

Online Video Forecasts

2017



About Zenith

Zenith is The ROI agency. We blend data, technology and brilliant specialists to scout out new opportunities, solve complex challenges and grow our clients' businesses. Zenith is part of Publicis Media, one of four solution hubs within Publicis Groupe [Euronext Paris FR0000130577, CAC40], and has offices within Publicis One. We have over 5,000 brilliant specialists across 95 markets. We are experts in communications & media planning, content, performance marketing, value optimisation and data & analytics. Zenith works with some of the world's leading brands including Aviva, Coty, Kering, Lactalis, L'Oréal, LVMH, Nestlé, Nomad Foods, Oracle, RB, SCA, Sanofi and 21st Century Fox.





Welcome to the third edition of Zenith's annual Online Video Forecasts report.

This report contains historical data and forecasts of online video consumption and advertising, together with commentaries on the development of individual markets by local experts. This year's edition covers 63 key markets, up from 57 last year.

Online video viewing will rise 20% in 2017, according to Zenith's Online Video Forecasts 2017, published today. Global consumers will spend an average of 47.3 minutes a day viewing videos online this year, up from 39.6 minutes in 2016. This increase will be driven by a 37% increase in viewing on mobile devices (smartphones and tablets) to 27.7 minutes a day, while viewing on fixed devices (desktop PCs, laptops and smart TVs) will rise by just 1% to 19.6 minutes a day.

By online video we mean all video content viewed over an internet connection, including broadcaster-owned platforms like Hulu, 'over-the-top' subscription services like Netflix, video-sharing sites like YouTube, and videos viewed on social media, like Facebook.

The amount of available video content is rising rapidly across all platforms, but social media platforms have been particularly quick to embrace video over the last couple of years. They have added tools to encourage users and brands to create and share videos, and are now broadcasting live video streams, such as sport events. In many markets Facebook is now the second-biggest supplier of video content, after YouTube.

Video viewing on fixed devices to peak this year, as viewing goes mobile

2017 will be the peak year of fixed-device video, which global consumers will spend an average of 20 minutes a day viewing. Viewing on smart TVs continues to rise, but not rapidly enough to compensate for the decline in viewing on desktops and laptops, as consumers shift their attention to mobile devices. We forecast viewing on fixed devices to shrink 1% in 2018 and 3% in 2019.

Meanwhile mobile video viewing – averaging 28 minutes a day this year – will grow 27% in 2018 and 30% in 2019, driven by the spread of mobile devices, improved displays and faster mobile data connections. By 2019, mobile devices will account for 71% of all online video viewing, up from 59% this year.

Online video adspend to grow 23% in 2017

The rapid growth of video consumption is leading to equally rapid growth in video advertising. We forecast global expenditure on online video advertising to grow 23% in 2017 to US\$27.2bn, up from US\$22.2bn in 2016. Annual growth peaked at 37% in 2014, and has since fallen gradually as online video advertising has grown in scale. We forecast 21% growth in 2018, and 17% growth in 2019, when online video ad expenditure will reach US\$38.7bn.

Online video advertising is becoming steadily more important to the digital display advertising market, just as video is becoming an integral part of the consumer's experience of the internet. By 2019 online video will account for 31% of total expenditure on digital display advertising, up from 28% in 2017, and 21% in 2012.

Online video advertising will be mobile first in 2018

Although most video viewing is now mobile, most advertising expenditure goes to fixed devices. We estimate fixed video adspend at US\$15.2bn this year, compared to mobile video adspend at US\$12.0bn. Videos viewed on fixed devices are displayed on larger screens, and often in less distracting environments, than those viewed on mobile devices. They are more effective at conveying brand messages, and so command a price premium from advertisers. By next year, though, that will no longer outweigh the higher volume of mobile video viewing, and mobile video adspend – at US\$18.0bn – will overtake fixed video adspend – at US\$15.0bn.

Types of online video advertising

There are several types of advertising available within and around online video.

Linear video ads: A linear video ad is experienced in-stream, and is presented before, between, or after the video content is consumed by the user. One of the key characteristics of linear video ads is the ad takes over the full view of the video.

Pre-roll - A linear video spot that appears before the video content plays.

Mid-roll - A linear video spot that appears in the middle of the video content.

Post-roll - A linear video spot that appears after the video content completes.

Non-linear video ads: A non-linear video ad product runs parallel to the video content so the user still has the option of viewing the content. Common non-linear ad products include overlays, which are shown directly over the content video itself, and product placements, which are ads placed within the video content itself. Non-linear video ads can be delivered as text, graphical banners or buttons, or as video overlays.

In-stream video: A video ad either viewed within or around video content from a video player.

Out-stream video: A video ad that is placed separately from other video content, elsewhere on the page or within written content.

In-banner video: A video ad displayed or triggered within a display banner.

In-text video: A relevant video ad displayed only when a user chooses to mouse-over a highlighted word or phrase within the text of web content.

Skins: The ads that are placed around the perimeter of the video.

Summary tables

Worldwide summary

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	172,913	86,549	36,151	7,565	656
'13	178,837	103,124	44,065	9,941	1,263
'14	183,755	125,968	55,897	13,592	2,379
'15	184,436	151,633	69,067	17,770	4,609
'16	186,932	178,582	83,922	22,167	7,323
'17	188,744	202,114	97,183	27,202	12,034
'18	190,337	224,446	110,461	32,923	17,981
'19	192,351	247,081	124,597	38,651	22,497

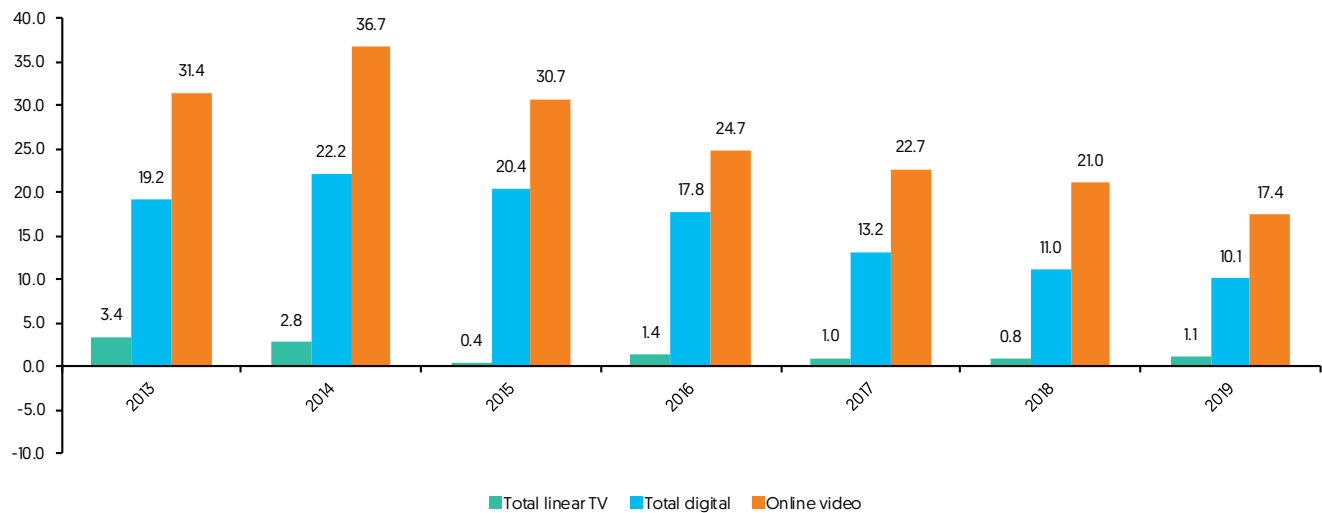
Source: Zenith

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video	13.4	25.1	28.1	33.3	39.6	47.3	54.4	64.5
Time spent watching online video on mobile devices	4.2	10.0	12.1	14.2	20.2	27.7	35.1	45.7
Time spent watching online video on desktop/non-mobile	9.2	15.1	16.1	19.0	19.4	19.6	19.3	18.8

Source: Zenith

Advertising expenditure year-on-year growth (%)



Source: Zenith

Country entries

Argentina

Advertising expenditure (Pesos million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	9,229	1,431	-	-	-
'13	12,584	2,153	-	-	-
'14	16,368	6,000	1,066	-	-
'15	23,418	12,400	2,338	-	-
'16	31,873	22,284	5,709	-	-
'17	37,928	26,518	8,251	-	-
'18	42,480	29,700	10,424	-	-
'19	45,453	31,779	12,432	-	-

Source: Kantar Ibope/CAAM/Monitor/Zenith estimates

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	624.5	96.8	-	-	-
'13	851.5	145.7	-	-	-
'14	1,107.6	406.0	72.1	-	-
'15	1,584.6	839.1	158.2	-	-
'16	2,156.7	1,507.9	386.3	-	-
'17	2,566.5	1,794.4	558.3	-	-
'18	2,874.5	2,009.7	705.4	-	-
'19	3,075.7	2,150.4	841.2	-	-

Source: Kantar Ibope/CAAM/Monitor/Zenith estimates

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	19,820	20,536	20,329	20,532	20,167	20,255	20,185	20,099
Number of regular online video viewers (000s)	-	-	5,974	8,099	9,575	12,122	14,830	18,457

Source: Zenith (weekly)

Demographics

	General population	Online video viewers
	2016	2016
Total (000s)	21,323	9,575
Gender (000s)		
Male	10,279	4,715
Female	11,044	4,861
Age (000s)		
12-15	1,362	926
16-24	4,766	3,184
25-34	4,447	2,296
35-44	3,547	1,326
45-54	2,992	1,011
55-64	2,466	617
65+	1,743	216
Socioeconomic status		
High	4,496	2,514
Medium	6,546	3,102
Low	10,282	3,959

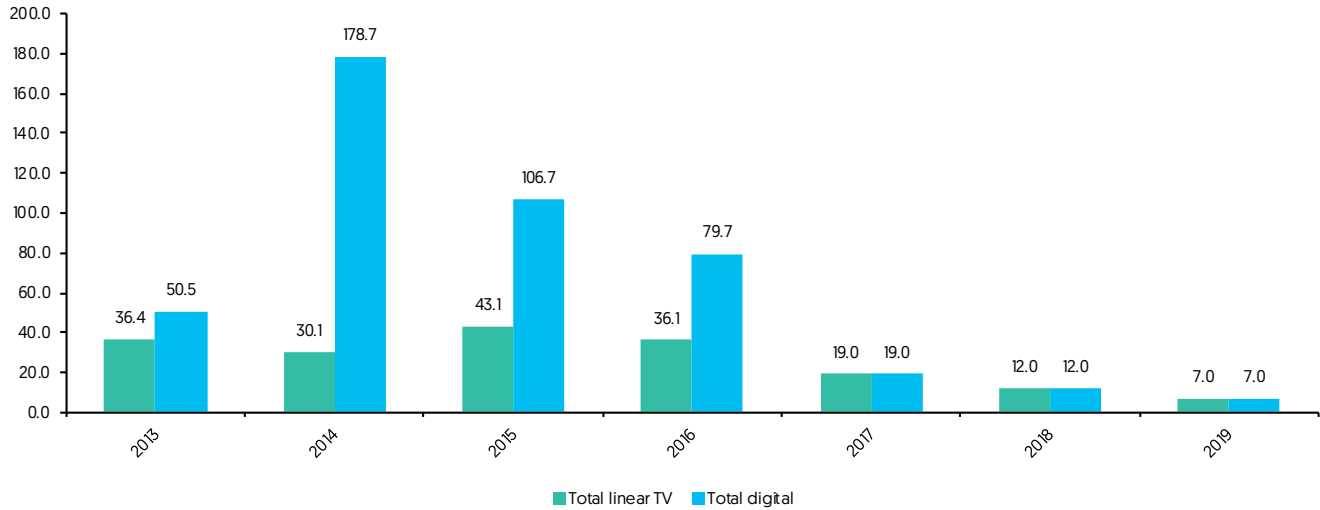
Source: TGI (Kantar Ibope Media)

YouTube is the main video platform in Argentina, followed by Netflix, Dailymotion, Vimeo and Foxplay. Netflix is the only one of the five which skews female for its viewership, 52.3% of its users being female. Viewers generally visit YouTube, Dailymotion and Vimeo for short-form videos, and Netflix and Foxplay for long-form.

YouTube and Dailymotion sell banners and in-stream ads, while Netflix and Vimeo are ad free. The key performance indicators are generally the number of completed videos and engagement with the content. InStream and InRead are the preferred formats in Argentina.

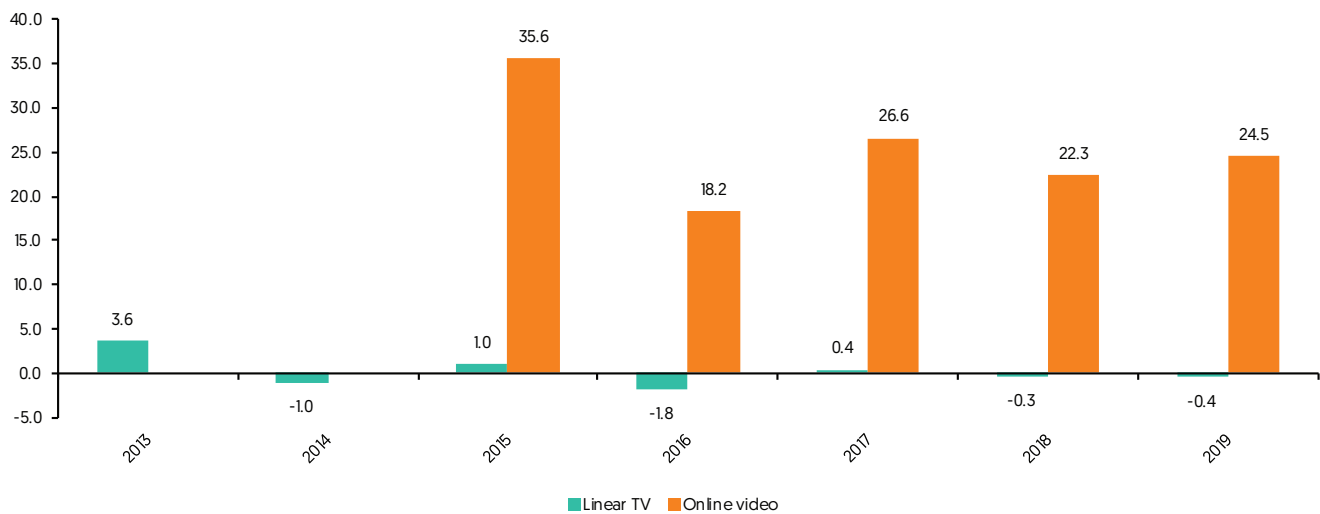
It is becoming more common to plan and buy television and online video at the same time, with common objectives, in order to maximise efficiency.

Advertising expenditure year-on-year growth (%)



Source: Kantar Ibope/CAAM/Monitor/Zenith estimates

Regular viewer numbers year-on-year growth (%)



Source: Zenith (weekly)

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	79.0	0.5	-	-	-
'13	86.9	0.5	-	-	-
'14	95.6	0.6	-	-	-
'15	100.4	1.0	-	-	-
'16	99.0	1.2	-	-	-
'17	99.0	1.5	-	-	-
'18	101.0	1.7	-	-	-
'19	103.0	1.9	-	-	-

Source: Zenith estimates

Demographics

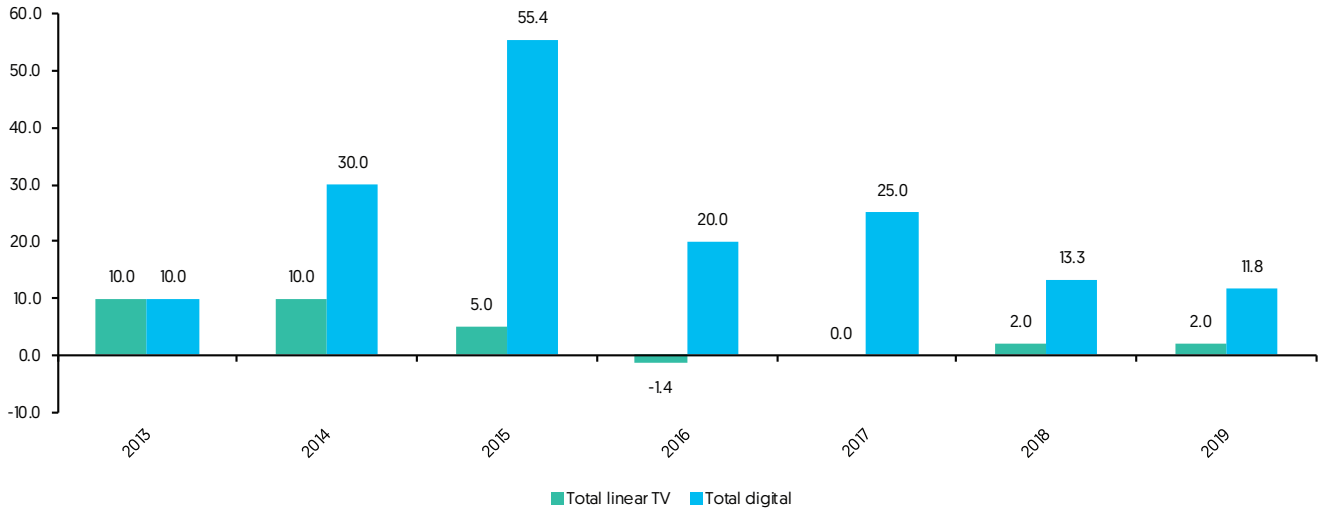
	General population	Online video viewers
	2016	2016
Total (000s)	2,997	2,034
Gender (000s)	-	-
Male	1,436	987
Female	1,561	1,047
Age (000s)	-	-
16-24	-	508
25-34	-	658
35-44	-	449
45-54	-	179
55-64	-	150
65+	-	60

Source: Armstat, Google Adwords

Mobile device penetration has reached approximately 40%, and there remains plenty of potential for growth in mobile video consumption.

Overall, mobile usage is growing fast in Armenia, especially in terms of video content [47% of all YouTube views are via mobile devices and 50% from desktop].

*Advertising expenditure
year-on-year growth (%)*



Source: Zenith estimates

Advertising expenditure (A\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	3,891	3,343	876	90	-
'13	3,998	3,986	1,125	155	-
'14	3,929	4,798	1,453	276	-
'15	3,906	6,015	2,120	387	-
'16	3,754	6,918	2,500	600	-
'17	3,667	7,693	2,872	850	-
'18	3,660	8,289	3,243	1,100	-
'19	3,660	8,899	3,629	1,320	-

Source: IAB, Zenith

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	2,895	2,486	652	67	-
'13	2,974	2,965	837	116	-
'14	2,922	3,569	1,081	206	-
'15	2,906	4,474	1,577	288	-
'16	2,792	5,146	1,860	446	-
'17	2,728	5,723	2,137	632	-
'18	2,723	6,166	2,412	818	-
'19	2,723	6,620	2,699	982	-

Source: IAB, Zenith

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	17,882	17,719	17,985	18,004	18,045	18,086	18,127	18,168
Number of regular online video viewers (000s)	-	-	-	12,989	13,386	14,191	15,326	16,859

Source: Roy Morgan, Nielsen, Zenith

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video	5.3	8.9	11.0	12.4	14.0	15.7	17.0	18.6
Time spent watching online video on mobile devices	1.3	2.2	3.5	4.8	6.5	8.2	9.5	11.1
Time spent watching online video on desktop/non-mobile	4.0	6.7	7.5	7.5	7.5	7.5	7.5	7.5

Source: Nielsen, Zenith

Demographics - share of population (%)

	General population	Online video viewers
	2016	2016
Gender (000s)		
Male	49.7	56.9
Female	50.3	43.1
Age (000s)		
under 16	20.0	34.1
16-24	11.9	21.1
25-34	14.8	21.9
35-44	13.4	14.5
45-54	13.1	10.8
55-64	11.6	6.4
65+	15.3	3.8

Source: Ausstats, Roy Morgan

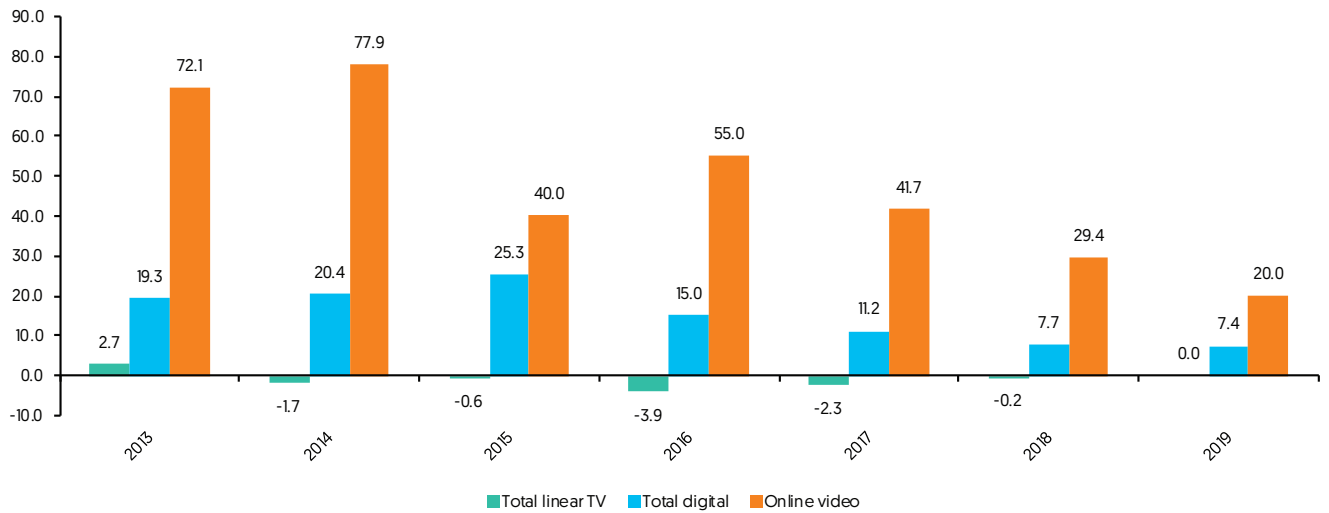
The two largest video publishers in Australia are YouTube and Facebook. Video is the fastest growing channel in digital, with video ad revenue growing 55% year on year and accounting for 4% of the total ad market in 2016.

This growth has largely been driven by the adoption of mobile, spurred on by faster connection speeds and cheaper data plans.

Viewing time continues to grow year on year, though traditional TV still dominates that ad market. Millennials are the keenest viewers of online video, accounting for 69% of online video views.

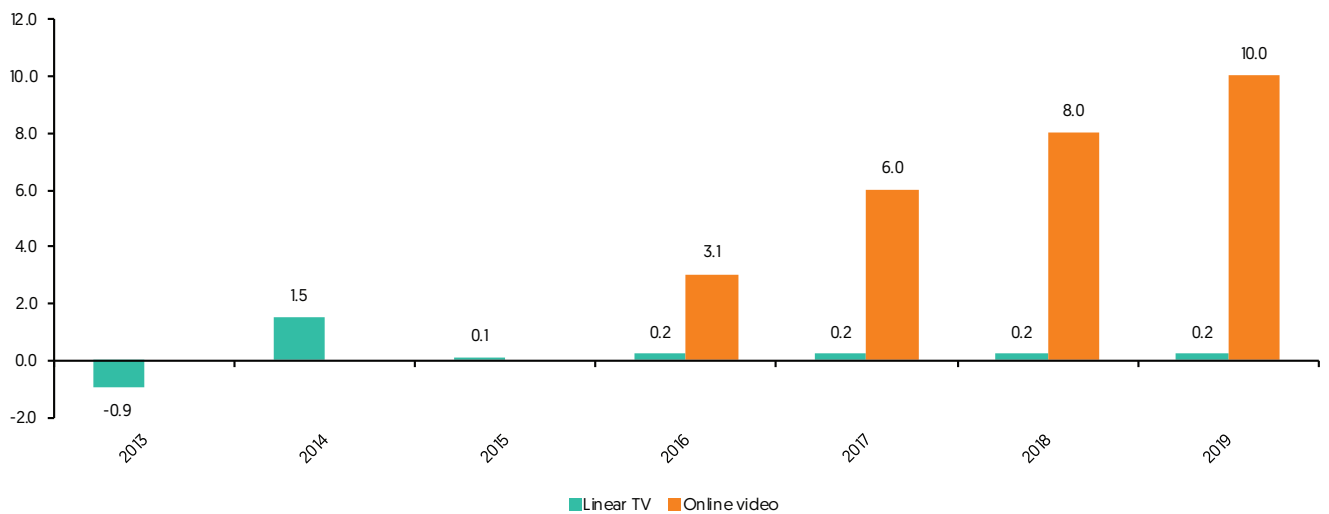
Programmatic video accounts for most programmatic adspend in Australia. Agencies are using cross-platform video buys to extend the reach of linear TV campaigns, and this strategy is becoming more popular. Another big growth area is connected TV inventory, which is underutilised now but has great potential as the gap closes between linear TV and programmatic planning and buying.

Advertising expenditure year-on-year growth (%)



Source: IAB, Zenith

Regular viewer numbers year-on-year growth (%)



Source: Roy Morgan, Nielsen, Zenith

Austria

Advertising expenditure (€ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	352.4	225.3	142.0	11.0	1.1
'13	370.0	263.0	163.0	13.9	2.0
'14	378.1	307.6	182.6	17.8	5.4
'15	383.8	348.2	204.5	22.9	7.0
'16	397.2	388.0	227.0	28.0	9.0
'17	410.4	426.3	250.8	33.4	12.0
'18	422.3	465.4	275.9	41.2	15.0
'19	437.0	502.6	297.9	46.8	19.0

Source: Zenith

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	389.9	249.3	157.1	12.2	1.2
'13	409.4	291.0	180.4	15.4	2.2
'14	418.5	340.3	202.0	19.7	6.0
'15	424.7	385.3	226.3	25.3	7.7
'16	439.6	429.3	251.2	31.0	10.0
'17	454.1	471.7	277.5	36.9	13.3
'18	467.3	515.0	305.3	45.6	16.6
'19	483.6	556.2	329.7	51.8	21.0

Source: Zenith

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)*	-	3,976	3,382	3,703	3,864	3,820	3,781	3,592
Number of regular online video viewers (000s)**	3,283	3,413	3,631	3,946	4,243	4,455	4,633	4,796

Source: AGTT/GfK, Evogenius, Media-Analyse, Zenith
*Daily **Monthly

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video	-	-	22.3	24.4	27.9	32.8	38.9	47.0
Time spent watching online video on mobile devices	-	-	10.1	11.6	13.8	17.3	22.1	29.0
Time spent watching online video on desktop/non-mobile	-	-	12.2	12.8	14.1	15.5	16.7	18.1

Source: MediaServer, Zenith

Demographics (14+)

	General population	Online video viewers
	2016	2016
Total (000s)	7,356	4,243
Gender (000s)		
Male	3,584	1,979
Female	3,772	2,264
Age (000s)		
14-15	135	119
16-24	990	877
25-34	1,056	862
35-44	1,133	771
45-54	1,454	814
55-64	1,062	452
65+	1,525	349
Socioeconomic status (000s)		
ABC1	3,678	2,343
C2DE	3,678	1,900

Source: MediaAnalyse

The biggest three online video platforms are YouTube, Netflix and Amazon Prime Video, which in 2017 account respectively for 33%, 13% and 12% of online video viewing. These dedicated video platforms are then followed by social media and chat platforms Facebook (with 7% of total viewing) and Whatsapp [5%].

Most online video ads are pre-rolls. Mid-rolls and post-rolls are used, but less commonly, while layers and wraps are rare.

All in-stream ads have high click-through rates, but poor conversion rates after the click, so they are mainly used for awareness campaigns.

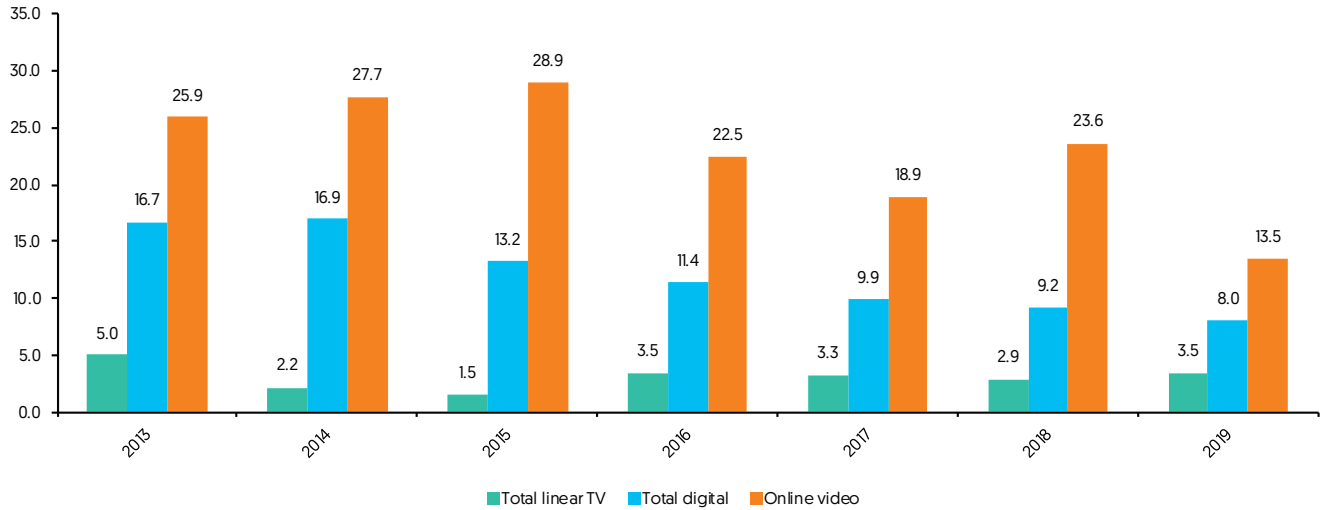
Because television is quite cheap in Austria, and instream ads are expensive (except on YouTube, or when bought programmatically), online video is only effective as a replacement for television for very young audiences or when using special strategies. One such strategy is to buy online video in real time, based on the previous day's TV ratings data. If a particular audience was underweight on yesterday's television, we can target it online today.

Programmatic buying is becoming common for online video, and it will be the main form of video buying within the next two years.

Because the fixed cost of video production is high and Austria is a small market, advertisers rarely produce owned video content for Austria, but international videos are often available on their YouTube channels.

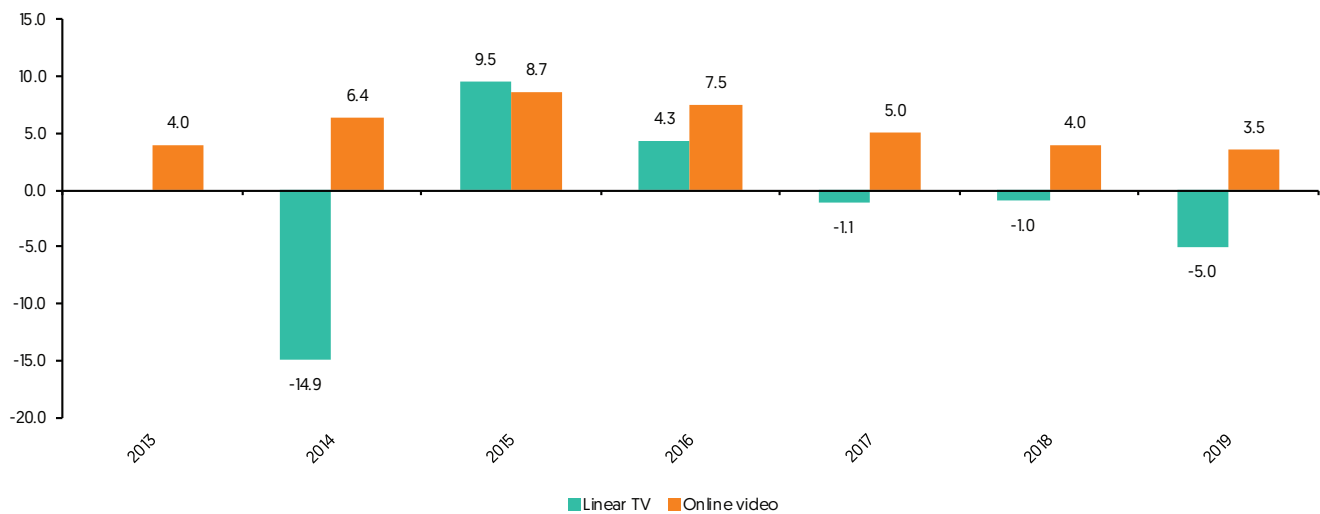
Mobile video is becoming ever more important, especially for young and male audiences. Mobile traffic is already very high for sport livestreams. As mobile viewing becomes more common, video producers will have to switch formats from landscape to portrait.

Advertising expenditure year-on-year growth (%)



Source: Zenith

Regular viewer numbers year-on-year growth (%)



Source: AGTT/GfK, Evogenius, Media-Analyse, Zenith

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	43.0	10.2	7.2	-	-
'13	59.6	15.5	10.6	0.3	-
'14	62.4	19.9	12.9	0.9	-
'15	44.8	17.0	10.7	1.1	-
'16	47.2	20.2	12.9	1.4	-
'17	57.1	25.4	15.3	2.1	-
'18	65.7	30.1	17.7	3.2	-
'19	73.6	32.6	19.0	4.7	-

Source: Video International, WebExpert, Zenith

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	8,163	8,140	8,101	8,048	7,967	7,888	7,810	7,731
Number of regular online video viewers (000s)*	-	-	3,300	3,465	3,640	3,822	3,975	4,134

Source: GEVS, BelStat, Gemius, WebExpert, Zenith
*Adults 15+

Demographics

	General population	Online video viewers
	2015	2015
Total (000s)	5,084	3,465
Gender (000s)		
Male	2,483	2,004
Female	2,602	1,461
Age (000s)		
under 16	34	5
16-24	1,126	969
25-34	1,423	1,115
35-44	1,112	687
45-54	717	456
55-64	558	218
65+	113	15

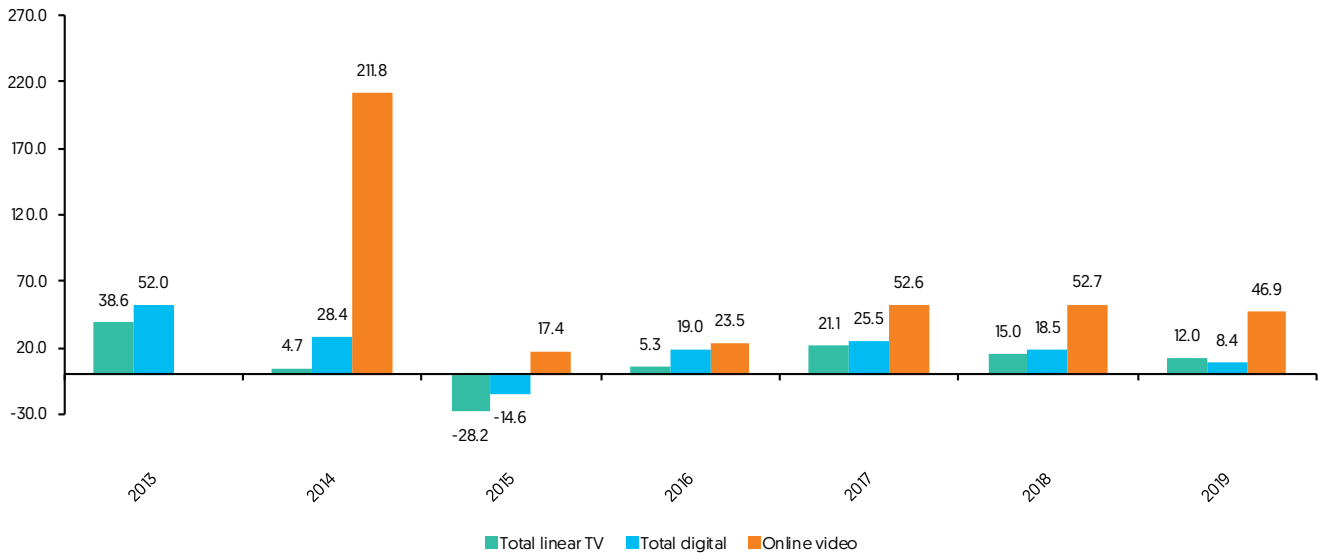
Source: Gemius Audience

The main online video platforms in Belarus are YouTube (by far the biggest), Megogo.net, video content on social networks (e.g. Vk.com, Facebook.com, and Odnoklassniki.ru) and Pladform (a video distribution system). A few large publishers – like tut.by and onliner.by – produce news video content.

The most common ad lengths are between 10-15 seconds (although the most effective seem to be in the 5-8 second range), and ads are generally shown before or after the content, not within it. Online video advertising is normally used only as a complement to the TV campaigns, with about 3% of the TV budget. Most online ads are simply reused television spots. Online video's share of advertising expenditure to grow over the next few years, and more advertisers to start producing dedicated creative for online video.

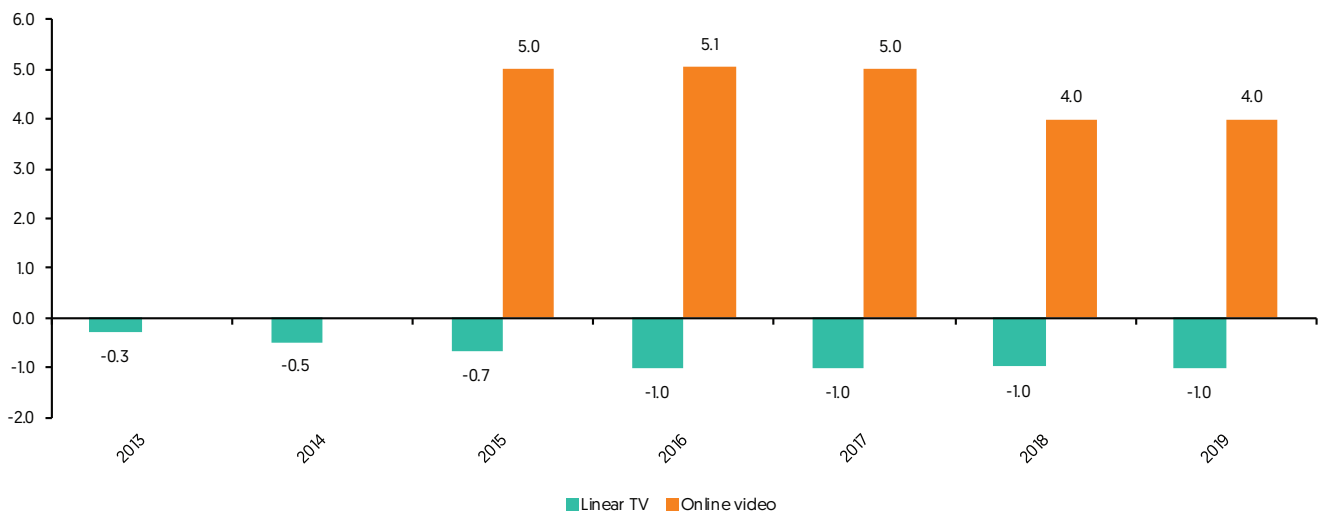
There is very little owned video content in Belarus; most brand videos are Russian.

Advertising expenditure year-on-year growth (%)



Source: Video International, WebExpert, Zenith

Regular viewer numbers year-on-year growth (%)



Source: GEVS, BelStat, Gemius, WebExpert, Zenith

Advertising expenditure (€ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	1,446.4	201.0	-	-	-
'13	1,459.7	223.6	-	-	-
'14	1,450.3	237.3	-	-	-
'15	1,577.5	215.0	-	-	-
'16	1,751.7	205.3	-	-	-
'17	1,677.0	461.2	412.7	41.5	6.9
'18	1,650.2	537.2	480.8	48.3	8.1
'19	1,656.9	569.8	510.0	51.3	8.5

Source: Nielsen, Zenith

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	1,075.9	222.4	-	-	-
'13	1,085.9	247.4	-	-	-
'14	1,078.9	262.6	-	-	-
'15	1,173.5	237.9	-	-	-
'16	1,303.1	227.2	-	-	-
'17	1,247.5	510.3	456.8	45.9	7.7
'18	1,227.5	594.4	532.0	53.5	8.9
'19	1,232.5	630.6	564.4	56.8	9.5

Source: Nielsen, Zenith

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	9,271	9,270	9,270	9,266	9,266	9,219	9,173	9,127
Number of regular online video viewers (000s)	-	4,163	4,454	4,582	4,582	4,518	4,541	4,564

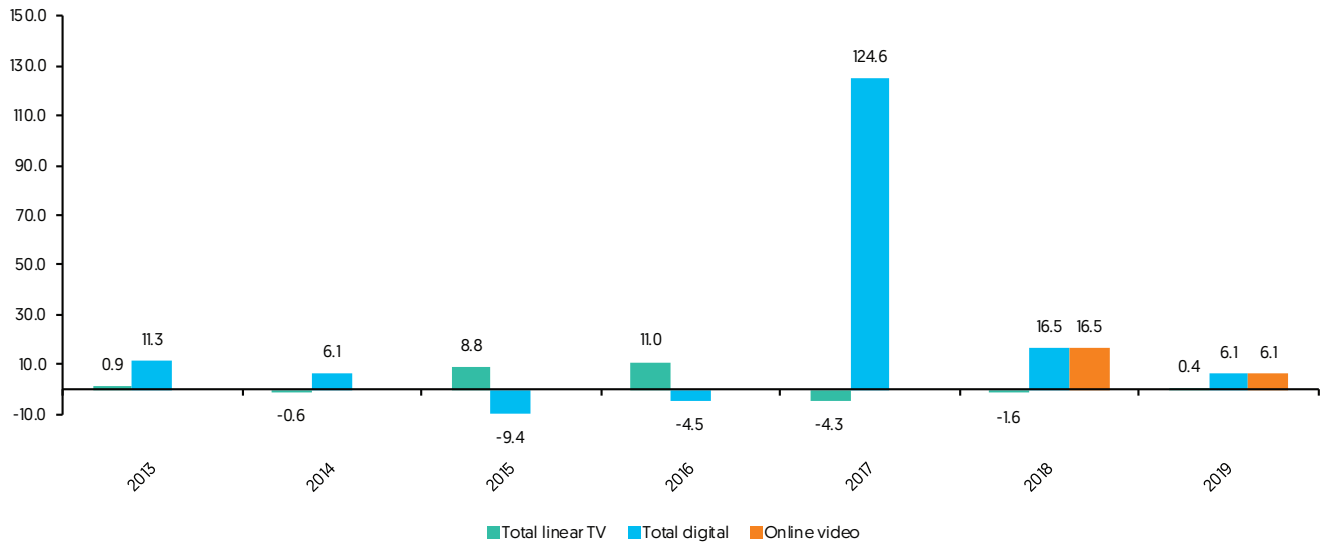
Source: CIM

Demographics (12+)

	General population	Online video viewers
	2016	2016
Total (000s)	9,457	3,246
Gender (000s)		
Male	4,609	1,940
Female	4,848	1,306
Age (000s)		
12-15	504	355
16-24	1,183	855
25-34	1,406	803
35-44	1,516	577
45-54	1,607	401
55-64	1,357	171
65+	1,883	83
Socioeconomic status (000s)		
SG 1-2	2,526	1,097
SG 3-4	2,188	858
SG 5-6	2,361	746
SG 7-8	2,310	510

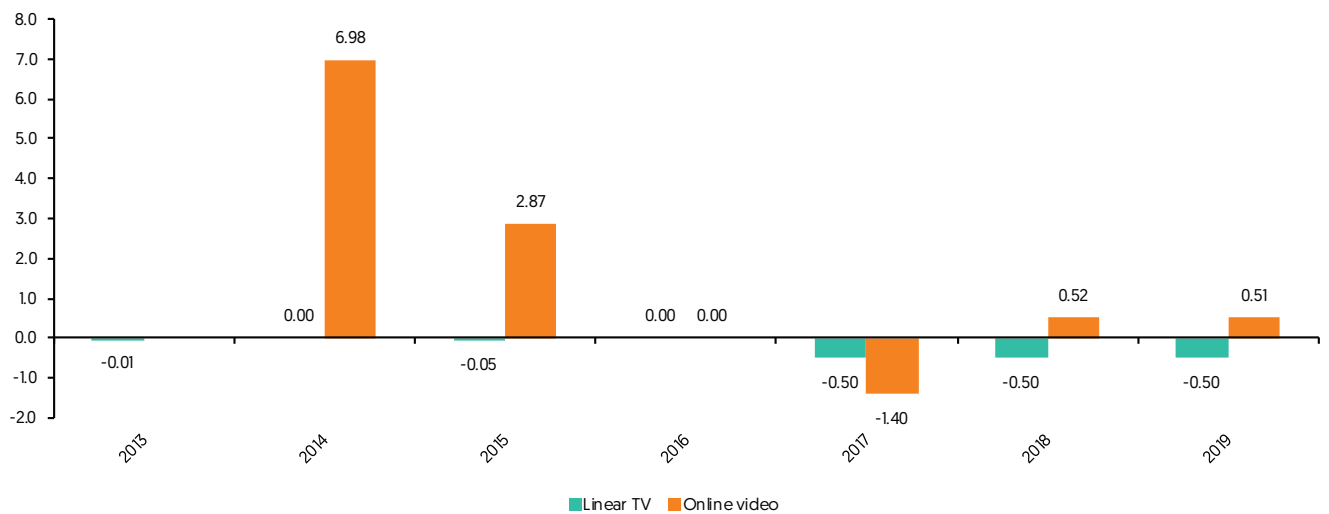
Source: CIM TGM

Advertising expenditure year-on-year growth (%)



Source: Nielsen, Zenith

Regular viewer numbers year-on-year growth (%)



Source: CIM

Bosnia & Herzegovina

Advertising expenditure (KM million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	736.7	4.0	4.0	-	-
'13	719.7	5.0	4.7	0.0	-
'14	750.0	7.5	7.1	0.0	0.0
'15	740.0	7.8	7.2	0.2	0.0
'16	603.5	8.0	6.5	0.9	0.3
'17	579.5	8.5	6.0	1.4	0.6
'18	615.0	8.8	5.5	1.8	0.8
'19	620.0	9.1	4.6	2.3	1.1

Source: Zenith

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	416.9	2.3	2.3	-	-
'13	407.3	2.8	2.7	0.0	-
'14	424.4	4.2	4.0	0.0	0.0
'15	418.7	4.4	4.1	0.1	0.0
'16	341.5	4.5	3.7	0.5	0.2
'17	327.9	4.8	3.4	0.8	0.3
'18	348.0	5.0	3.1	1.0	0.4
'19	350.8	5.1	2.6	1.3	0.6

Source: Zenith

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	-	-	-	3,303	3,350	3,350	3,300	3,200
Number of regular online video viewers (000s)	-	-	-	350	650	850	1,000	1,200

Source: Zenith

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video	-	-	-	-	30	35	40	45
Time spent watching online video on mobile devices	-	-	-	-	6	9	15	20
Time spent watching online video on desktop/non-mobile	-	-	-	-	24	26	25	25

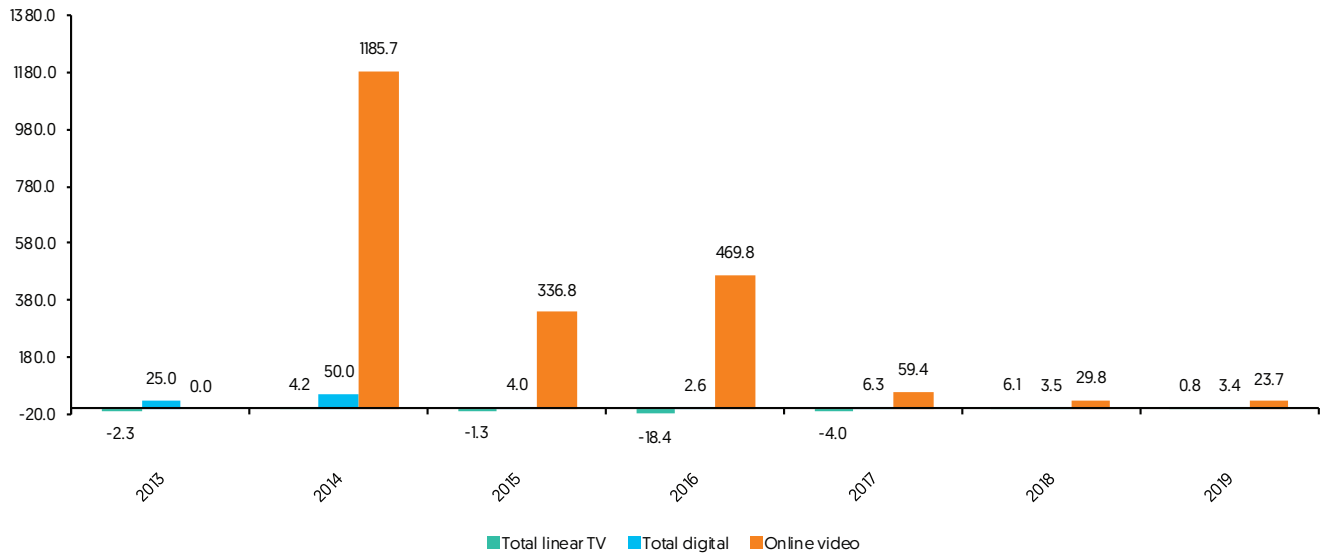
Source: Zenith

The most popular video platform is YouTube, followed by Facebook.

Video bloggers are popular, and there is a lot of scope for brands to create partnerships with them.

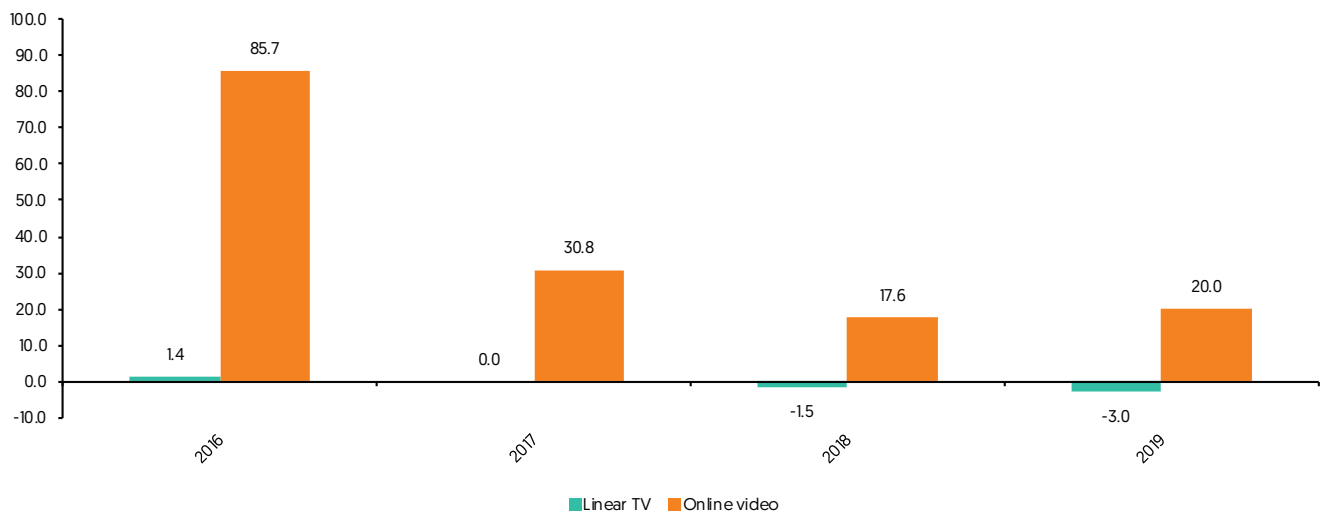
Pre-roll ads are the most common video format, and most take the form of reused television ads.

