



Study on the exposure of minors to alcohol advertising on linear and non-linear audio-visual media services and other online services, including a content analysis

Final Report

FINAL REPORT

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List of abbreviations

AT	Austria
AV	Audio-visual
AVMSD	Audio-visual Media Services Directive
BARB	British Audience Research Bureau
BE	Belgium
BG	Bulgaria
CAWI	Computer Assisted Web Interviewing
CZ	Czech Republic
DE	Germany
DGP	Digital Guiding Principles
DK	Denmark
EAHF	European Alcohol and Health Forum
EASA	European Advertising Standards Alliance
EC	European Commission
EE	Estonia
EL	Greece
ES	Spain
EU	European Union
FI	Finland
GRP	Gross Rating Points
GDP	Gross Domestic Product
HR	Croatia
HU	Hungary
IARD	International Alliance for Responsible Drinking
IE	Ireland
IT	Italy
IP	Internet Protocol
LPA	Legal Purchasing Age
LT	Lithuania
LV	Latvia
NL	The Netherlands
PBS	Public Broadcasting Service
PL	Poland
PT	Portugal
Rat	Rating
RMP	Responsible Marketing Pact
RO	Romania
SI	Slovenia
SK	Slovakia
SRO	Self-regulatory Organisation
TV	Television
TWFD	Television Without Frontiers Directive
UK	The United Kingdom
URL	Uniform Resource Locator
WFA	World Federation of Advertisers

Glossary

Age-gating

Age-gating allows brands to restrict access to their content and/or profile specific online services in such a way that only people who are over the legal purchasing age can view that content or follow their profiles.

Alcohol advertising

Commercial communications that are controlled by alcohol brand advertisers. This means that, by definition, user-generated content was not considered alcohol advertising for the purpose of this study.

Alcopop

An alcopop is a (often sweet) flavoured alcoholic beverages with a low alcoholic content which may be premixed or composed from distilled alcohol with added ingredients such as fruit juices or other flavourings¹.

Children channel

A television channel broadcasting programmes that are mainly targeted at children.

Cookies

Cookies are small files designed to hold specific data to a particular client and website which allows the server to deliver a page tailored to that client².

Forward advice notice

A Forward Advice Notice is a note clearly stating that content should not be forwarded to anyone to whom this content is not (legally) appropriate.

General channel

A television channel broadcasting programmes that are not mainly targeted at children.

GfK/Dentsu Aegis data

The GfK/Dentsu Aegis data consisted of:

- general viewing pattern data (by hourly timeslot); and
- spotlist data measuring advertising impacts.

Both the general viewing pattern data and the spotlists were collected for each of the nine selected Member States in this study and cover the full 24 hours during the full year 2013.

Gross Rating Points (GRP)

GRP can be interpreted as the total number of times an advertising spot was seen in either absolute terms (GRP(000)) or as a percentage of the target group (GRP%). Hence, GRP measure the exposure to alcohol advertising, which is referred to as 'alcohol impacts' throughout this report.

¹ <http://www.encyclo.nl/begrip/Alcopop>.

² <http://www.whatarecookies.com/>.

Hashtag

A hashtag is a word or phrase prefixed by a '#' and is used on social media sites. The combination of the word/phrase and the hash sign help to easily identify messages on a specific topic.

(Alcohol) impact

Impact is a measure of how often a spot is viewed: it yields the absolute number of times a spot was seen over a given timeframe. This is also referred to as the number of impressions.

Linear audio-visual media services³

Television broadcasting, that is, "an audio-visual media service provided by a media service provider for simultaneous viewing of programmes on the basis of a programme schedule".

Minor

An individual below 18 years of age.

Mid-roll

Mid-rolls are short advertisement clips, usually not longer than 60 seconds, which are shown during the viewing of a YouTube video.

Non-linear audio-visual media services⁴

On-demand audio-visual media services, that is, "an audio-visual media service provided by a media service provider for the viewing of programmes at the moment chosen by the user and at his individual request on the basis of a catalogue of programmes selected by the media service provider."

Online-participation

The encouragement that someone actively engages in a marketed and recommended associated website displayed in the advertisement.

Other online service

Those online services that are currently not covered by the AVMSD, such as social media and websites.

Pre-roll

Pre-rolls are advertisement clips, varying from 10 seconds to multiple minutes, which are shown at the start of viewing a YouTube video. If the pre-roll is longer than 60 second, users can skip the advertisement after a certain time.

³ Definition as provided in the Directive 2010/13/EU of the European Parliament and the Council of 10 March 2010 on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the provision of audio-visual media services (Audio-visual Media Services Directive).

⁴ Definition as provided in the Directive 2010/13/EU of the European Parliament and the Council of 10 March 2010 on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the provision of audio-visual media services (Audio-visual Media Services Directive).

First, second and third recall

The results of the survey that was conducted as part of this study, include information on what we refer to as first, second and third recall:

First recall refers to the latest alcohol advertisement a minor recalled to have seen online and was able to describe.

Second recall refers the second advertisement a minor recalled to have seen online and was able to describe.

Third recall refers to the third advertisement a minor to recall to have seen online and was able to describe.

Rating (rat)

The rating is a metric used in viewing data and can be interpreted as the audience in absolute terms (rat000) or as percentage of the target group (rat%) during a specific timeslot (in this study, per hourly timeslot).

Rolling banner

Rolling banners are rectangle (300x60 pixels) advertisement banners on YouTube overlaying the video that appear for a certain amount of time.

(Alcohol) spot

The insertion of an (alcohol) advertisement.

Universe

Universe is defined as the number of people in a specific target group.

WFA/Ebiquity data

The WFA/Ebiquity dataset was compiled by the World Federation of Advertisers (WFA) and audited by Ebiquity. It contained information on global advertising impacts for 23 Member States for 2013.

Executive summary

The first report on the application of the Audiovisual Media Services Directive (AVMSD)⁵ was published on 4 May 2012. This report indicated that, with regard to alcohol advertising, further investigations were necessary to assess, amongst other things, the exposure of minors to commercial communications for alcoholic beverages. Against this background, the purpose of this study was to answer three research questions:

1. How much alcohol advertising does an average minor⁶ watching linear audio-visual media services (i.e. television broadcasting) in the European Union (EU) see?
2. How much alcohol advertising does an average minor see on non-linear audio-visual media services (i.e. on-demand audio-visual media services) and other online services in the EU?
3. For audio-visual media services (both linear and non-linear) and other online services, what type of alcohol advertising does an average minor see in the EU? Are minors specifically targeted by alcohol advertising? In how far is alcohol advertising appealing to minors and how? In particular, in how far do the provisions of the AVMSD and their application afford the required level of protection?

These research questions, and therefore the study, go beyond the AVMSD. For example, this study covered online services (*Research Question 2*) that are not currently covered by the Directive (e.g. websites and social media). In addition, the content analysis (*Research Question 3*) not only assessed whether advertisements are specifically aimed at minors, but also looked more broadly at what was actually shown in the advertisement and if this, from a broader perspective, could be considered appealing to minors.

To answer these questions, we used a combination of research methods. All research activities have been conducted in the period from January to December 2015.

Research Question 1: How much alcohol advertising does an average minor watching linear audio-visual media services in the EU see?

The analysis for Research Question 1 was based on two datasets⁷:

1. The GfK/Dentsu Aegis dataset, which consists of data on general viewing patterns and alcohol advertising impacts⁸ for nine Member States (MS) selected for in-depth analysis in this study (Austria, Czech Republic, Finland, Germany, Italy, the Netherlands, Romania, Spain, United Kingdom) in 2013; and
2. the WFA/Ebiquity dataset, provided by the World Federation of Advertisers (WFA) and audited by Ebiquity, which consists of data on global advertising impacts, both for the total market and for the subset of alcohol brands, for 23 MS in 2013.

For both datasets we analysed the global breakdown of the number of insertions of alcohol advertisements (i.e. the number of alcohol spots) and how often these were

⁵ Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. First Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the application of Directive 2010/13/EU "Audiovisual Media Service Directive" Audiovisual Media Services and Connected Devices: Past and Future Perspectives, /* COM/2012/0203 final */.

⁶ For the purpose of this study, a minor is defined as an individual below the age of 18.

⁷ For more information on these datasets, please see Chapter 2 of this report.

⁸ Impact is a measure of how often an insertion of an (alcohol) advertisement is viewed: it yields the absolute number of times a spot was seen over a given timeframe.

viewed (i.e. the number of alcohol impacts) in 2013. Although there were a few differences between the two datasets in terms of the definition of age groups, the findings are consistent. In addition, the findings indicate that the nine selected MS for this study are a representative sample.

Based on the data in the WFA/Ebiquity dataset, we found that the percentage of alcohol impacts of total market impacts was on average 1.8% for minors and 2.2% for adults.

Moreover, the analysis of both the WFA/Ebiquity dataset and the GfK/Dentsu Aegis dataset revealed that, on average, approximately 7.3% of the total number of alcohol impacts seen in the EU on linear audio-visual (AV) media services in 2013 were seen by minors. For the nine selected MS this ranges from 5.0% to 9.0%. In absolute numbers this means that, on average, a minor in the EU saw 200 alcohol impacts in 2013, while an adult saw over 450 in the same period. Similar results were seen for each MS.

The findings with regard to the breakdown by sector revealed that in the vast majority of MS the sector 'beer' had the highest share of both the number of spots and the number of impacts seen.

The analysis of the viewing data for the nine MS revealed that the viewing patterns of adults and minors differed. In order to analyse if this difference in viewing habits may partly explain the difference in the level of exposure to alcohol advertising between minors and adults, we weighted the absolute daily average alcohol impacts by the average daily viewing rates per age group. We found that after applying this weighting, the difference between the exposure of minors and the exposure of adults to alcohol advertising on linear AV media services was reduced. We also applied a weighting based on the average viewing rates per age group for a subset of channels, namely those channels that include alcohol advertising. The results showed that applying this weighting further reduced the difference in exposure between minors and adults. In several of the nine selected MS, this weighted value was even higher for minors than for adults. Hence, the difference in the level of exposure to alcohol advertising between minors and adults may be partly explained by the differences in their viewing habits, both in terms of how often they watch television, and which channels they watch.

As part of the in-depth analysis, we looked at several detailed breakdowns of the alcohol spots and their impacts. One of these analyses was focused on the type of channel on which a spot was aired. We found that in all MS, the majority of both alcohol spots and alcohol impacts were seen on commercial channels, but that the average impact per spot appeared to be higher on public channels. Moreover, the results indicated that while in most MS the majority of spots were aired on generalist (i.e., not topic-specific) channels or on 'Entertainment, Series, Movies' channels, the majority of impacts were seen on generalist channels only. This may be explained by the relatively high viewing rates for these channels.

When looking at differences in terms of the occurrence of alcohol impacts throughout the day, we found that for the adults, the peak day part was between 21:00 and 23:59 in all MS. With the exception of one MS, this was also the peak day part for alcohol impacts among the 15-17 year olds. For the 4-14 year olds, the peak occurred between 17:00 and 20:59 in four MS and between 21:00 and 23:50 in five MS. Comparing these results with the peak day parts in terms of viewing patterns, we saw that for all age groups in

each of the nine MS, the peak day part in terms of alcohol impacts was either the same as for viewing patterns or one day part later.

With regard to hourly timeslots, we found that in each selected MS the alcohol impacts for all age groups followed a rather similar pattern and peaked in the evening. In four of the nine selected MS, the peak hourly timeslot in terms of alcohol impacts was the same across age groups.

