WHITEPAPER
ADVANCED TV STUDIE 2024

ADVERTISING ON CONNECTED TV
IS INCREASING IN EFFECTIVNESS

GOLDBACH

CONTENT

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FOREWORD

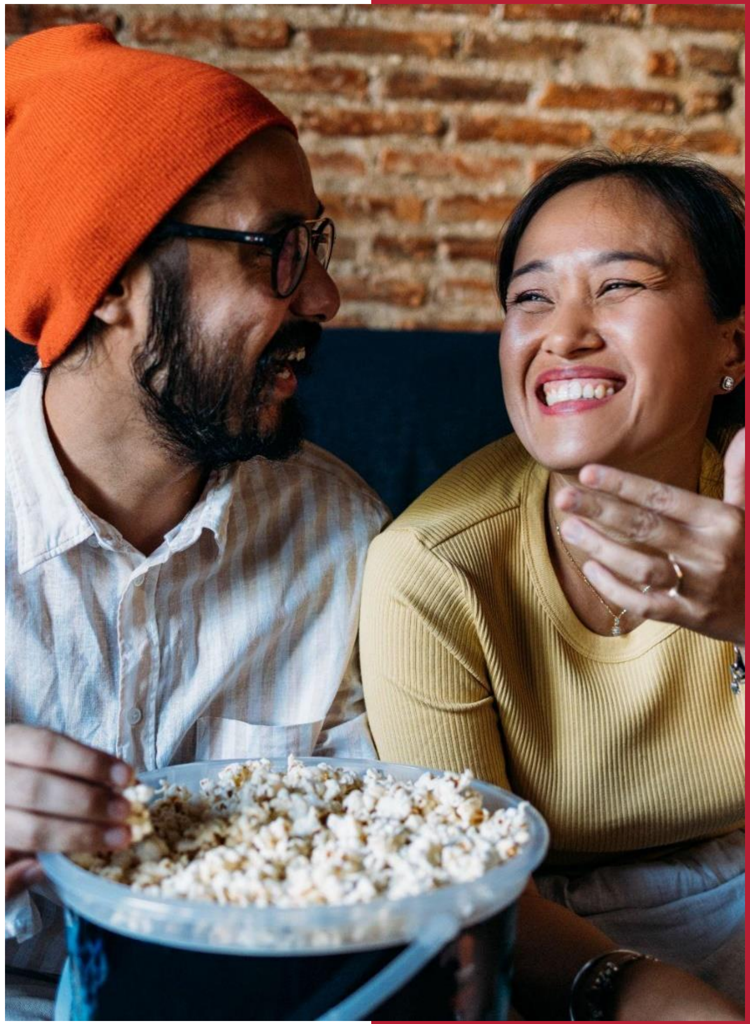
The DACH region's awareness and use of connected TV are at a high level as Goldbach has already proven in its previous study series. In the current seventh edition of the Goldbach study, results now show that awareness and acceptance of advertising on connected TV are significant and have increased considerably compared to the previous year.

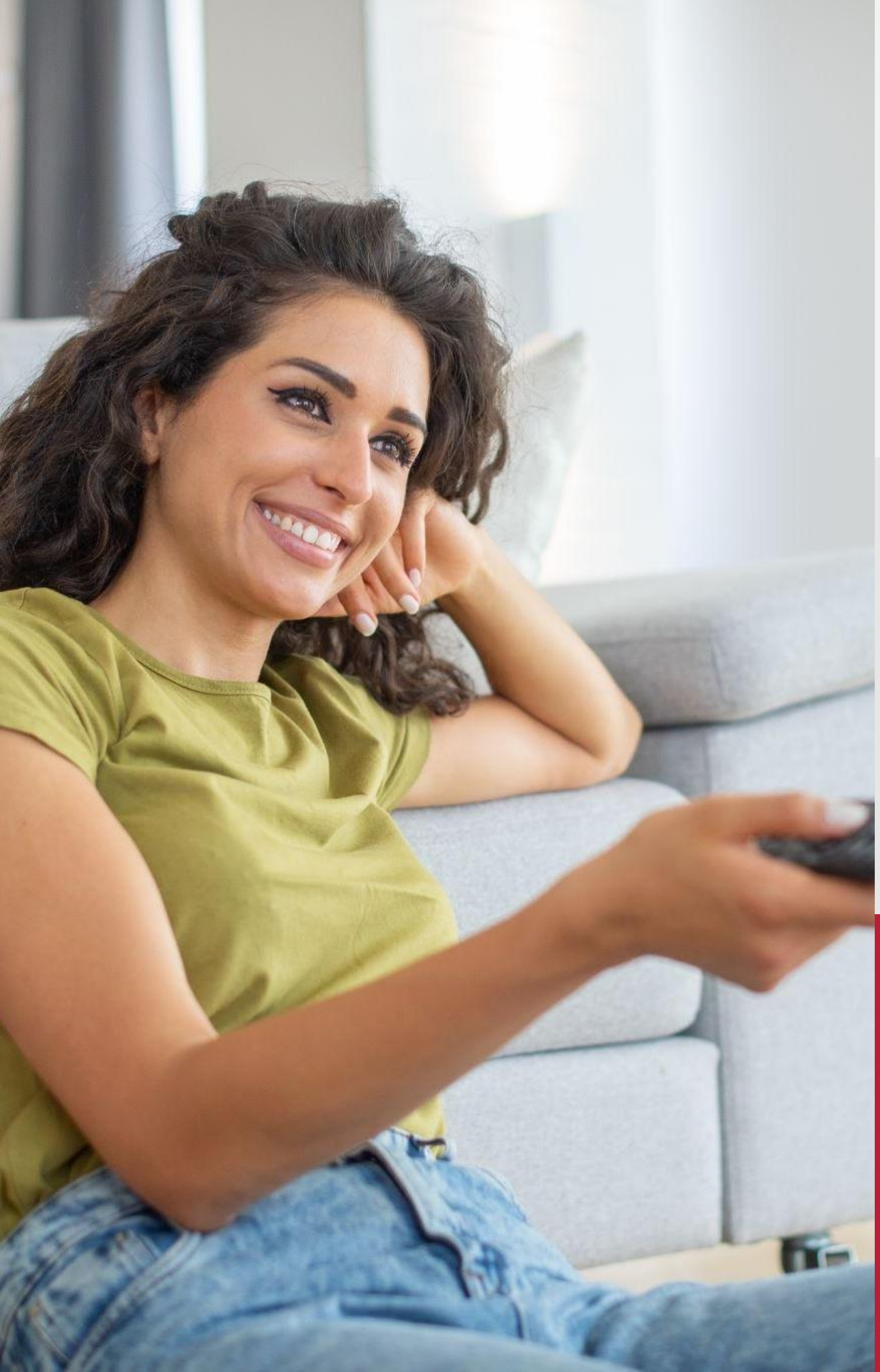
The results of this year's study prove once again that connected TV plays a vital role in the media mix in attempting to reach specific target groups, such as cord-cutters and heavy streamers, that can no longer be reached via other channels. In addition to the previous studies, the awareness of the advertising formats Connected TV Spots and Connected TV Ads as well as the second screen usage during Connected TV consumption were surveyed.

In this year's edition of the study series, the survey is dedicated to the following topics:

- **Equipment & access**
- **Awareness & utilisation**
- **Content & motivation**
- **Advertising acceptance & impact**

ADVERTISING ON CONNECTED TV IS INCREASING IN EFFECTIVNESS!





SAMPLE

n=3500
Germany: n=1500
Austria: n=1000
Switzerland: n=1000

Quota according to age (3 age groups, 1/3 each) and gender (50:50)

METHOD

Online survey in the DACH region among people aged 16-69 years

TIME SPACE

January 2024

STUDY PROFILE

7TH EDITION OF THE DACH STUDY ON CONNECTED TV USAGE AND ADVERTISING PERCEPTION ON CONNECTED TV DEVICES

SURVEY FOCUS:

Awareness, type and use of connected TV: Participants were asked about their familiarity with connected TV, the types of connected TV devices they own, how they are connected to the internet and how often they use them.

Internet-enabled TV ownership: It was determined whether the respondents had Internet-enabled televisions and, if so, which functions they used.

App usage on internet-enabled TV sets: The survey included questions about the use of apps on internet-enabled TVs, including the most popular applications and the frequency of their use.

Perception and assessment of advertising in connection with additional functions on Connected TV: The participants were also asked about their perception and evaluation of advertising in connection with the additional functions of Connected TV in order to gain insights into the effectiveness and relevance of this form of advertising.

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GLOSSARY

THE TERMINOLOGY EXPLAINED

CONNECTED TV (CTV)

CTVs are televisions that access the internet to stream content. This can be done through built-in smart TV capabilities or external devices such as streaming sticks, gaming consoles, or Blu-ray players.

SMART TV

Smart TV, sometimes also called hybrid TV, is the term for connected TV sets that already have an integrated internet function and can be used to access a variety of interactive functions and web-based content.

ADVANCED TV

Advanced TV refers to streaming TV content delivered over the internet, rather than traditional broadcast, cable, or satellite connections.

HYBRID BROADCAST BROADBAND TV (HbbTV)

HbbTV is a technical standard that allows linear television to be combined with digitally displayed adverts. Reception requires an HbbTV-capable end device connected to the Internet.

OVER THE TOP (OTT)

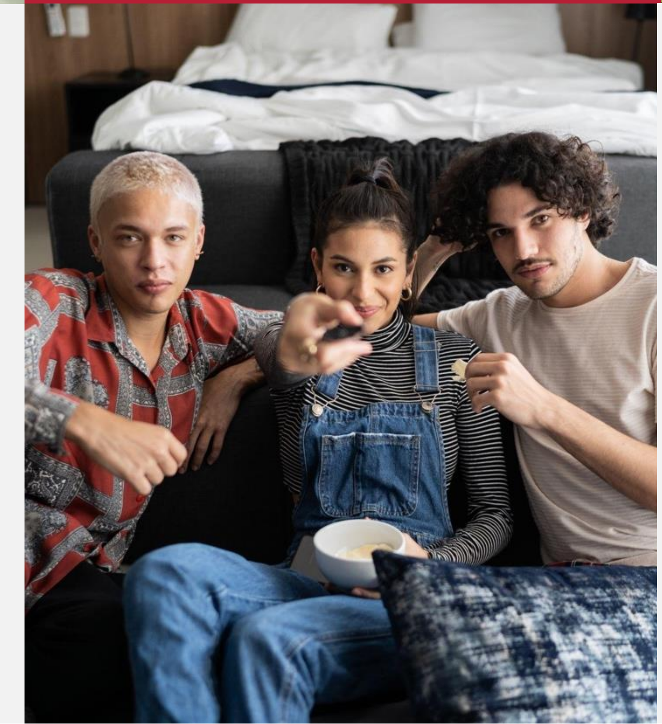
OTT content refers to video delivered directly to viewers through an internet connection, bypassing traditional cable and satellite providers. This content, which includes both live streams and on-demand programming, can be accessed on various internet-enabled devices like laptops, tablets, and CTVs.

ADVERTISING VIDEO ON DEMAND (AVOD)

AVOD is a business model where viewers access streaming content for free in exchange for watching advertisements. These ads are typically placed before (pre-roll), during (mid roll), and after (post-roll) the video content, generating the revenue that supports the platform.

ADDRESSABLE TV (ATV)

Addressable TV is a model of advanced TV. In this model, advertising messages can be broadcast to specific viewers and target groups on linear TV channels.

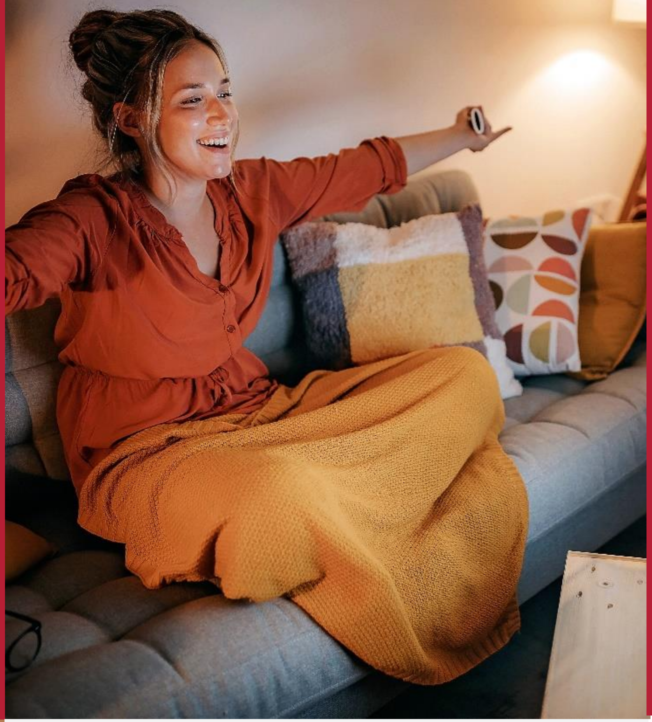


VIDEO ON DEMAND (VOD)

VOD is an online service that enables content access at any time. Films, series, etc., can be accessed from online media libraries via streaming services and apps over the Internet. The term video-on-demand is divided into the forms AVoD (Advertising Video-on-Demand), SVoD (Subscription Video-on-Demand), BVoD (Broadcast Video-on-Demand) and TVoD (Transactional Video-on-Demand).

SUBSCRIPTION VIDEO ON DEMAND (SVOD)

SVOD is a service where users pay a recurring fee (monthly or annually) to access a library of streaming video content.



FAST (Free Ad-Supported Streaming TV)

FAST services offer live, linear television channels streamed over the internet without requiring a subscription. They generate revenue through advertising like traditional broadcast or cable TV.

BROADCAST VIDEO ON DEMAND (BVOD)

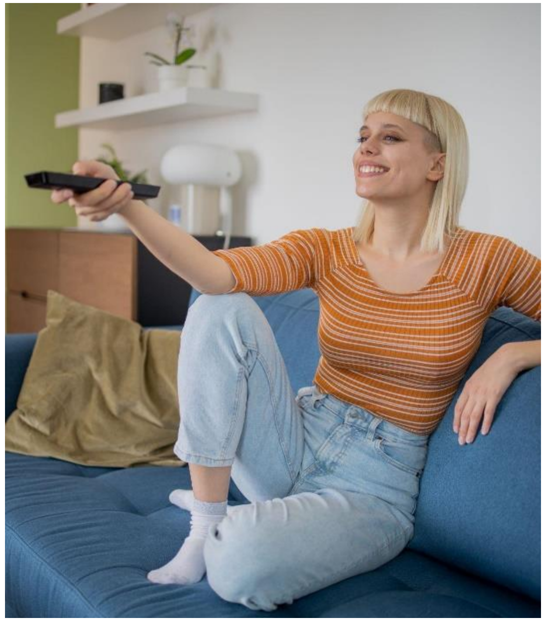
Broadcast video-on-demand describes the offerings from television broadcasters including video-on-demand media libraries from public and private broadcaster groups.

TRANSACTIONAL VIDEO-ON-DEMAND (TVOD)

Transactional video-on-demand is the opposite of subscription-based services. There are no monthly commitments, but users pay for each individual retrieval of content for use over a defined period.

EQUIPMENT & ACCESS

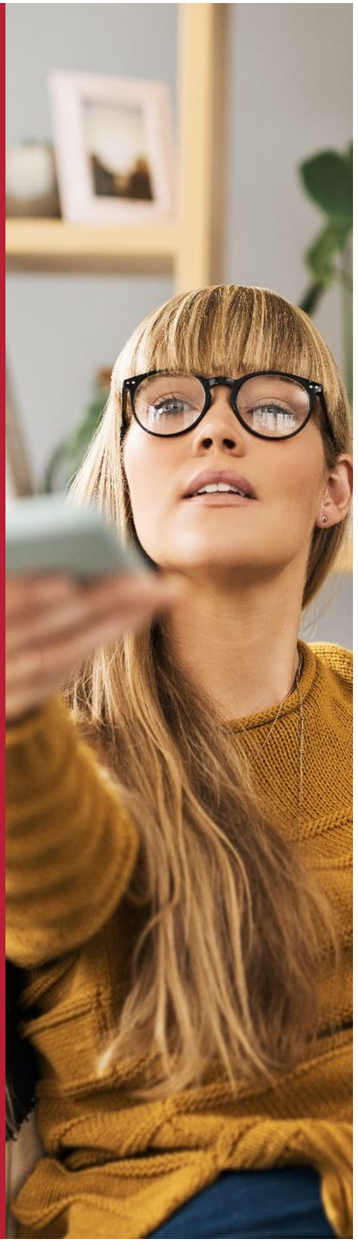
2/3 OWN AT LEAST ONE INTERNET-ENABLED TV DEVICE



EQUIPMENT WITH INTERNET-ENABLED TV SETS

Internet-enabled TV sets are conquering living rooms and are widely used in households (66%), with men having a higher ownership rate (71%) than women (61%).
The highest prevalence is found in the 30-49 age group: 72% state that they have at least one internet-enabled device. It is 69% in the 16-29 age group.
42% of respondents own one device, while 19% have two, and 5% have more than two internet-enabled TV sets.

Ownership of at least one internet-enabled TV set is widespread in households with people aged 16-49 (70%), with the highest proportion in households with children (74%) and households with three or more people (72%).
Two internet-enabled TV sets are much more common in larger households, especially those with three or more people or those with children (26% in each case). More than two devices are also present in larger households.



Highest penetration of internet-enabled TV sets among 30-49 year olds at

72%

Households with children and households with three or more people are more likely to own

2 or more

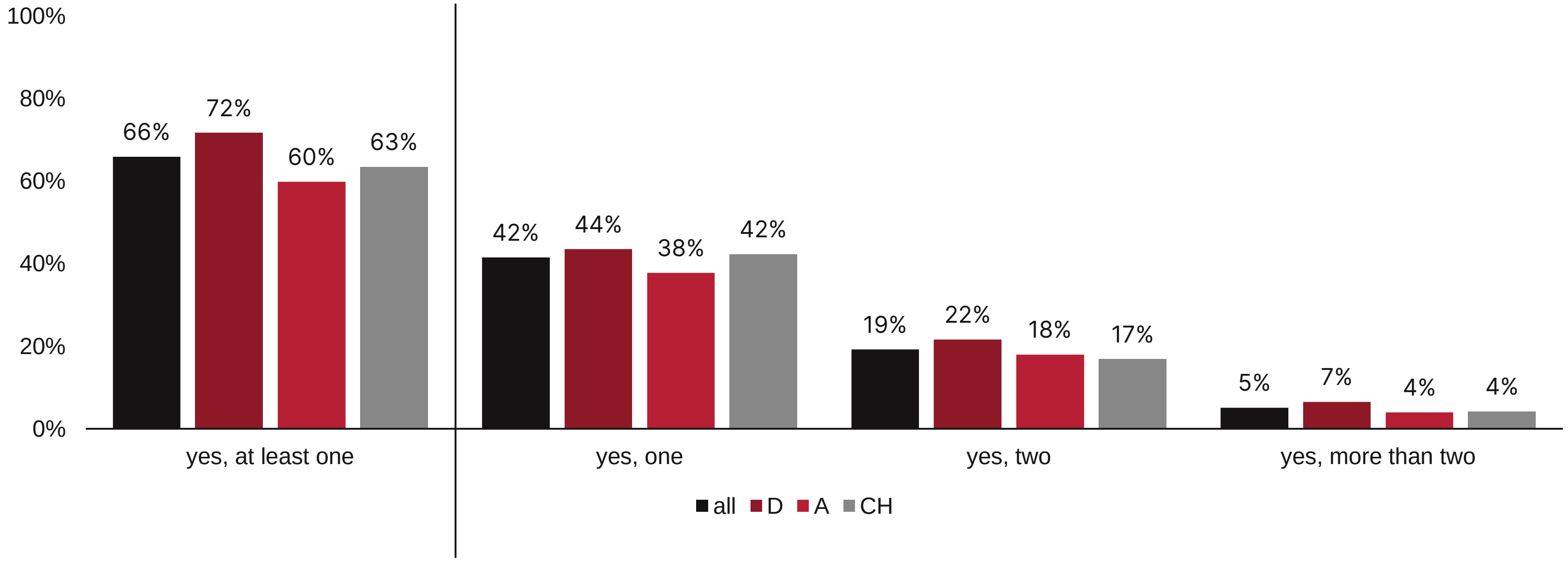
internet-enabled TVs.

Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH (n=3500); question: Do you personally have such an internet-enabled television set at home?

EQUIPMENT

PENETRATION OF INTERNET-ENABLED TELEVISIONS COUNTRY COMPARISON

INTERNET-ENABLED TELEVISIONS, SHARE IN %



At 72%, ownership of internet-enabled TV sets is most widespread in Germany, followed by Switzerland with 63% and Austria with 60%.

Ownership of a single device is the most common configuration in all regions, with Germany also having the highest proportion of households with more than two internet-enabled TV sets.

In all countries, only a small minority do not own a TV set (3%).

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Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH (DACH: n=3500 / D: n=1500 / A: n=1000 / CH: n=1000) Question: Do you personally have such an internet-enabled television set at home? available to you personally?

ALMOST ALL TVS ARE CONNECTED TO THE INTERNET

91%

of internet-enabled devices are connected to the Internet.

94%

of internet-enabled devices in households with children are connected to the Internet.

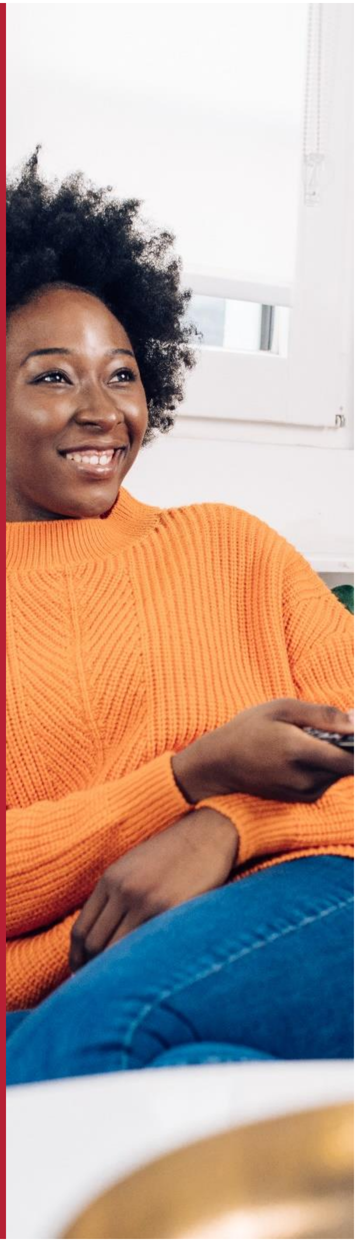
CONNECTED TO THE INTERNET

The networking of smart TV is almost universal, especially in households with children, which emphasizes the central role of internet-enabled TV sets in the digital home.