Advertising expenditure year-on-year growth (%)



Source: Zenith

Regular viewer numbers year-on-year growth (%)



Source: Zenith

Bulgaria

Advertising expenditure (Lev million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	801.4	48.3	-	-	-
'13	945.9	52.5	-	-	-
'14	995.7	62.3	-	-	-
'15	1,022.2	82.4	-	-	-
'16	1,210.6	101.9	-	-	-
'17	1,270.0	125.0	-	-	-
'18	1,350.0	140.0	-	-	-
'19	1,420.0	155.0	-	-	-

Source: BBSS Gallup, TNS, Zenith estimates

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	453.5	27.3	-	-	-
'13	535.3	29.7	-	-	-
'14	563.4	35.2	-	-	-
'15	578.4	46.7	-	-	-
'16	685.0	57.7	-	-	-
'17	718.6	70.7	-	-	-
'18	763.9	79.2	-	-	-
'19	803.5	87.7	-	-	-

Source: BBSS Gallup, TNS, Zenith estimates

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	-	-	-	-	-	-	-	-
Number of regular online video viewers (000s)	-	-	-	-	-	1,700	1,870	2,057

Source: Gemius, Consumer Barometer [daily]

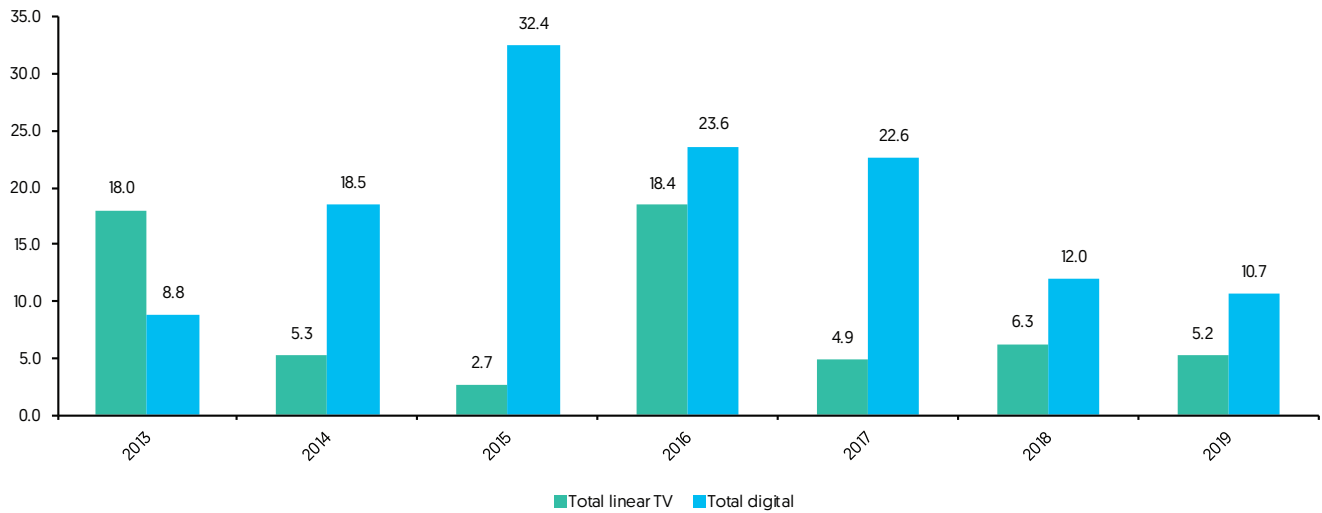
Short-form content is much preferred by users, as well as TV content uploaded on web platforms [the biggest TV channels in Bulgaria have their own online video platforms].

The most used video format in this market is pre-roll video. If an online campaign has number of views as a principal KPI, the model of video views buying [YT] is the most effective in terms of campaign performance. Online video campaigns are often used to support TV campaigns. Incremental reach is the main measure of the additional value of online video campaigns.

Programmatic buying accurately measures delivery and performance of campaigns, across all formats. Detailed reports help convince clients how important this focus on online video is.

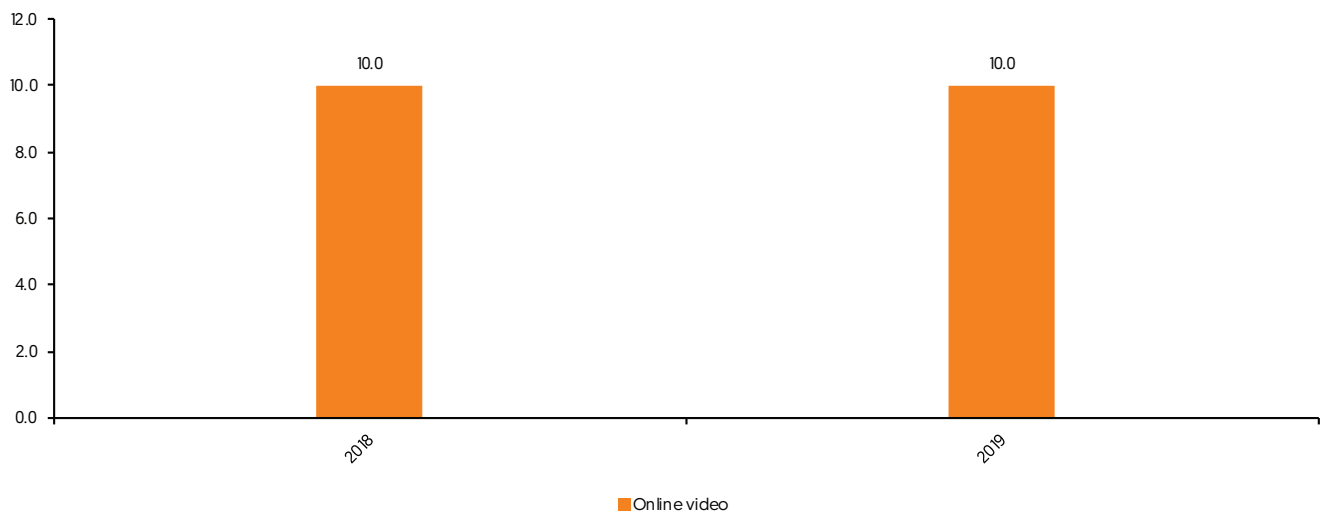
Mobile has not been planned yet as a separate channel. The trend is to optimize the inventory according to particular device traffic.

Advertising expenditure year-on-year growth (%)



Source: BBSS Gallup, TNS, Zenith estimates

Regular viewer numbers year-on-year growth (%)



Source: Gemius, Consumer Barometer (daily)

Canada

Advertising expenditure (C\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	3,468.6	3,073.0	974.0	92.0	-
'13	3,386.2	3,408.0	1,091.0	208.0	-
'14	3,370.6	3,782.0	1,274.0	266.0	40.0
'15	3,081.1	4,599.0	1,554.0	358.0	106.0
'16	2,987.1	5,118.3	1,655.0	427.8	169.0
'17	2,891.4	5,519.3	1,729.5	506.6	226.0
'18	2,838.3	5,936.9	1,803.0	587.7	293.0
'19	2,782.1	6,366.7	1,875.1	675.8	334.0

Source: Zenith, eMarketer

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	2,617.0	2,318.5	734.9	69.4	-
'13	2,554.8	2,571.3	823.1	156.9	-
'14	2,543.1	2,853.5	961.2	200.7	30.2
'15	2,324.6	3,469.9	1,172.5	270.1	80.0
'16	2,253.8	3,861.7	1,248.7	322.8	127.5
'17	2,181.6	4,164.3	1,304.9	382.2	170.5
'18	2,141.5	4,479.4	1,360.3	443.4	221.1
'19	2,099.1	4,803.6	1,414.7	509.9	252.0

Source: Zenith, eMarketer

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	32,979	33,306	33,952	33,782	33,613	33,445	33,400	33,400
Number of regular online video viewers (000s)	23,357	26,015	25,947	26,725	27,527	28,353	29,203	30,080

Source: Zenith estimates (monthly)

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video	52.0	61.0	65.0	70.0	75.0	80.0	88.0	98.3
Time spent watching online video on mobile devices	11.0	14.0	17.0	22.0	25.0	30.0	37.0	46.3
Time spent watching online video on desktop/non-mobile	41.0	47.0	48.0	48.0	50.0	50.0	51.0	52.0

Source: Zenith estimates

Demographics

	General population	Online video viewers
	2016	2016 [December]
Total (000s)	36,286	28,227
Gender (000s)		
Male	17,995	14,165
Female	18,290	14,063
Age (000s)		
under 12	6,664	2,988
12-17	2,185	2,616
18-24	3,139	3,155
25-34	4,731	4,315
35-44	4,501	4,166
45-54	4,806	4,710
55-64	4,643	3,614
65+	5,616	2,664
Socioeconomic status		
Household Income C\$75,000+	16,692	15,265
Household Income <C\$75,000	19,594	12,962

Source: Statistics Canada, comScore Video Metrix, December 2016

Canadians have a strong preference for digital video, and they rank among the global leaders in online video usage – about 81% of Canadians watch an online video in any given month.

The online video audience skews slightly older, 58% of viewers being age 35+.

YouTube is the overwhelming source of online video for Canadians, with over 26 million unique viewers on a monthly basis, while Netflix dominates the video streaming market, with 44% of Canadians 18+ now subscribing. Local

alternatives have tried and failed to compete against Netflix (e.g. Shomi).

On average, Canadians spend about 4.1 minutes watching a video. That number is now higher on YouTube, with people spending about 4.7 minutes per video, and lower on Facebook (1.7 minutes). According to eMarketer, Canadians spend 37.5 hours a month watching videos online.

According to Videology, desktop continues to be the most used method of video ad delivery and was included in the vast majority of campaigns. Mobile continues to prove its value and was used in 57% of campaigns in Q2 2016, which is an 11% decrease from the previous quarter. Automotive had the top digital presence in Q2 2016 with 29%, followed by CPG (20%) restaurants (14%) and alcohol (6%) and pharma (6%) to round out the top five.

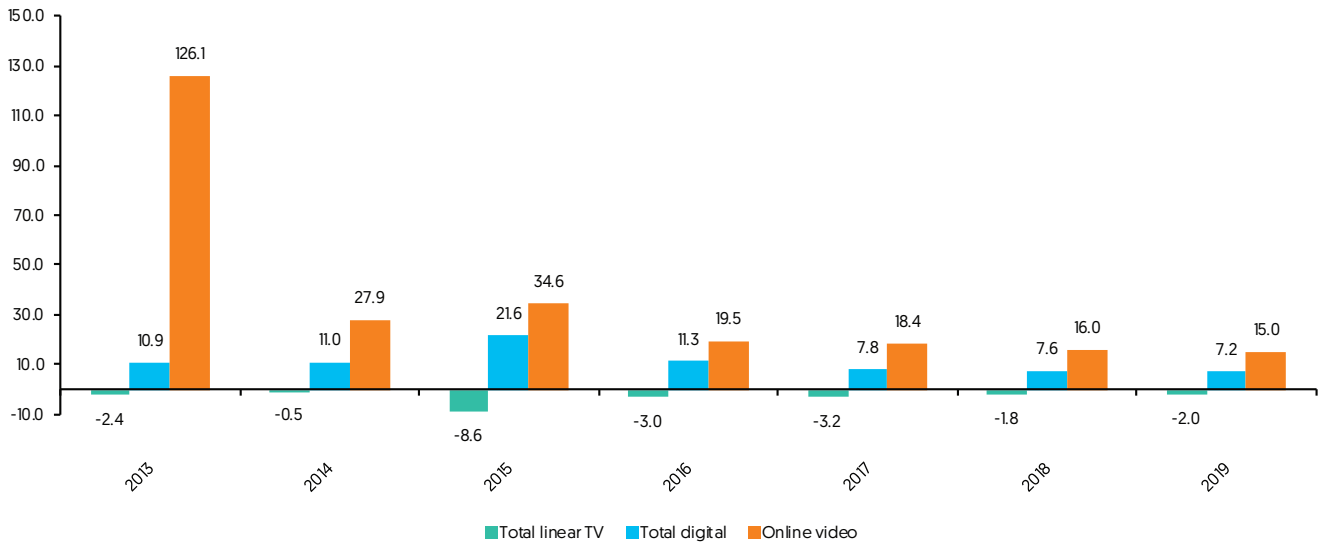
AOL's annual 'State of Industry Video' report revealed that 43% of Canadians watch online video every day on their smartphone, while 70% watch online video (on some kind of device) on a daily basis.

Video ads served by doubleclick in Canada had a completion rate of 70.6%, in part driven by non-skippable ad units as well as non-viewable placements.

According to Millward Brown's 2016 AdReaction study, consumer viewing is shifting rapidly to mobile devices. However, consumers are still most receptive to ads on live television (27%) and least receptive to ads served on smartphones (14%).

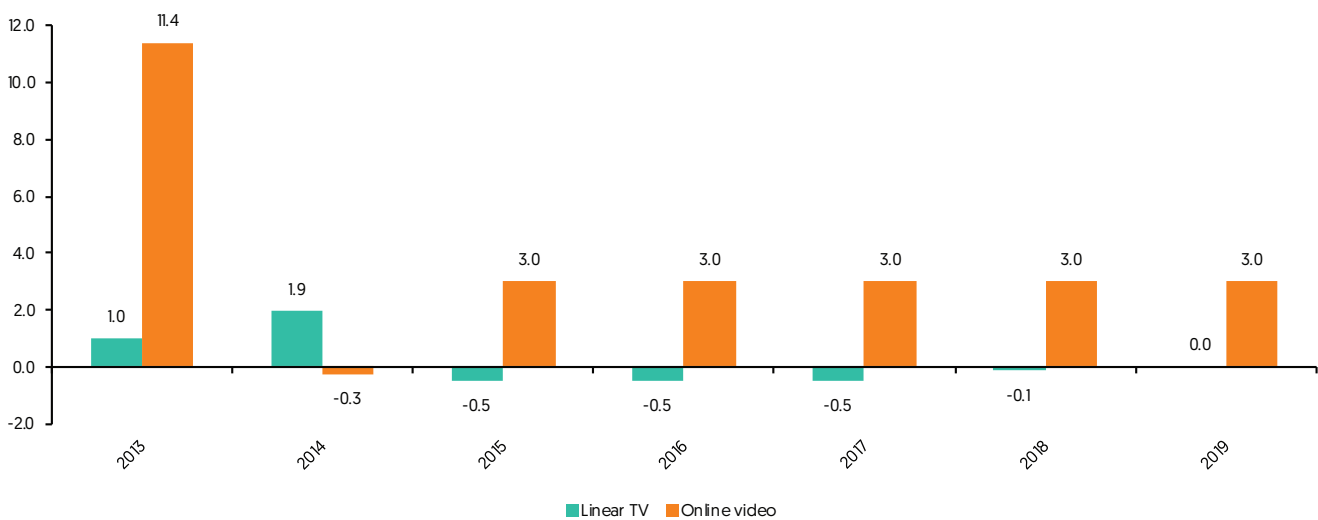
The Canadian digital landscape continues to be very competitive as platforms and publishers fight for share. Consumers are growing ever more critical of video offerings and will change their viewing habits in pursuit of the content they seek.

Advertising expenditure year-on-year growth (%)



Source: Zenith, eMarketer

Regular viewer numbers year-on-year growth (%)



Source: Zenith estimates (monthly)

Advertising expenditure (Pesos million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	333,275	52,469	-	-	-
'13	338,416	65,332	-	-	-
'14	324,523	81,487	-	-	-
'15	339,776	105,376	-	-	-
'16	343,000	125,000	-	-	-
'17	348,000	148,000	-	-	-
'18	353,000	178,000	-	-	-
'19	357,000	215,000	-	-	-

Source: Achap, Zenith

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	492.3	77.5	-	-	-
'13	499.9	96.5	-	-	-
'14	479.4	120.4	-	-	-
'15	501.9	155.7	-	-	-
'16	506.7	184.7	-	-	-
'17	514.1	218.6	-	-	-
'18	521.5	262.9	-	-	-
'19	527.4	317.6	-	-	-

Source: Achap, Zenith

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)*	4,333	4,357	4,438	4,438	4,487	4,505	4,550	-
Number of regular online video viewers (000s)**	1,352	1,294	1,849	2,310	2,456	2,603	2,752	-

Source: TGI Chile 2016 Wave I + II v.01.13.2017 [*last 7 days/**last 30 days]
 Note: Whole population extrapolated from Santiago-only data

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video	-	-	16.8	16.8	20.2	26.7	31.7	-
Time spent watching online video on mobile devices	-	-	-	-	-	-	-	-
Time spent watching online video on desktop/non-mobile	-	-	-	-	-	-	-	-

Source: ComScore - Video Metrix Demographic Profile [minutes per viewer]

Demographics

	General population	Online video viewers
	2016	2016
Total (000s)	18,006	9,631
Gender (000s)		
Male	8,912	4,810
Female	9,094	4,821
Age (000s)		
12-19 years	2,060	2,068
20-24 years	1,461	1,466
25-34 years	2,857	2,463
35-44 years	2,489	1,476
45-54 years	2,479	1,265
55-64 years	1,873	651
65-75 years	1,208	242
Socioeconomic status		
ABC1	2,092	1,441
C2	3,808	2,343
C3	5,085	3,120
D	7,021	2,727

Source: TGI Chile 2016 Wave I + II v.01.13.2017
Total population estimates using official data from INE and extrapolated from Santiago data

YouTube and Facebook dominate the market in Chile as in many other markets, both having achieved penetration of over 80%. There are other sites which give some additional reach, like news portals and sites of broadcast TV channels.

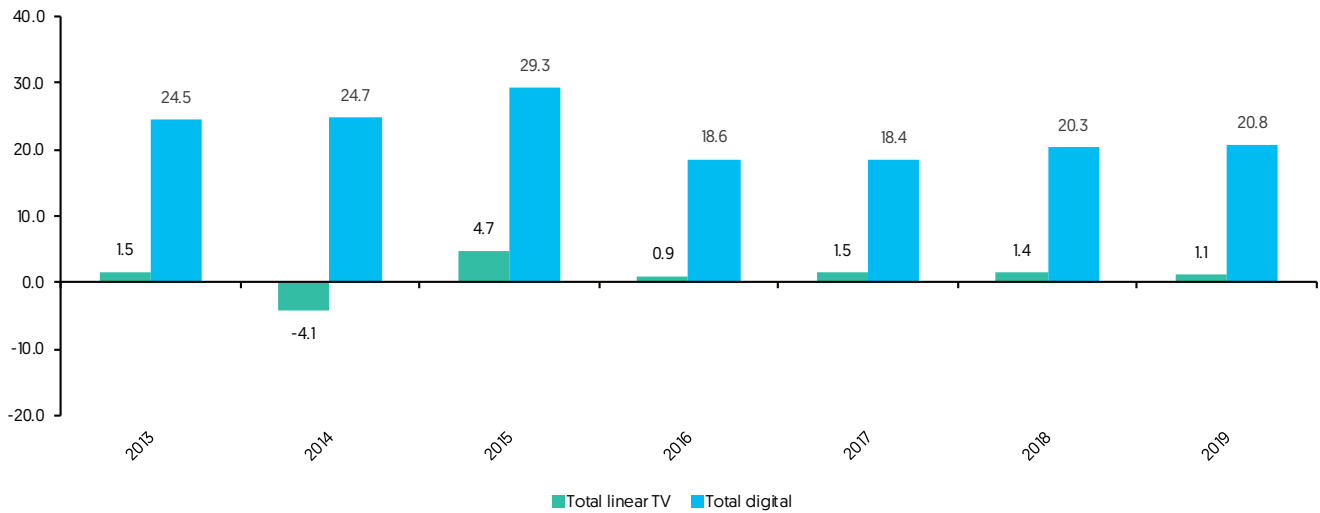
The most important ad format in Chile is pre-roll. Nevertheless, due to high demand for this kind of format, many platforms use other types of ads as well such as mid-roll, post-roll and native content inside the sites.

Some sites force users to watch the complete ad without allowing skipping. However, the results do not tend to be good, particularly for ads of 30-second duration. Much shorter-length ads are proving to result in better brand message retention on the part of the consumer, who is more willing to watch them.

Currently, there are very few brands with big digital budgets that dare to create exclusive digital content; most content is international, adapted for the local market.

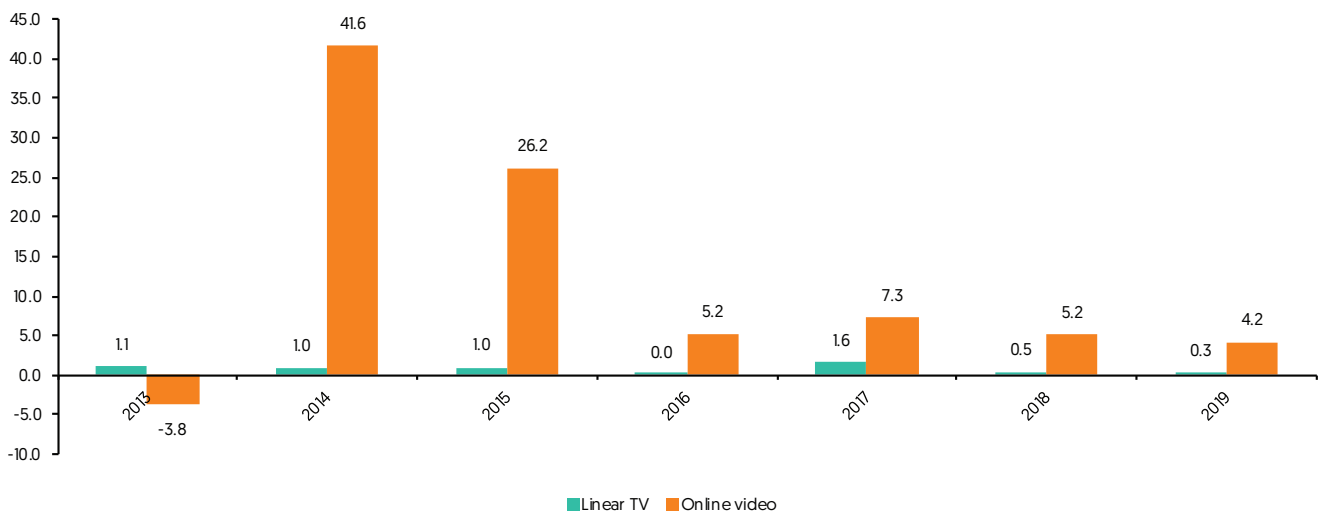
According to SUBTEL, 3G and 4G connections now stand at around 12.4 million, up 22.4% year-on-year. Mobile advertising is therefore increasing in importance very quickly, with some categories seeing around 75% of total advertising volume happen via mobile.

Advertising expenditure year-on-year growth (%)



Source: Achap, Zenith

Regular viewer numbers year-on-year growth (%)



Source: TGI Chile 2016 Wave I + II v.01.13.2017, Santiago only (*last 7 days/**last 30 days)

China

Advertising expenditure (RMB million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	143,928	75,291	26,126	4,819	-
'13	149,973	110,000	31,460	7,810	-
'14	145,174	154,000	38,346	12,320	-
'15	137,189	209,440	46,077	17,174	-
'16	130,330	263,894	44,862	21,903	-
'17	123,813	306,118	47,448	25,102	-
'18	118,861	342,852	49,371	26,400	-
'19	116,483	377,137	50,536	27,154	-

Source: Publicis Media

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	21,661	11,331	3,932	725	-
'13	22,571	16,555	4,735	1,175	-
'14	21,849	23,177	5,771	1,854	-
'15	20,647	31,521	6,935	2,585	-
'16	19,615	39,716	6,752	3,296	-
'17	18,634	46,071	7,141	3,778	-
'18	17,889	51,599	7,430	3,973	-
'19	17,531	56,759	7,606	4,087	-

Source: Publicis Media

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	303,009	305,242	306,199	305,242	306,199	305,561	304,604	303,647
Number of regular online video viewers (000s)	-	161,392	176,064	196,796	222,632	236,028	248,786	255,166

Source: CMMS, Sixth Population Census

Monthly viewers, 16-64 year-old urban population (24% of total population)

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video	-	38.6	44.7	51.5	56.5	61.7	66.5	69.6
Time spent watching online video on mobile devices	-	-	-	-	-	-	-	-
Time spent watching online video on desktop/non-mobile	-	-	-	-	-	-	-	-

Source: CMMS, Sixth Population Census

Demographics

	General population	Online video viewers
	2010	2016
Total (000s)	318,957	222,632
Gender (000s)		
Male	162,865	115,323
Female	156,092	107,309
Age (000s)		
16-24	73,495	66,122
25-34	73,527	68,348
35-44	77,552	54,322
45-54	56,666	23,599
55-64	37,717	8,237
Socioeconomic status (000s)		
SES L1 - top 10% purchasing power	31,896	30,723
SES L2 - 20% purchasing power	63,791	61,669
SES L3 - 30% purchasing power	95,687	74,804
SES L4 - bottom 40% purchasing power	127,583	55,213

Source: CMMS, Sixth Population Census
16-64 year-old urban population [24% of total population]

The main video platforms in China are Youku, Tencent, iQiyi, Letv and Sohu.

Online video users are slightly more likely to be male than female: 52% are male and 48% are female, but this is in line with the general population. However, online video has more users under the age of 34 compared to the general population. iResearch data has shown that there are more desktop users under the age of 24 (around 38%) compared to the number of mobile users (around 25%). Mobile has more 25-35 year-old users with high consumption rates, though.

Mobile is the primary platform for viewing videos, accounting for about 70% of views compared to desktop's 30%. But it is worth noting that growth of mobile video viewing was flat in 2016.

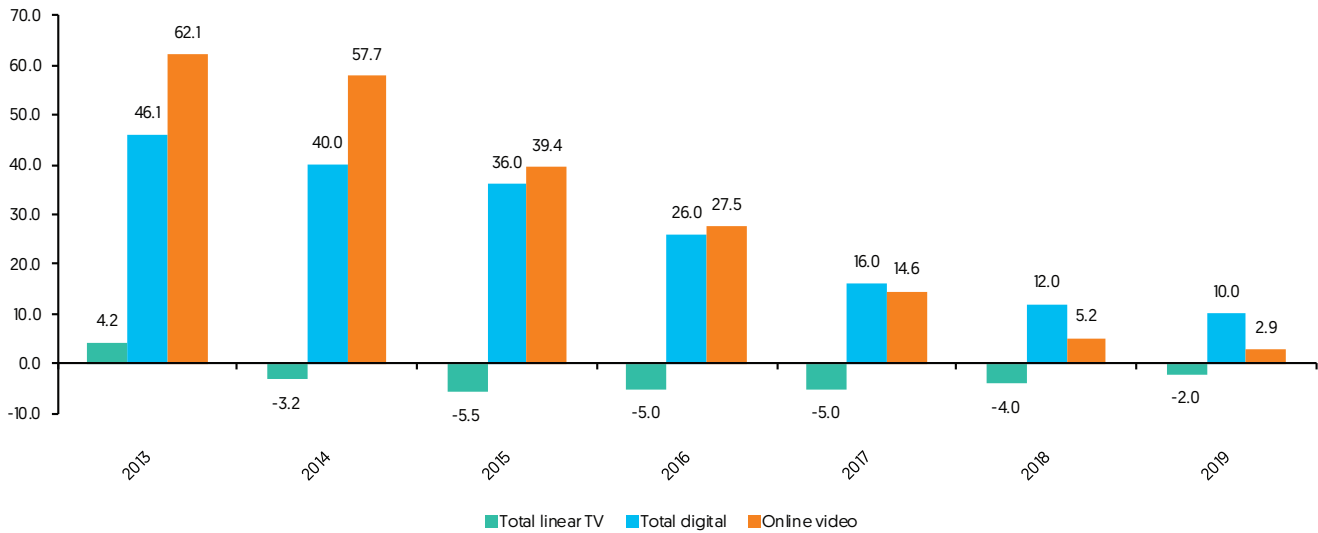
Viewers are most likely to watch drama and variety shows that were originally broadcast on TV, as well as programmes that have been developed by video platforms themselves. 2016 was a milestone year for self-produced online video programmes; according to Chinese industry development research, the number of self-produced programmes increased by 61% year on year. Because of too many similar programmes (content/type), SARFT issued regulation in 2017 that all copyright programmes should be censored, so something different may appear in the second half of 2017.

More and more users are willing to pay for VIP access because of the special benefits, such as advanced viewing of drama series and films, tailor made programmes, and the ability to skip pre-roll ads. How to reach these VIPs has become an important question for both advertisers and media owners. Some creative advertising formats have attempted to do this with ads that show the brand logo, along with creative copy that fits with the programme type/content. As well as brand awareness, product benefits can also be delivered to VIPs, such as through tailor-made advertising shot by the programme's producer, and with the same characters and storyline, showing the brand/product in a scene.

Traditional TV adspend declined by 5% in 2016, while total advertising spend grew 9%. Online video, on the other hand, outperformed the market, with 28% growth. No top spending brands used online video to replace TV, but many clients did shift part of their TV spend.

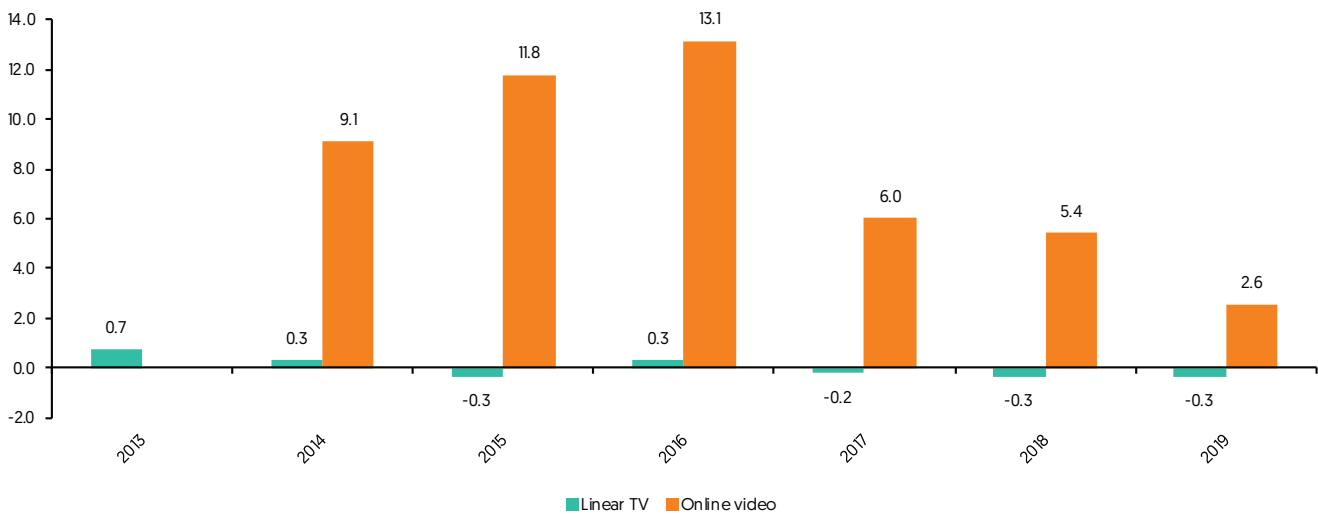
Product placement and programme sponsorship are the two key types of advertising embedded within the content. And some brands also cooperate with online video platforms to produce their own micro films. In future, we think the mainstream format will still be pre-roll.

Advertising expenditure year-on-year growth (%)



Source: Publicis Media

Regular viewer numbers year-on-year growth (%)



Source: CMMS, Sixth Population Census
Monthly viewers, 16-64 year-old urban population (24% of total population)

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	1,100.4	81.1	64.2	36.7	27.5
'13	1,116.5	115.3	90.6	51.8	38.8
'14	1,007.6	127.6	98.8	56.4	42.3
'15	943.9	101.6	82.9	47.4	35.5
'16	987.9	113.4	88.2	50.4	37.8
'17	996.0	122.8	93.9	53.7	40.2
'18	1,000.2	130.8	98.0	56.0	42.0
'19	1,010.2	149.1	109.1	62.3	46.8

Source: Zenith, IAB

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)*	10,893	11,253	11,460	11,840	11,440	12,480	12,120	11,830
Number of regular online video viewers (000s)**	4,223	4,815	5,308	5,479	5,875	6,319	6,769	6,769

Source: TGI Colombia w1+w2 2016 [*weekly/**monthly]. Includes TGI survey population only

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video	8.2	11.2	13.4	20.5	24.1	26.9	32.6	32.6
Time spent watching online video on mobile devices	-	1.0	2.2	6.8	9.6	11.5	16.3	16.3
Time spent watching online video on desktop/non-mobile	8.2	10.2	12.3	13.6	14.5	15.4	16.3	16.3

Source: Zenith

Demographics

	General population	Online video viewers
	2016	2016
Total (000s)	12,037	743
Gender (000s)		
Male	5,761	411
Female	6,277	332
Age (000s)		
under 16	805	58
16-24	2,361	239
25-34	2,472	203
35-44	2,129	137
45-54	2,018	83
55-64	1,415	20
65+	839	3
Socioeconomic status		
ABCI (NSE 4-5-6)	3,034	209
C2DE (NSE 2-3)	9,003	534

Source: TGI Colombia w1+w2 2016. Includes TGI survey population only

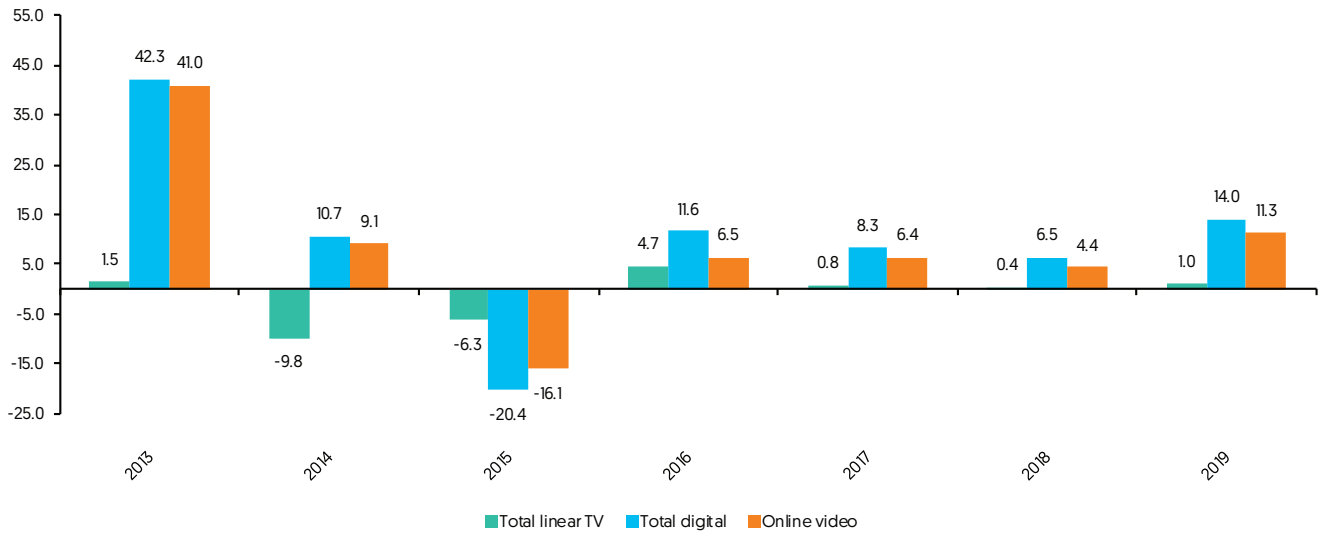
New mobile technology has increased the consumption of video content over the internet. It is the second most common activity performed by smartphone users after social media [39% of users/65% of users].

Pre-rolls are the main format used, with VTR of between 20% and 25%.

YouTube dominates online video consumption in Colombia, with Facebook in second place. Local TV channels' online platforms are also growing fast in popularity.

Expenditure on online video advertising grew 6.5% in 2016. It therefore performed better than television advertising, which grew 4.7%, and advertising as a whole, which was flat, seeing growth of just 0.1%.

Advertising expenditure year-on-year growth (%)



Source: Zenith

Regular viewer numbers year-on-year growth (%)



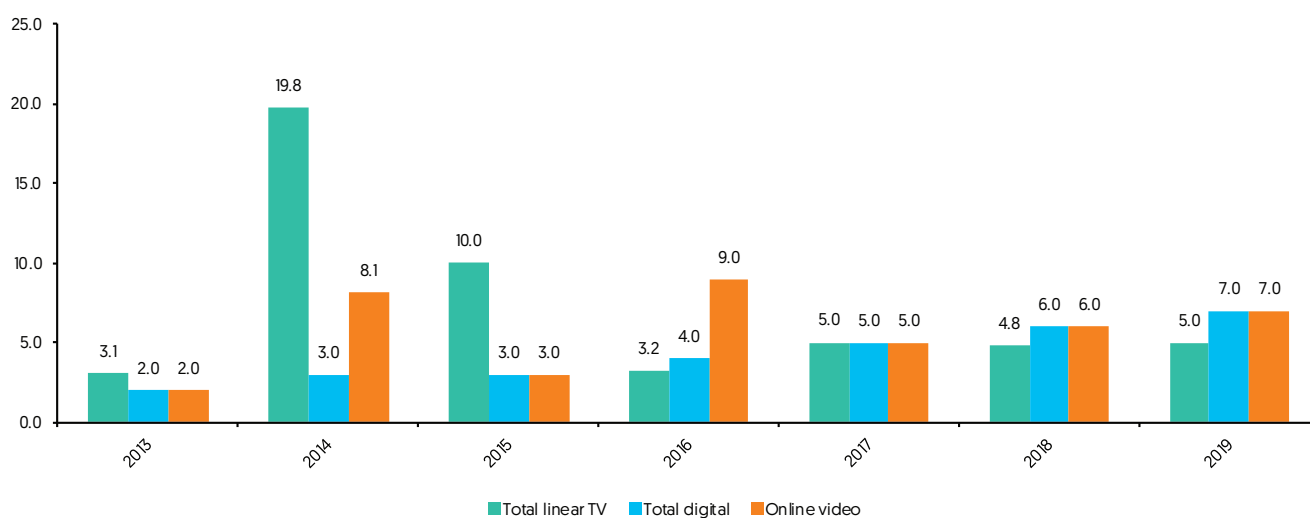
Source: TGI Colombia w1+w2 2016 (*weekly/**monthly)

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	113.4	1.8	0.5	0.4	0.1
'13	116.9	1.8	0.6	0.4	0.1
'14	140.0	1.9	0.6	0.4	0.2
'15	154.0	1.9	0.6	0.4	0.2
'16	159.0	2.0	0.7	0.4	0.2
'17	167.0	2.1	0.7	0.5	0.3
'18	175.0	2.3	0.7	0.5	0.4
'19	183.8	2.4	0.8	0.5	0.5

Source: Mediaguru, Zenith

Advertising expenditure year-on-year growth (%)



Source: Mediaguru, Zenith

Czech Republic

Advertising expenditure (CZK million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	8,390	5,352	2,845	390	-
'13	7,600	6,072	3,133	580	-
'14	8,010	6,550	3,320	750	-
'15	8,490	7,000	3,485	875	-
'16	9,100	7,690	3,640	1,020	-
'17	9,590	8,350	3,840	1,180	-
'18	9,960	8,950	4,070	1,300	-
'19	10,350	9,500	4,250	1,420	-

Source: Zenith

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	343.3	219.0	116.4	16.0	-
'13	311.0	248.5	128.2	23.7	-
'14	327.8	268.0	135.9	30.7	-
'15	347.4	286.4	142.6	35.8	-
'16	372.4	314.7	149.0	41.7	-
'17	392.4	341.7	157.1	48.3	-
'18	407.6	366.2	166.6	53.2	-
'19	423.5	388.8	173.9	58.1	-

Source: Zenith

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	8,495	8,428	8,410	8,139	8,404	8,322	8,252	8,205
Number of regular online video viewers (000s)	-	-	2,290	2,831	3,336	4,033	4,857	5,788

Source: MML-TGI
Weekly

Demographics

	General population	Online video viewers
	2016	2016
Total (000s)	8,795	3,336
Gender (000s)		
Male	4,360	1,847
Female	4,434	1,489
Age (000s)		
under 16	223	150
16-24	1,109	727
25-34	1,488	800
35-44	1,870	801
45-54	1,211	375
55-64	1,451	320
65+	1,444	163
Socioeconomic status (000s)		
AB	1,909	864
CDE	6,886	2,472

Source: MML-TGI

The main online video platforms in the Czech Republic are YouTube, Stream, Facebook, iprima.cz, nova.cz, ceskatelevize.cz and playtvak.cz.

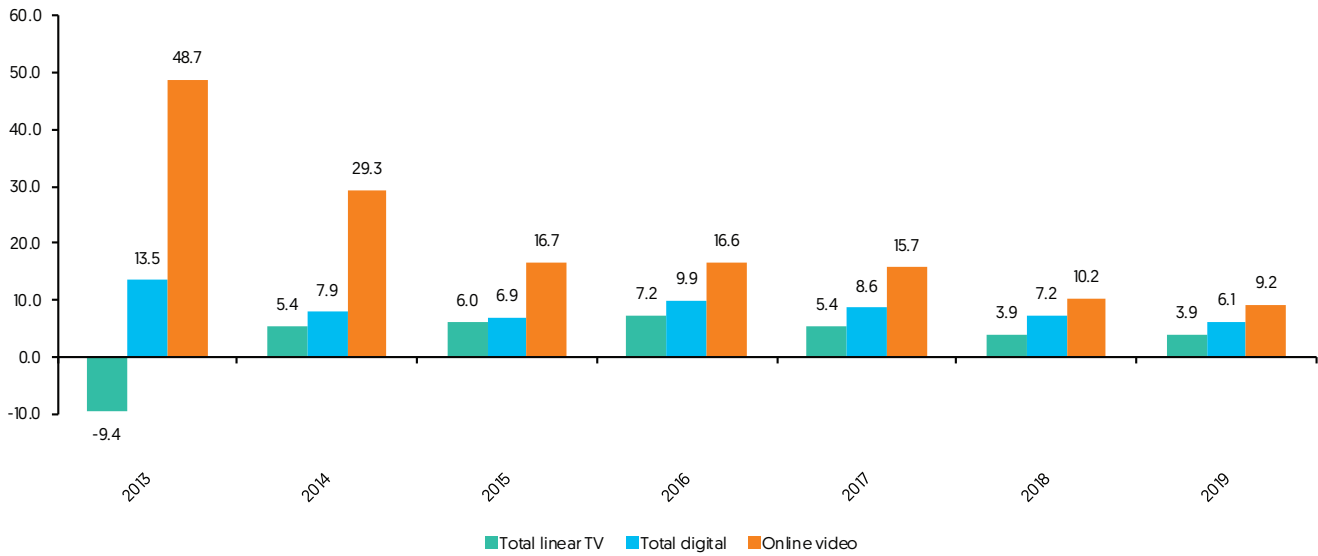
Demographics differ according to the platform being used - for example YouTube and Stream users tend to skew more male, whereas iprima.cz and nova.cz are more popular with women. Online video use is highest among users aged 25-44; use declines with age.

The amount of video content on YouTube is steadily increasing, and the number of users and the time spent consuming video content are also rising year on year. As the younger audience moves online, we see video as a necessary addition to television campaigns in the future. We also target users on desktop plus mobile, because users are moving to mobile.

YouTube's reach is still stronger on desktop, but mobile is very popular with the younger audience; year on year, the proportion of YouTube users on mobile devices has increased.

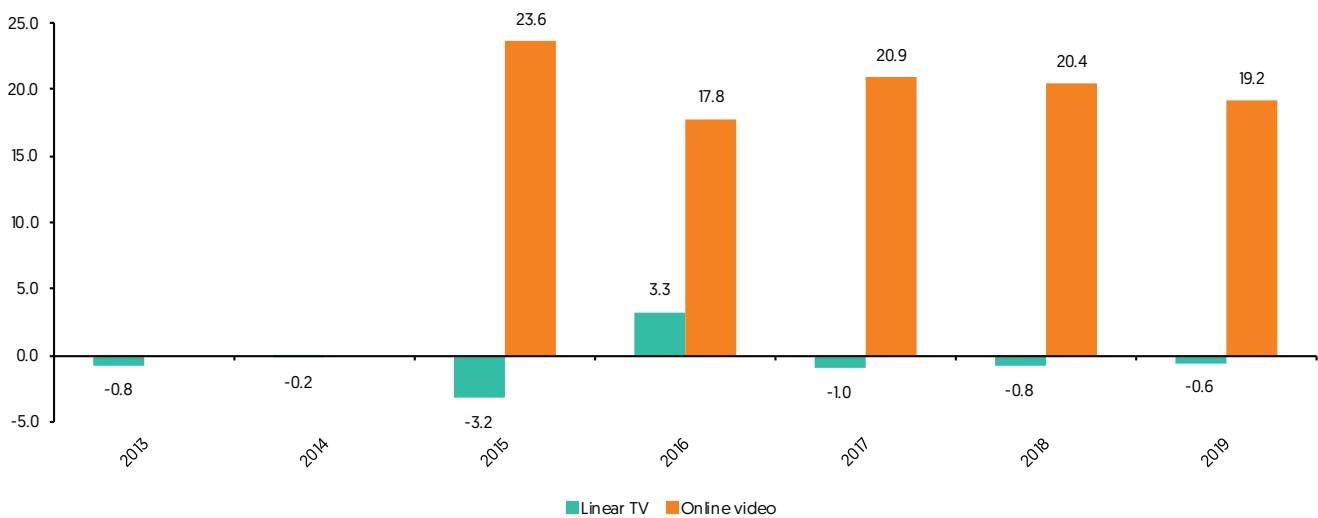
We mostly use in-stream formats for brand awareness, and bumper ads for retargeting or to launch large campaigns. We also use pre-rolls on Czech video sites with behavioural or affinity targeting.

Advertising expenditure year-on-year growth (%)



Source: Zenith

Regular viewer numbers year-on-year growth (%)



Source: MML-TGI
Weekly

Advertising expenditure (DKr million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	2,350.0	4,543.0	1,447.0	39.0	-
'13	2,251.0	4,924.0	1,566.0	63.0	-
'14	2,170.0	5,458.0	1,794.0	102.0	-
'15	2,203.0	6,138.0	2,001.0	180.0	-
'16	2,184.0	6,719.0	2,202.0	300.0	-
'17	2,184.0	7,056.3	2,268.1	450.0	-
'18	2,140.3	7,409.1	2,381.5	575.0	-
'19	2,118.9	7,725.6	2,429.1	700.0	-

Source: Danske Medier, TNS

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	349.1	674.9	215.0	5.8	-
'13	334.4	731.5	232.6	9.4	-
'14	322.4	810.8	266.5	15.2	-
'15	327.3	911.8	297.2	26.7	-
'16	324.4	998.1	327.1	44.6	-
'17	324.4	1,048.2	336.9	66.8	-
'18	317.9	1,100.6	353.8	85.4	-
'19	314.8	1,147.6	360.8	104.0	-

Source: Danske Medier, TNS

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers* (000s)	736	683	660	642	578	577	565	537
Number of regular online video viewers** (000s)	-	-	-	-	3,459	3,600	3,750	3,825

Source: Zenith
* Daily ** Monthly

Demographics

	General population	Online video viewers *
	2016	2016
Total (000s)	4,984	3,459
Gender (000s)		
Male	2,467	1,882
Female	2,517	1,577
Age (000s)		
under 16	269	232
16-24	675	678
25-34	701	633
35-44	735	643
45-54	813	578
55-64	700	370
65+	1,091	329
Socioeconomic status (000s)		
High	937	764
Medium	2,174	1,456
Low	1,238	861
Not allocated	635	377

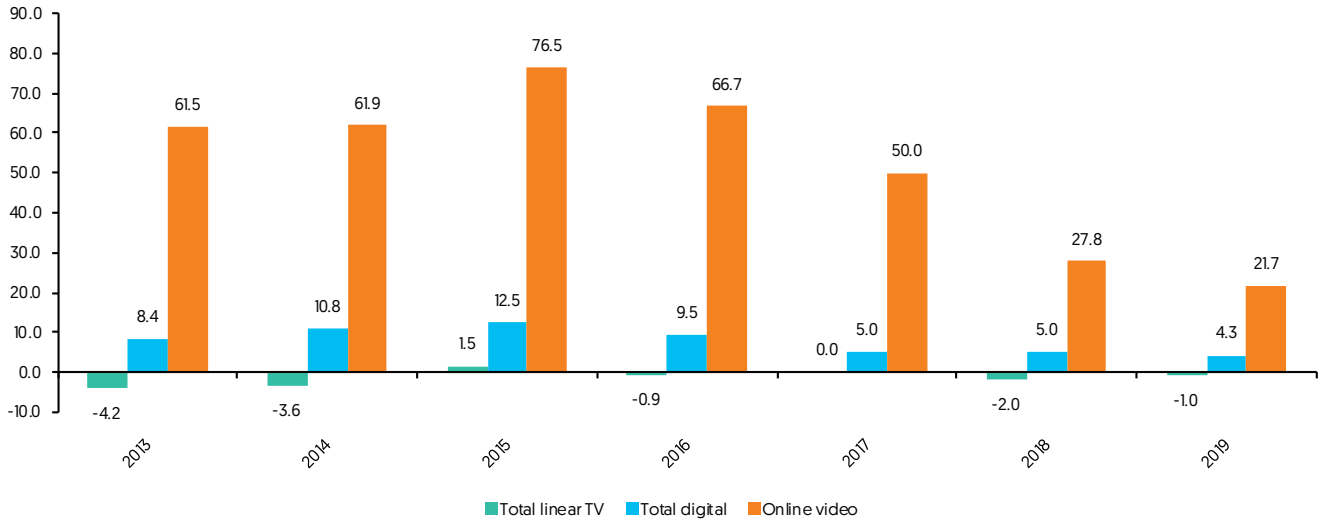
Source: Danmarks Statistik, Index Danmark/Gallup
 * Age 12+

The main platforms for online video in Denmark are YouTube, Facebook, and platforms operated by broadcast networks MTG and Discovery. Around 70% of users are 16-55 years old.

On the broadcast network platforms, video ads have a limit of 30 seconds. Overall, the most common spot length is between 20 and 30 seconds. Video formats are roughly divided into two different formats: in-stream and in-read. The in-stream format is often non-skippable, leading to high completion rates. The in-read format is a video embedded in the content, and only plays when in-screen.

