HUDI

SPENDING STUDY 2022 AND FORECAST 2023







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INTELLECTUAL PROPERTY

The "HUDI Spending Study" was developed by MOMENTUM Vienna (<u>momentum.wien</u>) and conducted by Ipsos for HUDI (Hrvatska udruga digitalnih izdavaca).

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

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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 Vienna.

In cooperation with Ipsos 17 structured interviews with media agencies and publishers were conducted between February and March 2023. 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 and publicly available sources.

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 2022

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THE ADVERTISING YEAR 2022

GROSS SPENDINGS

| Category | Ad Spendings | Share | Growth ¹ |
|--|---------------|--------|---------------------|
| Classical Online Ads (Display, Video, Native) | 116.400.000 € | 41,6% | 17,6% |
| Social Media Marketing | 61.900.000 € | 22,1% | -6,2% |
| Paid Search | 96.200.000 € | 34,4% | 3,7% |
| Miscellaneous ² | 5.100.000 € | 1,8% | -26,1% |
| Total | 279.600.000 € | 100,0% | 5,6% |

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THE ADVERTISING YEAR 2022

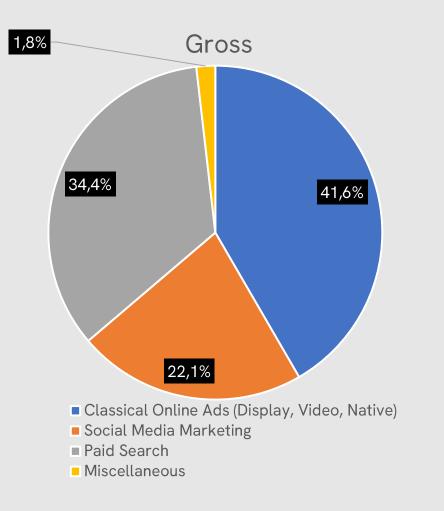
NET SPENDINGS

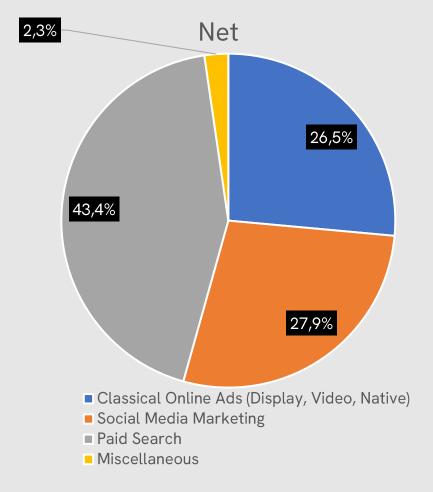
| Category | Ad Spendings | Share | Growth ¹ |
|--|---------------|--------|---------------------|
| Classical Online Ads (Display, Video, Native) | 58.700.000 € | 26,5% | 10,1% |
| Social Media Marketing | 61.900.000 € | 27,9% | -6,2% |
| Paid Search | 96.200.000 € | 43,4% | 3,7% |
| Miscellaneous ² | 5.100.000 € | 2,3% | -26,1% |
| Total | 221.900.000 € | 100,0% | 1,3% |



THE ADVERTISING YEAR 2022

GROSS VS. NET





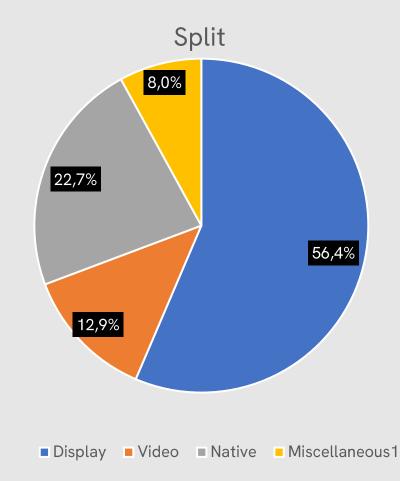


THE ADVERTISING YEAR 2022 IN DETAIL



THE CROATIAN MARKET 2022

| Category | Revenue |
|----------------------------|--------------|
| Display | 36.000.000 € |
| Video | 8.200.000 € |
| Native | 14.500.000 € |
| Miscellaneous ¹ | 5.100.000 € |
| Total | 63.800.000 € |





THE ADVERTISING YEAR 2022 IN DETAIL

| | Display | Video | Native | Miscellaneous ¹ | Total |
|-----------------------------|-------------|------------|-------------|----------------------------|-------------|
| Domestic Market | 29.600.000€ | 3.100.000€ | 14.500.000€ | 5.100.000€ | 52.300.000€ |
| Google Display ² | 5.300.000€ | 600.000€ | 0€ | 0€ | 5.900.000€ |
| YouTube ³ | 1.100.000€ | 4.500.000€ | 0€ | 0€ | 5.600.000€ |
| Total | 36.000.000€ | 8.200.000€ | 14.500.000€ | 5.100.000€ | 63.800.000€ |

