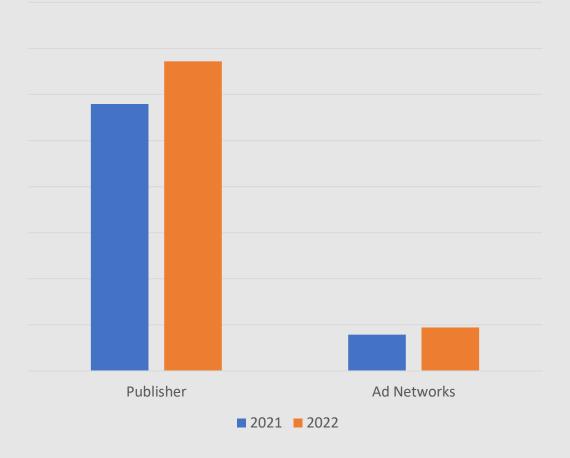
⁴⁹



PUBLISHERS & AD NETWORKS 2022

Based on the reported figures for 2021, growth of around 13,7 percent is expected for publishers in 2022.

For ad networks, growth of around 16,7 percent is expected in 2022.





AGENCIES 2022 NET FORECAST

Category	Ad spendings	Growth ¹
Classical online advertising (Display, Video, Mobile, Native)	99.500.000€	8%
Social Media Marketing	18.810.000€	17%
Paid Search	7.220.000€	21%
Affiliate Marketing	10.000€	0%
Influencer Marketing	2.260.000€	8%
Email Marketing	40.000€	-33%
In-Game Advertising	2.080.000€	10%
Unassignable ²	30.000€	0%
Total	129.950.000€	10%

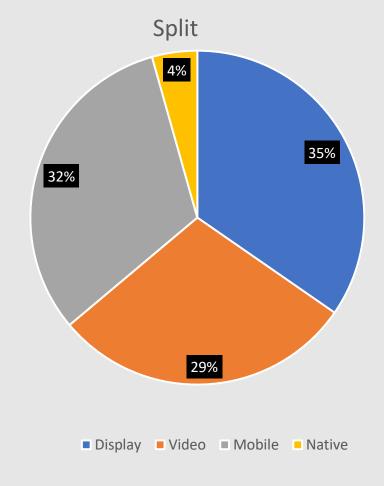
¹ compared to 2021

² Revenue of agencies that cannot be allocated to any category



AGENCIES 2022 NET FORECAST

Category	Revenue	Growth ¹
Display	34.470.000€	17%
Video	29.090.000€	7%
Mobile ²	31.590.000€	5%
Native	4.350.000€	4%
Total	99.500.000€	8%



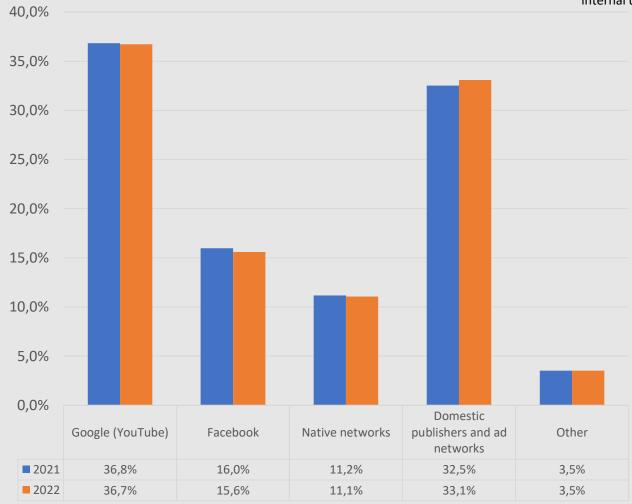
¹ compared to 2021

² Specific sales on mobile devices (includes different formats)



VIDEO ADVERTISING 2022

Through which channels Croatian agencies display video advertising.





DEFINITIONS

GLOSSARY



DEFINITIONS I

Online Display Advertising: Banners, buttons, skyscrapers, overlays, interstitials, pop ups displayed on a website

There are numerous definitions of online Video Advertising. Principally included can be:

- in-stream video advertising (pre-rolls, mid-rolls, post-rolls)
- in-stream banner overlays
- out-of-stream video advertising (e.g. self-play video on social network, not embedded in non-advertising video content)
- in-banner video advertising
- in-text video advertising

Mobile – specific sales on mobile devices

- Mobile Advertising Display: Any display advertising viewed or read on a mobile phone, including rich media advertising and online video advertising. This could be browser-based as well as in-app.
- Mobile Advertising other: All other mobile advertising (e.g., mobile classifieds)



DEFINITIONS II

Programmatic: Automatic and individual purchase and sale of advertising space in real time.

- a) Automated guaranteed
- b) Unreserved fixed rate (preferred deal)
- c) Invitation-only auction (private deal)
- d) Open auction

Advertising revenues are recognized as 'programmatic' whenever any of those mechanisms applies, irrespective of the inventory owner's awareness of their involvement. Revenue is recognized as programmatic irrespective of whether the inventory owner acts directly, or indirectly via an intermediary.

Paid-for-search Advertising (SEA): Advertising appearing on specific word requests on search engines.



DEFINITIONS III

Social Advertising: A subset of display advertising. Can include banner & video. Refers to advertising on social networks such as Facebook, LinkedIn, etc. We do not count YouTube as a social network.

Affiliate Marketing: Fees paid to third party (affiliate) for traffic generation (e.g. pay-per-visit). Note: affiliate spend will be included in display spend

Native Advertising: Promotional content with link to the advertiser's website. Postings on native networks such as Outbrain, Taboola, Plista, etc.

Email Marketing: Where the body of the email is determined by the advertiser and is sent on their behalf by an email list manager/owner

Newsletter Advertising: Advertising (text or banner) that appears around the unrelated editorial content of email newsletters

Sponsorships: Advertiser sponsorships of content areas

In-Game Advertising: Fees paid for advertising, sponsorship or product placements within an online game