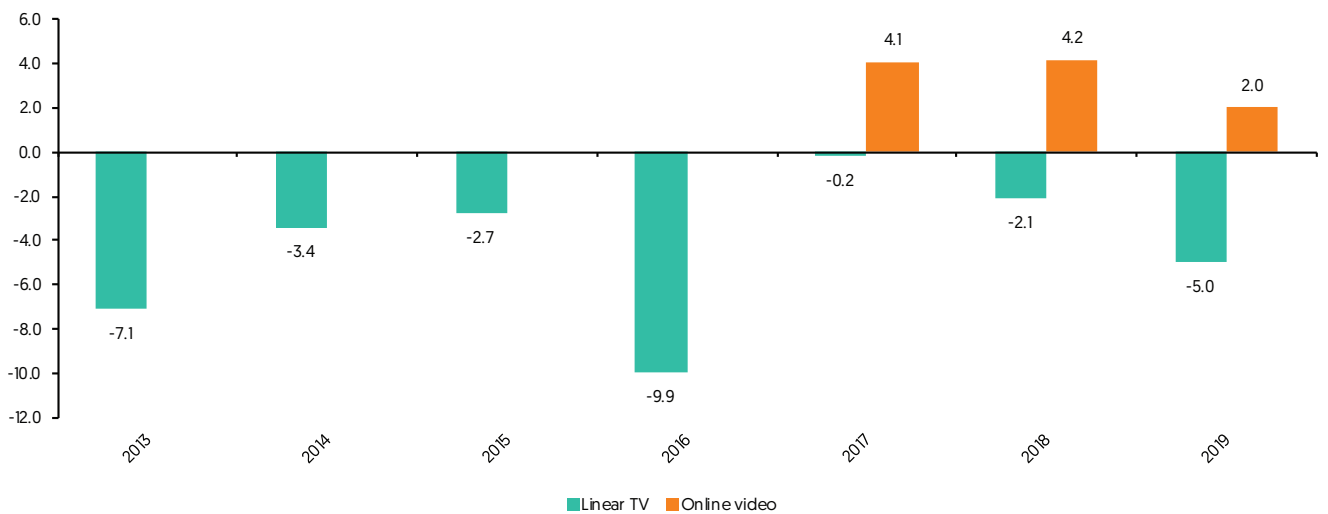
The use of online video is expected to grow year on year, however we expect that the growth rate will not be as high as last year, as online video is already widely spread. Growth will probably be greater for mobile than desktop, as we see that more and more people are watching movies, series and other video content on their smartphones, and Apple TV and Chromecast are often used to enlarge content on a TV screen.

Advertising expenditure year-on-year growth (%)



Source: Danske Medier, TNS

Regular viewer numbers year-on-year growth (%)



Source: Zenith
* Daily ** Monthly

Ecuador

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	250.3	5.6	1.8	-	-
'13	268.5	7.4	5.5	-	-
'14	269.1	20.0	14.0	-	-
'15	238.3	20.1	14.3	-	-
'16	177.7	28.4	21.3	-	-
'17	165.0	31.5	23.6	-	-
'18	158.4	35.3	26.5	-	-
'19	154.4	40.6	30.5	-	-

Source: Infomedia Ecuador, Zenith

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	-	-	-	5,059	5,046	5,110	5,058	5,008
Number of regular online video viewers (000s)	-	-	-	3,531	3,648	3,952	4,347	4,781

Source: TGI Ecuador

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video	-	-	-	8.9	10.4	13.5	17.1	20.7
Time spent watching online video on mobile devices	-	-	-	4.6	5.8	8.1	10.9	14.1
Time spent watching online video on desktop/non-mobile	-	-	-	4.4	4.7	5.4	6.3	6.7

Source: TGI Ecuador

Demographics

	General population	Online video viewers
	2016	2016
Total (000s)	5,160	3,648
Gender (000s)		
Male	2,494	1,834
Female	2,666	1,815
Age (000s)		
under 16	474	411
16-24	1,204	1,099
25-34	1,146	951
35-44	916	619
45-54	706	354
55-64	455	162
65+	259	52
Socioeconomic status		
A (High Level)	502	455
B (Medium Level)	2,251	1,771
C (Low Level)	2,407	1,423

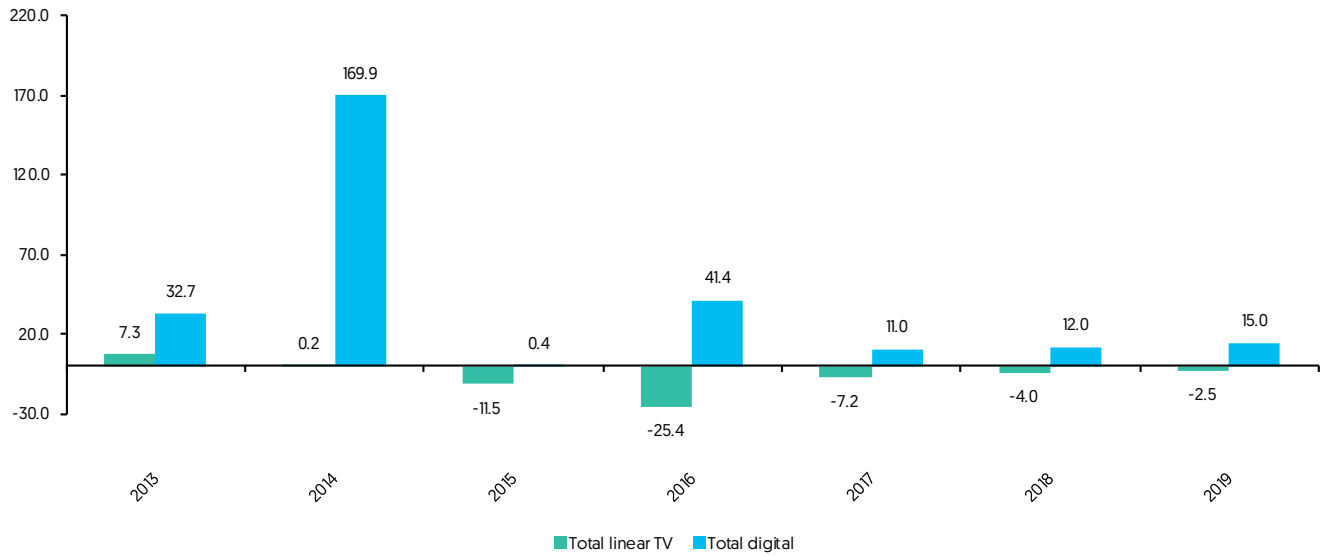
Source: TGI Ecuador

YouTube is the main online video platform in Ecuador, followed by Facebook, then Instagram; Netflix is used by only 4% of the population but enjoyed growth of 19% year-on-year in 2016.

Those between 16 and 24 years of age are the ones with the highest affinity for online video, especially males and the better off. The most popular formats are music videos, genuine content from vloggers and tutorials.

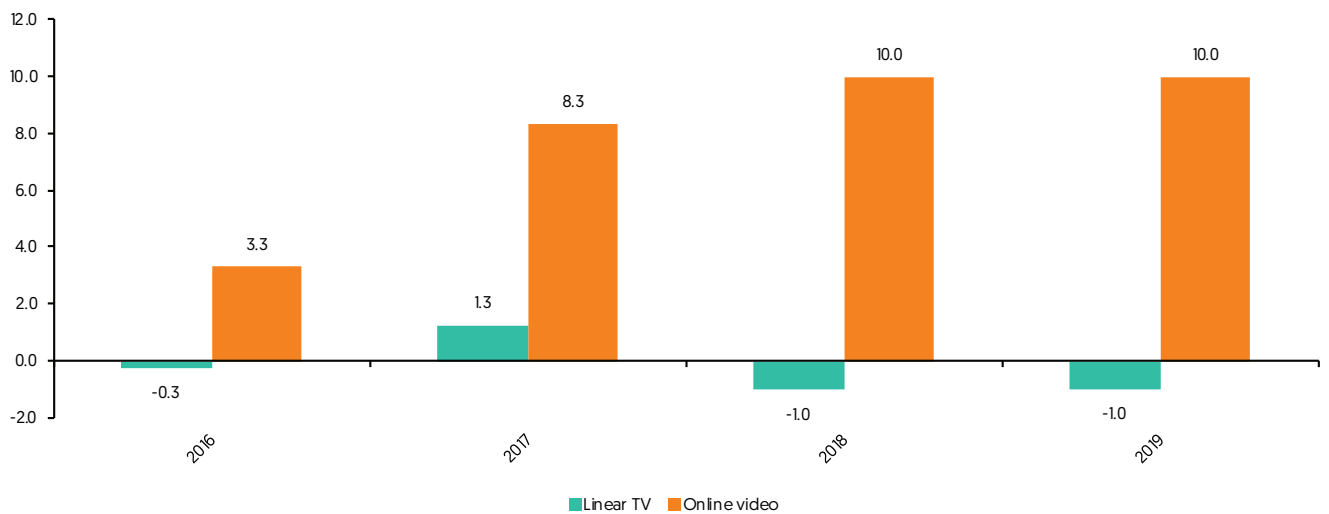
The importance of online video is becoming more and more evident. During the last elections the platform really came into its own as important information was handled through online video as never before. One example was a pre-election debate, which attracted seven rating points (around 200,000 people) on TV and a further two on Facebook live.

Advertising expenditure year-on-year growth (%)



Source: Infomedia Ecuador, Zenith estimates

Regular viewer numbers year-on-year growth (%)



Source: TGI Ecuador

Egypt

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	52,434	54,243	55,476	56,709	57,323	59,195	59,791	59,751
Number of regular online video viewers (000s)	14,082	16,243	18,524	19,731	20,216	21,609	23,565	25,739

Source: GWI, World Bank, Internetworldstats, Zenith
Monthly

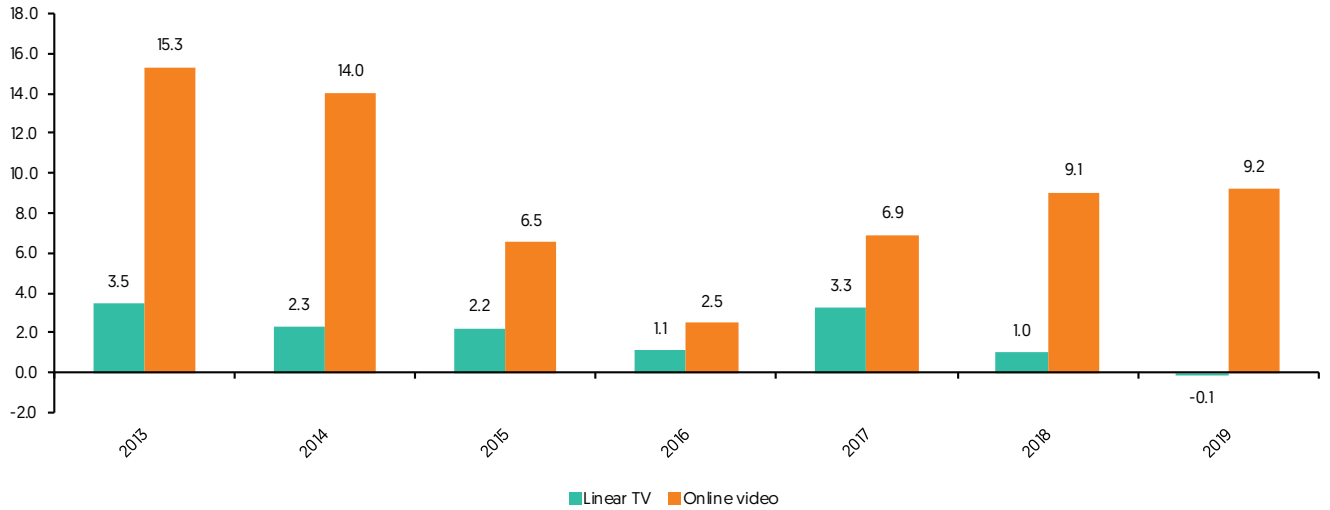
Demographics

	General population	Online video viewers
	2014	2014
Total (000s)	60,300	18,524
Gender (000s)		
Male	30,150	10,929
Female	30,150	7,595
Age (000s)		
16-24	19,356	8,855
25-34	14,291	4,927
35-44	12,000	2,927
45-54	7,417	1,297
55-64	4,939	433
65+	2,267	80
Socioeconomic status (000s)		
AB	4,957	2,797
C1C2	19,778	8,021
DE	29,426	6,409
Not stated	6,139	1,297

Source: TGI 2014

See the 'Pan Arab' section for details on video adspend in the region.

*Regular viewer numbers
year-on-year growth (%)*



Source: GWI, World Bank, Internetworldstats, Zenith
Monthly

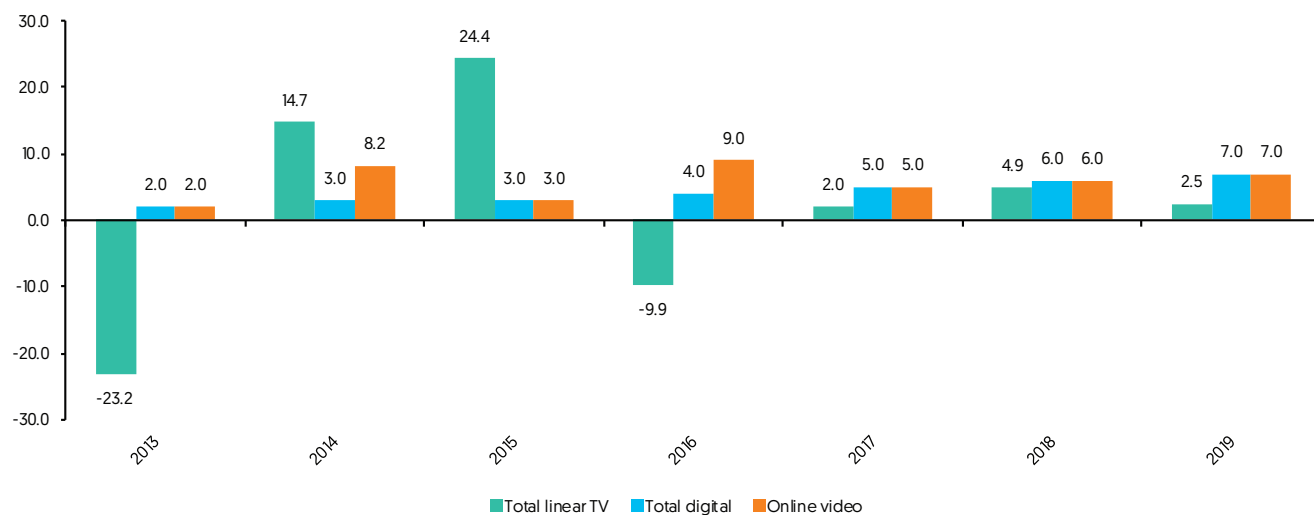
El Salvador

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	177.0	1.5	0.5	0.3	0.1
'13	136.0	1.5	0.5	0.3	0.1
'14	156.0	1.6	0.5	0.3	0.1
'15	194.0	1.6	0.5	0.3	0.2
'16	174.9	1.7	0.6	0.4	0.2
'17	178.3	1.8	0.5	0.4	0.3
'18	187.1	1.9	0.6	0.4	0.3
'19	191.8	2.0	0.6	0.4	0.4

Source: Zenith

Advertising expenditure year-on-year growth (%)



Source: Zenith

Advertising expenditure (€ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	22.3	12.0	11.0	0.7	0.2
'13	24.1	13.3	12.1	0.9	0.4
'14	25.0	14.8	13.3	1.0	0.2
'15	25.4	17.2	14.3	2.4	0.4
'16	25.2	18.9	15.1	2.8	0.5
'17	25.5	21.8	15.1	3.3	0.5
'18	25.7	24.4	15.1	3.7	0.5
'19	26.1	25.6	15.1	3.8	0.5

Source: Kantar Emor Adex

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	24.7	13.3	12.2	0.8	0.2
'13	26.6	14.7	13.3	1.0	0.4
'14	27.6	16.4	14.7	1.1	0.2
'15	28.1	19.1	15.8	2.7	0.5
'16	27.9	20.9	16.7	3.1	0.5
'17	28.2	24.1	16.7	3.6	0.5
'18	28.4	27.0	16.7	4.0	0.5
'19	28.9	28.3	16.7	4.2	0.5

Source: Kantar Emor Adex

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	946	932	923	906	894	882	870	858
Number of regular online video viewers (000s)	-	425	477	503	555	612	676	710

Source: Kantar Emor Mediaday

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video	-	-	-	49	54	64	80	-
Time spent watching online video on mobile devices	-	-	-	9	13	19	22	-
Time spent watching online video on desktop/non-mobile	-	-	-	40	41	45	58	-

Source: Kantar Emor Mediaday

Demographics

	General population	Online video viewers
	2016	2016
Total (000s)	1,313	350
Gender (000s)		
Male	614	192
Female	699	159
Age (000s)		
under 15	210	-
15-24	138	85
25-34	191	101
35-44	182	70
45-54	175	42
55-64	171	29
65+	246	23

Source: Kantar Emor Mediaday

The most-watched video platforms in Estonia are YouTube, vk.com, Facebook, Instagram, Twitch.tv and some local portals like Postimees, Ok.ru, Kanal2.ee, TV3Play.ee and tv.Delfi.ee.

YouTube and the social networks are popular among those in the 15-49 age group (the youngest participants in the survey were 15 years), with Instagram especially so among 15-29 year-olds and local sites 25-49 year-olds. Vk.com and Ok.ru have mainly Russian-speaking users. Pre-rolls are the

most popular format, mostly 15-20 seconds on Delfi.ee, while on Kanal2.ee TV3play.ee and YouTube, they are usually in the 20-30 second range, with the maximum duration being 60 seconds.

Local players will continue to grow. For example Delfi TV is making big efforts to broadcast more live streams from different events (sports, concerts etc.) and produce video news and other content. YouTube is getting more popular as both big and small clients are investing in TrueView advertising.

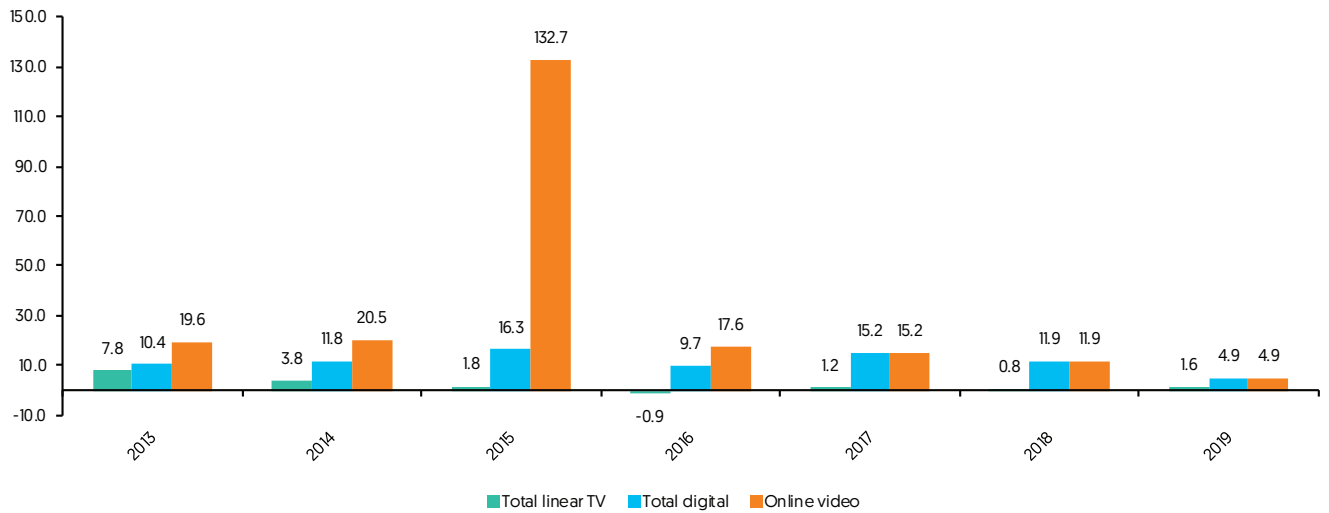
Google takes around a 15% share of online video views, whereas Facebook does better: around 25%. Content creation is increasing rapidly; some advertisers are hiring in-house specialists to work with content creators. Mostly their efforts are shared via Facebook, Instagram or LinkedIn.

Local streaming portals (tv.Delfi.ee, Kanal2.ee, TV3Play.ee, Postimees video) attracted about 8% of local digital media investment in 2016 as against 7% in 2015. Overall, TV is still really strong but online video is gaining more popularity and clients are asking for it and investing more and more in video ads.

Catch-up TV is also growing, its average daily reach now up to 13% (technical maximum would currently be 30%).

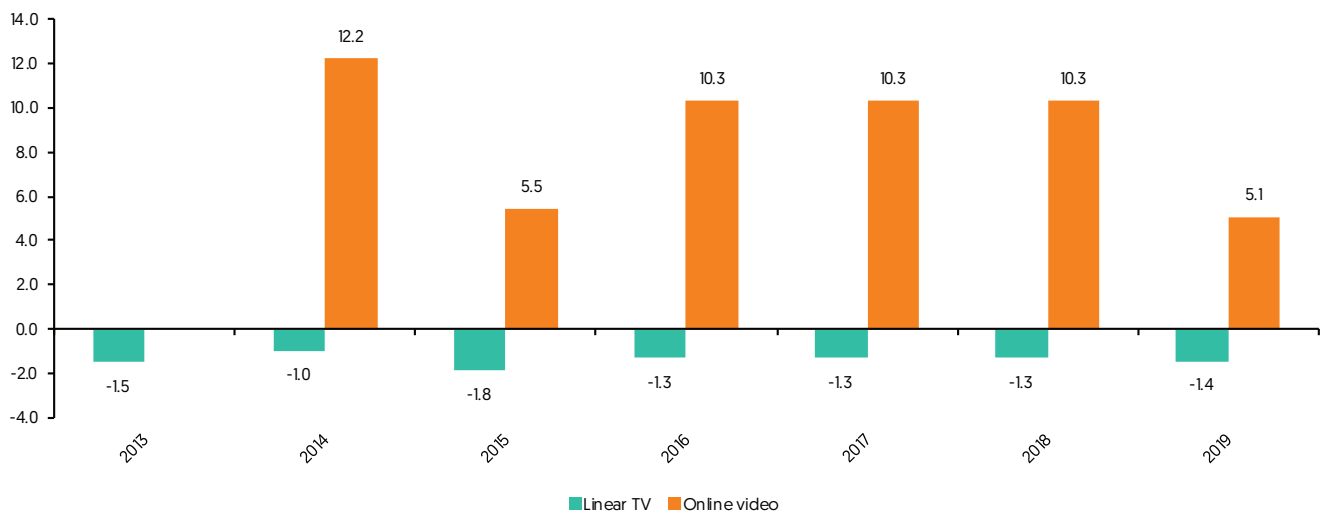
Mobile video viewing is becoming ever more important, because mobile usage is very high in Estonia, and those in the 15-19 age group spend around two hours per day watching mobile video.

Advertising expenditure year-on-year growth (%)



Source: Kantar Emor Adex

Regular viewer numbers year-on-year growth (%)



Source: Kantar Emor Mediaday

Finland

Advertising expenditure (€ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	280.0	222.4	141.0	-	-
'13	275.0	237.7	152.0	-	-
'14	265.2	242.0	114.0	13.0	-
'15	255.8	285.9	153.0	16.0	-
'16	253.1	324.0	188.0	16.2	-
'17	248.0	354.0	206.0	19.6	-
'18	250.0	380.0	224.0	21.5	-
'19	250.0	410.0	238.0	23.7	-

Source: Kantar TNS, Zenith

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	309.9	246.1	156.0	-	-
'13	304.3	263.0	168.2	-	-
'14	293.5	267.8	126.2	14.4	-
'15	283.1	316.4	169.3	17.7	-
'16	280.1	358.5	208.0	17.9	-
'17	274.4	391.7	228.0	21.7	-
'18	276.7	420.5	247.9	23.8	-
'19	276.7	453.7	263.4	26.2	-

Source: TNS Gallup, Zenith

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	2,369	2,294	2,311	2,363	2,028	1,967	1,908	1,870
Number of regular online video viewers (000s)	-	-	-	-	1,247	1,434	1,620	1,831

Source: TNS Atlas
Daily viewers

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video	-	-	-	-	18.6	22.3	26.8	32.1
Time spent watching online video on mobile devices	-	-	-	-	-	-	-	-
Time spent watching online video on desktop/non-mobile	-	-	-	-	-	-	-	-

Source: TNS Atlas

Demographics

	General population	Online video viewers
	2016	2016
Total (000s)	3,828	944
Gender (000s)		
Male	1,916	595
Female	1,912	349
Age (000s)		
16-24	605	339
25-34	615	255
35-44	595	150
45-54	688	99
55-64	720	70
65-74	605	31

Source: TNS Atlas

The main video platforms in Finland are YouTube, Facebook and Snapchat. The television broadcasters Sanoma and MTV3 are the main providers of premium long-form content, but the availability of web-original content is still rather limited. Sanoma and Alma Media are the biggest local players in short-form video content.

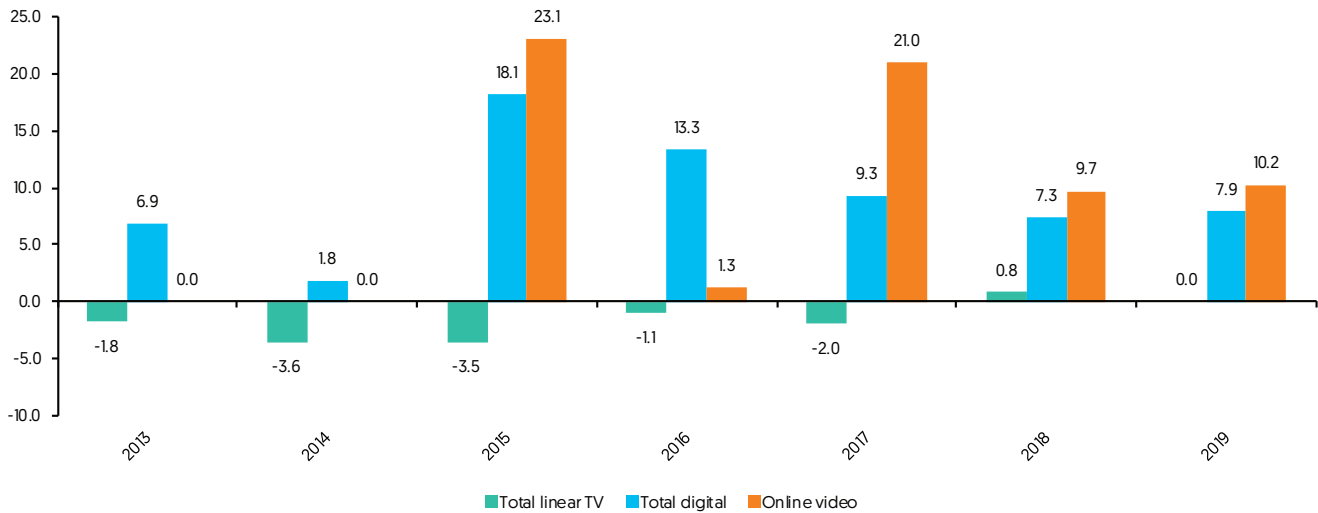
Online video is most popular among the young, but can be used to reach most target audiences aged under 60, although video only campaigns are not recommended.

In-stream and video in banners tend to gain attention and create awareness more effectively than banner advertising.

Owned video content is mainly used in own and social media channels.

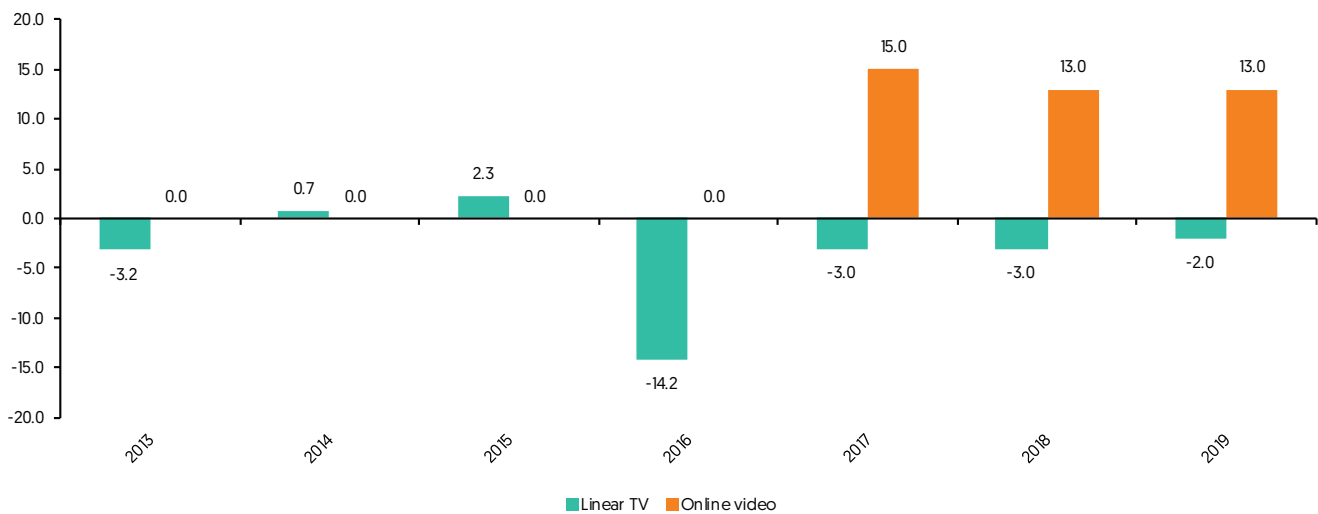
Mobile viewing is still growing heavily and challenging the creative used for online video. 30-second traditional TV ads are too long for fast-paced mobile viewing.

Advertising expenditure year-on-year growth (%)



Source: Kantar TNS, Zenith

Regular viewer numbers year-on-year growth (%)



Source: TNS Atlas
Daily viewers

Advertising expenditure (€ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	3,285.0	2,551.0	636.0	102.0	-
'13	3,170.0	2,643.0	617.0	136.0	-
'14	3,173.2	2,911.0	728.0	230.0	-
'15	3,242.0	3,076.0	742.0	309.0	-
'16	3,253.8	3,323.0	787.0	417.0	-
'17	3,279.8	3,521.9	827.6	500.4	-
'18	3,299.5	3,757.6	892.5	595.5	-
'19	3,316.0	4,012.0	969.6	696.7	-

Source: SRI, Zenith

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	3,635.2	2,823.0	703.8	112.9	-
'13	3,507.9	2,924.8	682.8	150.5	-
'14	3,511.5	3,221.3	805.6	254.5	-
'15	3,587.6	3,403.9	821.1	341.9	-
'16	3,600.7	3,677.3	870.9	461.5	-
'17	3,629.5	3,897.4	915.8	553.7	-
'18	3,651.3	4,158.1	987.7	659.0	-
'19	3,669.5	4,439.7	1,072.9	771.0	-

Source: SRI, Zenith

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	49,458	49,677	49,850	49,732	49,006	48,750	48,263	47,780
Number of regular online video viewers (000s)	30,967	31,912	32,332	33,133	34,866	35,912	36,989	38,099

Source: Médiamat Médiamétrie, 15+, Médiamétrie Web Observatoire, T4 Monthly

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video	3.5	5.0	6.7	8.9	11.0	13.2	15.4	17.7
Time spent watching online video on mobile devices	-	0.7	1.5	2.8	3.7	6.6	9.6	12.5
Time spent watching online video on desktop/non-mobile	3.5	4.3	5.2	6.1	7.4	6.6	5.8	5.2

Source: Médiamétrie MNR Vidéo, Media In Life, 15+

Demographics

	General population	Online video viewers
	2016	2016
Total (000s)	53,659	36,879
Gender (000s)		
Male	25,756	18,648
Female	27,903	18,231
Age (000s)		
15-24	8,907	6,513
25-34	7,566	6,279
35-49	12,449	9,658
50-64	12,395	8,357
65+	12,342	6,072
Socioeconomic status (000s)		
ABC1 (PCS +)	13,468	11,312
C2DE (PCS -)	15,025	10,806

Source: Zenith

Users tend to be young (typically aged 16-44), and of higher social status, with a slight bias toward male users. Short-form video is the most popular type of content, especially film trailers, clips and humorous videos.

Most online video advertising is pre-roll, but some catch-up sites [such as myTF1 and 6play] include mid-roll ads.

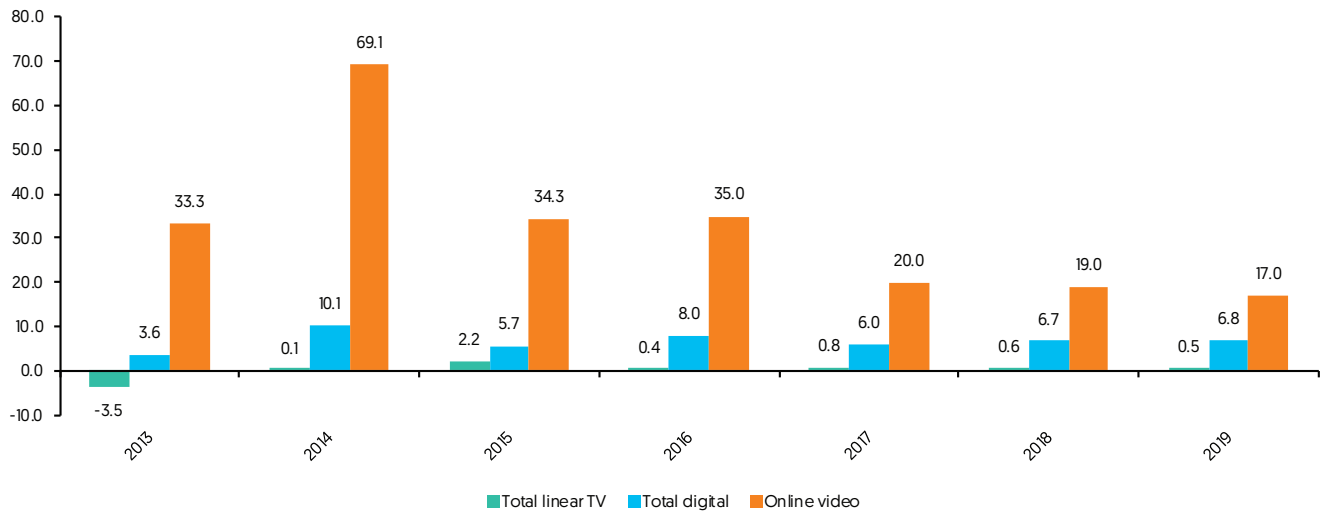
According to our Cameleon study, the first study of the combined efficiency of television and online video in France, online video ads are about as efficient as TV ads, and non-skippable ads have high impact. Efficiency depends on the device the ads are viewed on – viewing on smartphones is the most efficient.

Online video represented 11.4% of total video adspend [TV plus online video] in 2016, and we forecast it will represent 17.4% in 2018. Total video advertising is a dynamic segment and we forecast it to grow at a rate of 3% a year from 2017 to 2019.

Mobile video advertising is certainly growing quickly, but expenditure figures are not properly monitored. We know that 33% of catch-up views were on mobile devices in 2016, up six percentage points on 2015.

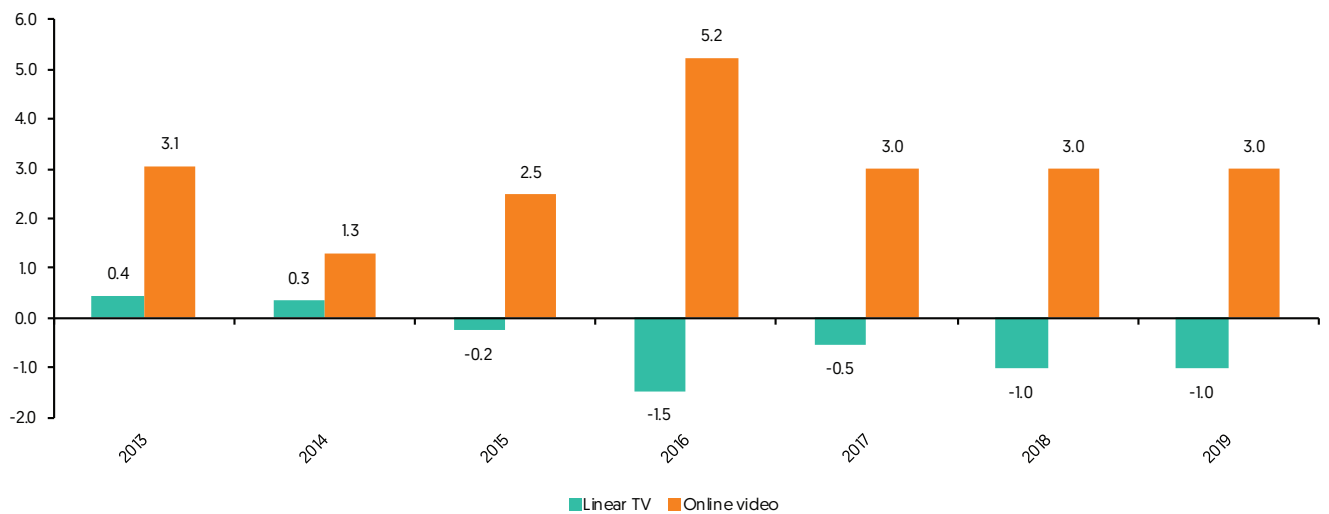
The main video platforms in France are YouTube and Facebook, but others include Orange, Dailymotion, MyTF1, France.TV and Allociné.

Advertising expenditure year-on-year growth (%)



Source: SRI, Zenith

Regular viewer numbers year-on-year growth (%)



Source: Médiamat Médiamétrie, 15+, Médiamétrie Web Observatoire, T4 Monthly

Georgia

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	37.9	1.0	0.6	0.4	-
'13	39.5	1.6	1.0	0.6	-
'14	41.1	2.3	1.5	0.8	-
'15	33.8	2.4	1.4	1.0	-
'16	33.8	3.5	2.2	1.3	-
'17	35.5	4.5	2.9	1.6	-
'18	38.0	5.2	3.1	2.1	-
'19	38.5	5.9	3.8	2.1	-

Source: Zenith

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	1,003	1,022	968	997	995	1,016	996	990
Number of regular online video viewers (000s)	367	424	474	496	505	514	523	530

Source: AGB, Zenith (daily)

Demographics

	General population	Online video viewers
	2016	2016
Total (000s)	3,720	505
Gender (000s)		
Male	1,780	232
Female	1,941	273
Age (000s)		
under 35	1,725	288
35-54	993	182
55+	1,003	35

Source: Zenith

videos translated into Georgian, as well as having sports news and an online casino section.

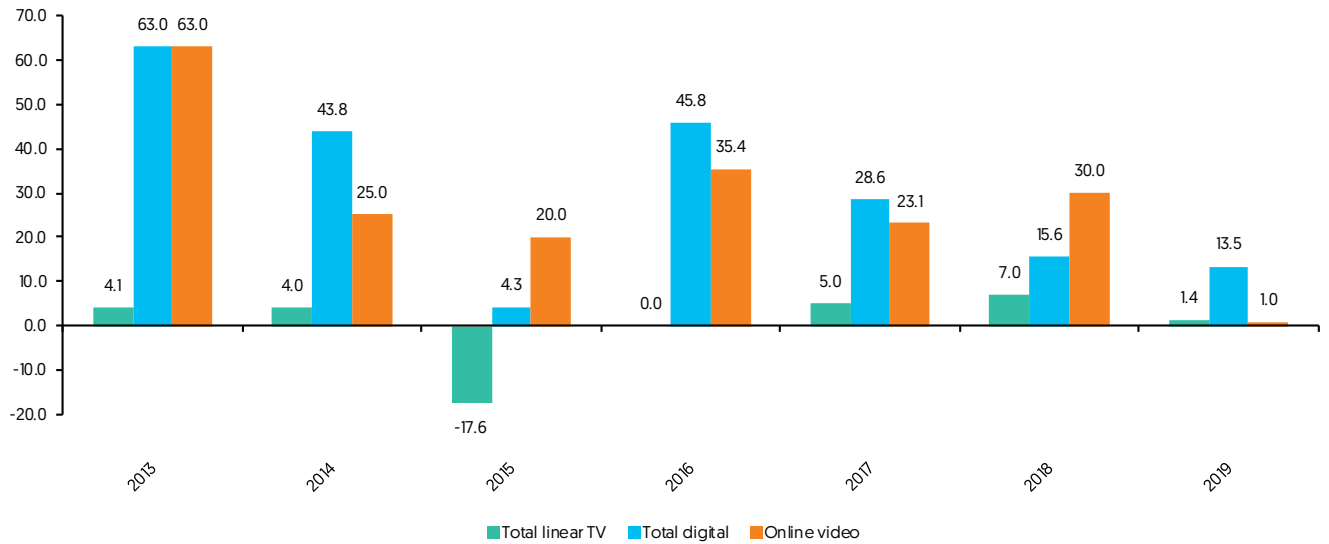
Online video ads mainly consist of promotions and sales, new product launches and announcements of special events. Pre-rolls are the top format, although in-stream is cheaper and sponsored content can be very effective.

Online video is becoming more and more popular, even though it's much more expensive than ordinary banners in terms of production cost and placement itself. For this reason clients try to use other formats, but expenditure on online video ads has been increasing year on year.

Mobile-based video has a big future. Internet consumption via mobile devices is on the up and so is mobile video viewing. At the moment most publishers are not ready to sell mobile advertisements, because their mobile platforms still do not work properly, with the result that clients are not investing in mobile. Nevertheless, over time mobile will come into its own as a platform.

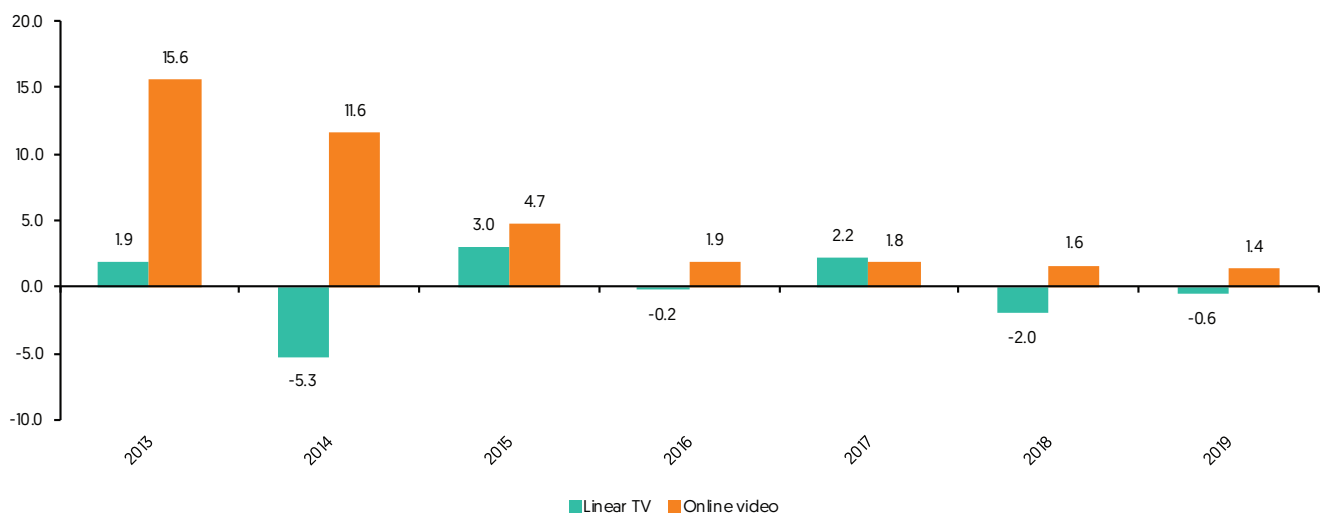
YouTube is Georgia's most popular online video platform, followed by the local platform myvideo.ge. Other sites include imovies.ge, which shows online TV, movies and trailers, and adjaranet.com, which is similar but has most

Advertising expenditure year-on-year growth (%)



Source: Zenith

Regular viewer numbers year-on-year growth (%)



Source: AGB, Zenith [daily]

Germany

Advertising expenditure (€ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	4,037.7	3,749.2	1,054.2	198.1	3.4
'13	4,125.1	4,150.0	1,261.3	228.2	6.3
'14	4,292.0	5,282.0	1,344.2	267.6	17.2
'15	4,422.0	5,804.0	1,424.7	329.1	23.7
'16	4,560.0	6,328.0	1,517.4	505.8	56.8
'17	4,654.0	6,986.0	1,605.3	768.0	112.0
'18	4,782.5	7,662.0	1,701.6	1,086.0	189.0
'19	4,878.0	8,303.0	1,803.7	1,404.0	312.0

Source: ZAW, Publicis Media

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	4,468.2	4,148.8	1,166.5	219.2	3.8
'13	4,564.9	4,592.4	1,395.8	252.6	6.9
'14	4,749.6	5,845.1	1,487.5	296.1	19.1
'15	4,893.4	6,422.8	1,576.6	364.2	26.2
'16	5,046.1	7,002.6	1,679.1	559.7	62.9
'17	5,150.2	7,730.8	1,776.4	849.9	123.9
'18	5,292.4	8,478.8	1,883.0	1,201.8	209.1
'19	5,398.0	9,188.2	1,996.0	1,553.7	345.3

Source: ZAW, Publicis Media

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	10,650	10,560	10,640	10,810	11,220	11,193	11,332	11,471
Number of regular online video viewers (000s)	2,950	3,230	4,160	5,120	6,290	6,921	7,778	8,635

Source: GfK, SevenoneMedia, Publicis Media
Daily

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video	-	-	10.2	11.1	16.5	18.9	22.1	25.2
Time spent watching online video on mobile devices	-	-	5.1	6.0	10.1	12.3	15.4	18.4
Time spent watching online video on desktop/non-mobile	-	-	5.1	5.1	6.4	6.6	6.6	6.8

Source: GfK, SevenoneMedia, Publicis Media

Demographics

	General population	Online video viewers
	2016	2013
Total (000s)	82,176	63,276
Gender (000s)		
Male	40,514	32,006
Female	41,662	31,247
Age (000s)		
under 16	11,683	-
16-24	7,976	7,418
25-34	10,556	9,606
35-44	9,942	8,550
45-54	13,478	11,187
55-64	11,241	7,307
65+	17,300	9,861

Source: Statistisches Bundesamt

YouTube is the leading platform for online video in Germany. The most popular video-on-demand services are Amazon Instant Video and Netflix.

53% of online video viewers are male, slightly higher than the population as a whole. Online video has a broad audience, with use highest amongst those aged 20-49 [62%]. The average YouTube user is approximately 35 years old.

The content viewed is user generated, semi-professional and professional. Premium video inventory is collected under the brand Google Preferred.

So far, few clients have a real channel strategy for owned video. Often they only have a platform where their video inventory lives, but collaborations with YouTube creators and influencers have become popular.

Different types of advertising embedded within online video content, including non-skippable pre-roll [20 and 30 seconds at present, although 30 seconds will be discontinued at the end of the year] on CPM basis; skippable video ads [True View InStream] on CPV basis; search video ads [True View Discovery] on CPV basis; and mastheads on the YouTube home page.

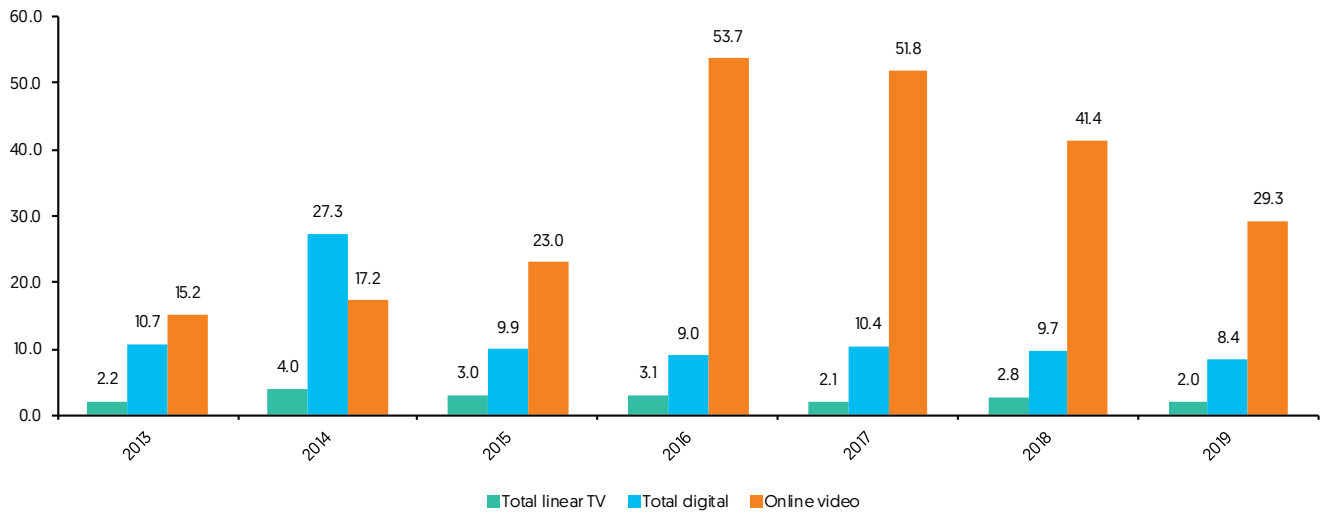
In general, all video ads have a viewability rate of 93% and are watched with sound on at 95%. There are awareness products: mastheads on the YouTube home page [big leaderboard], bumper ads [6 seconds], Google Preferred and True View for Reach; consideration products: True View Discovery and True View InStream; and action products: True View for Action, True View for Shopping, and True View for Download. The effectiveness of video formats can be measured via brand lift surveys [ad hoc video questionnaires according to the campaign].

The extent to which advertisers have used online video to replace or complement linear TV advertising depends, of course, on the industry. Overall, however, there has been a huge shift towards online video [media consumption and media share]. Our recommendation for classical TV buyers is 10% on YouTube. But there are already many clients that use only online video for their campaigns. YouTube has also established itself as a performance channel for advertising with several new formats.

The future of audiovisual advertising is mobile first. Last year, more than 50% of online videos were watched within the YouTube app on smartphones, and this is set to increase. New ad products are developed for the mobile age [for example, 6 second bumper ads], while others will disappear [30 second video ads].