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

² Average advertising revenue per global citizen weighted by global vs. Croatian GDP/capita and Croatian online population and Croatian online population

³ Average advertising revenue per user globally multiplied by users in Croatia

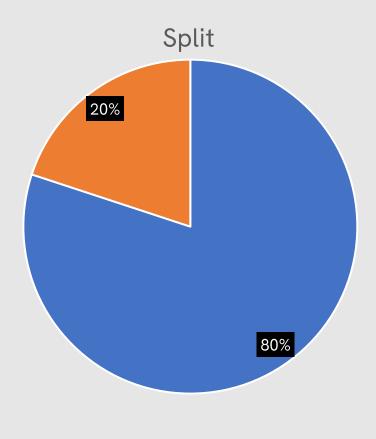


DOMESTIC MOBILE ADVERTISING 2022

| Mobile | Spendings | Growth ¹ |
|----------------|-------------|---------------------|
| Mobile Display | 26.900.000€ | 16,0% |
| Mobile Video | 6.700.000€ | 0,3% |
| Total | 33.600.000€ | 12,9% |

Based on reported mobile share for display (74,8 percent) and video (81,5 percent).

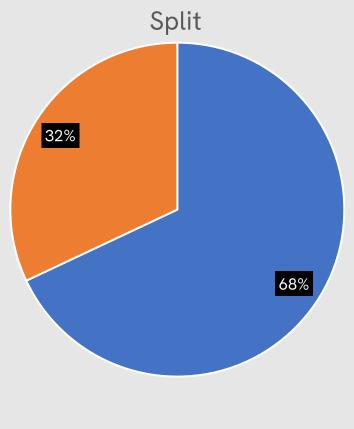
Overall, 74.7 percent of pageviews were reported as mobile traffic.



Display Video



| Video | Spendings | Growth ¹ |
|------------|------------|----------------------------|
| In-Stream | 5.570.000€ | 2% |
| Out-Stream | 2.630.000€ | -12% |
| Total | 8.200.000€ | -2% |



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PROGRAMMATIC

From the perspective of publishers and ad networks.

This table is read as followed: According to data provided by publishers and ad networks, 17.750.000€ of the spendings in the display category in 2022 are programmatic (RTB and non-RTB combined).



| 2021 | Display | Video | Total |
|---------|---------------|-------------|--------------|
| RTB | 12.300.000 € | 290.000 € | 12.590.000 € |
| non-RTB | 2.700.000€ | 660.000€ | 3.360.000 € |
| Total | 15.000.000€ | 950.000 € | 15.950.000 € |
| | | | |
| 2022 | Display | Video | Total |
| RTB | 14. 200.000 € | 930.000 € | 15.140.000 € |
| non-RTB | 3.550.000 € | 650.000 € | 4.200.000 € |
| Total | 17.750.000 € | 1.590.000 € | 19.340.000 € |



AGENCIES 2022 GROSS

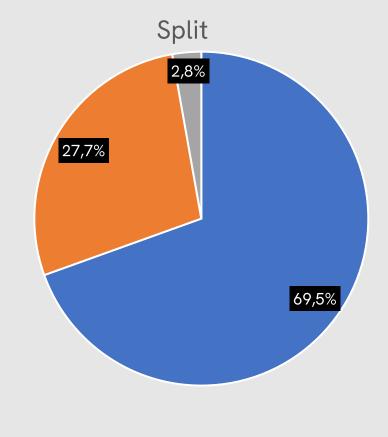
| Online advertising revenue | Gross value |
|---|---------------|
| Classical online advertising (Display, Video, Native) | 204.300.000 € |
| Social Media Marketing | 15.700.000€ |
| Paid Search | 7.500.000€ |
| Influencer Marketing | 18.900.000€ |
| In-Game Advertising | 2.200.000€ |
| Unassignable ¹ | 2.100.000€ |
| Total | 250.700.000 € |



AGENCIES 2022 GROSS

| Category | Revenue | Growth ¹ |
|----------|---------------|---------------------|
| Display | 142.000.000 € | 16% |
| Video | 56.600.000 € | 13% |
| Native | 5.700.000€ | 6,% |
| Total | 204.300.000 € | 15% |

