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CONVERGENCE OF TV AND DIGITAL PLATFORMS:
INCREASED INNOVATION AND COMPETITION FOR ADVERTISERS' BUDGETS

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Ref: 2011287-441

Contents

This report was sponsored by Google, and prepared independently by Analysys Mason.

1   Executive summary

Digital advertising[1] has grown at a tremendous rate, and now accounts for nearly half of the total advertising market expenditure in many developed countries. TV advertising revenue[2] has remained resilient, with growth in total advertising spend on broadcast and online TV averaging 2.2% annually since 2012.[3] In their drive to position themselves for a converged advertising future, traditional TV players are exploring, and increasingly seizing, the opportunity to reach audiences in new ways, across broadcast and online platforms.

TV continues to be an attractive advertising platform – this is linked to the resilience of TV audiences, as illustrated in Figure 1.1 below. Television, and in particular linear, scheduled programmes, remains the main source of video entertainment across all age groups, although it is clear that younger demographics are progressively shifting to other forms of video entertainment online, primarily on-demand (i..e. video that can be accessed at any time via set-top box, computer or other internet-connected media device, Figure 1.2).

Figure 1.1: TV screen viewing time in the UK and in France for all viewers above four years of age [Source: Ofcom, Médiametrie, Analysys Mason, 2017]
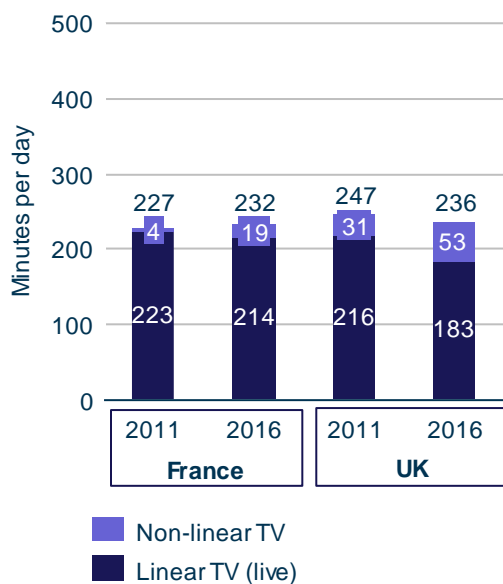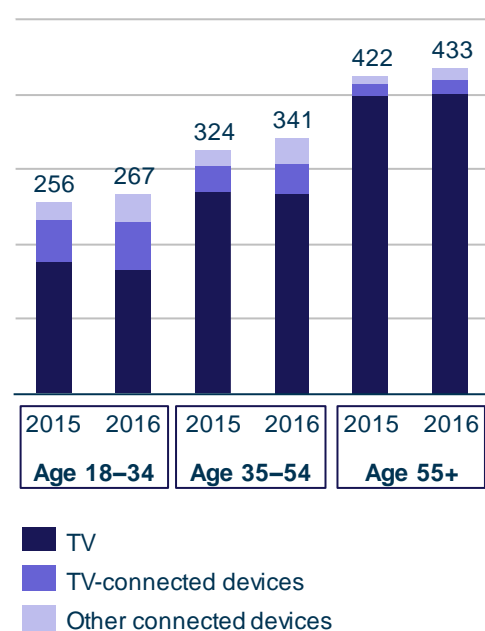
Figure 1.2: Time spent watching by type of platforms and age in the USA, minutes per day per viewer [Source: Nielsen, 2015 and 2016]

Advertising on broadcast TV is highly valuable to brands. The value of linear TV[4] as an advertising medium remains high given the resilience of audiences, as evidenced by stable unit prices for prime-time advertising slots ('inventory').[5] At the same time, competition has been intensifying: new TV channels are appearing each year, and they are competing with a growing roster of online entertainment providers.

Changes in the consumption of TV content have, so far, largely been focused on the rise of on-demand consumption, either through time-shifted consumption of linear content (through personal video recorders, also known as PVR), or through catch-up services offered by broadcasters. Increasingly, linear TV is also being consumed on two-way interactive networks, some managed (IPTV, cable) and some over the top (OTT). This convergence of demand and supply is enabling a broader commercial convergence between TV and online digital advertising, although challenges remain, particularly in measuring and valuing audiences.

As part of this convergence, TV players are developing digital capabilities to complement their traditional strengths (access to a large amount of attractive content that can be distributed online and offline, direct relationships with major advertisers and agencies). Some of these new capabilities relate to technology, with a focus on 'addressable' advertising, which is the ability to serve advertisements dynamically depending on the profile of viewers. This allows TV players such as Sky in the UK (through AdSmart, Case Study 1), ProSiebenSat-1 in Germany (through Switchin, Case Study 2) and Orange in France (Case Study 4) to offer 'addressable inventory' for targeted advertising. Orange's approach in France is limited to catch-up and on-demand TV, as targeted advertisements on linear TV remains disallowed in France for now, and is offered in close partnership with broadcasters, in particular TF1 (the leading private broadcaster). TF1 has experimented with other innovations, such as MyTF1 Shop&Stop (Case Study 3) which offers 'actionable' advertisements, where viewers can place an order for an item by interacting directly with the advertisement they are watching.

US-based TV players have invested to position themselves as advertising technology and solutions providers for the TV value chain both in the USA and internationally. Comcast's FreeWheel solution (Case Study 5) is the technology platform of choice for many large European broadcasters, while AT&T's AdWorks (Case Study 6) offers addressable advertising solutions to advertisers in the USA across all video platforms, from linear TV broadcast over traditional networks, to OTT online video entertainment.

Figure 1.3 illustrates how TV players have been evolving by moving from their traditional space (offering advertising space in the context of linear mass-market content) to on-demand and personalised solutions.

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[4] This is sometimes referred to as 'live TV', although to avoid confusion with the broadcasting of live events (e.g. sports), we have used 'linear TV' in this paper

[5] In this paper, we use the term 'inventory' to describe the slots or 'space' that broadcasters and other publishers make available in order to include advertisements in programmes

Figure 1.3: Matrix of digital advertising integration by different TV players [Source: Analysys Mason, 2017]

Underlying these shifts are both the strong starting position of TV players, in terms of access to attractive content and relationships with advertisers, and the increased ability of audience measurement mechanisms to produce comparable outputs across platforms. Until quite recently, online advertisements were monetised entirely separately from TV advertisements because audience metrics were not comparable. This is changing, as TV players have pushed for traditional audience metrics (from BARB, Médiametrie or Nielsen, Case Study 10) to incorporate multi-screen (and therefore online) viewing, particularly on platforms directly managed by TV players (apps and websites). In response, online players are increasingly seeking to integrate third-party audience metrics into their platforms to improve comparability and transparency (e.g. Google and Facebook are working with ComScore to develop third-party verification of content and audiences). Much remains to be done, however, to fully align metrics .[6]

Ultimately, online and TV players are experimenting and developing their strategies on how to position themselves in the converged advertising market that is progressively being built. There is much at stake for both parties: TV players are reliant on large, mature advertising revenue to finance their content acquisition and sometimes content creation, and online players are reliant on TV advertising revenue as a source of growth. Competition and new, sometimes unexpected, partnerships are likely to go hand in hand, in a way that should ultimately benefit consumers.

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[6]   See, for example, a recent disagreement between Netflix and Nielsen on the scale of audiences for Netflix original content, https://www.broadbandtvnews.com/2017/10/30/netflix-disputes-nielsens-ratings-of-its-shows/

2 Introduction

The TV and 'digital entertainment space', including in particular online video, is increasingly competing for viewer time and advertiser spending. Digital advertising has grown at a tremendous rate, and now accounts for nearly half of the total advertising market expenditure in many developed countries. Nevertheless, traditional TV advertising revenue[7] has remained resilient. TV continues to attract large audiences, although the age profile of its audience is changing and competition for this relatively stable pool of revenue has increased, with new TV channels being launched every year. As consumers demand more digital viewing options, TV players' historically strong position in the advertising market is subject to growing competition from online entertainment providers.

As a result, market participants in both the TV advertising value chain (subscription TV platforms,[8] broadcasters and networks) and in the digital advertising value chain are starting to explore one another's territories as a way to grow their advertising revenue. On the one hand, online players are exploring ways to insert themselves into the TV advertising value chain, and on the other hand, TV players are increasingly adopting digital technologies to defend and grow their revenue and to reach their audiences through other forms of online advertising.

TV advertising's strength relies on its reach and its proven ability to monetise audiences, through highly standardised audience metrics[9] and commercial practices. Consumption of TV is changing, and TV players face new challenges in capturing the attention of audiences and creating revenue through advertisement, particularly for some demographic subsets of viewers. Meanwhile, online players offer the benefits of targeting advertisements more precisely and linking specific actions (e.g. a purchase on an e-commerce website) to an advertisement. As online and TV players start to contest each other's traditional space within the advertising market in an attempt to defend and maximise revenue, each group starts to develop new capabilities that were previously the preserve of the other group.

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[7] This can at times describe revenue for advertisements served on traditional TV while at other times it refers to the revenue of traditional TV players. We have sought to clarify this throughout the paper where it could lead to ambiguity

[8] This includes primarily cable, satellite and IPTV; in this report we use 'subscription TV' and 'pay-TV' interchangeably, the latter being more commonly used in Europe

[9] Measurements of the TV audience size and composition traditionally conducted by the audience measurement companies such as BARB in the UK, Mediametrie in France, Nielsen in the US

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This paper explores the dynamics in the advertising market and the integration between TV and digital advertising in terms of technologies, audiences, data and products, with a focus on the USA and the three largest EU countries (France, Germany and the UK).

- In Section 2, we first analyse the changes to the main revenue drivers of TV advertising spend and how new video consumption habits are influencing traditional broadcasters and cable TV providers.

- In Section 4, we explore how TV players are responding to these changes.

- In Section 5, we discuss how TV players are developing the capability to compete in the broader digital advertising space, beyond traditional TV advertising.

3 Changes in TV consumption are affecting the way TV players compete for advertising revenue

In many countries around the world, TV advertising has long accounted for the largest share of advertiser spending. Global revenue has seen sustained growth over the past decade. However, there have also been significant changes in consumer behaviour, as people spend more and more time online. In the past ten years, there has been a high increase in penetration of internet-connected devices (PC, smartphone, tablet, smart TV), which are now commonly used for viewing video content of various types. The internet has enabled the emergence of new video platforms and formats, many of which are used by traditional TV players to distribute TV content: catch-up TV, linear TV delivered over the internet, broadcaster video-on-demand (VoD) as well as subscription video-on-demand (SVoD).

In this section, we start with an overview of how TV advertising revenue has fared in recent years (Section 3.1), before highlighting important audience trends, which will drive the future value of TV advertising. These trends affect viewing behaviour (Section 3.2) and clearly reflect demographic differences (Section 3.3).

3.1 TV advertising revenue is growing at a stable pace in the USA and large European countries

Despite growing competition from online entertainment (which we explore further in Section 3.2), traditional TV players maintain a strong position in many countries. In the USA, the UK, France and Germany, for instance, advertising revenue has continued to grow at a strong and steady pace and advertising prices have remained stable. This is shown in Figure 3.1 below in absolute terms per country, and in Figure 3.2 on the basis of head of population per country. These figures indicate that advertisers in the USA and large European countries still consider television to be a uniquely effective advertising medium.

This is particularly true in the USA, where TV advertising expenditure per person is several times higher than in large European countries. TV advertising revenue has been steadily increasing in many countries in Europe, although overall advertising spend in France declined from 2012 to 2014, resulting in a contraction in TV advertising revenue in 2013 (despite TV's share of the market revenue not contracting markedly).