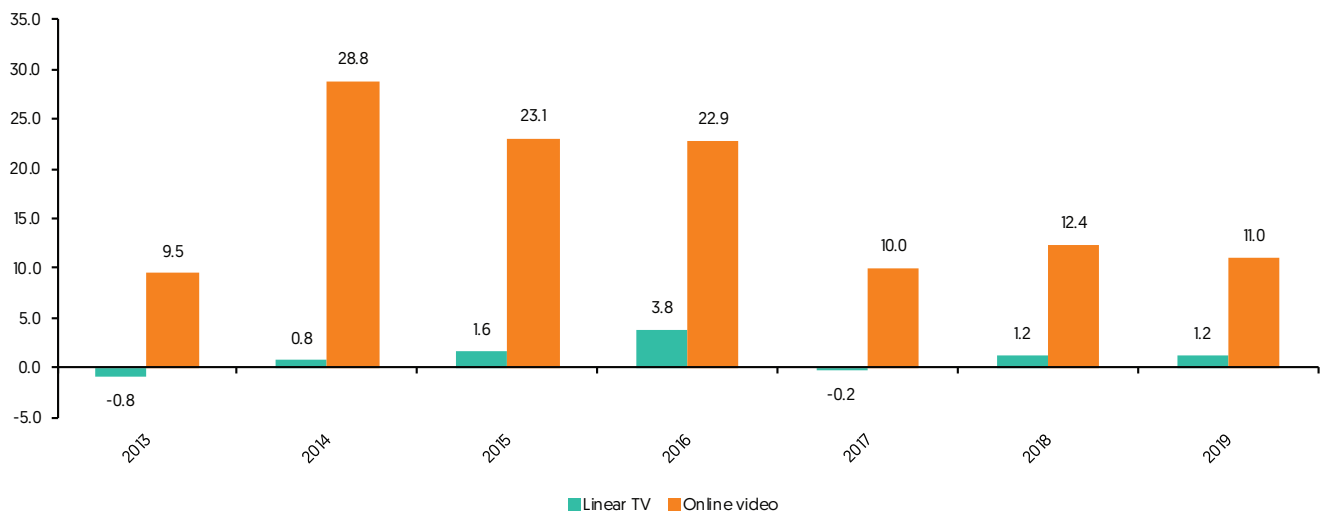
The fastest growing screen, though, is the screen in the living room [via PS4, Xbox, Apple TV, Smart TV Apps, etc.]. VR and AR is the next innovation level for online video [first media campaigns have ran already]. Choice [let the user skip] and immersion [VR/AR] will become vital for successful campaigns.

Advertising expenditure year-on-year growth (%)



Source: ZAW, Publicis Media

Regular viewer numbers year-on-year growth (%)



Source: GfK, SevenoneMedia, Publicis Media
Daily

Advertising expenditure (€ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	342	-	76	1	1
'13	356	-	76	5	3
'14	419	117	77	10	7
'15	398	152	75	16	12
'16	429	191	80	23	17
'17	476	223	90	26	18
'18	510	248	90	29	20
'19	550	265	98	32	23

Source: IAB Hellas, Zenith estimates

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	378.5	-	84.1	1.1	1.1
'13	394.0	-	84.1	5.5	3.3
'14	463.7	129.5	85.2	11.1	7.7
'15	440.4	168.2	83.0	17.7	13.3
'16	474.7	211.4	88.5	25.5	18.8
'17	526.7	246.8	99.5	28.8	19.9
'18	564.4	274.4	99.6	32.1	22.1
'19	608.6	293.3	108.4	35.4	25.5

Source: IAB Hellas, Zenith estimates

Demographics

	General population	Online video viewers
	2016	2016
Total (000s)	8,394	2,807
Gender (000s)		
Male	4,163	1,601
Female	4,231	1,205
Age (000s)		
13-15	234	149
16-24	1,154	697
25-34	1,546	704
35-44	1,645	623
45-54	1,479	354
55-64	1,286	191
65-74	1,050	89
Socioeconomic status		
AB	1,972	780
CDE	6,421	2,027

Source: FOCUS BARI (WEB ID)

Greece's challenging terrain and geography, together with the nation's very troubled economic state, have inhibited investment in digital and other infrastructure in recent years. What is more, relatively fewer consumers have disposable income to spend on digital video services or devices such as smartphones. However, more than 67% of residents in Greece now use the internet via any device, a level of uptake that lags behind that in much of Western Europe. Thus, the corresponding share of internet traffic passing via mobile devices is also smaller in Greece.

Mobile penetration approached 96% in early 2016, and smartphone ownership was just over 50%. Of those, a significant share of phone owners did not - or could not afford - to use those devices for internet access.

YouTube is the most popular video platform, while Facebook continues to expand and enrich its video capabilities. There is also a local video network that allows advertisers to serve video ads to premium Greek sites and pay on a cost-per-view basis.

54% of YouTube viewers are male, with heavy representation among 18-24 year-olds. For Facebook the core audience is aged 13-34 years-old. The local video network does not use demographic targeting, instead targeting users based on context and interests.

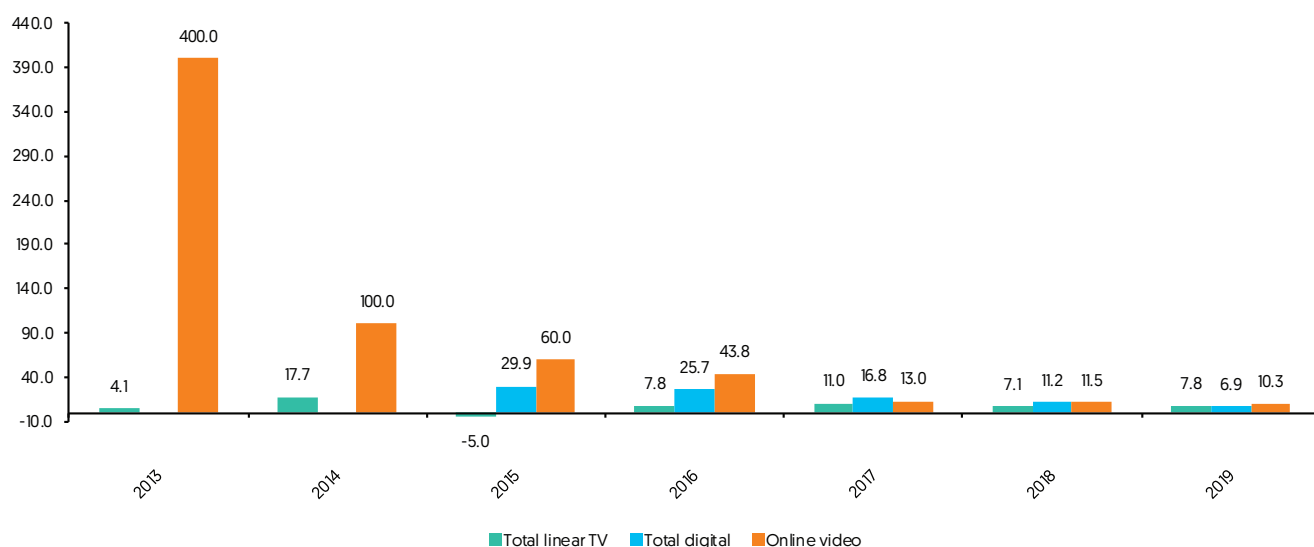
50% of those who watch videos online do so daily, 27% weekly and 10% monthly. Altogether, around 9% of the population use video on demand or streaming devices.

Videos that are embedded within native content of premium publishers tend to generate the greatest viewability, traffic and sharing. On YouTube and Facebook, short-form videos generally achieve the most completed views, but this depends on the creative execution and the content

it sits within. According to MRB Hellas, higher multiscreen activity percentages were witnessed in 2016. In Greece, TV is traditionally the most powerful medium and cannot be excluded from media plans. Therefore, advertisers are trying to use multimedia that allow for securing higher incremental reach levels via campaigns that are in addition to TV.

Video ads are expected to further develop in the next few years, as consumers become more receptive to this format (according to Google, which also predicted that 74% of internet traffic for 2017 will be video ads). Mobile advertising in Greece is still at a preliminary stage (except for technology, fashion and e-shop brands). We expect an increase in demand for mobile ads.

Advertising expenditure year-on-year growth (%)



Source: IAB Hellas, Zenith estimates

Advertising expenditure (HK\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	6,222	452	452	74	12
'13	5,958	1,276	1,276	173	24
'14	6,288	2,106	2,106	431	88
'15	6,428	2,771	2,771	1,006	365
'16	5,797	3,045	3,045	1,153	437
'17	6,024	4,057	4,057	1,606	636
'18	5,945	4,699	4,699	1,945	805
'19	5,925	5,404	5,404	2,285	1,005

Source: admanGO, Zenith

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	801.6	58.2	58.2	9.5	1.5
'13	767.6	164.4	164.4	22.3	3.0
'14	810.1	271.3	271.3	55.6	11.4
'15	828.1	357.0	357.0	129.5	47.0
'16	746.8	392.3	392.3	148.5	56.2
'17	776.1	522.7	522.7	206.9	81.9
'18	765.9	605.4	605.4	250.5	103.7
'19	763.3	696.2	696.2	294.4	129.5

Source: admanGO, Zenith

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	-	5,014	4,556	4,568	4,757	4,762	4,748	4,733
Number of regular online video viewers (000s)	-	-	-	-	3,138	3,295	3,460	3,667

Source: Nielsen Media Index (watched yesterday)

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video	-	-	-	-	117.0	119.3	121.7	124.2
Time spent watching online video on mobile devices	-	-	-	-	-	-	-	-
Time spent watching online video on desktop/non-mobile	-	-	-	-	-	-	-	-

Source: Nielsen Media Index

Demographics

	General population	Online video viewers
	2016	2016
Total (000s)	5,171	3,138
Gender (000s)		
Male	2,473	1,542
Female	2,698	1,596
Age (000s)		
under 16	218	165
16-24	668	478
25-34	996	747
35-44	1,083	772
45-54	1,145	665
55-64	1,061	311

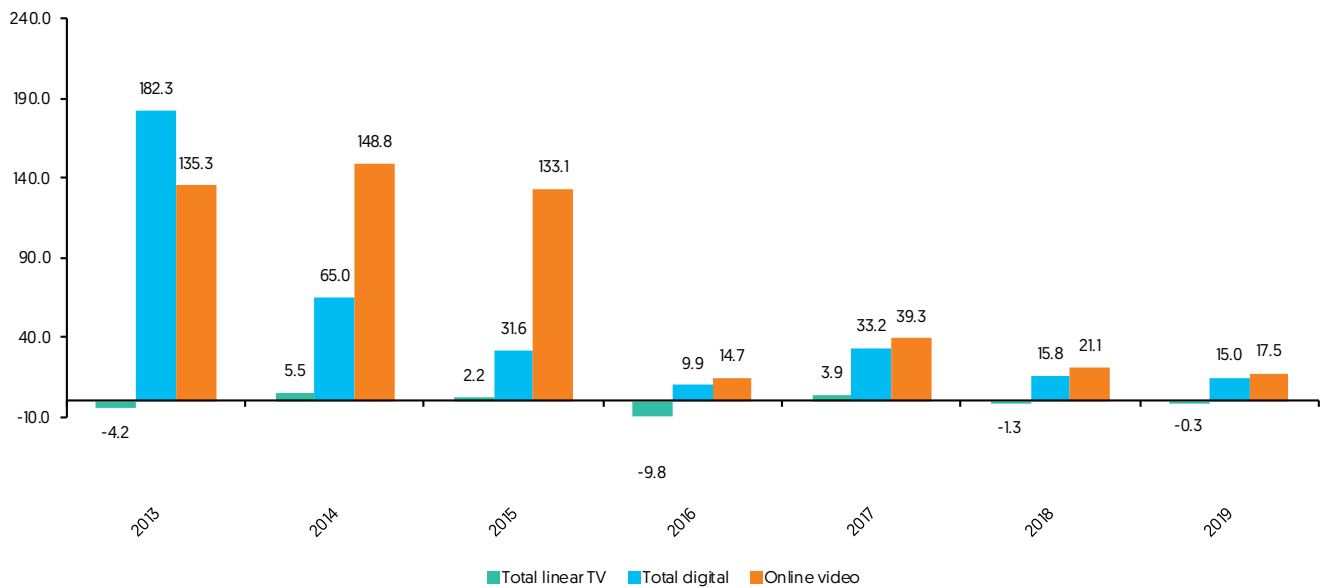
Source: Nielsen Media Index

There are two major video platforms in Hong Kong: YouTube, which has 51% viewership, and an audience aged 16-44; and myTV.com, which has 19% viewership, and a mainly female audience aged 25-44.

According to a survey from Nielsen, 69% of viewers in Hong Kong use computers to watch video-on-demand programming, while 67% use a mobile phone. Among those who watch any type of VOD, nearly half [47%] said they watch VOD programming at least once a day.

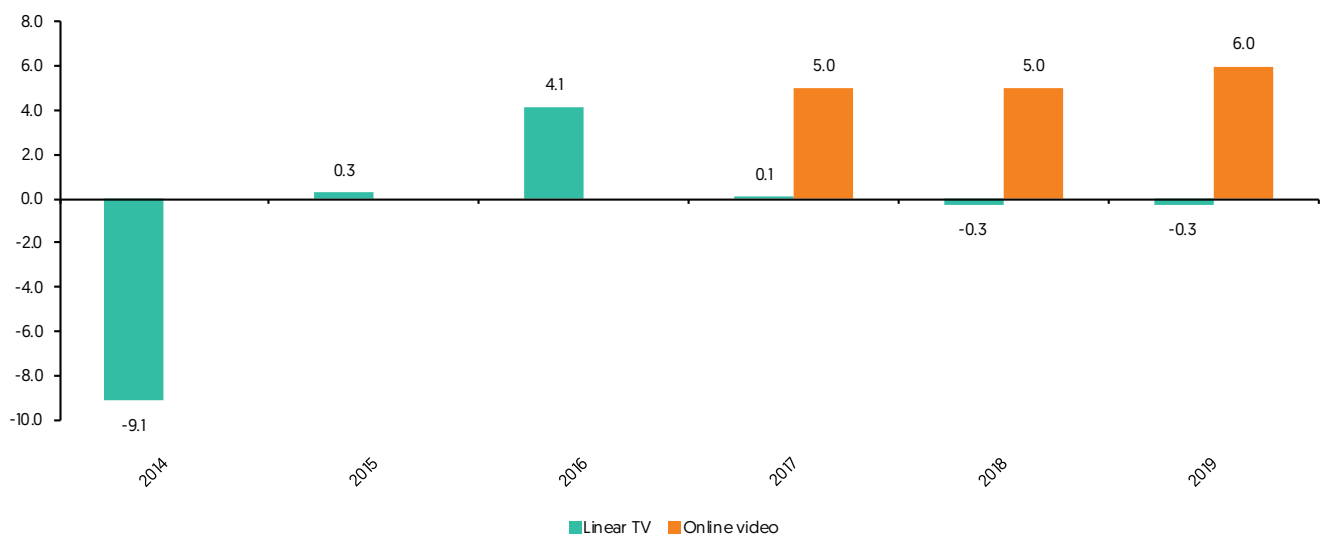
We forecast that advertising spend will move from linear TV to online video/mobile over the next few years, as the high penetration of smartphones and the increasing popularity of online video viewing services continues to put pressure on traditional TV.

Advertising expenditure year-on-year growth (%)



Source: admanGO, Zenith

Regular viewer numbers year-on-year growth (%)



Source: Nielsen Media Index (watched yesterday)

Hungary

Advertising expenditure (HUF million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	47,723	32,078	15,028	285	-
'13	45,629	40,332	18,149	503	-
'14	50,638	48,188	20,962	1,225	-
'15	51,325	54,831	23,243	1,965	-
'16	60,475	67,145	28,967	2,169	-
'17	65,523	76,188	32,733	2,559	-
'18	66,833	82,877	36,006	2,943	-
'19	65,497	89,896	39,607	3,238	-

Source: Kantar Media, IAB, Zenith

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	169.6	114.0	53.4	1.0	-
'13	162.1	143.3	64.5	1.8	-
'14	179.9	171.2	74.5	4.4	-
'15	182.4	194.8	82.6	7.0	-
'16	214.9	238.6	102.9	7.7	-
'17	232.8	270.7	116.3	9.1	-
'18	237.5	294.5	127.9	10.5	-
'19	232.7	319.4	140.7	11.5	-

Source: Kantar Media, IAB, Zenith

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	7,595	7,530	7,381	7,362	7,360	7,286	7,214	7,155
Number of regular online video viewers (000s)	1,579	1,564	1,690	1,724	1,810	1,883	1,958	2,100

Source: TGI (weekly, 15+)

Demographics

	General population	Online video viewers
	2016	2016
Total (000s)	7,752	1,587
Gender (000s)		
Male	3,750	847
Female	4,002	740
Age (000s)		
under 16	73	38
16-24	965	378
25-34	1,321	438
35-44	1,543	379
45-54	1,308	209
55-64	1,384	111
65+	1,157	34
Socioeconomic status		
AB (TGI)	1,656	428
CDE (TGI)	6,068	1,153

Source: TGI

Online video consumption and advertising have evolved over the past few years. Although TV is still the most consumed medium in Hungary, with an average of over 4.5 hours' viewership per day, viewership on portals offering online video is increasing. Between 2012 and 2016 online video spend increased over sevenfold to account for around 3% of total online ad spending.

Global players Google and Facebook, both with a massive reach, are key providers, while local players adding to the online video landscape include:

- WebTV catch-up platforms: mainly RTL, TV2, Viasat and Hungarian National TV channels
- Platforms with UGC e.g. Indavideo [CEMP] and Videa [New Wave Media Group]
- Platforms that are starting to focus on professionally produced content: key horizontal portals, receipt portals etc.

Advertising possibilities are diverse through both global and local portals:

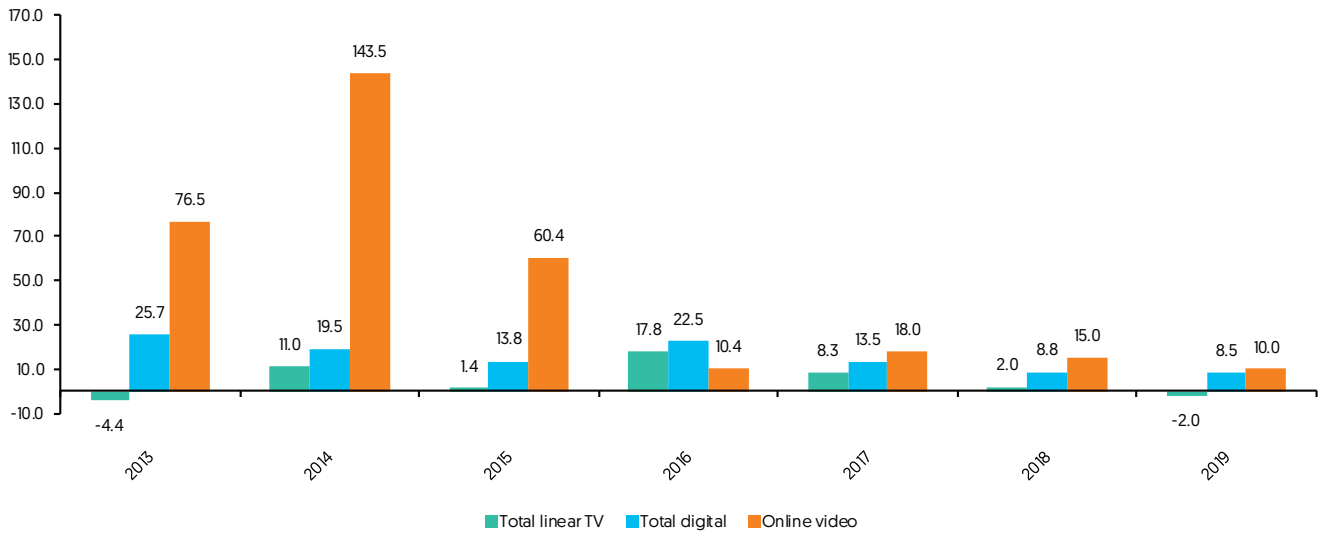
- Global players with global advertising possibilities
- WebTV platforms allow advertising usually up to 1 min in return for a copy length price increase similar to TV advertisements – ads are skippable after 30 seconds
- Local UGC platforms' limitation is 30 seconds, with different options to skip ads

The most popular video advertising format in Hungary is pre-roll, with mid-rolls and post-rolls less commonly used. In-banner video advertising is still quite popular, and rich media formats with video embeds are quite common as well.

With the rapid growth of programmatic trading, the buying formats of video ads are also changing. Programmatic buying for video inventory appeared in the market in 2017, so it is fairly new. It is still fairly small-scale, predominantly AV or view based buying.

Increased video consumption, especially via mobile devices, means we face the need for more dedicated professionally produced online content in the near future.

Advertising expenditure year-on-year growth (%)



Source: Kantar Media, IAB, Zenith

Regular viewer numbers year-on-year growth (%)



Source: TGI (weekly, 15+)

Advertising expenditure (INR million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	112,326	10,016	5,621	460	175
'13	114,646	22,034	12,366	1,371	593
'14	142,584	28,204	15,828	2,788	1,377
'15	163,021	36,665	20,576	4,070	2,237
'16	178,997	47,665	26,749	9,285	4,040
'17	198,687	61,964	34,774	12,765	6,134
'18	218,556	74,357	41,729	18,338	9,428
'19	240,411	89,228	50,075	24,098	14,320

Source: TAM, eMarketer, IAMA, FICCI -KPMG, exchange4media

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	1,668.5	148.8	83.5	6.8	2.6
'13	1,702.9	327.3	183.7	20.4	8.8
'14	2,117.9	418.9	235.1	41.4	20.5
'15	2,421.5	544.6	305.6	60.5	33.2
'16	2,658.8	708.0	397.3	137.9	60.0
'17	2,951.3	920.4	516.5	189.6	91.1
'18	3,246.4	1,104.5	619.8	272.4	140.0
'19	3,571.1	1,325.4	743.8	358.0	212.7

Source: TAM, eMarketer, IAMA, FICCI -KPMG, exchange4media

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	572,489	602,620	621,118	674,509	779,057	810,574	891,632	980,795
Number of regular online video viewers (000s)	47,000	58,000	72,000	110,000	200,000	250,000	325,000	455,000

Source: E&Y, Statista (monthly)

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video	2.1	3.2	4.4	7.0	19.1	34.8	48.4	72.5
Time spent watching online video on mobile devices	0.8	1.4	2.2	4.0	12.4	24.4	36.3	58.0
Time spent watching online video on desktop/non-mobile	1.3	1.8	2.2	3.0	6.7	10.4	12.1	14.5

Source: GlobalWebIndex, Deloitte, Millward Brown

Ever since Reliance re-entered the telecom space, with the launch of its much anticipated 4G network Jio, things have not been the same in India. With dirt cheap data plans and free voice calls, Jio's outrageous offering captured the imagination of the whole country.

A few years back, a lack of original local programming, high price points and low consumer interest were some of the major deterrents to global streaming giants like Netflix and Amazon Prime establishing a presence in India. Another problem was slower and low quality internet speeds. But with the advent of Jio things changed. Today India has over 400 million internet users, 10% of whom are avid video consumers: overall, online videos reach over 200 million people. The active users spend over 22 hours a month consuming video content on social platforms like YouTube and Facebook, and there is a huge transition to OTT players like Hotstar, Netflix, Voot, Amazon Prime, Ditto and the like, which in turn has prompted a slowdown in video piracy.

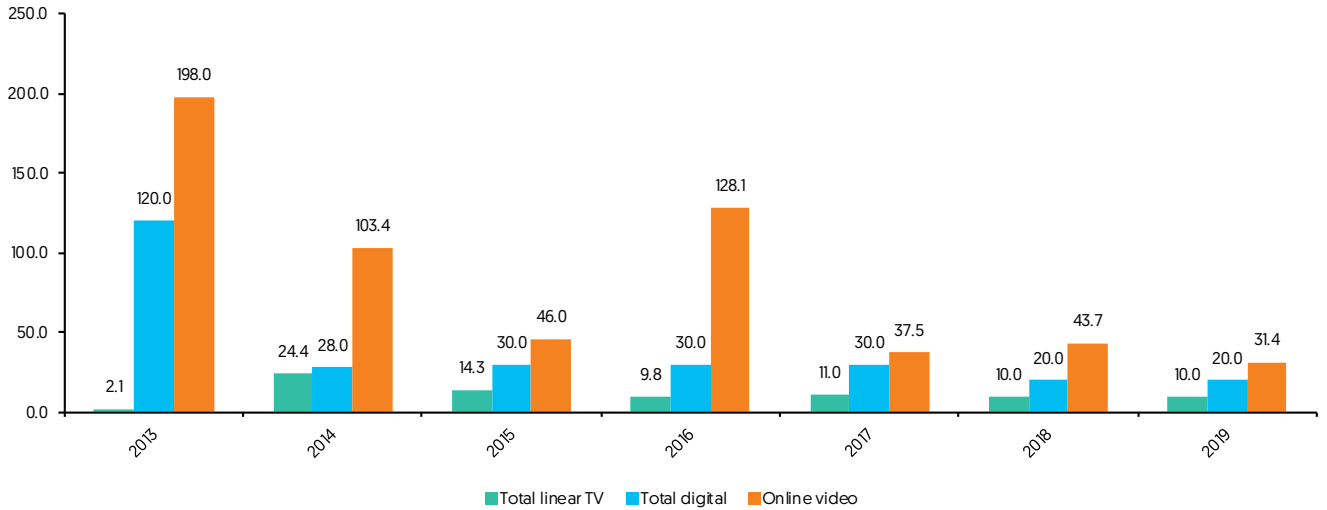
A different kind of user has come on board in the last few months from tier 2-3 cities and towns, accounting for 65% of video views on smartphones. The average data consumption (which had been 1GB-2GB per user per month) has risen to 8GB-9GB per month. More than half of the viewers are above the age of 25, and women are 30% more likely to be avid consumers of mobile video as men.

The average smartphone user devotes more than three hours a week to watching video content on their smartphone. YouTube and Facebook lead the charge. Short-form video remains the most popular format among smartphone users, with 85% of viewers preferring a video length of ten minutes or less. As per a report from Vuclip, 91% of viewers who participated in their survey indicated that in addition to live broadcast, they preferred television for long form consumption such as films and videos with run times of more than ten minutes. Even so, 33% of smartphone users in India use the device to view such content.

Formats like pre-roll, mid-roll and post-roll are on all advertising platforms, but marketers have just ten seconds to capture and engage an audience before they continue to scroll down or click away; engagement drops off significantly beyond that. If you have not fully engaged your audience after the first 30 seconds, you've likely lost 33% of viewers; after one minute, 45% of viewers have stopped watching.

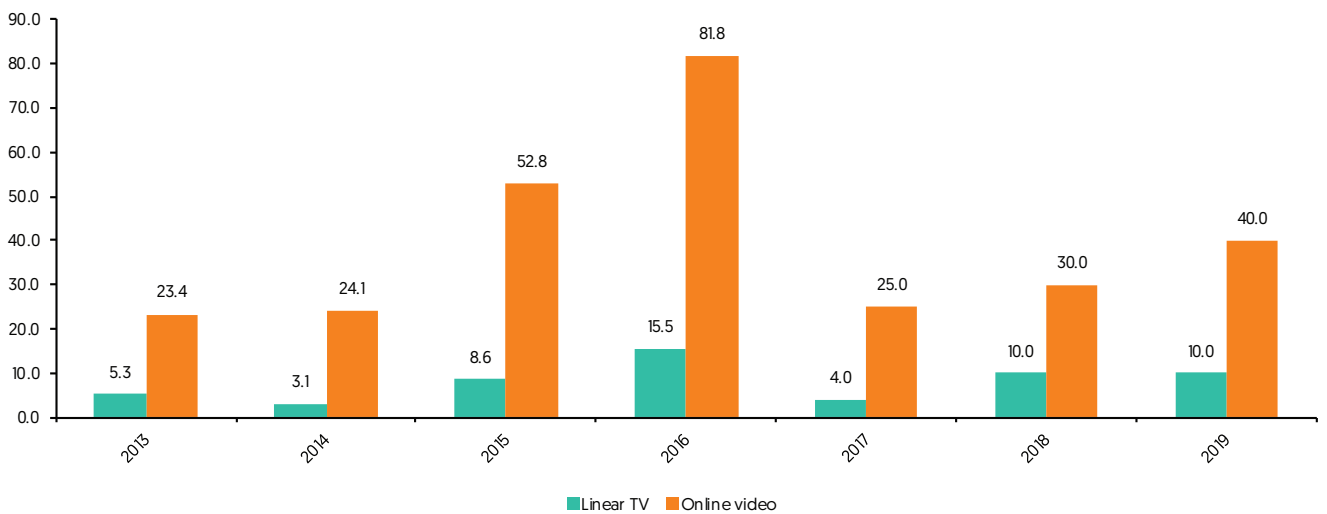
Online video now accounts for an average of 20% of the linear TV advertising budget. Despite the strides being made by digital players in India, traditional TV's importance and reach still outstrips that of digital. So while India may be adopting mobile phones faster than any western countries, challenges for digital players remain big – ranging from costly data and indifferent bandwidth speed to getting the right content mix for a country that has 22 languages and over 700 dialects.

Advertising expenditure year-on-year growth (%)



Source: TAM, eMarketer, IAMA, FICCI -KPMG, exchange4media

Regular viewer numbers year-on-year growth (%)



Source: E&Y, Statista (monthly)

Indonesia

Advertising expenditure (Rupiah million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	31,503,662	-	-	-	-
'13	40,328,388	3,120,000	-	-	-
'14	43,375,647	6,500,000	3,625,892	-	-
'15	47,112,217	12,480,000	6,961,713	-	-
'16	55,778,176	22,620,000	12,618,106	-	-
'17	61,556,840	33,809,628	18,860,012	-	-
'18	65,548,708	45,440,140	25,347,855	-	-
'19	67,794,600	57,740,316	32,219,096	-	-

Source: Nielsen, Zenith

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	2,367.7	-	-	-	-
'13	3,030.9	234.5	-	-	-
'14	3,259.9	488.5	272.5	-	-
'15	3,540.8	937.9	523.2	-	-
'16	4,192.1	1,700.0	948.3	-	-
'17	4,626.4	2,541.0	1,417.4	-	-
'18	4,926.4	3,415.1	1,905.0	-	-
'19	5,095.2	4,339.5	2,421.5	-	-

Source: Nielsen, Zenith

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018
Number of regular linear TV viewers (000s)	-	-	-	-	-	-	-
Number of regular online video viewers (000s)	-	5,511	7,253	-	-	-	-

Source: Roy Morgan
Monthly

Demographics

	General population	Online video viewers
	2014	2014
Total (000s)	85,011	7,253
Gender (000s)		
Male	42,468	4,448
Female	42,543	2,805
Age (000s)		
14-15	4,885	661
16-24	17,579	3,582
25-34	20,768	1,928
35-44	16,975	725
45-54	16,083	301
55-64	7,476	56
65+	1,245	
Socioeconomic status (000s)		
Household expenditure above 1.75m Rupiah/month	26,415	1,110
Household expenditure below 1.75m Rupiah/month	58,596	6,144

Source: Roy Morgan

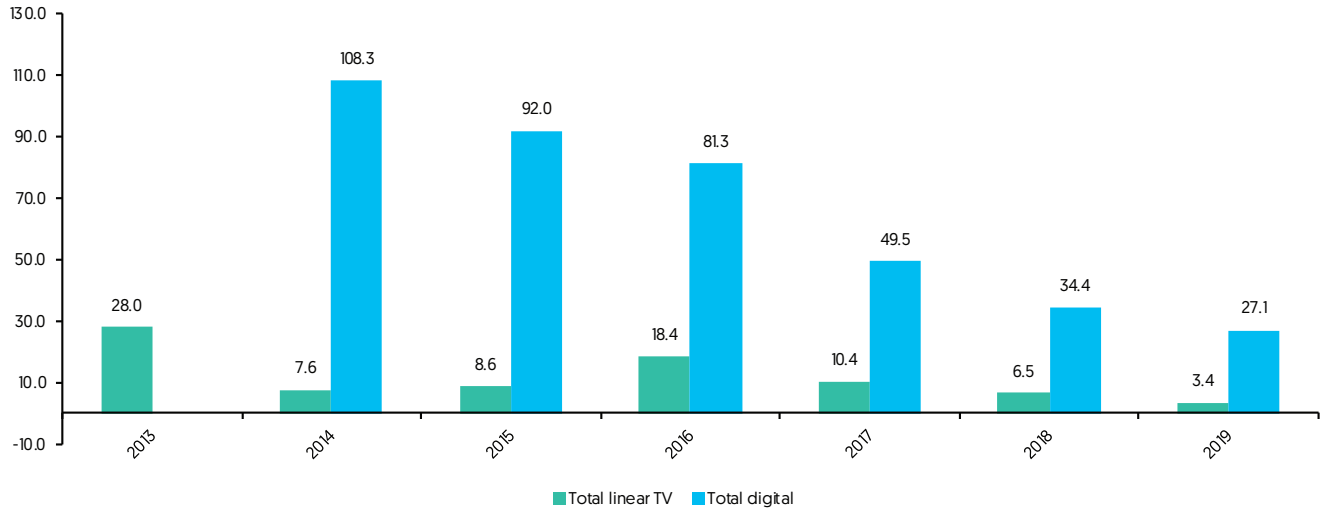
YouTube is the main video platform in Indonesia.

Video viewers tend to be male and aged between 16 and 34.

Advertisers tend to use online video to complement

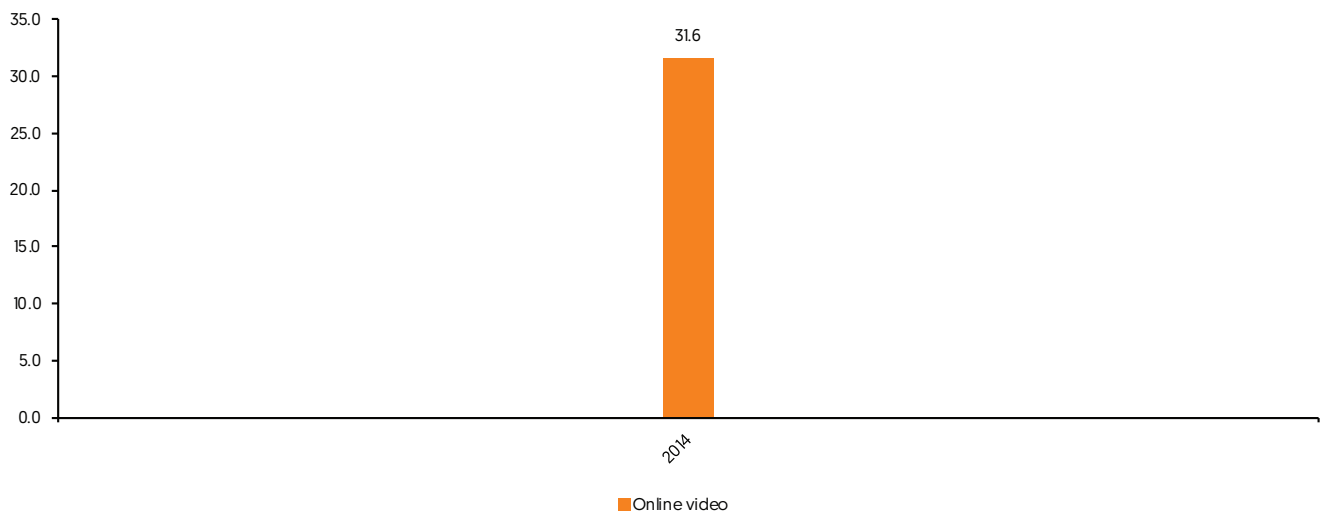
television campaigns. Long-form video with high-quality content is normally used to build awareness and credibility, while short-form video is used for tactical purposes and product promotions. Many advertisers used YouTube channels as platforms for their owned content to extend paid campaigns.

Advertising expenditure year-on-year growth (%)



Source: Nielsen, Zenith

Regular viewer numbers year-on-year growth (%)



Source: Roy Morgan
Monthly

Advertising expenditure (€ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	215.0	155.5	-	-	-
'13	205.3	172.4	69.0	-	-
'14	218.0	208.0	79.0	14.3	-
'15	229.0	248.0	99.0	24.5	-
'16	241.0	289.0	127.0	47.0	26.0
'17	253.0	328.0	158.0	59.5	37.9
'18	270.0	375.0	184.0	71.0	49.8
'19	275.0	376.0	185.0	80.0	54.9

Source: Core Media, IAB, Zenith

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	237.8	172.0	-	-	-
'13	227.1	190.7	76.3	-	-
'14	241.1	230.1	87.4	15.8	-
'15	253.3	274.3	109.5	27.1	-
'16	266.6	319.7	140.5	52.0	28.8
'17	279.9	362.8	174.8	65.8	41.9
'18	298.7	414.8	203.5	78.5	55.1
'19	304.2	415.9	204.6	88.5	60.8

Source: Core Media, IAB, Zenith

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)*	4,019	3,986	4,000	3,999	3,972	3,948	3,900	3,800
Number of regular online video viewers (000s)**	-	-	-	2,679	2,820	2,922	2,964	2,926

Source: Advantage, IAB, Core Media

*Monthly **In the last six months

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video	-	22.7	36.9	35.1	40.7	43.0	47.0	50.0
Time spent watching online video on mobile devices	-	5.2	14.7	16.0	21.7	27.0	33.0	40.0
Time spent watching online video on desktop/non-mobile	-	17.5	22.2	19.1	19.0	16.0	14.0	10.0

Source: Core Media

Demographics

	General population	Online video viewers
	2016	2016
Total (000s)	4,762	2,778
Age (000s)		
under 15	1,068	-
15-24	515	447
25-34	659	572
35-44	747	656
45-54	626	479
55-64	509	337
65+	638	286

Source: Ireland Census, TGI 2016

The average adult in the Republic of Ireland watched three hours and forty-one minutes of video (including TV, cinema and all forms of online video) every day in 2016. In Northern Ireland, this figure was even greater - four hours and forty-eight minutes. To put this in perspective, video accounts for 38% of all media consumption in the Republic, compared with 44% in the North.

While a third of online video viewers claim to watch more online video than TV, increasing to more than half amongst Adults 16-24, live TV (watching traditional television at the time of transmission) still represents the majority of consumption. The resilience of live TV may come as a surprise, but more than three quarters of video viewing is done on the TV set at home. This is partly explained by the fact that digital video recorder penetration has plateaued at around 60%, meaning 40% of the population are unable to 'time-shift' their viewing.

Figures do vary by age; but again, what is really going on may surprise: for young adults, watching live TV is still over half of their daily video consumption of 218 minutes. Watching short-form video, like YouTube, is increasing but is only 28 minutes a day on average, compared to 116 minutes for live TV.

We expect television adspend to grow 5.0% in the Republic of Ireland this year, while cinema grows 3.9%. Online video will continue its rapid rise, expanding by 27%.

Many think OTT services like Amazon Prime and Netflix are the biggest threat to traditional broadcasters, with giant programming budgets, award-winning content and increasing subscriber numbers. Again, perceptions often differ from reality; in 2017 Netflix will increase original content from 600 hours to over 1,000 hours, whereas RTÉ (Ireland's main TV broadcaster) produced 4,710 hours of home-

produced content in 2015. 24% of homes in the Republic of Ireland have a subscription to Netflix and 1% claim to subscribe to Amazon Prime (it only became available in Ireland last December). While subscription numbers are important, viewing time is the key metric. Data from Ipsos MRBI shows that, on average, these services only account for 3% of daily video consumption among all adults in the Republic. For adults aged 15-34, the number increases to 6%. To put this in perspective, the combined share of viewing to these services was equivalent to just half the viewing levels achieved by UTV Ireland in 2016 (among all adults).

In 2017, we will see social media companies increase their investment in video. Facebook has stated that it wants to become an alternative to TV. Its shift to video content in its News Feed, the development of live broadcasting and '360 video' signals the beginning of a trend likely to see it compete head-to-head with YouTube initially, and possibly Netflix down the road. In addition, Snapchat has stated that it wants to carry original video programming, ranging from breaking news to entertainment and reality shows.

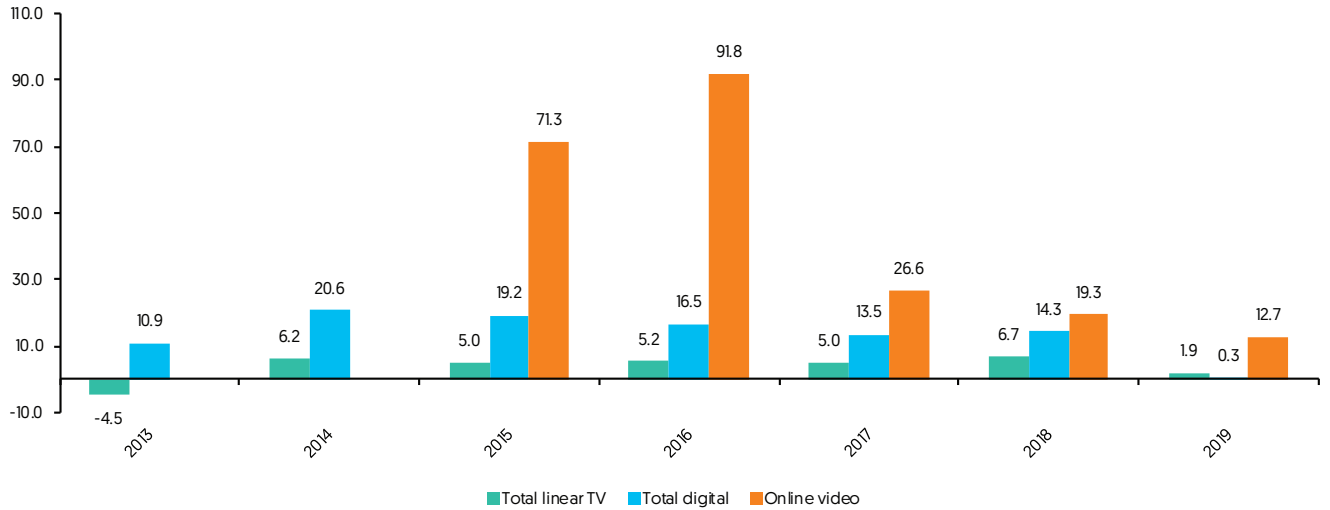
The challenge this presents to brands and agencies alike is resource. What 2015 established, and 2016 reinforced, is that social is a pay-to-play area, meaning brands must support their content with advertising investment. In 2017, we will see marketers and their agencies invest more in the production of 'social video', as it begins to compete more with the production values of TV, while retaining its authenticity.

This rise in social video is also creating new revenue streams for the larger platforms. Facebook has begun exploring new revenue opportunities including mid-roll ads and ad placements in Instagram Stories. In the short term, this is an easy solution to monetise its video content, but in the long-term, it risks fostering negative user sentiment.

Advertisers tend to use the TV broadcasters' video-on-demand platforms to run existing TV copy, or adapted versions of this copy, with the occasional bespoke ads unique to video-on-demand. RTÉ has the biggest broadcaster platform, attracting 1.7 million unique video viewers per month. 7% of its streams are of web-exclusive content, and the remainder is of catch-up programmes. Virgin Media is second, with 415,000 unique viewers per month, and All4 third with 275,000.

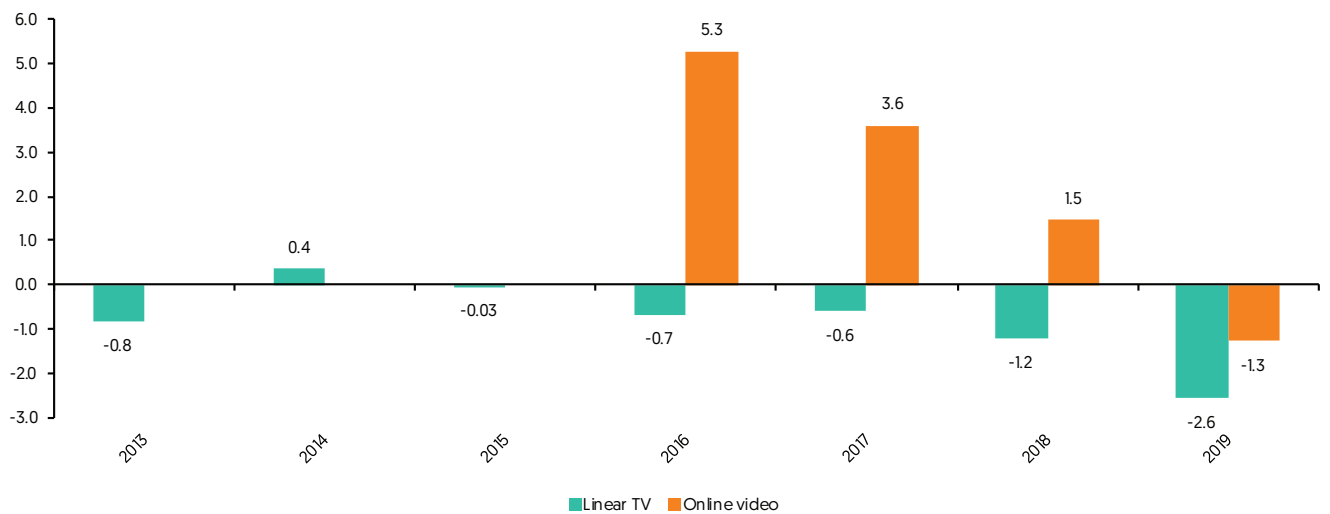
TV copy also features heavily on the pure internet platforms, but channel-specific content is becoming more prominent, especially shorter and often subtitled copy in social media. Portrait video is starting to appear more on Facebook feeds, and with Instagram Stories and Snapchat Stories as post-roll ads.

Advertising expenditure year-on-year growth (%)



Source: Core Media, IAB, Zenith

Regular viewer numbers year-on-year growth (%)



Source: Advantage, IAB, Core Media

Israel

Advertising expenditure (ILS million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	1,327	708	508	-	-
'13	1,431	730	510	-	-
'14	1,500	871	641	-	-
'15	1,480	1,025	785	-	-
'16	1,450	1,150	900	-	-
'17	1,421	1,310	940	-	-
'18	1,393	1,393	1,004	-	-
'19	1,337	1,485	1,085	-	-

Source: TGI

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	346	184	132	-	-
'13	373	190	133	-	-
'14	391	227	167	-	-
'15	385	267	204	-	-
'16	378	299	234	-	-
'17	370	341	245	-	-
'18	363	363	261	-	-
'19	348	387	283	-	-

Source: TGI

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	3,108	3,072	3,104	3,258	3,136	2,979	2,920	2,890
Number of regular online video viewers (000s)	1,160	1,102	1,216	1,492	1,689	1,892	2,081	2,185

Source: TGI
Weekly

Demographics

	General population	Online video viewers
	2016	2016
Total (000s)	4,242	1,689
Gender (000s)		
Male	2,066	899
Female	2,176	790
Age (000s)		
16-24	594	322
25-34	857	480
35-44	781	371
45-54	615	236
55-64	619	149
65+	776	132
Socioeconomic status (000s)		
ABC1	2,634	1,138
C2DE	1,332	485

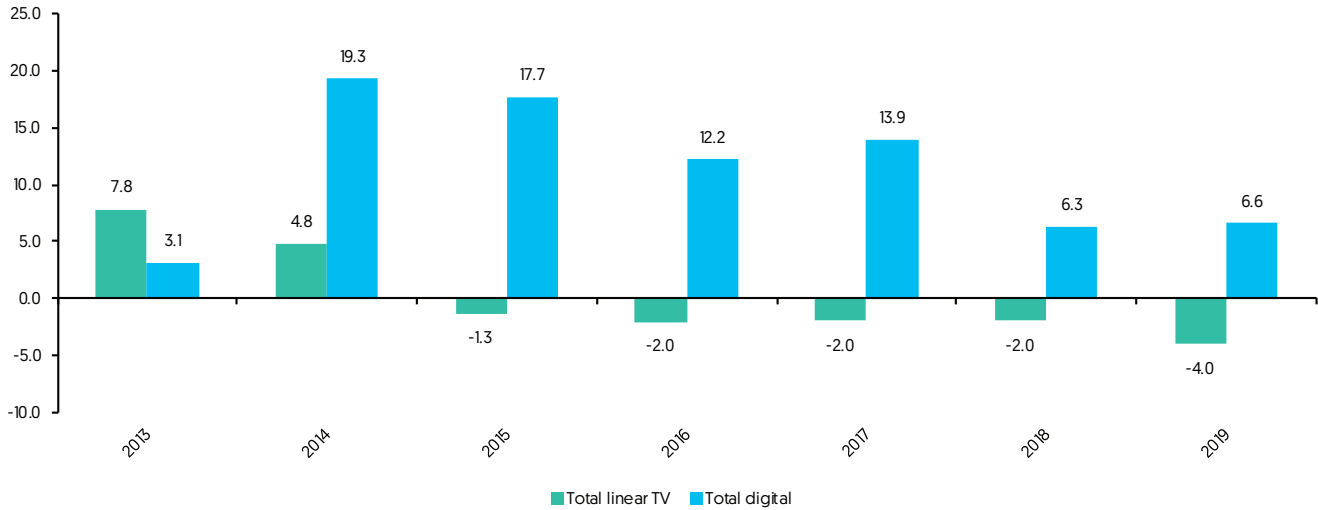
Source: TGI

The Israeli video market is divided into two major global platforms - YouTube and Facebook - as well as local video seller Artimedia, which distributes video ads into Israeli websites' content: Ynet.co.il, walla.co.il, Mako.co.il, nana10.co.il etc.

The demographic profile of the above video platforms reflects the demographic profile of the hosting websites. In general, and as can be expected, video viewing is somewhat more biased towards younger internet users (aged 18-44), and there are no significant differences between men and women.

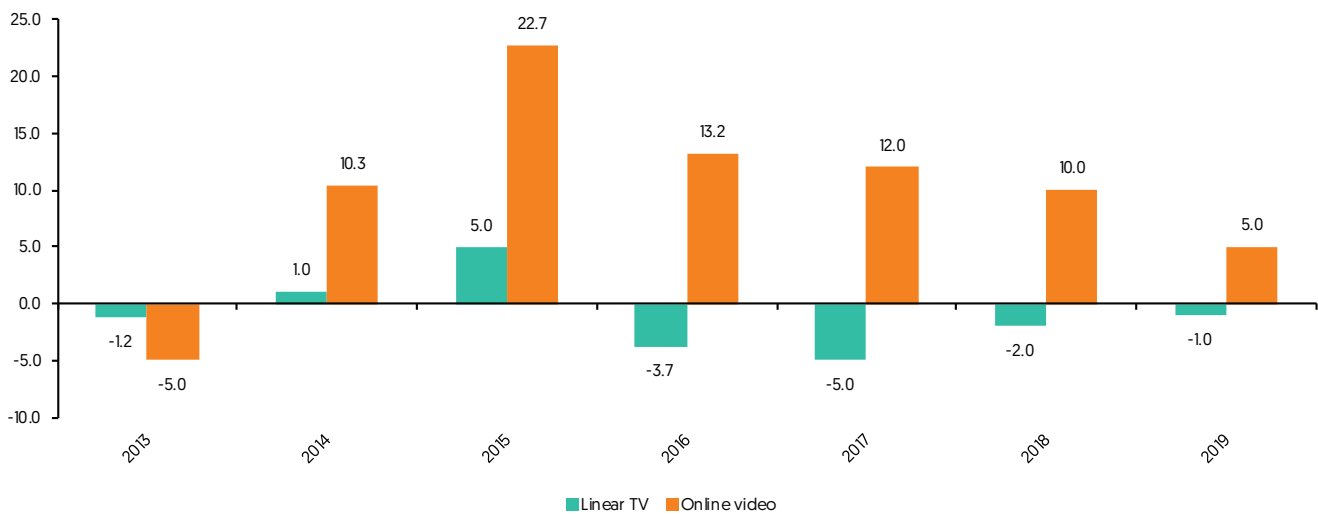
Due to the commercial TV structure in Israel (there are only two commercial channels), TV advertising is very strong and still stable. Therefore, most advertisers use video platforms as a complementary format rather than a replacement. However, small advertisers with limited resources produce cheap video commercials that are aired only on video platforms. The budget shift is not between TV and video, but rather between print and video.