Based on the reported figures and data of the agencies



Display Video Native



AGENCIES 2022 NET

| Online advertising revenue | Net value |
|---|---------------|
| Classical online advertising (Display, Video, Native) | 108.900.000 € |
| Social Media Marketing | 13.100.000€ |
| Paid Search | 6.900.000€ |
| Influencer Marketing | 16.700.000€ |
| In-Game Advertising | 300.000 € |
| Unassignable ¹ | 2.100.000€ |
| Total | 148.000.000 € |

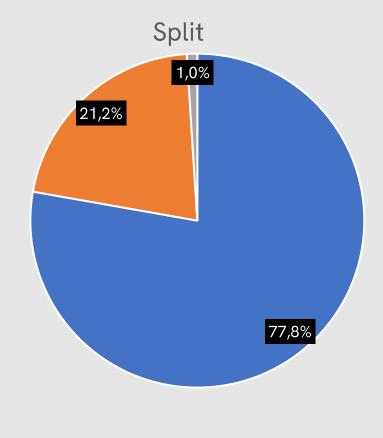
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ONLINE ADVERTISING

AGENCIES 2022 NET

| Category | Revenue | Growth ¹ |
|----------|---------------|---------------------|
| Display | 84.700.000 € | 19% |
| Video | 23.100.000 € | 14% |
| Native | 1.100.000€ | -62% |
| Total | 108.900.000 € | 17% |

Based on the reported figures and data of the agencies

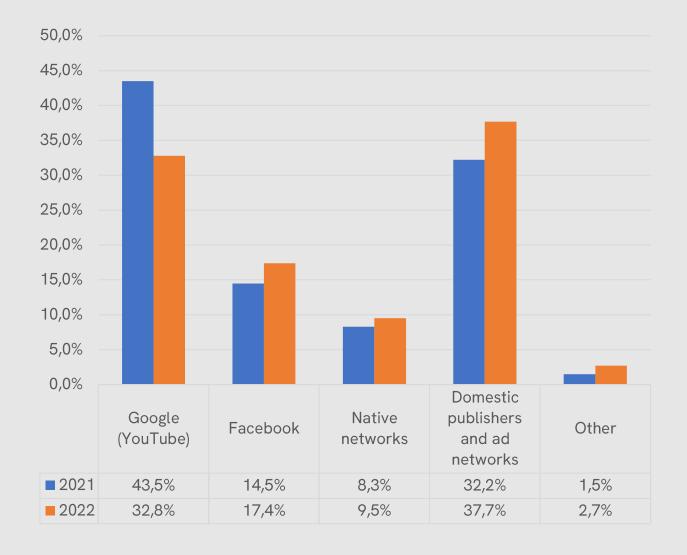


Display Video Native



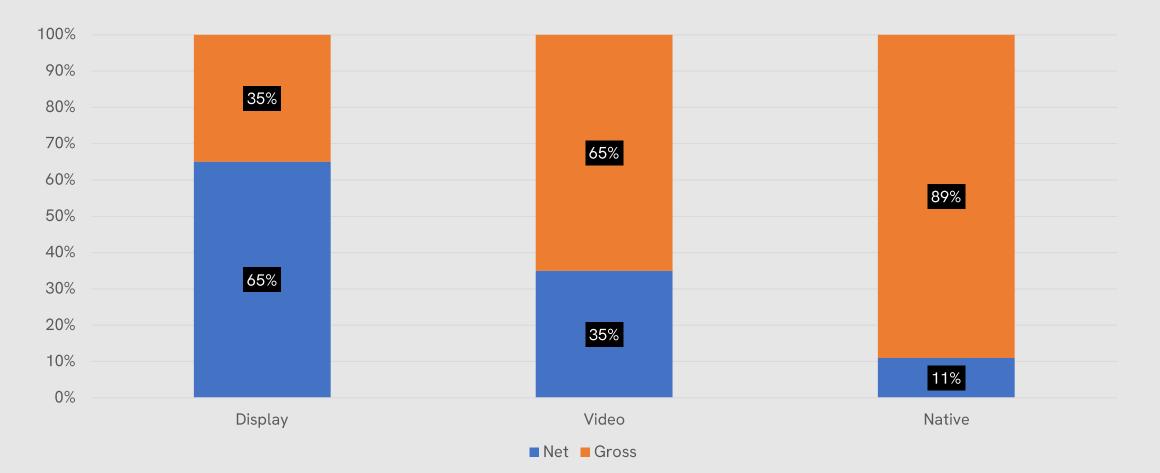
VIDEO ADVERTISING 2022

Through which channels Croatian agencies display video advertising.