Finally, the results showed that there is substantial variation across MS in terms of the weekday with the highest number of alcohol impacts seen. Moreover, within MS, differences between age groups were observed, but in the majority of MS all age groups saw on average the most alcohol impacts on the same weekday.

Research Question 2: How much alcohol advertising does an average minor see on non-linear audio-visual media services and other online services in the EU?

The exposure of minors to alcohol advertising on non-linear AV media services and other online services has been analysed from both the perspective of the advertisers and the perspective of the viewers.

Perspective of the advertisers

To include the perspective of the advertisers we conducted desk research and surveyed selected online services and industry members as well as trade organisations. We also collected online data captures for selected YouTube channels and websites. Initially, the plan was to include Facebook, Instagram and Twitter in the online data capture. We sought formal approval from these online services, but Facebook and Twitter informed us that they were unable to approve the creation of fake profiles as this breaches their terms and conditions.

The results indicated that from the perspective of the advertisers, the level of exposure of minors to alcohol advertising on non-linear AV media services and other online services is supposed to be limited, because of (1) the measures that online services have in place to help advertisers to advertise their products responsibly and in compliance with all applicable laws and regulations and thereby, to restrict, or even prevent the exposure of minors to alcohol advertising; (2) the choice of advertisers for online services that offer age-gating/age verification and/or for which there is availability of audience data demonstrating that at least 70% of the likely audience is above the Legal Purchasing Age; and (3) the numerous self-regulation initiatives that are in place at the company, sector, industry, and national level.

This view was partially confirmed by the results of the online data capture⁹: of the 1,319 screen captures for YouTube and the 950 screen captures for websites (each website capture containing visits to up to 5 URLs on that website), only four unique advertisements¹⁰ for alcohol brands were found. Of these four, two were served in pre-rolls on YouTube and two on websites in the form of banners. One of the pre-rolls advertised a non-alcoholic drink and was only served on the profile of an adult. The other pre-roll was captured three times for a minor's profile and three times for an adult's profile (both male). The two banners were served on both minors' and adults'

⁹ The online data capture was conducted for a period of two months (May and June 2015).

¹⁰ The analysis of the online data captures focused on advertisements in the forms of pre-rolls, mid-rolls and (rolling) banners. Product placement in the YouTube videos was not analysed.

profiles, where one was captured twice on profiles for both minors and adults and the other was captured once on a minor's profile and four times on an adult's profile.

Perspective of the viewers

To analyse the exposure from the perspective of viewers, we conducted a one-time survey amongst minors aged 4-17 in each of the nine selected MS (n=900 per MS). The results indicated that viewers perceived quite a substantial amount of exposure: although alcohol advertisements are the least recalled type of advertisement by minors aged 9-17¹¹ in the nine selected MS, 23.9% of these minors recalled having seen an alcohol advertisement online in the last month. The results also indicated that the recall, and thus the perceived awareness of alcohol advertising, increases both with age and online activity. The respondents aged 9-17 were additionally asked if they were able to describe an alcohol advertisement to which they were recently exposed and 23.6% of these minors answered 'yes'. In addition, on average, 80% of these respondents indicated that they recalled the brand of the advertisement. The results showed that both the memory for having seen alcohol advertising as well as active brand recall also increased with age and online activity. The finding that recall increases with age and the amount of exposures is consistent with literature on advertisement recall among minors in general.

Combining the results from the two perspectives

The results from the two perspectives diverge and this may be the result of different factors, including:

- Over-estimation of self-reported exposure because of methodological limitations of the survey: First, the survey relies on self-reporting measures of exposure by asking recall questions, which induces the risk of recall-bias. Hence, where minors indicated that they recall having seen (alcohol) advertisements, it does not necessarily mean that the (alcohol) advertisement was actually provided. Second, no strict definition of advertisement was provided in the survey and therefore the reported exposure to alcohol advertising is subject to interpretation of what is perceived as 'alcohol advertising' by minors. For example, minors may have indicated that they recalled seeing an advertisement, whereas in reality, they saw user-generated content rather than commercial communications produced by advertisers.
- Over-estimation of exposure based on online data capture: in real life, people may use ad block software and/or nanny-tags in their browsers, and as a result not see any (alcohol) advertisement during their online activity.
- Under-estimation of exposure based on online data capture because of several caveats in the methodology: For example, cookies were generated during two months of online activity, whereas minors will typically have a richer browser history than the profiles that were generated for the purpose of this study. In addition, the data capture had a limited focus and only generated activity on a computer, whereas minors typically use different devices to go online. Also, there was no spill-over between profiles, whereas in reality minors may share a device with adults;
- Limited scope of the online data capture: as this part of the methodology was limited to a selection of YouTube channels and websites, it was difficult to draw conclusions with regard to the exposure on other popular online services, including Facebook, Instagram and Twitter.

¹¹ For ethical reasons, minors in the age group 4-8 were not asked questions on alcohol advertising, but rather on advertising in general and their online activity.

Because of the discrepancies in the results, it is difficult to draw overall conclusions with regard to the level of exposure of minors to alcohol advertising on non-linear AV media services and other online services. It can, however, be concluded that self-reported exposure to alcohol advertising increases with age and online activity and that both the online services and the industry aim to ensure minimal exposure through the implementation of measures and self-regulation.

Research Question 3: For audio-visual media services (both linear and non-linear) and other online services, what type of alcohol advertising does an average minor see in the EU? Are minors specifically targeted by alcohol advertising? In how far is alcohol advertising appealing to minors and how? In particular, in how far do the provisions of the AVMSD and their application afford the required level of protection?

The content analysis that has been conducted in order to answer Research Question 3 started with the development of an analysis grid, containing two types of assessment criteria: the first being elements directly derived from article 22 of the AVMSD, and the second being criteria, which have been developed on the basis of literature reviews, to assess whether advertisements, in a more general sense, can be considered to be appealing to minors. One of the difficulties in defining these criteria is that most of the elements of advertising have general appeal, that is, they are likely to stimulate reactions in wider audiences, not only in one target group. On the basis of previous research on minors' perceptions of alcohol advertising, it is possible to say that minors are likely to be appealed by, for instance, advertisements that utilise humour and music. However, these elements also attract adult viewers, and they are therefore widely used in advertising. This means that the content analysis, the grid and its subcategories are based on elements that - according to the existing research - are appealing to minors, but they are not necessarily specifically appealing to only minors. This being said, we included elements in the analysis grid that are relevant for minors in relation to alcohol.

After pilot testing and peer reviewing the analysis grid, we applied the grid to a sample of 123 alcohol advertisements, of which 90 aired on television (short film inserts and sponsorship messages shown in relation to television programmes) and 33 online (in the form of banners) in the nine selected MS in 2013.

It appeared that there is a wide variety of themes employed in the advertisements, the most typical ones being the association of alcohol with sociability and depicting drinking with humorous tone. The analysis revealed that 87% of the television advertisements and 63% of the online advertisements (banners) contained at least one element that can be considered to be appealing to minors. Despite the fact that the majority of the advertisements in the sample contained at least one element appealing to minors, this does not, as explained before, indicate that minors were specifically targeted.

Existing literature shows that for minors, the most important context of using alcohol is partying and celebration, but only 17% of the advertisements in the sample portrayed this context. Animal characters – most likely to attract minors – were shown in 4% of the advertisements.

Associations of social and sexual success, popularity, sociability and enjoyment with alcohol consumption are part of wider cultural representations of what drinking is about and these were also the most central themes in the advertisements. The advertisements

in the sample created a strong link between enjoyable social occasions, on the one hand, and alcohol, on the other, corresponding with general cultural representations of drinking with respect to adults and minors alike. Considering the role of sociability in the advertisements, and the high relevance of social relations and belonging to minors, it is plausible to say that alcohol advertising is likely to be appealing to under aged audiences.

In addition, we found that 25% of the full sample of advertisements (37% of the television advertisements and none of the online advertisements) reflect at least one of the criteria described in AVMSD, although this does not necessarily constitute an infringement in itself. The provisions in the Directive refer to causal links between the product and its effects, which are, for the most part, the kinds of simple storylines that are mostly avoided in advertisement contents. The advertisements rarely suggested positive outcomes caused by the products. Rather, they were focused on associations that are possible to create within a few seconds (for example by portraying drinking among young, trendy people) and without highlighting causality (being attractive and socially successful is caused by consuming the product).

The results of the content analysis are based on 123 linear and non-linear alcohol advertisements from nine EU MS. This is a small sample considering the total amount of advertisements appearing in all AV media services in the EU. In addition, the sample for non-linear and other online services was limited to online banners. As such, the results are not generalizable to all alcohol advertisements. However, the results are applicable for assessing the variety of themes and elements utilised by alcohol advertising and whether the marketing regulations and codes are clear enough to be followed.

Recommendations for further research

In order to gain more insight into the exposure of minors to alcohol advertising and to overcome several of the identified caveats, we recommend further research to:

- include other forms of advertising in the scope of the study, such as product placement;
- analyse exposure over time through longitudinal studies. This could also be a way to analyse the effectiveness of newly introduced (self-) regulation;
- include viewing data for a larger sample of channels to allow for more detailed relative analyses, weighting average daily alcohol impacts by viewing ratings;
- search for other ways to monitor the exposure on online services; e.g. by recruiting minors in MS and asking for their permission to monitor their activity on online services;
- use focus groups or individual interviews rather than an online survey to study the perspective of viewers. This will help to overcome some of the limitations related to the method for measuring self-reported exposure. This is, however, a resource-demanding approach;
- include adults in the sample that is surveyed in order to facilitate a comparison between self-reported exposure by minors and adults;
- conduct a reception study involving minors in order to define the criteria for the content analysis in more detail. The analysis of minors' perceptions of ambiguous contents of advertisements would help to determine, for instance, what they see as representations of social and sexual success.

1. Introduction

This document contains the final report of the Study on the exposure of minors to alcohol advertising on linear and non-linear audio-visual media services and other online services, including a content analysis (SMART2013/0080). The research was commissioned by the European Commission, Directorate-General for Communications Networks, Content and Technology (DG Connect), in the context of the Framework Contract EAHC/2013/Health/01 – Lot 1 “Health Reports”. The research was conducted during January – December 2015 by the Consortium partners Ecorys and THL in close collaboration with the following subcontractors: CentERdata, GfK Belgium and individual experts in the field (Prof. Peter Anderson and Prof. David Jernigan).

1.1. Background

Today’s media environment is very different from even less than a generation ago. The current generation of minors (i.e. individuals aged below 18) is sometimes referred to as the ‘digital generation’. In their use of audio-visual (AV) media services, both linear and non-linear as well as other online services, minors are exposed to commercial communications for a variety of goods and services, among which, alcoholic beverages.

The relationship between alcohol marketing and youth drinking is receiving attention in research, prevention and policy. Since alcohol consumption by minors is an increasing concern in the world and in Europe in particular, specific attention is paid to the advertising and marketing of alcohol and its effects on under-aged drinking.

In 2006 the European Union (EU) Alcohol Strategy was launched where, in order to reduce under-aged drinking and hazardous and harmful drinking, protection of minors was set to be a priority. A year later, the European Alcohol and Health Forum (EAHF) was established with two specific task forces: Task Force on Youth-Specific aspects of Alcohol and Task Force Marketing Communication.

The Science Committee of the **EAHF** concluded in 2009 that ‘alcohol marketing increases the likelihood that adolescents will start to use alcohol and to drink more if they are already using alcohol’¹².