Advertising expenditure year-on-year growth (%)



Source: TGI

Regular viewer numbers year-on-year growth (%)



Source: TGI
Weekly

Advertising expenditure (€ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	3,619.5	1,438.3	707.9	137.3	7.7
'13	3,258.5	1,586.9	844.9	215.7	12.5
'14	3,242.0	1,709.5	913.8	234.0	23.2
'15	3,261.6	1,838.0	1,007.3	267.8	32.7
'16	3,437.4	1,982.6	1,115.2	325.1	155.1
'17	3,457.7	2,129.3	1,219.3	373.9	210.7
'18	3,503.2	2,252.8	1,334.6	409.5	269.6
'19	3,536.5	2,363.8	1,435.9	444.3	326.1

Source: Zenith

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	4,005.4	1,591.7	783.4	151.9	8.5
'13	3,605.8	1,756.1	935.0	238.7	13.9
'14	3,587.6	1,891.7	1,011.2	258.9	25.7
'15	3,609.3	2,033.9	1,114.6	296.3	36.2
'16	3,803.9	2,194.0	1,234.1	359.8	171.7
'17	3,826.4	2,356.3	1,349.3	413.8	233.1
'18	3,876.7	2,493.0	1,476.9	453.1	298.3
'19	3,913.5	2,615.8	1,588.9	491.6	360.8

Source: Zenith

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	58,063	58,353	57,202	56,061	54,800	54,416	54,035	53,711
Number of regular online video viewers (000s)	20,791	22,477	23,531	24,059	25,257	25,762	26,277	26,803

Source: Audiweb View, Auditel
Monthly

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video	3.2	3.4	3.6	4.0	5.0	5.2	5.5	5.8
Time spent watching online video on mobile devices	1.5	1.8	2.0	2.5	3.6	3.9	4.2	4.5
Time spent watching online video on desktop/non-mobile	1.6	1.6	1.6	1.5	1.4	1.3	1.3	1.3

Source: Audiweb View [December average]

Demographics

	General population	Online video viewers
	2016	2016
Total (000s)	55,053	25,257
Gender (000s)		
Male	27,277	12,219
Female	27,775	13,038
Age (000s)		
under 16	7,781	1,165
16-24	5,268	3,321
25-34	6,968	4,725
35-44	9,194	5,934
45-54	9,132	5,260
55-64	7,659	3,113
65+	9,052	1,739
Socioeconomic status (000s)		
ABC1	19,590	10,074
C2DE	31,930	13,091
Other	3,533	2,092

Source: Audiweb View

Online video/movies (websites, apps and platforms that broadcast video and movie content) and broadcast media (broadcasters' websites and online platforms) attract 24.8 million unique users every month (2016 average data), equal to an 85.6% reach of the total digital audience. The Italian online video audience is growing year on year (+5% in 2016), boosted by mobile-based video viewing that concentrates more than 70% of monthly time spent. YouTube is definitely the leading video platform, followed by Mymovies.it, RaiPlay, Mediaset Live/On Demand, Sky.it, Repubblica TV and Netflix.

According to a survey by Audiweb, people watching online video are predominantly young (18-34 years old); but there is also high penetration among the 35-44 age group. Desktop PC video viewing is more male, while mobile video viewing skews more female.

The popularity of mobile viewing may factor into why Facebook videos are generally a shorter length. 80% of active users watch short videos online, the favourite formats being music videos (61%), tutorials (48%) and entertainment videos (40%). The most used platforms for watching short videos are YouTube (92%) and Facebook or other social (63%). 46% of video users watch videos in streaming mode, the top content being films, TV series and sport events.

Pre-roll is undoubtedly the most used video format by Italian advertisers; however, the available inventory is progressively

limited, as the growing demand for online video advertising requires an increasing supply of video content to embed advertising in. A valid alternative is provided by overlay video ads (spot banners that appear above the content) - when clicked on, video content is usually paused, and the user is directed to an external landing page. Besides instream formats, we also have to consider outstream placements (outside the editorial content) - the most commonly used are in-banner video and in-text video.

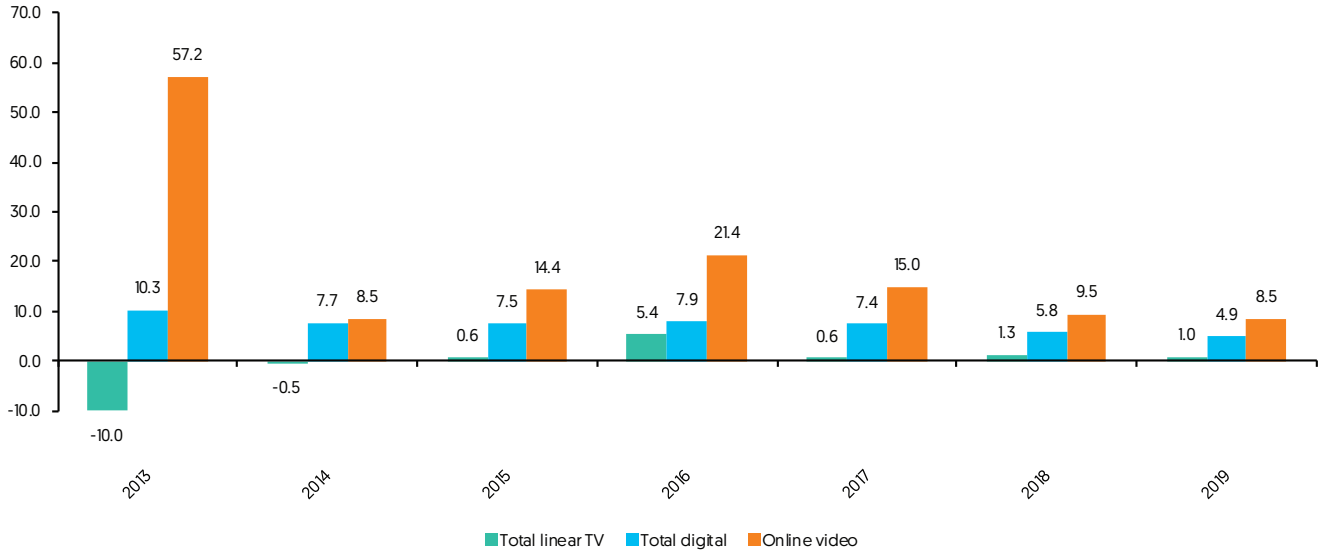
Nowadays, the primary objective when using online video advertising is branding/awareness; however, the use of specific creatives can stimulate 'call to action' in order to achieve performance goals. When used in social network platforms, video advertising is particularly effective in generating users' engagement and storytelling. The development of more and more engaging video formats (like 360° or vertical videos) will increase advertising effectiveness, especially among mobile users.

An increasing number of Italian advertisers are devoting budgets to online video advertising: in 2016, it increased by 21% to €325 million, equivalent to 16% of total digital advertising. Growth is mainly being driven by social and programmatic platforms. Online video investments are often conceived to integrate TV planning, with the purpose of reaching those users that are no longer (or less and less) watching TV, and to strengthen TV communication on multichannel users.

In terms of the future of audiovisual advertising, video on social networks will continue to grow, thanks to new formats like native video and 'live streaming' ads (according to Facebook, its News Feed will become video-only in just five years); mobile video is one of the fastest growing formats, and it will benefit from tech advancements that will make mobile video advertising even more engaging (and appealing for advertisers). In addition, video will be included in brands' email newsletters to generate higher visualization and click-through rates; virtual and augmented reality are expected to become mainstream; video lengths will vary according to the platform used and the objective that each brand wants to achieve (inform, engage, present a new product or recall an existing product); and creativity and content will be key in video communication - videos will get shorter and they will have to be able to communicate even without audio. At the same time, we will see an increasing demand for viewability measurement.

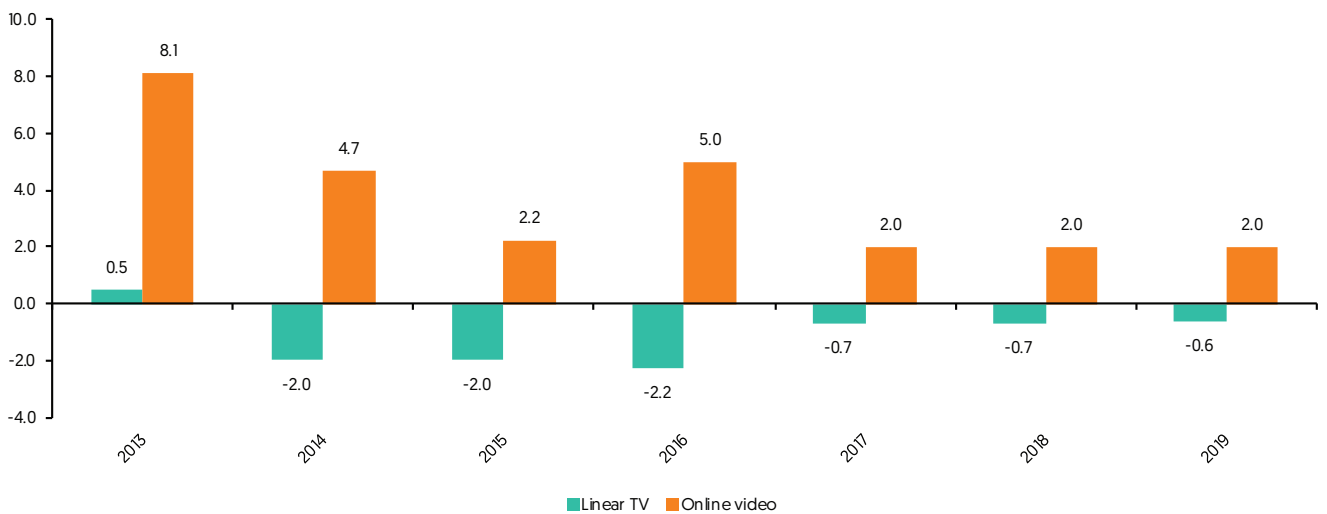
Owned video is being used mostly in partnership: YouTubers attract brands thanks to their ability to create engagement and trust with their audience. Usually the partnership via web is in sync with TV campaigns to generate a halo effect.

Advertising expenditure year-on-year growth (%)



Source: Zenith

Regular viewer numbers year-on-year growth (%)



Source: Audiweb View, Auditel
Monthly

Kazakhstan

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	840.0	21.7	15.9	0.7	-
'13	995.0	24.5	14.7	1.0	-
'14	1,004.0	24.7	13.7	2.0	0.01
'15	820.0	19.6	10.1	2.9	0.02
'16	499.4	11.2	5.0	2.0	0.04
'17	554.4	16.7	6.1	3.4	0.1
'18	626.5	23.2	7.5	4.8	0.2
'19	695.4	30.5	8.8	6.8	0.3

Source: TNS, Zenith

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	4,938	5,208	4,909	5,000	5,075	5,071	5,065	5,060
Number of regular online video viewers (000s)	-	-	1,378	1,820	2,352	2,916	3,500	3,920

Source: TNS

Weekly viewers, adults 15+, cities with population above 100,000

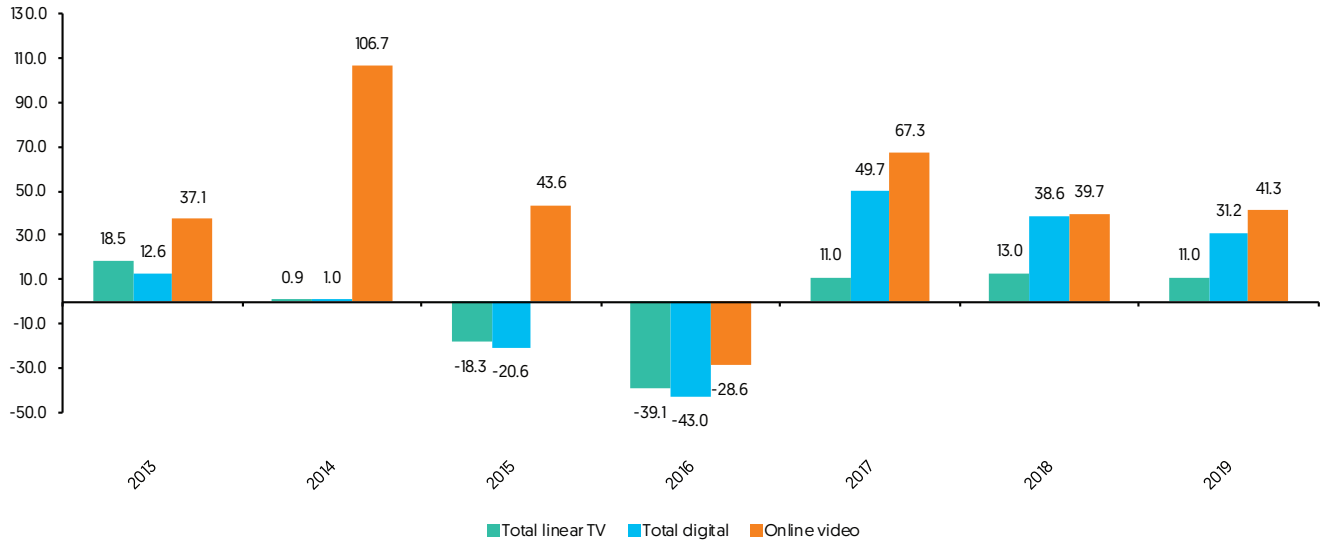
Demographics*

	General population	Online video viewers
	2016	2016
Total (000s)	6,256	3,198
Gender (000s)		
Male	2,822	1,523
Female	3,435	1,675
Age (000s)		
15	117	80
16-24	1,201	902
25-34	1,536	949
35-44	1,001	405
45-54	634	172
55-64	638	66
65+	1,131	623
Socioeconomic status (000s)		
High income	3,262	1,872
Low income	2,994	1,326

Source: TNS

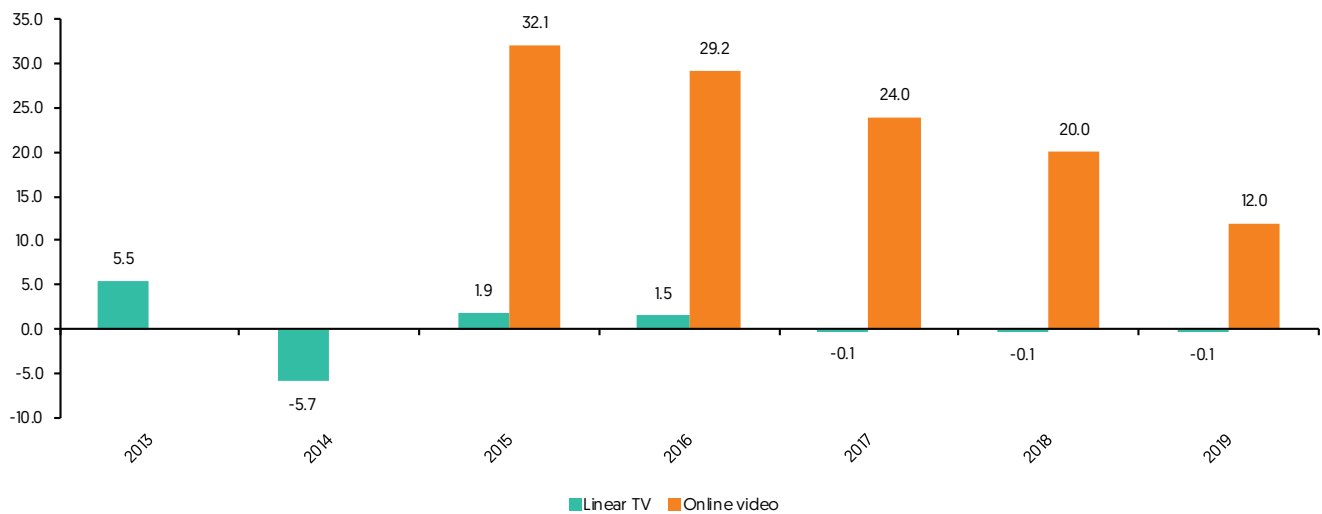
*Adults 15+, in cities with population above 100,000

Advertising expenditure year-on-year growth (%)



Source: TNS, Zenith

Regular viewer numbers year-on-year growth (%)



Source: TNS
Weekly viewers, adults 15+, cities with population above 100,000

Latvia

Advertising expenditure (local currency million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	32.0	10.9	-	-	-
'13	32.5	10.2	-	-	-
'14	33.2	10.7	-	-	-
'15	33.3	14.7	-	-	-
'16	33.2	15.8	-	-	-
'17	33.3	16.2	-	-	-
'18	33.4	17.5	-	-	-
'19	33.4	18.2	-	-	-

Source: Latvian Advertising Association, Zenith

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	35.4	12.1	-	-	-
'13	36.0	11.3	-	-	-
'14	36.8	11.8	-	-	-
'15	36.9	16.3	-	-	-
'16	36.7	17.5	-	-	-
'17	36.9	17.9	-	-	-
'18	37.0	19.4	-	-	-
'19	37.0	20.1	-	-	-

Source: Latvian Advertising Association, Zenith

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	1,812	1,767	1,776	1,764	1,753	1,697	1,680	1,663
Number of regular online video viewers (000s)	552	663	-	827	872	1,002	1,102	1,190

Source: TNS Atlas, Zenith [weekly]

Demographics

	General population	Online video viewers *
	2016	2016
Total (000s)	1,636	1,167
Gender (000s)		
Male	784	585
Female	852	582
Age (000s)		
under 16	18	18
16-24	194	191
25-34	333	315
35-44	295	255
45-54	317	218
55-64	246	120
65+	232	51
Socioeconomic status		
AB	477	409
C1 C2	603	463
D E	554	294

Source: TNS Atlas, Spring 2016

* Have watched online video (youtube.com, tvplay.lv, tvdom.tv, replay.lv, netflix.com, megogo.net) during last six months

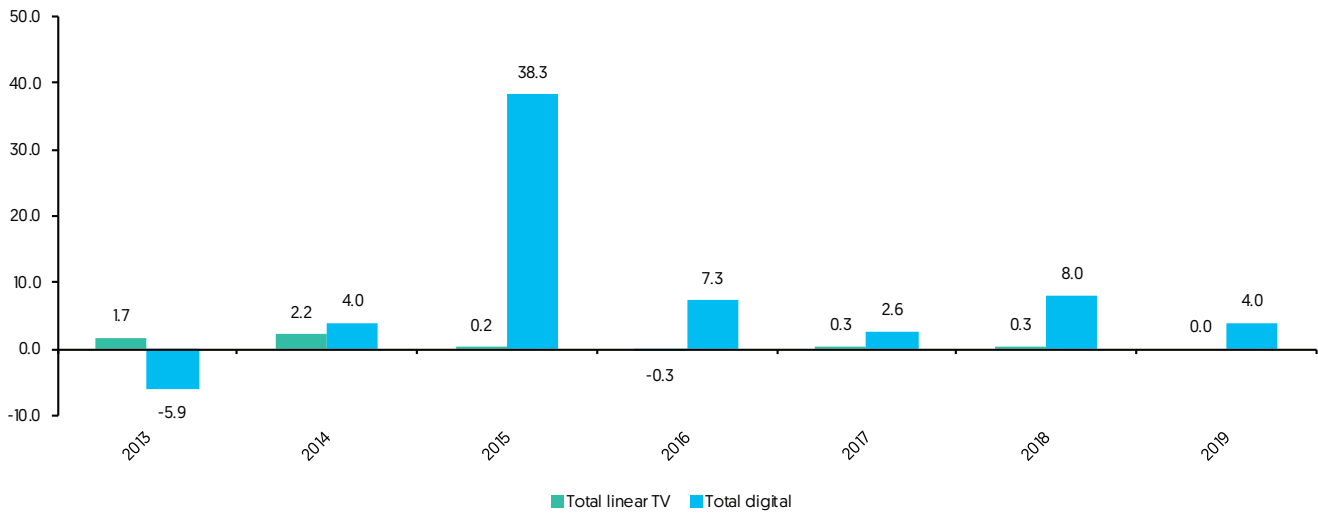
The most popular video platform is YouTube, which is dominated by English and Russian-language content. Also popular is the local skaties.lv, although it still has considerably lower reach.

15-34 year-olds, city dwellers and the better off are the most active consumers of online video. Short form video is very popular, with the biggest formats being pre-rolls and mid-rolls. In-stream overlays are not very popular and present only on YouTube inventory as a part of GDN. In-stream video is usually used for reach and awareness building, but although generating high CTRs most clicks are accidental, leading to high bounce rates. For cost optimization and inventory/reach extension, in-display or in-read video formats are often chosen. In-feed social has low viewability and audibility and is used mostly for engagement purposes.

VOD remains an unmonitored medium, but probably takes around 10% of TV budgets. It is the principal medium in social, and mobile video consumption is on the rise. As the technology around speech recognition develops, search is switching more and more from a semantic to an audiovisual basis.

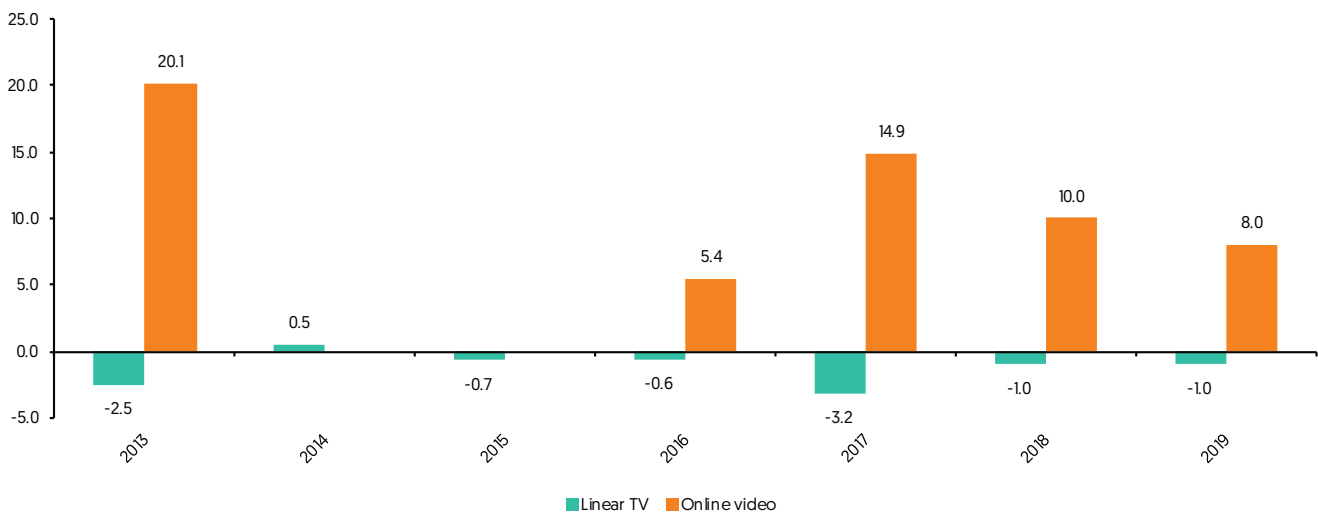
Online video is the fastest-growing digital ad channel at the moment.

Advertising expenditure year-on-year growth (%)



Source: Latvian Advertising Association, Zenith

Regular viewer numbers year-on-year growth (%)



Source: TNS Atlas, Zenith (weekly)

Advertising expenditure (€ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	47.5	9.8	9.8	0.5	-
'13	46.9	11.3	11.3	0.8	-
'14	45.8	13.3	13.3	1.6	-
'15	46.1	15.3	15.3	2.3	-
'16	48.7	18.0	18.0	3.4	-
'17	51.7	19.9	19.9	4.3	-
'18	53.6	21.8	21.8	4.6	-
'19	55.3	24.1	24.1	4.8	-

Source: TNS, Zenith estimates

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	52.6	10.9	10.9	0.5	-
'13	51.9	12.5	12.5	0.9	-
'14	50.6	14.7	14.7	1.8	-
'15	51.0	16.9	16.9	2.5	-
'16	53.9	19.9	19.9	3.8	-
'17	57.2	22.0	22.0	4.8	-
'18	59.3	24.2	24.2	5.1	-
'19	61.1	26.6	26.6	5.3	-

Source: TNS, Zenith estimates

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	2,161	2,009	1,881	1,803	1,818	1,840	1,845	1,840
Number of regular online video viewers (000s)	406	386	476	488	483	539	550	560

Source: TNS, Infosys National Readership and Internet survey
Daily

Demographics

	General population	Online video viewers
	2016	2016
Total (000s)	2,192	483
Gender (000s)		
Male	1,042	276
Female	1,151	207
Age (000s)		
under 16	18	13
16-24	316	202
25-34	386	147
35-44	353	67
45-54	397	33
55-64	419	18
65+	304	3
Socioeconomic status (000s)		
AB	457	132
C1C2	659	143
DE	1,077	208

Source: TNS, ATLAS Survey 2016

YouTube is the most popular video platform in Lithuania. There are some successful local platforms such as tv3play.lt, Inkgo.lt, delfi TV, Irytas TV and Irt.lt, but they have lower reach than YouTube.

The heaviest online video viewers are young (particularly those aged 29 to 34) and male, inhabit big cities and earn high incomes.

The most popular videos are short, up to three minutes in length. Live coverage of sporting events also attracts large audiences.

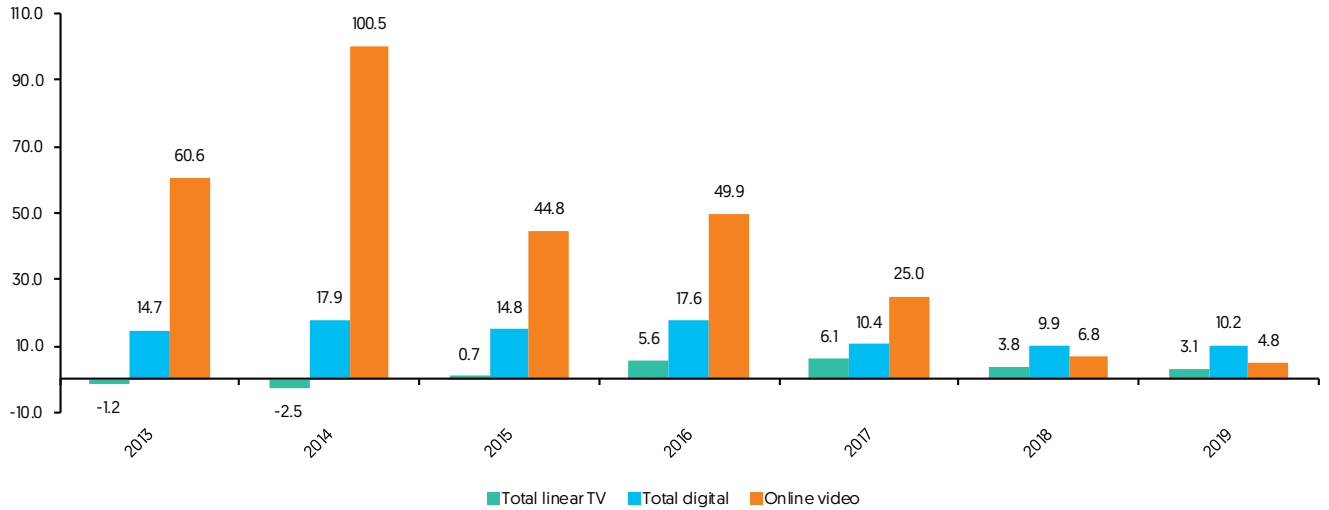
Online video advertising is becoming more common among mainstream advertisers, particularly if they already have video clips for TV campaigns, which they can reuse online. Online video advertising provides a better user experience: after viewing an ad, users can find more information, participate in a contest or even buy a product, with just a few clicks. Online portals are investing in their own video content so they can benefit from increased demand for online video inventory.

As programmatic grows, media agencies and clients are looking at possibilities to buy VOD programmatically. Some of the biggest networks have already started to provide part of their VOD inventory through programmatic buying platforms.

Owned video content is not yet popular in Lithuania. Some advertisers have their own YouTube channels, and promote their content with YouTube advertising.

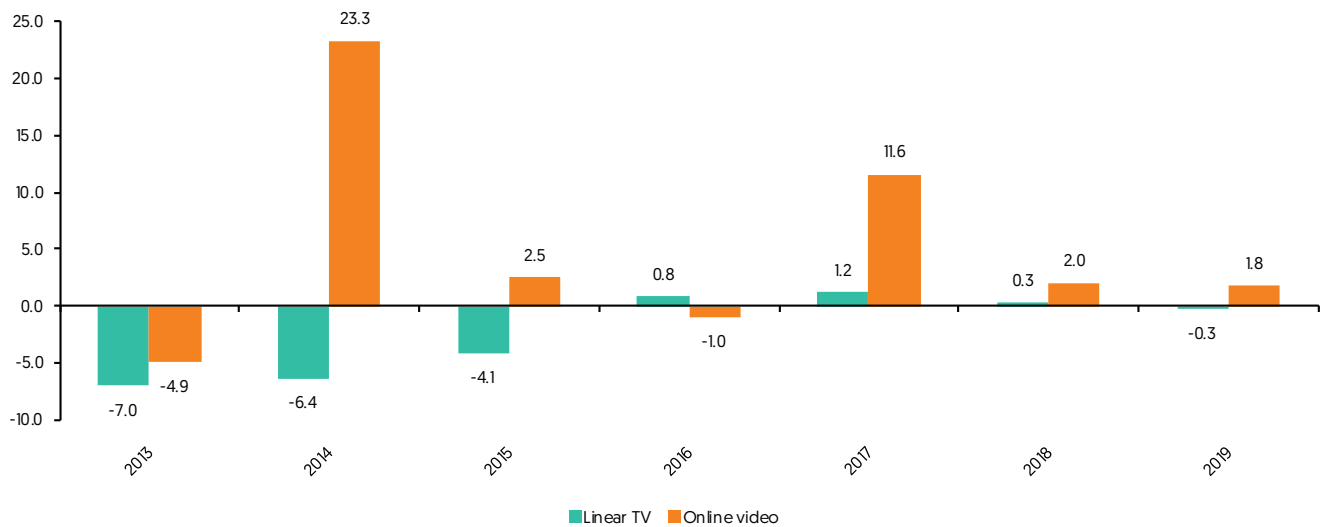
Overall, as in much of Europe, the consumption and importance of online video is increasing.

Advertising expenditure year-on-year growth (%)



Source: TNS, Zenith estimates

Regular viewer numbers year-on-year growth (%)



Source: TNS, Infosys National Readership and Internet survey
Daily

Malaysia

Advertising expenditure (Ringgit million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	2,464.5	202.7	-	-	-
'13	2,541.9	233.1	-	-	-
'14	2,515.9	841.5	462.0	231.0	-
'15	2,282.0	1,051.9	498.8	299.3	-
'16	2,382.3	1,314.8	610.5	366.3	-
'17	2,452.4	1,577.8	823.0	518.2	-
'18	2,590.5	1,893.4	1,044.1	657.4	-
'19	2,692.0	2,272.1	1,180.0	810.0	-

Source: Nielsen Media Research, Zenith

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	594.1	48.9	-	-	-
'13	612.8	56.2	-	-	-
'14	606.5	202.9	111.4	55.7	-
'15	550.1	253.6	120.2	72.1	-
'16	574.3	317.0	147.2	88.3	-
'17	591.2	380.4	198.4	124.9	-
'18	624.5	456.4	251.7	158.5	-
'19	648.9	547.7	284.5	195.3	-

Source: Nielsen Media Research, Zenith

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	-	-	14,193	14,927	15,260	15,683	15,990	16,220
Number of regular online video viewers (000s)	-	-	19,030	20,933	22,608	24,416	26,370	28,100

Source: Nielsen, comScore, Zenith

*Weekly reach for TV, monthly reach for online video

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video	-	-	27.0	48.5	47.0	47.0	47.0	47.5
Time spent watching online video on mobile devices	-	-	-	20.5	20.0	20.0	21.0	22.5
Time spent watching online video on desktop/non-mobile	-	-	27.0	28.0	27.0	27.0	26.0	25.0

Source: comScore, GWI, Zenith

Demographics

	General population	Online video viewers
	2015	2015
Total (000s)	30,485	20,933
Gender (000s)		
Male	15,653	10,676
Female	14,831	10,257
Age (000s)		
under 14	7,732	-
15-24	5,671	-
25-34	5,614	-
35-44	4,057	-
45-54	3,326	-
55+	4,084	-

Source: Population Projections Malaysia, Nielsen, comScore, Zenith

There are many popular online video platforms in Malaysia, from general platforms (such as YouTube, Daily Motion and Vimeo), to drama video streaming services (such as Viki and DramaFever), subscription film and TV platforms (such as iFlix and Netflix) and catch-up TV services (such as TonTon). The content available includes long-form and short-form video, web exclusive broadcasts, and live sports streaming.

The in-stream advertising available on these platforms includes pre-roll and mid-rolls, both skippable and non-skippable, and video banners.

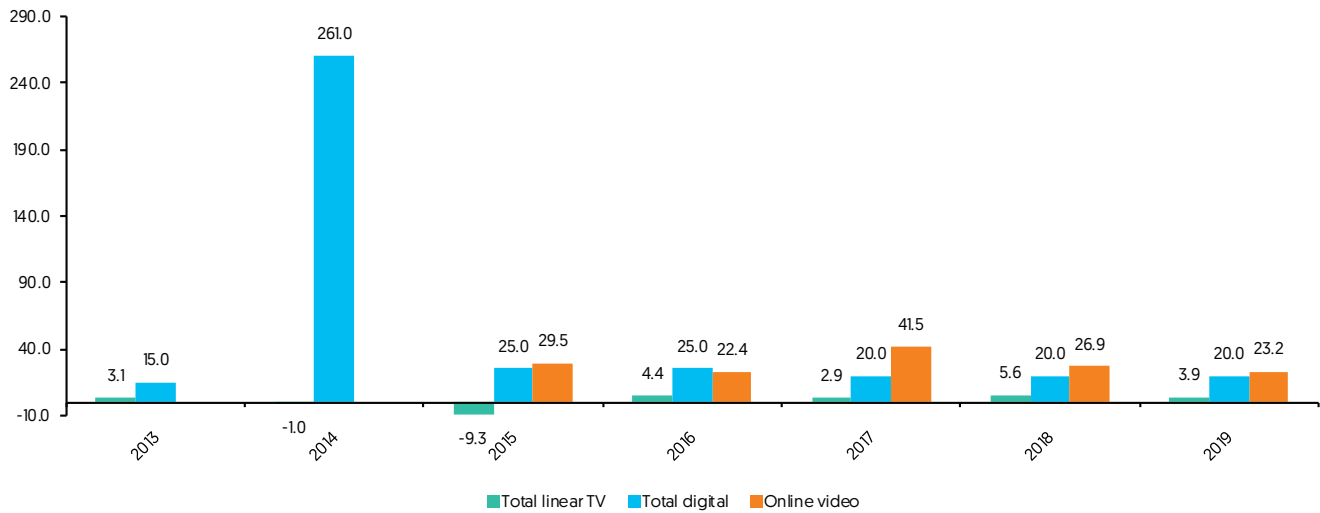
Online video ads are generally most effective for story-telling, educational and brand-building purposes. They tend to be less effective at driving conversions, although Google has introduced some new performance features such as the YouTube Infocard or Overlay Call To Action.

Many advertisers have shifted some – and in a few cases all – of their linear TV budgets to online video. Online video offers lower media costs, much shorter turnaround (days rather than weeks), much less regulatory burden, more accountability, and the ability to optimise creative as well as media placement in almost real time.

Mobile video viewing is being hampered by the high cost of data plans and poor 4G coverage, but the telecoms companies are under pressure to reduce their prices, and the government is issuing new telecoms licences to broadband companies. Smartphones are widely available, with 80% penetration. About 65% of videos are viewed on mobile devices, but these are mainly short-form videos. Long-form content, such as dramas and sports programmes, are generally viewed on desktops.

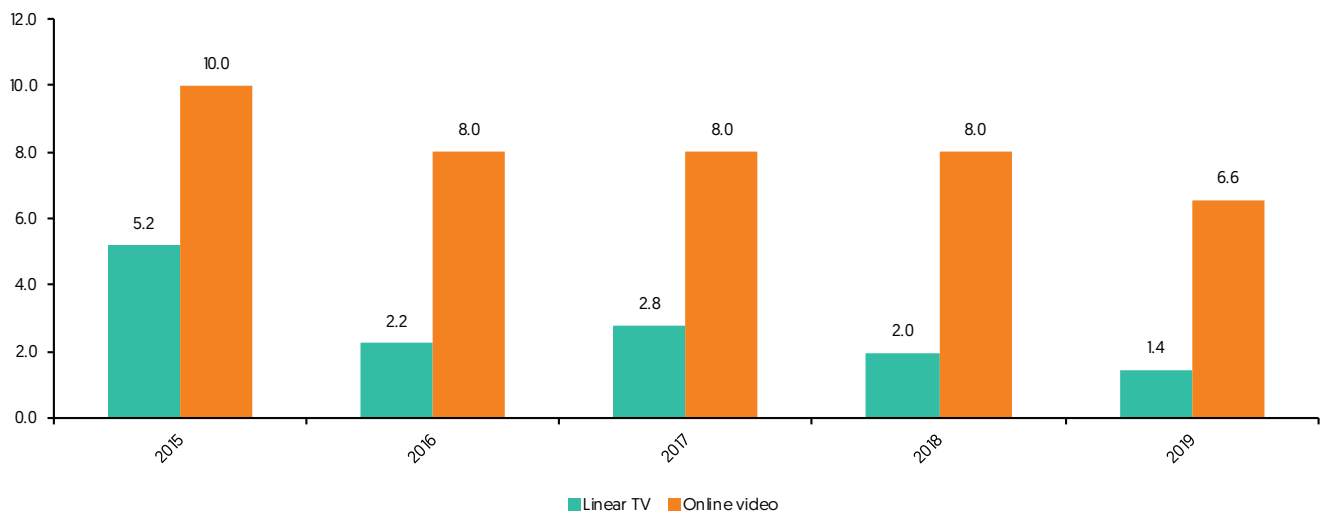
Most advertisers are not sophisticated in the use of owned media. Instead of creating original content, it is more common to use video ads that are similar to existing TV ads, and host them on the brand's social media channels and pages.

Advertising expenditure year-on-year growth (%)



Source: Nielsen Media Research, Zenith

Regular viewer numbers year-on-year growth (%)



Source: Nielsen, comScore, Zenith
*Weekly reach for TV, monthly reach for online video

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers * (000s)	116,117	117,566	118,755	119,433	120,561	121,665	122,742	123,788
Number of regular online video viewers ** (000s)	22,643	26,197	27,801	27,127	29,706	31,211	32,717	34,223

Source: Global Web Index, Zenith estimates

* Daily ** Monthly

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video	11.6	15.1	17.1	19.1	21.2	22.7	26.0	28.3
Time spent watching online video on mobile devices	-	-	-	-	-	-	-	-
Time spent watching online video on desktop/non-mobile	-	-	-	-	-	-	-	-

Source: Global Web Index, Zenith estimates

Demographics

	General population	Online video viewers
	2015	2015
Total adults (000s)	121,006	27,127
Gender (000s)		
Male	58,688	14,690
Female	62,318	12,437
Age (000s)		
16-24	27,226	9,176
25-34	26,137	6,389
35-44	26,137	5,603
45-54	19,603	4,462
55-64	12,101	1,497

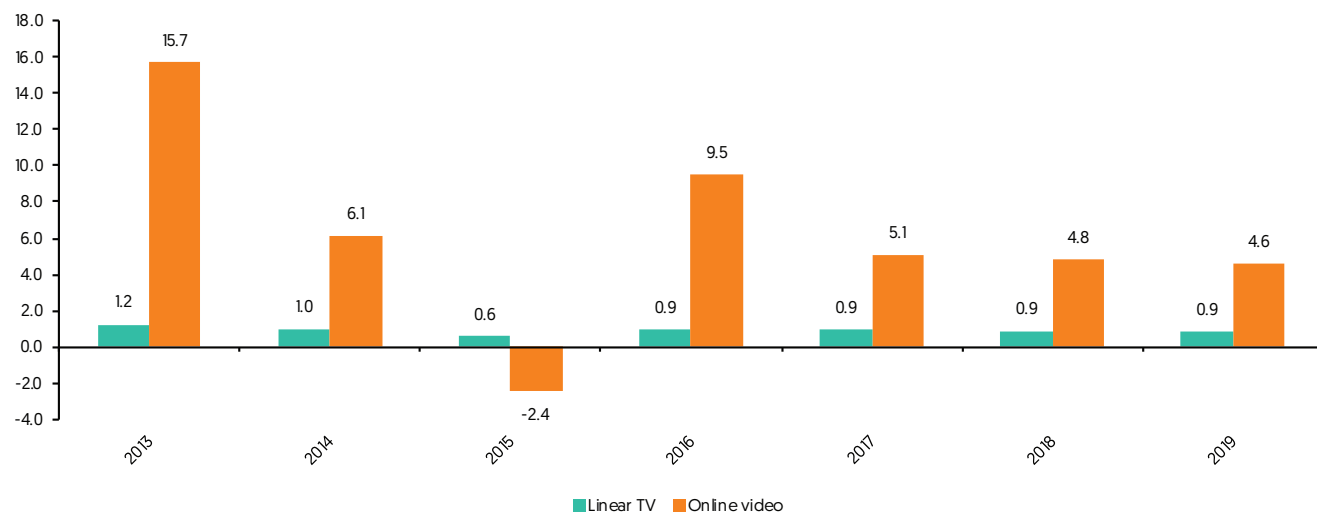
Source: TGI, GWI

The most important video platform in Mexico is YouTube, with more than 46 million visits (33 million by mobile) per month, followed by VEVO with 13.4 million. Netflix is also popular, attracting 9.8 million visits per month. The age groups using these platforms are fairly evenly distributed for YouTube and Netflix, roughly speaking a third coming from each of the 18-24, 25-34 and 35+ age brackets. However, usage of VEVO is highly concentrated among 25-34-year-olds, who account for as much as 80% of VEVO's user base.

Most Mexicans (54%) prefer music videos as their first choice of internet content, followed by series (33%), movies (30%), tutorials (22%) and vlogs (19%).

We expect significant growth in investment for video as consumers demand more and more of this type of content. By 2016 89% of users liked to look for information in video format followed by image (85%), text (82%) and audio (44%).

*Regular viewer numbers
year-on-year growth (%)*



Source: Global Web Index, Zenith estimates

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	2,898	2,985	3,026	2,879	2,902	2,743	2,647	2,595
Number of regular online video viewers (000s)	1,342	1,523	1,497	1,629	1,664	1,696	1,764	1,852

Source: AGB, Gemius Explorer, Zenith Daily

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video	20.0	18.7	14.7	17.1	20.7	23.7	28.5	34.0
Time spent watching online video on mobile devices	9.4	8.4	8.0	9.7	11.3	13.1	16.2	20.0
Time spent watching online video on desktop/non-mobile	10.6	10.3	6.7	7.4	9.4	10.6	12.3	14.0

Source: Gemius Explorer, Zenith

Demographics

	General population	Online video viewers
	2016	2016
Total (000s)	3,555	1,664
Gender (000s)		
Male	1,710	828
Female	1,845	835
Age (000s)		
under 16	613	7
16-24	481	536
25-34	673	464
35-44	505	311
45-54	483	154
55-64	462	145
65+	339	47
Socioeconomic status (000s)		
ABC1	1,445	521
C2DE	2,111	1,142

Source: National Bureau of Statistics of RM, Gemius Explorer

women. 60% are aged between 16 and 34, and 69% are C2DE, compared to 50% of the population.

Most video views are of short-form content viewed on platforms like Ok.ru, YouTube and Facebook. There are some platforms like megogo.net that offer full-length films and TV series.

The platforms offer several types of advertising, including pre-roll, mid-roll, post-roll, pause banners and content-roll (video ads that appear within editorial content while it is being read).

Pre-roll ads are the most commonly used formats, and can add 5% to 13% incremental reach to TV campaigns, depending on the target audience. Pause banners offer high click-through rates, from 5% to 10%.

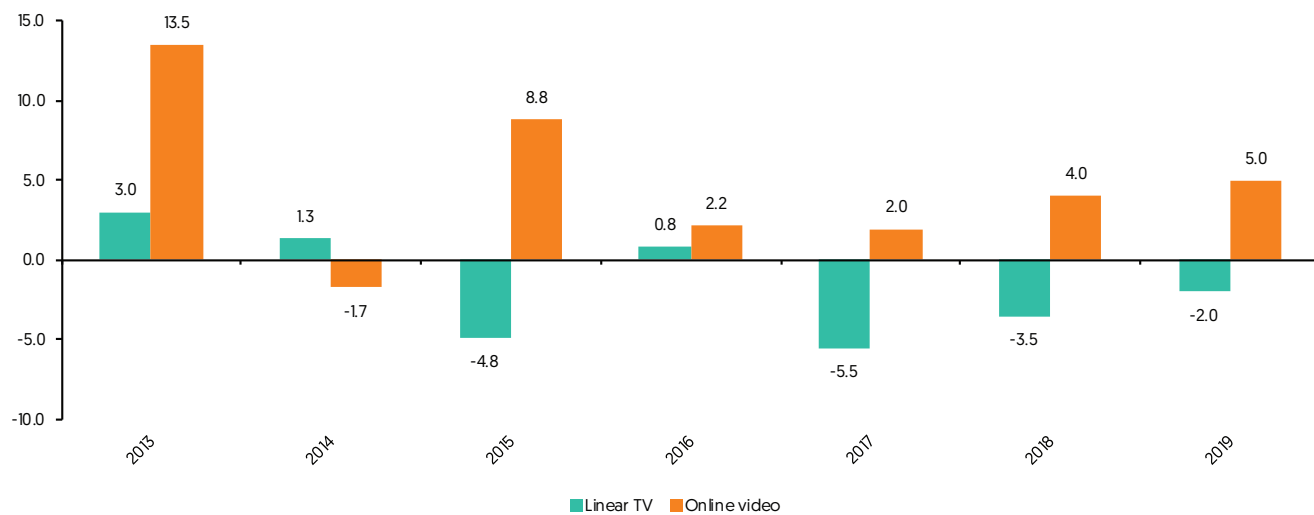
Online video is mainly used to complement linear TV advertising, which is necessary now that the reach of TV alone is in decline. Online video is a cheaper way to reach young audiences than television, and is rapidly growing in popularity. Online video ads are generally repurposed TV ads; there is not much original online video creative.

The main video platforms are Ok.ru, YouTube.com, megogo.net and play.md. Almost all news websites offer video content, but video is not their main output.

Online video viewers are split 50:50 between men and

Moldova has high quality mobile internet infrastructure – 99% of the country is covered by 3G, and 60% by 4G – and mobile operators are promoting smartphone sales with special offers and bonus payments, so mobile video consumption is growing rapidly.

*Regular viewer numbers
year-on-year growth (%)*



Source: AGB, Gemius Explorer, Zenith
Daily

Netherlands

Advertising expenditure (€ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	962.0	1,158.0	476.0	-	-
'13	933.0	1,255.0	520.0	57.2	-
'14	964.0	1,397.0	582.0	75.7	-
'15	965.0	1,513.0	615.0	98.0	-
'16	993.0	1,641.0	658.1	121.0	-
'17	996.0	1,759.0	704.1	182.7	-
'18	998.0	1,881.0	760.4	307.0	-
'19	997.0	2,003.0	821.3	435.9	-

Source: Nielsen, IAB

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	1,064.6	1,281.5	526.7	-	-
'13	1,032.5	1,388.8	575.4	63.3	-
'14	1,066.8	1,545.9	644.0	83.7	-
'15	1,067.9	1,674.3	680.6	108.4	-
'16	1,098.9	1,815.9	728.2	133.9	-
'17	1,102.2	1,946.5	779.2	202.2	-
'18	1,104.4	2,081.5	841.5	339.7	-
'19	1,103.3	2,216.5	908.8	482.3	-

Source: Nielsen, IAB

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	10,923	10,934	10,920	10,685	10,509	10,579	10,473	10,526
Number of regular online video viewers (000s)	-	-	-	-	5,695	6,158	6,774	7,790

Source: Advantedge, GWI
Daily

Demographics

	General population	Online video viewers*
	2016	2015-2016
Total (000s)	14,246	5,763
Gender (000s)		
Male	7,030	3,361
Female	7,216	2,403
Age (000s)		
under 16	615	421
16-24	1,853	1,260
25-34	2,040	1,238
35-44	2,242	1,069
45-54	2,534	916
55-64	2,172	558
65+	2,790	302
Socioeconomic status (000s)		
A81	6,334	2,994
B2CD	7,912	2,769

Source: NOM Print & Doelgroep Monitor 2015-II 2016-I
 * watch online video often and sometimes

YouTube is the main video platform in the Netherlands, followed by broadcaster RTL. The core demographic of online video users is people aged 18-65. For YouTube, the main audience is males/females aged 18-45, while for RTL the main audience is 20-45 year-old females.

YouTube shows both short- and long-form video. On RTL it is only long-form. TV programmes that you can watch on demand on RTL online. In terms of types of advertising, RTL mostly uses forced pre-roll ads, while YouTube has Trueview.

An increasing number of people are watching video on mobile. So it is important that the mobile market is growing, and also that there will be new mobile video platforms with new possibilities.

More and more people are watching TV shows, or fragments thereof, on the internet and the advertising industry has to adapt to this. Advertising videos are getting shorter - if people watch a video of less than a minute online, it's not okay to add two minutes of advertising in front of it. People will continue to watch television, and we don't think that TV advertising will become redundant, but there will come a time in the future when online video adspend will overtake TV advertising spend.