GROSS-NET-RATIO





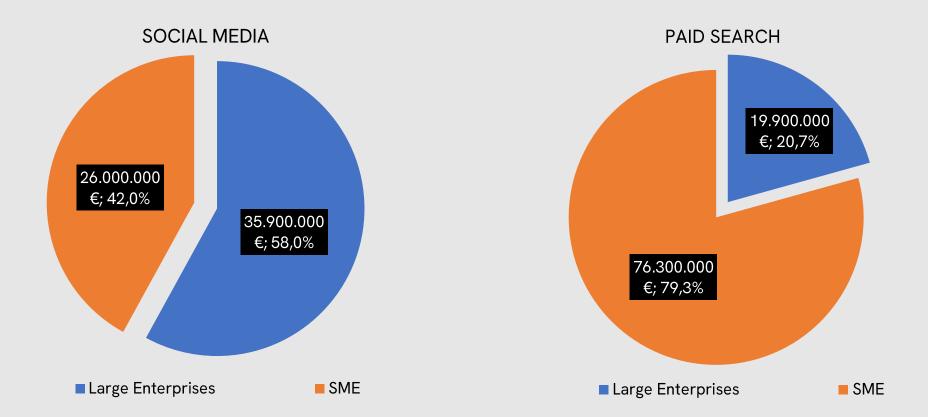
SOCIAL MEDIA MARKETING & PAID SEARCH

THE ADVERTISING YEAR 2022 IN DETAIL



DIGITAL GIANTS COMPANY SIZE SPLIT

THE ADVERTISING YEAR 2022 IN DETAIL



SOCIAL MEDIA MARKETING



THE ADVERTISING YEAR 2022 IN DETAIL

| Social Network | Revenue in Croatia | Share |
|-----------------------|--------------------|--------|
| Meta ¹ | 50.100.000 € | 80,9% |
| LinkedIn ² | 4.300.000 € | 6,9% |
| Twitter ² | 2.700.000 € | 4,4% |
| Snapchat ³ | 4.800.000 € | 7,8% |
| Total | 61.900.000 € | 100,0% |

¹ Advertising revenues per user in Europe weighted with average growth and European vs. Croatian GDP/capita

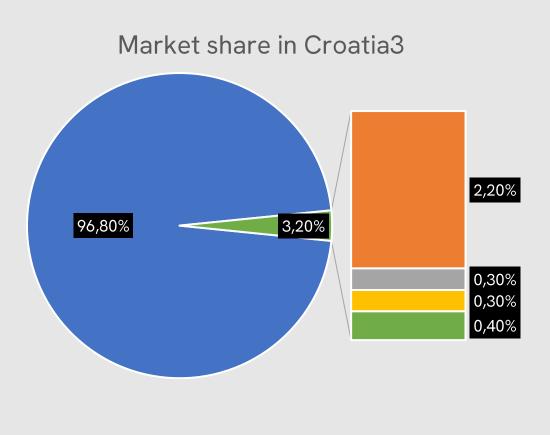
² Average advertising revenue per user globally multiplied by users in Croatia

³ Average advertising revenue per user globally weighted with global vs. Croatian GDP/capita

PAID SEARCH

THE ADVERTISING YEAR 2022 IN DETAIL

| Search engine | Revenue |
|---------------------|--------------|
| Google ¹ | 93.100.000 € |
| Others ² | 3.100.000 € |
| Total | 96.200.000 € |



■ Google ■ bing ■ Yahoo ■ DuckDuckGo ■ Other

¹ Average advertising revenue per global citizen weighted by GDP/capita globally vs. Croatia and multiplied by Croatian population

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

³ Average of all 12 months 2022, Source: <u>statcounter.com</u>

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REVENUE OF THE DIGITAL GIANTS

CROATIA 2022



REVENUE OF THE DIGITAL GIANTS

CROATIA 2022

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.

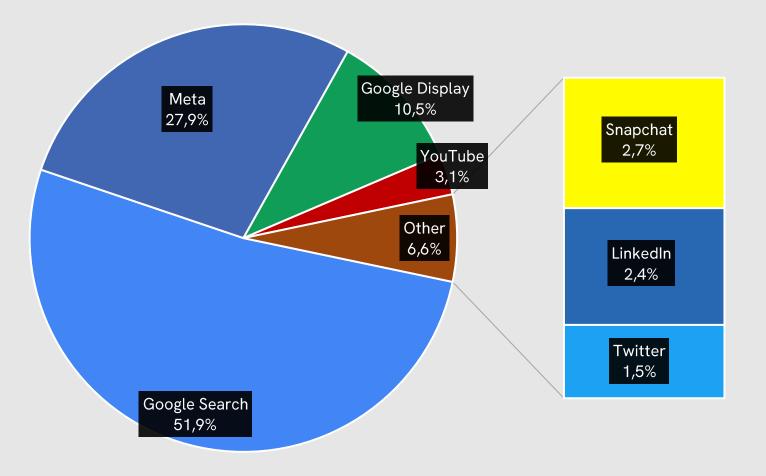
The table provides an overview of the key figures used for the calculation.