Figure 3.1: Total TV ad revenue, broadcasting and online, USD billion [Source: PwC Global Entertainment and Media Outlook 2017–2021]
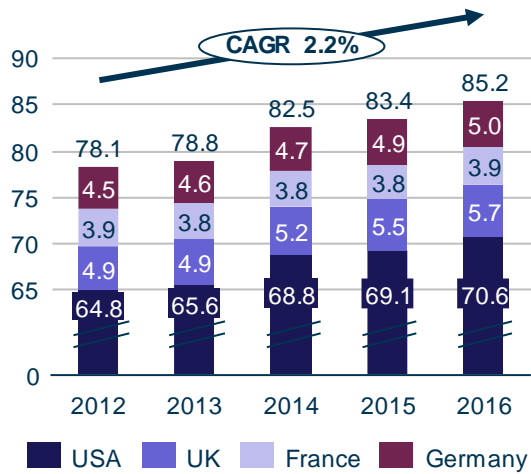
Figure 3.2: Total TV ad revenue per head, USD [Source: Analysys Mason, World Bank, PwC Global Entertainment and Media Outlook 2017–2021]
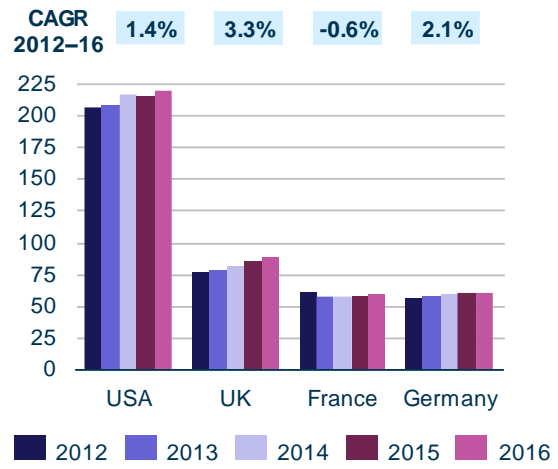
Despite this continued strength, data suggests that advertisers are choosing to allocate an increasing proportion of their advertising budgets to online media, as shown in Figure 3.3.

Figure 3.3: Distribution of advertising revenue across media in the USA [Source: Analysys Mason analysis based on data from PwC Global Entertainment and Media Outlook 2017–2021]
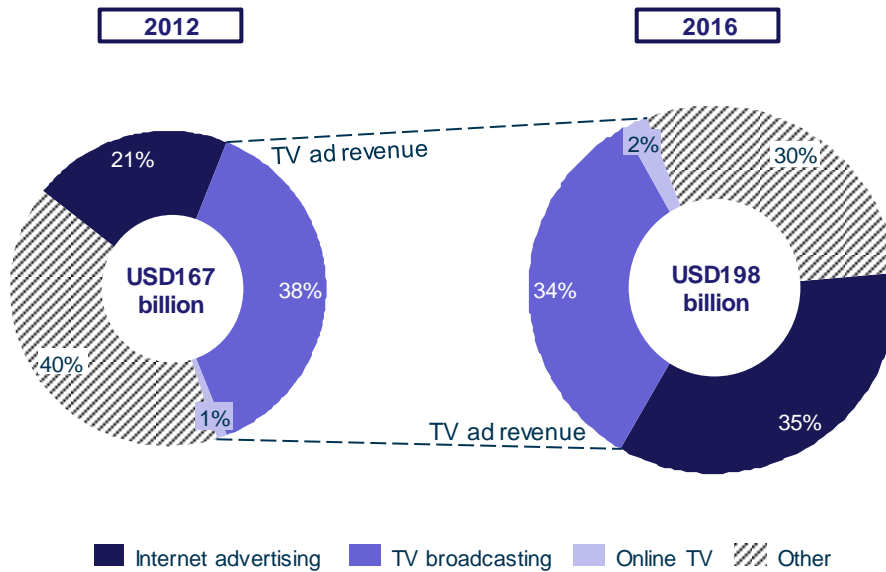
Note: Interpretation and manipulation of data are solely Analysys Mason's responsibility

Internet advertising revenue is expected to exceed the advertising revenue of TV players by 2018[10] in the USA and in large European countries.

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10   PwC Global Entertainment and Media Outlook 2017–2021

TV advertising revenue is driven by the advertising inventory available and the price that advertisers are willing to pay for it. In this paper, we use the term 'inventory' to describe the 'space' that broadcasters and other publishers make available in order to include advertisements. In a linear context, this space is a set of time slots, at pre-defined times, at the start, end or in the middle of programmes. In a non-linear context, this space can be placed before the start of a programme ('pre-roll'), during a programme ('mid-roll') or sometimes after a programme ('post-roll'). Other types of inventory can be served against videos, particularly online, including superimposed banners.

Based on Nielsen research in 2014,[11] the overall duration of commercials per hour of broadcast sold on network and cable channels in the USA had increased on average by 7% in total over five years. In Europe, the cap of 12 minutes of commercial time per 60 minutes of broadcasting was removed by the European Commission in May 2016[12] to give more freedom to broadcasters. Depending on regulations in individual EU Member States, some broadcasters now have more flexibility in deciding how much advertising time to sell per hour, with an overall limit of 20% of total airtime between 7:00am and 11:00pm. In principle, this could allow broadcasters to respond to shifts in the relative demand and value of advertising slots at different times and against different programmes.

In 2014, Nielsen reported a continuous decrease in cost per 30-second advertisement slot on linear TV since 2009.[13] As Nielsen found, people were watching more channels on average per month in 2016 than they did in 2012 (Figure 3.4).
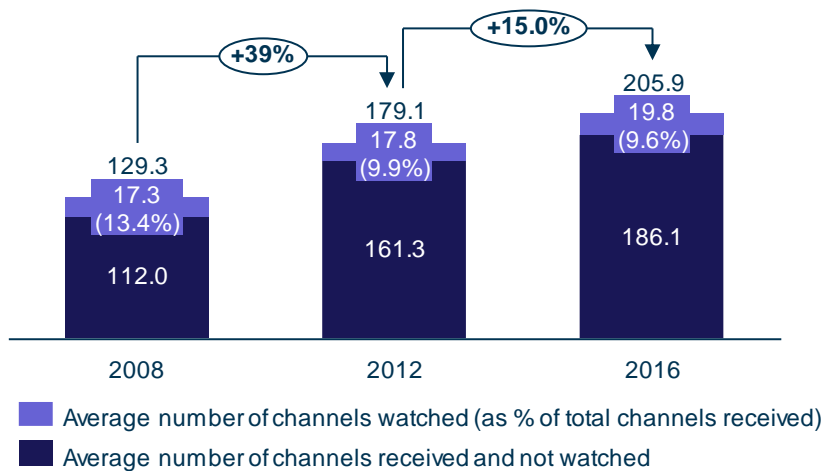
Figure 3.4: Average number of channels receivable and watched in the USA [Source: Nielsen, 2016]

The prices for advertising slots are currently defined by the supply of inventory (which is increasing) and the demand from advertisers (which appears to be more inconsistent, resulting in different price dynamics across channels and programmes). Prices for TV advertising are normally articulated as a cost per thousand viewers ('cost per mille' or CPM), and advertisers may elect to only pay for part of the actual audience of a given programme, depending on its value for the product or service they advertise. This means that some of a programme's 'reach' (its actual audience) can be wasted, i.e.

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11   Nielsen Advertising & Audiences report 2014

12   European Commission press release database, accessed on 13/09/2017: http://europa.eu/rapid/press-release_IP-16-1873_en.htm

13   Nielsen Advertising & Audiences report 2014

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no revenue is generated. In some cases advertisers actually value this wastage (in case of audience that can influence purchasing behaviour or make the purchase on behalf of the target customer), but in general it commands a much lower price than the main monetised audience.

More TV channels are being launched every year, and the average audience per channel is declining as a result of competition. At the same time, however, the viewership of top prime-time programmes is increasing (viewership of the top-ten rated scheduled TV programmes increased by 16% between 2012 and 2016).[14] TV advertising revenue is becoming more concentrated in prime time and global annual events. It is dependent on having attractive content on prime-time slots, including exclusive rights for annual sports competitions or awards. This dynamic makes the acquisition of such attractive content a more competitive process.

In addition to the increasing number of channels and TV content available, there is also a rich choice of platforms used to watch TV content nowadays. For example, Hulu in the USA offers a linear TV experience online with easily interchangeable platforms for streaming; Hulu subscribers can watch linear TV content on a smart TV, PC, game console, tablet or smartphone. The online video service Molotov.tv has retransmission agreements with all the main free-to-air, ad-supported TV channels in France and offers linear, catch-up and on-demand viewing on over 15 hardware platforms (smart TVs and OTT set-top boxes such as Roku and Apple TV, for example) as well as on the web. An increasing number of people own multiple connected devices connected to the internet. This means that it is now much easier to switch between different platforms to watch favourite video content, or to use several platforms simultaneously. These trends cause a significant shift in audience behaviour, whilst digitalisation enables advances such as advertisement targeting. And this in turn impacts the distribution and the value of the TV audiences to advertisers and thus to TV players, which will be discussed in detail in the following sections.

3.2 The value of TV audiences for advertisers is dependent on the way people watch TV

There are three major consumer trends relating to the way people watch TV that affect the value of TV audiences to advertisers:

- As people watch less linear TV and the number of TV channels keeps growing, the average audience size (and, therefore, the average cost per advertising slot) is decreasing.

- As people watch more video content online and on other devices, advertisers allocate higher proportions of their budgets to online channels to reach these audiences.

- As people access the internet and social media on other devices while watching TV, advertisers allocate higher budgets to advertise to audiences with higher digital engagement.

As overall advertising spend grows, the ability to engage audiences across platforms in an increasingly converged advertising market becomes increasingly valuable for advertisers. A major

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[14]   Nielsen top 10 ratings 2012 and 2016

consideration for advertisers and TV players is how audiences are measured: converged measurement processes, discussed further in Section 5, are enabling online viewing to be better monetised by TV players. Below we discuss the three major trends in more detail.

People are spending less time watching linear TV

In recent years, viewers' consumption of TV content has started to shift. As Figure 3.5 below shows, UK audiences spent the same amount of time watching TV in 2016 as they did in 2014, though this figure was down on preceding years; however, the platforms used to watch TV content have changed. Time spent watching linear TV has declined rapidly, as on-demand viewing (including time-shifted and catch-up TV) has grown significantly. In France, the shift to non-linear TV viewing is happening more slowly than in the UK, with people spending 92% of their TV screen time viewing linear TV in 2016 compared to 98% five years before.

Figure 3.5: TV screen viewing time in UK and in France for all viewers above four years of age [Source: Ofcom, Médiametrie, Analysys Mason analysis, 2017]
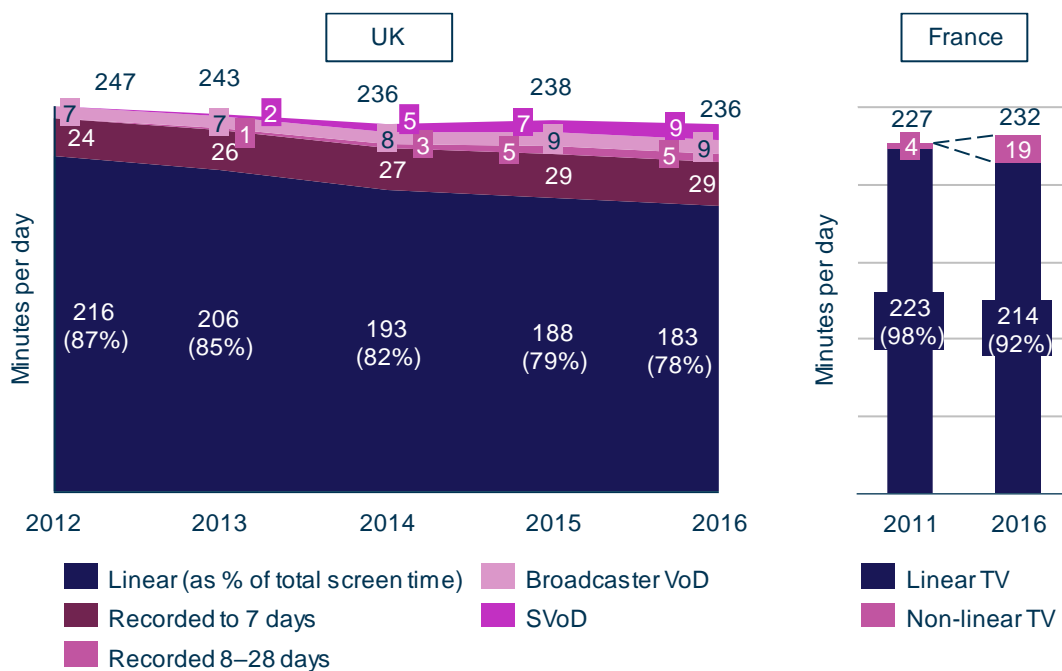
People are spending more time watching video overall, much of it online, on mobile handsets and tablets

In the UK, linear TV viewing time has decreased from 216 minutes per day in 2012 to 183 minutes per day in 2016 for the average viewer,[15] a 15% decline. This is mirrored in the USA.[16] In France, the move away from linear TV viewing has been much slower, with viewing time declining by 4%. At the same time, the average time spent watching video content in the USA increased by over 3%

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15   Viewers above four years old

16   Nielsen Total audience report 2014 and Total audience report 2016

between 2015 and 2016, from 348 to 360 minutes per day per viewer.[17] A large proportion of video content is watched not on TV sets, but on other devices and platforms (smart TV, smartphones and tablets), as shown in Figure 3.6 and Figure 3.7. Traditional TV providers have capitalised on this trend, by making their own content available to viewers on their own-brand digital platforms and on third-party platforms,[18] where it can be monetised in various ways, including advertising.