At the moment, advertisers are using online video to complement linear TV advertising. An advertiser is visible on

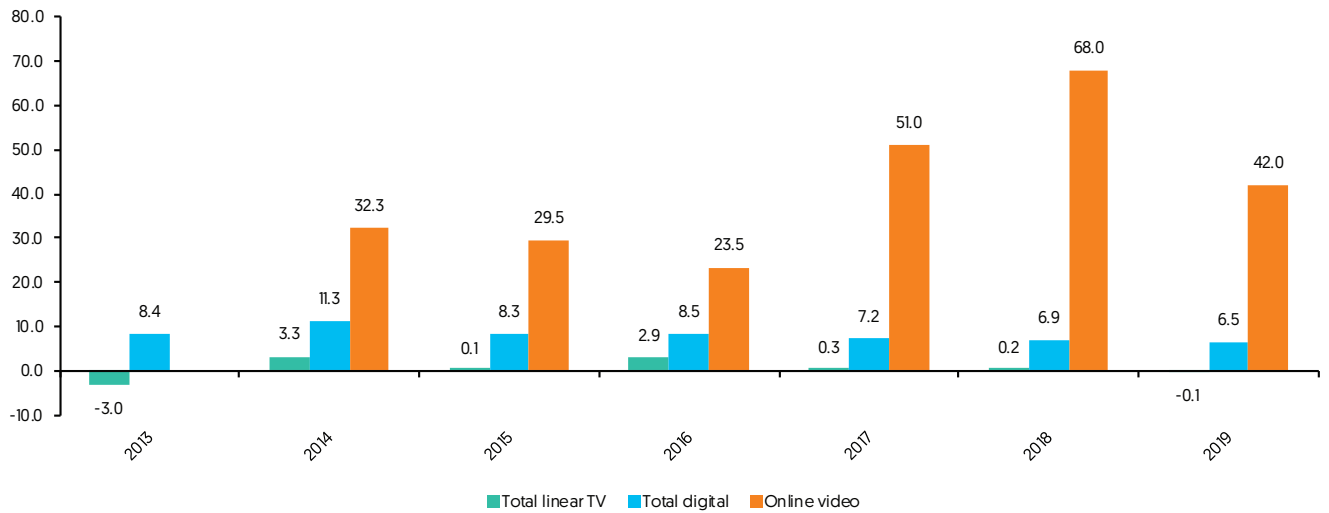
television via regular TV advertising, and to add additional reach they make a short version of the TV ad to be shown online. There are just a handful advertisers that choose to make exclusive online content.

Another issue to consider is the rise of programmatic TV. Programmatic TV is still in its infancy but many players in the broadcast industry are now investing, including producers, telecoms, cable companies, CDNs, content management systems, television manufacturers, media agencies, SaaS platforms, and many others. Programmatic TV will become an integral part of the online programmatic ecosystem.

Trends in online video advertising:

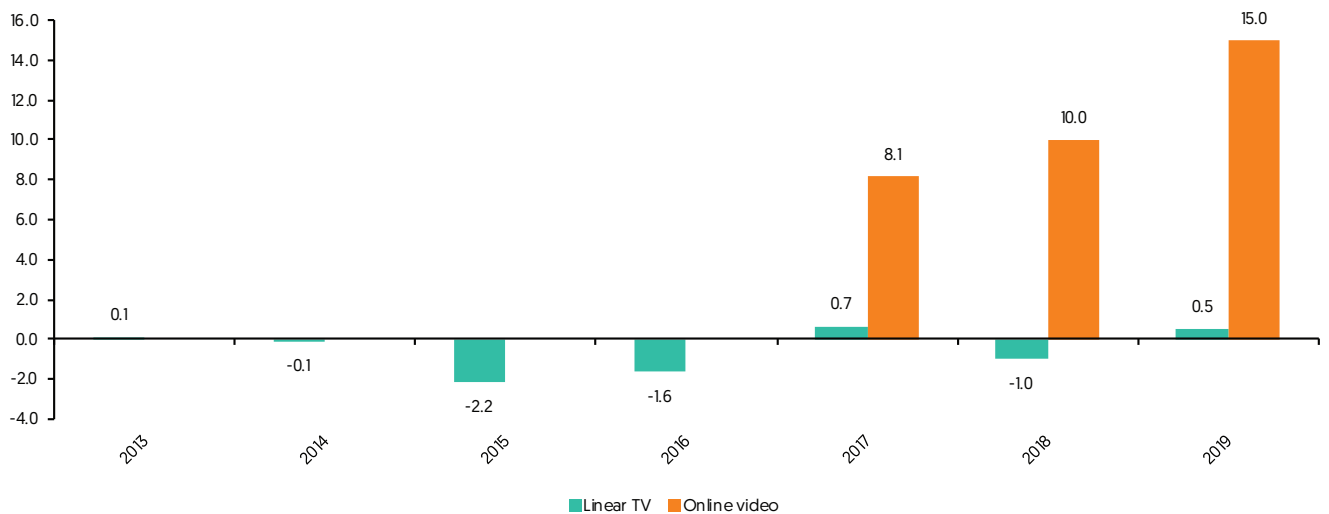
1. The development of 360 degree videos [VR] means there will be more experiments with video, and it will not take long for more companies to incorporate virtual reality into their business operations as it becomes cheaper and more accessible. Virtual reality ensures that the viewer is included in the story that is being transferred, and that they are part of the story of the company.
2. The length of online videos is of great importance, and the trend seems to be 'the shorter the more powerful'. However, when the video is short, there is no room for transferring the message. The most important thing about a video is, and remains, relevance. The viewer wants to be captivated by the message being transferred. By responding to the audience's content needs, the video will not only be relevant, but also appealing.
3. A video is no longer attractive when it tries to sell something or sums up facts. The viewer wants to be attracted to the subject of the video and experience a good story. The increase in the quality of storytelling in online video is very noticeable.
4. The use of social media by a company, brand or product generates a sense of involvement with social media users. When this is done by livestreams, the involvement becomes bigger. This triggers more viewers than an ordinary video, as viewers get the feeling they belong to, or become part of, the audience that is being addressed. For the company, sharing of live streams is very effective because it can respond to reactions and feedback.
5. Maintaining contact via email is still important. Adding videos to emails makes the content shorter, but there is a great chance that readers will click through to the website or visit one of the social media channels. This way more traffic is generated by email.

Advertising expenditure year-on-year growth (%)



Source: Nielsen, IAB

Regular viewer numbers year-on-year growth (%)



Source: Nielsen, IAB

New Zealand

Advertising expenditure (NZ\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	614.0	365.9	113.8	12.2	-
'13	634.0	471.0	136.2	17.2	-
'14	614.0	588.7	139.7	26.2	-
'15	589.0	694.3	167.3	29.2	-
'16	571.0	910.0	203.0	31.0	-
'17	559.0	957.0	224.9	33.0	-
'18	542.0	1,053.0	247.5	35.0	-
'19	525.0	1,158.0	272.1	37.0	-

Source: Zenith, IAB, PWC

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	427.9	255.0	79.3	8.5	-
'13	441.9	328.3	94.9	12.0	-
'14	427.9	410.3	97.4	18.3	-
'15	410.5	483.9	116.6	20.4	-
'16	398.0	634.2	141.5	21.6	-
'17	389.6	667.0	156.7	23.0	-
'18	377.8	733.9	172.5	24.4	-
'19	365.9	807.1	189.7	25.8	-

Source: Zenith, IAB, PWC

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	3,147	3,012	2,960	2,856	2,901	2,850	2,800	2,750
Number of regular online video viewers (000s)	-	-	1,159	1,275	1,788	1,950	2,150	2,350

Source: NZ On Air, Nielsen CMI
Daily

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video	-	-	24.0	28.5	40.0	48.0	57.0	68.0
Time spent watching online video on mobile devices	-	-	-	-	-	-	-	-
Time spent watching online video on desktop/non-mobile	-	-	-	-	-	-	-	-

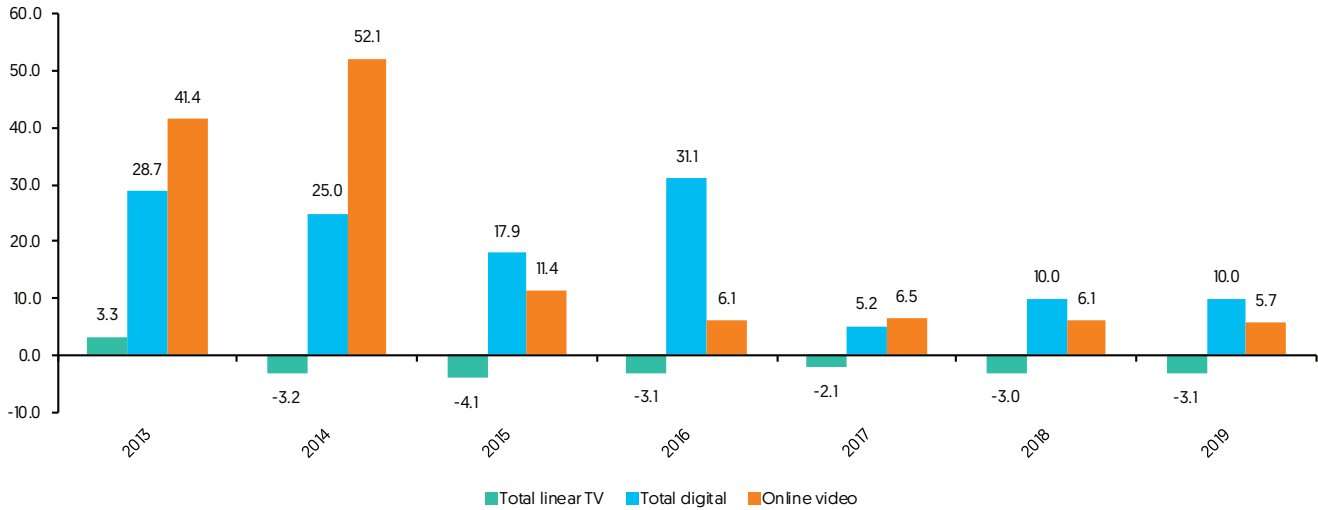
Source: NZ On Air, Nielsen CMI

While New Zealanders still spend most time with broadcast media, audiences are declining and there have been significant increases in the time spent with online video and SVOD content. The growth in OLV use follows the availability of content, with people spending an average of 40 mins a day watching online video through platforms like YouTube and Facebook. For subscribers of SVOD, use has grown to 39 minutes a day - and they are watching during traditional TV peak hours in the evening. Traditional broadcasters are embracing an omni screen approach, making more content available to be viewed on demand and streamed live. Around 3.7m New Zealanders watch TV content on any device, with 22% viewing across multiple devices. With the increasing penetration of smart TVs, online video consumption is also growing through TV screens.

As media owners transform their businesses to remain relevant, marketers are evolving their video delivery to maintain viewability and engagement. While more established OLV advertising formats of instream pre-roll and mid-roll currently claim most investment, longer form sponsored video content, whether integrated or live, is emerging.

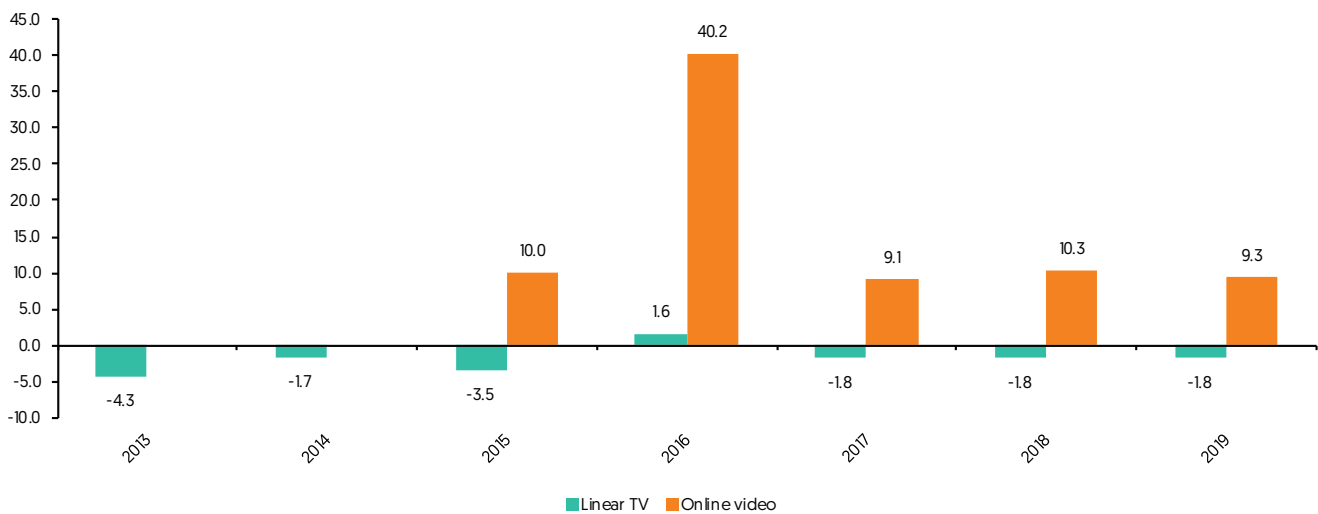
As video content traverses devices, and audiences become more fragmented, dynamic delivery is also developing. Dynamic production tools like Google's Director Mix [Vogon] offer advertisers the ability to customise video at scale to deliver more relevant messaging from a single video source. Beyond direct deals required to secure premium video inventory, programmatic trading will continue to drive cost efficiency and audience targeting.

Advertising expenditure year-on-year growth (%)



Source: Zenith, IAB, PWC

Regular viewer numbers year-on-year growth (%)



Source: NZ On Air, Nielsen CMI
Daily

Advertising expenditure (NOK million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	3,623.0	4,803.0	1,754.0	-	-
'13	3,829.0	5,564.0	2,126.0	143.0	-
'14	3,804.0	6,015.0	2,340.0	246.0	-
'15	3,866.0	7,513.0	3,286.0	312.0	-
'16	3,867.0	7,855.0	3,188.0	351.0	-
'17	3,870.0	8,468.0	3,319.0	411.0	-
'18	3,877.0	9,103.0	3,427.0	464.4	-
'19	3,880.1	9,756.0	3,495.1	529.5	-

Source: IRM, Zenith

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	431.3	571.8	208.8	-	-
'13	455.8	662.4	253.1	17.0	-
'14	452.9	716.1	278.6	29.3	-
'15	460.2	894.4	391.2	37.1	-
'16	460.4	935.1	379.5	41.8	-
'17	460.7	1,008.1	395.1	48.9	-
'18	461.6	1,083.7	408.0	55.3	-
'19	461.9	1,161.4	416.1	63.0	-

Source: IRM, Zenith

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	3,560	3,526	3,742	3,826	3,780	-	-	-
Number of regular online video viewers (000s)	-	-	1,165	1,533	1,704	-	-	-

Source: TNS Gallup
Weekly

Demographics

	General population	Online video viewers
	2016	2016
Total (000s)	4,418	1,704
Gender (000s)		
Male	2,215	917
Female	2,202	786
Age (000s)		
under 16	436	271
16-24	718	446
25-34	661	400
35-44	591	282
45-54	663	183
55-64	562	71
65+	788	51

Source: TNS Gallup

In Norway, the main video platforms are YouTube, newspaper VG's online video service VGTV, TV 2, Dplay [Eurosport Player], and the state channel NRK. Consumption of online video is increasing, but at the same time increasingly fragmented and spread across a number of platforms and devices.

Almost half (49.7%) of online video viewers are aged between 16 and 34 years, and only 7.1% are 55+.

There is a mix of long- and short-form content depending upon platform. VGTV is typically short-form and NRK is long-form, with TV 2 a mix of the two as it has both news clips and all the programmes that run on linear TV. Dplay focuses on long format, as Eurosport Player has all of Discovery's sports content.

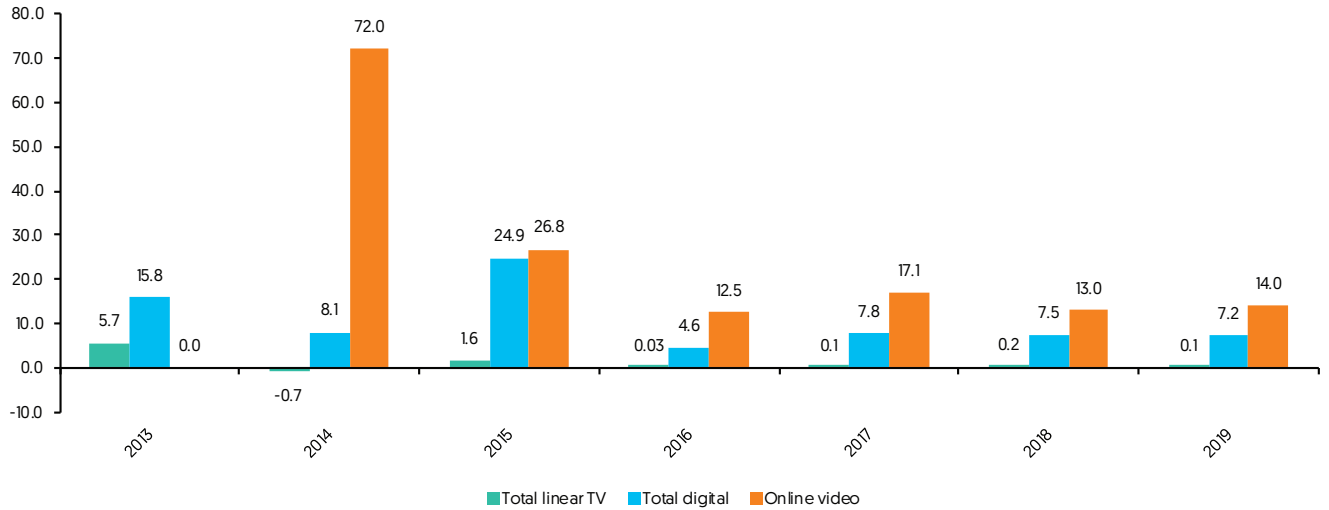
The types of advertising embedded within the content are pre-rolls, mid-rolls and post-rolls. Limited material is made specifically for web-TV, and most are TV commercials that also run on linear TV. A large number of the ads are simply the same as on linear TV, as programmes are watched live and stations don't have a separate feed.

The effectiveness of different video formats varies, depending upon the creatives, target group and goals of the campaign; online video can be effective if planned and executed properly using a clear web-TV strategy. However, the price is generally much higher than linear TV.

At the moment, advertisers are mainly using online video to complement linear TV advertising.

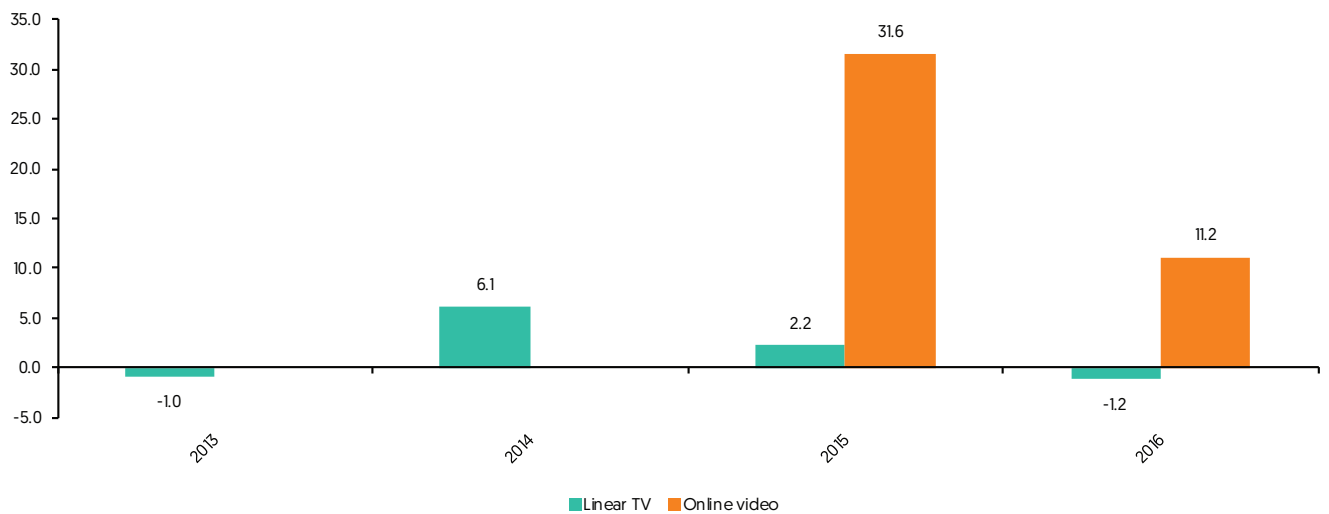
Mobile-based online video viewing will be important in the future, as linear TV viewing keeps decreasing and mobile is increasing. However, price levels will have to be addressed by the broadcasters as these are currently not competitive versus linear TV.

Advertising expenditure year-on-year growth (%)



Source: IRM, Zenith

Regular viewer numbers year-on-year growth (%)



Source: TNS Gallup
Weekly

Pakistan

YouTube was blocked in Pakistan from 2012 to the start of 2016, but video content has flourished on Facebook, giving stand-up comedy a new lease of life and creating internet celebrities such as Saad Haroon, Danish Ali, LOL Waalay and Mooroo.

YouTube relaunched as a localised platform in early 2016, and has grown from 10 million active users a month to 30 million. In addition, on an average day YouTube's homepage delivers approximately 32 million impressions in Pakistan. This increase in viewership has been aided by the quality content available on the platform; the introduction of content monetization in Pakistan has resulted in a large number of renowned content creators uploading their content on YouTube.

According to YouTube research, Pakistanis spend more time on the internet compared to any other medium, and 65% of their online activity consists of streaming video and music. Pakistanis spend a lot of time watching soap operas, and are influenced by India's entertainment industry; in the absence of Indian content on television, they watch it online instead. Most views, however, go to very short videos less than a minute in length.

In addition to Facebook and YouTube, there are several other important online video platforms in Pakistan, including Daily Motion, YT Pak, Tune.TV, Tune.PK, Vimeo, and the websites of television channels. New mobile video streaming app Tapmad TV, which was launched earlier this

year, has more than 600,000 active users each month to date, and is growing at an impressive rate.

The online video audience is young (mostly aged 15-35), 70% male, and dominated by urban and semi-urban residents.

Brands have understood the importance of investing in original online video ads and other video content. Video content stimulates more engagement than regular blog posts or community images – humorous content works best for this.

Television cannot easily be replaced in Pakistan, as it provides unmatched reach. Some brands, however, have supplemented television campaigns by creating extended storylines that are only available online, normally on their social media pages.

Popular ad formats include interactive videos with annotations, and clickable hotspots. These are generally effective at driving traffic to e-commerce websites or channel sign-up pages.

70% of online video and social media visits come through mobile devices, and this proportion will only grow over time. Mobile devices have given many people their first experience of the internet. There are about 39 million smartphone users in Pakistan, of which 38 million are 3G/4G subscribers.

Advertising expenditure (US\$ million)

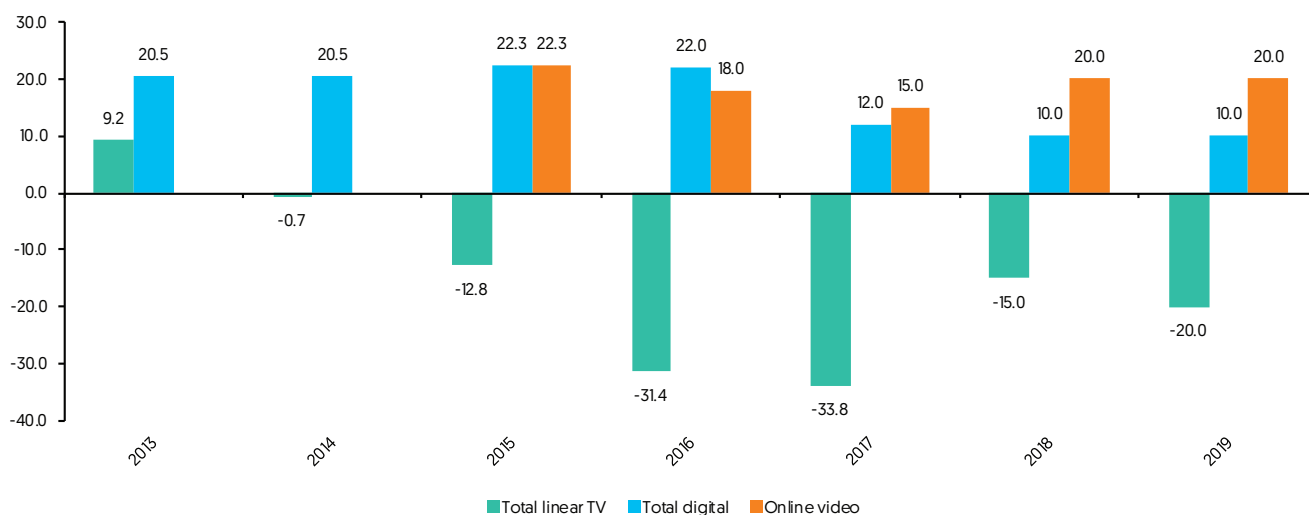
	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	1,151.9	310.0	-	-	-
'13	1,257.9	373.5	-	-	-
'14	1,249.7	450.0	351.0	157.5	133.9
'15	1,090.3	550.4	429.3	192.6	163.7
'16	748.4	671.4	506.5	227.3	193.2
'17	495.3	752.0	582.5	261.4	222.2
'18	421.0	827.2	699.0	313.7	266.6
'19	336.8	909.9	838.8	376.4	319.9

Source: Zenith

'Pan Arab' is an umbrella term that covers pan-regional media reaching the entire Arab region. Internet advertising in general is typically bought regionally rather than on a market-by-market basis, so we don't have figures for individual markets.

Most online video advertising is now delivered to mobile devices. YouTube and Facebook are the leading platforms. Online video is popular among all internet users, but particularly younger and more affluent users.

Advertising expenditure year-on-year growth (%)



Source: Zenith

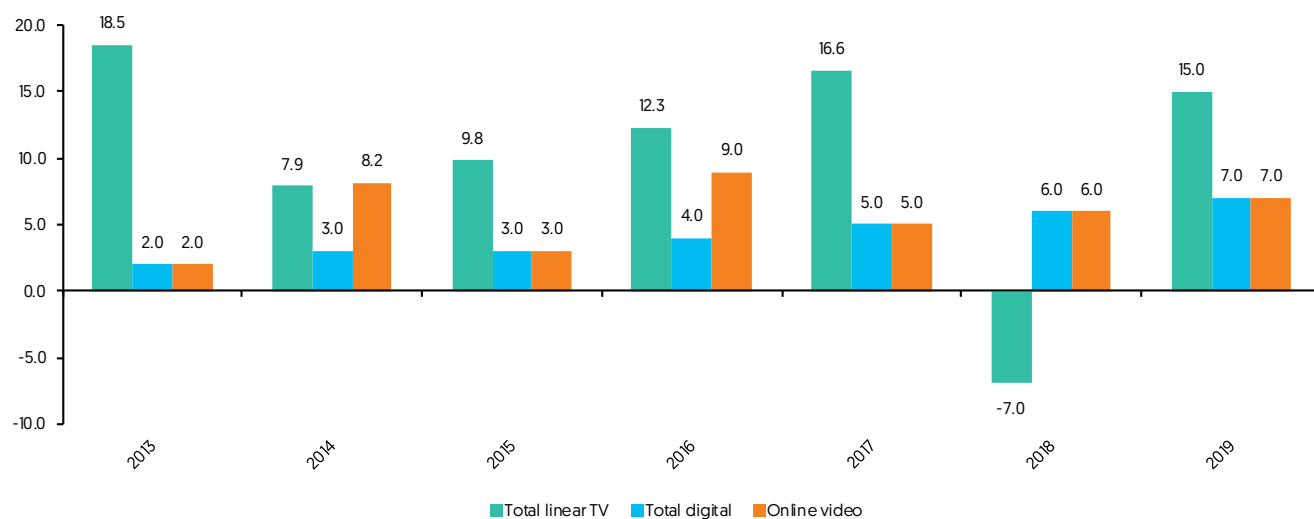
Panama

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	653.0	2.0	0.6	0.4	0.1
'13	774.0	2.0	0.6	0.4	0.1
'14	835.0	2.1	0.6	0.4	0.2
'15	917.0	2.2	0.7	0.5	0.2
'16	1,030.0	2.3	0.8	0.5	0.3
'17	1,201.0	2.4	0.7	0.5	0.4
'18	1,117.0	2.5	0.8	0.6	0.4
'19	1,284.6	2.7	0.9	0.6	0.5

Source: Zenith

Advertising expenditure year-on-year growth (%)



Source: Zenith

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	359.0	37.0	16.7	1.1	0.4
'13	391.0	44.0	20.2	2.6	1.3
'14	406.0	66.0	22.6	4.0	0.9
'15	385.0	77.0	26.6	7.2	1.0
'16	399.0	86.0	29.2	8.6	1.3
'17	419.0	99.0	32.7	9.9	1.5
'18	440.0	114.0	36.5	11.4	1.7
'19	458.0	131.0	39.3	13.1	2.0

Source: CPI, IAB, Zenith

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers* (000s)	6,917	6,919	7,016	7,076	7,655	7,885	8,121	8,365
Number of regular online video viewers** (000s)	1,325	1,416	2,277	2,545	3,243	3,892	4,475	5,147

Source: TGI Lima

* Last 7 days ** YouTube user, last 30 days

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video	-	-	-	-	-	-	-	-
Time spent watching online video on mobile devices	-	-	-	-	-	-	-	-
Time spent watching online video on desktop/non-mobile	-	-	18.6	22.2	25.6	29.4	33.9	38.9

Source: comScore

Demographics

	General population	Online video viewers*
	2016	2016
Total (000s)	32,672	3,243
Gender (000s)		
Male	15,971	1,694
Female	16,701	1,549
Age (000s)		
under 16	9,166	306
16-24	5,009	1,119
25-34	4,331	792
35-44	4,255	490
45-54	3,752	357
55-64	2,934	122
65+	3,226	58
Socioeconomic status (000s)		
AB	4,443	918
C	8,429	1,612
DE	19,800	713

Source: INEI: ENAHO 2016, TGI Lima, APEIM
 * Lima only, YouTube users in last 30 days

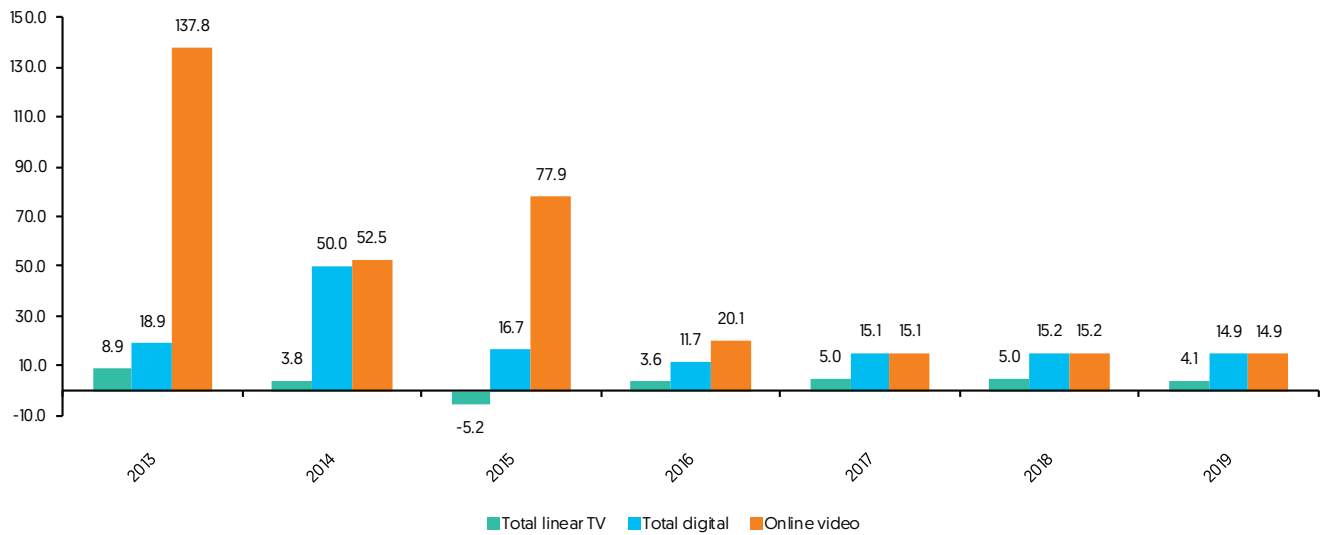
The principal online video platforms in Peru are YouTube, Teads, Facebook and various newspaper video services. Online video is most popular among 15-34 year-olds.

Content includes the rebroadcasting of TV shows, TV ads, music, tutorials and original content (from YouTubers). The type of advertising embedded within the content includes pre-roll, in-video (banners), contextual, and mobile (app, standard banners, vertical video, etc.).

Between 5% and 10% of TV spend has been transferred to digital video (not only YouTube, but also to Facebook Video, Teads, video websites and mobile video).

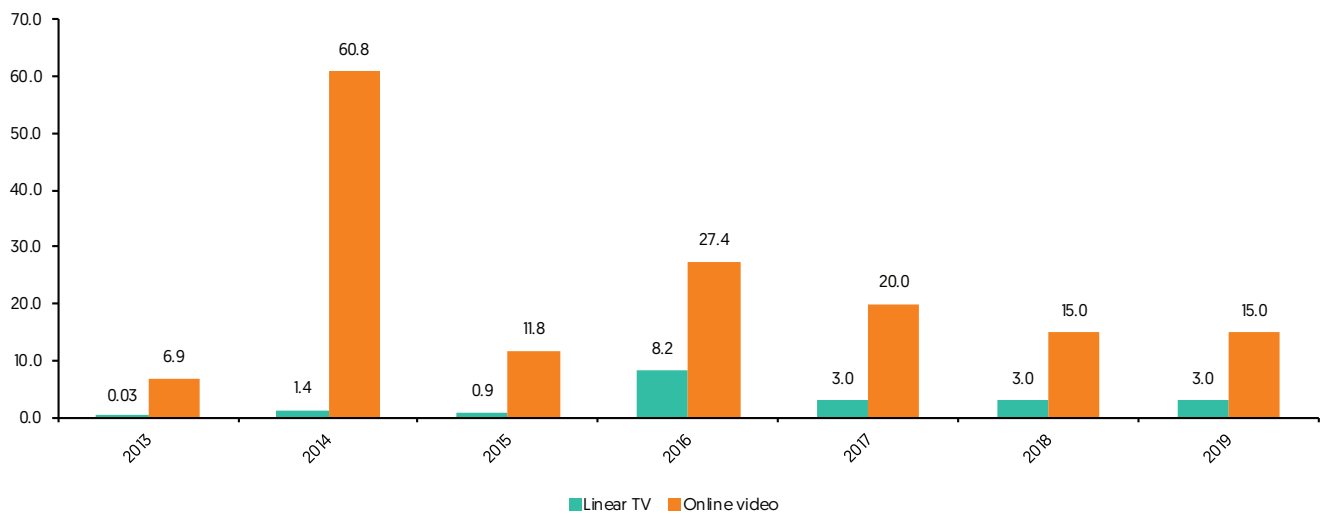
The future of video is mobile, and video must be created specifically for mobile and based on programmatic intelligence.

Advertising expenditure year-on-year growth (%)



Source: CPI, IAB, Zenith

Regular viewer numbers year-on-year growth (%)



Source: TGI Lima

* Last 7 days ** YouTube user, last 30 days

Philippines

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	-	49,910	46,485	47,844	46,232	44,594	43,256	42,391
Number of regular online video viewers (000s)	-	10,805	17,941	22,142	29,350	53,104	58,038	63,108

Source: Nielsen
Monthly viewers

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video	-	46	54	57	61	67	76	89
Time spent watching online video on mobile devices	-	-	-	-	-	-	-	-
Time spent watching online video on desktop/non-mobile	-	-	-	-	-	-	-	-

Source: GWI

Demographics

	General population	Online video viewers
	2017	2017
Total (000s)	81,530	53,104
Gender (000s)		
Male	40,160	26,263
Female	41,370	26,841
Age (000s)		
under 16	22,530	17,990
16-24	14,590	13,105
25-34	12,900	10,077
35-44	10,810	6,606
45+	20,700	5,326
Socioeconomic status (000s)		
AB	1,630	1,335
CDE	79,900	51,769

Source: Nielsen

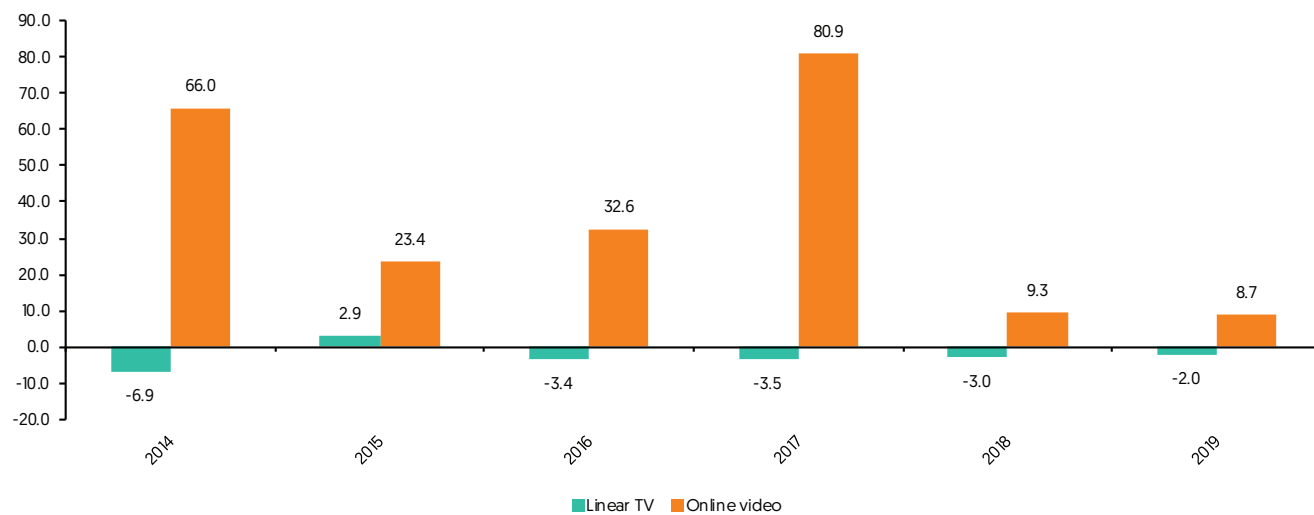
The three main platforms in the Philippines are YouTube, iWant TV (which is owned by the broadcaster ABS-CBN), and Unruly.

The most common form of video advertising is skippable pre-roll ads. Short ads have higher completion rates, so 6-second videos are best for straightforward price promotions. Longer ads are best for storytelling campaigns.

Online video is used for more than just extending the reach of television ads. It can be used to deliver different ads to different cities, according to viewer demographics, time of day, or even weather conditions.

Video is overwhelmingly mobile in the Philippines – 80%-90% of video ad traffic is mobile. The continued decline of television viewing and the rise of multiscreening highlight the importance of online video to media plans.

*Regular viewer numbers
year-on-year growth (%)*



Source: Nielsen
Monthly viewers

Poland

Advertising expenditure (PLN million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	3,499.0	1,211.0	-	-	-
'13	3,345.0	1,300.0	-	-	-
'14	3,446.0	1,458.0	-	-	-
'15	3,545.0	1,614.0	859.0	226.0	43.0
'16	3,601.0	1,807.0	917.3	285.5	54.0
'17	3,621.0	2,020.0	964.0	355.8	97.0
'18	3,590.0	2,260.0	996.5	437.3	154.0
'19	3,520.0	2,540.0	1,013.2	530.0	211.0

Source: Kantar, Nilsen, IGRZ, IAB, Zenith

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	887.1	307.0	-	-	-
'13	848.1	329.6	-	-	-
'14	873.7	369.6	-	-	-
'15	898.8	409.2	217.8	57.3	10.9
'16	913.0	458.1	232.6	72.4	13.7
'17	918.0	512.1	244.4	90.2	24.6
'18	910.2	573.0	252.7	110.9	39.0
'19	892.4	644.0	256.9	134.4	53.5

Source: Kantar, Nilsen, IGRZ, IAB, Zenith

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	28,270	28,061	27,864	27,749	27,267	27,630	27,600	26,510
Number of regular online video viewers (000s)	15,016	17,002	17,983	20,640	22,696	24,114	26,043	26,738

Source: TGI, MegaPanel/PBI (monthly)

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video	24	31	29	34	35	40	49	56
Time spent watching online video on mobile devices	9	12	11	13	15	18	22	26
Time spent watching online video on desktop/non-mobile	15	19	18	21	20	22	27	29

Source: Zenith

Demographics

	General population	Online video viewers
	2016	2016
Total (000s)	38,424	22,696
Gender (000s)		
Male	18,866	11,220
Female	19,558	11,447
Age (000s)		
under 16	8,556	1,729
16-24	4,092	4,062
25-34	6,130	5,484
35-44	5,768	4,717
45-54	4,963	3,358
55-64	5,369	2,417
65+	3,545	929

Source: Central Statistical Office of Poland, TGI, Megapanel/PBI

The biggest video platform is YouTube, which has nearly 20 million users per month. There are several strong domestic video-on-demand platforms, such as VOD.pl (with over 3.6 million users per month) and player.pl (over 2.7 million users per month). Global platforms like Dailymotion (1.1 million) and Vimeo (0.8 million) are almost as big as other VOD platforms.

Online video is most popular among 16-24 year-olds, 99% of whom are regular viewers. The popularity of online video

falls steadily by age, and only 24% of over-65s are regular viewers.

The launch of ShowMax (it has almost 1.6 million users per month) in February 2017 was the most important debut this year so far.

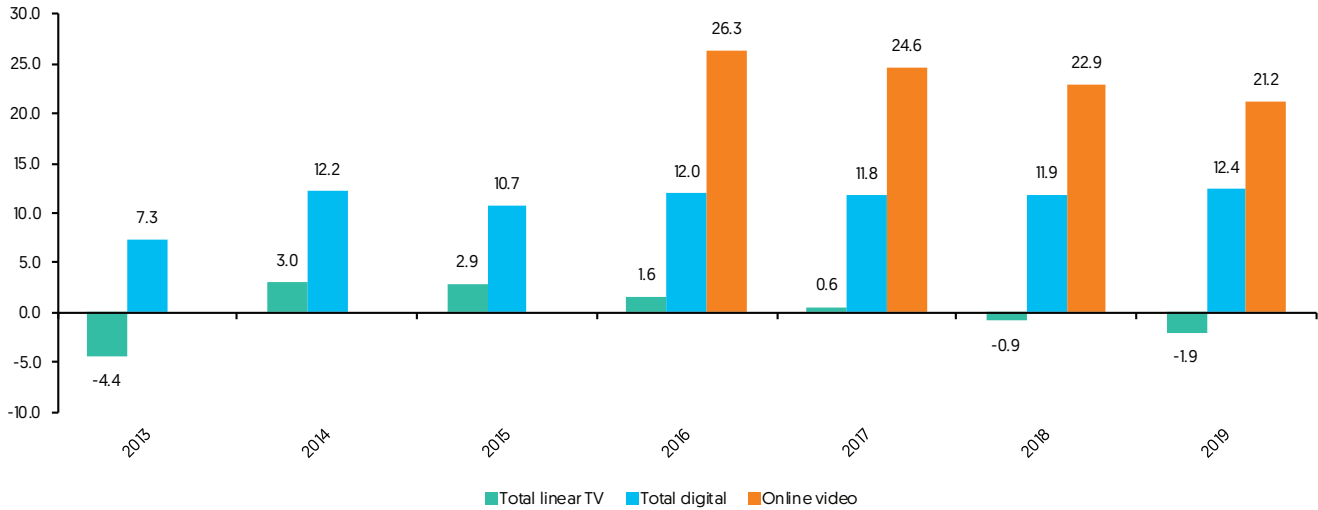
As well as standard formats such as pre-roll and mid-roll, which are used to build brand awareness and reach, online video platforms offer product placement and endorsements in their original productions. They also offer non-standard ads that allow advertisers to embed extra information in video content, which can generate higher engagement than the standard formats.

Almost half of Poland's big advertisers use online video to complement linear TV, by extending the incremental reach of their TV campaigns. None have used it to replace TV entirely.

More interesting and creative formats continue to emerge, such as 360 videos and live streams. Video advertising allows advertisers to engage users with storytelling, and provide deeper brand experiences with new interactive capabilities.

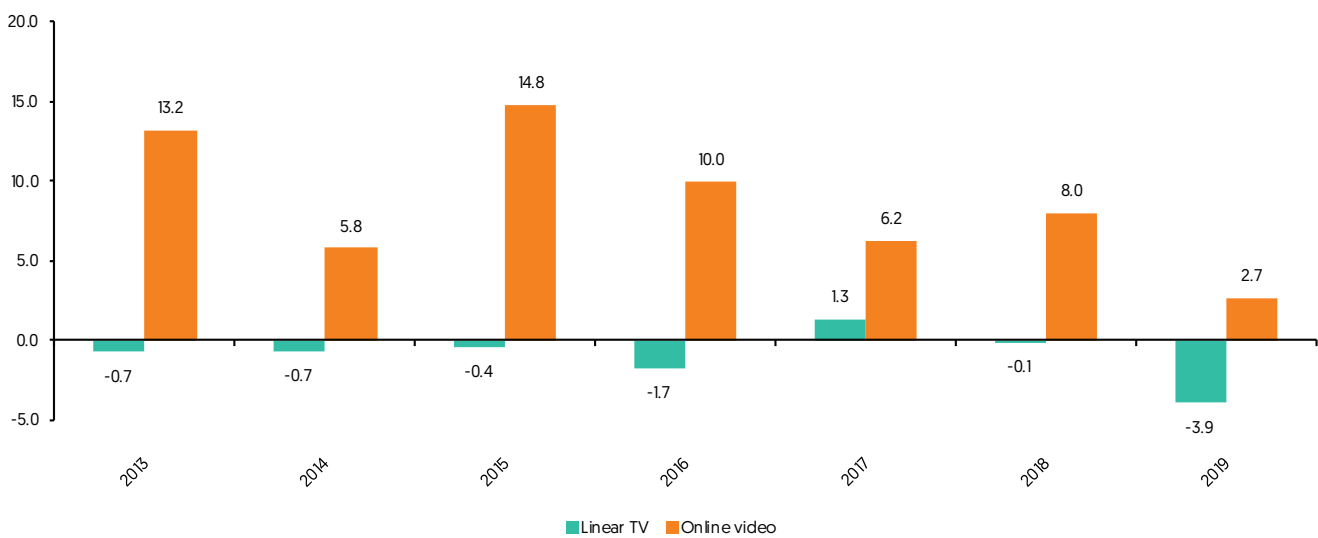
Brands' owned video content is normally spread through their owned media platforms, such as their YouTube channels, Facebook pages, home pages and mobile apps. But occasionally brands use bloggers, vloggers and opinion leaders to spread their videos to their own followers.

Advertising expenditure year-on-year growth (%)



Source: Kantar, Nilsen, IGRZ, IAB, Zenith

Regular viewer numbers year-on-year growth (%)



Source: TGI, MegaPanel/PBI (monthly)

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)*	7,118	7,453	7,411	7,317	7,317	7,317	7,317	7,317
Number of regular online video viewers (000s)**	3,317	3,186	3,379	3,772	4,074	4,400	4,752	5,085

Source: GfK Audimetrica, Bareme Internet, Zenith
*Daily **Monthly

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video	18.0	17.5	20.4	20.4	21.2	22.0	22.9	25.0
Time spent watching online video on mobile devices	-	-	-	-	-	-	-	-
Time spent watching online video on desktop/non-mobile	-	-	-	-	-	-	-	-

Source: eNetpanel, Zenith

Demographics (adults 15+)

	General population	Online video viewers
	2015	2015
Total (000s)	8,564	3,772
Gender (000s)		
Male	4,040	2,093
Female	4,524	1,679
Age (000s)		
15-24	1,080	995
25-34	1,352	1,083
35-44	1,517	903
45-54	1,419	487
55-64	1,258	203
65+	1,938	100
Socioeconomic status (000s)		
ABCI	3,622	1,002
C2DE	4,942	2,770

Source: Bareme Internet

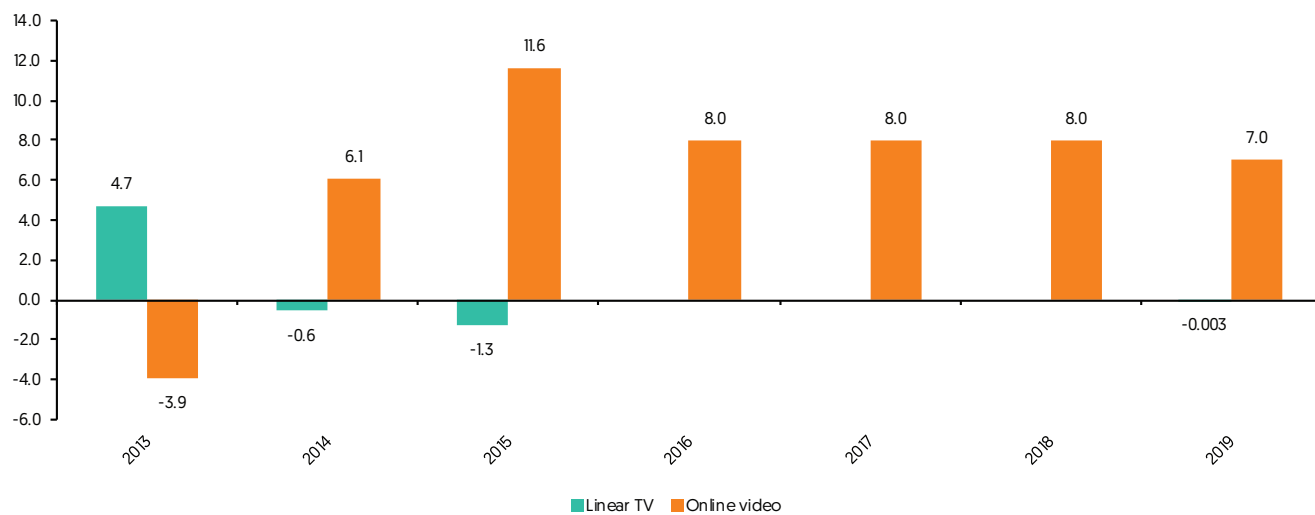
YouTube and Facebook are currently the leading video platforms in Portugal by far. Neither Hulu nor HBO are currently available. Netflix entered the market in late 2015, but as in every other country, it is not supported by advertising. Some domestic TV broadcasters have launched their own online video service – such as FOX PLAY and TVI Play – with limited reach so far.

55% of online video viewers are male. The young are much more likely to view video online than the old: 92% of 15-24 year-olds watch videos online at least once a month, compared to 5% of over-65s.

Pre-roll advertising is the most effective format for reach and engagement. Mid-roll, post-roll and overlay ads are much less effective.

Mobile online video is also dominated by YouTube and Facebook, but Facebook has more momentum as its mobile-first approach. New formats like vertical video, augmented reality, virtual reality and 360° videos are all native to mobile.