The majority of respondents (91%) who own at least one internet-enabled TV set state that at least one of their devices is connected to the Internet, with men (93%) having a slightly higher connection rate than women (89%).

Connectivity is high across all age groups and household types, with the highest rate in households with children (94%).

In a country comparison, the connection rate of internet-enabled TV sets is highest in Germany at 93%, followed by Austria at 90% and Switzerland at 89%. These are minor differences showing a high penetration of networked CTVs in all three countries. Only a small percentage of households do not use the Internet functions of their internet-enabled TV sets, least of all in Germany.



Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH who own at least 1 internet-enabled TV set (n=2307); question: Is this TV set also connected to the internet?

TYPE OF TV RECEPTION

BROADCASTING VIA STREAMING ON THE BIG SCREEN IS ON THE RISE

72%

of all respondents receive moving images on TV via conventional reception types

-2%* vs. 2023

61%

of all respondents receive moving images on TV via streaming

+7%* vs. 2023

27%

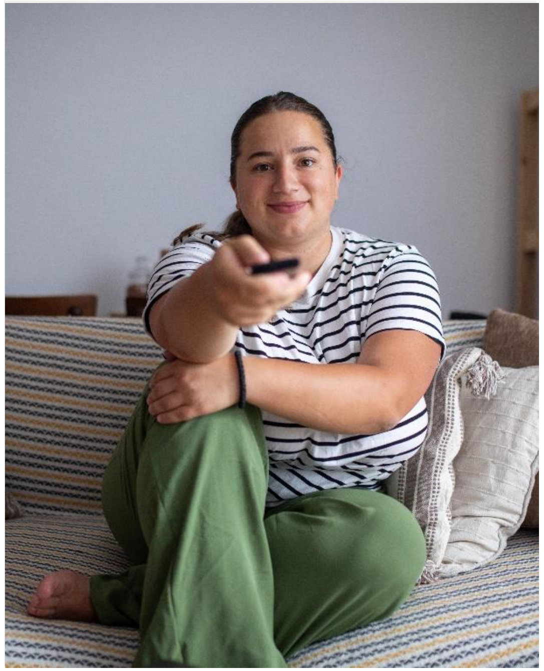
of all respondents are so-called cord-cutters who receive moving images exclusively via internet TV or IPTV

Cord-cutters are predominantly in the 16-49 age segment

GOLDBACH

Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH (DACH: n=2307 / D: n=1075 / A: n=598 / CH: n=634);
Question: Which of the following **transmission paths** do you use to receive video content on your television set? Conventional reception types: Cable and satellite / Streaming: Internet TV and IPTV / Rest: other and DVB-T/antenna *All changes compared to previous years are shown here and FF in percentage points

NEWER RECEIVER TYPES ESPECIALLY IN CH

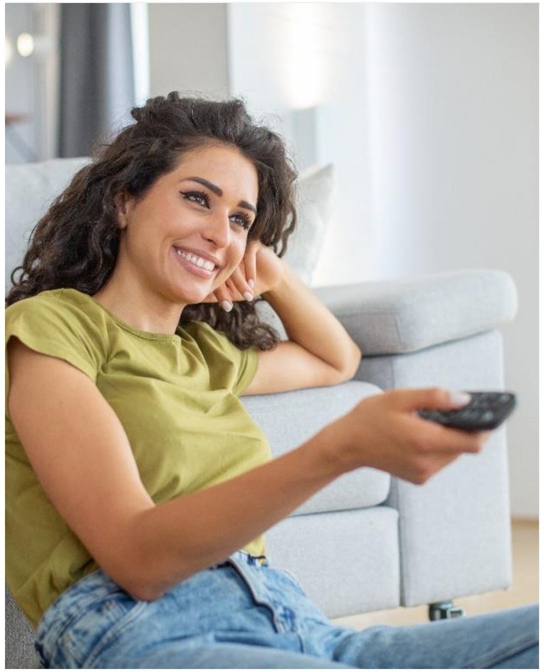


TYPE OF TV RECEPTION

The use of conventional reception types such as cable or satellite remains high in the DACH region with a general penetration rate of 72% - although this has fallen by 2% compared to the previous year. Conventional reception is particularly popular in households with children and households with three or more people (79%).

61% of respondents already receive TV via streaming (IPTV or internet TV), a 5% increase from the previous year. Streaming is especially prevalent among men (66%) as well as in households with children (73%) and multi-person households (70%), while it is less used in single-person households (51%).

Conventional reception types are widespread in Germany (83%), 72% in Austria, and 56% in Switzerland. On the other hand, Switzerland has the highest usage rate for streaming at 64%, compared to 60% in Germany and a slightly lower 57% in Austria.

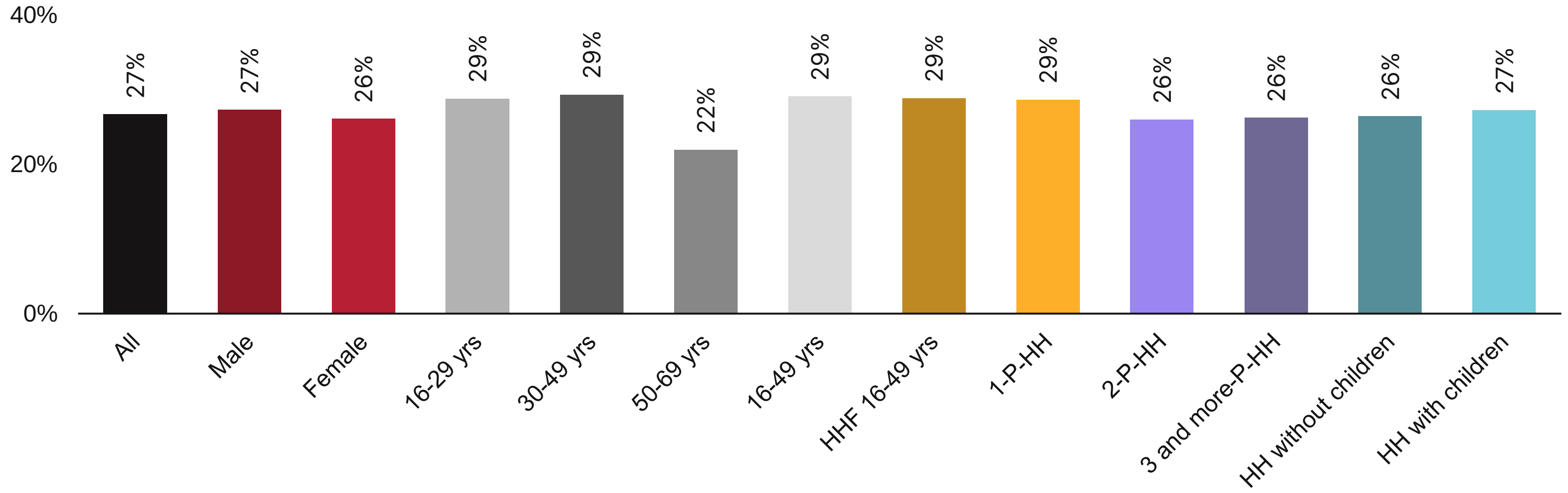


Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH (n=3500); question: Which of the following transmission paths do you use to receive video content on your TV set?
Conventional reception types: Cable and satellite / Streaming: internet TV and IPTV / Rest: other and DVB-T/antenna

CORD CUTTER

A RELEVANT TARGET GROUP IN THE DACH REGION

TYPE OF TV RECEPTION INTERNET/WEB TV OR IPTV, SHARE IN %, ALL RESPONDENTS



Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH (n=3500)
Question: Which of the following transmission channels do you use to receive video content on your television set?
Cord Cutter=People who watch television exclusively via internet/Web TV or IPTV and not via cable, satellite or DVB-T antenna.

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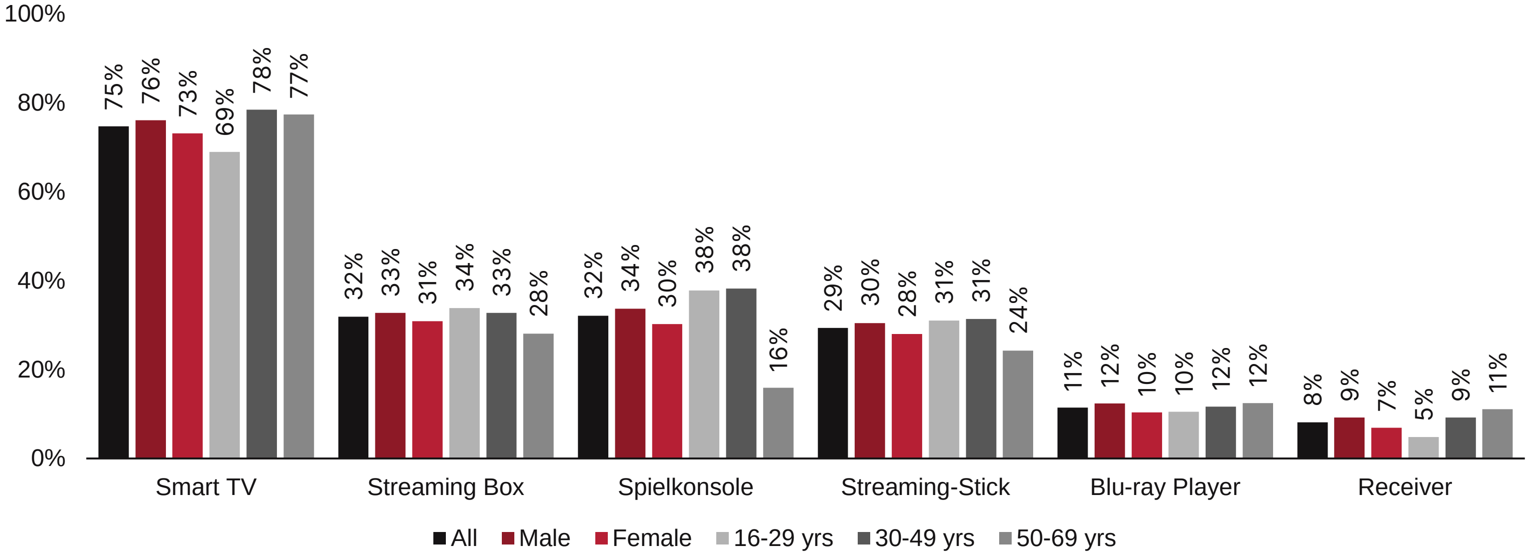
The tendency to abandon traditional linear TV completely ("cord-cutting") has been done by 27% of respondents. This tendency is particularly pronounced in younger age groups and single-person households at 29%. The use of internet TV/web TV is also widespread among the under 49s. IPTV remains a less common option at 4-5% but is used slightly more in households with children.

Regional trends in cord-cutting, internet TV/web TV and IPTV:
In Switzerland, the trend towards cord-cutting and the use of internet TV/web TV is most pronounced at 39% and 34% respectively. Germany (20%) and Austria (24%) show lower cord-cutter rates, with a stronger adherence to more traditional types of reception. IPTV remains a niche option in all three countries.

ACCESS

SMART, THANKS TO INTERNET-ENABLED DEVICES

TYPE OF CONNECTION, SHARE IN % OF CONNECTED TV USERS



Smart TVs are the most popular choice for accessing connected TV content at 75%, followed by streaming boxes and game consoles at 32% each. Streaming sticks are used by 29% of respondents, while Blu-ray players and receivers are less common at 11% and 8%, respectively. Other access options and ignorance about the technology used are not significant, at 1% each.

Usage is slightly differentiated by gender, with a higher preference for smart TVs among men (76%) than women (73%). Young users (16-29 years) show a stronger preference for game consoles (38%), while the 30-49 and 50-69 age groups particularly favour smart TVs (78% and 77% respectively).

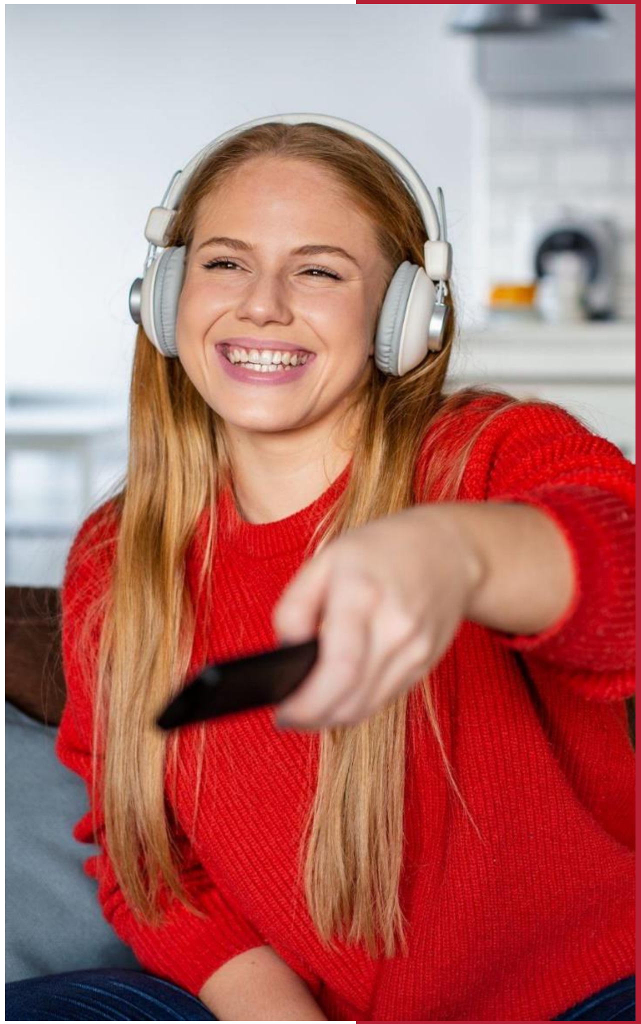
Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH who use connected TV (n=1962) Question: How do you use such additional functions on connected TV, such as apps on the TV set TV, media libraries from TV channels, streaming services, internet games or internet browsers?

ACCESS

SMART TV AHEAD IN USE, GAME CONSOLES STRONG IN MULTI-PERSON HOUSEHOLDS AND HOUSEHOLDS WITH CHILDREN

While smart TVs lead across all household types with 75% usage, households with children and larger households (3 or more people) in particular show increased use of streaming boxes (36%), game consoles (44%), and streaming sticks (36%), underlining the diversity of devices used in more active and diverse households. One-person households show the lowest breadth of use, particularly for streaming boxes and game consoles. These preferences illustrate that household type influences the choice of technology for accessing connected TV content.

The preferences for specific devices used for connected TV show significant differences between the countries: Germany shows a high preference for smart TVs (79%) and streaming sticks (37%). Austria has similar values for smart TVs (76%) and a moderate use of streaming boxes and sticks. Switzerland stands out clearly with the highest use of streaming boxes (43%) and comparatively lower use of smart TVs (66%) and streaming sticks (16%).



Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH who use connected TV (n=1962) Question: How do you use such additional additional functions on connected TV, such as apps on the TV set, media libraries from TV channels, streaming services, internet games or internet browsers?

SAMSUNG SMART TV

MARKET LEADERS
IN THE DACH REGION

59%

of Smart TVs are from SAMSUNG

SAMSUNG SMART TV

56%

of households without children use SAMSUNG Smart TVs

SAMSUNG REMAINS THE CLEAR MARKET LEADER, FOLLOWED BY LG AND SONY

Samsung clearly leads the market for Smart TVs, followed by LG and Sony, with young users appearing particularly loyal to the brand. The data offers valuable insights for brand strategies in the area of Smart TVs.

The consistency of Samsung's leading position across different household constellations is particularly noteworthy. Samsung is the leader in one-person households with 56%, followed by two-person households (54%) and three-and-more-person households (63%), while Philips and Sony are slightly better known in larger households.

Samsung is the leader in households without children (56%), followed by households with children (62%), indicating a higher use diversity in family households.

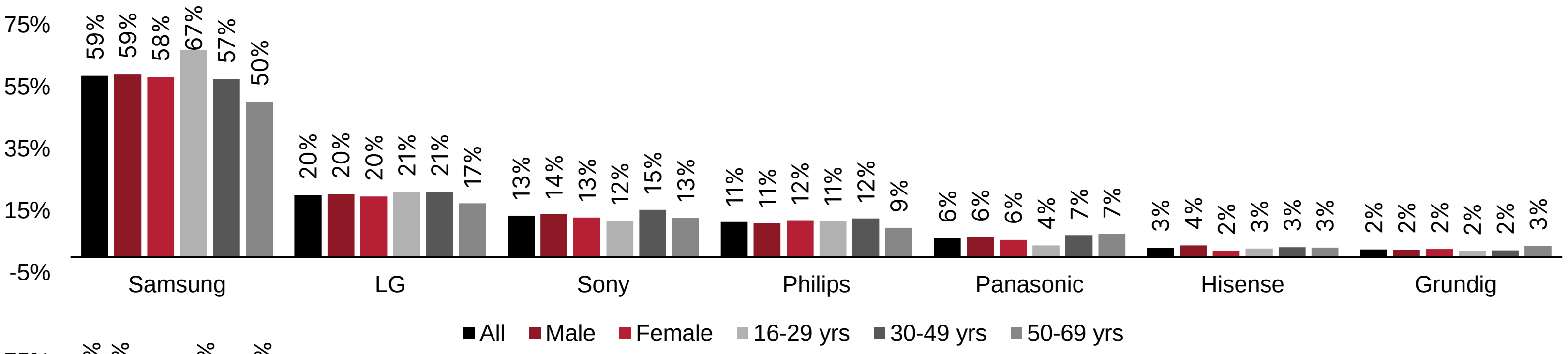
The regional analysis underlines Samsung's dominance in internet-enabled televisions, although regional differences in brand preference are recognizable, particularly for LG, Philips, and Grundig.

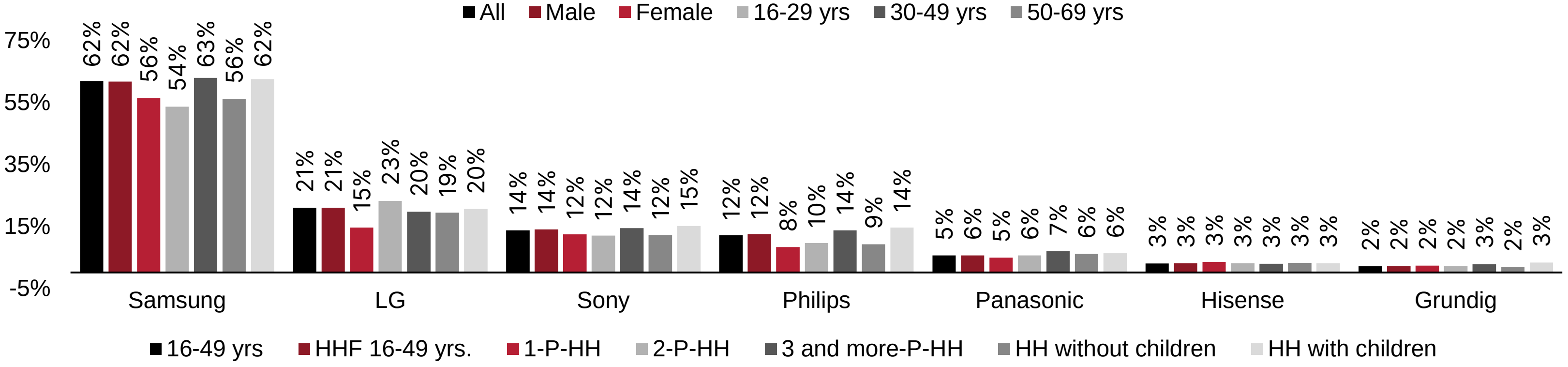
? Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH who use the additional functions via a Smart TV (n=1465) Question: Which Smart TV provider do you use?

SMART TVS

SMART TVS ARE THE MAIN ACCESS ROUTE TO CONNECTED TV

SMART TV-PROVIDER, SHARE IN % OF CONNECTED TV USERS





Samsung Smart TVs (59%) have a dominant preference across DACH, followed by LG (20%) and Sony (13%). Philips and Panasonic hold smaller market shares. Interestingly, the younger target group (16-29 years) shows an even stronger preference for Samsung (67%), while older users (50 69 years) show a more diversified brand choice, including a higher proportion of "other" brands. Preferences are relatively similar between men and women, with only marginal differences.

Samsung remains the leading brand in awareness and use of internet-enabled televisions, followed by LG and Sony. The data indicates a stable market position for these providers, regardless of household size or the presence of children.

GOLDBACH

Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH who use the additional functions via a smart TV use the additional functions (n=1465) Question: Which Smart TV provider do you use?

APPLE TV BOX

IS THE MOST USED STREAMING BOX IN THE DACH REGION

Apple TV Box

Germany is dominated by Amazon Fire TV Cube with

37%

Austrian users prefer Magenta TV

39%

In Switzerland, the Swisscom Box is the preferred choice

44%

REGIONAL PREFERENCES IN THE USE OF STREAMING BOXES

The regional distribution of the use of streaming box providers reveals significant differences in preferences between Germany, Austria, and Switzerland. In Germany, Amazon Fire TV Cube dominates with 37%, followed by Magenta TV (34%) and Sky Q (27%). In Austria, there is a strong preference for Magenta TV (39%), while Amazon Fire TV Cube and Apple TV Box are also popular. In Switzerland, Swisscom TV Box stands out with 44%, emphasizing the strong market presence of local providers.