Figure 3.6: Time spent watching video content in the USA, by device [Source: IAB, 2016]
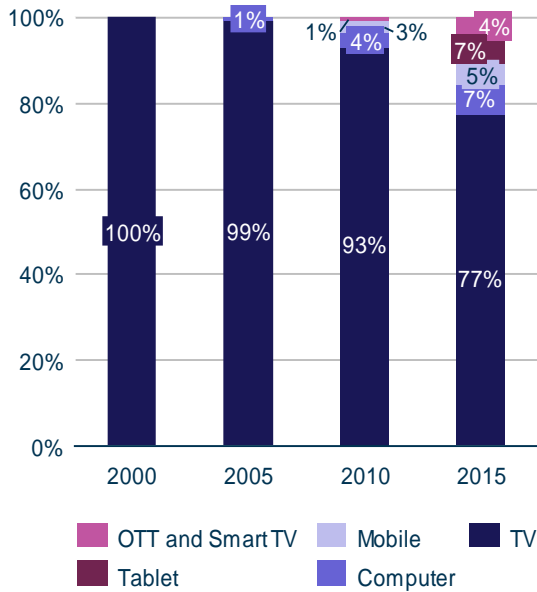
Figure 3.7: Penetration of devices [Source: Ofcom, ComScore, Nielsen, Médiametrie, GFU, 2017]
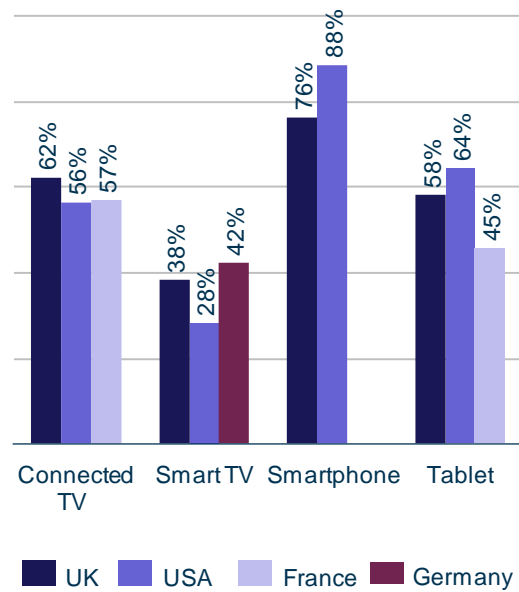
Note: OTT and smart TV data from IAB (Figure 3.6) covers the 'Connected TV' and 'Smart TV' categories in Figure 3.7

As the audience shifts to online video services, advertisers are rapidly increasing their allocation of TV advertising budget to online TV. In the USA, almost 6% of the total TV advertising revenue was generated through online video services in 2016 (Figure 3.8), a trend that is mirrored in major European countries.

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[17]   Viewers over 18 years old

[18]   According to MTM, 83% of large pay-TV players across the globe and 100% in the USA offer TV content online (Source: MTM and Nagra Kudelski, Pay TVIF Innovation forum, "The Global pay-tv innovation landscape: industry perspectives on a year of change", 2017
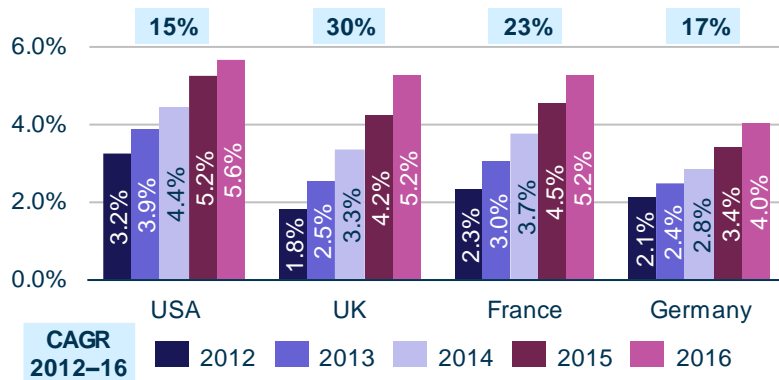
Figure 3.8: Proportion of total TV advertising revenue spent on online TV advertising [Source: Analysys Mason analysis based on data from PwC Global Entertainment and Media Outlook, 2017-2021]

Note: Interpretation and manipulation of data are solely Analysys Mason's responsibility

People use multiple connected devices while watching linear TV

People often use smart devices while they are watching TV. Comcast claims that 39% of TV viewers use the internet on their tablets and 40% of TV viewers use internet on their smartphones while watching TV. [19] TV broadcasters are trying to find ways to benefit from this trend by engaging their audiences across platforms (e.g. by providing social media hashtags for TV programmes, and other sharing features). From our discussions with broadcasters, this remains relatively experimental and highly dependent on the type of content (as shown in Figure 3.9 for different types of prime-time content in the USA).

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[19]   IPG Media Lab + Magna Global with Nielsen, Cross Platform Report 2013

Figure 3.9: Demographics of selected prime-time scheduled and single telecast programmes [Source: Nielsen, Crimson Hexagon, Analysys Mason, 2017]
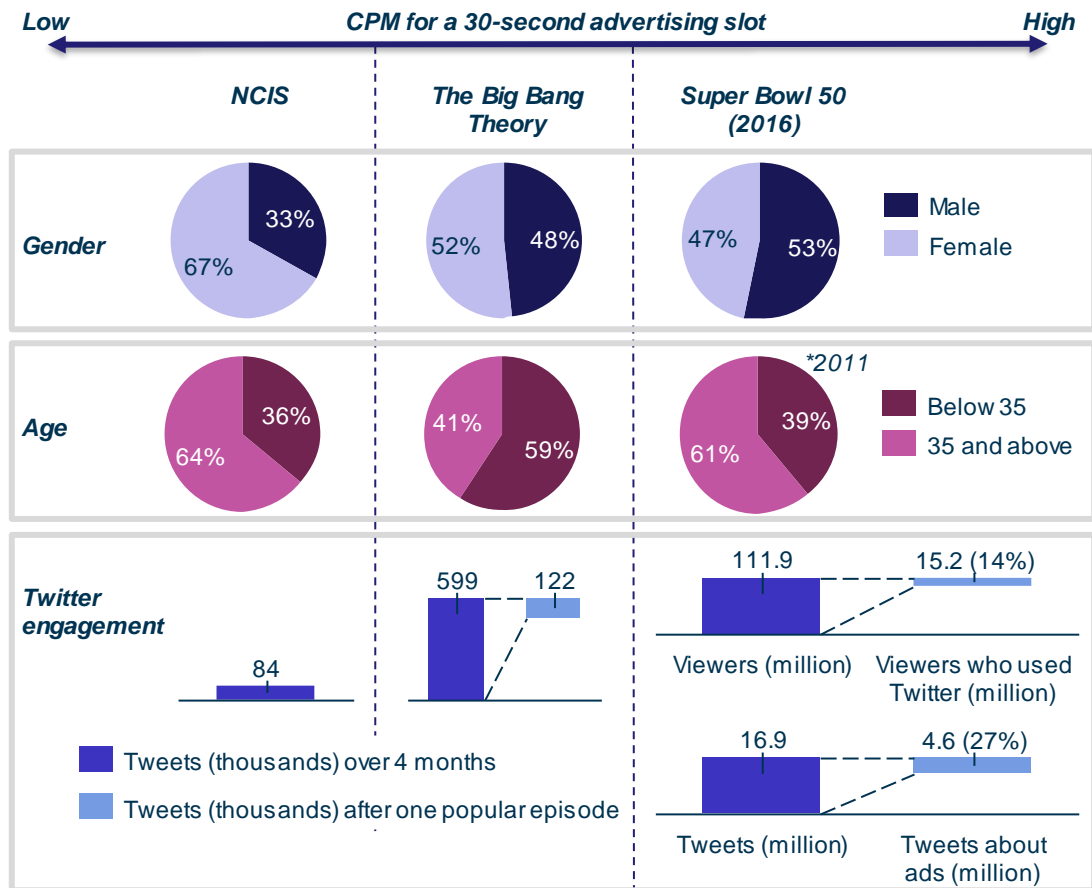
The Super Bowl attracts a very significant social media response, substantially extending the coverage of the broadcast. According to Nielsen,[20] on top of nearly 112 million linear TV viewers, the event generated 190.8 million social media interactions on Facebook and Twitter from 48.3 million viewers, or 43% of the audience of linear TV. Nearly half (44%) of the audience who used Twitter during the game were below 25 years old, and 42% of those who interacted on Facebook about the game were below 35 years old.[21]

The value of the audience becomes increasingly dependent on its age distribution and social media engagement. Therefore TV players would need to increase the reach of younger audience group to increase the total value of their audiences.

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[20]   Nielsen, "Super Bowl LI draws 111.3 million TV viewers, 190.8 million social media interactions", 2017. URL: http://www.nielsen.com/us/en/insights/news/2017/super-bowl-li-draws-111-3-million-tv-viewers-190-8-million-social-media-interactions.html

[21]   Nielsen, "Super Bowl 50: Nielsen twitter TV ratings post-game report", 2016. URL: http://www.nielsen.com/us/en/insights/news/2016/super-bowl-50-nielsen-twitter-tv-ratings-post-game-report.html

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3.3   TV and online entertainment is now competing directly for audiences and advertising spend, particularly in younger demographic segments

People on average spend more time watching video content today than they did a few years ago. A rising proportion of the viewing is done on demand, at the expense of linear TV viewing. This trend has been more persistent among younger generations, who are quicker in adopting new devices and technologies in their day-to-day lives than older groups.

For older viewers, traditional linear TV remains the most popular platform. As shown in Figure 3.10, older viewers in the USA, for example, spend much more time watching video than millennials do, and most of this time is spent on traditional TV screens. As a result, although TV remains the most efficient platform for reaching older audiences, it faces increasing competition from alternative platforms in attracting younger audiences.