Protection of minors on audio-visual media services

The need for the protection of minors on AV media services in the EU was already recognized and reflected in the 1989 *Television Without Frontiers Directive*¹³ (TWFD). The idea behind this Directive was to set up a Single Market for television broadcasting in Europe. Since then, the regulatory framework was revised and amended to take into account the technological changes at the same time upholding many of the previous regulations.

¹² Scientific Opinion of the Science Group of the European Alcohol and Health Forum (2009), Does marketing communication impact on the volume and patterns of consumption of alcoholic beverages, especially by young people? - a review of longitudinal studies, p.2.

¹³ Council Directive 89/552/EEC of 3 October 1989 on the coordination of certain provisions laid down by Law, Regulation or Administrative Action in Member States concerning the pursuit of television broadcasting activities, 1989 OJ L 298, p. 23–30.

In 2007 the TWFD was renamed to *Audiovisual Media Services Directive*¹⁴ (AVMSD) and afterwards codified in 2010. Within the AVMSD, which should be transposed into the national regulation of the EU Member States, a particular issue of vulnerability of minors and their susceptibility to commercial announcements is addressed (see Box 1.1).

Box 1.1 Provisions of the AVMSD regarding the protection of minors

Article 9 (1) (e)

Member States shall ensure that audiovisual commercial communications provided by media service providers under their jurisdiction comply with the following requirements:

(...)

(e) Audiovisual commercial communications for alcoholic beverages shall not be aimed specifically at minors and shall not encourage immoderate consumption of such beverages.

Article 22

Television advertising and teleshopping for alcoholic beverages shall comply with the following criteria:

(a) it may not be aimed specifically at minors or, in particular, depict minors consuming these beverages;...

The AVMSD makes a distinction between linear and non-linear AV media services:

“...It is necessary, in order to avoid distortions of competition, improve legal certainty, help complete the internal market and facilitate the emergence of a single information area, that at least a basic tier of coordinated rules apply to all audiovisual media services, both television broadcasting (i.e. **linear audiovisual media services**) and on-demand audiovisual media services (i.e. **non-linear audiovisual media services**).”¹⁵

Next to the EU regulatory framework and the national transpositions of the AVMSD, there is additional regulation on alcohol-related marketing and the protection of minors in place at the Member State level, as well as self-regulation at the company, sector, and industry level¹⁶.

1.2. Purpose of the study

The first report on the application of the AVMSD¹⁷ was published on 4 May 2012. This report indicated that with regard to alcohol advertising, further investigations were necessary to assess, amongst other things, the exposure of minors to commercial communications for alcoholic beverages.

¹⁴ Directive 2010/13/EU of the European Parliament and of the Council of 10 March 2010 on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the provision of audiovisual media services (Audiovisual Media Services Directive), 2010 OJ L 95, p. 1–24.

¹⁵ Directive 2010/13/EU of the European Parliament and the Council of 10 March 2010 on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the provision of audio-visual media services (Audio-visual Media Services Directive), 2010 OJ L 95, p. 1–24.

¹⁶ Chapter 5 provides more information on self-regulation.

¹⁷ REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS First Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the application of Directive 2010/13/EU "Audiovisual Media Service Directive" Audiovisual Media Services and Connected Devices: Past and Future Perspectives, /* COM/2012/0203 final */.

Against this background, the purpose of this study was to answer three research questions:

1. How much alcohol advertising does an average minor watching linear audio-visual media services in the EU see?
2. How much alcohol advertising does an average minor see on non-linear audio-visual media services and other online services in the EU?
3. For audio-visual media services (both linear and non-linear) and other online services, what type of alcohol advertising does an average minor see in the EU? Are minors specifically targeted by alcohol advertising? In how far is alcohol advertising appealing to minors and how? In particular, in how far do the provisions of the AVMSD and their application afford the required level of protection?

The research questions, and therefore the study, go beyond the AVMSD. For example, this study covered online services (*Research Question 2*) that are not currently covered by the Directive (e.g. websites and social media). In addition, the content analysis (*Research Question 3*) did not only assess whether advertisements are specifically aimed at minors, but rather, it looked more broadly at what was actually shown in the advertisement and if this, from a broader perspective, could be considered appealing to minors.

Finally, policy recommendations are not formulated as part of this study. It is at the discretion of both EU and national policy makers to translate the findings of the study into recommendations for policy and/or practice.

1.3. Reading guide

Chapter 2 of this report provides an overview of the *general approach*, including a description of the scope of the study and the methodologies used to answer each research question. In Chapter 3 we present the results of the literature review on the exposure of minors to alcohol advertising on linear and non-linear AV media services and other online services. The findings with regard to the exposure of minors to alcohol advertising on linear AV media services (*Research Question 1*) are presented in Chapter 4. Chapter 5 and 6 provide the results regarding the exposure of minors on non-linear AV media services and other online services from respectively the perspective of the advertisers and the perspective of the viewers (*Research Question 2*). The results of the content analysis (*Research Question 3*) are presented in Chapter 7. Finally, Chapter 8 provides the main conclusions of the study and recommendation for further research.

The annexes are presented in a separate document and include the following:

- Annex A: Search strategy, inclusion criteria, and full references used in the literature review;
- Annex B: Tabular overviews of the relevant literature;
- Annex C: Country reports – analysis of GfK/Dentsu Aegis data;
- Annex D: Channel list for the GfK/Dentsu Aegis spotlist data;
- Annex E: Overview of the selected YouTube channels and websites for the online data capture;
- Annex F: Questionnaires used in the survey;
- Annex G: Survey results;
- Annex H: Overview of the (sub)categories in the analysis grid;

- Annex I: Summary of the main points raised by the peer review panel;
- Annex J: List of all advertisements included in the content analysis;
- Annex K: List of organisations that participated in the stakeholder review;
- Annex L: Summary of the main comments provided during the stakeholder review.

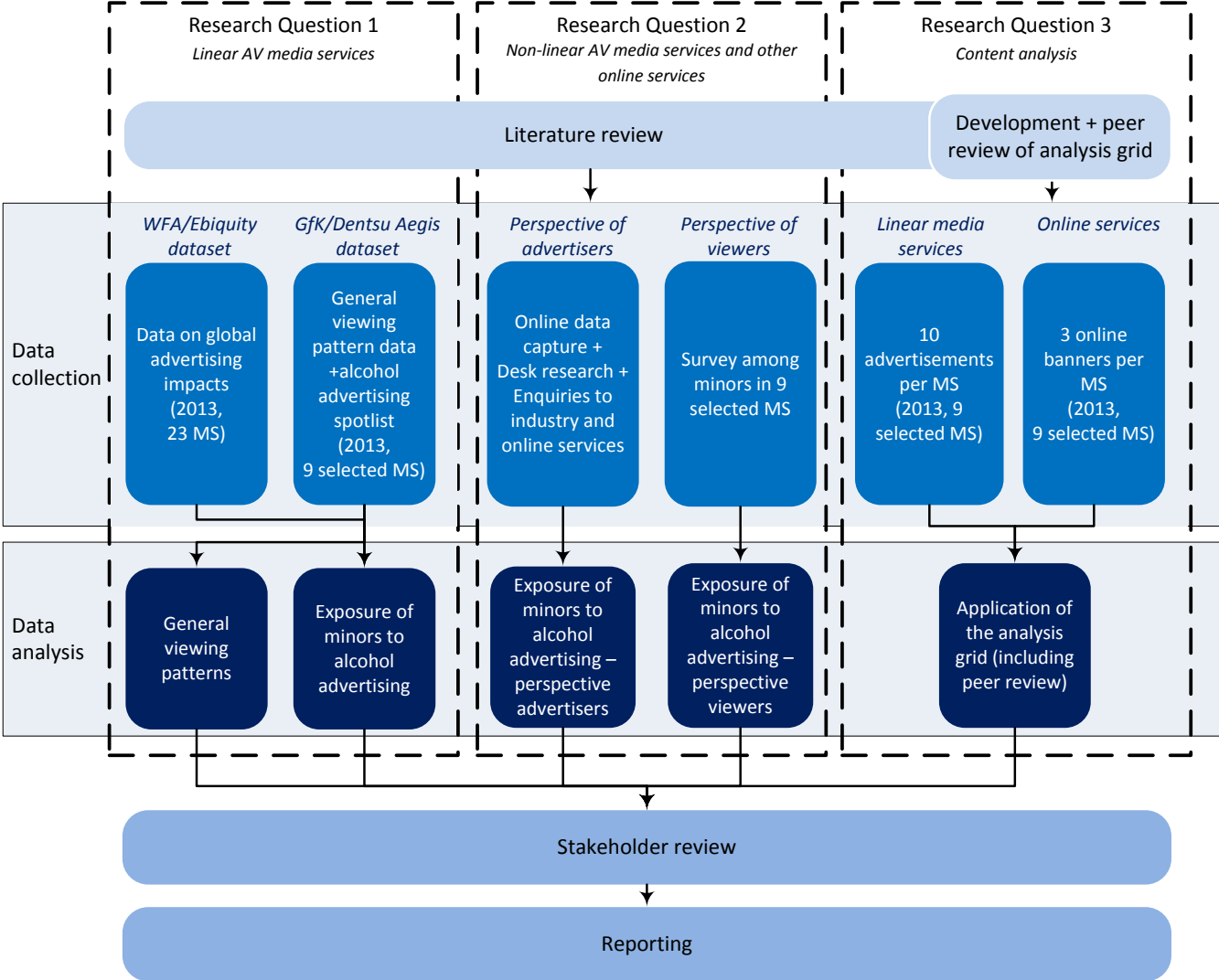
2. Approach and methodology

In order to answer the three research questions, the following activities were conducted:

- Literature review, with the aim to establish an overview of existing literature on the exposure of minors to alcohol advertising on linear and non-linear AV media services and other online services;
- Development of the analysis grid for the content analysis based on
 - Literature review;
 - Pilot testing; and
 - Validation by a peer review panel.
- Data collection:
 - WFA/Ebiquity data on global advertising impacts in 2013 for 23 Member States;
 - GfK/Dentsu Aegis data, consisting of both viewing data and spotlists for alcohol advertising in 2013 for nine selected Member States;
 - Online data capture on selected YouTube channels and websites;
 - Desk research and enquiries to industry and online services;
 - Survey among minors in nine selected Member States; and
 - Selection of advertisements for the content analysis (advertisements on both linear and non linear AV media services and other online services).
- Data analysis:
 - Analysis of general viewing patterns in nine selected Member States in 2013;
 - Analysis of the exposure of minors to alcohol advertising on linear AV media services in 2013:
 - Global breakdown of alcohol advertising spots and impacts for 23 Member States; and
 - Detailed breakdown of alcohol advertising spots and impacts for nine selected Member States.
 - Analysis of the exposure of minors to alcohol advertising on non-linear AV media services from the perspective of advertisers;
 - Analysis of the exposure of minors to alcohol advertising on non-linear AV media services from the perspective of viewers; and
 - Application of the analysis grid.
- Stakeholder review, with the aim to receive feedback from relevant stakeholders on the preliminary findings.

Figure 2.1 illustrates how the different activities are interlinked and which research questions they address.

Figure 2.1 Activities conducted



Note: MS = Member States.

In the next sections of this Chapter we describe the scope of the study as well as the approach and methodology for each of the activities conducted.

2.1. Scope of the study

Before outlining our approach per research question, it is important to define the scope of the study. To that end, this section provides the definitions used and makes clear that this study was focussed on the level of exposure rather than on the link between alcohol marketing and under-aged drinking. In addition, we outline the selection of Member States for the in-depth analysis and the years for which data were collected.