| Key figure | 2021 | 2022 |
|--------------------------|---------------|---------------|
| GDP/capita (global) | \$12.290 | \$13.400 |
| GDP/capita (USA) | \$63.380 | \$75.180 |
| GDP/capita (Europe) | \$31.650 | \$33.530 |
| GDP/capita (Croatia) | \$16.820 | \$17.320 |
| Population (global) | 7.875.000.000 | 8.000.000.000 |
| Population (Croatia) | 3.878.981 | 3.854.000 |
| Exchange rate USD/EUR | 0,9 | 0,92 |



REVENUE OF THE DIGITAL GIANTS

REVENUE SPLIT IN CROATIA





RESULTS IN DETAIL

REVENUE OF THE DIGITAL GIANTS

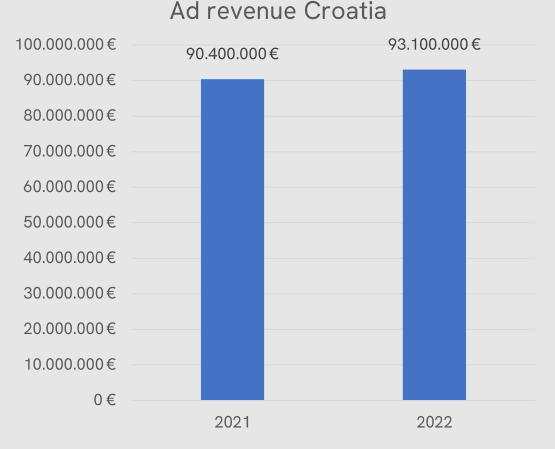


REVENUE OF THE DIGITAL GIANTS

GOOGLE SEARCH

| 2022 | |
|----------------------|-------------------|
| Revenue worldwide | 147.829.500.000 € |
| Revenue Croatia | 93.100.000€ |
| Revenue/User Croatia | 24,15€ |

Based on global advertising revenue, revenue per global citizen was calculated, weighted by GDP/capita globally vs. Croatia and multiplied by Croatian population.



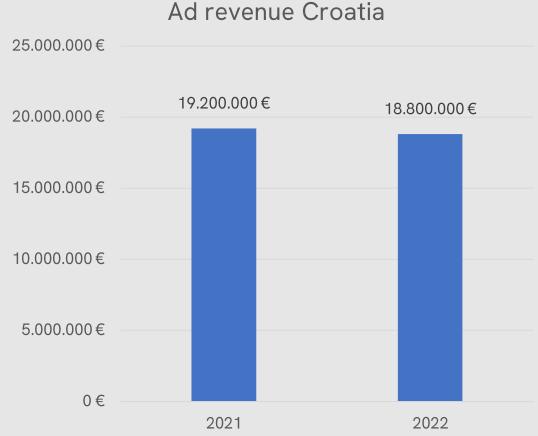
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REVENUE OF THE DIGITAL GIANTS

GOOGLE DISPLAY

| 20 | 22 | |
|----------------------|------------------|--|
| Revenue worldwide | 29.829.800.000 € | |
| Revenue Croatia | 18.800.000 € | |
| Revenue/User Croatia | 4,87€ | |

Based on global advertising revenue, revenue per global citizen was calculated, weighted by GDP/capita globally vs. Croatia and multiplied by Croatian population.



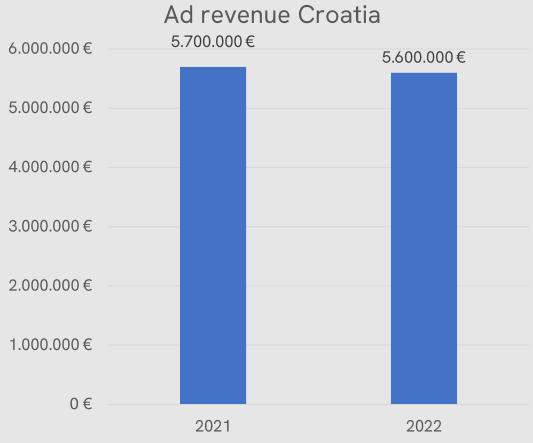


REVENUE OF THE DIGITAL GIANTS

YOUTUBE

| 2022 | |
|----------------------|------------------|
| Revenue worldwide | 63.679.100.000 € |
| Revenue Croatia | 5.600.000€ |
| Revenue/User Croatia | 12,73€ |

Based on the global advertising revenue, the revenue per global user was calculated and multiplied with users in Croatia.