Figure 3.10: Time spent watching by type of platforms and age in the USA, minutes per day per viewer [Source: Nielsen, 2015 and 2016]
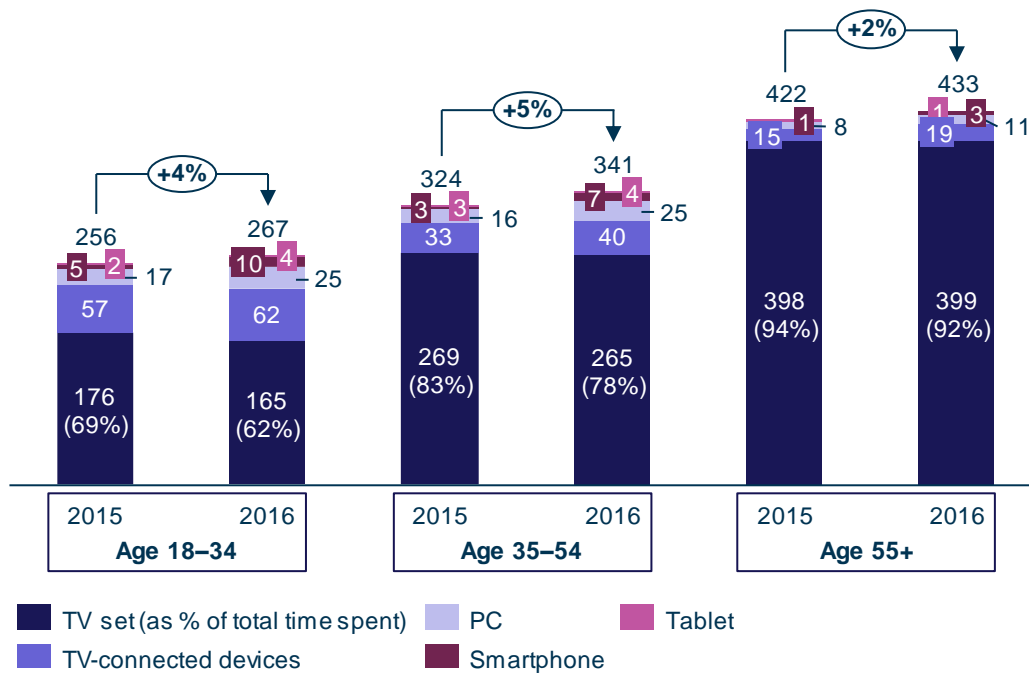
*TV-connected devices are DVD, Game Console, Multimedia Device, VCR
Note: Time spent on TV-connected devices represents total usage time for all activities

TV viewers in 2016 are therefore, on average, older than they were in 2010, as shown in Figure 3.11. This trend is expected to continue as younger people age and newer generations increasingly watch content online and through connected devices. This is likely to continue putting pressure on linear TV viewing. It is important to note, however, that much attractive content consumed online is provided by traditional TV players through their own online platforms or third-party platforms.

Figure 3.11: Age profile of TV viewers (left) and average weekly reach of TV by age (right) in the UK [Source: Ofcom, 2017]
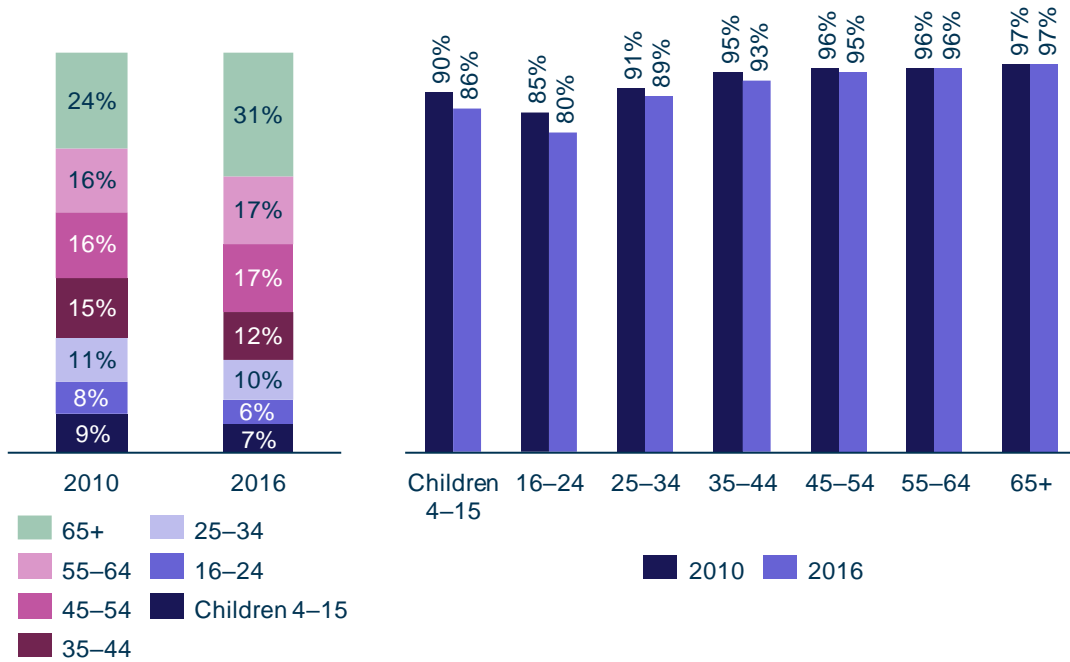
While linear TV remains relevant among younger people (it reached over 80% of the young population in the UK in 2016[22]), its reach is decreasing. Moreover, linear TV also receives less of younger people's attention, which is split between multiple other devices (which can sometimes be used to interact with TV programmes). Younger audiences also exhibit less resistance to change than older groups. As linear viewing increasingly moves online, the convergence of audiences and advertising markets will continue to accelerate. All these trends are increasing the competition for audiences and advertising spend between TV and online entertainment.

Nevertheless, these trends represent new opportunities for TV players who are already working on increasing their reach to younger audiences by making their content available via multiple digital platforms, and maximising revenue from these audiences by adopting digital advertising technologies.

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22   'Reach' is defined as the proportion of people with a TV set at home who watched linear TV for 15 consecutive minutes at least once in a typical week (the full week is used)

4 Traditional TV players are developing digital capabilities to address these trends

Traditional TV companies (primarily broadcasters and subscription/pay-TV providers) are aiming to position their businesses in the best possible way to respond to the trends described in Section 3 of this report. These companies are making their content available across online platforms. They are also adopting techniques and approaches that originated in the online advertising world to improve their advertising value proposition and defend their traditional revenue (Section 4.1).

In this section, we describe how digital advertising technology is enabling TV providers to serve more personalised advertisements to TV viewers, both for linear content (Section 4.2) and on-demand offerings, which can be consumed on managed TV platforms or over the public internet through online video platforms (Section 4.3). More broadly, the more innovative traditional TV players are attempting to leverage their strong current position with advertisers to move across platforms and into online advertising (Section 4.4).

4.1 TV companies are starting to adopt digital advertising technology similar to that used in online media, helping to increase TV's reach and value for advertisers

In the past few years, certain TV players have been actively integrating digital technologies to make TV advertising more attractive to advertisers, and more competitive with online advertising. Some current TV advertising products resemble online advertising in that they can deliver targeted or personalised advertisements. Furthermore, audience measurements and comparability across platforms keep improving, which improves the ability of broadcasters and other TV players to monetise their audiences outside of the traditional linear TV context.

Figure 4.1 provides a simplified overview of how TV players are integrating digital technology, based on the technical characteristics of the advertising products offered by online players. There are two major shifts happening in traditional TV: (1) a shift from traditional TV to on-demand viewing, and (2) improved targeting and personalisation of TV advertisements. We have selected a range of examples of the types of products that TV players have developed recently to address the above trends (see the matrix presented in Figure 4.1). We will describe each of these examples in detail, in the form of case studies, in the remainder of this report.

Figure 4.1: Matrix of digital advertising integration by different TV players [Source: Analysys Mason, 2017]
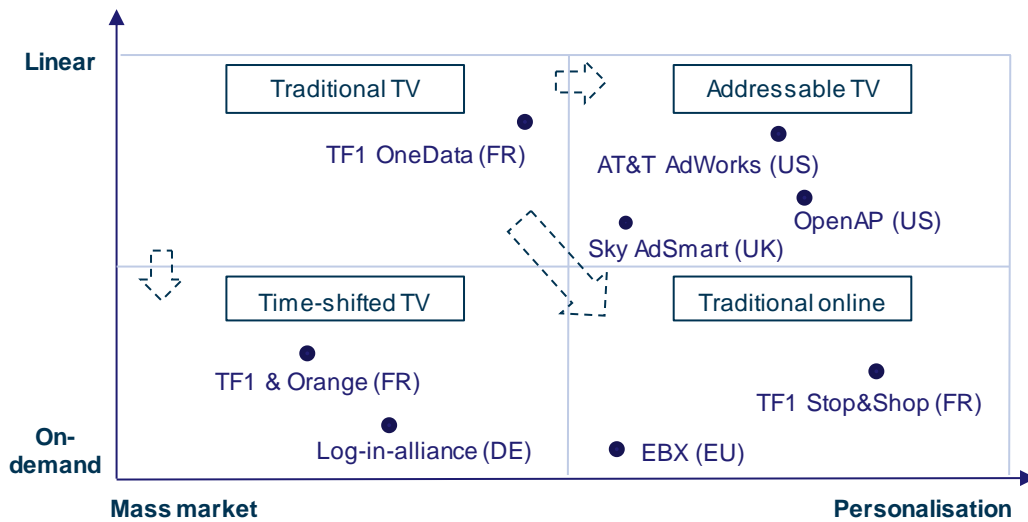
Many of these initiatives are as yet at a small scale or experimental, and have not made a significant impact on the top-line revenue of most TV players. The value chain and business practices are evolving, however, which will allow these initiatives to increase in scale. New partnerships form part of this evolution, and these may or may not involve intermediation of advertising revenue by third parties. Most TV players are keenly focused on retaining a direct relationship with advertising buyers (typically agencies), rather than selling their inventory via third parties. This is clearly a very important strategic concern, and can be explained by pointing to the differences in the value chains for advertising online (heavily intermediated) compared to TV (largely focused on direct sales). It is worth noting, however, that many online publishers do sell inventory directly (particularly in the case of higher-value inventory), in addition to making programmatic sales.

Figure 4.2: TV and online advertising value chains [Source: Ofcom,[23] Sagacitas,[24] Analysys Mason, 2017]
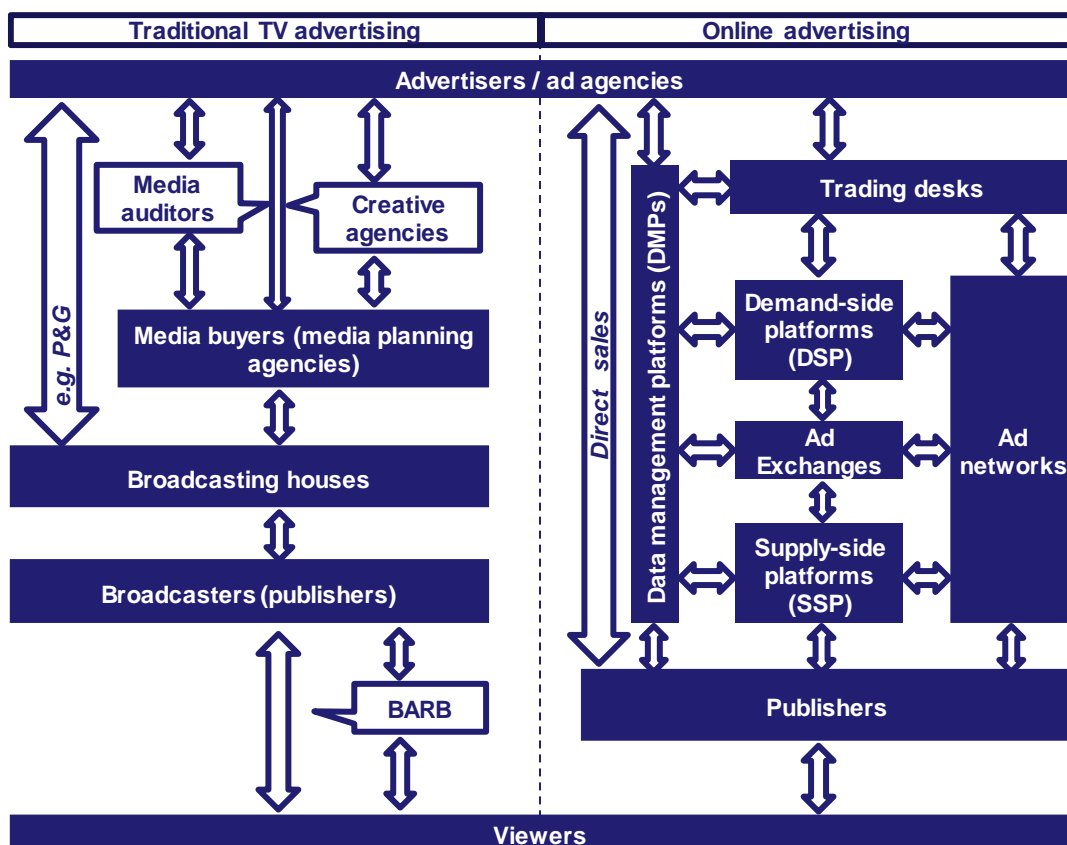
We have observed three main avenues that TV players are exploring in order to offer digital advertising solutions to advertisers, and protecting or increasing their audience reach. First, TV players are deploying solutions to insert advertising in a more dynamic fashion within both linear and non-linear TV content. Second, they are experimenting with a broader range of advertising formats for online and on-demand offerings, including more automation and actionable advertisements. Third, they are exploring ways to insert themselves into the digital advertising value chain, away from TV content. They are aiming to do this through technology, their relationships with advertisers and the data they have regarding consumers and their viewing habits.