Definitions

Linear and non-linear AV media services and other online services

For this study we used the definitions as provided in the AVMSD:

“(e) ‘television broadcasting’ or ‘television broadcast’ (i.e. a linear audiovisual media service) means an audiovisual media service provided by a media service provider for simultaneous

viewing of programmes on the basis of a programme schedule;

.....

(g) 'on-demand audiovisual media service' (i.e. a non-linear audiovisual media service) means an audiovisual media service provided by a media service provider for the viewing of programmes at the moment chosen by the user and at his individual request on the basis of a catalogue of programmes selected by the media service provider." ¹⁸

For the purpose of this study, we defined 'other online services' as those online services that are currently not covered by the AVMSD, such as social media and websites.

Minors

For the purpose of this study, 'minors' were defined as 'individuals aged below 18'. The AVMSD does not provide a clear definition of 'minors' and to facilitate comparison across Member States, it was decided to choose a uniform definition, that reflects the age of majority in most of the EU Member States.

Alcohol advertising

In this study, alcohol advertising was defined as commercial communications that are controlled by alcohol brand advertisers. This means that, by definition, user-generated content was not considered alcohol advertising for the purpose of this study.

In the analysis of exposure to alcohol advertising on linear AV media services (*Research Question 1*), the following types of alcohol advertisements were included:

- Television (TV) commercials for alcohol brands; and
- TV sponsorship messages for alcohol brands.

In the analysis of exposure to alcohol advertising on non-linear AV media services and other online services (*Research Question 2*), the following types of alcohol advertisements were included:

- Banners; and
- Advertising clips (e.g. pre-rolls and mid-rolls).

Product placement is also a common form of advertising, both on linear and non-linear AV media services and other online services, but is beyond the scope this study.

Focus on exposure to alcohol advertising

The study was focused on the exposure of minors to alcohol advertising, that is, we investigated how much alcohol advertising minors saw on AV media services (*Research Question 1 and Research Question 2*) and the content of alcohol advertising (*Research Question 3*). The study did not aim to evaluate the effectiveness of the legislation and regulation related to the exposure.

In addition, the relationship between the level of exposure and under-aged drinking is beyond the scope of the study. In the literature review, we included several studies investigating this relationship, but only if the study also measured exposure.

¹⁸ Directive 2010/13/EU of the European Parliament and the Council of 10 March 2010 on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the provision of audio-visual media services (Audio-visual Media Services Directive).

Focus on a selection of nine Member States

The in-depth analysis in this study was focussed on nine Member States¹⁹. These Member States were selected on the basis of the following criteria:

1. Population size;
2. Gross Domestic Product (GDP) per capita;
3. The number of self- and co-regulations in place regarding alcohol marketing;
4. Forecasted advertising spending in 2014 as compared to 2013;
5. Confirmed data availability required for all tasks;
6. Geographic balance.

First, we established a list containing Member States that were either in the top- or the bottom three for criteria 1-4 (e.g., the three Member States with the highest and the three Member States with the lowest number of inhabitants were included in this list).

Thereafter, criteria 5 and 6 were used to reduce the list to a selection of nine Member States (marked dark blue on the map):

- Austria (AT);
- Czech Republic (CZ);
- Finland (FI);
- Germany (DE);
- Italy (IT);
- Netherlands (NL);
- Romania (RO);
- Spain (ES);
- United Kingdom (UK).



Period for data collection

The data for Research Question 1 and advertisements for Research Question 3 were collected for the year 2013. The reason is that at the time of the data collection for Research Question 1, data on 2014 was not yet available and for consistency reasons, the data collection period for research question 3 was also set at 2013.

The data for Research Question 2 is collected through written enquiries, online data capture and a survey in the period May-September 2015.

2.2. Literature review

The literature was carefully reviewed with the objective to establish an overview of the relevant studies that have been conducted and their findings with regard to the exposure of minors to alcohol advertising on linear and non-linear audio-visual media services and other online services.

In addition, the literature review focused on identifying which features make alcohol

¹⁹ One part of the analysis has a broader (geographical) scope: the WFA/Ebiquity dataset contains data for a total of 23 Member States (including the nine selected Member States) and hence the analysis of that dataset covers 23 Member States. See section 2.4.2. for more information on this.

advertising appealing to minors (input for *Research Question 3*)²⁰.

Selection of studies

To identify relevant publications, we used a structured search strategy and inclusion criteria. The search strategy and inclusion criteria were validated by the experts in our project team (Prof. Peter Anderson and Prof. David Jernigan). Relevant articles were identified by means of a search of the bibliographical databases PubMed and Google Scholar. First, PubMed was searched using MeSH terms and thereafter two reviewers independently scanned the titles and abstracts of the identified publications. Relevant publications were first selected for light reading, after which full texts were obtained. In addition, a search using key words was conducted in Google Scholar and the titles and abstracts for the publications on the first four pages of results were scanned. After removing duplicates, relevant publications were selected for light reading.

In Annex A (separate document) we provide our full search strategy, the inclusion criteria used, and the full references of the publications that were included in the review.

Presenting the results of the review

For each part of the review, we made an overview table of relevant studies that were identified. These tabular overviews are presented in Annex B (separate document) and include information on:

- the geographical zone where the study was conducted;
- the purpose of the study;
- the methodology used;
- the main findings with regard to:
 - exposure of minors to alcohol advertising; and
 - the effect(s) of exposure to alcohol advertising on youth drinking; or
 - what appeals to minors in alcohol advertising.
- Declared interests and funding.

In Chapter 3 we present a summary of the main results of the literature review.

2.3. Approach for Research Question 1

Research Question 1: How much alcohol advertising does an average minor watching linear audio-visual media services in the EU see?

For Research Question 1 we collected data from two sources:

- GfK/Dentsu Aegis data, consisting of both viewing data and spotlists for alcohol advertising for the nine selected Member States for 2013; and
- The WFA/Ebiquity dataset, which contains information on global advertising impacts²¹ for 23 Member States for 2013.

In the next sections we describe these datasets in more detail as well as the analysis conducted.

²⁰ One of the activities conducted in developing the analysis grid for the content analysis was a broader review of the literature. The publications to support the development of the analysis grid are discussed in Annex H (separate document).

²¹ Impact is a measure of how often a spot is viewed: it yields the absolute number of times a spot was seen over a given timeframe. This is also referred to as the number of impressions.

2.3.1. GfK/Dentsu Aegis data

The GfK/Dentsu Aegis data consisted of:

- general viewing pattern data (by hourly timeslot); and
- spotlist data measuring advertising impacts.

Both the general viewing pattern data and the spotlists were collected for each of the nine selected Member States and cover the full 24 hours during the full year 2013.

The data have been collected as follows. In each of the selected Member States there is an audience panel, which is a representative sample of the population. This panel owns a box that is connected to their TV and records all activities related to the use of the TV screen. When a person wants to watch TV, he or she must first describe himself with a special remote. This allows the box to know who is watching TV. The box will then record which channels, programs, advertising spots, etcetera, the person is watching. It also records when and how long the viewer watches TV. All the data are then collected by an independent organisation. Every night, the data are checked and extrapolated to the total population and after that, it is sent to media agencies and TV sales houses.

For the purpose of this study, agencies in all selected Member States were asked to fill in a template with local figures. For some Member States these templates were filled in automatically and for others manually. The presentation of the figures differed across Member States and GfK therefore reorganised the data, such that it was all structured in a similar way.

Description of the data

Age groups

To allow for comparisons between minors and adults, both the viewing data and the spotlists provided a breakdown by age group. The category of minors was split into two age groups: 4-14 year olds and 15-17 year olds. These age groups were chosen to ensure representativeness of the age groups within the sample of collected data for 2013. Next to the two age groups for minors, the data also provided a breakdown for adults. Hence, the GfK/Dentsu Aegis data was analysed for three age groups:

- 4-14 year olds;
- 15-17 year olds;
- 18+.

Table 2.1 lists the universes per age group, that is, the total number of people per age group, in the GfK/Dentsu Aegis data.

Table 2.1 Universes per age group, GfK/Dentsu Aegis data

	4 – 14 universe (*1,000)	15 – 17 universe (*1,000)	18+ universe (*1,000)
Austria	885	298	6,669
Czech Republic	1,098	278	8,428
Finland	723	178	4,247
Germany	7,167	2,593	61,468
Italy	6,185	1,706	49,958
Netherlands	2,202	615	12,738
Romania	2,194	579	16,196
Spain	4,975	1,344	37,027
United Kingdom	7,731	2,219	46,387

Sample of channels

The general viewing pattern data covers a selected sample of channels in each Member State, including at least one channel specifically targeted at children. The samples of channels have a coverage of at least 70% monthly reach, which means that in each Member State, these channels were viewed by at least 70% of the population a month in 2013. Because the cumulative audience shares of the samples differ between Member States, cross-country comparisons should be made with caution²².

The spotlists include a more extensive selection of channels compared to the general viewing pattern data. Channels that do not include alcohol advertising are not included in this selection²³.

Metrics

The general viewing pattern data reports the *rating* per hourly timeslot expressed in both thousands and in percentages. The rating was calculated as follows:

- in thousands (rat000): the reach (that is, the proportion of the target group who was viewing) weighted by the Average Time Spent (that is, the amount of time watched per individual); and
- in percentages (rat%): the rat000 for a specific target group divided by the universe of that target group.

The rating per hourly timeslot can be interpreted as the audience in absolute terms (rat000) or as percentage of the target group (rat%) during that hour.

The GfK/Dentsu Aegis spotlist data measure alcohol advertising impacts in *Gross Rating Points* (GRP), both in thousands and in percentages. The GRP were calculated as follows:

- in thousands (GRP(000)): the absolute number of times an advertising spot was seen, which is also referred to as the 'gross impressions' of an advertising spot²⁴; and
- in percentages (GRP%): the gross impressions of an advertising spot in a specific target group divided by the universe of that target group.

²² The cumulative audience shares of the samples of channels for the full year 2013 are reported in the country reports in Annex C (separate document).

²³ For a complete overview of the channels included in the spotlist dataset, please refer to Annex D (separate document).

²⁴ It is called 'gross impressions' as it includes multiple exposures for some or all of the people that are exposed to an advertising spot. For example, if five people see an advertising spot two times, this counts as 10 gross impressions.

The GRP can be interpreted as the total number of times an advertising spot was seen in either absolute terms (GRP(000)) or as a percentage of the target group (GRP%). Hence, GRP measure the exposure to alcohol advertising, which is referred to as 'alcohol impacts' throughout this report.

Analysis

The aim of the analysis of the GfK/Dentsu Aegis data was to provide:

- an overview of general viewing patterns broken down by age, time slots and channel (categories); and
- a global and detailed breakdown of advertising impacts by age groups and channel (categories).

To that end, the following analyses were conducted:

- For the general viewing pattern data, per age group:
 - Breakdown by day part;
 - Breakdown by hourly timeslots;
 - Breakdown by channel categories:
 - Type of channel: public or commercial;
 - Channel's target group: children or general.
 - Breakdown by individual channels.
- For the spotlist data:
 - Breakdown of the number of advertising spots by:
 - Sector;
 - Channel categories:
 - Genre (e.g. generalist, music, news, sports); and
 - Type of channel: public or commercial.
 - Individual channels.
 - Global breakdown of alcohol advertising impacts by:
 - Sector;
 - Channel categories:
 - Genre (e.g. generalist, music, news, sports); and
 - Type of channel: public or commercial.
 - Individual channels;
 - Age groups.
- Detailed breakdown of the number of alcohol advertising impacts per age group by:
 - Day part (total impact per day part);
 - Hourly timeslot;
 - Weekday;
 - Sector;
 - Channel category.