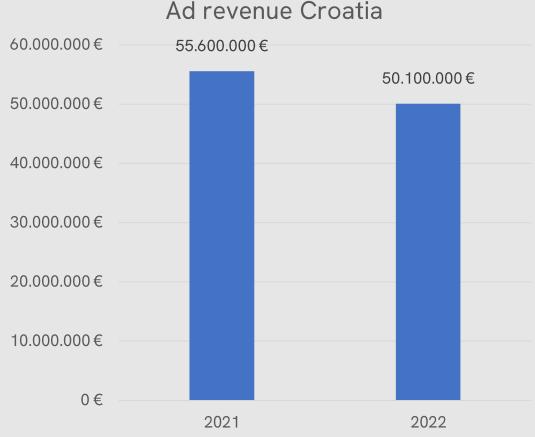
REVENUE OF THE DIGITAL GIANTS



META (FACEBOOK, INSTAGRAM, WHATSAPP)

| 2022 | |
|----------------------|-------------------|
| Revenue worldwide | 105.294.000.000 € |
| Revenue Croatia | 50.100.000€ |
| Revenue/User Croatia | 19,27€ |

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 the number of users obtained, the advertising revenue/user in Europe was calculated and this was weighted with average growth and the GDP/capita Europe vs. Croatia to obtain the advertising revenue of the app family in Croatia.



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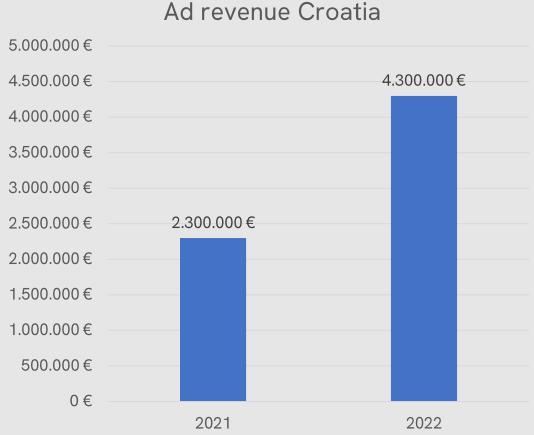
REVENUE OF THE DIGITAL GIANTS

LINKEDIN

| 20 | 22 |
|----------------------|-----------------|
| Revenue worldwide | 5.450.900.000 € |
| Revenue Croatia | 4.300.000€ |
| Revenue/User Croatia | 5,41 € |

LinkedIns yearly advertising revenue surpassed \$5 billion for the first time in 2022.

Based on the annual result, the revenue per global user was calculated and multiplied by the number of users in Croatia.



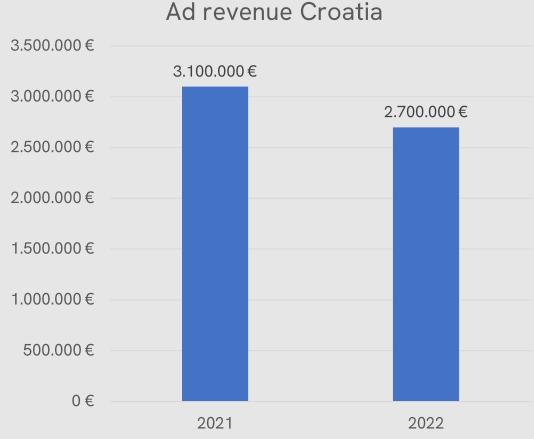


REVENUE OF THE DIGITAL GIANTS

TWITTER

| 2022 | |
|----------------------|-----------------|
| Revenue worldwide | 3.640.000.000 € |
| Revenue Croatia | 2.700.000€ |
| Revenue/User Croatia | 8,48 € |

Based on the global advertising revenue, the revenue per global user was calculated and multiplied with users in Croatia.



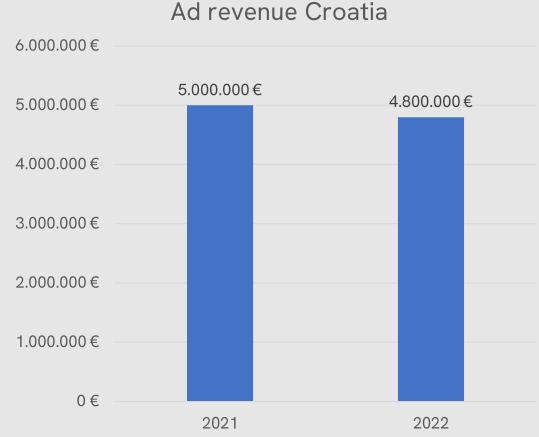


REVENUE OF THE DIGITAL GIANTS

SNAPCHAT

| 2022 | |
|----------------------|-----------------|
| Revenue worldwide | 4.187.700.000 € |
| Revenue Croatia | 4.800.000 € |
| Revenue/User Croatia | 8,62€ |

Based on the global advertising revenue, the revenue per global user was calculated, weighted with the GDP/capita global vs. Croatia and multiplied with Croatian users.