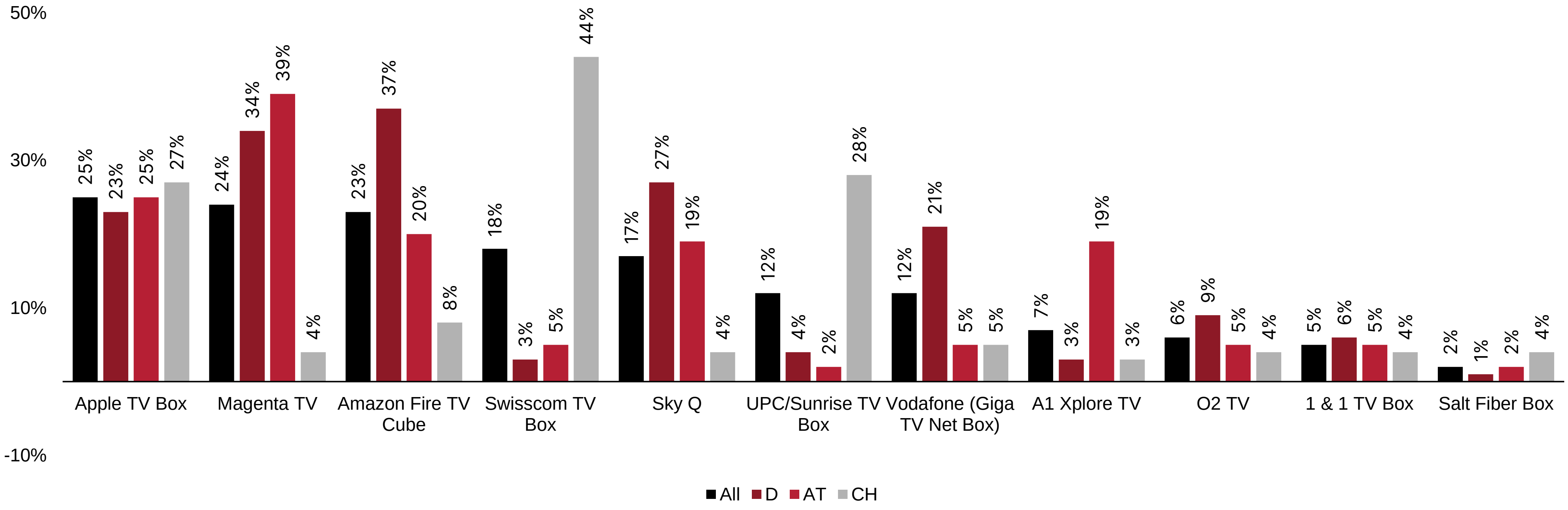
Furthermore, the results indicate that larger households and households with children show a more diverse use of streaming services, possibly due to the different interests and needs within these households. In one-person households and households without children, usage is less diversified, reflecting the specific preferences, and possibly also the reduced need, for a wide range of streaming options.

Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH who use the additional services via a streaming box (n=625) Question: Which streaming box provider do you use?

STREAMING BOXES

STREAMING BOX PREFERENCE VARIES GREATLY BY REGION

STREAMING BOX PROVIDER, SHARE IN %



Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH who use the additional services via a streaming box (DACH: n=625 / D: n=268 / A: n=132 / CH: n=225)
Question: Which **streaming box provider do** you use?

AMAZON
FIRE TV STICK
CLEARLY IN FIRST PLACE

72%
of streaming stick users usethe AMAZON FIRE TV STICK

AMAZON
FIRE TV STICK

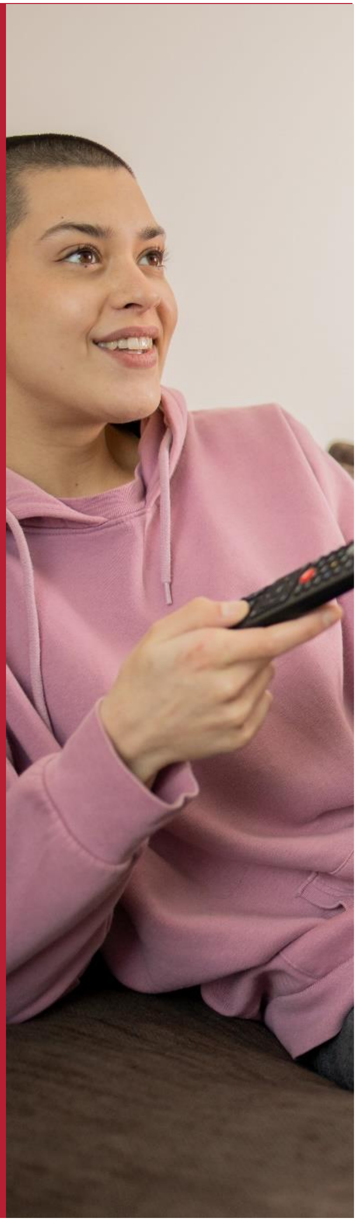
76%
of 2-person household streaming stick users use the AMAZON FIRE TV STICK

AMAZON FIRE TV STICK IN FIRST PLACE ACROSS ALL TARGET GROUPS

The use of streaming sticks in 2024 reveals a dominant preference for the Amazon Fire TV Stick (72%), followed by Google Chromecast (22%) and Apple TV Stick (17%). Preferences vary slightly between men and women and across different age groups. Women are more inclined towards the Amazon Fire TV Stick, while men prefer Google Chromecast. The Apple TV Stick is more popular among younger age groups (16-29 years) than older age groups.

Usage varies by household size and type. The Amazon Fire TV Stick is strongly preferred across most groups, although the Apple TV Stick is very popular in households with children.

Like streaming boxes, there are also significant regional differences in the use of streaming sticks in 2024. The Amazon Fire TV Stick dominates in Germany and Austria with 80% and 79% respectively. Google Chromecast and Apple TV Stick usage is much lower. Switzerland shows a different picture: Google Chromecast leads with 47%, while the Amazon Fire TV Stick only reaches 27% and the Apple TV Stick occupies a strong position with 34%.

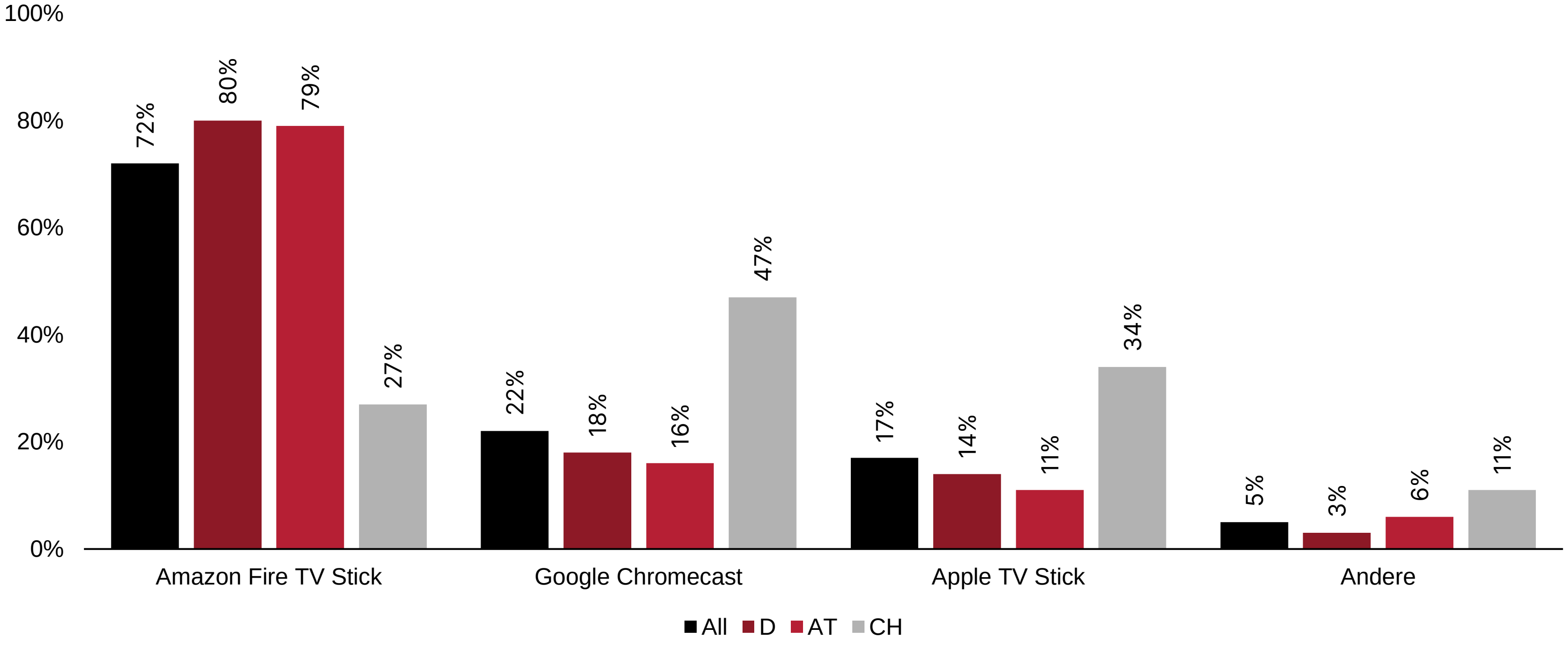


Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH who use the additional services via a streaming stick (n=575) Question: Which streaming stick provider do you use?

STICKS

REGIONAL DIFFERENCES IN THE USE OF STICKS

STREAMING STICK PROVIDER, SHARE IN %



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Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH who use the additional services via a streaming stick (DACH: n=575/ D: n=348/ A: n=142/ CH: n=85)
Question: Which **streaming stick provider do** you use?

SONY

PLAYSTATION

NUMBER ONE GAME CONSOLE

77%

of game console users use a SONY PLAYSTATION

+ 3% vs. 2023

SONY PLAYSTATION 5

81%

of 30-49 year olds use the SONY PLAYSTATION 5

SONY PLAYSTATION PARTICULARLY POPULAR WITH MEN

The popularity of game consoles in 2024 is clearly led by the Sony PlayStation, with an overall preference of 77%, followed by Nintendo Switch (36%), Microsoft Xbox (23%) and Nintendo Wii (14%). Men predominantly favor the PlayStation, while women show a stronger preference for the Nintendo Switch. The data shows that the PlayStation remains the dominant console across all age groups, although the preference among the younger generation leans slightly in favor of the Nintendo Switch and Xbox.

The use of game consoles in 2024 also shows that the Sony PlayStation remains the most popular choice across all household types at 77% to 79%. In households with children, the popularity of the Nintendo Switch rises to 43%, underlining its appeal in family-centered households. Microsoft Xbox holds steady, with a slight preference in households with children (26%). Nintendo Wii usage is lower overall but shows a higher presence in larger households and those with children.

The Sony Playstation is the most popular in Germany, while in Austria and Switzerland there is a broader distribution of preferences.

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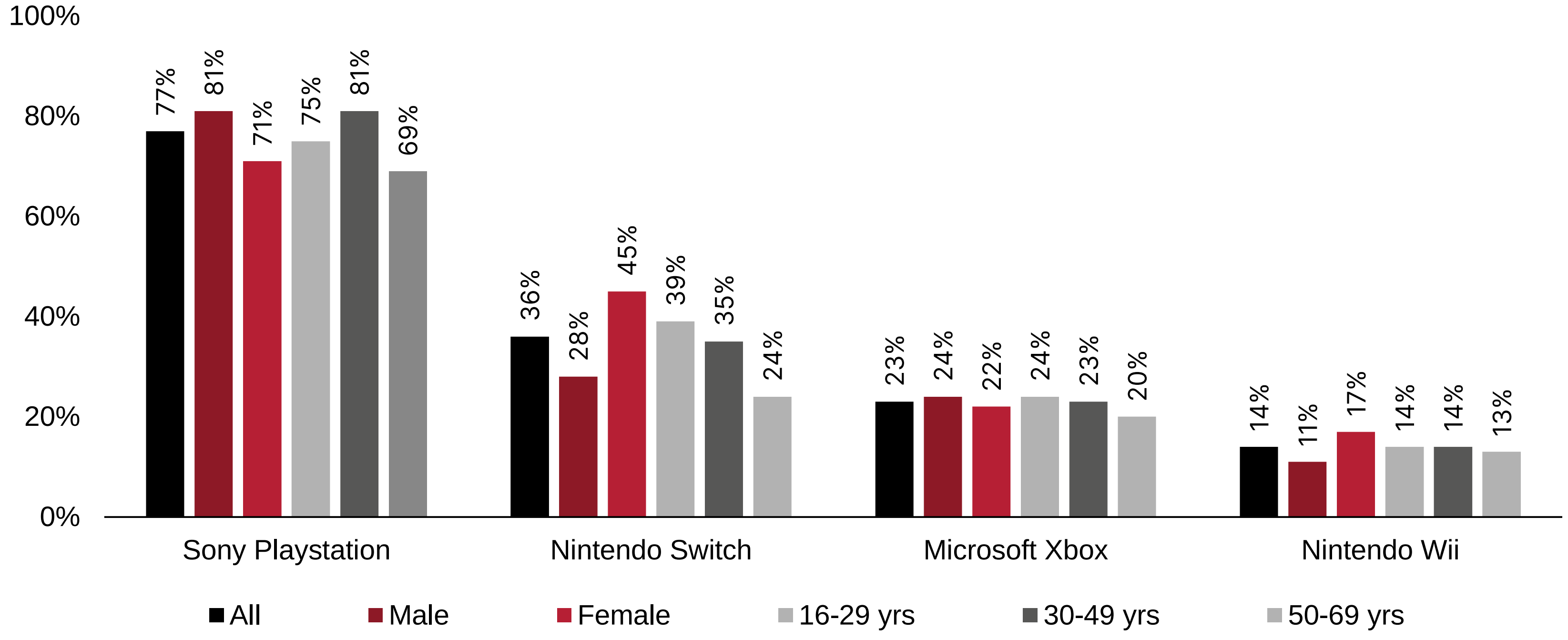
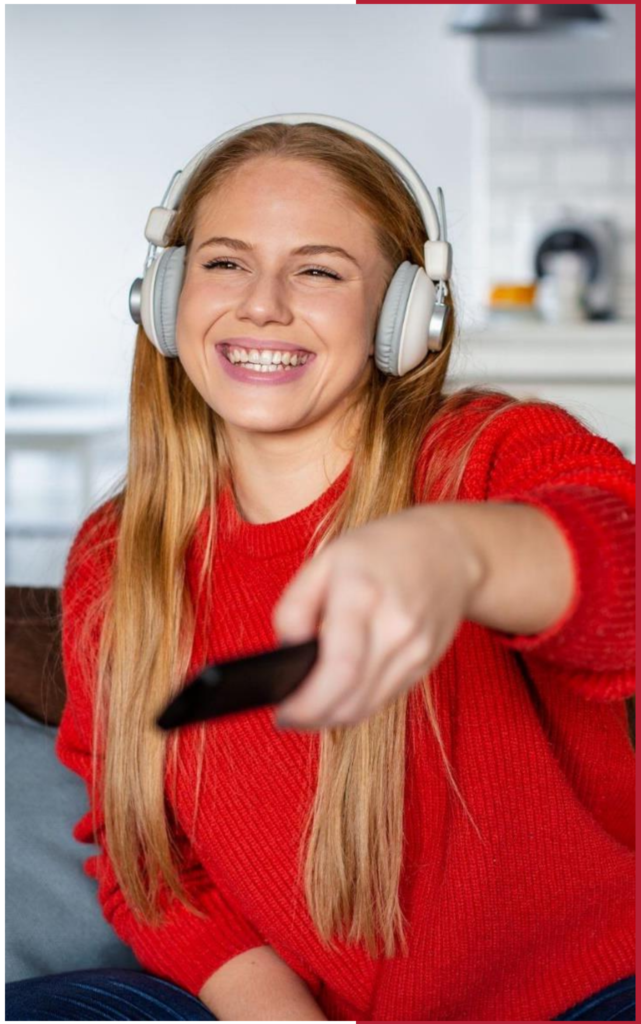
Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH who use the additional services via a games console (n=629) Question: Which games console provider do you use?

GAME CONSOLES

SONY PLAYSTATION CLEARLY IN FIRST PLACE

GAME CONSOLE PROVIDER, SHARE IN %





GOLDBACH

Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH who use the additional services via a games console (n=629)
Question: Which **games console provider do** you use?

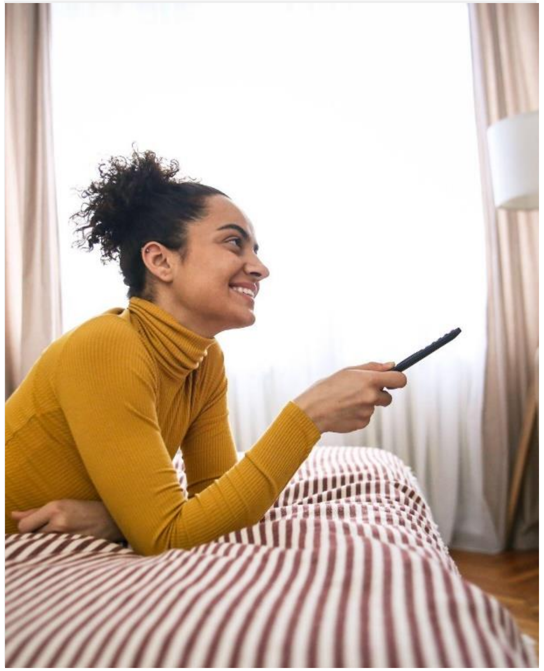
CONCLUSION!

EQUIPMENT & ACCESS

- 2/3 HAVE AT LEAST ONE INTERNET-ENABLED TV SET AT HOME
- PRACTICALLY ALL INTERNET-ENABLED DEVICES ARE CONNECTED
- 27% NO LONGER RECEIVE CONTENT VIA CONVENTIONAL RECEPTION CHANNELS – THE SO-CALLED "CORD-CUTTERS"

AWARENESS & USE

AWARENESS AND USE OF CTV



AWARENESS AND USE IS VERY HIGH ACROSS ALL TARGET GROUPS - ESPECIALLY AMONG HOUSEHOLDS WITH CHILDREN

Connected TV shows solid awareness (72%) and usage (56%) across all demographic groups, with particularly strong anchoring among men and the 30-49 age group. The results underline the importance of connected TV as a medium in the modern media landscape.

The preference for connected TV varies significantly by household type, with particularly strong anchoring in households with children (77% awareness, 66% usage) and in larger households. This highlights the relevance of targeted marketing and content strategies.

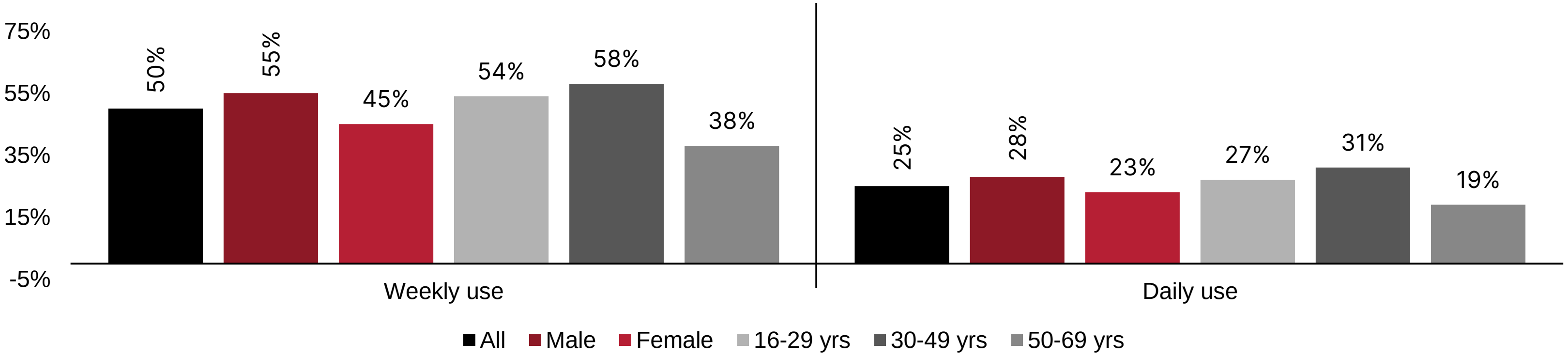
In the DACH regions, awareness and usage of connected TV also vary significantly between the German-speaking countries, with Germany as the clear market leader (77% awareness, 63% usage). These findings offer valuable clues for targeted approaches to media strategy and content placement within these regions.

Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH (n=3500)
Question: Do you know and use "connected TV"? These are televisions that are connected to the internet via additional devices such as Blu-ray players, streaming boxes or sticks and games consoles, as well as smart TVs that already have an integrated internet function. They offer additional functions such as the option to use apps on the TV set, media libraries from TV channels, streaming services such as Netflix, Internet games or the Internet browser.

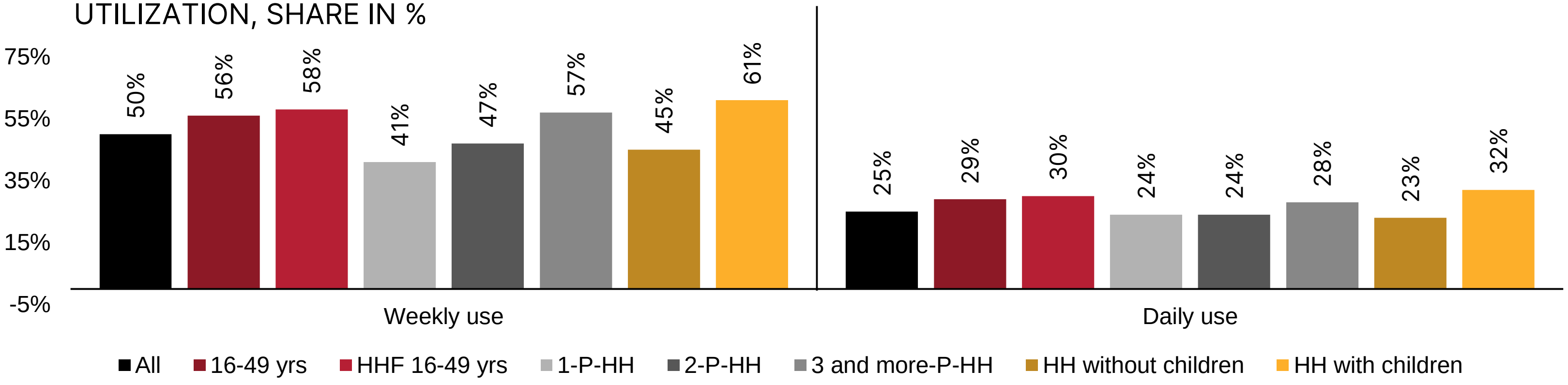
USE

WEEKLY AND DAILY USE IN ALL TARGET GROUPS

UTILIZATION, SHARE IN %



UTILIZATION, SHARE IN %



INTENSIVE USE AMONG 16-49 YEAR-OLDS AND HOUSEHOLDS WITH CHILDREN

The average weekly usage of connected TV is 50%, with men using connected TV more frequently (55%) than women (45%). There is also an increase in usage among 16-49 year-olds and large households, especially households with children (61%).
25% of respondents use the additional functions on connected TV every day, with a high of 31% in the 30-49 age group and a low of 19% in the 50-69 age group. Households with children also dominate daily use with 32%.