The results of the literature review indicate that the proposed breakdowns are in line with those used in other studies that analyse similar data.

Next, we analysed if differences in viewing patterns may explain the difference in the level of exposure to alcohol advertising between minors and adults. To that end, we weighted the absolute daily average alcohol impacts by the average daily viewing rates per age group. We also applied a weighting based on the average viewing rates per age group for a subset of channels, namely those channels that include alcohol advertising. To facilitate the weighting, this part of the analysis was conducted only for the channels

included in the viewing data sample.

All analyses were conducted for the individual Member States and, where possible and relevant, for all selected Member States together. The analyses were performed in Stata (version 13.1).

In sections 4.2 and 4.3 (Chapter 4) we report the preliminary results of the analysis of the GfK/Dentsu Aegis data, while more detailed per Member State results are available in Annex C (separate document).

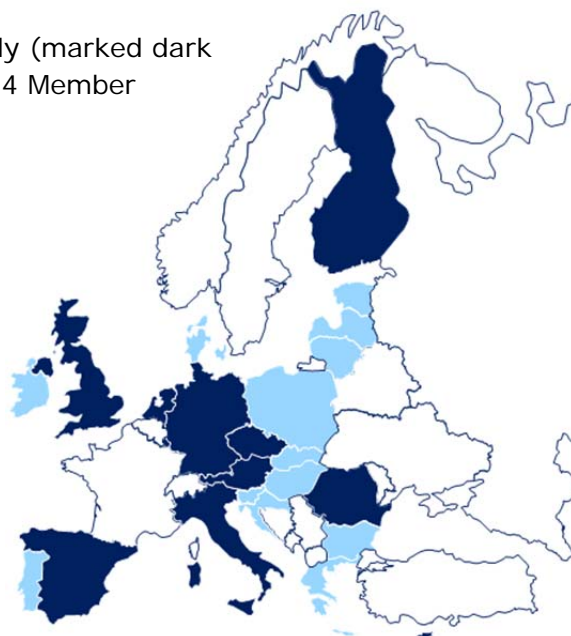
2.3.2. WFA/Ebiquity dataset

Description of the data

The WFA/Ebiquity dataset was compiled by the World Federation of Advertisers (WFA) and audited by Ebiquity. The sources of this data set are the standard currency national TV audience data as collected by third party research agencies appointed by local Joint Industry Committees or TV Associations.

Next to the nine Member States selected for this study (marked dark blue on the map), the data set covers an additional 14 Member States (marked light blue on the map):

- Belgium (BE);
- Bulgaria (BG);
- Croatia (HR);
- Denmark (DK);
- Estonia (EE);
- Greece (EL);
- Hungary (HU);
- Ireland (IE);
- Latvia (LV);
- Lithuania (LT);
- Poland (PL);
- Portugal (PT);
- Slovakia (SK);
- Slovenia (SI).



The WFA/Ebiquity dataset provides information on:

- Total national alcohol advertising impacts²⁵ for people of or older than the Legal Purchasing Age (LPA)²⁶ and sub-totals for certain alcohol categories as locally defined;
- Total national alcohol advertising Impacts for under-LPA, and subtotals for the categories mentioned above;
- Total national impacts for people of or older than the LPA;
- Total national impacts for under-LPA.

The data covers the full year 2013.

Table 2.2 lists the LPA and under-LPA universes, that is, the total number of people per target group, for the WFA/Ebiquity dataset.

²⁵ Impact is measured as total 30 second exposures.

²⁶ The LPA that was applicable on 1 January 2013.

Table 2.2 Under-LPA and LPA universes in WFA/Ebiquity dataset

Member State	Under-LPA universe (* 1,000)	LPA universe (* 1,000)
Austria	1,182	6,669
Belgium	1,725	8,616
Bulgaria	828	6,128
Croatia	622	3,468
Czech Republic	1,466	8,632
Denmark	861	4,464
Estonia	200	1,078
Finland	834	4,297
Germany	9,757	61,470
Greece	1,454	8,669
Hungary	1,322	7,858
Ireland	873	3,229
Italy	7,908	49,973
Latvia	302	1,711
Lithuania	438	2,444
Netherlands	2,857	12,929
Poland	5,431	30,314
Portugal *	1,121	8,564
Romania	2,794	16,228
Slovakia	815	4,275
Slovenia	250	1,704
Spain	6,413	37,582
UK	10,029	47,747

Data source: WFA/Ebiquity dataset.

* Note in dataset: for Portugal only the age breaks 4-14 and 15 years+ are available due to market sample size restrictions.

Next to the data, we also received a document with information on the channels that were monitored in each Member State²⁷.

Differences between GfK/Dentsu Aegis data and WFA/Ebiquity data

There are some differences between the GfK/Dentsu Aegis data and the WFA/Ebiquity data that need to be taken into account when comparing the findings based on these datasets. The differences concern the breakdown in age groups, the definition of sectors, and the included TV channels.

The main difference between the datasets is that where the GfK/Dentsu Aegis dataset reports the results for three different age groups that are uniform across Member States (4-14, 15-17, 18+), the WFA/Ebiquity dataset distinguishes between two groups based on the LPA, which results in differences in age brackets between Member States (and sometimes between sectors within a Member State). Table 2.3 provides an overview of the LPA in 2013 in each of the Member States in the WFA/Ebiquity dataset.

²⁷ IP Network data (2014). "European Union TV Landscapes & Audience Shares".

Table 2.3 LPA in 2013 in the 23 Member States included in the WFA/Ebiquity dataset

Member State	Beer and wine	Spirits
Austria*	16	16/18
Belgium	16	18
Bulgaria	18	18
Croatia	18	18
Czech Republic	18	18
Denmark **	16/18	18
Estonia	18	18
Finland***	18	20/18
Germany	16	18
Greece	18	18
Hungary	18	18
Ireland	18	18
Italy	18	18
Latvia	18	18
Lithuania	18	18
Netherlands	16	18
Poland	18	18
Portugal	16	18
Romania	18	18
Slovakia	18	18
Slovenia	18	18
Spain****	16/18	16/18
UK	18	18

*For spirits, the LPA differs between regions, ** For beer and wine, the LPA off premises is 16 and the LPA on premises is 18.

*** For spirits, the LPA off premises is 20 and the LPA on premises is 18, ****Some autonomous regions have a LPA of 16 years.

Source: European Alcohol Policy Alliance (2014), Alcohol Purchase Age Limits in Europe, page 11.

Next to the differences in the age groups, there are minor differences in the definition of what is included in each of the sectors (i.e. beer, wine, spirits, other). The definitions of the sectors as used per Member State in the GfK/Dentsu Aegis data are reported in the country reports in Annex C (separate document).

Finally, the channels that are included in the datasets differ: the WFA/Ebiquity dataset covers slightly more channels than the GfK/Dentsu Aegis data.

Analysis

The aim of the analysis of the WFA/Ebiquity dataset was to assess the exposure of minors to alcohol advertising and to compare this to:

- the exposure of adults (LPA audience) to alcohol advertising; and to
- the exposure of minors (under-LPA audience) to total advertising.

Before analysing the advertising impacts, the number of spots was considered in order to assess:

- the number of total market spots per Member States;
- the number of alcohol spots per Member State;

Study on the exposure of minors to alcohol advertising on linear and non-linear audio-visual media services and other online services, including a content analysis

- the number of alcohol spots as a proportion of the number of total market spots per Member State;
- the number of alcohol spots per sector, per Member State.

Next, the exposure of both minors and adults to advertising was analysed, by assessing:

- With regard to total market exposure:
 - Exposure per audience group;
 - Exposure of minors (under-LPA audience) as a percentage of total exposure.
- With regard to exposure to alcohol advertising:
 - Exposure per average individual per audience group;
 - Exposure to alcohol brands as a percentage of total market exposure, by age group;
 - Exposure of minors (under-LPA audience) as a percentage of total exposure to alcohol brands;
 - Shares of exposure to alcohol brands by sector (beer, wine, spirits, other), both for the total universe and per age group.

Because of the aggregated nature of the data provided, we could only analyse a global breakdown of (alcohol) impacts.

The results of the analysis of the WFA/Ebiquity dataset are presented in section 4.3 (Chapter 4).

2.4. Approach for Research Question 2

Research Question 2: How much alcohol advertising does an average minor see on non-linear audio-visual media services and other online services in the EU?

In answering Research Question 2 we were asked to consider both the perspective of the advertisers as well as the perspective of the viewers. Below, we present our approach for each perspective.

2.4.1. Perspective of the advertisers

In order to establish an overview of the (potential for) online exposure of minors to alcohol advertising from the perspective of the advertisers, data and information was collected through a combination of desk research, enquiries to selected online services, enquiries to the industry, and online data captures for selected YouTube channels and websites. The qualitative approach focussed mainly on online services for which users need to log-in, while the online data capture focussed on situations where users are not logged-in, and thus age cannot be verified.

Initially, the plan was to also include Facebook, Instagram and Twitter in the online data capture. However, after further review of Facebook's and Twitter's Terms and Conditions, it turned out that prior permission was needed. It was therefore decided that before starting the online data capture on these channels, formal approval needed to be sought from these online services. The requests for approval of the suggested approach were submitted to Facebook and Twitter. Both Twitter and Facebook replied that they

were unable to grant approval for this approach, because the creation of fake profiles breaches their terms and conditions. Therefore we used a more qualitative approach, based on desk research and enquiries to online services, to analysing the risks for exposure of minors to alcohol advertising on Facebook, Instagram and Twitter .

Desk research and enquiries to selected online services

Based on the desk research and enquiries to selected online services we created an overview of the measures that online services have in place to help advertisers to advertise their products responsibly and in compliance with all applicable laws and regulations and thereby, to restrict the exposure of minors to alcohol advertising. This overview includes the age-mechanisms (including age-registration and age-verification) and advertising policies of Facebook, Instagram, Twitter, and YouTube.

Enquiries to the industry

A short questionnaire was sent out to 12 industry members and three trade associations in order to gain a better understanding of:

- why certain online services are used more for advertising purposes than others; and
- which self-regulation initiatives industry members apply to protect minors from the exposure to alcohol advertising online.

The first part of the questionnaire focussed on the use of online services for advertising purposes. To that end, the industry members were asked to fill in the following table:

Table 2.4 Enquiries to the industry – question on the relative use of online services

Online service	Relative use (1=“most used”, 2=“second most used”, etc.)	Explanation
Facebook		
Twitter		
YouTube		
Instagram		
Pinterest		
Tumblr		
Online gaming platforms		
Other, namely ...		

In addition, respondents were asked if they would like to provide any additional information with regard to their use of online marketing channels as well as the self-regulation initiatives that they apply to protect minors from the exposure to alcohol advertising online.

In Section 5.3 (Chapter 5) we present a summary of the responses to this questionnaire.

Online data capture on selected YouTube channels and websites

To assess what type of advertisements are served to specific audiences, data captures on YouTube and websites were conducted for profiles of minors (male and female) and adults (male and female) in all nine selected Member States.