ONLINE AD SPENDINGS FORECAST

CROATIA 2023



THE ADVERTISING YEAR 2023

NET FORECAST

| Category | Ad Spendings | Share | Growth ¹ |
|--|---------------|--------|---------------------|
| Classical Online Ads (Display, Video, Native) | 64.000.000 € | 26,0% | 9,0% |
| Social Media Marketing | 67.500.000 € | 27,5% | 9,0% |
| Paid Search | 108.700.000 € | 44,2% | 13,0% |
| Miscellaneous ² | 5.500.000 € | 2,2% | 7,8% |
| Total | 245.700.000 € | 100,0% | 10,7% |

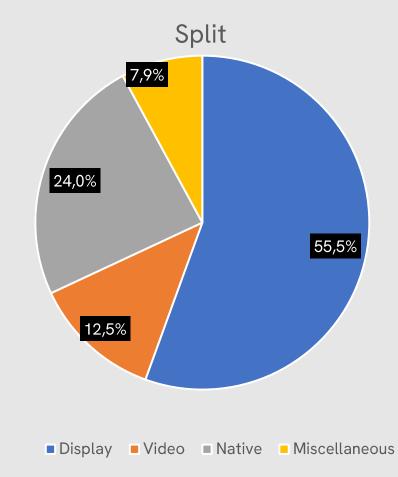
¹ compared to 2022

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 Definitions



THE CROATIAN MARKET 2023

| Category | Revenue |
|----------------------------|--------------|
| Display | 38.600.000 € |
| Video | 8.700.000 € |
| Native | 16.700.000 € |
| Miscellaneous ¹ | 5.500.000 € |
| Total | 69.500.000 € |





THE ADVERTISING YEAR 2023 IN DETAIL

| | Display | Video | Native | Miscellaneous ¹ | Total |
|-----------------------------|-------------|------------|-------------|----------------------------|-------------|
| Domestic Market | 32.300.000€ | 3.700.000€ | 16.700.000€ | 5.500.000€ | 58.200.000€ |
| Google Display ² | 5.100.000€ | 600.000€ | 0€ | 0€ | 5.700.000€ |
| YouTube ³ | 1.200.000€ | 4.400.000€ | 0€ | 0€ | 5.600.000€ |
| Total | 38.600.000€ | 8.700.000€ | 16.700.000€ | 5.500.000€ | 69.500.000€ |

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

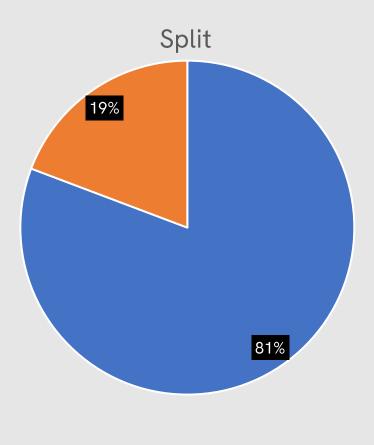
² Average advertising revenue per global citizen weighted by global vs. Croatian GDP/capita and Croatian online population

³ Average advertising revenue per user globally multiplied by users in Croatia



| Mobile | Spendings | Growth ¹ |
|----------------|-------------|---------------------|
| Mobile Display | 30.200.000€ | 11% |
| Mobile Video | 7.200.000€ | 7% |
| Total | 37.400.000€ | 10% |

Based on reported mobile share for display (78,3 percent) and video (82,5 percent).

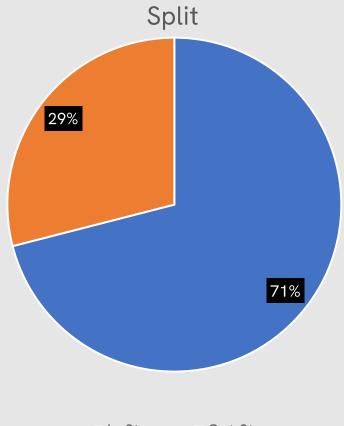


Display Video

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| Video | Spendings | Growth ¹ |
|------------|-------------|---------------------|
| In-Stream | 6.200.000 € | 10% |
| Out-Stream | 2.500.000 € | -5% |
| Total | 8.700.000 € | 6% |



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ONLINE ADVERTISING

PROGRAMMATIC

From the perspective of publishers and ad networks.