*Regular viewer numbers
year-on-year growth (%)*



Source: GfK Audimetria, Bareme Internet, Zenith

Advertising expenditure (EUR million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	189.7	32.9	29.0	-	-
'13	184.1	36.2	30.8	-	-
'14	189.6	40.5	34.1	-	-
'15	202.8	50.7	41.6	-	-
'16	230.2	60.8	48.7	6.8	1.1
'17	253.2	73.0	59.8	9.8	2.0
'18	265.9	83.9	68.8	12.2	3.0
'19	279.2	96.5	80.1	14.6	4.4

Source: Zenith estimates

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	46.7	8.1	7.1	-	-
'13	45.3	8.9	7.6	-	-
'14	46.7	10.0	8.4	-	-
'15	50.0	12.5	10.2	-	-
'16	56.7	15.0	12.0	1.7	0.3
'17	62.4	18.0	14.7	2.4	0.5
'18	65.5	20.7	17.0	3.0	0.8
'19	68.8	23.8	19.7	3.6	1.1

Source: Zenith estimates

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	7,416	7,509	7,224	6,910	6,805	6,632	6,599	6,566
Number of regular online video viewers (000s)	1,377	1,413	2,017	2,018	2,140	2,208	2,230	2,252

Source: Kantar Romania, SNA Focus, daily

Demographics

	General population	Online video viewers
	2016	2016
Total (000s)	8,658	2,140
Gender (000s)		
Male	4,177	1,170
Female	4,482	970
Age (000s)		
under 16	168	69
16-24	1,119	596
25-34	1,674	714
35-44	1,752	412
45-54	1,507	204
55-64	1,604	107
65+	834	38
Socioeconomic status		
AB	2,499	770
C	3,168	845
DE	2,992	525

Source: SNA Focus

41% of Romanian internet users watch online video daily. 44% of connections are via mobile, 33% via desktop and 28% via tablet devices. Most people [94%] view online videos at home, and only 37% do elsewhere.

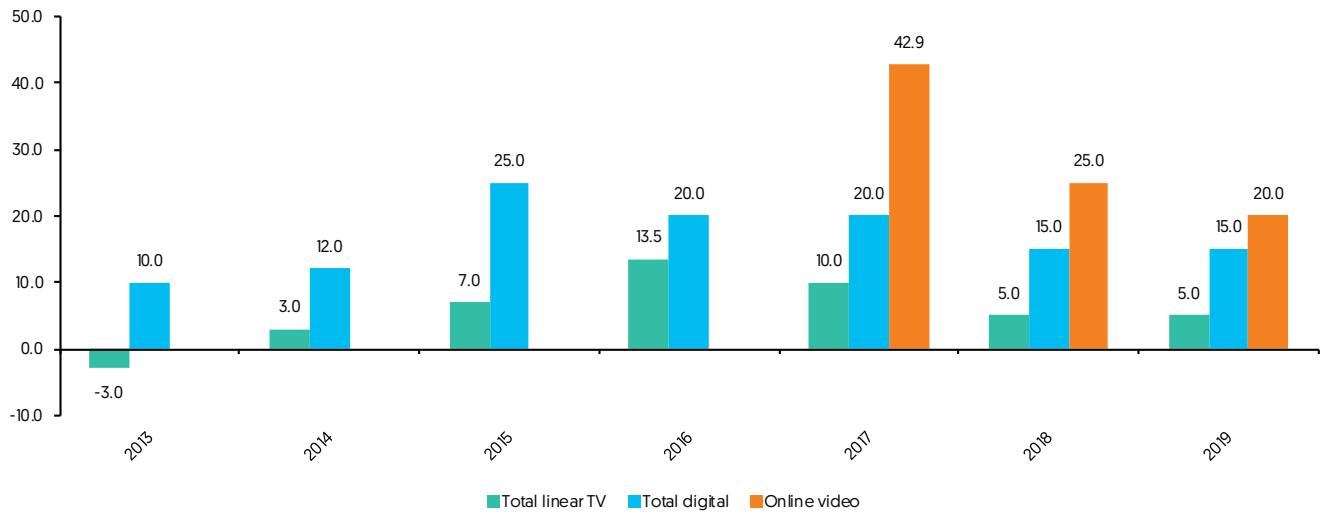
The main platform in Romania is YouTube, which has around 5.8 million users.

Music videos are the most popular genre of online video, followed by films, comedy, and food and cooking. 32% of OLV viewers split their attention between the video and other activities.

Digital media are growing fast, mostly because of rising device and internet penetration. As people shift from TV to OLV, viewership of daily video has increased dramatically.

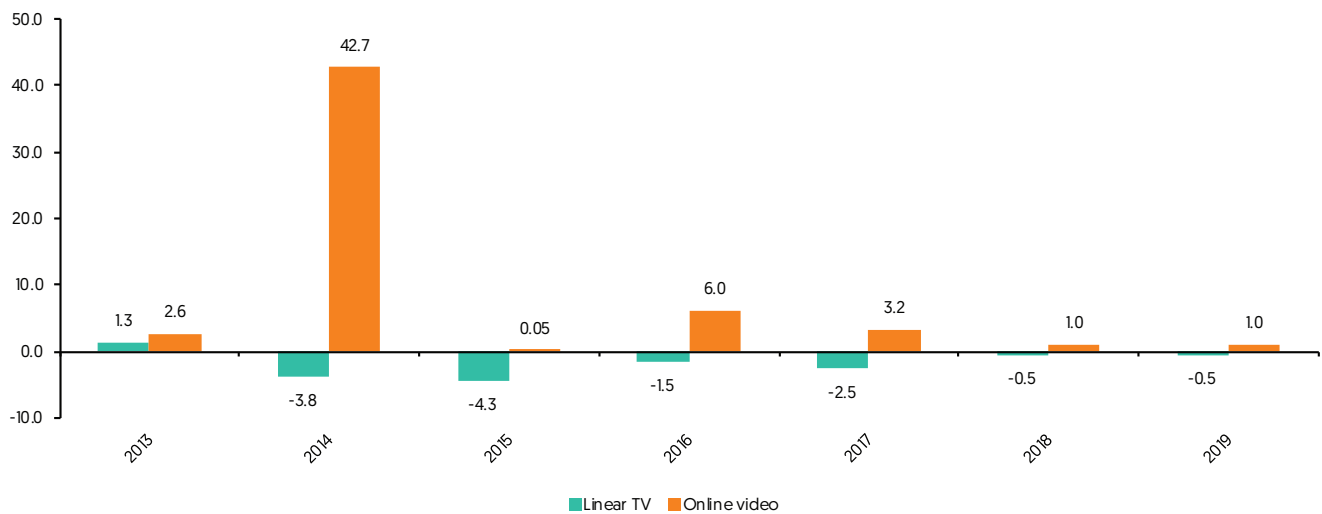
Mobile device penetration is on the rise (53% for smartphones in 2016, against 34% two years earlier; equivalent for tablets 24%/13%) and mobile traffic has overtaken desktop traffic on .ro domains. The number of connected devices per individual went up to 2.1 in 2016, up from 1 in 2012. The integration of mobile and AI promises to drive hyper-personalisation; the no.1 integration now is chatbots.

Advertising expenditure year-on-year growth (%)



Source: Zenith estimates

Regular viewer numbers year-on-year growth (%)



Source: Kantar Romania, SNA Focus, daily

Russia

Advertising expenditure (Roubles million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	143,260	56,388	17,944	-	-
'13	156,200	71,703	20,103	3,400	-
'14	159,800	84,610	19,110	4,760	-
'15	136,700	97,000	18,700	5,250	-
'16	150,800	111,550	21,505	6,300	-
'17	165,880	134,191	23,858	7,875	-
'18	182,468	154,319	27,437	9,844	-
'19	195,241	177,467	31,553	12,305	-

Source: AKAR, Zenith

*Total digital includes search, banners, video; digital display includes banners only

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	2,136.4	840.9	267.6	-	-
'13	2,329.4	1,069.3	299.8	50.7	-
'14	2,383.1	1,261.8	285.0	71.0	-
'15	2,038.6	1,446.6	278.9	78.3	-
'16	2,248.9	1,663.5	320.7	94.0	-
'17	2,473.8	2,001.2	355.8	117.4	-
'18	2,721.1	2,301.4	409.2	146.8	-
'19	2,911.6	2,646.6	470.5	183.5	-

Source: AKAR, Zenith

*Total digital includes search, banners, video; digital display includes banners only

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	29,270	29,050	28,837	27,942	27,557	27,282	27,009	26,739
Number of regular online video viewers* (000s)	-	8,919	10,806	11,871	12,282	12,405	12,281	12,158

Source: Mediascope (TV Index/WEB Index), Zenith, Russia 100k+, all 16-54 (daily)

*desktop only

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video*	-	-	-	50.5	39.4	36.3	34.5	32.7
Time spent watching online video on mobile devices	-	-	-	-	-	-	-	-
Time spent watching online video on desktop/non-mobile	-	-	-	50.5	39.4	36.3	34.5	32.7

Source: comScore (Video Metrix), Zenith, all internet users 15-54

*desktop only

Demographics

	General population	Online video viewers
	2016	2016
Total (000s)	41,679	16,882
Gender (000s)		
Male	20,046	9,007
Female	21,633	7,876
Age (000s)		
16-24	7,877	4,349
25-34	13,354	6,178
35-44	10,796	3,828
45-54	9,653	2,527
Socioeconomic status		
A	12,798	4,307
B	21,211	8,935
C	7,306	3,446

Source: Mediascope M1Index 2016/2, Russia 100k+, all 16-54

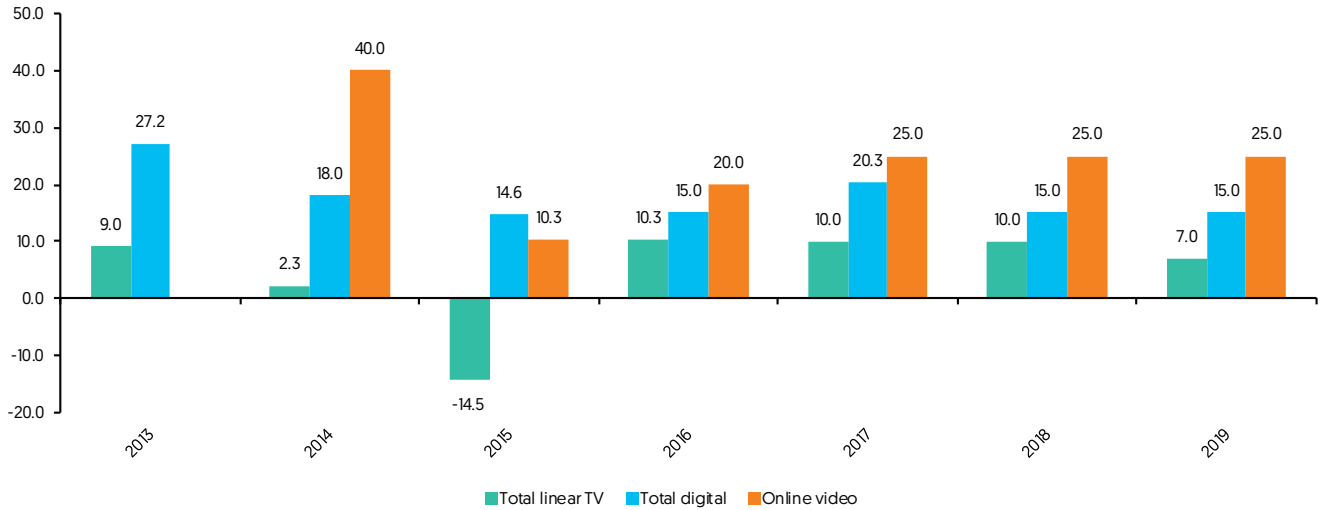
The biggest video platforms are YouTube, VK (the most popular social network in Russia, with a huge video section), TVIgle, Kinogo.club and Megogo.net (online cinemas). YouTube has widespread appeal, while VK viewers are significantly skewed to young people in the 15-35 age group. Online cinemas Kinogo.club and megogo.net are more popular among middle-aged people between 20 and 45, while Tvigle attracts a more mature audience.

Video streaming sites account for 95% of all visits among all online video platforms.

As explored in the study by IAB and On Device Research, Russia has one of the highest levels of heavy mobile consumption. 73% of smartphone video viewers use their smartphones to watch short-form videos at least on a daily basis, while 45% do so with long-form videos. Almost all advertisers who use digital advertising use traditional TV as well.

70% of platforms with video content sell advertising. The average duration of one ad unit is 36 seconds.

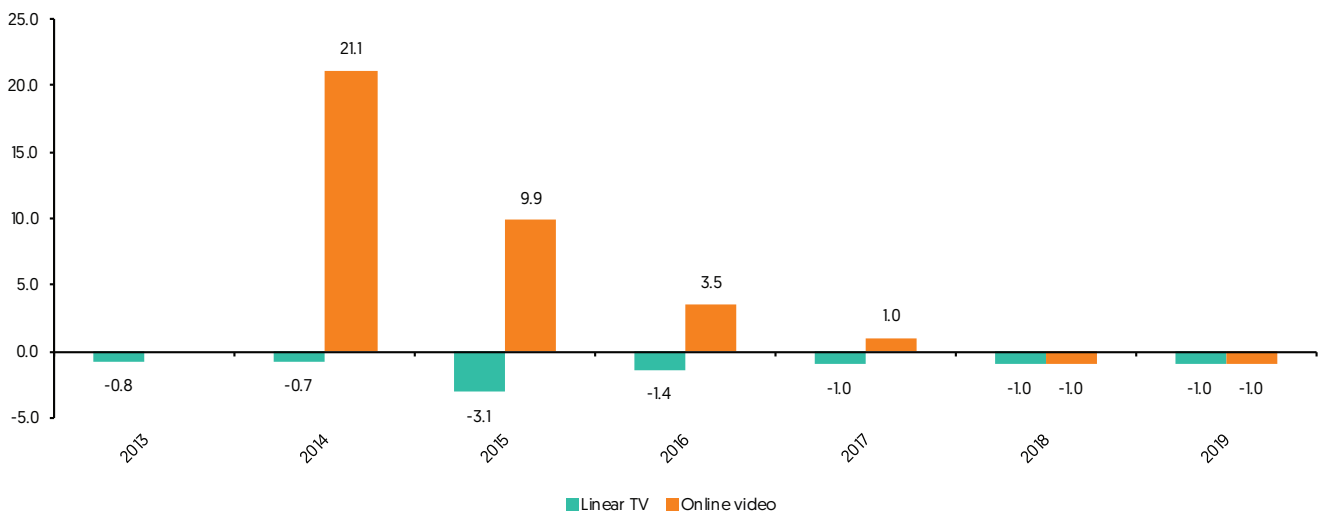
Advertising expenditure year-on-year growth (%)



Source: AKAR, Zenith

*Total digital includes search, banners, video; digital display includes banners only

Regular viewer numbers year-on-year growth (%)



Source: Mediascope [TV Index/WEB Index], Zenith, Russia 100k+, all 16-54 [daily]

*desktop only

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	19,638	19,745	20,333	20,250	20,093	21,113	21,536	21,966
Number of regular online video viewers (000s)	8,698	10,058	10,833	11,469	13,978	15,013	15,763	16,551

Source: GWI, World Bank, Internetworldstats, Zenith
Monthly viewers

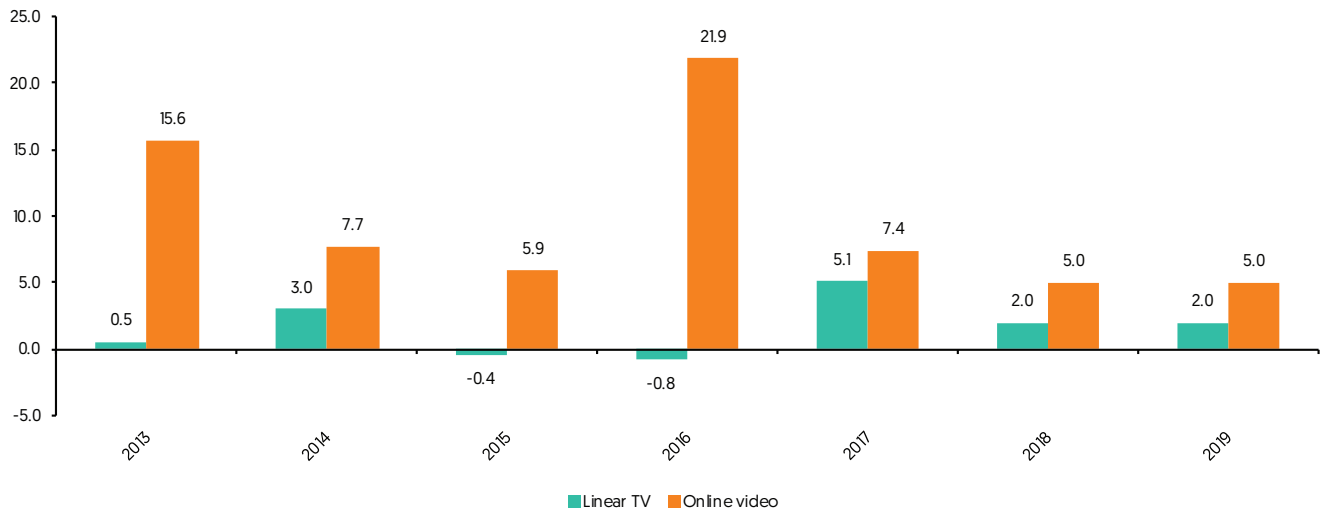
Demographics

	General population	Online video viewers
	2015	2015
Total (000s)	22,400	11,469
Gender (000s)		
Male	11,536	5,941
Female	10,864	5,528
Age (000s)		
16-24	7,034	3,659
25-34	4,704	2,408
35-44	2,072	1,018
45-54	1,068	493
55-64	486	178
Socioeconomic status (000s)		
AB	3,786	2,156
C1C2	10,035	5,344
DE	5,824	2,982
Other/not known	2,755	986

See the 'Pan Arab' section for details on video adspend in the region.

Source: TGI 2015

*Regular viewer numbers
year-on-year growth (%)*



Source: GWI, World Bank, Internetworldstats, Zenith
Monthly viewers

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	99.4	12.3	9.4	0.002	0.01
'13	93.4	15.2	11.2	0.004	0.04
'14	92.4	18.3	13.2	0.1	0.2
'15	98.9	21.0	15.5	0.2	0.4
'16	113.7	23.8	16.7	5.8	2.0
'17	133.0	26.8	18.5	8.6	3.4
'18	142.4	30.3	20.4	11.2	5.1
'19	146.6	33.4	21.5	11.5	5.8

Source: Nielsen, Zenith

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	-	-	-	6,161	6,170	6,160	6,090	6,050
Number of regular online video viewers (000s)	500	900	1,200	1,500	1,850	2,200	2,400	2,800

Source: Zenith
Weekly viewers

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video	-	-	-	-	40.0	45.0	50.0	60.0
Time spent watching online video on mobile devices	-	-	-	-	14.0	18.0	22.5	30.0
Time spent watching online video on desktop/non-mobile	-	-	-	-	26.0	27.0	27.5	30.0

Source: Zenith

Demographics

	General population	Online video viewers
	2016	2016
Total (000s)	7,149	4,769
Age (000s)		
under 16	1,178	707
16-24	653	601
25-34	963	809
35-44	982	786
45-54	976	742
55-64	1,109	610
65+	1,288	515

Source: Statistical Office of Serbia

2016 was the year when online video took off in Serbia. Several local publishers have launched video platforms. But prices for video ads are very high, so they are used by a relatively small number of advertisers.

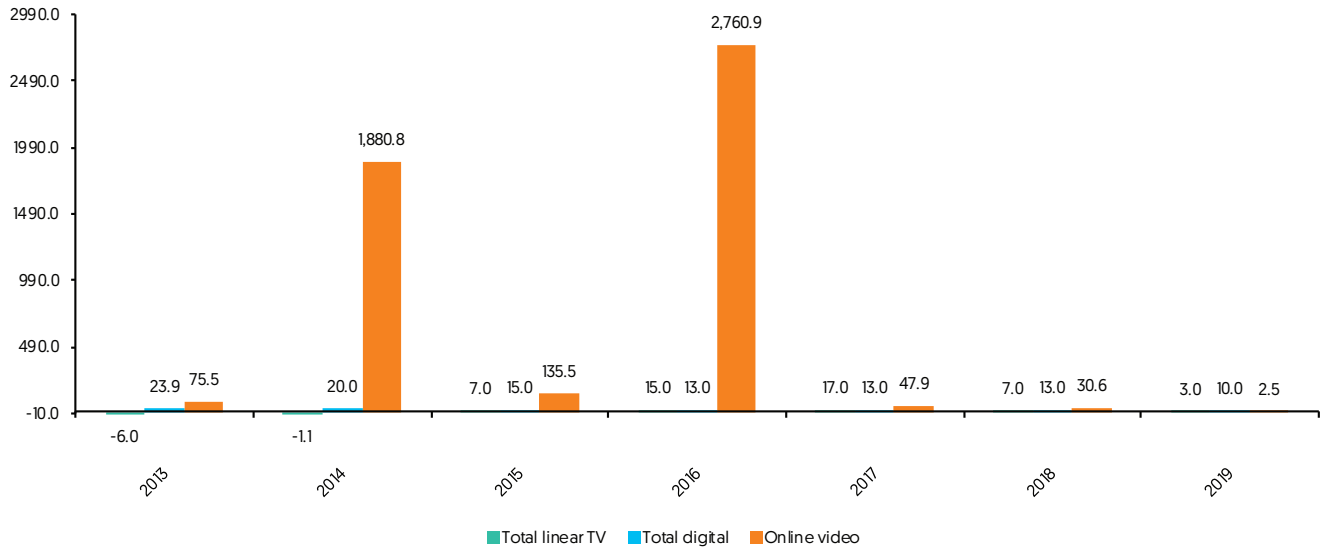
The most dominant video platform is YouTube, which is attracting a fast-growing number of users. Facebook is also a popular site for video viewing, and contributed to a rapid rise in mobile video consumption in 2016.

Video ads are still mostly repurposed television ads, but more and more are being tailored for online video.

A lot of new video bloggers arrived in 2016, particularly those targeting younger viewers.

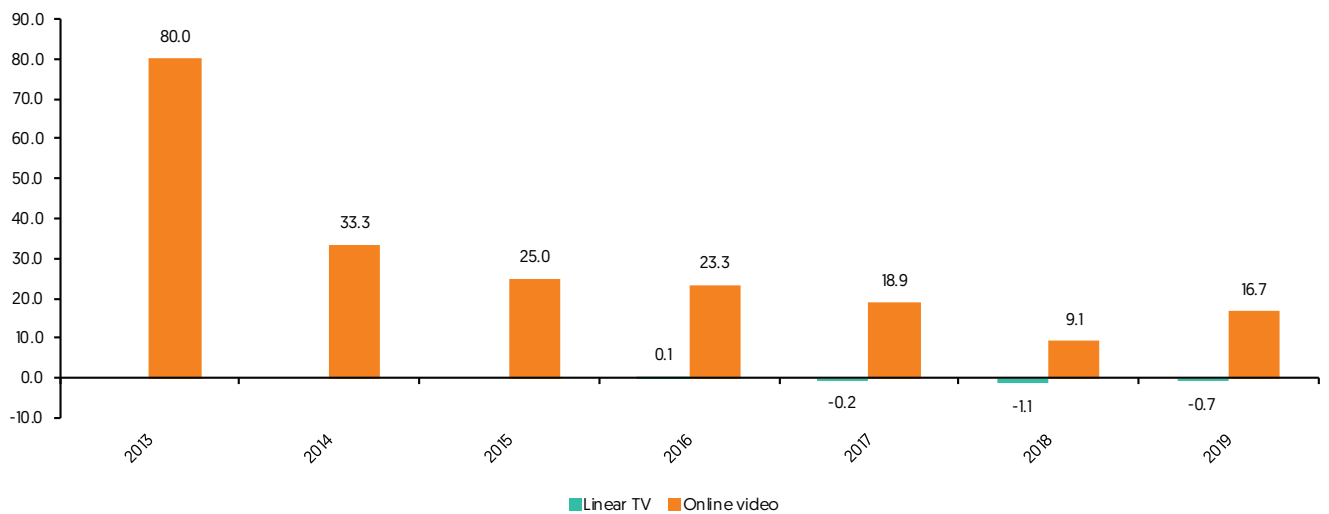
We expect to see rapid growth in sponsorship and product placement within online video shows.

Advertising expenditure year-on-year growth (%)



Source: Nielsen, Zenith

Regular viewer numbers year-on-year growth (%)



Source: Zenith
Weekly viewers

Singapore

Advertising expenditure (S\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	800.0	183.0	70.0	2.4	1.6
'13	859.0	237.9	86.4	3.5	2.6
'14	789.0	285.0	100.1	5.9	3.9
'15	786.0	343.0	120.4	9.2	5.7
'16	746.0	356.3	146.1	14.4	8.2
'17	800.0	409.7	176.2	22.5	11.8
'18	816.0	491.7	228.6	37.6	19.7
'19	832.3	590.0	295.0	50.3	24.4

Source: Nielsen, Zenith

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	579.1	132.5	50.7	1.7	1.2
'13	621.8	172.2	62.5	2.5	1.9
'14	571.1	206.3	72.4	4.3	2.8
'15	568.9	248.3	87.2	6.7	4.1
'16	540.0	257.9	105.7	10.4	5.9
'17	579.1	296.6	127.5	16.3	8.6
'18	590.6	355.9	165.5	27.2	14.3
'19	602.5	427.1	213.5	36.4	17.7

Source: Nielsen, Zenith

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	-	-	-	-	-	-	-	-
Number of regular online video viewers (000s)	2,804	2,944	3,091	3,246	3,571	3,928	4,320	4,968

Source: comScore, Zenith

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video	-	-	101.7	110.8	129.2	150.9	176.2	202.6
Time spent watching online video on mobile devices	-	-	39.0	42.5	51.0	61.2	74.2	85.3
Time spent watching online video on desktop/non-mobile	-	-	62.7	68.4	78.3	89.7	102.0	117.3

Source: comScore, Zenith

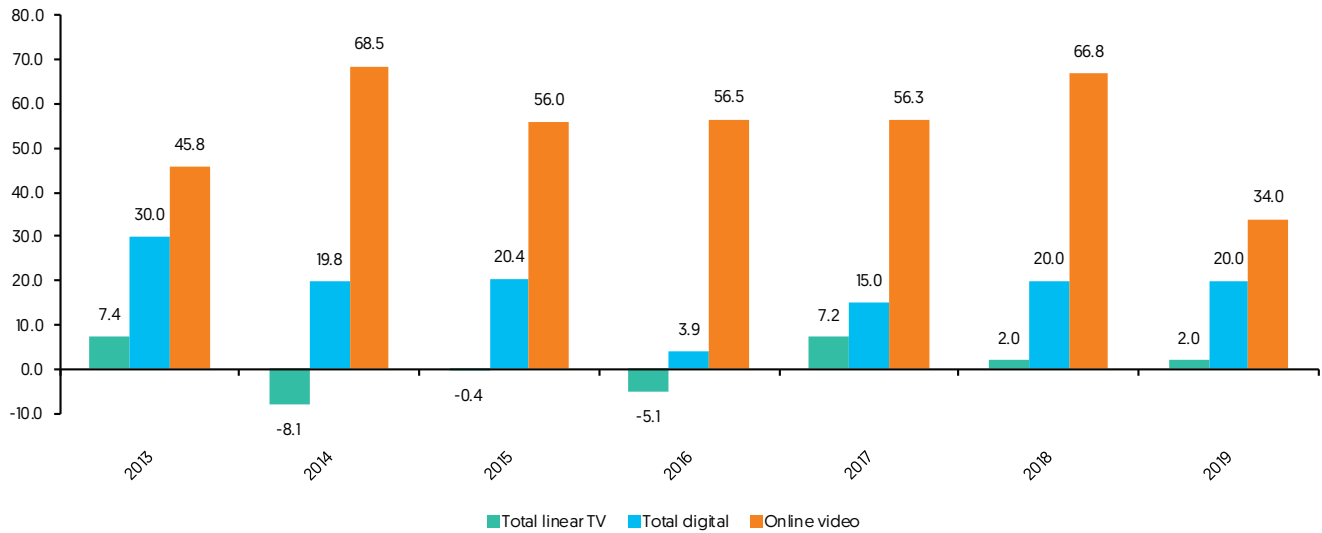
Demographics

	General population	Online video viewers
	2016	2016
Total (000s)	5,610	3,366
Gender (000s)		
Male	2,861	1,111
Female	2,749	2,255

Source: singstats.gov

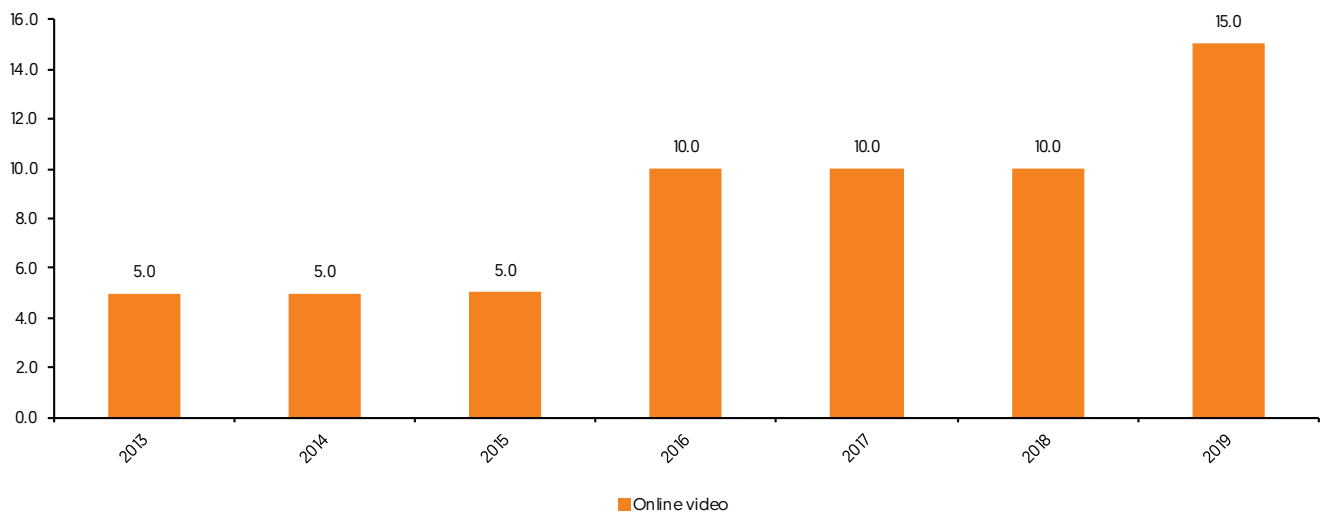
The main platforms for video in Singapore are YouTube, Facebook Live and Instagram Stories. Short-form videos are most popular, viewed to fill spare time while commuting, waiting for coffee, and so on. Pre-roll and mid-roll ads are most common, as well as bumper ads and annotations. Six-second bumper ads are relatively non-intrusive, and effective at capturing the attention of young viewers.

Advertising expenditure year-on-year growth (%)



Source: Nielsen, Zenith

Regular viewer numbers year-on-year growth (%)



Source: comScore, Zenith

Slovakia

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)*	4,042	3,999	3,899	3,898	3,770	3,700	3,620	3,500
Number of regular online video viewers (000s)**	700	950	1,226	1,300	1,400	1,500	1,600	1,700

Source: Zenith
*Daily **Monthly

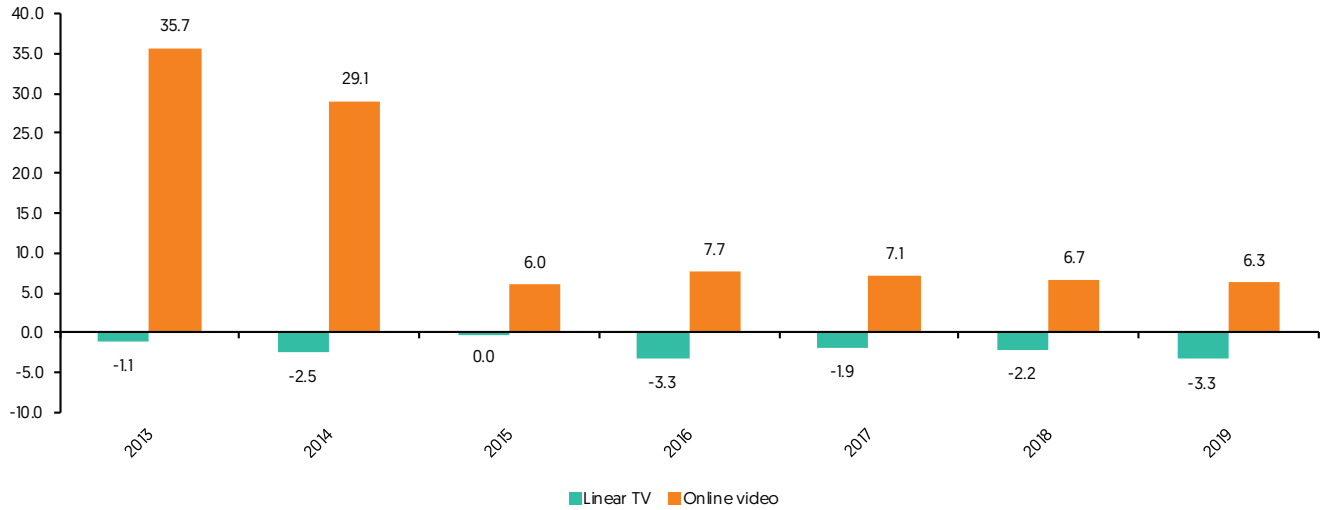
Demographics

	General population	Online video viewers
	2016	2016
Total (000s)	4,478	892
Gender (000s)		
Male	2,194	483
Female	2,284	409
Age (000s)		
under 16	72	23
16-24	636	201
25-34	861	257
35-44	847	177
45-54	728	117
55-64	750	84
65+	583	34
Socioeconomic status (000s)		
AB	1,147	308
CDE	3,331	584

Source: MML TGI

The main platforms in Slovakia are YouTube, Joj.sk, Huste.tv and Markiza.sk. About 65% of viewed content is short-form, the rest being long-form. Pre-roll, mid-roll and post-roll ads are all used within this content. At the moment, advertisers only use online video to complement television campaigns. We expect audiovisual advertising to remain the most important form of advertising, but more viewing will take place on mobile screens instead of television and desktop screens, which currently dominate.

*Regular viewer numbers
year-on-year growth (%)*



Source: Zenith
*Daily **Monthly

South Africa

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	32,266	34,294	34,765	35,137	35,259	-	-	-
Number of regular online video viewers (000s)	-	1,193	1,871	2,343	3,609	-	-	-

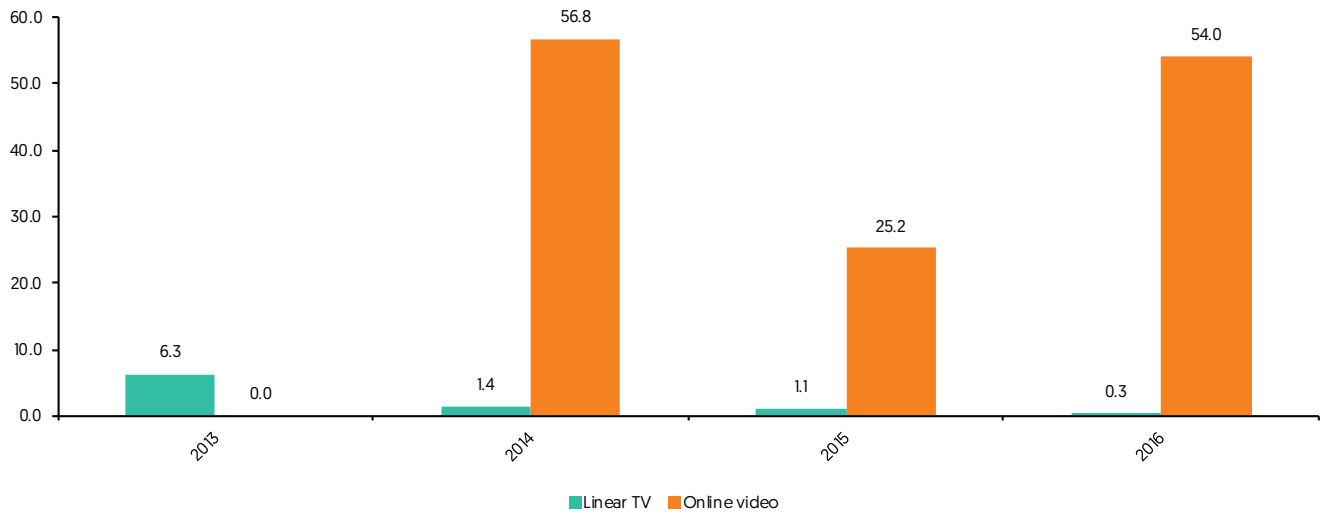
Source: AMPS, Establishment Survey
Daily reach

Demographics

	General population	Online video viewers
	2016	2016
Total (000s)	38,760	3,609
Gender (000s)		
Male	18,753	2,042
Female	20,007	1,567
Age (000s)		
15-24	9,503	1,462
25-34	9,406	1,127
35-44	7,212	634
45-54	5,377	258
55-64	3,959	104
65+	3,304	23
Socioeconomic status (000s)		
LSM 1-4	7,696	287
LSM 5-7	25,723	2,324
LSM 8-10	5,341	999

Source: Establishment Survey, 15+

*Regular viewer numbers
year-on-year growth (%)*



Source: AMPS, Establishment Survey
Daily reach

Spain

Advertising expenditure (€ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	1,815.3	880.0	462.0	-	-
'13	1,703.4	896.3	408.6	-	-
'14	1,890.4	1,148.6	578.3	71.5	-
'15	2,011.3	1,287.4	637.8	117.1	7.1
'16	2,122.0	1,447.0	735.0	158.6	9.9
'17	2,217.5	1,584.5	760.5	198.3	11.9
'18	2,328.4	1,806.3	849.0	237.9	14.3
'19	2,444.8	2,059.2	967.8	273.6	16.4

Source: Infoadex, IAB

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	2,008.8	973.8	511.3	-	-
'13	1,885.0	991.9	452.2	-	-
'14	2,091.9	1,271.1	640.0	79.1	-
'15	2,225.7	1,424.6	705.8	129.6	7.9
'16	2,348.2	1,601.3	813.4	175.5	10.9
'17	2,453.9	1,753.4	841.6	219.4	13.2
'18	2,576.6	1,998.9	939.5	263.3	15.8
'19	2,705.4	2,278.7	1,071.0	302.8	18.2

Source: Infoadex, IAB

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	7,505	7,446	7,360	7,249	7,111	6,976	6,843	6,713
Number of regular online video viewers (000s)	-	6,193	7,646	8,861	9,215	9,584	9,967	10,366

Source: Kantar Media, EGM Accumulated Daily

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video	-	37.0	38.0	37.0	38.9	40.0	40.8	41.7
Time spent watching online video on mobile devices	-	11.1	13.3	13.0	13.6	14.4	14.8	15.2
Time spent watching online video on desktop/non-mobile	-	25.9	24.7	24.1	25.3	25.6	26.0	26.5

Source: VideoMetrix

Demographics

	General population	Online video viewers*
	2017	2017
Total (000s)	39,783	10,169
Gender (000s)		
Male	19,366	5,416
Female	20,417	4,753
Age (000s)		
under 16	681	328
16-24	4,222	2,066
25-34	5,437	2,284
35-44	7,637	2,410
45-54	7,234	1,591
55-64	5,768	906
65+	8,804	584
Socioeconomic status (000s)		
AB	14,093	4,445
C	10,627	2,915
DE	15,062	2,808

Source: EGM: 1er Año Móvil 2017
* In the last month

Google's YouTube is by far the leading online video platform in our market in terms of both viewers and video views. However, the Spanish market has a complex ecosystem in which several players fight for ad investments:

- Pre-roll networks - Sunmedia, SmartClip and Yume
- In-banner networks - GDN and Teads
- Social video networks (blogs and vblogs) - Adman and Teads
- SSPs - Aunia [MediaSet or Atresmedia] and Facebook LiveRail
- TV station properties - Atres and MiTele are making huge efforts to offer more and better content on their sites and connected TV apps

In Spain, TV and internet dominate media consumption; however, the average time spent viewing TV is decreasing, especially among millennials. This reduction in consumption is due the consumption of audiovisual content on other devices such as smartphones, tablets and PCs.

Moreover, OTT players have come to Spain. At the end of 2015 Netflix arrived, followed by HBO in 2016; the two main competitors try to catch consumers' attention with exclusive content. In addition, the big telecoms operators have signed agreements with the OTT players to integrate content on their platforms, and even offer a price reduction for a combined subscription (for example, Telco TV plus Netflix/HBO). The telecom operators are aware that video on

demand is the future in entertainment, and they are trying to catch up.

People using online video platforms are mostly young. 65.4% of people that watch online video are under 44 years old.

According to TGI Net, the top five types of video content watched in Spain are:

1. Humour videos (with a reach of 27.0% of total internet users)
2. Music videos/concerts [26.1%]
3. Tutorials [22.4%]
4. Movie trailers/shorts [21.6%]
5. News [20.5%]

There are slight differences among ages - younger people prefer watching movies, video blogs and gameplay videos, while adults tend to watch more tutorials and news.

Long-lasting videos are offered mostly by TV stations, OTT and YouTube.

In our experience, the majority of advertisers use online video as a complement to linear TV and to reach light TV viewers and younger targets. Several sectors, such as food, beauty and motors, use this strategy. Pre-roll costs are a handicap we need to solve to be able to offer that coverage reinforcement in a more efficient way than traditional TV can.

Advertisers are using their own video channels and social networks more and more, but not with much online-specific creativity. Mostly, they limit themselves to moving TV ads onto online channels, but some companies are introducing new ways of using them.

'YouTubers' is a developing trend in Spain. Following this trend, brands are using these influencers in their campaigns, especially those that need to connect with younger targets. Nowadays, marketing solutions are becoming more sophisticated, and there are new companies that provide a number of influencers by category.

Mobile-based online video viewing

Mobile-based online video is very important from the user's point of view and also regarding ad recall, but there are some barriers to this, including the quality and reliability of internet connections. Users can use up their data allowances quickly when watching video on their mobile devices and so may not be able to watch much. Video formats need massive data traffic, so it can annoy users if they have to use up their data allowance on non-user-activated content. Most usually consume this type of content via a wifi connection. However, telecoms companies have started to introduce

enhancements to their tariffs - since 4G has become more mainstream, they are starting to include certain downloads as free data consumption, such as Whatsapp photos/videos, and even streaming music.

Previously there was no tool in the market to measure mobile campaigns, but in 2016 ComScore started monitoring mobile advertising impressions in Spain. This will help advertisers to optimize their mobile communication strategies and evaluate KPIs.

We expect that these advance will boost mobile video consumption and relevance in advertising campaigns in coming years.

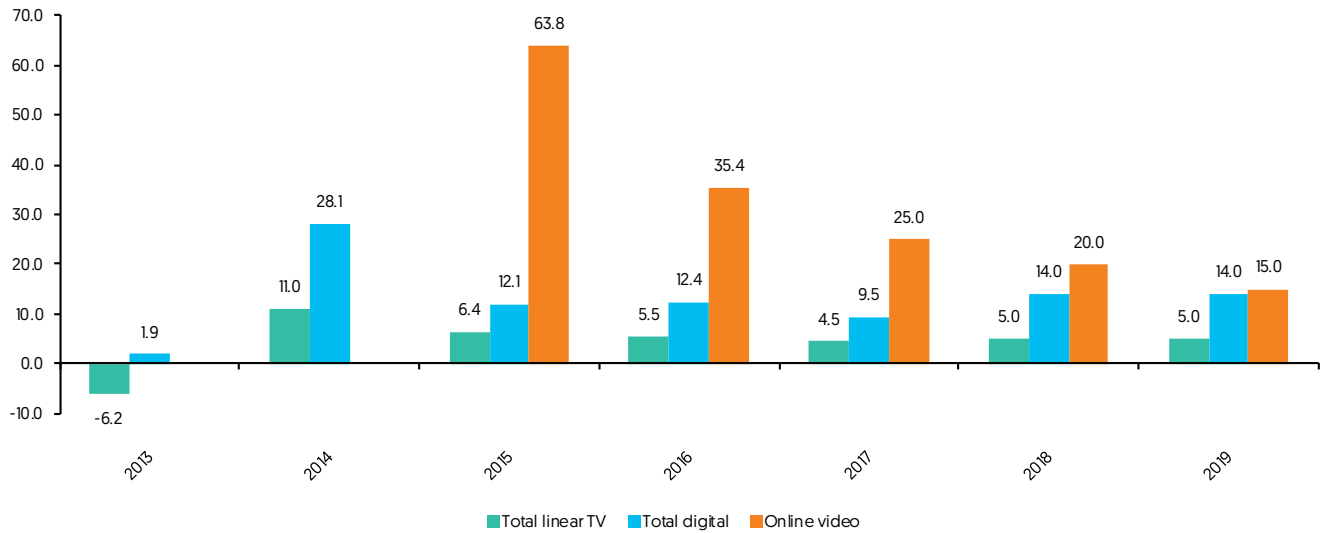
Effectiveness

Online video is positioned as the most effective format for recall. According to our study 'Net Radar', video is the key format on PCs, with recall 25% over the average. Not all video formats have the same recall performance, however. Video in-banner gets the best results (+58% of recall versus the average).

We can highlight also the effectiveness of video in other devices, such as tablets and mobiles - in both formats video achieves good figures. In-mobile video is the second format in terms of recall after 'content formats', and in-tablet is the second format after personalization.

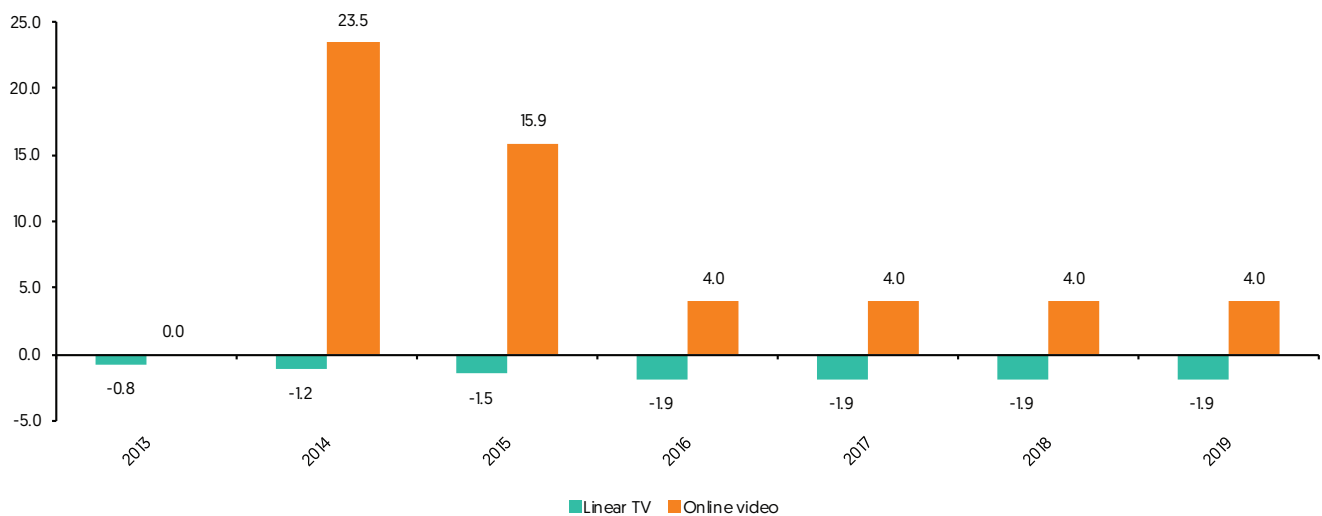
Other online video research has shown that video viewers' attention drops from after five seconds (and therefore recall too), so we've started recommending that our clients show their most important messages at the beginning of their spots.

Advertising expenditure year-on-year growth (%)



Source: Infoadex, IAB

Regular viewer numbers year-on-year growth (%)



Source: Kantar Media, EGM Accumulated Daily

Sweden

Advertising expenditure (SKr million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	5,936	8,206	2,812	288	-
'13	5,954	9,315	3,433	412	-
'14	5,764	10,796	3,137	648	-
'15	5,492	12,979	3,372	922	-
'16	5,452	15,732	3,492	1,170	-
'17	5,322	18,360	3,541	1,457	-
'18	4,799	21,141	3,601	1,630	-
'19	4,500	24,353	3,651	1,770	-

Source: IRM, Zenith

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	693.3	958.4	328.4	33.6	-
'13	695.4	1,087.9	401.0	48.1	-
'14	673.2	1,260.9	366.4	75.7	-
'15	641.4	1,515.9	393.8	107.7	-
'16	636.7	1,837.4	407.8	136.7	-
'17	621.6	2,144.4	413.6	170.2	-
'18	560.5	2,469.2	420.6	190.4	-
'19	525.6	2,844.3	426.4	206.7	-

Source: IRM, Zenith

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)*	5,822	5,945	6,005	6,094	5,853	5,816	5,779	5,743
Number of regular online video viewers (000s)**	4,423	4,959	5,177	5,466	5,599	5,750	5,905	6,064

Source: Zenith

*Daily reach **Watched 'sometimes' or 'often'

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video	-	-	-	-	85.0	87.7	90.6	93.5
Time spent watching online video on mobile devices	-	-	-	-	-	-	-	-
Time spent watching online video on desktop/non-mobile	-	-	-	-	-	-	-	-

Source: Zenith

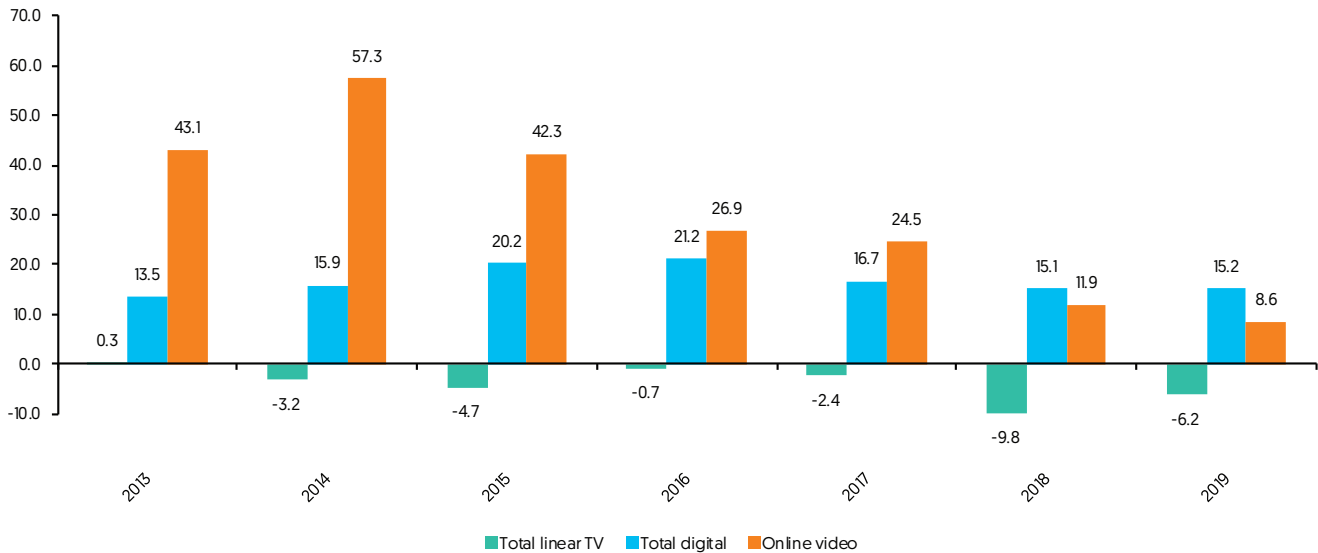
Demographics

	General population	Online video viewers*
	2016	2016
Total (000s)	7,680	5,935
Gender (000s)		
Male	3,882	3,137
Female	3,798	2,798
Age (000s)		
under 16	1,065	1,017
16-24	1,353	1,285
25-34	1,265	1,147
35-44	1,326	1,104
45-54	1,144	776
55-64	1,528	607
Socioeconomic status (000s)		
University education	3,538	2,938
Lower education	4,142	2,998

Source: TNS Sifo Kantar Sesame, adults 16-80
 *Monthly viewers

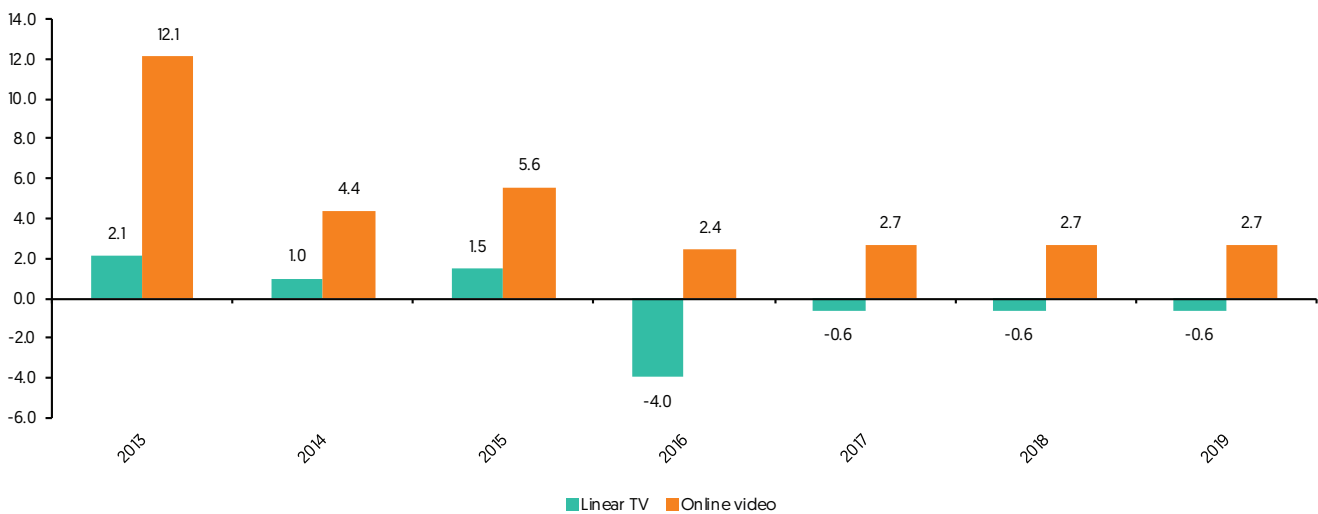
Online video viewing is rising across all demographics, especially among men, and those aged up to 39, driven by the growth of mobile video. All platforms – YouTube, Netflix, the video websites of television broadcasters and print publishers – are gaining more viewers, and advertisers are following consumers. Advertising expenditure on online video is increasing, and so is the production of mobile video content.