The channels and websites were selected to present a mix of genres (music, beauty, games, etc.) and online activities (e.g. video streaming, playing games, sending e-mails,

etcetera²⁸). For a complete overview of the YouTube channels and websites that have been monitored, we refer to Annex E (separate document).

In the next subsections we outline the approach for the data capture on YouTube and selected websites and the preparation of the data files. The results of the capture are presented in section 5.4 (Chapter 5).

YouTube data capture

A list of popular YouTube channels was compiled for each selected Member State, gender and age category using information collected from sites such as SocialBlade and TrendsDashboard²⁹.

This information was then fed in to the data capture tool “EcoSim”. Over a period of two months (May and June 2015), the EcoSim tool was used to automate the activity of visiting and viewing YouTube videos. This resulted in the production of 1,319 screen capture videos, containing approximately 109 hours of video footage. The data capture footage mainly included short clips (averaging five minutes) allowing us to capture advertising content that appeared at the start of a video (pre-rolls), however the footage also included longer clips (up to 20 minutes) allowing us to capture mid-rolls.

The scheduling facility within the EcoSim tool enabled varying the times of the data capture ensuring a good mix of time slots (weekdays, weekends, mornings, afternoons, evenings and overnight).

During the early stages of testing, it was observed that when attempting to monitor Youtube channels in a different Member State than the Member State where the actual monitoring took place (i.e. the UK), the profile was automatically re-directed to the UK version of YouTube. This was due to YouTube’s geolocation detection where YouTube attempts to direct you to appropriate language/country part of its site based on the geographic location of your Internet Protocol (IP) address. In order to overcome this, subscriptions for two commercial proxy providers (FoxyProxy and HideMyAss) were purchased. This solution allowed for simulation of internet browsing from all nine selected Member States.

Functionality was built into EcoSim tool in order facilitate profile selection within Chrome and Firefox before starting each data capture. This was to guard against the risk of “spillovers” between profiles, where results from one profile were influenced by remaining cookies or other tracking tools from another profile³⁰. This technique enabled the building of a rich browsing history for a particular profile type (e.g. UK, girl, aged

²⁸ The categories of online activities are the same as those used in the survey amongst minors, that has been conducted as part of this study.

²⁹ Full list of sources:
<http://socialblade.com/youtube/top/country/GB/mostsubscribed>;
<https://www.youtube.com/trendsdashboard>;
<https://www.commonsensemedia.org/blog/12-best-youtube-channels-for-kids-and-teens>;
<http://vidstatsx.com/>;
<http://quib.ly/qu/should-we-be-worried-about-the-minecraft-videos-our-kids-watch>;
<http://www.buzzfeed.com/alanwhite/how-the-slow-mo-guys-took-over-youtube#.ddm964j7G>;
<https://www.commonsensemedia.org/blog/the-10-best-kid-friendly-minecraft-channels-on-youtube>.

³⁰ Although in reality there may be spillovers between browsing histories of different people (because devices are shared with others) this possibility was eliminated from the used approach as this part of the study concerns the perspective of advertisers and therefore the aim was to see what advertisements are served when it can be inferred that the user is a minor.

14), increasing the likelihood of advertising content targeting this particular profile type.

Website data capture

A list of popular websites was compiled for each selected Member State, gender and age category using information collected from sites such as SimilarWeb and Quantcast.

Next, for each website a list was compiled of up to five popular Uniform Resource Locators (URLs) that could be visited during the data capture³¹. This information was then fed in to the data capture tool "EcoSim". Over a period of two months (May and June 2015), the EcoSim tool was used to automate the activity of visiting and interacting with a website. A web automation tool (Selenium) was used to simulate the user scrolling up and down on a webpage. This resulted in the production of 950 screen capture videos, containing approximately 47 hours of video footage.

The scheduling facility within the EcoSim tool enabled the varying of the times of the data capture ensuring a good mix of time slots (weekdays, weekends, mornings, afternoons, evenings and overnight).

Prior to the second month of data capture, the selection of website lists was further refined, removing sites which did not feature advertising content during the first month of monitoring and, where data was available, replaced these removed websites with other websites.

Preparation of data files

Data files collected from the YouTube and Website data captures were checked and validated and then uploaded to a Microsoft OneDrive cloud storage area for review. For each batch of files uploaded an accompanying worksheet was created containing key information about each data capture file (i.e. Member State, platform, age category, genre, website URL/name of YouTube channel, date and time of capture, length of video, etc.).

Review of the online data capture files

The data files from the YouTube and Website data captures were reviewed and coded by one researcher, to ensure consistency in coding. This reviewing has been done in separate batches for each platform, in each month, per Member State.

As mentioned, each batch of data files was accompanied by a worksheet containing a separate record for each individual data capture. All these worksheets have been combined in one analysis worksheet with boxes separating the different Member States and analysed platforms. In the analysis sheets, columns were added to count the number of pre-rolls, mid-rolls and banners in each capture³². Only these three types of advertisements were coded: the contents of the YouTube clips were not analysed for other types of marketing such as product placement.

³¹ For example: <http://www.dailymotion.com/gb/channel/fun>,
<http://www.dailymotion.com/gb/channel/shortfilms>, <http://www.dailymotion.com/gb/channel/news>,
<http://www.dailymotion.com/gb/channel/sport>).

³² These different types of advertisement are elaborated on in Chapter 5.

2.4.2. Perspective of the viewers

For analysis from the perspective of the viewers, data was collected through a one-time survey amongst minors in each selected Member State. The sample of minors for the survey was drawn from members of GfK's online panels in each of these Member States. The survey employed a Computer Assisted Web Interviewing (CAWI) methodology³³. All questionnaires complied with ESOMAR codes and guidelines on interviewing minors³⁴.

The fieldwork took place between mid-June and mid-July 2015.

Age groups

The following age groups were used for this part of the study:

- 4 - 8 years;
- 9 - 13 years;
- 14 - 17 years.

Quota

The quota for this survey was set for 900 minors in each of the nine Member States (quota for total sample = 8,100 minors). The sample quota within each Member State was set for all three age groups in proportion of minors in the population in each of these groups³⁵. In addition, the quota per Member State was also set on gender to ensure a balance in respondents.

Developing the questionnaires

Due to the large differences in the ability of 4-17 year olds to answer question items, two different questionnaires were developed: one targeting the youngest age group and one targeting the older two age groups. Certain (simple) questions regarding the online activity of the respondents are asked in both questionnaires giving us data that covers all ages. Other question items are targeted at the specific age groups according to their differing abilities. In addition, because of ethical concerns, it was decided that the questionnaire for the youngest age groups should not include questions on alcohol advertising³⁶. Rather, the exposure of the 4-8 year olds to alcohol online advertisement from the perspective of viewers was estimated using a qualitative approach, based on the results for the older groups on the relationship between online activity and (perceived) exposure (see also the subsection 'Analysis').

The youngest age group were questioned via their parents. At the end of the questionnaire they were asked to indicate if the parent filled in the questionnaire together with their child or by themselves on behalf of their child. For the oldest two age groups we expected the minors to fill in the questionnaire themselves. At the end of the questionnaire they were asked to indicate if they received help and from whom. This allowed us to take the help minors received into account in the analysis.

³³ The CAWI methodology is an Internet surveying technique.

³⁴ See: http://www.esomar.org/uploads/public/knowledge-and-standards/codes-and-guidelines/ESOMAR_Codes-and-Guidelines_Interviewing-Children-and-Young-People.pdf. ESOMAR defines a "child" as "aged 13 or under", and a "young person" as "aged 14-17".

³⁵ Figures on population size per age group obtained from Eurostat.

³⁶ However, a question on advertising in general was included.

The questionnaire consisted of four 'chapters' of questions that are in line with those used in other studies:

- Online activity (all age groups);
- Details on online activity (partly for all age groups, partly only for age groups 9-13 and 14-17);
- Awareness of (alcohol) advertising³⁷ (full chapter for age groups 9-13 and 14-17 and one question on advertising in general for the youngest age group);
- Memory for alcohol advertising (asking minors if they can describe the latest alcohol advertisement(s) they saw online) (age groups 9-13, 14-17).

No actual alcohol advertisements were shown in the questionnaires.

After the questionnaires were scripted, they were tested by the project team. As a result of this testing, several final changes were made and after that, the survey was launched.

The final versions of the questionnaires are presented in Annex F (separate document).

Analysis

The analysis of the survey results was conducted for the total sample as well as for the individual Member States. Results per question are presented both in total and split by age group.

The analysis was performed in Stata (version 13.1) and focussed on descriptives of the survey results as well as testing the relationship between online activity and alcohol advertisement recall. In reporting the results in Chapter 6, the findings on (detailed) online activity are used to set the scene for the analysis of self-reported exposure of minors to alcohol advertising online and serve as an input for testing the relation between online activity and self-reported exposure.

In order to estimate the exposure to alcohol advertising of the youngest age group from the perspective of viewers, we considered conducting a quantitative extrapolation of the results of the older age groups. However, in the end we decided to use a qualitative rather than a quantitative approach for this for the following reasons:

- In a quantitative extrapolation we would predict the outcome (memory for alcohol advertising) for the youngest age group based on only two observations (relationship between online activity and memory for alcohol advertising among minors aged 9-13 [observation 1] and among minors aged 14-17 [observation 2]). This number of observations is clearly insufficient for a robust quantitative extrapolation;
- The predicted memory level for alcohol advertising among the youngest age group will not be very reliable, because it will be based on the very strong (and incorrect) assumption that these age groups are in fact fully comparable. In particular, extrapolation would assume that *if* the three groups would be exposed to the exact same advertisement (on the same site/app), the probability that they will recall it afterwards is the same across the three groups. This assumption should be considered unlikely to hold true.

³⁷ Minors were not given a detailed definition of what was considered advertising in these questions, hence the results refer to what is perceived as advertisement.

2.5. Approach for Research Question 3

Research Question 3: For audio-visual media services (both linear and non-linear) and other online services, what type of alcohol advertising does an average minor see in the EU? Are minors specifically targeted by alcohol advertising? In how far is alcohol advertising appealing to minors and how? In particular, in how far do the provisions of the AVMSD and their application afford the required level of protection?

Research Question 3 focusses on the content of alcohol advertising on AV media services (both linear and non-linear) and other online services, in the nine selected EU Member States. More specifically, it considers what type of alcohol advertising an average minor sees, if minors are specifically targeted by alcohol advertising and to what extent alcohol advertising is appealing to minors and in what way. Hence, the analysis not only considered if the advertisements were specifically aimed at minors, but takes a broader perspective and analysed what is actually shown in the advertisements, and if this can be considered appealing to minors. This does not reflect any judgement on the presence of certain elements, but rather describes the content of the analysed advertisements.

For the purpose of the content analysis, the following activities have been undertaken:

- Development and validation of the analysis grid;
- Collecting advertisement for the content analysis;
- Application of the analysis grid.

2.5.1. Development of the analysis grid

In order to perform the content analysis, we developed an analysis grid based on:

- the previously used grid by GfK AUDIMETRIE;
- the articles 9 (1) and 22 a-f AVMSD;
- review literature on marketing, public health and under-aged drinking³⁸;
- theoretical and methodological discussions among the project team; and
- pilot testing.

The analysis grid has been validated by a peer review panel.

The analysis grid is a tool for assessing:

- whether the content of alcohol advertising reflects the above-mentioned articles of the AVMSD; and
- whether advertisements, in a more general sense, can be considered to be appealing to minors.

According to the Article 9(1) e AVMSD, the Member States shall ensure that AV communications in media comply with following requirements:

(e) Audio-visual commercial communications for alcoholic beverages shall not be aimed specifically at minors and shall not encourage of immoderate consumption of such beverages.