This table is read as followed: According to data provided by publishers and ad networks, 14.800.000 € of the spendings in the display category in 2023 will be programmatic (RTB and non-RTB combined).



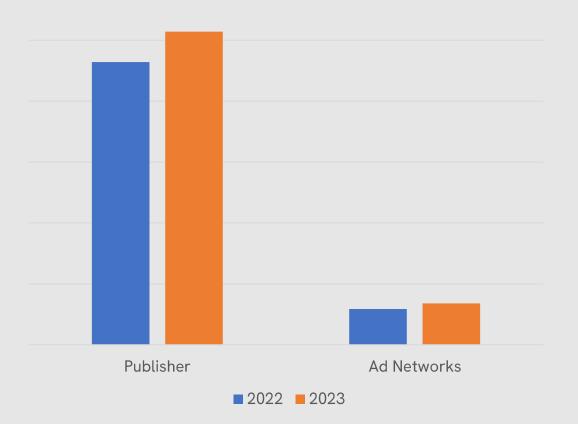
| 2022 | Display | Video | Total |
|---------|--------------|-------------|--------------|
| RTB | 12.500.000 € | 230.000 € | 12.730.000 € |
| non-RTB | 2.500.000 € | 830.000 € | 3.330.000 € |
| Total | 15.000.000 € | 1.060.000 € | 16.060.000 € |
| | | | |
| 2023 | Display | Video | Total |
| RTB | 12.800.000 € | 250.000 € | 13.050.000 € |
| non-RTB | 2.000.000 € | 400.000 € | 2.400.000 € |
| Total | 14.800.000 € | 650.000€ | 15.450.000 € |



PUBLISHERS & AD NETWORKS 2023

Based on the reported figures for 2022, growth of around 10,8 percent is expected for publishers in 2023.

For ad networks, growth of around 15,3 percent is expected in 2023.





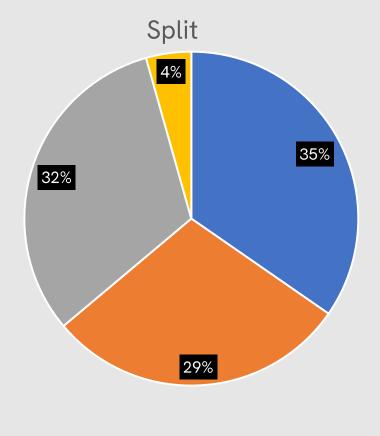
AGENCIES 2023 NET FORECAST

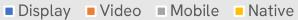
| Category | Ad spendings | Growth ¹ |
|--|---------------|---------------------|
| Classical online advertising (Display, Video, Native) | 128.500.000 € | 15% |
| Social Media Marketing | 16.400.000 € | 20% |
| Paid Search | 9.900.000 € | 30% |
| Influencer Marketing | 25.200.000€ | 34% |
| In-Game Advertising | € 000.008 | 63% |
| Unassignable ² | 2.300.000 € | 9% |
| Total | 183.100.000 € | 19% |



AGENCIES 2023 NET FORECAST

| Category | Revenue | Growth ¹ |
|----------|---------------|----------------------------|
| Display | 96.600.000 € | 12% |
| Video | 30.700.000 € | 25% |
| Native | 1.200.000€ | 8% |
| Total | 128.500.000 € | 15% |

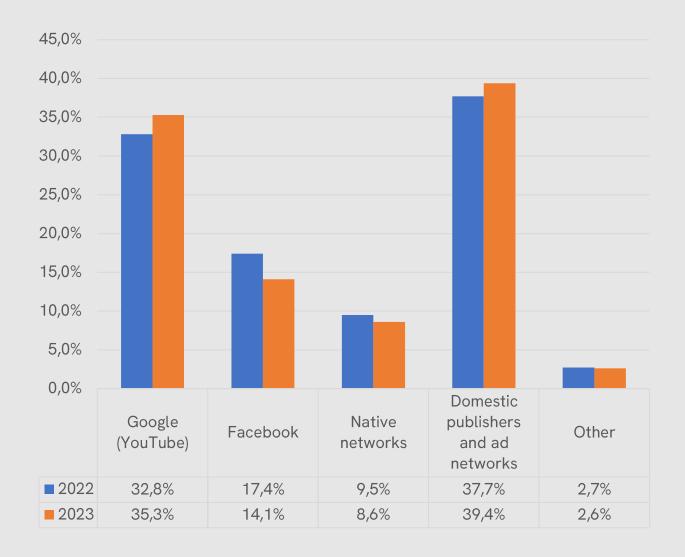






VIDEO ADVERTISING 2023

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 nonadvertising video content)
- in-banner video advertising
- in-text video advertising

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

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THANK YOU FOR YOUR ATTENTION