We explore each of these avenues in turn in the remainder of this section, highlighting some of the most significant initiatives that broadcasters and subscription TV providers are engaged in presently.

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23   Ofcom, Competition issues in the UK TV advertising trading mechanism, 2011. URL: https://www.ofcom.org.uk/__data/assets/pdf_file/0021/78123/tv_advertising_mir.pdf

24   Sagacitas, "5 ways digital advertising is rapidly transforming", 2014. URL: https://sagacitas.co/2015/06/22/5-ways-digital-advertising-is-rapidly-transforming/

4.2 Digital advertising technology allows addressable advertising to be delivered over traditional TV platforms, enhancing the value of parts of broadcasters' inventory

In order to compete against online advertising and generate value for their own advertising inventory, TV players are progressively introducing addressable, or targeted, advertisements on linear TV. Targeted TV advertisements serve two related purposes.

- First and foremost, they are intended to reduce wastage, in the form of advertisements served to parts of the audiences that are less relevant, and (crucially) not paid for. For example, advertisers who want to target parents (e.g. for nappies or baby food) currently buy advertising inventory in programmes that people of parenting age are likely to watch. In some cases, they only pay for this part of the audience, limiting the revenue a broadcaster can earn from this advertising slot when it is shown to all viewers.

- Second, and as a result of the ability to target specific audiences with tailored advertisements, addressable advertising has the potential to increase the value of the 'long tail' of less valuable advertising inventory, which on many TV channels can remain unsold, because it is of too little interest to advertisers. Addressable advertising can enable broadcasters to reduce the CPM for relevant audiences, while driving up the overall willingness to pay among several advertisers.

Addressable advertising must be based on a good understanding of who is viewing a specific programme, on a larger and more granular scale than traditional audience metrics for TV allow. It requires more automation in the insertion of advertisements into programmes, compared to scheduled slots that can be pre-programmed manually. In order to maximise the value of targeted advertising, the personalisation must be based on accurate and rich audience data, as illustrated in Figure 4.3 below.

Figure 4.3: Addressable TV advertising delivery process [Source: Analysys Mason, 2017]
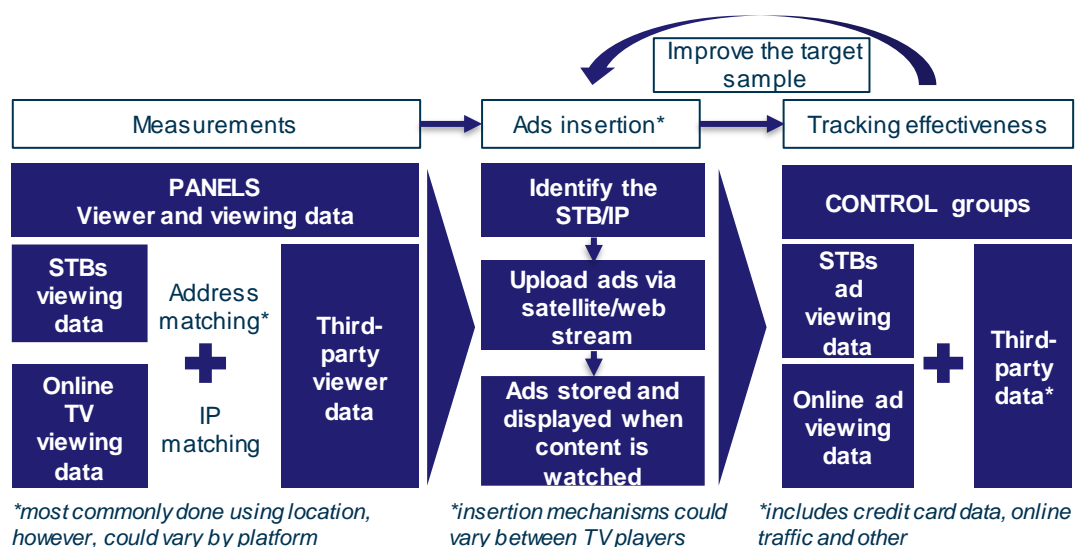
This requires data (which broadcasters can access from a variety of sources) to create a target group. The provider would then insert a targeted commercial into the live stream to reach this group. Data can be:

- Supplied by measurement companies. For example, Nielsen is now collecting data on viewers' in-store behaviour, and also measures viewer characteristics through a representative panel of TV households.

- Collected by pay-TV operators, through set-top boxes (STBs) and other customer interactions (Figure 4.3). The data is shared in various ways, through partnerships with broadcasters. This is done by Sky in the UK, for example (see Case Study 1 below).

- Gathered by other mechanisms, standards and intermediaries; ISPs and smart TV manufacturers collected data through the HbbTV standard (e.g. in Germany), and the FCC recently approved voluntary roll-out of the new ATSC 3.0 standard in the USA, which will allow data to be collected through a return path from terrestrial and cable TV viewers.[25]

Moreover, advertisers can add their own data and combine it with third-party audience data to identify their target groups.

Case Study 1. Sky's AdSmart targeted advertising product in the UK

In 2014, Sky launched the AdSmart targeted advertising product for their STB customers in the UK, or around 25% of the UK households. Since then the product has been used by over 500 advertisers running over 3500 targeted campaigns. Around 70% of the advertisers who used AdSmart were either new to TV advertisement or to Sky, as the product made TV advertisement more accessible for smaller advertisers. AdSmart allows advertisers to target its customers based on nearly 400 different attributes, with the most commonly used being geographical location and household composition. AdSmart also allows advertisers to bring their own data in order to improve addressability.[26]

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25   See http://www.broadcastingcable.com/news/washington/fcc-launches-next-gen-broadcast-tv-standard/170165 and https://www.washingtonpost.com/news/the-switch/wp/2017/11/14/tv-stations-are-about-to-track-you-and-sell-targeted-ads-just-like-google-and-facebook

26   Sky media, "Sky AdSmart boosts viewing in ad breaks", 2015. URL: https://www.skymedia.co.uk/news/sky-adsmart-boosts-viewing-in-ad-breaks/

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Overall, advertisements placed through AdSmart showed a 33% reduction in the tendency to switch channels in breaks across all positions[27] when compared to traditional advertisements. Moreover, the AdSmart-targeted audience groups had higher purchase consideration than the non-targeted viewers exposed to the same commercial. For example, Santander's AdSmart advertisements saw a 50% increase in purchase consideration for the exposed targeted sample. Advertisers are also able to distinguish between viewers that are current buyers of their products and those who are not, and send differentiated messages to each group.[28]

Sky recently formed a partnership with Virgin Media, which will increase AdSmart's reach to 30 million households in the UK and Ireland.[29] To continue growing its reach, Sky is also planning to roll out the AdSmart product in Italy, Germany and Austria by the end of 2018.[30]

While Sky offers perhaps the most advanced targeted TV advertising products in Europe, other European players have started to test alternative options, and are entering the addressable advertising market. In France, targeted advertising is forbidden on linear TV,[31] and TV players are exploring targeted advertising solutions on their online platforms (Section 4.3). The regulations are less strict in Germany, where commercial broadcasters such as ProSiebenSat.1 are starting to introduce new targeting features to advertisers (see Case Study 2).

Case Study 2. ProSiebenSat.1's use of HbbTV for targeted TV advertising in Germany

In 2015, ProSiebenSat.1 started to offer targeted advertising through HbbTV sets that are equipped with the Switchin feature. It can identify weather conditions at the viewer's location and use this data to select the most suitable advertising that will be overlaid as a banner over the video content on the HbbTV screen when the viewer switches to one of the ProSiebenSat.1 channels. The broadcaster ran over 100 campaigns for 50 customers using this feature in 2016.[32] Moreover, viewers can click on the 'red button' on their remote controls to be re-directed to the website of the advertiser.

By using the above products, advertisers should be able to shape the message that best addresses their audience. For example, advertisers can tailor the commercial message based on whether a viewer is currently a consumer of their product or not by combining their customer data with the data of broadcasters. They are also able to select much narrower audience segments, creating new

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[27]   The position in break is the order of the advertisements being shown within one commercial break

[28]   Sky AdSmart, Santander&Sky AdSmart case study, URL: https://www.skyadsmart.co.uk/wp-content/uploads/sites/3/2016/08/Santander-Case-Study-Final.pdf

[29]   Telegraph, "Sky and Virgin Media join forces with TV advertising deal" by Sam Dean, 2017. URL: http://www.telegraph.co.uk/business/2017/06/15/sky-virgin-media-join-forces-tv-advertising-deal/

[30]   TheDrum, "Sky begins pan-European roll out of AdSmart" by Ronan Shields, 2017. URL: http://www.thedrum.com/news/2017/03/16/sky-begins-pan-european-roll-out-adsmart

[31]   This is expected to change at the end of 2017, but the current law prohibits addressable advertising on TV; see Decret No.92-280 from 1992 http://www.csa.fr/Juridical-area/Decrets-et-arretes/Decret-n-92-280-du-27-mars-1992-modifie-relatif-a-la-publicite-au-parrainage-et-au-teleachat-Version-consolidee

[32]   ProSiebenSat.1 Annual Report 2016. URL: https://irpages2.equitystory.com/download/companies/prosiebensat1/Annual%20Reports/DE000PSM7770-JA-2016-EQ-E-01.pdf

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opportunities for TV advertising that were previously unavailable, and making TV more attractive to local and small businesses in terms of targeting and affordability.

4.3 Advertising presented alongside on-demand TV content combines traditional TV advertising sales with digital advertising mechanisms

Based on the recent MTM survey,[33] 83% of large subscription TV players across the globe and 100% in the USA offer TV content online. In 2017, 31% of global pay-TV providers operated a standalone online video platform, with an increasing proportion of them seeing these platforms as the most attractive area of opportunity to strengthen the core subscription TV offer. Several TV players who offer on-demand and catch-up TV services on their online platforms have started inserting advertisements based on user data. They are also experimenting with actionable advertisements, by inserting links and using data to direct the viewer to e-commerce platforms or even the nearest shops, e.g. French private broadcaster TF1 uses this feature on its online video platform (Case Study 3).