³⁸ For an overview of the results of the review of this literature, please refer to Annex H (separate document).

According to the Article 22 AVMSD, television advertising and teleshopping for alcoholic beverages shall comply with the following criteria:

- (a) it may not be aimed specifically at minors or, in particular, depict minors consuming these beverages;
- (b) it shall not link the consumption of alcohol to enhanced physical performance or to driving;
- (c) it shall not create the impression that the consumption of alcohol contributes towards social or sexual success;
- (d) it shall not claim that alcohol has therapeutic qualities or that it is a stimulant, a sedative or a means of resolving personal conflicts;
- (e) it shall not encourage immoderate consumption of alcohol or present abstinence or moderation in a negative light;
- (f) it shall not place emphasis on high alcoholic content as being a positive quality of the beverages.

The starting point of our work was the analysis grid developed by GfK AUDIMETRIE for the purpose of assessing whether the rules of the AVMSD had been able to sustain the required level of protection. As our study not only considers the provisions of the AVMSD, but also aims to evaluate the ways in which the advertisements are appealing to minors, existing research on marketing, communication and under-aged drinking was used extensively to identify the elements that have been shown to attract minors in advertising and, more generally, in substance use. In Annex H (separate document) we provide a description of these elements, supported by references to relevant literature on this topic.

The analysis grid is a theoretical model; it is not based on an inductive analysis of actual contents of alcohol advertisements, but rather, it points out elements that reflect the AVMSD criteria, or would potentially be appealing to minors according to existing scientific literature. The grid was thus established prior to the analysis, although alcohol advertisements were actively utilised during its development.

Pilot testing

The grid has been piloted twice. First, one (cider) advertisement was evaluated in-depth using the analysis grid. On the basis of this pilot, the basic theoretical stances were discussed thoroughly. The sub-categories were defined accordingly and made more precise. In the second test eight advertisements (six for beer and two for cider) were evaluated by project team members, including those who were to conduct the actual coding. All these team members coded the advertisements independently and after that discussed the sub-categories in order to reach a consensus. The outcome was that the sub-categories and descriptions were again further refined.

Peer review

The analysis grid has been reviewed and validated by a peer review panel of five members: Dr. Mark Grindle (University of Stirling), Professor Juan Miguel Rey Pino (University of Granada), Professor Karine Gallopel-Morvan (School of Public Health (EHESP), Professor Martin Stafström (Lund University) and Professor Bas van den Putte (University of Amsterdam). The panel received the full report on the analysis grid, including the description of the task and the development process, and the justification for the criteria. In addition, the panel members received an assessment form with specific questions regarding the analysis grid and supporting material. The overall

response by the reviewers was positive, but several concerns were raised especially relating to the ways in which minors are actually targeted in advertisements and how the age of key protagonists should be assessed. The comments and suggestions made were discussed within the project team and were taken into account as accurately as possible when preparing the new version of the grid. For a summary of the main points raised by the peer review panel, please see Annex I (separate document).

Categories and subcategories

Tables 2.5 and 2.6 provide an overview of the categories and subcategories of the analysis grid, including a description. The subcategories are partly derived from the AVMSD (coloured boxes) and partly based on the literature review to identify additional key characteristics of contents that minors are likely to find appealing (non-coloured boxes). For a more elaborate discussion of these subcategories, please see Annex H (separate document).

Table 2.5 Overview of analysis grid categories and subcategories, part 1: content aimed specifically at minors

Categories Subcategories	Description
Aimed specifically at minors	
Appearance of the age of protagonist(s) >18/<18 (22a)	How old does the protagonist/s look like?
Protagonist(s) as a primary group or reference group for minors	Protagonist(s) represent(s) a group which the young recipients can associate themselves with, for example a youth sub-cultural group or youth related lifestyles.
Young people's partying as a context of alcohol use	The context of the advertisement is young people's partying scene (including celebration, bar, disco, clubbing, home party).
Humour	Use of humorous mannerisms, satire, sarcasm, physical humour (e.g., slapstick), jokes, irony, spoofs, parody, illogical or improbable situations.
Celebrities	The advertisement portrays celebrities.
Animals	Advertisement utilizes animal characters, real or animated.
Online-participation	Is there anything in the ad that suggests the minor could or should participate with the content or the brand or its products online further?

Note: The subcategories that are derived from the AVMSD are coloured (brown).

Table 2.6 Overview of analysis grid categories and subcategories, part 2: assessing AVMSD criteria and themes appealing to minors in advertisement

Categories Subcategories	Description
Physical performance	
Alcohol as an enhancement of physical performance (22b)	The advertisement suggests that alcohol improves performance in physical activities, such as sports activities or dancing
Connection to driving a vehicle (22b)	The advertisement associates drinking with driving a vehicle.
Representation of athletic bodies	The advertisement contains athletic bodies.
Presence of sport activities	The brand and the product are associated with watching or participating in sports liked by teens (e.g. football, basketball, basketball, hockey, racing, snowboarding, skateboarding, cycling).
Alcohol as a reward after exercise	Alcohol is used as a means to reward oneself after physical activities.
Adventurous or risky setting	Alcohol is associated with challenging and/or competitive activities such as mountain climbing or rafting or other risky settings aiming at impressing others.
Alcohol as an enhancement of physical performance in youth setting	Alcohol is shown as improving physical performance located in youth setting (such as party, disco, skateboard park, play)
Social success	
Alcohol is associated with and/or is shown as contributing towards social success (22c)	The protagonist in the advertisement is shown to be popular and socially successful or is attracting positive attention. The advertisement suggests that drinking alcohol makes a person more popular and socially attractive. Product use is associated with increased personal confidence and ease in a social setting. Social success can be interpreted not only as the positive attention given to a person, but also, and more age-relevantly, as belonging and inclusion to a group.
Tokens of wealth	The advertisement utilizes fancy products or known indicators of wealth and success: electronics, boats, jewellery, cars, luxury clothing and accessories etc.
Alcohol enhances or sustains social interaction	The advertisement suggests that alcohol helps in bonding with other people and contributes to the emergence of positive and pleasant atmosphere in a social situation. An example of this is that there appears to be a change in the atmosphere and setting after the product and brand is introduced. Also, the advertisement may just associate the good atmosphere with drinking, implying that alcohol caused the good mood.
Sexual success	
Alcohol is associated with and/or is shown as contributing towards sexual success (22c)	The advertisement associates the product with persons who are portrayed as attracting sexual attention, and/or suggests that drinking alcohol makes a person more sexually attractive and/or helps in finding a sexual partner.

Categories	Description
Subcategories	
Enhanced sexual performance or enjoyment (22c)	The advertisement suggests that alcohol contributes to a better performance in sexual act or increases sexual pleasure.
Male/female sexualized body as attention grabber	Male or female body is portrayed as a sexualized object.
Mood-altering effects	
Therapeutic, stimulating or sedative effects of alcohol (22d)	The advertisement suggests that alcohol can be used as a means of altering one's state of mind, for example to calm oneself or stimulation. The change in the state of mind is portrayed.
Alcohol transforms and/or helps to sustain the mood of the setting	The advertisement suggests that alcohol caused the good mood of the setting, or there is a significant change in the general mood or atmosphere after introducing the alcoholic product.
Alcohol is associated with relaxation	The advertisement portrays alcohol in a relaxing setting indicating holiday or free-time leisure.
Enhancement of agency	
Alcohol portrayed as a solution to a personal problem (22d)	The advertisement gives alcohol a positive role in solving and mitigating personal conflicts or tensions.
Protagonist portrayed as extraordinary competent autonomous agent	The advertisement portrays a protagonist who is able to master all sorts of situations as an independent agent. The protagonist's identity position differs from the ordinary and (s)he does not need to conform to conventional norms or authorities.
Enhancement of competence related to gender roles	The advertisement associates drinking with fulfilling and mastering masculine or feminine gender roles, or with emancipatory aims at opposing traditional gender roles.
Immoderate consumption, abstinence and moderation	
Positive portrayal of immoderate consumption (22e)	The advertisement portrays immoderate drinking in a positive light.
Occasions and settings indicative of immoderate consumption (22e)	The setting implies immoderate consumption, such as heavy partying.
Cautious attitudes, moderation or abstinence in a negative light (22e)	Moderation, abstinence and/or a cautious attitude towards drinking or other activities in the setting are seen in a negative light.
Presence of abstinent person as an outsider	The advertisement portrays person/persons who do not drink and are not part of the in-group.
Downplaying the risks of alcohol	The advertisement implies that drinking alcohol is not risky, or risk-averse attitude is being ridiculed.
High alcoholic content	
Positive price/content message (22f)	The advertisement implies that the product is reasonably priced, though the alcoholic content is high.
High-content ingredient of a mixed drink highlighted (22f)	The advertisement portrays strong alcohol content in a mixed product as a positive quality, not only as product information.

Note: The subcategories that are derived from the AVMSD are coloured (brown).

2.5.2. Collecting advertisements for the content analysis

We collected a sample of alcohol advertisements for each of the nine selected Member States.

Advertisements on linear AV media services

The advertisement for the linear AV media services were purchased from Ebiquity, who provided us with lists of all alcohol advertisements that aired in 2013 in the selected Member States. These lists provided information on, among other things, the title of the advertisement, the brand, the sector, a summary of the story line of the advertisement and its duration. From these lists, 50 advertisements per Member State could be selected, from which a final selection of 10 advertisements could be made. For this final selection, verbatim translations to English were provided.

Selecting the advertisements

The first step in the selection of 50 advertisements per Member State was based on a categorisation per sector (beverage type). Using the information on national impacts per sector in WFA/Ebiquity dataset (used in the analysis for Research Question 1), the shares of the different sectors in the selection of 50 advertisements was determined. For example, when the shares of the impacts per sector were 60% beer, 30% spirits and 10% wine, we set the quota for the selection as follows: 30 beer ads, 15 spirits ads and five wine ads.

Secondly, we set quotas for selection within a sector by brand, based on additional data we received from Ebiquity regarding the number of insertions per brand per Member State in 2013. Building on the previous example: say 30% of all insertions in the beer sector in a Member State were for *Brand X*, the quota for selecting *Brand X* ads would be set at nine.

As a third step, we selected individual advertisements per brand. This was done based on a short description of the content of the advertisement to ensure that per brand not only advertisements from the same campaign were selected.

Next, the 450 advertisements in total, consisting of 50 advertisements per selected Member State, were made available to the project team through the online portal of Ebiquity. Out of these 50 advertisements per Member State, 10 advertisements per Member State were selected, using the same approach as before (split per sector, split per brand, selection of individual advertisement). In Annex J (separate document) we list the final selection of advertisements.

Advertisement on non-linear audio-visual media services and other online services

For the online advertisements, three advertisements per Member State have been selected based on most frequent occurrence of the overall campaign on the Internet.