GOLDBACH

Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH (n=3500)
Question: Do you know and use "connected TV"? These are televisions that are connected to the internet via additional devices such as Blu-ray players, streaming boxes or sticks and games consoles, as well as smart TVs that already have an integrated internet function. They offer additional functions such as the option to use apps on the TV set, media libraries from TV channels, streaming services such as Netflix, Internet games or the Internet browser.

★★★★★

HIGHEST USAGE IN LARGER HOUSEHOLDS AND HOUSEHOLDS WITH CHILDREN.

-

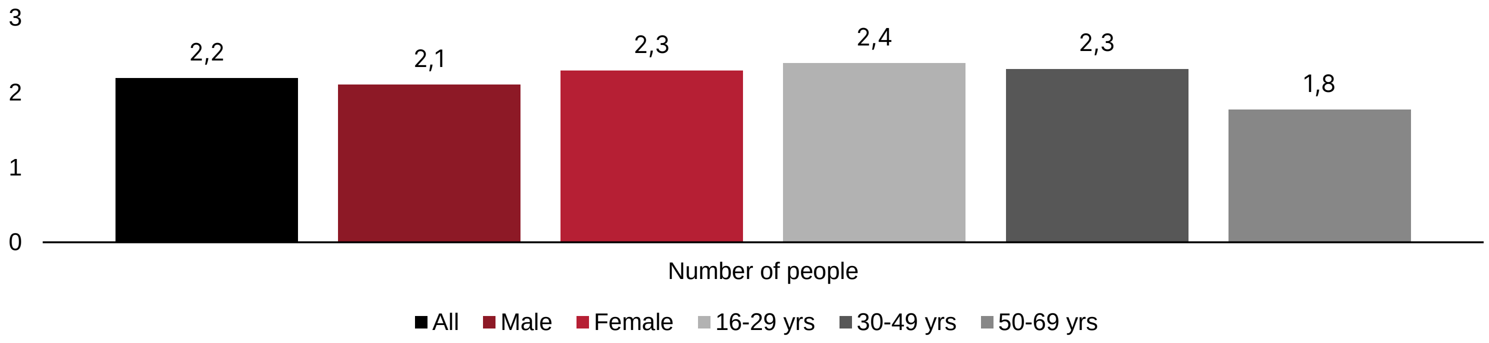
CONNECTED TV IS A
ONE-TO-MANY-MEDIUM!

★★★★★

UTILIZATION SITUATION

Ø 2.2 PEOPLE USE ADDITIONAL FUNCTIONS IN FRONT OF THE TV

NUMBER OF PEOPLE IN FRONT OF THE TV SET



NUMBER OF PEOPLE IN FRONT OF THE TV SET

The average number of people sitting in front of the television simultaneously is 2.2, with slight differences between sex and age groups. The figure is slightly higher for women (2.3) than men (2.1). The younger age groups (16-29 and 30-49 years) tend to use television more frequently (2.4 and 2.3 people respectively), while the figure falls to 1.8 for 50-69 year-olds.

The number of people who spend time together in front of the television shows a clear pattern:
The number is higher in households with children and multi-person households (2.9 and 2.8 people respectively).
People in one-person households usually watch television alone (1.1 person). This indicates that television has a social component, especially in family and multi-person households.

GOLDBACH

Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH who use the additional functions on a connected TV (n=1840, excl. don't know) Question: If you think of an average situation in which you use these additional functions on the TV set, how many people including yourself are sitting in front of the TV? Please enter the number of people.

CONNECTED DEVICES

64%

link mobile devices with the TV set.

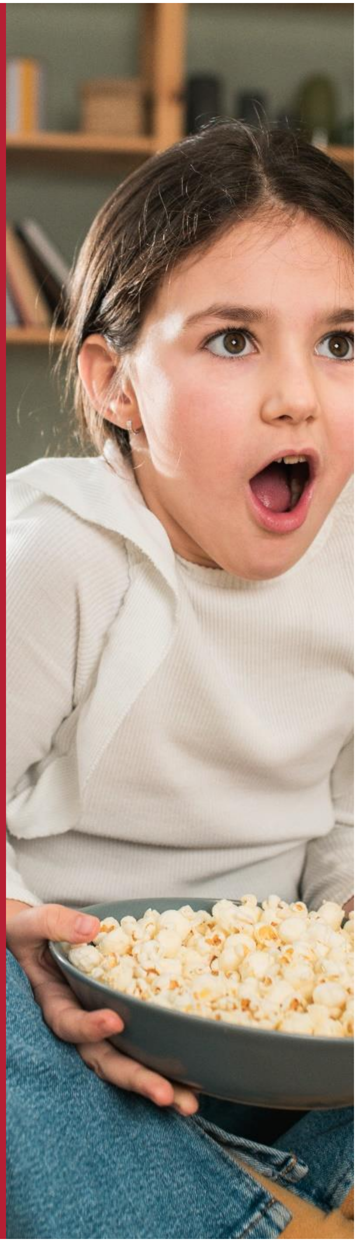
51%

of people in households with children use connected devices at least once a week.

CONNECTED WITH THE INTERNET

Awareness of connected devices is high, at 86% overall, with men and younger age groups reporting slightly higher levels of awareness. Overall usage is 64%, with rates also higher among men and in the 16-49 age group. Weekly use is reported by 37% of respondents, with this figure rising to 51% for households with children.
Connected devices are particularly widespread in households with children (93% awareness, 75% overall use) and in larger households. Daily use is highest in households with children (18%). The data shows that the presence of children in the household has a significant influence on interaction with connected devices.

Awareness and use of connected devices is highest in Germany, while Austria has the lowest values. Daily use is most pronounced in Germany, indicating a stronger integration of these technologies into everyday life.

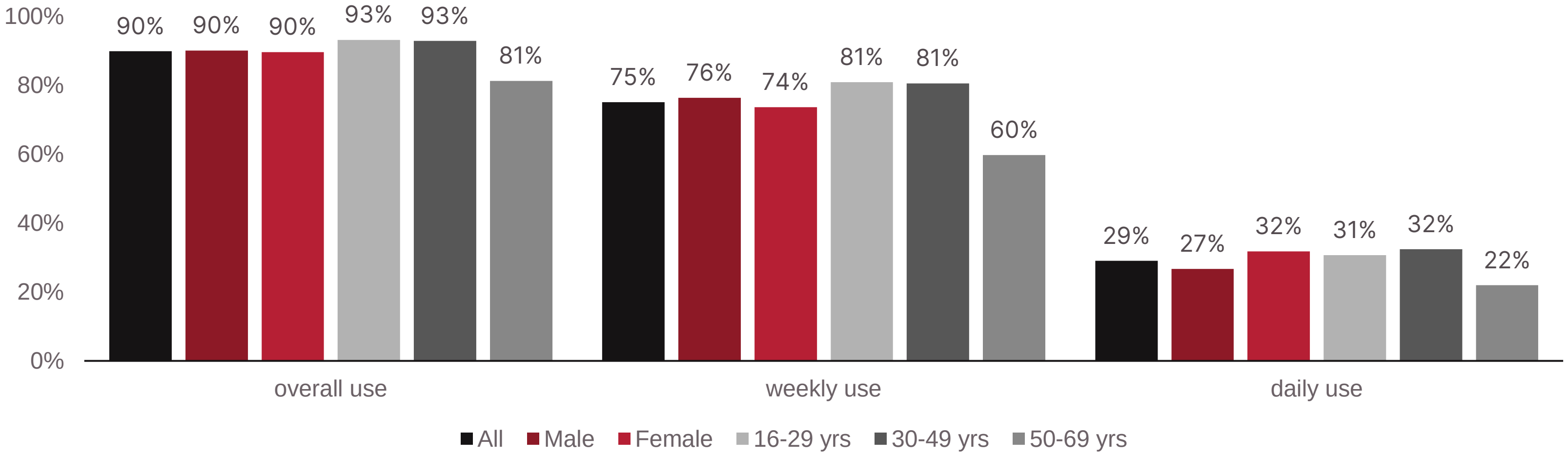


Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH (n=3500)
Question: How often do you connect your smartphone or other devices (e.g. tablet, laptop) to the TV set (e.g. to view photos or video content from your smartphone on the TV set)?

SECOND SCREEN

PARALLEL USE OF CTV UND INTERNET

USE OF CTV AND SECOND SCREEN, SHARES IN %

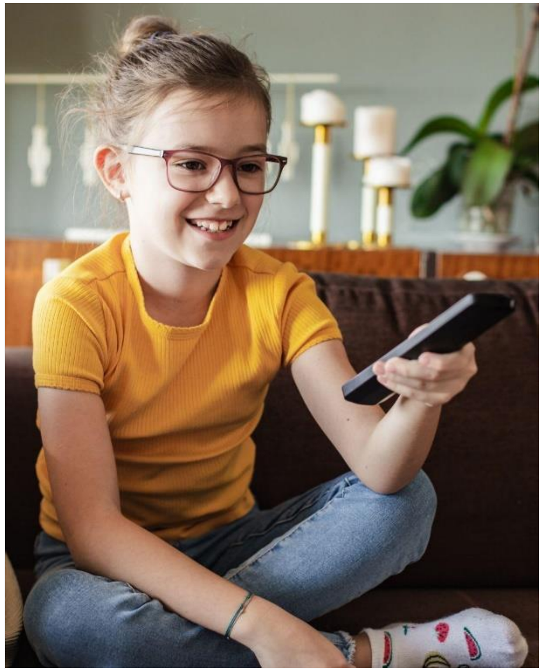


The simultaneous use of connected TV and second screen, i.e. surfing the Internet on a smartphone, laptop or tablet, can be used to search for information about what has been viewed, right through to the sale of a product that has been viewed. Parallel usage is 75% per week, with the highest usage among 16-29 year olds and 30-49 year olds (81% each). Daily use shows that women are slightly more active (32%) than men (27%). Usage drops significantly in the 50-69 age group, both in terms of total and daily usage.
The use of connected TV and second screen is highest in Germany (79% weekly use, 29% daily use), followed by Austria (73% weekly use, 29% daily use) and Switzerland (70% weekly use, 26% daily use).

GOLDBACH

Quelle: Goldbach Advanced TV-Studie 2024, Basis: alle Befragte 16-69j. in DACH, welche Connected TV nutzen (n=1962)Frage: Wie häufig kommt es normalerweise vor, dass Sie eine Zusatzfunktion am Connected TV nutzen und gleichzeitig auf einem anderen Gerät das Internet nutzen, z.B. auf einem Computer, Laptop, Tablet oder Smartphone?

ALMOST 2.5 HOURS DAILY DWELL TIME FOR THE ADDITIONAL FUNCTIONS



USE OF THE ADDITIONAL FUNCTIONS

The duration of use of additional functions is now almost on par with the duration of the use of linear TV: On average, additional functions are used for 02:23 hours a day, with women showing a higher duration of use than men at 02:35 hours. Young viewers (16-29 years) use these functions the longest, almost 3 hours a day, and thus significantly exceed the time spent on linear TV. Linear TV is used for an average of 02:46 hours a day, with the older generation (50-69 years) showing the highest usage time of 03:24 hours.

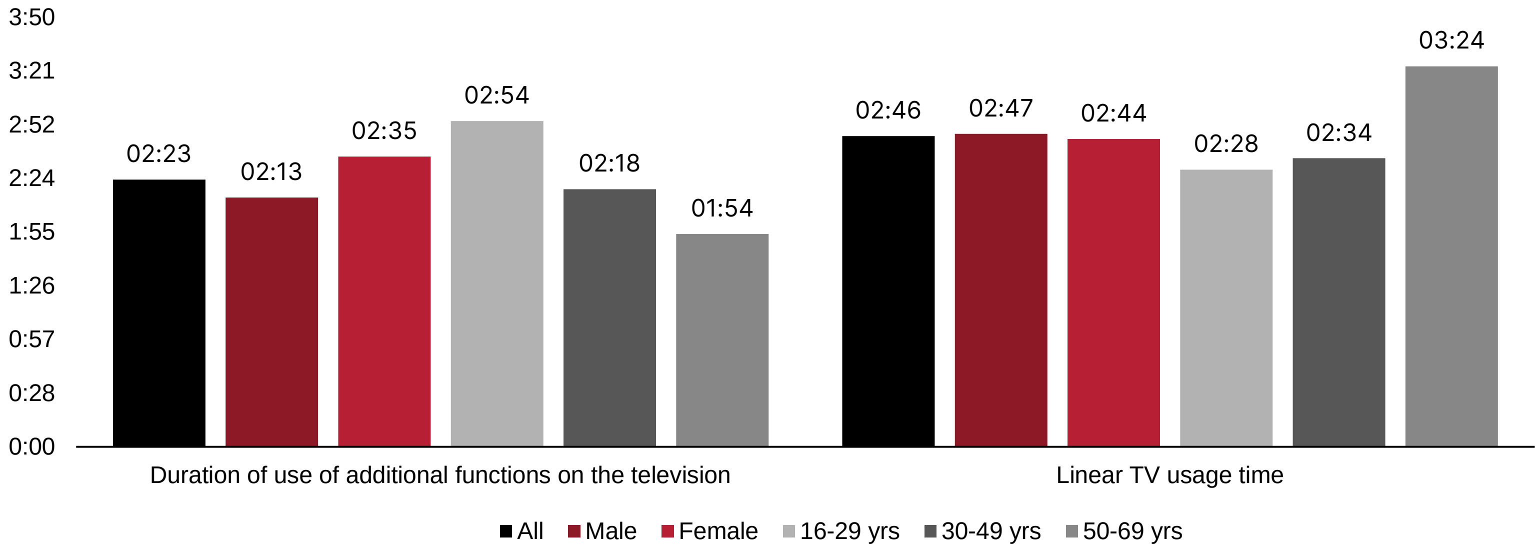
The survey results reflect different preferences and usage patterns across demographic and household constellations: Households with people aged 16-49 (02:34 hours) and households with children (02:30 hours) show slightly longer usage times on connected TV. In contrast, a longer duration of 02:59 hours on linear TV was observed in 2-person households.

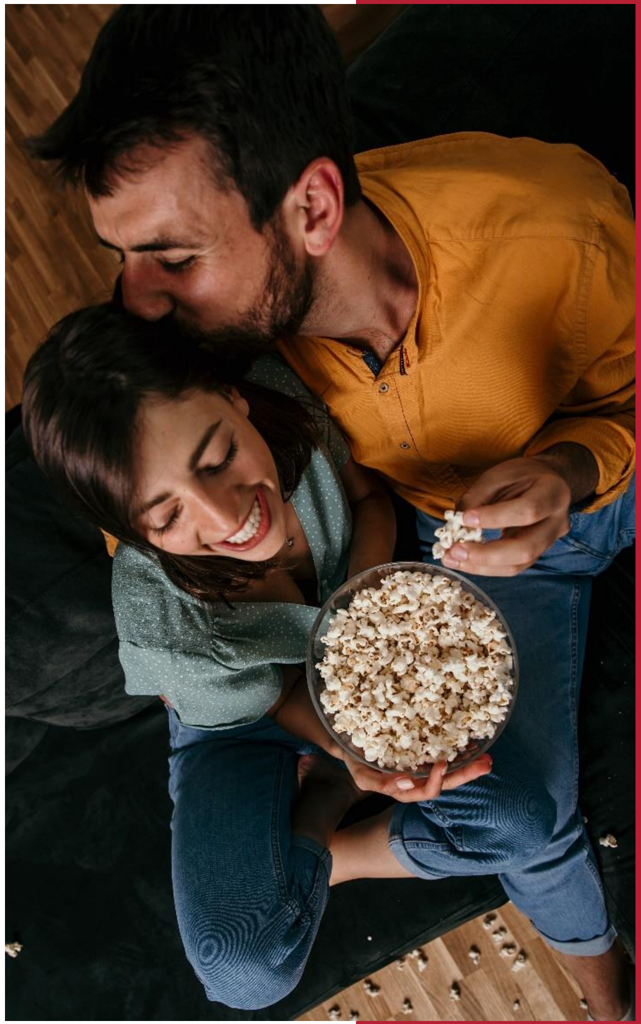
Germany leads in terms of usage time for both additional functions and linear television, which indicates specific preferences in media usage in the region.

DURATION OF RETENTION

Ø 2.5 HOURS ADDITIONAL FUNCTIONS ARE USED DAILY

LENGTH OF STAY PER DAY (HH:MM)





GOLDBACH

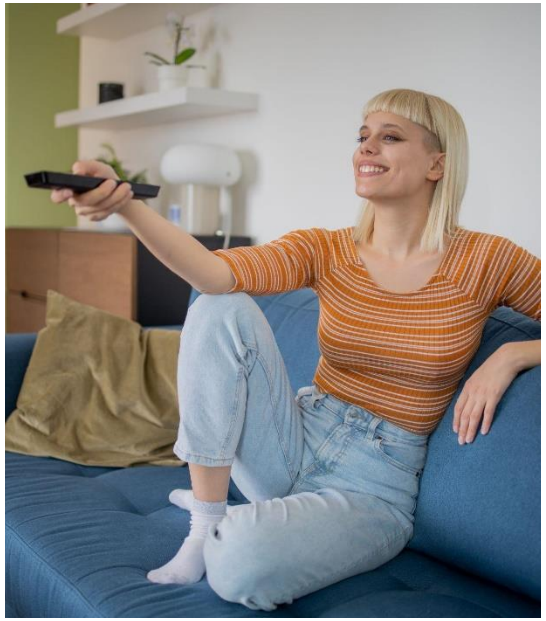
Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH who use the additional functions on a connected TV (n=1460, excl. don't know)
Question: If you think about an average day, approximately how long do you use these additional functions on your TV set and how long do you use the linear TV channels in comparison? Please enter your answer in hours and minutes.

HIGHEST LENGTH OF STAY IN THE ADDITIONAL FUNCTIONS AMONG 16-29 YEAR OLDS

-

CTV IS CONSUMED MUCH LONGER HERE THAN LINEAR TV

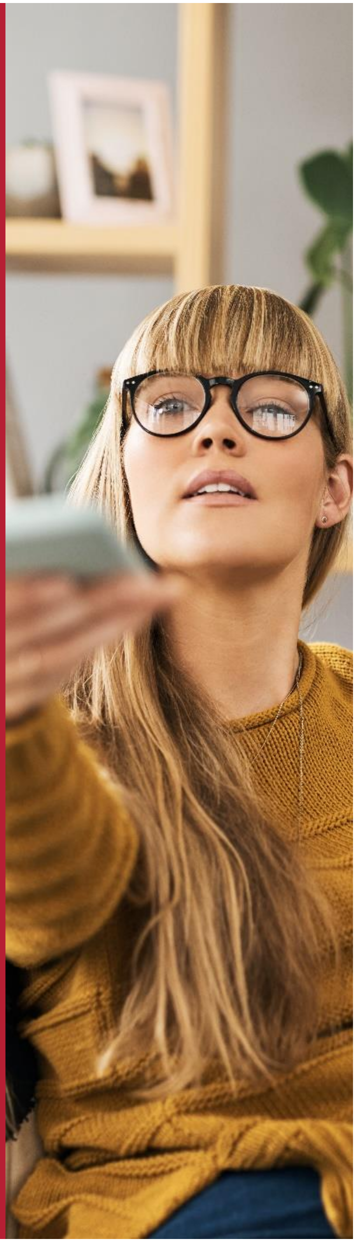
THE HOME SCREEN IS BECOMING INCREASINGLY IMPORTANT



MEANING OF THE START SCREEN

More than half (52%) of respondents start their video consumption on connected TV with a user interface rather than the linear TV program. Compared to the previous year, this figure has risen by a further 3%. The interfaces of smart TVs, streaming boxes, and sticks invite users to navigate through the various functions. It is noticeable that the 16-49 age group, as well as larger households and households with children, predominantly start with the individual user interface, while the current TV program is more dominant in 1 or 2-person households and among 50-69 year-olds.

The preference for the home screen also varies by region. In all countries, the user interface starts at around 50%, with Switzerland having the highest preference (56%) - the interfaces of streaming boxes are conspicuously common here at 25%. This indicates different usage habits and a stronger inclination towards streaming services in Switzerland.



52%

of users start on a user interface on the TV set, not the TV program.

+6% compared to previous year

Households with children and younger people (16-49 years) are more likely to start with the individual user interface.

Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH (n=3500)
Question: What screen do you see when you switch on your TV?

CONCLUSION!

AWARENESS AND USE

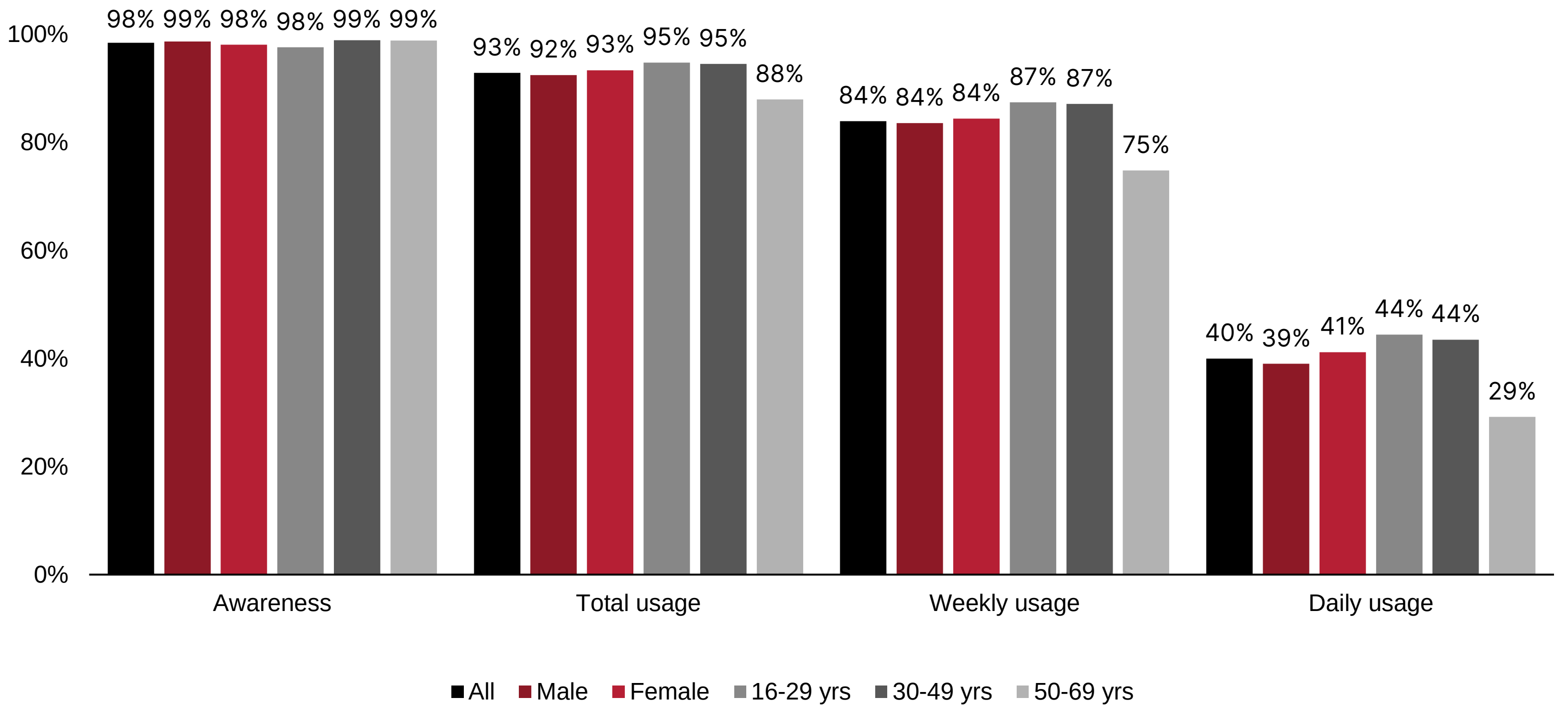
- AWARENESS & USE OF CTV AT A HIGH LEVEL
- CTV IS A ONE-TO-MANY MEDIUM
- DWELL TIME ON CTV ON A PAR WITH LINEAR TV

CONTENT & MOTIVATION

APP & VOD

EXTREMELY HIGH AWARENESS LEVELS AMONG CTV USERS

USE OF ADDITIONAL FUNCTIONS (APPS AND VOD), SHARE IN %



CTV apps and VOD services are widely known and actively used, particularly among younger age groups:
Awareness of CTV apps and VOD services is high across all groups, at 98% to 99%, demonstrating near-universal awareness of these technologies.
While the overall usage is 93%, men show a slightly lower usage of 92% compared to women at 93%. The highest usage rates are found in the younger age groups (16-29 and 30-49 years) at 95% in each case, while usage among 50-69 year-olds falls to 88%.
There are no significant differences in weekly use between men and women (both 84%), but an age-dependent trend is discernible, with the highest rates among 16-49 year-olds (87%) compared to 75% among 50-69 year-olds.

Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH who use the additional functions on a connected TV (n=1962) Question: To what extent are you familiar with the additional functions such as apps and VOD (Video on Demand) such as Netflix or Prime Video on the internet-enabled TV set?

GROWING USAGE VALUES OF THE APP AND VOD FUNCTION AMONG CTV USERS

84%

use app and VOD functions on a weekly basis.

Daily usage varies more (39% for men and 41% for women). More younger users (16-29 and 30-49 year-olds) access apps and VOD services on a daily basis at 44%, compared to only 29% among 50-69 year-olds. While the daily access figures for 16-49 year-olds have only risen slightly compared to the previous year, respondents aged 50-69 have used these services significantly more than in the previous year at +25%.

Households with children and larger households use these functions most intensively, both overall and on a weekly and daily basis. These trends likely reflect not only preferences for entertainment and media consumption but also the flexibility and variety that connected TVs offer. The slightly lower daily usage in one-person households and households without children could indicate different lifestyles or interests.

The usage trends underline the importance of CTV technologies as an integral part of daily media consumption, with differences in usage frequency by gender and age indicating different preferences and needs. These insights can be valuable for content providers and advertisers to develop targeted strategies for different user groups.

44%

of 16-49 year-olds use app and VOD functions every day.

29%

of 50-69 year-olds use app and VOD functions every day.

+ 6% vs. 2023

Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH who use the additional functions on a connected TV (n=1962) Question: To what extent are you familiar with the additional functions such as apps and VOD (Video on Demand) such as Netflix or Prime Video on the internet-enabled TV set?

STREAMING APPS ARE POPULAR IN ALL AGE GROUPS

THE MOST POPULAR STREAMING AND TV APPS

In 2024, the use of apps on televisions shows a multi-layered structure that is differentiated according to various household characteristics, such as age group and household size. An overview of usage preferences provides insights into consumer behavior:

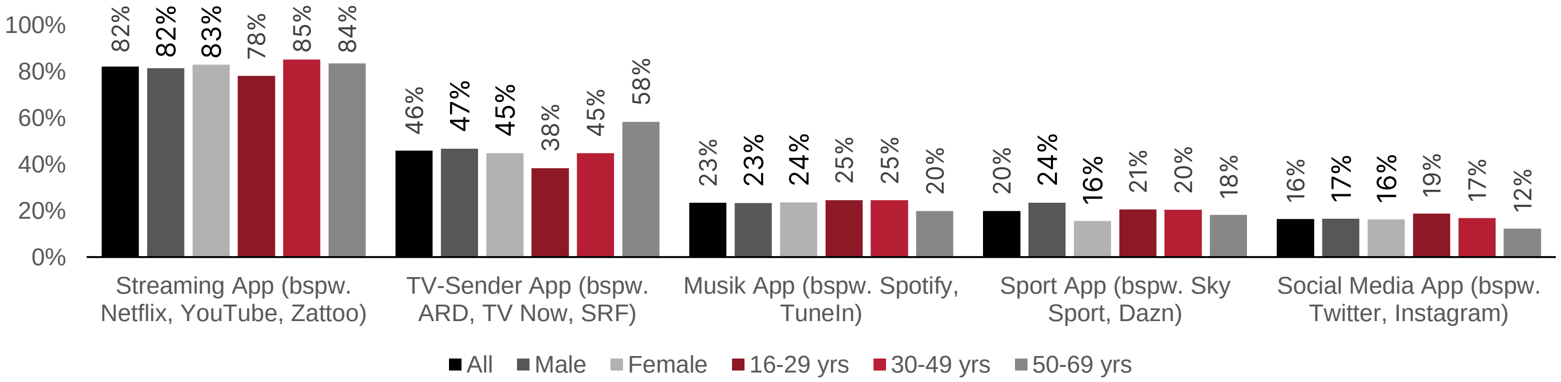
Streaming apps such as Netflix and YouTube top the list of the most popular apps with 82%. TV channel apps and music apps follow with 46% and 23% respectively. Sports and social media apps also show significant usage. Popularity varies slightly between men and women and across age groups, with younger users preferring a more comprehensive range of apps.

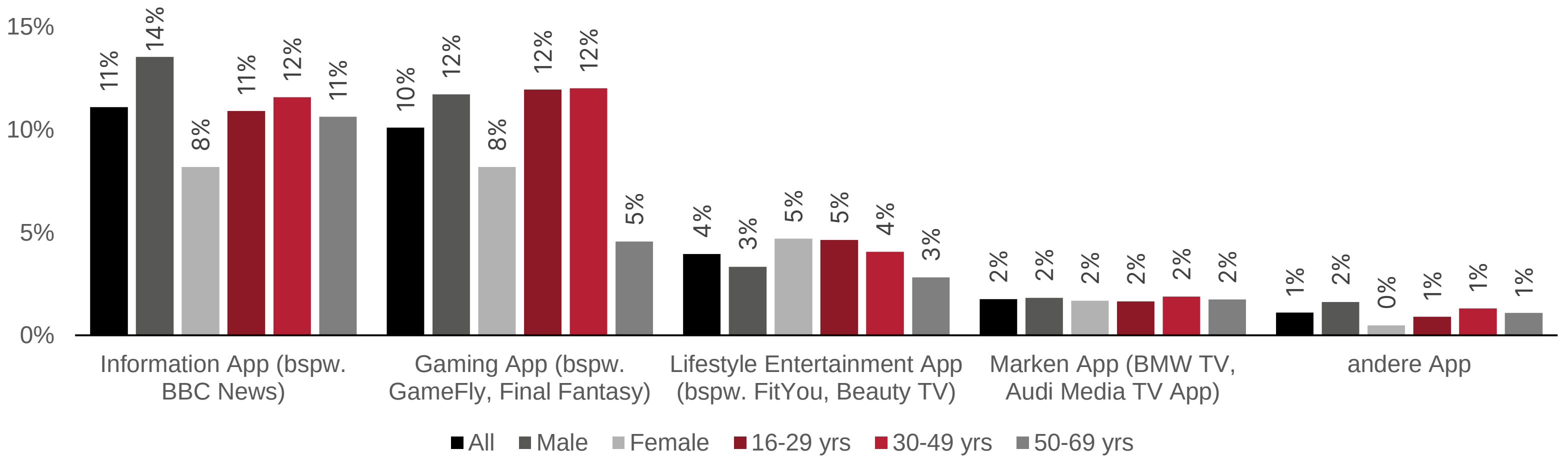
More diverse app categories are used, especially in households with children and larger households, emphasizing the importance of TV as a central entertainment medium in these groups.

APP & VOD

STREAMING AND CTV APP USAGE

TYPE OF APPS USED, USER SHARE IN %





GOLDBACH

Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH who use apps on their internet-enabled TV set (n=1822)
Question: Which apps do you use at least occasionally on your internet-enabled TV?

Streaming apps dominate with little differentiation between men and women (82% and 83%, respectively).

TV channel apps are particularly popular among the older generation (50-69 years), with 58% usage, which suggests more traditional media usage behavior.

Music apps are most popular among younger age groups (16-29 and 30-49 years), both with 25% usage.

Sports apps see increased use among men (24%) compared to women (16%).

Social media apps are used the most by the youngest age group (16-29 years) (19%).

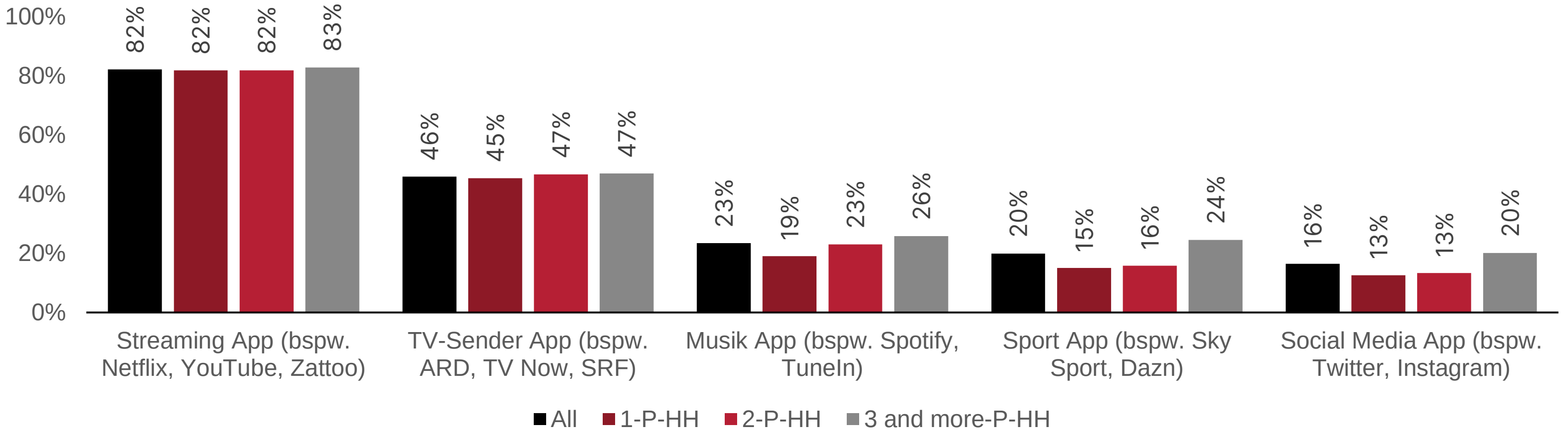
Information apps and **gaming apps** are used more by men (14% and 12% respectively) than by women (8% each), indicating different leisure preferences.

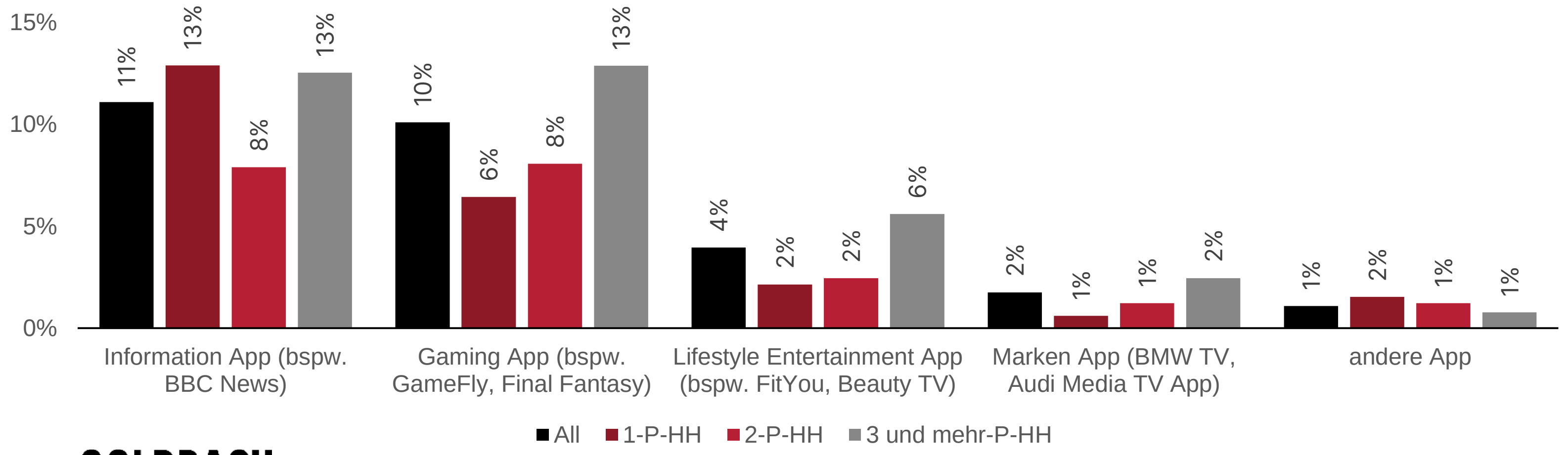
Lifestyle entertainment apps are more popular with women (5%) than men (3%), possibly due to interests in fitness, beauty and wellness.

APP & VOD

DIFFERENCES BASED ON THE HOUSEHOLD CONSTELLATION

TYPE OF APPS USED, USER SHARE IN %





GOLDBACH

Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH who use apps on their internet-enabled TV set (n=1822)
Question: Which apps do you use at least occasionally on your internet-enabled TV?

There is a strong preference for **streaming services**, while music, sports, and social media apps vary depending on the household constellation:

Music apps: Usage ranges from 19% in one-person households to 27% in households with children, indicating different musical listening needs depending on the type of household.

Sports apps: Above-average use can be observed, particularly in households with children (26%) and larger households with three or more people (24%).

Social media apps: Are seeing increased use in households with children (22%) and larger households (20%), showing greater social media integration into family life.

Information apps: Are used more than average in one-person households (13%).

Gaming apps: Particularly popular in households with children (15%) and larger households (13%), which underlines the role of the TV as a platform for shared gaming experiences.

Lifestyle entertainment and brand apps: Use remains low across all household types, but it shows a slight increase in households with children.

NETFLIX AND YOUTUBE ARE THE APPS WITH THE HIGHEST USER BASE ON CTV

USE OF APPS ON TELEVISION SETS

In this year's survey, the use of apps on TV sets reveals a multi-layered structure resulting from different demographic and household-specific characteristics. The following insights provide an overview of the frequency of use:

Overall usage: Netflix leads across all categories with a usage rate of 63%, followed by YouTube (55%) and Amazon Prime Video (47%).

One-person households: This group shows lower usage for most services, with Netflix at 50% and YouTube at 51%, suggesting different consumption habits or needs.

Two-person households and **households with three or more people** show a strong use of Netflix and YouTube, with the latter group also showing a high affinity for Disney Plus (38%) and other family-friendly services.

Households without children: The usage patterns are similar to the overall average, with a tendency towards a higher preference for Netflix and a slightly lower inclination towards children's and family content.

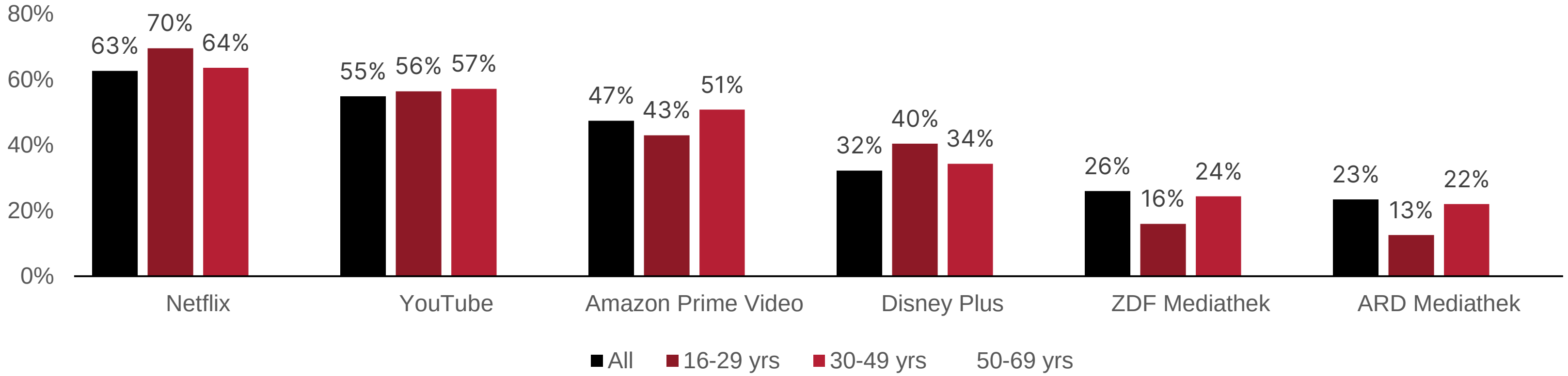
Households with children: Significantly higher usage rates for services such as Disney Plus (39%) and Joyn / Zappn TV (15%) indicate a need for family-oriented and child-friendly content.

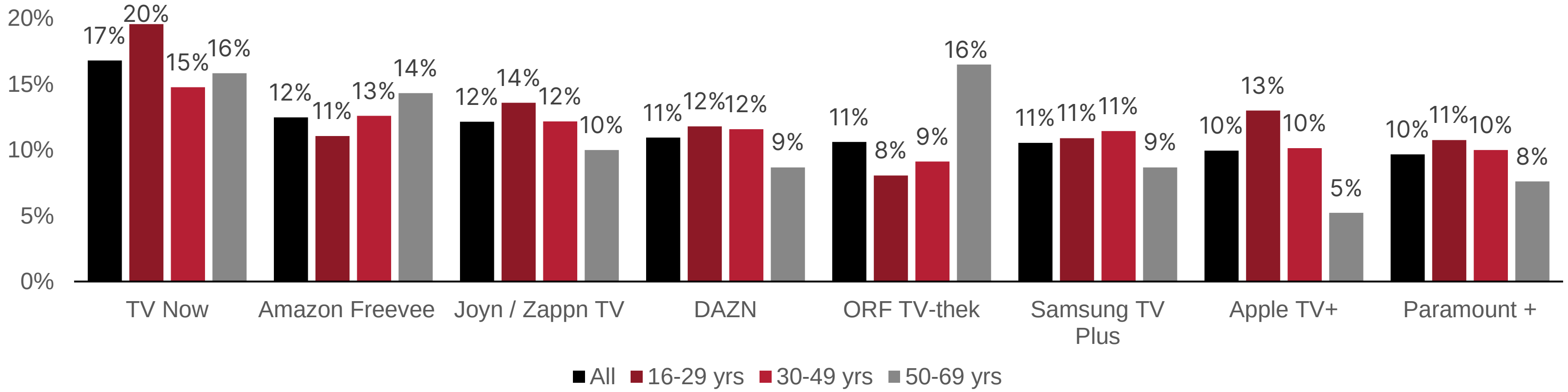
Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH who use apps on their internet-enabled TV set (n=1822)
Question: Which apps do you use at least occasionally on your internet-enabled TV?

APP USE

NETFLIX AND YOUTUBE HAVE THE HIGHEST USAGE VALUES

USE OF APPS ON TELEVISION SETS, USER SHARE IN %





The analysis by gender and age group also reveals striking differences. The following overview provides a detailed presentation of usage preferences:

Men tend to show lower usage rates for Netflix (58%) compared to women, but a higher propensity for sports-related apps such as DAZN (15%) and Sky (8%).

Women show a stronger preference for Netflix (68%) and Disney Plus (38%), possibly reflecting a broader interest in entertainment and family-friendly content.

16-29 year-olds: This group disproportionately prefers Netflix (70%) and has a particular affinity for Disney Plus (40%) and TV Now (20%).

30-49 year-olds: Balanced usage with a strong preference for Netflix (64%) and YouTube (57%), as well as significant usage of Amazon Prime Video (51%) and Disney Plus (34%).

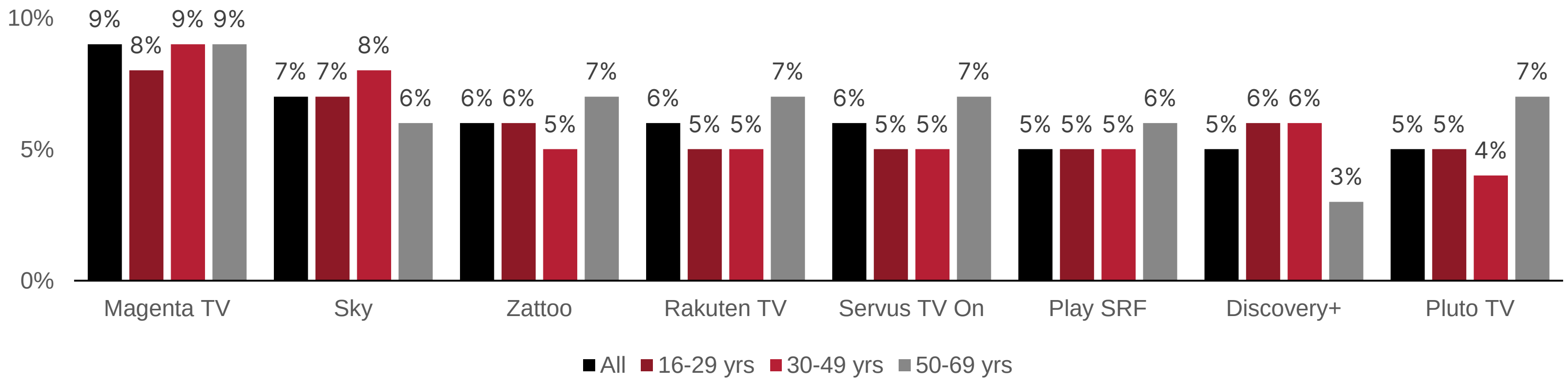
50-69 year-olds: While Netflix and YouTube remain popular (51% and 49%), the use of public media libraries (ZDF: 43%, ARD: 41%) is rising sharply, which indicates an interest in local and news-oriented content.