Case Study 3. MyTF1 Spot&Shop enables viewers to act on advertising by purchasing items immediately, in a way that can be tracked by TF1 and advertisers [34]

In 2015, French private national TV broadcaster TF1 introduced a new advertising feature on its catch-up TV online video service (MyTF1) as part of its digital advertising portfolio. The new product, called Spot&Shop, was developed by the French start-up Swaven. It enables viewers to immediately act upon the advertisement by clicking on the 'purchase' button on the banner that appears while the advertising video is playing. This button directly transfers viewers to the e-commerce website of the retailers. The banner also enables viewers to check the location of the nearest point of sale where the product is available. Companies including Philips, L'Oréal and Disneyland Paris were the first to test the Spot&Shop solution, which generated over 10 000 transfers to e-commerce partners in four months.[35]

Although this feature is similar to some online advertising formats, its pricing model is built on a CPM format that is close to that of traditional TV advertising. TF1 charges the advertisers a fixed fee for the video advertising based on its duration and the type of catch-up content, with an additional 15% for the Spot&Shop feature integration. It also offers the cost-per-view model for standard video commercials on catch-up TV, where the advertiser would pay each time the commercial was watched. However, this model is not applicable with additional features such as Spot&Shop.

TV players can target the audience that is not being reached as easily on traditional TV. TF1, for example, has partnered with pay-TV operator Orange to deliver location-based advertisements (Case Study 4). Thus, the broadcaster significantly expands its reach among that part of the potential

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[33] MTM and Nagra Kudelski, Pay TVIF Innovation forum, "The Global pay-tv innovation landscape: industry perspectives on a year of change", 2017

[34] TF1 official website, Conditions commerciales Digital 2016. URL: http://www.tf1pub.fr/pdf-commercial/conditions-commerciales-digital-2016

[35] TF1 official website, "Spot & Shop sur MYTF1 : la vidéo au service du e-commerce" by Philippe Boscher. URL: http://www.tf1pub.fr/actualites/spot-shop-sur-mytf1-la-video-au-service-du-e-commerce

audience that is shifting to online viewing. The broadcaster is also able to collect more precise data of its online viewers and their responses to the advertisements, bringing advertising products closer to other online advertising.

Case Study 4.   TF1 and Orange partnered to offer targeted advertising on catch-up TV[36]

While targeted advertisement on linear TV is currently prohibited in France, broadcasters and subscription/pay-TV operators (IPTV, cable, satellite and pay-DTT) are already using targeted advertising on catch-up and on-demand TV. In 2016, French private national channel TF1 partnered with the incumbent telecoms operator Orange to deliver targeted commercials to those Orange customers who gave their explicit agreement to participate in the experiment to receive targeted advertisement on TF1 content. In this experiment, French post company, La Poste, inserted the address of the post office nearest to the viewer in the last five seconds of the commercial, based on the customer geo-location data provided by Orange.

This approach offers opportunities to expand reach for advertisers in a measurable way. Orange can collect data on when subscribers are watching linear TV and which channel they are watching, as well as which advertisement they viewed. Then Orange is able to provide data about the customers who have not been exposed to the advertisement on linear TV and insert the advertisement on the replay TV, therefore increasing the audience reach for advertisers.

As TV players integrate digital technology on their online platforms, they increase value for advertisers by reaching wider audiences and enabling better targeting and 'actionability' similar to that offered by online players. In the UK, Channel 4 has introduced personalised advertisements on its on-demand platform, All4, where the individual viewer name is inserted into the audio of the commercial.[37] Channel 4 has generated the same revenue through advertising on All4 as through advertising on one of its linear channels.[38]

TV players are able to offer similar advertising products as those offered by non-TV online media. The pricing of advertising is evolving in parallel with these evolutions, to reflect new features. Besides the pricing model, the value chain would also require a higher level of intermediation to support the shift of TV players to online, as TV players require better access to user data. One of the options is to co-operate with internet operators to deliver high-quality, competitive, targeted advertising solutions, as described in Case Study 6.

However, many TV players are wary of these partnerships, and prefer to invest in technical solutions, such as Comcast's FreeWheel, which are more 'endogenous' to TV. Canal+ in France and Sky in the UK are both using FreeWheel as a supply-side platform to programmatically sell their

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[36]   Les Echos, "When TF1 tests tomorrow's advertising", 2017. URL: https://business.lesechos.fr/directions-marketing/marketing/0211566980669-quand-tf1-teste-la-publicite-de-demain-307807.php?WUkJGrI7QT6Lr6Az.99

[37]   Channel 4 Press Release, "Channel 4 launches world's first audio personalised TV ads", 2017. URL: http://www.channel4.com/info/press/news/channel-4-launches-worlds-first-audio-personalised-tv-ads

[38]   V-net, Channel 4: "Now no difference in value between an All 4 impact and a linear one" by Barry Flynn, 2017. URL: http://www.v-net.tv/2017/09/20/channel-4-now-no-difference-in-value-between-an-all-4-impact-and-a-linear-one/

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advertising inventory across linear TV and online platforms.[39] Comcast's FreeWheel is discussed in more detail in Case Study 5. Channel's 4 Video Xchange is the programmatic selling platform that allows advertisers to buy its digital advertising inventory on its on-demand platform All4 across all screens (smartphone, tablet, PC and TV).[40] These initiatives bring the TV players closer to offering cross-platform advertising, which is discussed in the following section.

> **Case Study 5. ComCast's FreeWheel**
>
> In 2014, Com*c*ast acquired FreeWheel, a start-up that performs advertisement personalisation and insertion online.[41] Com*c*ast keeps FreeWheel as an autonomous company that serves different media clients across the globe, including Com*c*ast's competitors. It provides services to DirecTV and Viacom in the US, TF1 in France, Sky in Europe, and many other media companies. FreeWheel serves as the supply-side platform for TV players to sell their digital advertisement inventory in a programmatic way across all digital platforms through one centralised system. This allows the TV players to optimise their digital revenue.
>
> Freewheel also addresses issues with users' quality of experience. It optimises the number of advertisements served per length of content, adopts its insertion style based on the screen type, reduces repetitiveness of the advertisements served and ensures the video quality of the advertisement. It also uses audience viewing habits data (e.g. binge-watching or short video sampling) across digital platforms to deliver advertisements in such a manner that would increase viewability rates.[42] Media companies have come to appreciate this solution as well as the ability to keep control over their own inventory and data, resulting in high demand for FreeWheel's services amongst TV players globally.

4.4 Cross-platform advertising combines TV and online inventory in a way that TV players can control and measure more accurately than pure online players

One barrier to the unification of advertising inventory across linear, catch-up and VoD, on TV and online, remains the difficulty in measuring audiences across platforms in a comparable way. With the increasing take-up of catch-up TV and VoD services, rating companies have developed cross-screen measurement techniques by using the existing panel. This advancement has enabled TV players to deliver similar measurement consistency across all platforms (TV and online). These

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[39]   V-net, "The next step in digital advertising: Fusing direct and programmatic sales and inventory management" by John Moulding, 2017. URL: https://www.v-net.tv/2017/01/04/the-next-step-in-digital-advertising-fusing-direct-and-programmatic-sales-and-inventory-management/

[40]   Digiday, "Channel 4 launches its own premium video programmatic exchange" by Jessica Davies, 2015. URL: https://digiday.com/uk/channel-4-launches-premium-video-programmatic-exchange/

[41]   Reuters, "Comcast buys advertising startup Freewheel for $360 million", 2014. URL: https://www.reuters.com/article/us-comcast-freewheel/comcast-buys-advertising-startup-freewheel-for-360-million-idUSBREA251SF20140306

[42]   FreeWheel official website, 2017. URL: http://freewheel.tv/about/

measurement techniques and the controls in place to audit audiences are still widely seen as a competitive strength for traditional TV players compared to online service providers.

TV companies control the advertising inventory across their TV and online platforms, enabling them to develop cross-platform advertising products. FreeWheel's proposition is heavily centred on this unification.[43] In 2011, AT&T launched AdWorks in the USA. This multi-platform advertising product has been developed further since then to address most of the advertisers' needs, and is discussed further in Case Study 6.

Case Study 6.   AT&T AdWorks

In 2015, AT&T launched a trial of a new feature of its digital advertising product, AdWorks, which enabled cross-screen addressability. This feature allows targeted advertisement on TV and mobile platforms. With the help of Opera Mediaworks, AT&T is able to track the mobile profiles of the TV viewers and then show the mobile advertisement to those who have already seen it on TV. The mobile advertisement will usually offer the call-for-action feature such as a link to the website of the advertiser or a seller, a downloadable coupon or a calendar invitation. AT&T has access to the data of over 4 million US households, and it has recently acquired a satellite operator, DirecTV, extending its reach to an additional 21 million households.[44] Meanwhile, Opera MediaWorks has access to 285 million US mobile subscribers, and it is able to deliver the advertisements to the target segment of subscribers within one of the thousands of popular apps.[45]

This feature also enables AT&T to measure the buy rate of the person exposed to the advertisement on both platforms. By integrating the viewership data with the location and retail measurement data provided by Opera MediaWorks, AT&T is able to identify the in-store traffic and in-person or digital purchasing that results from the campaign.[46] According to AT&T, the targeted cross-platform TV and mobile advertising can increase the buy rate of the viewers by over 87% when compared to the control group (i.e. the non-target group that is exposed only to the advertising on TV).[47]

AT&T is not the only TV player that offers cross-platform advertising. Comcast's Spotlight is a multi-screen advertising service that allows advertisers to show their advertisements both during the TV broadcast and during the online streaming on Comcast's catch-up platform. Advertisers can add interactive features or a link to the digital advertisement to make it easier for the viewer to follow

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[43]   V-net, "The next step in digital advertising: Fusing direct and programmatic sales and inventory management" by John Moulding, 2017. URL: https://www.v-net.tv/2017/01/04/the-next-step-in-digital-advertising-fusing-direct-and-programmatic-sales-and-inventory-management/

[44]   Forbes, "AT&T's Pay TV Business: 2016 In Review", 2016. URL: https://www.forbes.com/sites/greatspeculations/2016/12/02/atts-pay-tv-business-2016-in-review/#54b27a87340e

[45]   Opera Press release, AT&T AdWorks launches cross-screen addressable advertising trial, 2015. URL: http://www.operasoftware.com/press/releases/general/2015-11-9

[46]   Opera press release, New tool helps retail marketers track and measure customer conversion across devices, 2014. URL: http://www.operasoftware.com/press/releases/general/2014-11-19-2

[47]   Adage, "Cross-screen addressable advertising is here" by Rick Welday, 2017. URL: http://adage.com/article/digital/cross-screen-addressable-advertising/308965/

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up on the advertising message.[48] In the UK, Sky has introduced its own product, Sky AdVance. This product is offered separately from AdSmart, which allows advertisers to combine TV advertising viewing data with digital advertising. In this way, advertisers are able to use the data about the audiences that were exposed to their TV advertisement or use their TV viewing habits to target them online.[49]

In 2017, the large European broadcaster RTL Group (RTL) acquired full control of the digital advertising platform SpotX, which enables programmatic advertising sales of digital advertising inventory. SpotX also offers targeted advertising and can monitor buying activity across multiple screens: smartphones, desktops, tablets and connected TVs. RTL experienced a very steep growth of digital revenue, which constituted ~13% of the group's total advertising revenue in 2016, and it is planning further acquisitions of and partnerships with adtech companies.[50] In Germany, media player ProSiebenSat.1 and a leading e-commerce company in Europe, Zalando Media Solutions, have gone into partnership to provide targeted advertising products, in both video and display sectors. ProSiebenSat.1 contributes to this partnership with its digital inventory marketed through SevenOne Media, which has access to over 30 million unique subscribers. Meanwhile, Zalando Media Solutions offers anonymised data on 19 million of its active premium audience segment. Once combined with TV audience data (based on anonymous characteristics and statistical matching), these initiatives could be developed into cross-platform advertising products. At the moment, this partnership allows ProSiebenSat.1 to develop its targeted advertising offering online.