Advertising expenditure year-on-year growth (%)



Source: IRM, Zenith

Regular viewer numbers year-on-year growth (%)



Source: Zenith
*Daily reach **Watched 'sometimes' or 'often'

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)*	-	5,295	5,383	5,314	5,292	5,280	5,250	5,215
Number of regular online video viewers (000s)**	-	3,444	3,543	3,571	3,779	3,900	4,150	4,300

Source: MA Strategy Basic, NetMetrix Base

*All television viewers **Viewers who watch several times a month

Demographics

	General population	Online video viewers
	2016	2016
Total (000s)	6,645	3,779
Gender (000s)		
Male	3,289	2,127
Female	3,356	1,653
Age (000s)		
under 16	239	204
16-24	793	680
25-34	1,025	773
35-44	1,080	710
45-54	1,268	691
55-64	921	406
65+	1,320	316
Socioeconomic status (000s)		
AB	2,074	1,338
CDE	4,571	2,441

Source: NetMetrics Base

Live TV delivered over the internet is becoming more popular, especially during big sporting events. Otherwise viewing is becoming more fragmented, with viewers seeking out the content they are particularly interested in rather than broad-reach formats.

A wide variety of ad formats are available, such as pre-roll and mid-roll ads, bumper ads, and out-stream formats (which play as stand-alone videos within text and images, not video content) within news reports.

Online video is mainly used to build awareness, so the key performance indicators are completion rates and costs per view. Many publishers forced viewers to watch at least 5-15 seconds of each ad. Brands now find it important to produce tailored creative for online video, rather than simply reusing existing television copy, to engage viewers to watch the full video and convey the brand message effectively. This is especially important on platforms like Facebook, where users can simply scroll away from the video.

Nearly all advertisers that spend substantially on television have transferred some of their TV budgets to online video, especially those that target younger audiences.

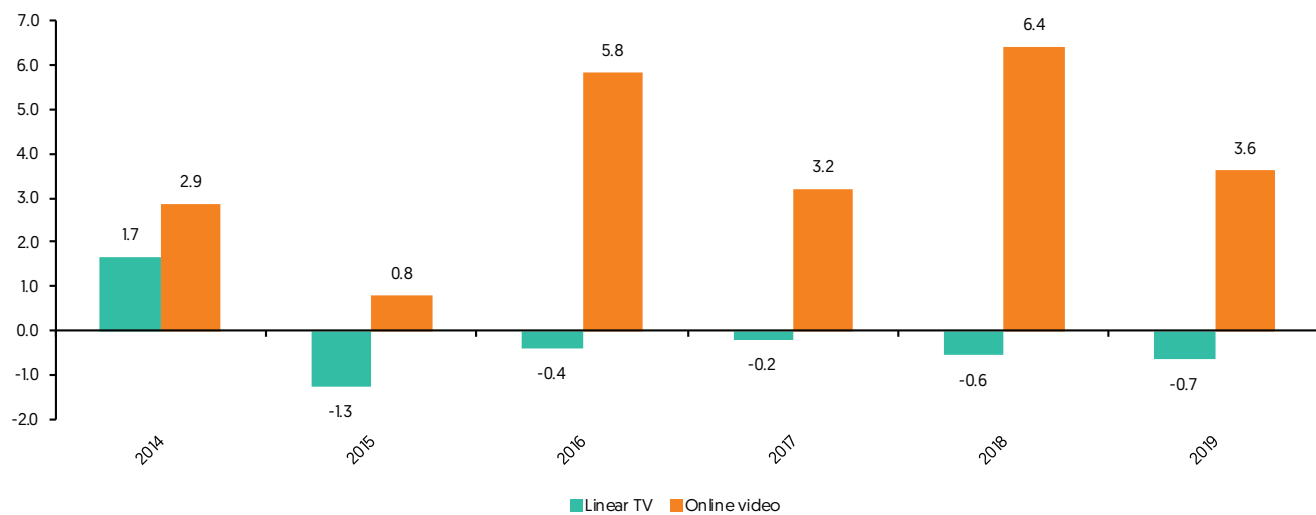
Large brands are building hubs for their owned video content, mostly on YouTube and Facebook. Customer advice videos, such as recipes, are particularly common.

Most online video campaigns include smartphone and tablet viewers to maximise reach. Mobile viewing accounts for 50%-60% of campaign views. As this proportion continues to rise, it will become even more important to ensure that creative is optimised for the small screen.

YouTube is the most popular video platform in Switzerland, supplemented by a variety of live TV platforms such as Zattoo, and catch-up TV platforms operated by broadcasters, such as pro7.ch and sat1.ch.

The younger the audience, the more time they spend viewing online video. But older viewers are now being attracted by the wide variety of content available.

*Regular viewer numbers
year-on-year growth (%)*



Source: MA Strategy Basic, NetMetrix Base

*All television viewers **Viewers who watch several times a month

Advertising expenditure (NT\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	24,059	11,601	-	-	-
'13	24,810	13,680	-	-	-
'14	24,584	16,177	-	-	-
'15	24,165	19,352	-	-	-
'16	22,534	25,871	6,969	4,944	-
'17	21,182	29,234	7,060	6,576	-
'18	20,123	32,632	7,201	8,022	-
'19	19,318	35,888	7,273	9,546	-

Source: Nielsen Media Research, DMA, Zenith

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	744.3	358.9	-	-	-
'13	767.5	423.2	-	-	-
'14	760.5	500.4	-	-	-
'15	747.6	598.7	-	-	-
'16	697.1	800.3	215.6	152.9	-
'17	655.3	904.4	218.4	203.4	-
'18	622.5	1,009.5	222.8	248.2	-
'19	597.6	1,110.2	225.0	295.3	-

Source: Nielsen Media Research, DMA, Zenith

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	16,408	16,204	16,051	16,078	15,705	15,391	15,083	14,781
Number of regular online video viewers (000s)	3,694	4,604	6,326	7,044	12,099	12,736	13,661	14,431

Source: Nielsen Media Research [TV- daily, OLV - ever]

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video	-	-	-	-	-	-	-	-
Time spent watching online video on mobile devices	-	-	-	-	-	-	-	-
Time spent watching online video on desktop/non-mobile	-	-	20.5	24.8	34.2	40.7	44.5	46.6

Source: Comscore, Media Mextrix [Multimedia]

Demographics

	General population	Online video viewers
	2016	2016
Total (000s)	18,134	12,099
Gender (000s)		
Male	9,103	6,122
Female	9,031	5,977
Age (000s)		
under 16	740	543
16-24	3,067	2,737
25-34	3,459	2,960
35-44	3,761	2,948
45-54	3,667	1,969
55-64	3,440	942
Socioeconomic status		
AB	3,983	3,343
CDE	13,827	8,523
Other	324	233

Source: Nielsen Media Research

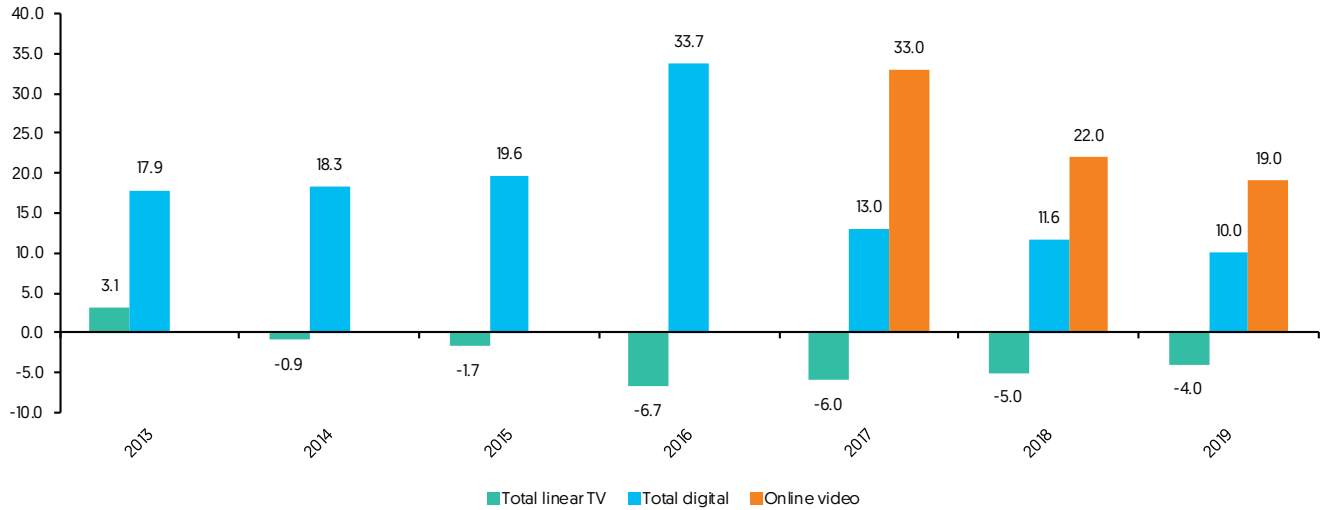
Technology, eCommerce, APP/gaming, cosmetics/beauty, financial services, and retail advertisers now spend more advertising online than on traditional channels. Online video is an important channel of communication among those categories. In terms of format, videos of more than 30 seconds' duration are used less now. A down-to-earth brand communication has become popular by utilizing celebrities and internet memes.

A few key players dominate online video platforms in Taiwan, and YouTube is the main platform. The top five online video platforms are: YouTube (60.4%), Yahoo TV! (17.9%), Youku (13.1%), iQiyi PPS (11%) and iTunes (8.8%). There are more male viewers on YouTube, Yahoo TV! and Youku. In addition, the videos on YouTube and Yahoo TV! appeal to a wide age group (around 25-54). Users of iQiyi App and iTunes are mostly female, ranging from 25-44 years old.

The most popular online video categories in Taiwan are TV shows/movie trailers (40.8%), music/MV (37.6%), drama/TV series/idol drama (37.2%), food/travel (32%), TV shows/gossip (27.8%), according to comScore's latest data. Offering diverse video content, moving popular TV shows to online video platforms and creating original drama series will be the main trends in online video development.

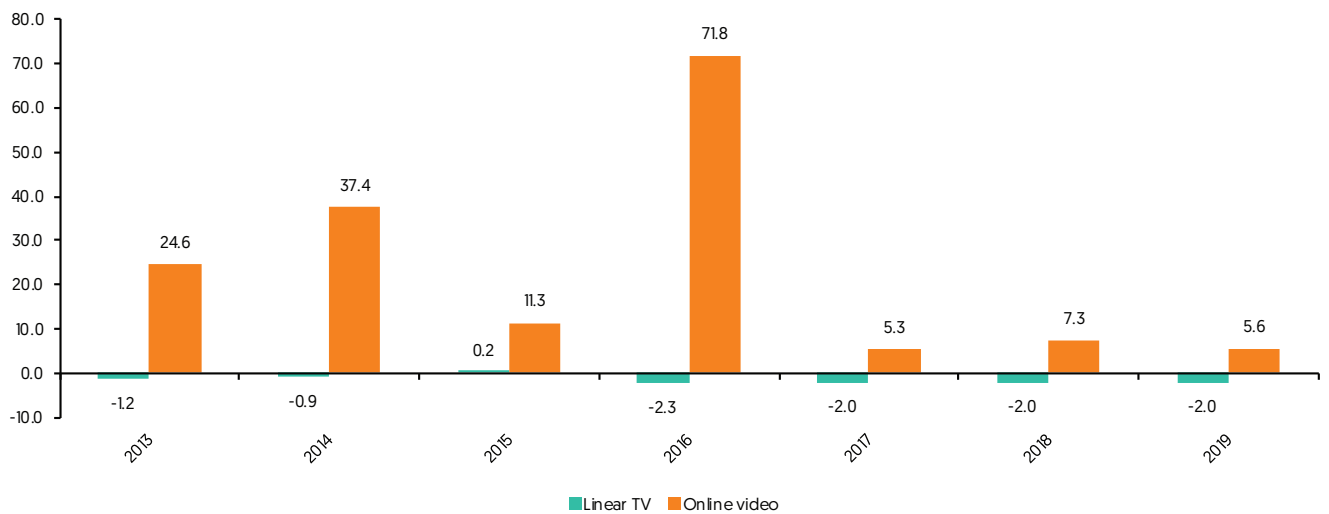
Online ad spending in Taiwan finally overtook TV in 2016. Online video accounts for 19% of total online ad spending. The percentage of people watching online video on mobile phones increased from 26% to 51% in 2016.

Advertising expenditure year-on-year growth (%)



Source: Nielsen Media Research, DMA, Zenith

Regular viewer numbers year-on-year growth (%)



Source: Nielsen Media Research [TV- daily, OLV - ever]

Thailand

Advertising expenditure (Baht million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	68,105	2,368	1,155	303	50
'13	69,250	3,670	1,742	472	81
'14	83,084	5,510	1,718	856	98
'15	84,511	7,230	1,659	1,921	99
'16	71,010	8,232	1,461	2,034	100
'17	71,000	10,301	1,837	2,847	120
'18	75,000	12,500	2,900	4,000	150
'19	78,000	15,000	2,755	5,200	195

Source: AGB Nielsen, AQX, Zenith

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	1,929.9	67.1	32.7	8.6	1.4
'13	1,962.4	104.0	49.4	13.4	2.3
'14	2,354.4	156.1	48.7	24.3	2.8
'15	2,394.9	204.9	47.0	54.4	2.8
'16	2,012.3	233.3	41.4	57.6	2.8
'17	2,012.0	291.9	52.1	80.7	3.4
'18	2,125.3	354.2	82.2	113.4	4.3
'19	2,210.4	425.1	78.1	147.4	5.5

Source: AGB Nielsen, AQX, Zenith

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	4,659	4,762	4,788	4,736	4,641	4,502	4,322	4,106
Number of regular online video viewers (000s)	323	307	470	638	638	766	919	1,103

Source: AC Nielsen
Monthly

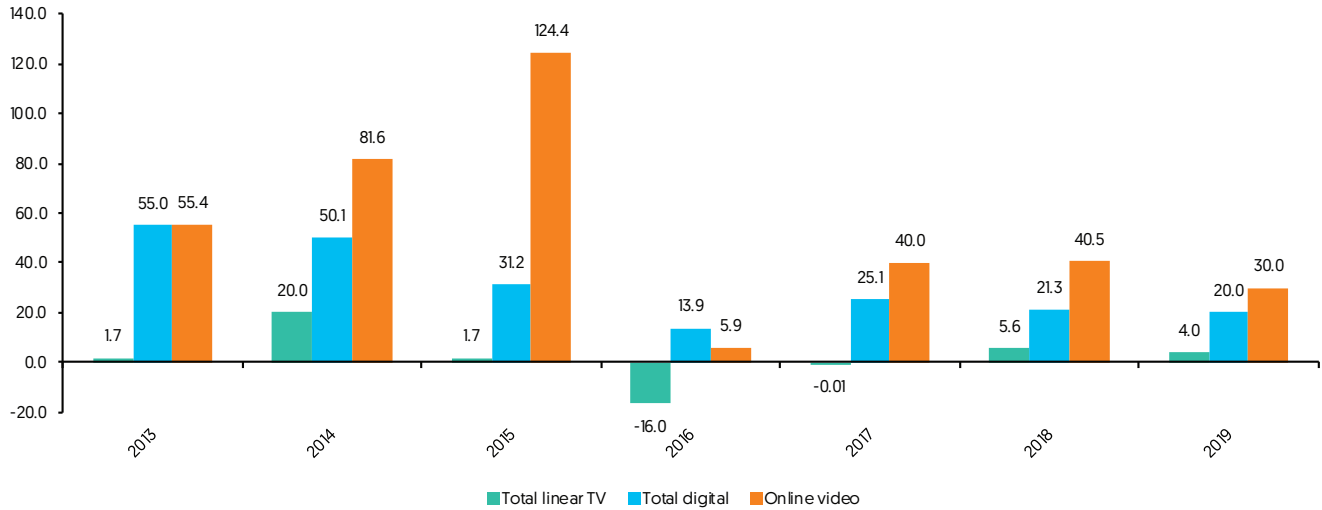
YouTube, Line TV and Facebook Live are the main platforms for online video on Thailand. They are most popular among 18-45 year-olds. As well as short-form videos on YouTube, dramas, other long-form videos and online transmissions of live TV are popular.

Pre-roll ads are common, along with content tie-ins and native

ads. Pre-roll ads and content tie-ins are used for engagement, while native ads are used for engagement and education.

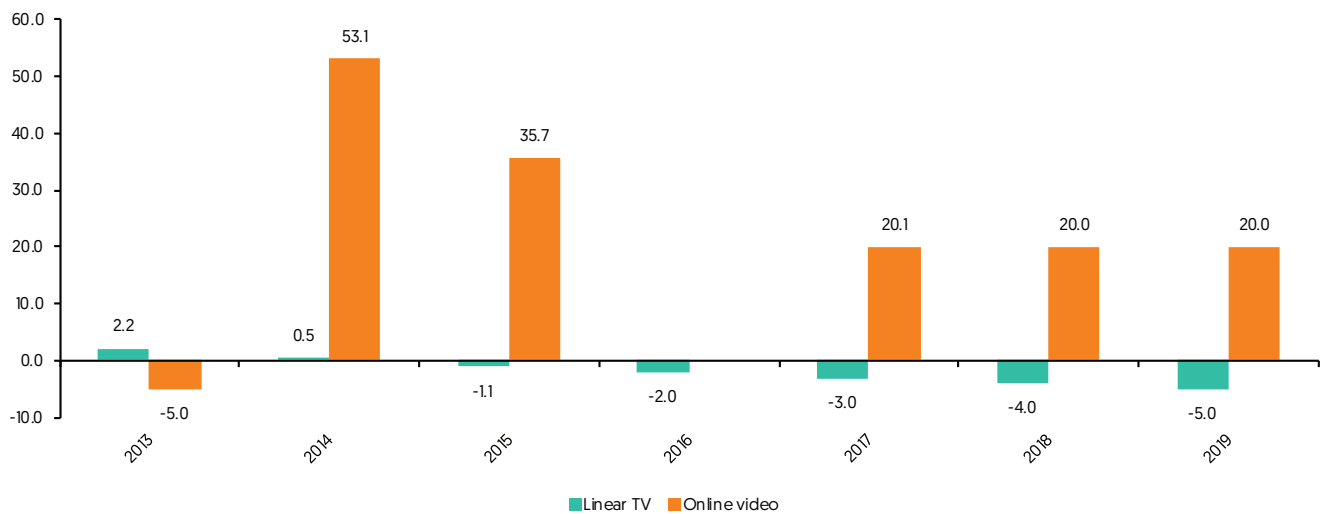
Advertisers generally use online video to add incremental reach to television campaigns; only some create dedicated video content for online engagement. This is becoming more popular, however, in a variety of formats.

Advertising expenditure year-on-year growth (%)



Source: AGB Nielsen, AQX, Zenith

Regular viewer numbers year-on-year growth (%)



Source: AC Nielsen
Monthly

Ukraine

Advertising expenditure (UAH million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	3,850	670	-	-	-
'13	4,800	2,000	960	150	-
'14	3,850	2,150	1,330	215	-
'15	4,200	2,365	1,630	325	-
'16	5,500	3,100	1,800	460	-
'17	7,200	4,000	2,300	580	-
'18	8,500	5,200	3,100	675	-
'19	10,000	6,600	4,000	759	-

Source: Ukrainian Advertising Coalition, Zenith

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	150.7	26.2	-	-	-
'13	187.8	78.3	37.6	5.9	-
'14	150.7	84.1	52.0	8.4	-
'15	164.4	92.6	63.8	12.7	-
'16	215.2	121.3	70.4	18.0	-
'17	281.8	156.5	90.0	22.7	-
'18	332.6	203.5	121.3	26.4	-
'19	391.3	258.3	156.5	29.7	-

Source: Ukrainian Advertising Coalition, Zenith

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)*	38,380	37,616	34,491	33,966	33,720	32,619	32,098	31,658
Number of regular online video viewers (000s)**	5,836	5,969	6,318	6,141	6,123	5,752	5,655	5,483

Source: GfK, Nielsen, MMI, TNS Ukraine

*Monthly **Monthly, only includes cities with 50,000+ population

Demographics

	General population	General population*	Online video viewers*
	2016	2016	2016
Total (000s)	42,353	13,565	6,145
Gender (000s)			
Male	19,600	6,403	3,112
Female	22,754	7,162	3,033
Age (000s)			
12-16	5,243	574	394
16-24	4,714	1,693	1,144
25-34	7,103	3,284	1,925
35-44	6,328	2,938	1,427
45-54	6,404	2,348	766
55-64	5,883	2,729	489
65+	6,679	-	-
Socioeconomic status (000s)			
ABC	32,849	9,827	4,904
DE	9,504	3,738	1,241

Source: SSC Ukraine, GfK, Nielsen, MMI, TNS Ukraine
 *12-65 year-olds in cities with 50,000+ population

YouTube is the leading video platform, with 67% monthly reach. There are many pirate video websites that illegally show films, dramas and other TV shows. Despite the introduction of new laws to regulate them better, they are still popular, with roughly a fifth of the population using them each month. The most popular legal source of online films is megogo.net, which reaches 7% of Ukrainians each month. The platforms owned by TV channels are growing in popularity, and collectively also reach about a fifth of the population each month.

The online video audience skews young, with a core audience of under-35s, but news videos are particularly popular among the over-35s.

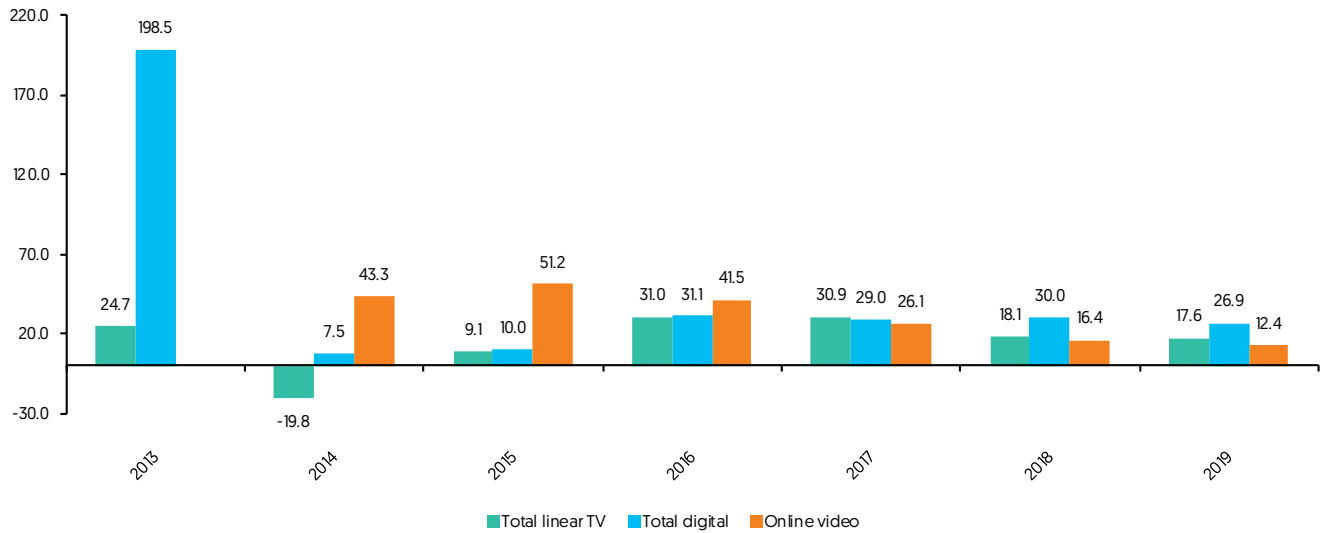
Ukrainians prefer long-form videos, with more than ten minutes of content, to short-form videos, though smartphone viewers tend to watch shorter videos than desktop viewers. Smartphone viewers are more likely to watch, share and feel connected to ads and branded videos than desktop viewers. Mobile devices now account for about 40% of total internet traffic, a proportion that has grown rapidly since the launch of 3G in 2015.

Video ads are generally less than 20 seconds long. Shorter videos are more likely to be watched to completion, and there is no strong relationship between ad length and ad recall. In-stream formats like pre-roll ads are most popular and effective, but there is limited inventory of high-quality video, so it can be difficult to maximise coverage with these. So brands frequently use out-stream video ads embedded within the text of high-quality non-video websites to extend coverage.

Video advertising has been growing rapidly since 2013, and is expected to grow 26% in 2017, roughly in line with the 29% growth forecast for internet advertising as a whole. Video now accounts for 15% of all internet advertising. Many brands – especially FMCG companies – use video to add incremental reach to television, which remains the principal communications channel.

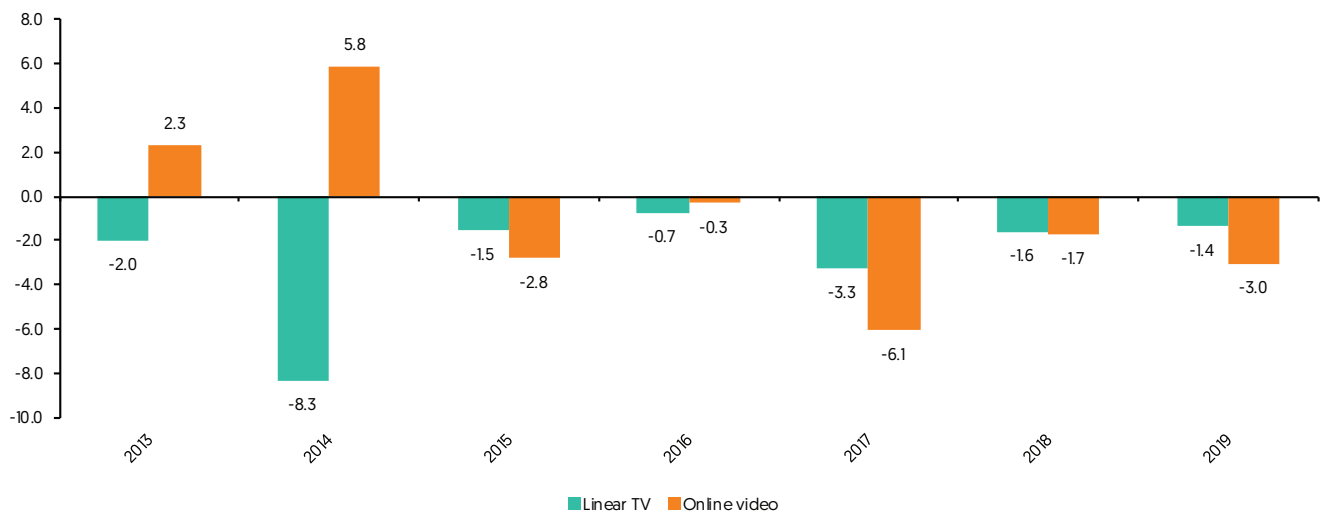
Content marketing is becoming more popular among advertisers, but only a minority have established owned video channels with high-quality branded content, which requires heavy investment in creative and production. Most brands still focus on paid advertising in online video.

Advertising expenditure year-on-year growth (%)



Source: Ukrainian Advertising Coalition, Zenith

Regular viewer numbers year-on-year growth (%)



Source: GfK, Nielsen, MMI, TNS Ukraine

*Monthly **Monthly, only includes cities with 50,000+ population

United Arab Emirates

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	6,100	6,033	5,884	5,968	5,866	5,956	5,951	5,944
Number of regular online video viewers (000s)	3,640	3,779	3,888	4,284	5,118	5,240	5,363	5,554

Source: GWI, World Bank, Internetworldstats, Zenith
Monthly viewers

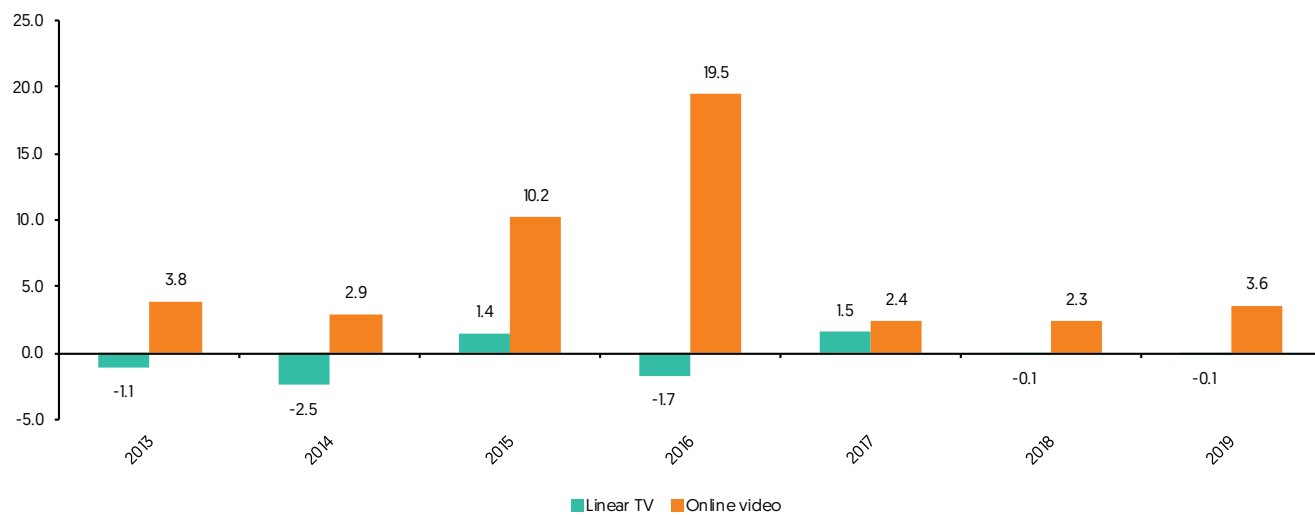
Demographics (adults 16-64)

	General population	Online video viewers
	2017	2017
Total (000s)	6,800	4,961
Gender (000s)		
Male	3,604	2,664
Female	3,196	2,297
Age (000s)		
16-24	1,632	1,240
25-34	2,176	1,588
35-44	1,836	1,290
45-54	952	695
55-64	204	149
Socioeconomic status (000s)		
AB	2,108	1,538
C1C2	3,196	2,381
DE	668	459
Not stated	828	582

See the 'Pan Arab' section for details on video adspend in the region.

Source: TGI 2017

*Regular viewer numbers
year-on-year growth (%)*



Source: GWI, World Bank, Internetworldstats, Zenith
Monthly viewers

United Kingdom

Advertising expenditure (£ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	3,257.6	5,364.7	1,479.0	200.0	-
'13	3,420.4	6,177.0	1,825.0	310.0	-
'14	3,632.5	7,239.0	2,421.0	442.0	-
'15	3,941.3	8,503.0	3,033.0	711.0	353.0
'16	3,992.5	10,230.0	3,765.0	1,087.8	540.1
'17	3,792.9	10,699.7	3,978.0	1,664.4	826.3
'18	3,830.8	11,104.0	4,084.2	2,546.5	1,264.3
'19	3,830.8	11,857.6	4,383.4	3,183.1	1,580.4

Source: IAB, Zenith

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	4,415.6	7,271.9	2,004.8	271.1	-
'13	4,636.4	8,373.0	2,473.8	420.2	-
'14	4,923.9	9,812.5	3,281.7	599.1	-
'15	5,342.4	11,525.9	4,111.2	963.8	478.5
'16	5,411.9	13,866.8	5,103.5	1,474.6	732.1
'17	5,141.3	14,503.6	5,392.2	2,256.1	1,120.1
'18	5,192.7	15,051.6	5,536.1	3,451.8	1,713.8
'19	5,192.7	16,073.1	5,941.7	4,314.7	2,142.2

Source: IAB, Zenith

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	57,519	57,636	57,285	57,285	57,168	57,063	56,972	56,402
Number of regular online video viewers (000s)	47,004	47,726	48,281	47,869	48,508	48,823	49,140	51,597

Source: comScore, Techedge, Zenith; monthly
Note: linear TV refers to commercial TV only

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video	53.6	51.3	38.7	44.5	47.9	53.3	59.3	62.2
Time spent watching online video on mobile devices	-	-	-	-	10.9	20.3	28.2	31.8
Time spent watching online video on desktop/non-mobile	-	-	-	-	37.0	33.0	31.0	30.4

Source: comScore, Techedge, Zenith

Demographics

	General population	Online video viewers
	2016	2016
Total (000s)	64,715	46,533
Gender (000s)		
Male	28,475	23,592
Female	36,240	22,941
Age (000s)		
under 16	5,798	4,744
16-24	5,494	5,724
25-34	7,714	8,376
35-44	8,439	7,678
45-54	10,943	7,585
55-64	10,141	2,469
65+	16,185	9,958
Socioeconomic status (000s)		
ABC1	26,087	27,175
C2DE	38,628	19,358

Source: comScore

The market will continue to be dominated by content. Whilst the stronghold of the major broadcasters in the UK will not be broken in the short term, the ongoing drift to multiple screen viewing means that a single broadcast platform will not be enough to maintain position in the market.

Customers are becoming less loyal to traditional broadcasting brands; instead they watch content on a range of devices. Content is still the key factor but as we see the likes of Netflix and Amazon Prime expand, there will be new opportunities for non-traditional broadcasting brands to challenge their current domination in the market. We are already seeing the likes of Oath (the newly merged AOL and Yahoo) investing heavily in premium content creation and this, combined with strong data capabilities or indeed buying behaviour (Amazon, Skyadmart), is particularly attractive to advertisers.

This challenge is especially relevant to younger audiences, amongst whom linear TV viewing has been in consistent year-on-year decline. TV catch-up and broadcaster VOD is seeing significant growth in this age group, of course. In general, there has been a marked increase in viewing from

connected devices (in particular via set-top boxes), which has been the dominant driver of online video spend growth. With TV and digital becoming more closely meshed, brands that follow the content consumers seek out, no matter the platform, will be best placed to deliver impact and continued ROI to their core consumers. Online video is now the fastest-growing segment within internet advertising

Major providers of OLV include commercial broadcaster platforms, such as ALL4, My5, ITVHub and SkyGo; large video networks, for example Oath, Amazon, Teads, Vevo, Exponential and Collective; mobile video networks, including Ogury and Yume; DSPs and SSPs, including Videology, Tremor and TubeMogul; and social sites, including Facebook, Instagram, Snapchat and YouTube.

Comscore data highlights VOD delivering a strong (58%) ABC1 profile and it is also more used by younger age groups.

The majority of broadcaster platforms have long-form content. Some, notably All4, have developed shorter form content (under seven minutes), but this is generally low-scale. Networks and mobile DSPs run a variety of short-form and web original content, and a significant growth area has been outstream or native video, where video advertising is served in-read or in-article, without seeding content.

Mobile

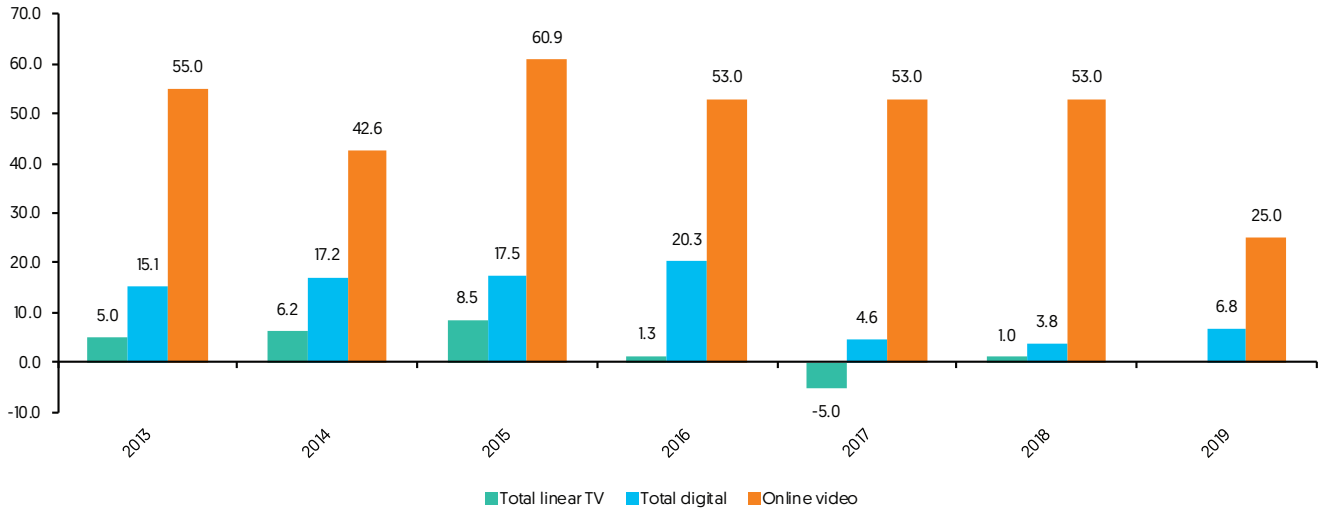
Mobile viewing is currently dominated by short-form and outstream content and is used as a channel to dip in and out of. However, we are already seeing a shift in the way people are consuming longer form content.

The uptake of SkyGo's services shows that people are increasingly looking to watch premium content on the move. This is a trend that will continue but will be limited by technology and the data packages available in the market.

As these costs start to reduce we will see a rise in the amount of content consumed on mobile devices. The real breakthrough in this space will be when we start to see more robust solutions to multi-device linking.

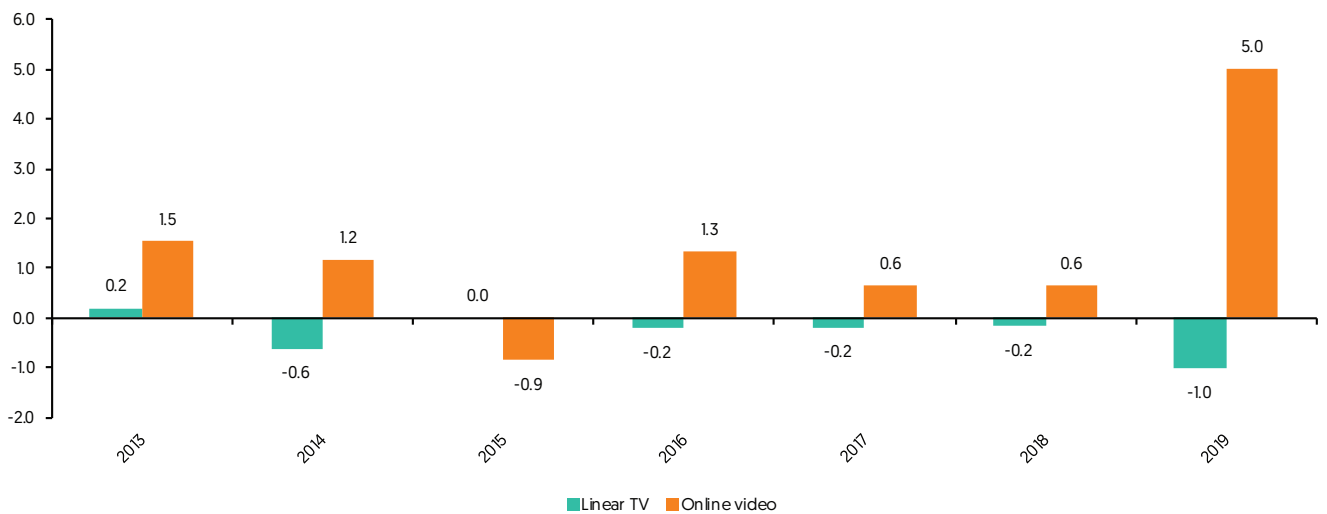
Consumers will be looking to switch seamlessly between multiple devices in different locations whilst watching a single piece of content. The consumer journey and targeting capabilities this will allow will represent a substantial advance.

Advertising expenditure year-on-year growth (%)



Source: IAB, Zenith

Regular viewer numbers year-on-year growth (%)



Source: comScore, Techedge, Zenith

United States of America

Advertising expenditure (US\$ million)

	Total linear TV	Total digital	Digital display	Online video	Mobile video
'12	62,547	31,338	14,856	4,043	340
'13	64,348	36,983	18,533	5,216	659
'14	67,004	43,722	23,377	6,765	1,079
'15	66,725	51,662	29,370	8,524	1,943
'16	68,139	60,394	35,764	10,058	3,017
'17	68,244	69,234	42,412	11,869	5,341
'18	67,905	78,275	49,050	14,005	8,403
'19	67,340	87,110	55,500	16,526	10,742

Source: Zenith

Consumption - number of viewers

	2012	2013	2014	2015	2016	2017	2018	2019
Number of regular linear TV viewers (000s)	283,302	282,949	285,394	287,839	287,297	292,736	293,686	295,834
Number of regular online video viewers (000s)	171,600	186,200	195,600	204,640	213,578	221,398	229,146	235,563

Source: Nielsen, comScore, Zenith
Monthly viewers

Consumption - time spent (average minutes per day)

	2012	2013	2014	2015	2016	2017	2018	2019
Time spent watching online video	50.0	52.0	57.0	64.0	66.0	69.0	71.0	72.0
Time spent watching online video on mobile devices	15.0	22.8	27.2	32.9	36.2	39.3	41.6	43.2
Time spent watching online video on desktop/non-mobile	35.0	29.2	29.8	31.1	29.8	29.7	29.4	28.8

Source: Nielsen, comScore, Zenith

Demographics

	General population	Online video viewers
	2017	2017
Total (000s)	301,670	221,398
Gender (000s)		
Male	147,350	110,251
Female	154,320	111,146
Age (000s)		
under 18	63,830	40,155
18-24	29,030	24,920
25-34	40,260	34,833
35-44	39,050	30,900
45-54	40,860	33,184
55-64	40,520	29,478
65+	48,120	27,927
Household income		
More than US\$100k/year	96,963	84,228
Less than US\$100k/year	204,707	137,170

Source: comScore, Nielsen

We expect digital video spending to grow 18% a year through to 2019. Online video remains in high demand, particularly for high-quality environments, which are in short supply despite heavy investment in content production by publishers. Publishers are generally unwilling to put their inventory up for open auction and risk the erosion of their premium prices, so most programmatic video sales are made on a guaranteed basis.

Agencies have been shifting their budgets between

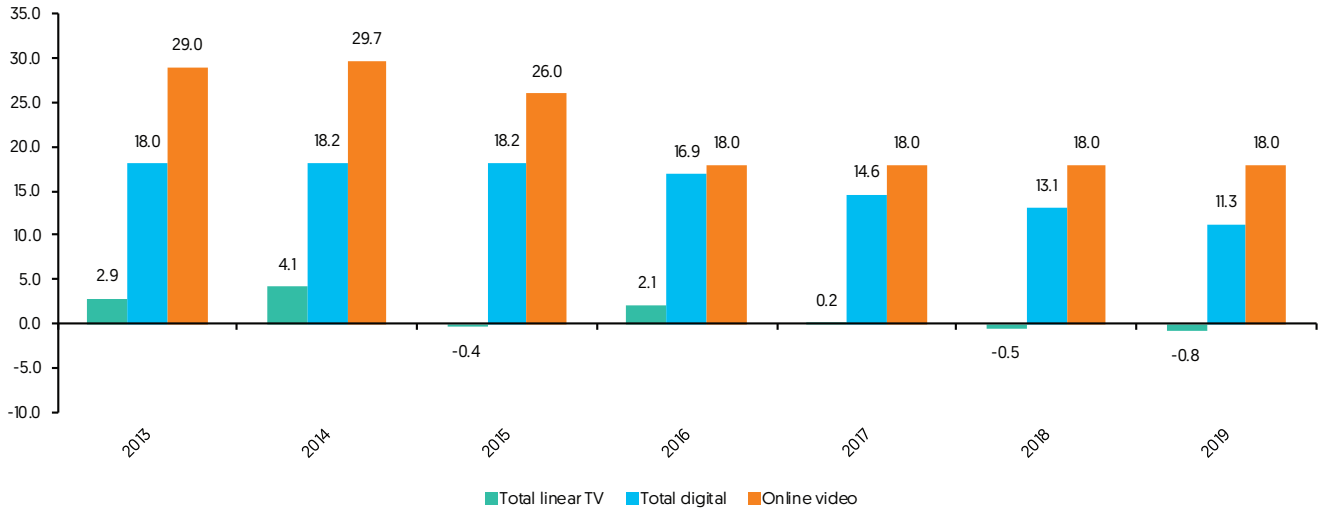
television and online video to maximise coverage and efficiency, and for some brands this has meant moving dollars back to linear television.

In Q1 2017, Netflix generated US\$1.47 billion in revenue in the US, a 26.6% increase year on year. While other OTT services have not officially disclosed their revenues, the trade press reports steady increases in subscriber numbers. According to Variety, CBS CEO Les Moonves stated that Showtime's standalone streaming service had 1.5 million subscribers as of January 2017. Moonves also said that CBS All Access was approaching the same number of subscribers as Showtime at the time. DirecTV Now was launched at the end of November 2016, and had 200,000 paying subscribers by the end of the year. Time Warner CEO Jeffrey Bewkes stated during the Q4 2016 earnings call that HBO Now surpassed 2 million subscribers.

Live TV OTT services have also come into play, with YouTube and Hulu announcing their new offerings this year. YouTube TV launched in five cities [New York, Los Angeles, San Francisco Bay Area, Chicago, and Philadelphia] in April 2017. The service costs US\$35.00 a month for one membership that includes a maximum of six accounts. It has about 50 channels, VOD programming, an unlimited cloud-based DVR, and access to YouTube Red originals. In May, Hulu launched its Live TV service, which includes Hulu's streaming library, for US\$39.99 a month. Similar to YouTube TV, the service offers 50+ channels, a cloud-based DVR, and multiple accounts within the household.

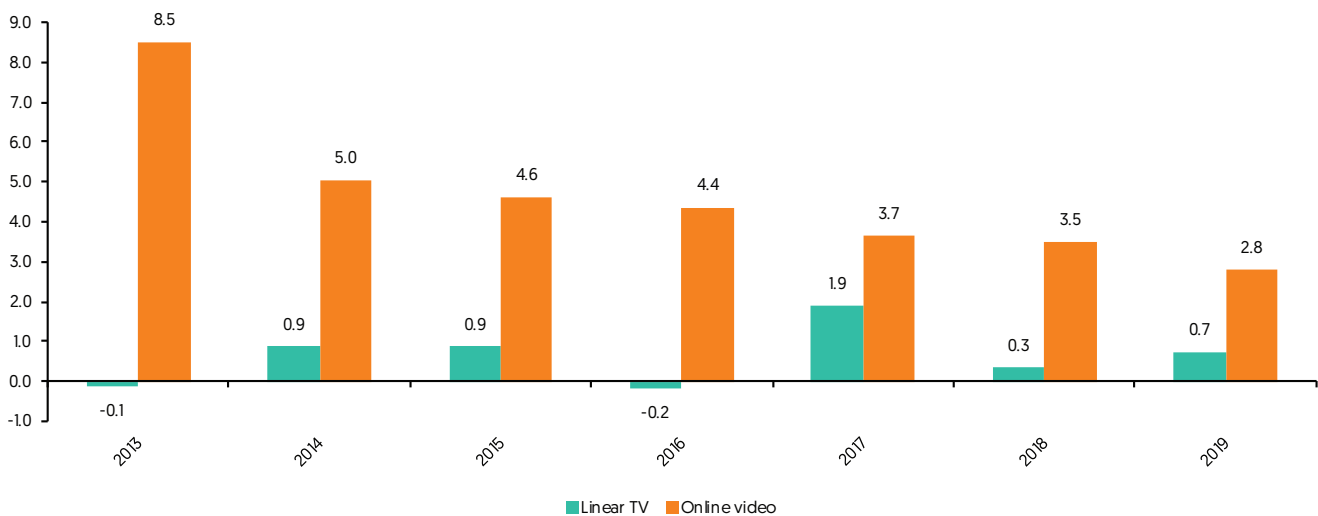
Facebook and other social channels, including Snapchat and Twitter, are making big sales efforts to support their video offerings. These platforms require custom versions of creative messages and transact on much shorter competition terms than other OLV players.

Advertising expenditure year-on-year growth (%)



Source: Zenith

Regular viewer numbers year-on-year growth (%)



Source: Nielsen, comScore, Zenith
Monthly viewers

Online Video Forecasts 2017

£395

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