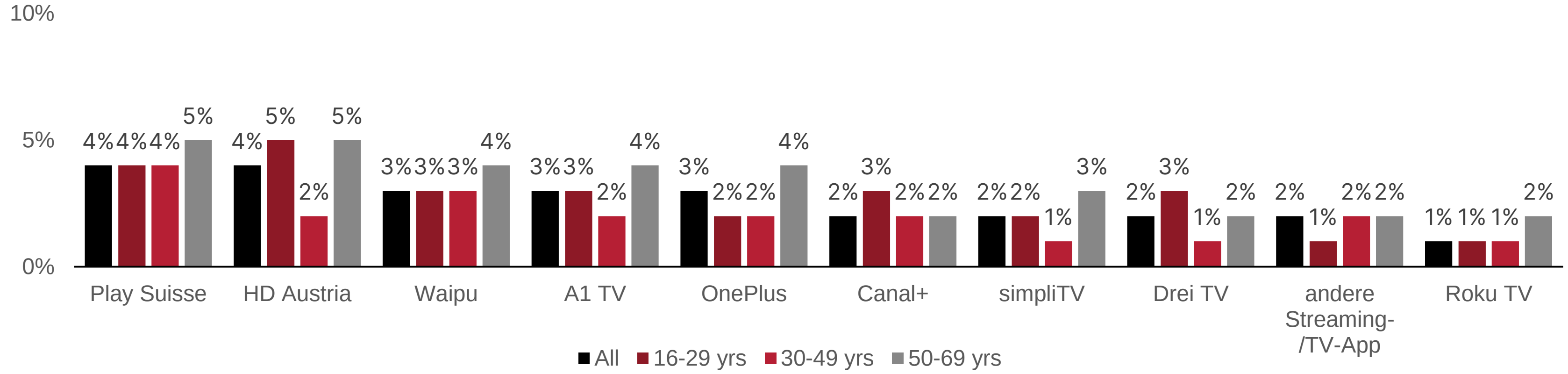
Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH who use apps on their internet-enabled TV set (n=1822)
Question: Which of the following specific apps do you use at least occasionally on your internet-enabled television?

APP USE

BROAD USE OF APPS OFFERED

USE OF APPS ON TELEVISION SETS, USER SHARE IN %





GOLDBACH

Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH who use apps on their internet-enabled TV set (n=1822)
Question: Which of the following specific apps do you use at least occasionally on your internet-enabled television?

APP USE

IN THE DACH REGION

Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH who use apps on their internet-enabled TV set (DACH: n=1822 / D: n=890 / A: n=451 / CH: n=481)
Question: Which of the following specific apps do you use at least occasionally on your internet-enabled television?

67%

of respondents in Switzerland use Netflix.

18-59%

Use of Amazon Prime Video - varies greatly between countries.

37%

use regional services such as ORF TVthek or ARD Mediathek.

REGIONAL DIFFERENCES IN USE

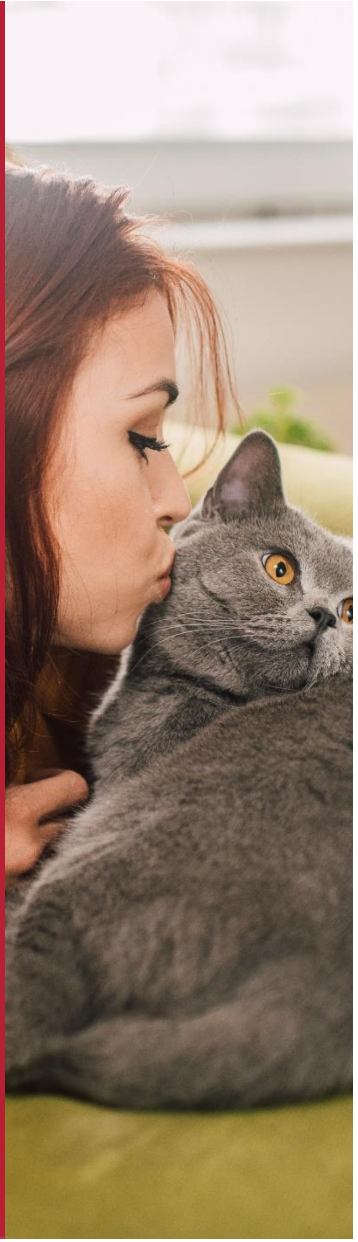
Netflix remains the dominant streaming app with usage rates between 59% and 67%, with the highest usage recorded in Switzerland.

YouTube shows a consistently high usage rate across all regions (54% to 56%).

Amazon Prime Video usage varies greatly between countries: from 18% in Switzerland to 59% in Germany. This shows the different market penetrations and preferences.

Disney Plus shows relatively constant usage across the DACH countries with a high of 35% in Germany and the lowest value of 27% in Switzerland.

Regional services such as ZDF Mediathek and ARD Mediathek in Germany (38% and 37% respectively), ORF Tvthek and Servus TV On in Austria (37% and 15% respectively) and Play SRF and Play Suisse in Switzerland (16% and 12% respectively) underline the importance of local content and providers.



LOCAL AND SPECIALIZED CONTENT IS BECOMING INCREASINGLY IMPORTANT

USE OF TV APPS ON TELEVISION SETS

TV app usage data in 2024 shows a diverse landscape of streaming and TV offerings. There are clear preferences for leading services such as Netflix and YouTube, but there are also significant country-specific differences. Women lean more towards entertainment and family content, while men favor sports and tech-related apps.

Age groups differ in their preference for streaming services, with younger users preferring a wide range of entertainment options, while older users favor news and local content. These insights are valuable for streaming service providers and advertisers, allowing them to develop and adapt target group-specific strategies. The data also underlines the importance of local content and specialized services in an increasingly fragmented media environment.

A revolution of the TV experience!

„Apps on CTVs are revolutionizing the TV experience by offering extensive content selection, customization and greater flexibility!"

Mario Neumann, Director Business Development, Goldbach Germany

MOTIVATION

MAIN MOTIVES FOR USING APPS ON THE CTV

80%

„Thanks to the apps, I'm much more flexible in terms of time.“

72%

„The apps allow me to relax in the best possible way.“

89%

„Thanks to the apps, I have a much wider choice of content and I can access content that I can't see on normal TV.“

78%

„Thanks to the apps, I can put together my own TV program and watch TV in a much more targeted way.“

63%

„Thanks to the apps, I can keep myself much better informed.“

69%

„Thanks to the apps on the CTV, I need fewer additional devices (e.g. tablet, laptop, smartphone, receiver, stick)."

CONCLUSION!

CONTENT & MOTIVATION

- ENTERTAINMENT APPS BY FAR THE MOST POPULAR
- NETFLIX AND YOUTUBE WITH HIGHEST UTILITY VALUES
- THE MAIN FEATURES ARE THE LARGE SELECTION OF CONTENT AND TEMPORAL FLEXIBILITY

GOLDBACH

WILLINGNESS TO PAY FOR APPS ON CONNECTED TV

3.0 VS. 2.5: FREE APPS ARE MORE POPULAR IN USE THAN PAID APPS

3,0

Average number of free apps per user.

3,2

Average number of free apps used by men.

3,3

Average number of free apps used by households of three or more people.

AVERAGE NUMBER OF FREE APPS PER USER

In this year's survey, respondents used an average of 3.0 free apps each - just over the number of paid apps each (2.8). With 3.2 apps each, men tend to use slightly more apps than women.

Younger age groups and 3+-person households show increased usage with 3.1 and 3.3 apps each, respectively, reflecting a preference for a wide range of paid and free content.
Households without children use an average of 2.9 free apps each, while households with children have a slightly higher rate of 3.2.

The number of free apps per user is 3.0 in Germany. Austria has a slightly lower average of 2.7, while Switzerland tops the list with 3.4 apps per user. These figures illustrate the acceptance and integration of free apps in the daily use of connected TV devices in the DACH region.

Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 who use apps on their internet-enabled TV set (n=1510, excl. don't know) Question: How many free apps do you use at least occasionally on your internet-enabled TV set?

ON AVERAGE, RESPONDENTS USE 2.5 PAID APPS ON A CONNECTED TV

AVERAGE NUMBER OF PAID APPS PER USER

The number of paid apps per user shows clear differences between the genders and age groups. With an average of 2.7 apps, women tend to use more paid apps than men. Young adults (16-29 years) lead the statistics with an average of 2.8 apps, while the number falls to 2.1 apps for older adults (50-69 year-olds). Family households and younger households also tend to have a higher number of paid apps.

There are also regional differences in the number of paid apps: Users in Switzerland lead with an average of 2.7 paid apps, closely followed by Germany with 2.6. Austria shows a lower tendency to use paid digital content with 2.2 apps.

Women and younger users tend to prefer more paid apps, with family households being particularly active.

2,8

paid apps are purchased by households with children and households with three or more people on average.

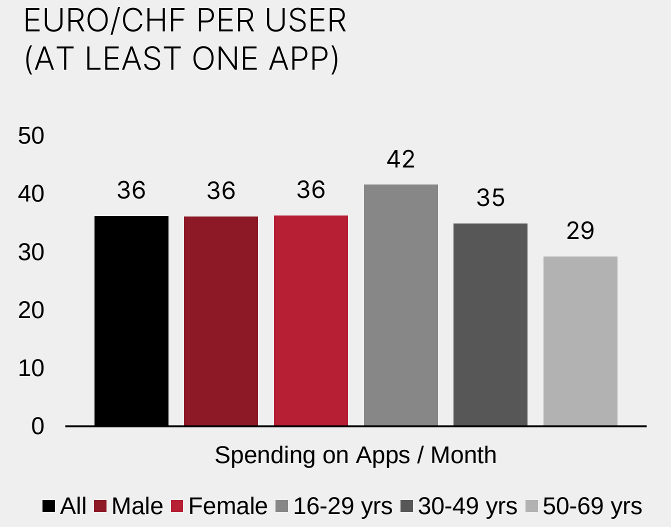
2,1

paid apps are purchased by 50-69 year-olds on average.

vs. 1.9 in 2023

Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 who use apps on their internet-enabled television set (n=1614, excl. don't know)
Question: How many paid apps do you use at least occasionally on your internet-enabled TV?

YOUNG USERS SPEND THE MOST ON APPS ON CONNECTED TV



SPENDING ON APPS ON CONNECTED TV BY DEMOGRAPHICS AND REGION

Spending on paid apps per user shows a clear age dependency, with the highest average figure among 16-29 year-olds (42 EUR/CHF) and the lowest spending among 50-69 year-olds with an average of 29 EUR/CHF. Gender-specific differences, on the other hand, are minimal.

Germany leads the DACH region with the highest monthly spending on apps (EUR/CHF 17), followed by Switzerland (EUR/CHF 14) and Austria (EUR/CHF 10). The higher expenditure in Germany and Switzerland could indicate a greater acceptance and appreciation of paid apps.

GERMANY

has the highest monthly expenses per app user.

Source: Goldbach Advanced TV Study 2024; basis: all respondents aged 16-69 who use apps on their internet-enabled television set (n=1367, excl. don't know)
Question: If you think about all the paid apps you use on your TV, how much do you pay in total per month?

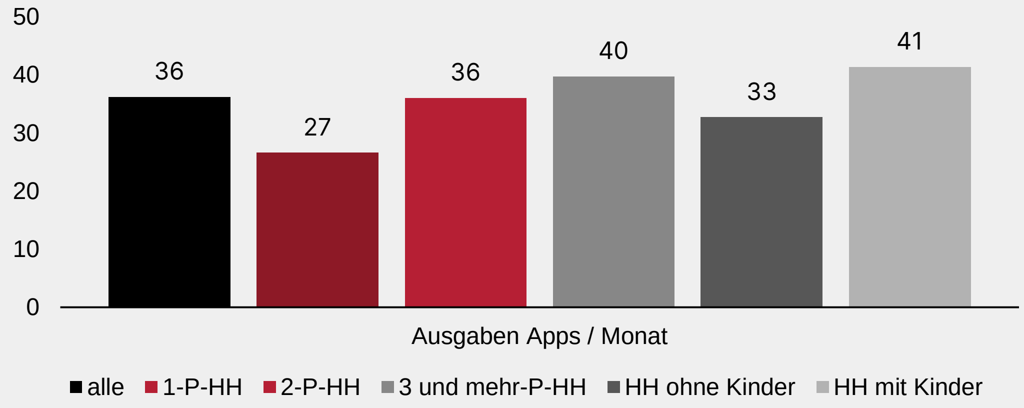
MULTI-PERSON HOUSEHOLDS AND HOUSEHOLDS WITH CHILDREN HAVE THE HIGHEST EXPENDITURE

41

EUR / CHF

monthly expenses per user in households with children.

EURO/CHF PER USER
(AT LEAST ONE APP)



SPENDING ON APPS ON A CONNECTED TV BY HOUSEHOLD TYPE

Monthly spending on apps varies significantly depending on the household constellation and the presence of children:

Households with children pay an average of EUR 41/CHF for paid apps, which is significantly higher than the average for all users surveyed (EUR 36/CHF). Larger households, and especially households with children, show an increased variety and number of paid apps, which indicates different usage patterns and needs.

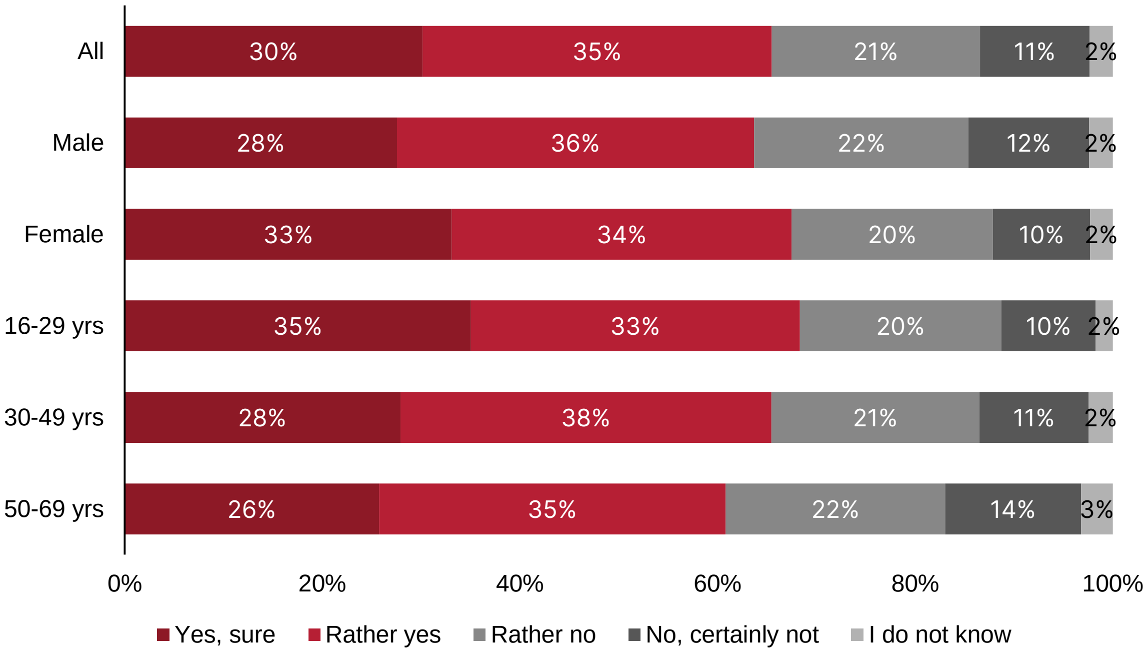
These findings are essential for the strategic planning and market launch of new apps , as they help develop targeted offers and align marketing efforts with preferences in individual countries.

Source: Goldbach Advanced TV Study 2024; Basis: all respondents aged 16-69 who use apps on their internet-enabled TV set (n=1367, excl. don't know) Question: If you think about all the paid apps you use on your TV set, how much do you pay in total per month?

ADVERTISING ACCEPTANCE

ACCEPTANCE OF ADVERTISING IN APPS

ACCEPTANCE OF ADVERTISING IN APPS, SHARE IN %



68%

of the 16-29 age group would accept advertising in order to receive content free of charge.

2/3

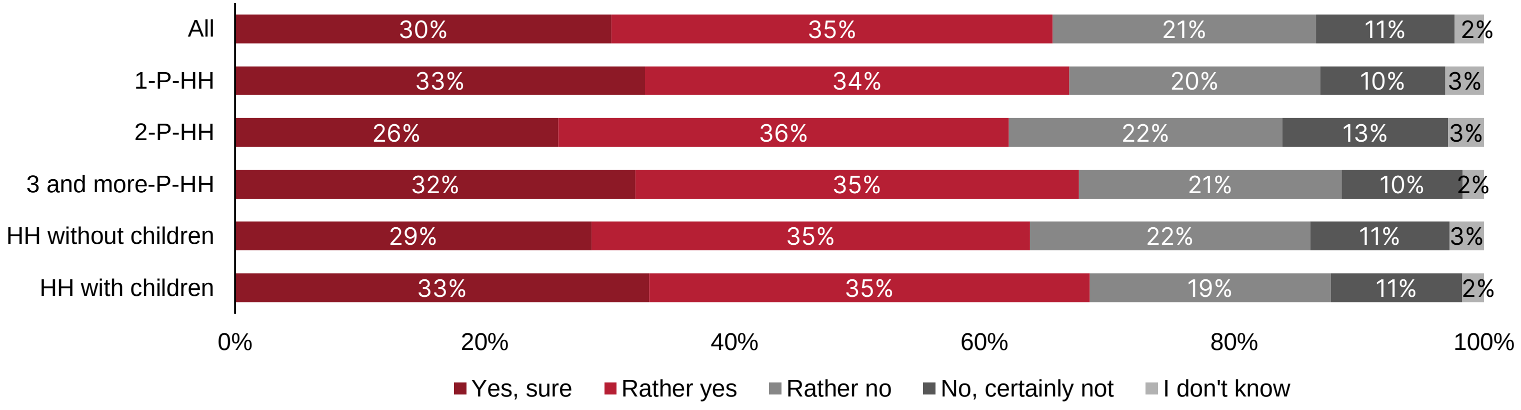
users would accept advertising in order to receive content free of charge.

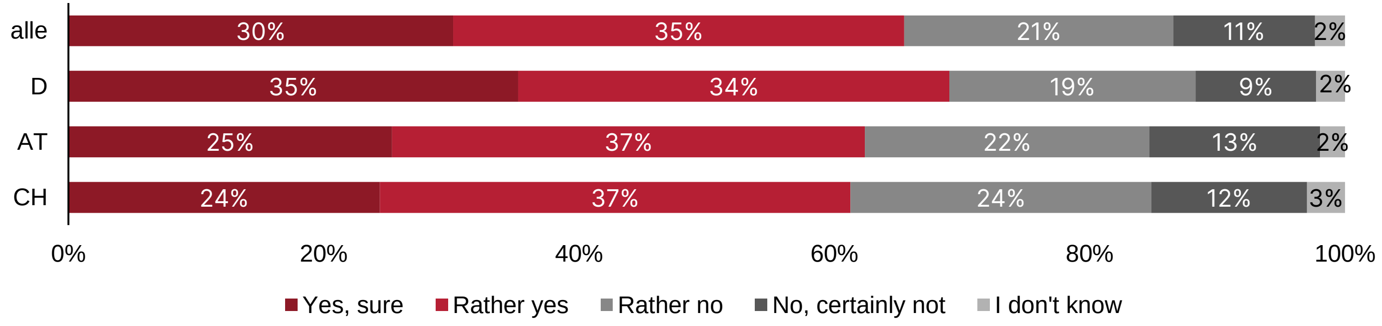
Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH who use at least 1 paid app (n=1480)
Question: When you think about your paid apps, would you accept advertising if you could view the content for free?

GOLDBACH

ADVERTISING ACCEPTANCE

ACCEPTANCE OF ADVERTISING IN APPS, SHARES IN %





GOLDBACH

Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH who use at least 1 paid app (DACH: n=1480 / D: n=752 / A: n=359 / CH: n=396) Question: When you think about your paid apps, would you accept advertising if you could view the content for free?

The data shows how different household constellations and the presence of children influence the acceptance of advertising in apps: Interestingly, one-person households show a slightly higher definite acceptance rate (33%) than two-person households, with the lowest "yes, sure" rate at 26%. Households with three or more people have a definite acceptance rate of 32%. Households without children express a slightly lower definite approval of advertising in apps at 29% compared to households with children, who show an approval rate of 33% if they could obtain content for free.

The data also shows remarkable country-specific differences:
While an average of 30% of users in the region would accept advertising in apps with "yes, certainly", Germany has a significantly higher definitive acceptance rate of 35%. Austria follows this with a definite acceptance rate of 25% and a tendency towards approval ("rather yes") of 37%. Switzerland has similar figures to Austria, with 24% definite approval and 37% tending to approve. Skepticism towards advertising in apps ("rather no" and "no, definitely not") is most pronounced in Switzerland, with 24% and 12%, respectively. Austria follows with 22% and 13% skepticism, respectively, while Germany shows the least skepticism (19% and 9%). On average, only 11% of users definitively reject advertising.

56% OF USERS WOULD ACCEPT ADVERTISING, IF THE CONTENT WAS CHEAPER

ACCEPTANCE OF ADVERTISING IN PAID APPS IF THEY BECOME CHEAPER THROUGH ADVERTISING

While approval of advertising in paid apps is relatively uniform across all age groups if they become cheaper through advertising, men show a slightly higher tendency towards acceptance. Women, on the other hand, show higher definitive approval. In the 30-49 age group, the tendency towards acceptance is most pronounced at 57%.

The acceptance of advertising in paid apps, when these become cheaper through advertising, depends on household size and child status, with a generally higher acceptance in larger households and those with children.

Germany shows the highest acceptance of paid apps offered at a lower price through advertising, while Austria and Switzerland have greater reservations.

Overall, approval of advertising predominates. In comparison, acceptance of advertising is slightly higher for content provided free of charge (65%) than if the content was merely provided more cheaply through advertising (56%).

61%

of users in Germany would vote in favor of advertising in paid apps if they could get the content for less.