ESPN has measured that advertisements delivered over multiple platforms (TV and online) achieve higher brand awareness and purchasing intent, as shown in Figure 4.4 below.
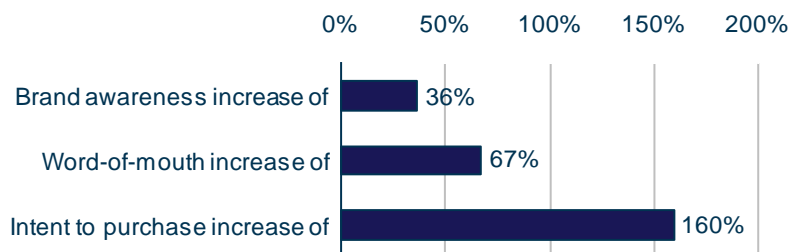
Figure 4.4: Impact of cross-platform advertising delivered via online and TV on viewers [Source: Exsperion, 2016]

TV players are integrating technology that brings TV advertising closer to that offered via online media, whilst retaining the traditional strengths of the TV platform.[51] TV players in the USA and in the UK have been the first to develop innovative targeted advertising solutions, and other countries are slowly following in their footsteps. Demand appears to be growing rapidly in the USA:

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48   Comcast Spotlight official website, 2017. URL: http://www.comcastspotlight.com/

49   Sky Media official website, 2017, URL: https://www.skymedia.co.uk/skyadvance/

50   Broadband TV news, "RTL Group takes full control of SpotX" by Robert Briel, 2017. URL: https://www.broadbandtvnews.com/2017/08/30/rtl-group-takes-full-control-of-spotx/

51   For example, control over large parts of distribution networks, set-top boxes and 'navigation devices' including portals and remote controls, or benefit from the control TV players have over the infrastructure to offer their new online products as zero-rated to compete with other online content

ComScore predicts that addressable TV advertising expenditure will reach USD2.2 billion by 2018. In other digitally advanced countries, the transformation of the TV advertising industry is slower due to either high free-to-air TV penetration (e.g. Italy and Spain) or regulatory restrictions (e.g. targeted broadcaster advertisement being prohibited in France). Nevertheless, there are plenty of new digital advertising products being developed in these countries by the TV players in response to increased competition from online entertainment.

New advertising solutions could lead to significant improvements in reach and effectiveness by integrating interactive digital features and cross-platform targeting. TV players combine the cross-platform data that they are able to gather through their partners and their own platforms, enabling advertisers to run a coherent and aligned advertising campaign supported by the measurements of conversion and purchasing behaviour of the audiences. Ultimately, these advances in TV advertising are intended to generate value for advertisers.

However, there are certain challenges that TV players must overcome to make their new advertising products attractive across the whole market. At the same time, they have to face competition from online players that are putting pressure on the TV advertising industry. Online players offer new solutions for TV advertisers by building on their strengths of scale and flexibility when it comes to selling advertisements. In order to either defend or improve their position in advertising, both TV and online players must innovate and integrate state-of-the-art digital advertising techniques.

5 TV players are well placed to adopt digital advertising, by continuing to adapt how they distribute content online

TV players operating in countries with high penetration of subscription TV services are well positioned to take advantage of digital advertising, as critical elements are already in place: there are STBs in consumers' homes, and agreements in place with channels/networks and subscription TV providers. This is the case in the USA, but also in the UK and France. In countries where subscription/pay-TV penetration is low, and free-to-air viewing dominates, the situation is more complex, and the technical and commercial building blocks of digital advertising on TV may not fall into place as rapidly. As discussed in Section 4, targeted advertising on linear TV is prohibited in France, although most broadcasters are hopeful that this regulation will be relaxed in the near future.[52]

Further development of a thriving digital advertising space is helped by rising penetration of pay-TV contracts and connected TVs, while audiences continue to consume more video content online (as discussed in Section 2). This section outlines the challenges that TV players face, what specific strength they can leverage and the new tools they are developing to meet these challenges. In Section 5.1, we discuss how online content providers and traditional TV players are increasingly competing for advertising expenditure. In Section 5.2, we review the capabilities and assets TV players are developing or purchasing in response to this competition.

5.1 Competition between TV and online players is intensifying as they increasingly contest each other's space

Competition in advertising is currently happening across platforms: online players are introducing new TV advertising products and solutions, and TV players are developing digital advertising products to compete against online players.

Online players are increasingly experimenting with live video, either natively (e.g. Facebook Live) or competing on a small scale in the acquisition of live broadcasting rights of sport events. So far in 2017, Amazon has acquired streaming rights from NFL for ten games of "Thursday Night Football" in the USA[53], and it outbid Sky for ATP tour tennis rights in the UK.[54]

As the convergence between TV and online platforms continues, TV and online players face opportunities not only to compete (by developing capabilities they have historically lacked), but also

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[52]   Article 13 of Decret No.92-280 from 1992. URL: http://www.csa.fr/Juridical-area/Decrets-et-arretes/Decret-n-92-280-du-27-mars-1992-modifie-relatif-a-la-publicite-au-parrainage-et-au-teleachat-Version-consolidee

[53]   Variety, "Amazon Nabs Streaming Rights to NFL's 'Thursday Night Football' Games" by Cynthia Littleton, 2017. URL: http://variety.com/2017/biz/news/amazon-streaming-nfl-thursday-night-football-deal-1202023105/

[54]   The Guardian, "Amazon outbids Sky to win exclusive ATP tour tennis rights" by Mark Sweney, 2017. URL: https://www.theguardian.com/media/2017/aug/01/amazon-outbids-sky-to-win-exclusive-atp-tour-tennis-rights

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to enter into partnerships with one another. As described in Section 4, TV players have so far favoured an approach where they buy in technologies and capabilities rather than become subject to intermediation. By contrast, early experiments by large online companies have tended to focus on extremely efficient intermediation, typically at lower cost than technology providers.[55]

> **Case Study 7. Google adds TV inventory to its ad-buying product, Bid Manager**
>
> Earlier in 2017, Google introduced a new feature of its programmatic ad-buying product, DoubleClick Bid Manager, which allows advertisers to buy inventory online and on traditional TV at the same location.[56] Google has integrated DoubleClick with the programmatic ad-buying platforms WideOrbit and Clypd which work with local and national cable and network companies, as well as with its own service, Google Fiber, which has access to about 70 000[57] TV subscribers in the USA.

Besides concerns about intermediation, online players' growth in the TV sector has also been constrained by concerns about compliance and measurement. All online players are now focused on addressing both these points, through better control to ensure advertisements are not placed next to unsafe content, and through better transparency and integration with traditional TV audience metrics.

TV players have historically relied on viewing measurements provided by large national measurement companies with shared ownership between broadcasters and advertisers (e.g. BARB in the UK, Médiametrie in France, AGF in Germany) or by independent global rating consortiums (e.g. Nielsen, ComScore). These companies are using well-established and consistent methods to measure TV audiences through a diverse and representative panel of TV households.

Meanwhile, online players are using internal measurement techniques, which have not, to date, been certified by the same organisations, and are therefore not directly comparable with TV audience metrics and are often held up by TV players as inferior to their own. Fraud and bugs occur regularly. For example, Facebook has admitted to multiple measurement errors in counting video advertisement impressions.[58]

Online players had kept the measurement companies at arm's length until recently, when the players started to integrate their measurement solutions to address the problems of viewability and content safety. In 2016, Facebook completed the integration of ComScore as a third-party "viewability

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[55] Anecdotally, we understand that Comcast's FreeWheel solutions are materially more expensive than solutions offered by pure online players, including Google

[56] Venturebeat, "Google adds TV inventory to DoubleClick Bid Manager so advertisers can measure video campaigns across linear and digital" by Paul Sawers, 2017. URL: https://venturebeat.com/2017/04/24/google-adds-tv-inventory-to-doubleclick-bid-manager-so-advertisers-can-measure-video-campaigns-across-linear-and-digital/

[57] Multichannel, "Google Fiber 'Very Pleased' with TV Sign-Ups" by Jeff Baumgartner, 2016. URL: http://www.multichannel.com/news/content/google-fiber-very-pleased-tv-sign-ups/407629

[58] Campaign, "Facebook admits measurement errors for the third time" by Omar Oakes, 2016. URL: http://www.campaignlive.co.uk/article/facebook-admits-measurement-errors-third-time/1418356

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verification partner" – i.e. a partner that will provide independent measurements of advertisement impressions on mobile and desktop screens.[59] Other online players are following suit. Twitter, for instance, partnered with Moat and Ad Science.[60] In 2014, Google integrated ComScore's validated campaign essentials (vCE) technology into the DoubleClick programmatic advertising network to provide independent real-time audience measurements and data with the objective of eventually merging these with TV measurements.[61] In 2017, Google agreed to partner with ComScore to provide content safety measurement to address advertisers' concerns regarding the placement of advertisements next to undesirable content.[62]

These movements towards further convergence of audience measurement are evidence of the increased competition between TV and online players in an increasingly converged advertising market.

5.2 New partnerships between TV and online players illustrate increased convergence between the TV and online advertising spaces and the technology required to compete

In order to respond to the increasing competitive intensity, TV players are investing in developing assets and capabilities traditionally associated with online players: technology, data and scale.

Broadcasters and subscription TV operators are actively developing and acquiring digital advertising technology

As described in Section 4, TV players are actively acquiring advertising technology providers to compete against online players. Recent examples include Comcast's USD320 million acquisition of FreeWheel,[63] and Verizon's USD8.9 billion combined investment in Yahoo! and AOL, which were merged into a single brand Oath.[64,65] The TV players we spoke to have generally been reluctant to change the value chain and to allow intermediation similar to that present in the online advertisement value chain. This creates additional barriers for online players who are exploring ways of entering

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[59]   Facebook Newsroom, 2017. URL: https://newsroom.fb.com/news/2017/01/greater-transparency-through-measurement-partnerships/

[60]   Marketingland, "Twitter adds 3rd-party measurement for viewability & audience verification" by Ginny Marvin, 2017. URL: https://marketingland.com/twitter-adds-3rd-party-measurement-viewability-audience-verification-211602

[61]   CNBC, "Google strikes big ad measurement deal with comScore" by Alistair Barr, 2014. URL: https://www.cnbc.com/2014/02/10/google-strikes-big-ad-measurement-deal-with-comscore.html

[62]   ComScore Press Release, "Google Selects comScore as Brand Safety Measurement Provider", 2017. URL: https://www.comscore.com/Insights/Press-Releases/2017/4/Google-Selects-comScore-as-Brand-Safety-Measurement-Provider

[63]   Techcrunch, "Comcast Is Acquiring Video Ad Company FreeWheel For $320 Million" by Ryan Lawler, 2014. URL: https://techcrunch.com/2014/03/01/comcast-freewheel/

[64]   The Wall Street Journal, "Verizon Agrees to Buy AOL for $4.4 Billion" by Mike Shields and Thomas Gryta, 2015. URL: https://www.wsj.com/articles/verizon-to-buy-aol-for-4-4-billion-1431428458 and Techcrunch, "Verizon closes $4.5B acquisition of Yahoo, Marissa Mayer resigns [Memo]" by Ingrid Lunden, 2017. URL: https://techcrunch.com/2017/06/13/verizon-closes-4-5b-acquisition-of-yahoo-marissa-mayer-resigns-memo/

[65]   Tim Maytom, "We are the biggest digital publisher in the world" - Oath's first 100 days, 2017. URL: http://www.mobilemarketingmagazine.com/we-are-the-biggest-digital-publisher-in-the-world-oaths-first-100-days-nigel-clarkson-verizon-yahoo-aol

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the TV advertising space. However, it also creates frictions for TV players who are trying to access online advertising technology rapidly and cost-effectively.

A central part of TV players' strategy to date has been to develop their own apps and online services in order to self-distribute their content online. In many cases they have done this individually, each with their own app. In other cases, they have entered into partnerships with one another to develop entirely new platforms such as Hulu (see Case Study 8), or have struck deals with aggregators, as Molotov.tv did in France.