60%

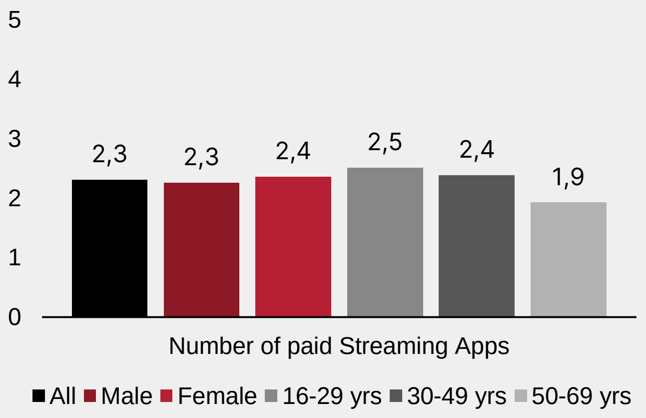
of households with children would accept advertising if they received the content for less

Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH who use at least 1 paid app (n=1480) Question: When you think about your paid apps, would you accept advertising if you could watch the content for less?

WILLINGNESS TO PAY FOR STREAMING APPS

Ø 2.3
PAID STREAMING APPS PER USER

NUMBER OF CHARGEABLE STREAMING APPS PER USER

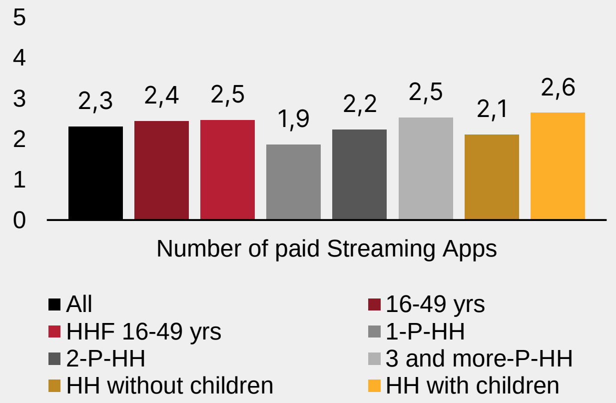


YOUNGER USERS PAY MORE FOR STREAMING APPS

The analysis of age groups shows that younger users aged 16-29 use an average of 2.5 streaming apps, which is the highest usage among all age groups. The 30-49 age group follows closely behind with an average of 2.4 apps. In the 50-69 age group, the number drops to an average of 1.9 apps per user, which indicates that the use of paid streaming services is less widespread in this age group.
An analysis by household type shows that one-person households use an average of 1.9 streaming apps. In two-person households, the average is 2.2, while households with three or more people have the highest average number with 2.5 apps.

An interesting observation is that households without children use an average of 2.1 paid streaming apps, while households with children have the highest average with 2.6 apps.

NUMBER OF CHARGEABLE STREAMING APPS PER USER



Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 who use streaming apps on their internet-enabled television set (n=1363, excl. don't know)
Question: How many paid streaming apps do you use at least occasionally on your internet-enabled TV?

THE MAJORITY OBTAIN THEIR STREAMING APPS VIA INDIVIDUAL SUBSCRIPTION

82%

of men use streaming apps with a single subscription.

PREFERENCE FOR STREAMING APPS SUBSCRIPTIONS

The majority of users (79%) prefer individual subscriptions for streaming apps. At 82%, men are slightly more inclined towards individual subscriptions than women, 75% of whom state that they prefer individual subscriptions.

19% of the total prefer combined subscriptions that bundle several services, with women showing a stronger preference for such offers (22%) than men (16%). The 16-29 age group shows the highest preference for combined subscriptions at 21%, while preferences in the 30-49 and 50-69 age groups are relatively similar (18% each).

Individual subscriptions dominate across all household constellations, with a slight preference in single-person households. Combined subscriptions are more popular in larger households and those with children.

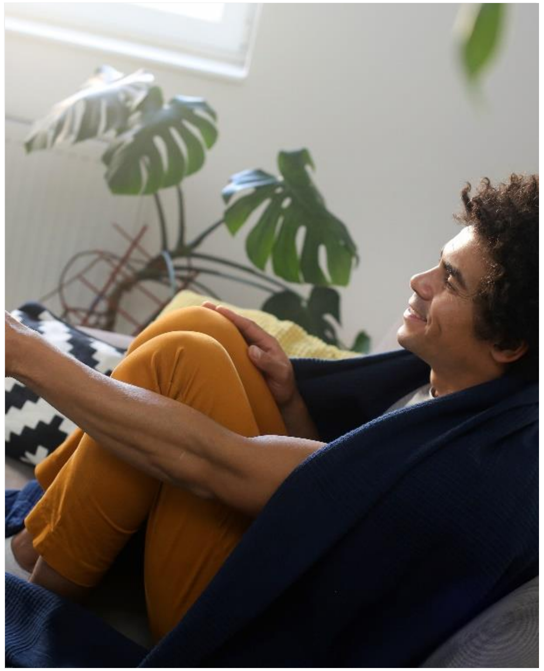
82%

of single-person households use streaming apps with a single subscription.

78%

of households with 3 or more people use streaming apps with a single subscription.

Ø 2.3 FREE STREAMING APPS PER USER



NUMBER OF FREE STREAMING APPS PER USER

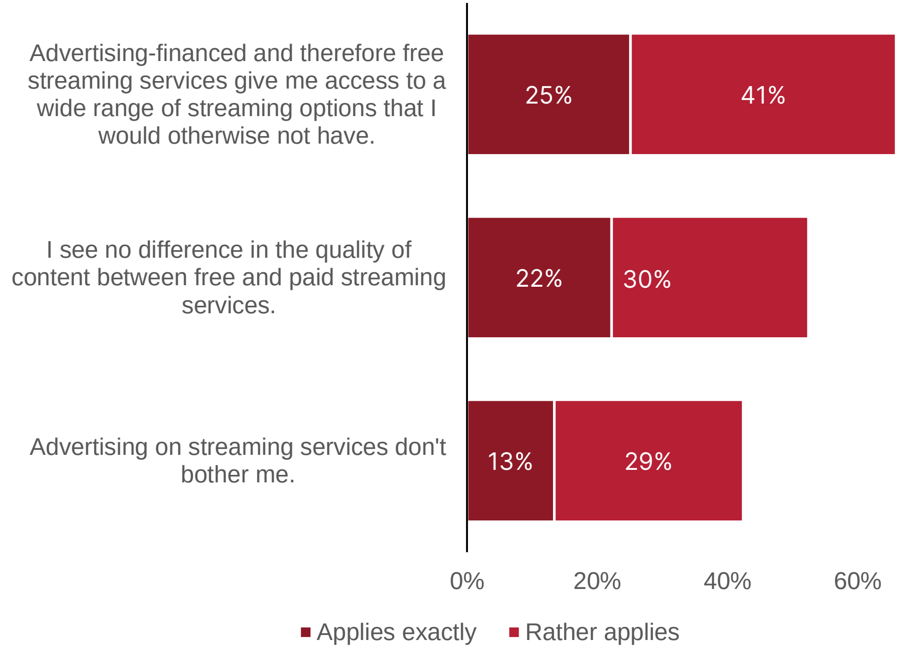
In this year's survey, users use an average of 2.3 free streaming apps. Men use slightly more of these apps (2.4 on average) compared to women, who use an average of 2.2 free streaming apps.

Interestingly, there are only slight differences in usage by age group. Both the youngest age group of 16- 29-year-olds and the oldest group of 50-69-year-olds use an average of 2.2 and 2.4 free streaming apps, respectively. The 30-49 age group also shows an average usage of 2.4 apps, which indicates that interest in free streaming services is high across all age groups.

The use of free streaming apps is relatively evenly distributed across gender and age, with men and the 30-49 and 50-69 age groups showing slightly higher average values. These findings could indicate that interest in free streaming services is broadly diversified and does not vary significantly according to demographic characteristics.

52% DO NOT PERCEIVE A DIFFERENCE IN QUALITY BETWEEN FREE AND PAID STREAMING SERVICES

SETTINGS FREE STREAMING APPS, APPROVAL IN %



TWO-THIRDS HIGHLY VALUE FREE STREAMING OFFERS

Users' attitudes towards free streaming apps reveal interesting perspectives on consumer behavior and the acceptance of ad-financed content:

Quality perception:
22% of users see no difference in the quality of content between free and paid streaming services ("strongly agree"), while a further 30% tend to agree with this statement. More than half of users, therefore, feel that the form of financing (ad-financed vs. subscription) does not necessarily determine the quality of the content.

Access to streaming services:
A significant proportion of users (25% "strongly agree" and 41% "somewhat agree") see ad-financed, free streaming services as a valuable offer that gives them access to a wider range of content. This view underlines the added value of free streaming options for users and their willingness to accept advertising in return.

GOLDBACH

Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH who use free streaming apps on their internet-enabled TV set (n=1099) Question: To what extent do you agree with the following statements regarding free/advertising-financed streaming apps in the additional functions of your internet-enabled TV set?

CONCLUSION!

WILLINGNESS TO PAY

- MORE FREE THAN PAID (STREAMING) APPS IN USE
- 36 EUR/CHF: MONTHLY EXPENDITURE FOR PAID APPS
- ADVERTISING IN THE CTV ENVIRONMENT IS ACCEPTED

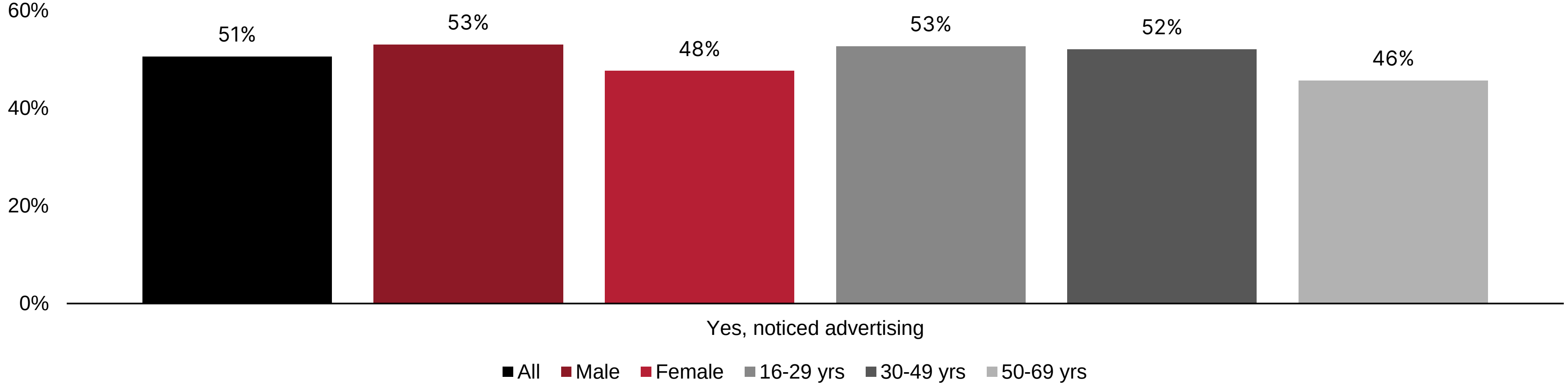
ADVERTISING PERCEPTION ON CONNECTED TV DEVICES

ADVERTISING PERCEPTION

OVER 50% OF CTV USERS WATCH ADVERTISING

On average, 51% of all respondents notice advertising in the additional functions of their connected TVs - more than half are therefore attentive in front of the connected TV and notice the advertising in the CTV environment.
With a rate of 53%, men are above the average, which indicates a slightly higher sensitivity or attention to advertising content in this group.
Young adults (16-29 year-olds) have one of the highest awareness rates at 53%, which underlines their commitment and openness to new technologies and advertising formats.

VALUE PERCEPTION IN THE ENVIRONMENT OF THE ADDITIONAL FUNCTIONS, SHARES IN %



GOLDBACH

Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH who use the additional functions on a connected TV (n=1962)
Question: Have you ever noticed advertising around the additional functions of your internet-enabled TV set?

ADVERTISING IN THE CTV ENVIRONMENT IS BECOMING INCREASINGLY POPULAR

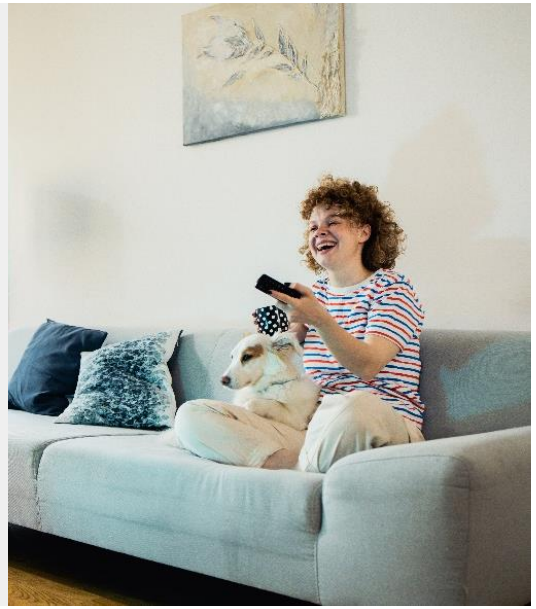
+5% VS. 2023

Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH who use the additional functions on a connected TV (n=1962) Question: Have you ever noticed advertising around the additional functions of the internet-enabled TV set?

48%

of women have seen advertising in the CTV environment.

+7% vs. 2023



53%

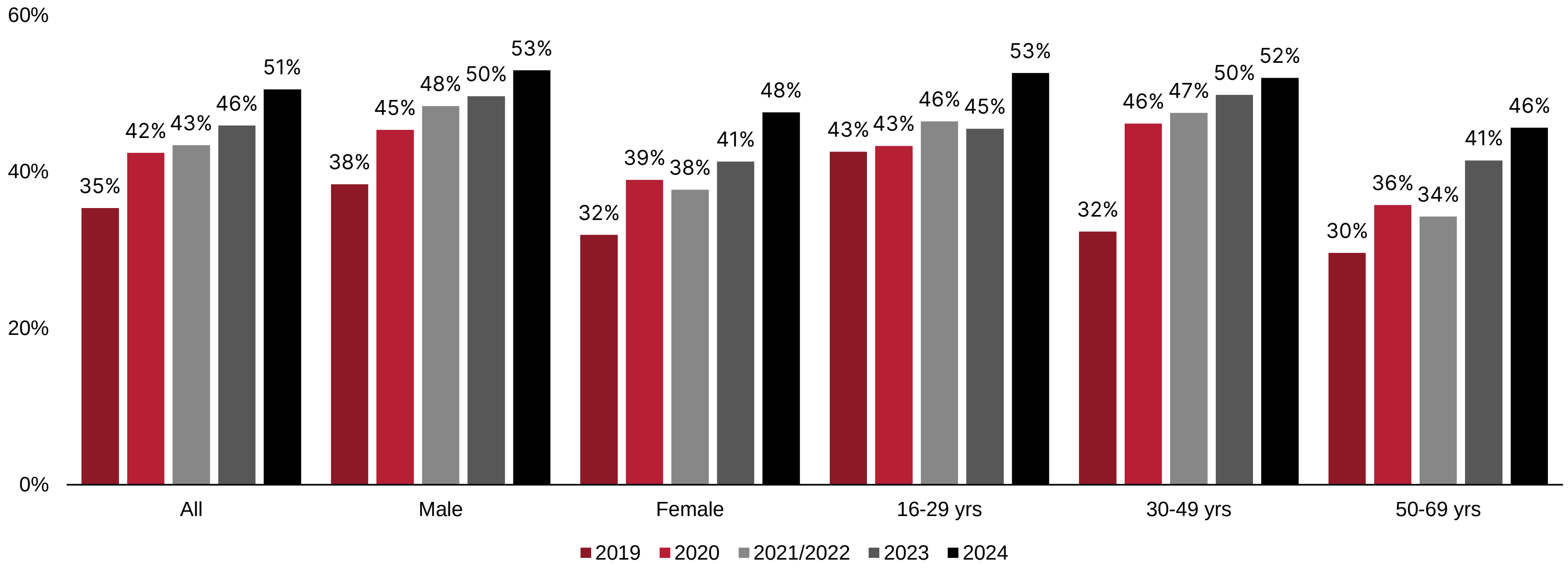
of 16-29 year-olds have seen advertising in the CTV environment.

+8% vs. 2023

ADVERTISING PERCEPTION

DEVELOPMENT OF ADVERTISING PERCEPTION 2019-2024

VALUE PERCEPTION IN THE ENVIRONMENT OF THE ADDITIONAL FUNCTIONS, SHARES IN %



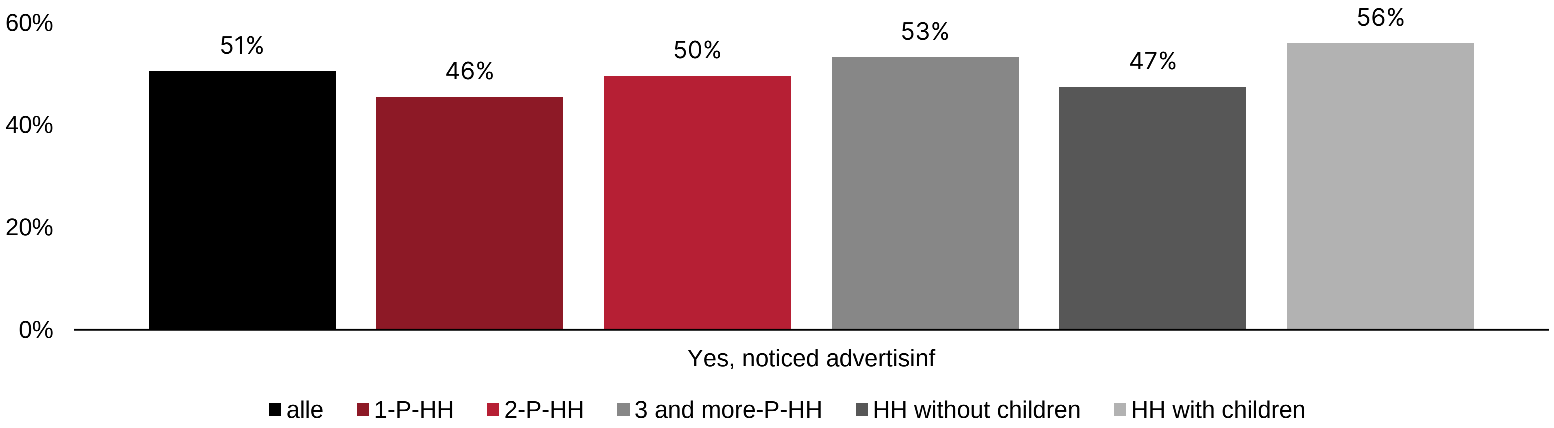
GOLDBACH

Source: Goldbach Advanced TV Study 2019-2024, basis: all respondents aged 16-69 in DACH who use the additional functions on a connected TV (n=1962)
Question: Have you ever noticed advertising around the additional functions of your internet-enabled TV set?

ADVERTISING PERCEPTION

PERCEPTION AT HOUSEHOLD LEVEL AND IN AGE GROUPS

VALUE PERCEPTION IN THE ENVIRONMENT OF THE ADDITIONAL FUNCTIONS, SHARE IN %



56%

of households with children see advertising in the CTV environment

In terms of advertising perception, households with three or more people and households with children stand out again: The former have an above-average perception rate of 53%, while in households with children, the perception rate is highest at 56%, underlining the particular attention this group pays to advertising in the additional functions.

In a country comparison, Germany leads with the highest level of attention (54%), followed by Austria (48%) and Switzerland (45%).

These findings underline the importance of CTV advertising as an effective channel in digital marketing that reaches and activates a broad user base.

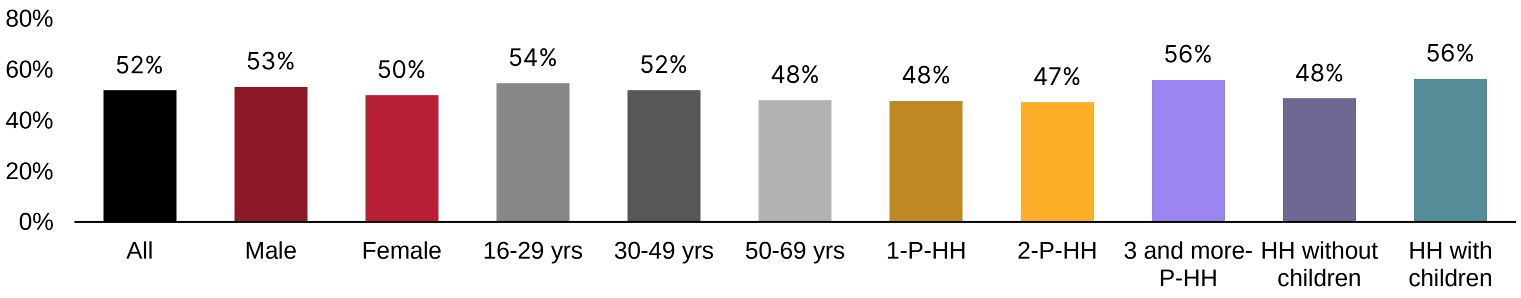
GOLDBACH

Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH who use the additional functions on a connected TV (DACH: n=1962 / D: n=942 / A: n=492 / CH: n=528)
Question: Have you ever noticed advertising in the environment of the additional functions of the internet-enabled TV set?

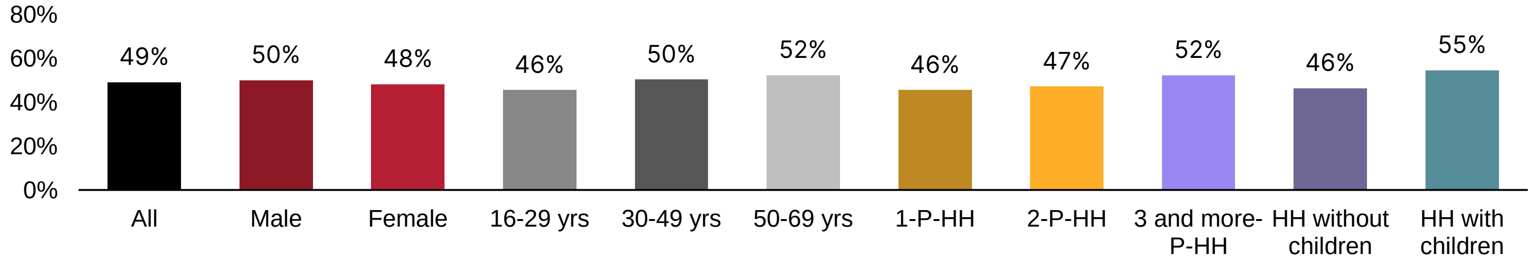
ADVERTISING ON CTV REACHES AND ACTIVATES A BROAD USER BASE

ADVERTISING ACCEPTANCE

I FIND ADVERTISING IN THE ADDITIONAL FUNCTIONS OF MY CONNECTED TV COMPLETELY OKAY (AGREEMENT IN %)



ADVERTISING SOMETIMES GIVES QUITE USEFUL INFORMATION ABOUT NEW PRODUCTS (AGREEMENT IN %)



52%

think advertising is perfectly fine.

More than half of connected TV users find advertising in the CTV environment acceptible: at 56%, this is most pronounced in the target groups of households with children and households with 3 or more people.
The age group where it is most acceptable for advertising in the CTV environment is highest among 16-29 year-olds.

Similarly, when asked whether advertising provides useful information about new products, 55% of households with children confirmed this. This was followed by households with three or more people (52%) and 50-69 year olds (52%). It is interesting to note that older age groups derive more useful information from the advertising they see than younger age groups.

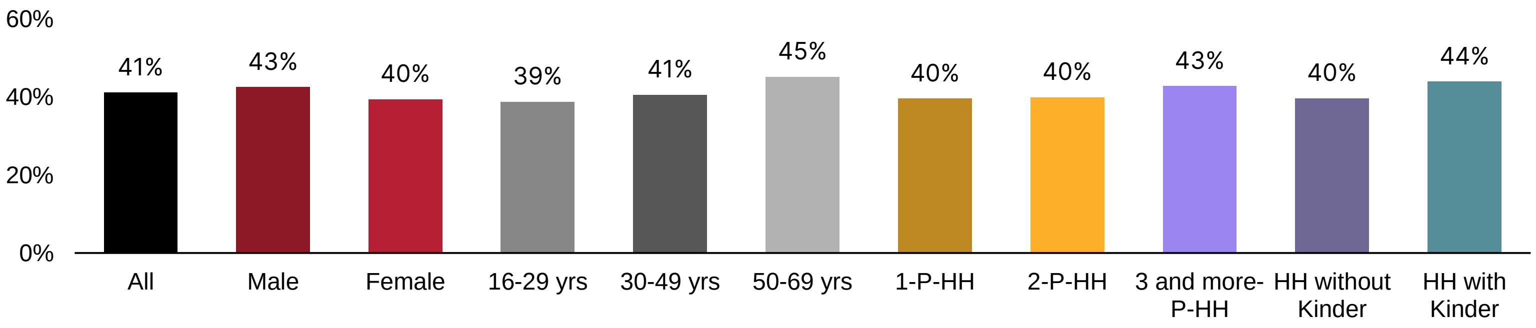
Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH who use the additional functions on a connected TV (n=1962) Question: To what extent do you agree with the following statements regarding advertising in the additional functions of your internet-enabled TV set? ("strongly agree" / "somewhat agree")

ADVERTISING ACCEPTANCE

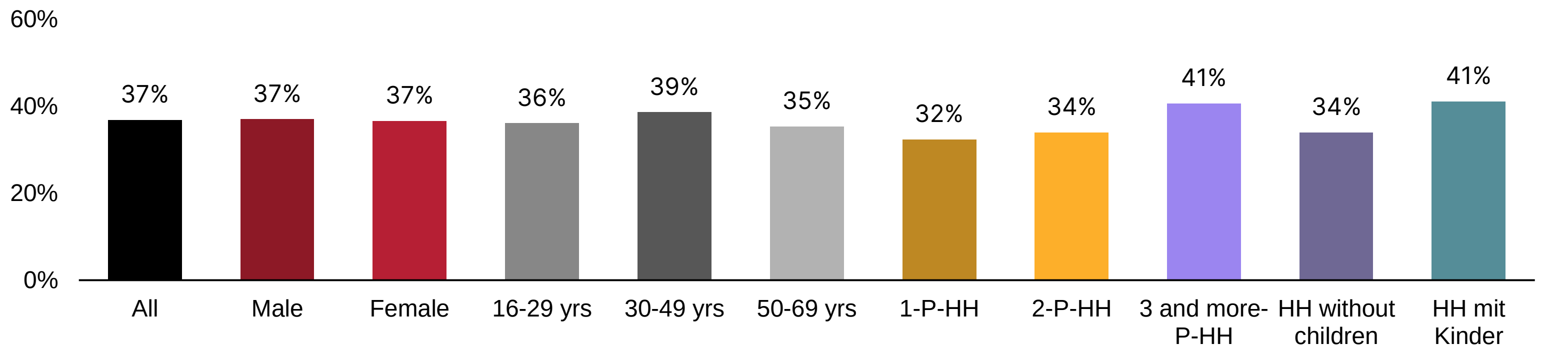
Approx. **40%**

find advertising helpful & informative

ADVERTISING IS ACTUALLY QUITE HELPFUL FOR THE CONSUMER (AGREEMENT IN %)



ADVERTISING IS USUALLY QUITE INFORMATIVE (AGREEMENT IN %)



Over 40% of respondents believe that advertising in the connected TV environment is helpful for consumers. At 44%, this is most pronounced in households with children.
In different age groups, the target group of 50-69 year-olds even perceives CTV advertising as helpful at 45%. These high figures, therefore, offer valuable approaches for target group-specific advertising strategies in the CTV environment.

When asked whether the advertising was informative, 41% of households with children and households with three or more people agreed. The target group of 30-49 year-olds had the highest level of agreement at 39%.

GOLDBACH

Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH who use the additional functions on a connected TV (n=1962) Question: To what extent do you agree with the following statements regarding advertising in the additional functions of your internet-enabled TV set? ("strongly agree" / "somewhat agree")

ADVERTISING PERCEPTION

ENTERTAINMENT VALUE AND RELEVANCE OF CTV ADVERTISING

41%

of households with children find advertising entertaining.

41%

of households with children remember advertising.

1/3

respondents consider advertising to be relevant to them.

1/3

respondents inform themselves about a brand they have seen.

ADVERTISING PERCEPTION

ADVERTISING RECALL AND INCENTIVE TO BUY THROUGH CTV ADVERTISING

41%

of households with children talk to friends about advertising on CTV.

41%

of households with children watch the advertising carefully.

For almost **30%** advertising leads to the purchase of products

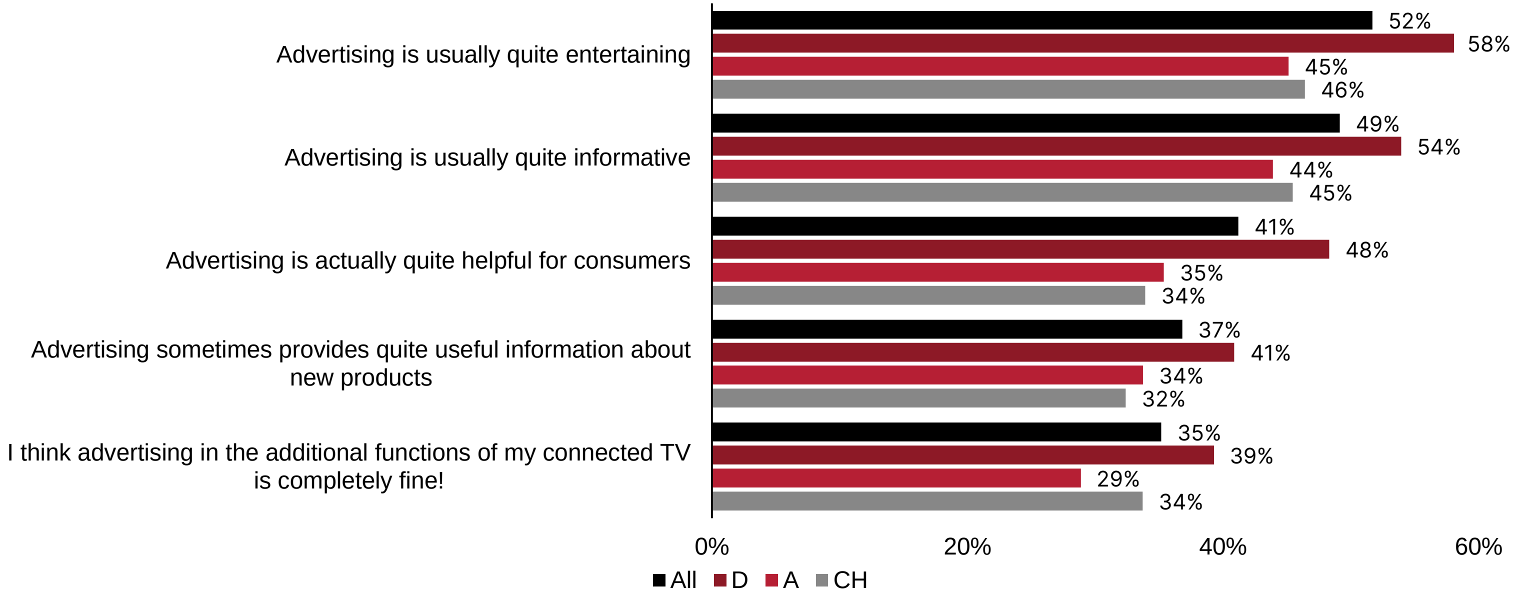
Households with children

consistently have the greatest advertising perception and acceptance.

COUNTRY COMPARISON

GERMANY HAS THE HIGHEST RATINGS OF VALUE PERCEPTION

APPROVAL IN %



Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH who use the additional functions on a connected TV (n=1962) Question: To what extent do you agree with the following statements regarding advertising in the additional functions of your internet-enabled TV set? ("strongly agree" / "somewhat agree")

GOLDBACH

A country comparison shows that users in Germany show the strongest reaction to advertising in additional functions of connected TVs, with the highest advertising impact in all categories surveyed:

Acceptance of advertising: An impressive 58% of respondents in Germany find advertising in the additional functions of their connected TV perfectly acceptable, compared to 46% of CTV users in Switzerland and 45% in Austria.

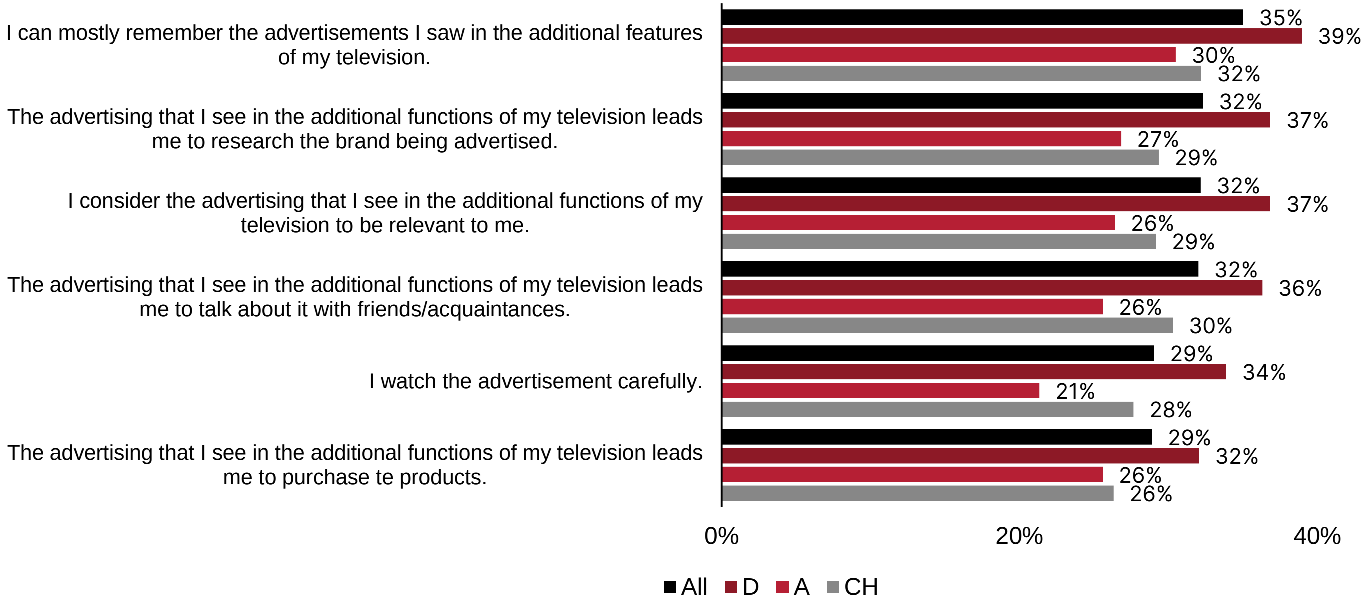
Informative advertising: 48% of Germans consider advertising to be helpful for the consumer, only 34% of respondents in Switzerland and 35% in Austria agreed.

54% of Germans stated that advertising in the CTV environment **provides useful information**. Only 45% of respondents in Switzerland and 44% in Austria said the same.

COUNTRY COMPARISON

GERMANY HAS THE HIGHEST RATINGS IN VALUE PERCEPTION

APPROVAL IN %



Source: Goldbach Advanced TV Study 2024, basis: all respondents aged 16-69 in DACH who use the additional functions on a connected TV (n=1962) Question: To what extent do you agree with the following statements regarding advertising in the additional functions of your internet-enabled TV set? ("strongly agree" / "somewhat agree")

Advertising recall: 39% of respondents in Germany can remember the advertising, 32% in Switzerland and 30% in Austria.

Information procurement: 37% of respondents in Germany find out more about a brand after seeing an advertisement for it on CTV. This figure is 29% in Switzerland and 27% in Austria.

The attentive viewing of advertising on connected TV varies between highs of 34% in Germany, 28% in Switzerland and 21% in Austria.

Incentive to buy: Here too, Germany is ahead with 32%. In Switzerland and Austria, 26% of respondents stated that CTV advertising leads to purchase decisions.

Advertising on CTV is becoming more and more effective!

„CTV advertising shows significant influences on consumer behavior, from the stimulation of purchases to the promotion of interactions and conversations to conscious perception and awareness. The data proves that CTV as an advertising platform plays a relevant role in the marketing mix and offers particular potential in addressing and activating target groups.“

Mario Neumann, Director Business Development, Goldbach Germany

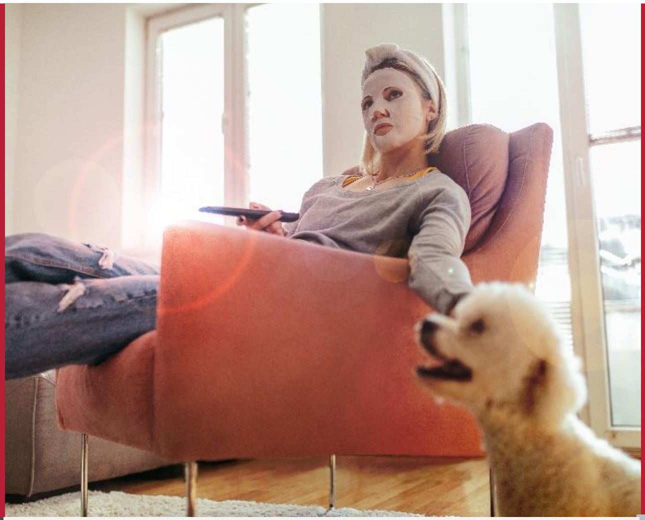
GOLDBACH

CTV SPOTS

AWARENESS OF THE CTV ADVERTISING SYSTEMS

44%

are aware of CTV commercials



26%

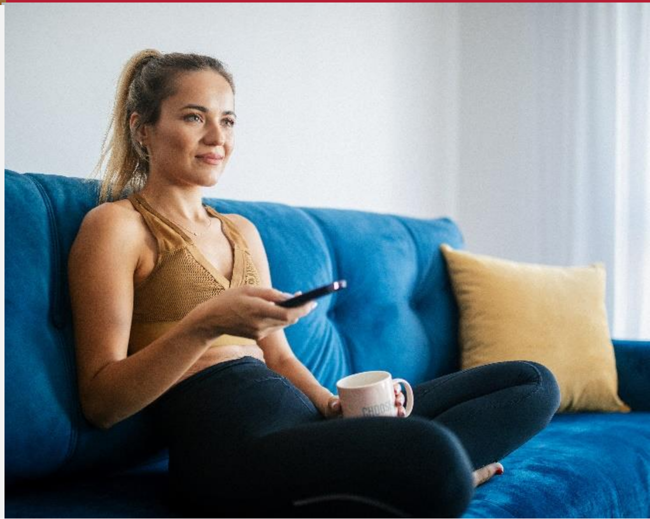
feel that CTV spots are an incentive to buy

58%

of respondents are familiar with CTV commercials

30%

interact with the advertised brand (e.g. visit store or website, scan QR code, click red button)



CTV ADS

AWARENESS OF THE CTV ADVERTISING SYSTEMS

33%

consciously perceive CTV ads

23%

feel an incentive to buy through CTV ads

52%

of respondents stated that they know CTV ads

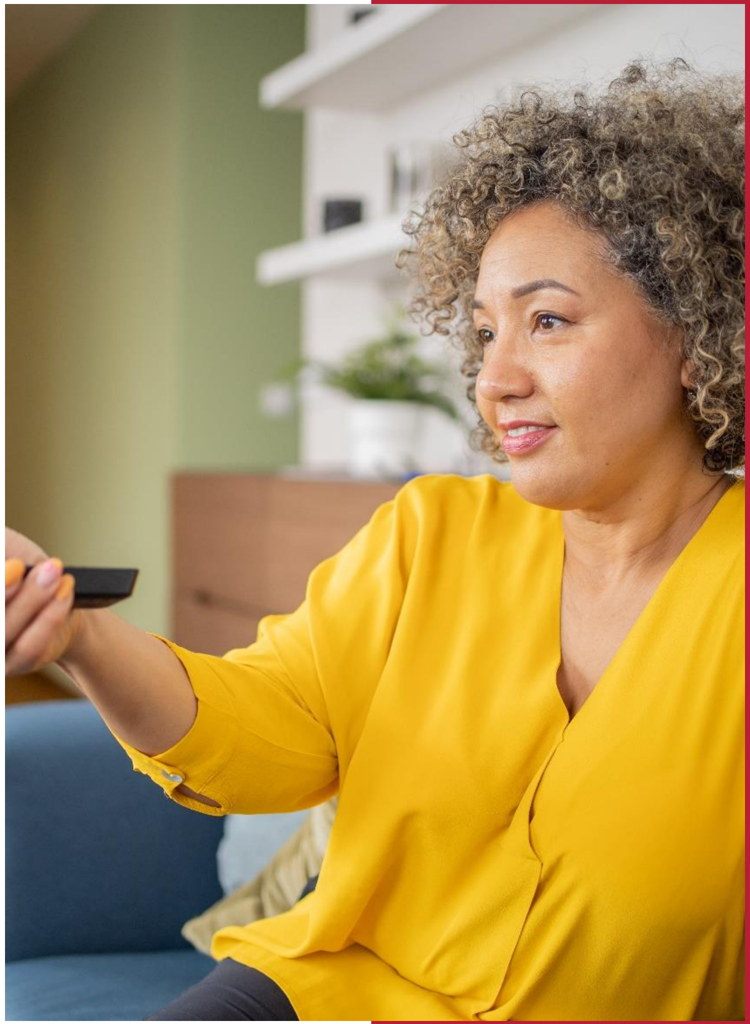
27%

interact with the advertised brand (e.g. visit store or website, scan QR code, click Red Button)

CONCLUSION!

ADVERTISING PERCEPTION

- ADVERTISING PERCEPTION IN THE CTV ENVIRONMENT CONTINUES TO RISE
- ADVERTISING IN THE CTV ENVIRONMENT IS ACCEPTED AND HAS AN ACTIVATING EFFECT
- CTV SPOTS AND CTV ADS ARE RECOGNIZED FORMS OF ADVERTISING AMONG USERS



KEY FACTS
ADVANCED TV STUDY 2024

KEY FACTS 2024

1

CTV HAS FIRMLY ESTABLISHED ITSELF IN MEDIA USAGE: VIEWING TIME ALMOST ON PAR WITH LINEAR TV

16-69 year-olds spend almost 2.5 hours a day using the additional functions on CTV. This means that linear and non-linear content on the big screen is now consumed for nearly the same amount of time. 16-29 year-olds lead with almost 3 hours a day and thus spend even more time with CTV than with classic linear TV programs. Incidentally, the same applies here as for linear TV consumption: on average, 2.2 people sit together in front of the TV set. CTV is, therefore, a classic one-to-many medium.

2

VIDEO CONSUMPTION VIA STREAMING ONLY IS GROWING: ALREADY, 27% ARE CORD-CUTTERS IN THE DACH REGION

Two-thirds of respondents have at least one internet-enabled TV set at home. Of these, 91% are also connected to the internet. Due to the connectivity of TV sets, 52% of respondents start their consumption on the big screen via a device-specific user interface and no longer in the current program. 27% of respondents in the DACH region only use CTV for their video consumption on the big screen. These so-called cord-cutters do not have access via conventional reception channels but transmit video content via internet/web TV or IPTV.

3

STABLE USE: 50% USE CTV WEEKLY

Half of those surveyed stated that they use connected TV on a weekly basis, while a quarter of 16-69 year-olds even use CTV on a daily basis. In particular, 16-49 year-olds, households with three or more people and households with children have discovered the medium for themselves.

KEY FACTS 2024

4 FREE CONTENT PREFERRED: TWO-THIRDS WOULD ACCEPT ADVERTISING

CTV impresses users with its large selection of content and high level of flexibility, as well as the option to be your own program director. Streaming apps are by far the most popular, followed by TV channels, music and sports apps. On average, users prefer to use free apps rather than paid apps. Two thirds of users would also put up with advertising if they could watch the content for free - a statement that has increased compared to last year.

5 GREAT POTENTIAL FOR ADVERTISERS: ADVERTISING ON CTV IS BECOMING INCREASINGLY EFFECTIVE

Advertising awareness in the connected TV environment has risen by +10% to 51% compared to the previous year. Viewers aged 16-49 and households with children are particularly attentive. The acceptance of advertising is also increasing: 52% find advertising on CTV perfectly acceptable, almost 50% find advertising provides useful information about new products, 40% find advertising helpful and 37% find it informative. 35% agree that they remember advertising on CTV, almost a third find out more about the advertising they have seen, talk to friends about it or buy the product they have seen afterwards. With regard to the specific forms of advertising "connected TV spots" and "connected TV ads", it is clear that over half of the people surveyed are familiar with these two forms of advertising (CTV spots: 58% / CTV ads: 52%). connected TV spots (44%) are perceived somewhat more consciously than connected TV ads (33%).

THANK YOU
WITH PASSION

DEUTSCHLAND

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