Case Study 8.   Hulu is offering advertising against linear TV content

Hulu is a joint venture between NBCUniversal, 21st Century Fox and Disney that was founded in 2007. It is an alternative online video service that offers on-demand streaming. Since May 2017,[66] it has also offered linear TV streaming services for a fixed monthly subscription fee. Its content can be accessed via any device: connected TV, mobile or desktop. Hulu presents a new blended TV product with easily interchangeable platforms. There are over 32 million unique monthly visitors that watch its content with advertisements in the USA.[67]

Hulu is offering a variety of advertising products, from actionable banners with links to the website and social-media sharing buttons, to targeted and personalised video commercials with a maximum length of 7 seconds.[68] Moreover, Hulu has capabilities to measure its audiences and their cross-platform behaviour. By partnering with Nielsen, Hulu is also able to measure the effectiveness of the advertisements shown on the platform. It provides data about such metrics as recall, brand recommendation and the return on advertising expenditure through additional retail sales.

TV players are improving data gathering to drive advertisement targeting and better cross-platform audience measurements

The second piece of the jigsaw is data. This presents several challenges for TV players.

First, they need access to data. In the USA, broadcasters share some advertising inventory with cable operators who have access to audience data, creating good grounds for co-operation for targeted TV advertising products. Sky in the UK controls advertising inventory via its broadcasting business and audience data through STBs.

Given the importance of data for targeted TV advertising products, European broadcasters are exploring ways to work with subscription/pay-TV operators and smart-TV manufacturers in order

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66   Business Insider, "Hulu just launched its $40-a-month cable-TV competitor — here are all the details" by Nathan McAlone, 2017. URL: http://uk.businessinsider.com/hulu-live-tv-package-details-pricing-channels-features-2017-5?r=US&IR=T

67   Business insider, "How Hulu's disturbing breakout hit 'The Handmaid's Tale' catapulted it into the Hollywood big leagues" by Mike Shields, 2017. URL: http://uk.businessinsider.com/handmaids-tale-emmy-pushing-hulus-business-2017-7?r=US&IR=T

68   Ignitevisibility, "Advertising on HULU, everything you need to know", 2017. URL: https://ignitevisibility.com/advertising-on-hulu/

to access viewing data. These partnerships are already being formed and tested (e.g. French broadcaster TF1 working with Orange, as discussed in Case Study 4 and German broadcasters' Log-in-Alliance with ISPs, as discussed in Case Study 9).

> **Case Study 9.   German broadcasters partner with ISPs to create Log-in-Alliance**
>
> The largest broadcasters in Germany, ProSiebenSat.1 and RTL Group, have formed a partnership with United Internet to create a single unified consumer log-in for their services. Together the broadcasters have access to 45 million unique users who will be using a single log-in to access the sites of the founding companies and of all the future co-signed partners. The first partner to join the synchronised log-in was German e-commerce company Zalando Media Solutions, which already has a data-sharing partnership with ProSiebenSat.1. Each partner is expected to store data separately, and it will be up to consumers to choose whether and how their data can be shared with the other partners. The European Commission's EU data protection regulation, which is due in May 2018, is expected to assist the alliance. The data protection regulation will allow people to choose who can store cookies and will enable TV players to better compete with online players.[69]

Second, TV players need to develop metrics that allow for the measurement of unique users and remove duplicates across platforms. ComScore has identified that there is a 66% overlap between desktop and mobile users and a 46% overlap between smartphone and tablet users.[70] This creates complications for measurement companies in counting how many different unique viewers are exposed to the same content, as they need to find a way to remove the duplicated views across screens. In order to address this problem, ComScore started using a larger panel of 10 million individuals instead of the panel of 50 000 people used previously for TV-viewing metrics. Nielsen has partnered with Facebook to improve its cross-platform measurement techniques, as discussed below in Case Study 10.

> **Case Study 10. Nielsen has developed new cross-platform viewership measurements**
>
> In 2015, Nielsen launched the Total Audience Measurement suite which enables the tracking of audiences across multiple platforms without double-counting. The new measurement mechanisms account for viewing across linear TV, DVR, VoD, connected TV devices, mobile, PC and tablets. According to the results of the analysis using the new metrics, the audience of the TV content is distributed across these platforms, and this audience previously has been unaccounted for.

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[69]   Digiday, "With an eye on the duopoly, German broadcasters create a unified consumer login" by Jessica Davies, 2017. URL: https://digiday.com/media/eye-duopoly-german-broadcasters-unite-create-unified-consumer-login/

[70]   ComScore Media Metric Multi-platform, 2016

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Nielsen uses the panel of 40 000 households and has been installing software development kits (SDKs) in partnership with TV players. SDK captures the time and type of video content accessed and sends this data, together with the device ID, to Nielsen. The measurement company then sends the IDs to Facebook, which blindly matches them with over 180 million of its device IDs, attaches age and gender and sends the results back to Nielsen.[71] In November 2016, Nielsen launched Digital Ad Ratings, a special measurement mechanism for advertisements, which is separated from content measurements, allowing the evaluation of the campaign across all screens even when using targeted TV advertising.[72]

Nielsen is able to combine this unique viewer data with its credit card transaction data to provide a quantified view of the impact of an advertising campaign.[73] Some TV players combine their advertising inventory and targeting technology with the insight offered by the measurement companies to increase the value to the advertiser. For example, Case Study 11 shows how the French broadcaster TF1 created a new advertising product through partnership with measurement companies.

Case Study 11. TF1 offers OneData to help advertisers measure and maximise returns

OneData is using the available data that TF1 collects from TV and digital sources to enable a better targeting of the campaigns on one side, and to provide better measurements of the efficiency (ROI) of the TV campaign on the other side. By partnering with the Kantar Worldpanel (~20 000 households), TF1 is able to target buyers and decision-makers in 44 market sectors (from decision-makers involved in automobile purchases to coffee buyers, and so forth). Based on the traffic of the client's website, TF1 recreates the target audience and offers media planning tailored to the target audience, i.e. TF1 will insert the advertisement alongside the content that the target audience is more likely to view and at the time with the highest target audience concentration. Moreover, the target audience watching TF1 content on their digital devices could be shown the advertisement again. By partnering with Nielsen Panel, TF1 can provide data about the impact of the TV advertisement on the web traffic and on the physical attendance of stores.[74]

TV players are forging alliances and partnerships between themselves to increase their scale

Broadcasters and subscription TV providers are operating at scale in individual countries, but are exploring ways to go beyond their traditional borders. In Europe, broadcasters have exclusive ownership of their inventory, which tends to be highly concentrated within the major broadcasters:

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[71] Adweek, "A First Look at Nielsen's Total Audience Measurement and How It Will Change the Industry" by Jason Lynch, 2015. URL: http://www.adweek.com/tv-video/first-look-nielsen-s-total-audience-measurement-and-how-it-will-change-industry-167661/

[72] Nielsen Digital Ad Ratings, 2017. URL: http://www.nielsen.com/us/en/solutions/capabilities/digital-ad-ratings.html

[73] Nielsen, Solutions, Advertising effectiveness. URL: http://www.nielsen.com/us/en/solutions/advertising-effectiveness.html

[74] TF1 Official website, "One data : la révolution data arrive en TV". URL: http://www.tf1pub.fr/actualites/one-data-la-revolution-data-arrive-en-tv

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in six European countries surveyed by Enders Analysis in a 2016 report, two sales houses controlled over 70% of TV advertising sales.[75]

In order to drive growth, TV players are increasingly exploring alliances to gain scale nationally and across borders. The European Broadcaster Exchange (EBX), a pan-EU alliance for video campaigns (Case Study 12), is an example of such a joint venture.

Case Study 12. European Broadcaster Exchange (EBX)

In 2017, three leading European broadcasters (TF1 Group in France, ProSiebenSat.1 in Germany and Mediaset in Italy and Spain) formed an equal-share joint venture to achieve greater scale for video advertising campaigns. This is an open joint venture model enabling more broadcasters to join in future.

The new company will have headquarters in London and its own sales team. It will primarily focus on programmatic video campaigns on digital platforms and enable advertisers to buy online advertising inventory across Europe.[76] The founding broadcasters claim that the combined advertising inventory on their online platforms will give access to 100 million[77] monthly unique video users.

This is not the first time that TV players have formed a partnership, but TV players are clearly reluctant to share sensitive data with one another. In order to reach larger market scale, they are likely to require a third-party auditor to address any potential data sensitivity and regulatory issues. In the USA, three TV players have chosen an independent auditor to manage data flows on their shared advertising platform (Case Study 13).

Case Study 13. Fox, Turner and Viacom create new OpenAP platform

Fox, Turner and Viacom have created a single common platform, OpenAP, that matches their audience data, enabling consistent audience targeting across all three TV network groups. Although groups will not share data with each other, it will be securely stored on the platform by the third-party auditor, Accenture, who will build and run the platform. The advertisers will be able to access OpenAP via a website or API and integrate their own audience data to identify the target audiences on each network. This enables better scalability of targeted TV advertising products as it matches the target criteria that might be different for each network and allows advertisers to buy targeted TV inventory across several channels at once.[78]

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[75]   Enders Analysis, "Programmatic TV's European Evolution", 2016. URL: https://storage.googleapis.com/doubleclick-prod/documents/Programmatic_TVs_European_evolution_Enders_Analysis_2016_Report.pdf

[76]   Mediaset Press Release, "European media corporations agree on joint venture", 2017. URL: http://www.mediaset.it/corporate/salastampa/2017/comunicatostampa_8873_en.shtml

[77]   Digiday, "European broadcasters form combined programmatic video exchange to rival duopoly" by Jessica Davies, 2017.   URL:https://digiday.com/media/european-broadcasters-form-combined-programmatic-video-exchange-rival-duopoly/

[78]   Adweek, "Turner, Fox and Viacom Tap Accenture to Run Their Audience Targeting Platform" by Jason Lynch, 2017. URL: http://www.adweek.com/tv-video/turner-fox-and-viacom-tap-accenture-to-run-their-audience-targeting-platform/

At present, TV distribution remains overwhelmingly national. This may not prevent TV players from remaining competitive in the short term, however. Advertisers and agencies still tend to also work along national borders, as a result both of market structures and of creative considerations, including language, in many countries. In the medium term, alliances and partnerships, including consolidation through distributors such as Sky or Liberty Media, will help TV players reach larger market scale across borders.

6 Conclusions

TV remains a powerful medium for advertisers. TV viewing figures have held firm even as video content consumption has diversified. Broadcasters have adapted to the tremendous demand for online video by offering their programmes online, on-demand and on every device. At the same time, younger audiences are increasingly seeing TV as only one of many mediums through which to consume video. They are avid users of social media and online platforms, where they consume content produced by TV players, but also by many other people and organisations.

At the same time, the very mature TV advertising space (at least in developed countries) is increasingly being considered by online advertising companies as the next frontier for their revenue growth. In response to this, and in order to make the most of changes in consumer behaviour and demand, TV players are developing new solutions and capabilities to offer better value to advertisers and more compelling advertisements to consumers. This involves addressable advertising, which provides advertisers with the means of targeting of audiences in a more accurate way, as well as improved cross-platform propositions.

These new offerings are underpinned by data, which broadcasters are increasingly sourcing through smart TVs, STBs and apps, either directly or through partnerships with subscription/pay-TV operators and online video content aggregators. They are also dependent on technical capabilities and scale. Although most broadcasters and subscription/pay-TV providers operate on a national level, technical solutions and platforms such as Comcast's FreeWheel can provide best-in-class technology at scale. Importantly, TV players are choosing solutions that preserve the direct relation they have with advertisers, rather than becoming subject to intermediation in this relationship, as is largely the case online. TV players start from a position of strength, with very well-established relationships and processes; in particular, advertisers are familiar with the way in which TV audiences are measured and monetised.

Ultimately, online and TV players are experimenting and developing their strategies on how to position themselves in the converged advertising market that is progressively being built. Online players are evolving to integrate TV-style audience metrics into their products, and will undoubtedly continue to innovate on partnership and commercial models.

There is much at stake for both parties: TV players are reliant on large, mature advertising revenue to finance their content acquisition and sometimes content creation; online players are reliant on TV advertising revenue as a source of growth. Competition and new, sometimes unexpected partnerships are likely to go hand in hand, in a way that should ultimately benefit consumers.

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