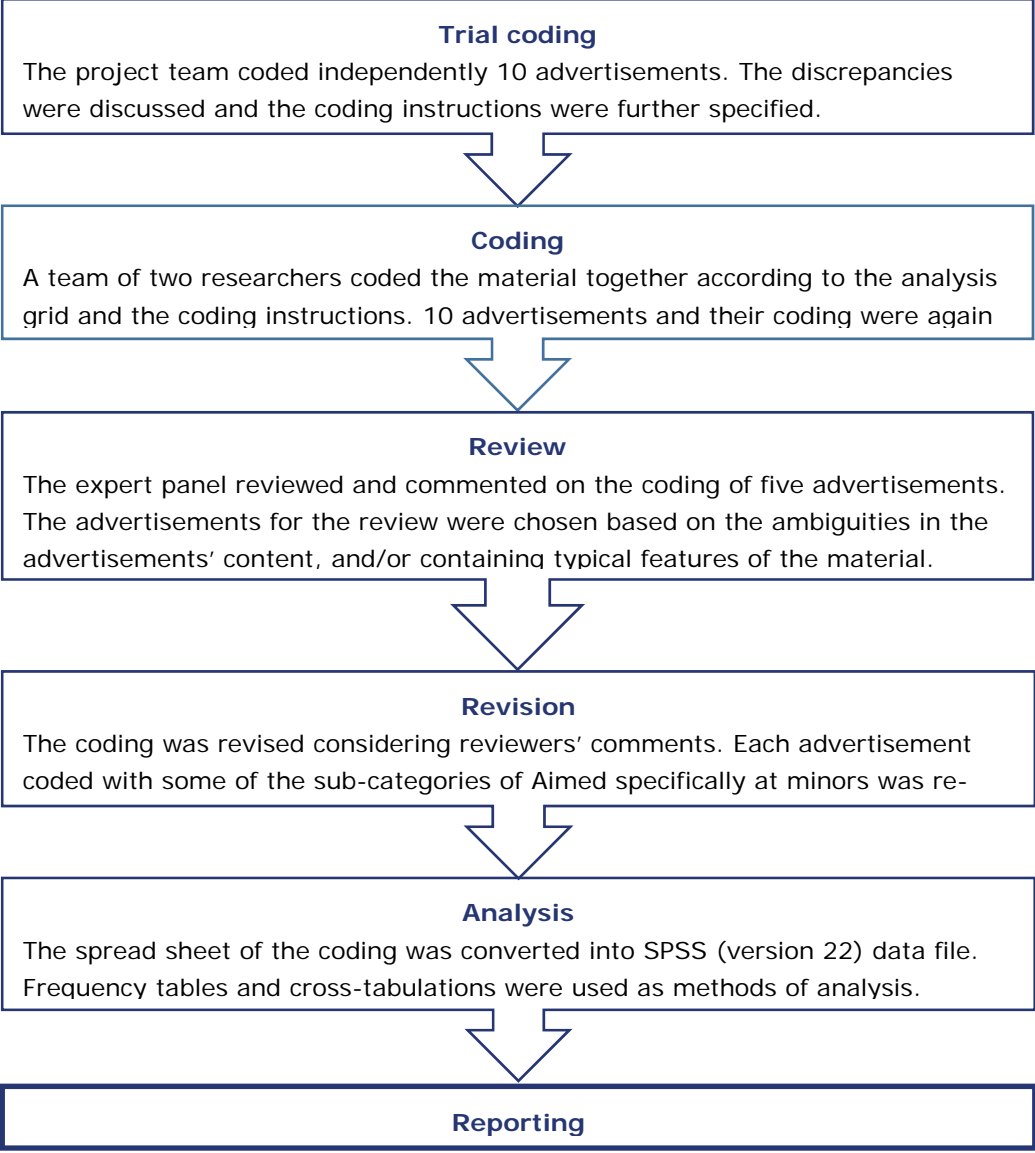
Initially, the idea was to include advertisements on non-linear AV services and other online services that would be collected through the online data capture that is part of the approach for Research Question 2. However, as during the online data capture only a very limited number of advertisements was encountered, an alternative approach had to be explored. It was decided to purchase up to three online advertisements per Member State from Ebiquity. Ebiquity provided for each Member State the banners with the

highest number of 'advert events' by campaign in 2013. Because of limitations in the availability of online advertisements, the sample only includes banners.

2.5.3. Application of the analysis grid

Figure 2.2 illustrates the approach used in the content analysis of the selected advertisements.

Figure 2.2 Approach for the content analysis



All findings and conclusions in this study only relate to the specific advertisements that were reviewed, that is, these results cannot be extrapolated to draw conclusions on alcohol advertisements on AV media services (both linear and non-linear) and on other online services in general.

2.6. Stakeholder review

A stakeholder review was organised as part of this study. The aim of the review was to get feedback from key stakeholders on the preliminary findings through:

Study on the exposure of minors to alcohol advertising on linear and non-linear audio-visual media services and other online services, including a content analysis

- Written comments on the preliminary draft study report; and/or
- The stakeholder review meeting that was held in Brussels on 7 September 2015.

Relevant stakeholders were approached to ask if they would be willing to participate in the review. Invitations were sent out by email and followed up both by email and phone. The stakeholders that expressed their willingness to participate received:

- The preliminary draft study report, presenting the preliminary findings of the study; and
- A questionnaire for providing feedback on the report.

Stakeholders were invited to submit a first draft of their written comments prior to the stakeholder meeting.

Representatives from 26 stakeholders participated in the meeting in Brussels. During the meeting, the preliminary findings of the study were presented and the main comments of the stakeholders were discussed.

After the meeting, final versions of the written comments could be submitted. All comments were carefully considered in drafting the final report.

In total, 35 stakeholders participated in the stakeholder review via written comments and/or participation in the stakeholder review meeting. For a list of stakeholders that participated, please see Annex K (separate document). For a summary of the main comments raised during the stakeholder review, please see Annex L (separate document).

3. Literature review

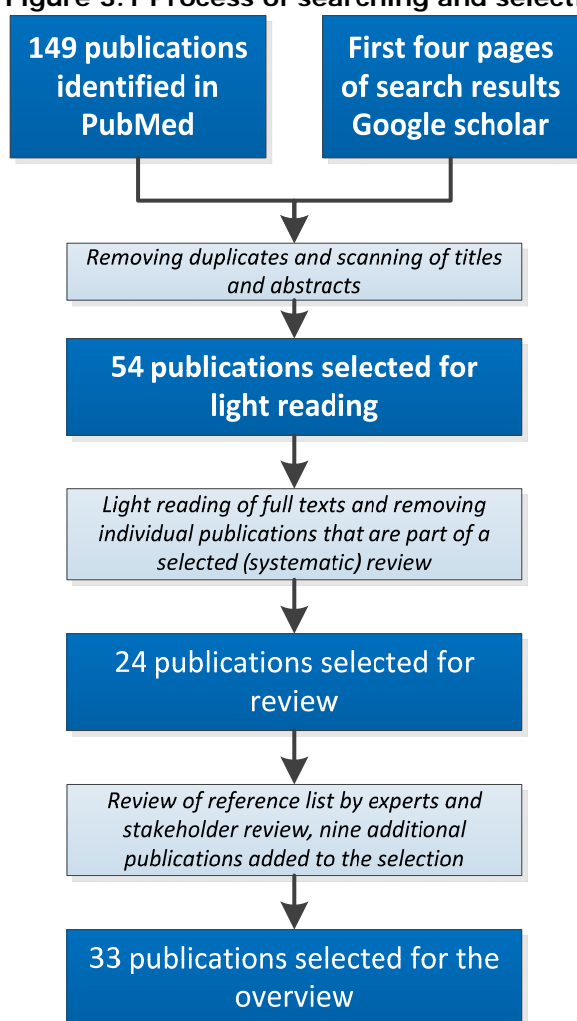
3.1. Overview of studies on the exposure of minors to alcohol advertising on linear and non-linear audio-visual media services and other online services

The first part of the review aimed to identify the relevant studies that have been conducted on the online exposure of minors to alcohol-related advertising on linear and non-linear AV media services and other online services.

3.1.1. Selection of publications

In Figure 3.1, we illustrate the selection process of the publications for this part of the review.

Figure 3.1 Process of searching and selecting publications



PubMed was searched using MeSH terms. Two reviewers independently scanned the titles and abstracts of 149 identified publications, after which 50 were selected for light reading. In addition, a search was conducted in Google Scholar. Four additional publications were selected for light reading.

For the resulting 54 publications full texts were obtained and after light reading by the two reviewers and eliminating individual publications that were part of a selected

(systematic) review, 24 publications were selected. Subsequently, the experts in our team (Prof. Peter Anderson and Prof. David Jernigan) reviewed the reference list to check whether it was complete and a stakeholder review of the preliminary study report was conducted. As a result, nine additional relevant publications (meeting the inclusion criteria) were identified and added to the selection. This led to a final selection of 33 publications. The experts also informed us on several relevant forthcoming publications. As these publications are not yet in the public domain, we have not included them in the review.

3.1.2. Summary of the results

Table 3.1 presents the authors and year of publication of the 33 selected publications.

Table 3.1 Overview of selected publications

No.	Author(s) (year)	No.	Author(s) (year)	No.	Author(s) (year)
1	Anderson et al. (2009)	12	McClure et al. (2013)	23	Martin et al. (2002) <i>(Proceedings of a symposium: 2001 Research Society on Alcoholism symposium)</i>
2	Nelson (2010)	13	Morgenstern et al. (2011a)	24	RAND Europe (2012)
3	Smith and Foxcroft (2008)	14	Pettigrew et al. (2012)	25	Ross et al. (2013)
4	Austin and Hust (2005)	15	Ringel et al. (2006)	26	Ofcom (2013)
5	Chung et al. (2010)	16	Tucker et al. (2013)	27	De Bruijn (AMPOHORA) (2013)
6	Collins et al. (2005)	17	Unger et al. (2003)	28	De Bruijn et al. (AMPHORA) (2012)
7	Fielder et al. (2009)	18	Winpenny et al. (2013)	29	De Bruijn et al. (AMMIE) (2012)
8	Grenard et al. (2013)	19	Winter et al. (2008)	30	Gordon et al. (2011)
9	Jernigan et al. (2005)	20	Centre for Disease Control and Prevention (2013)	31	Scharf et al. (2013)
10	Jernigan and Rushman (2014)	21	Davoren et al. (2012) <i>(Letters)</i>	32	Morgenstern et al. (2011b)
11	Jones and Magee (2011)	22	Jernigan (2006) <i>(Editorial)</i>	33	Morgenstern et al. (2015)

Of the 33 studies included in the review, 24 are scientific (peer-reviewed) publications [numbers 1 – 19, 25, 30 – 33 in Table 3.1] and 9 publications can be considered grey literature [numbers 20 – 24, 26 – 29 in Table 3.1]. Three of the 24 scientific publications are (systematic) reviews [numbers 1 - 3 in Table 3.1].

Geographical zone

In the three (systematic) reviews, the majority of the studies included (70-77%) are conducted in the United States.

This also holds for the individual scientific publications included in this review:

- United States: 12 [4, 5, 6, 8, 9, 10, 12, 15, 16, 17, 31, 33];
- Australia: 4 [7, 11, 14, 19];
- Germany: 2 [13, 32];
- United Kingdom: 2 [18, 30];
- The Netherlands: 1 [25].

Out of the publications that can be considered grey literature, three studies were conducted in the United States [20, 22, 23], one in Australia [21], one in the United Kingdom, the Netherlands and Germany [24], two in the United Kingdom [26], two in Germany, Italy, the Netherlands and Poland [27, 28] and one in Bulgaria, Denmark, Germany, Italy and the Netherlands [29].

Although the majority of scientific publications are from the US, the majority of the grey literature included is based on studies conducted in the EU. The experts in our team informed us that there are several forthcoming studies (amongst others from the AMPHORA project) that are also conducted in the EU and show similar results as the studies conducted in the US.

Purpose of the study

The studies differ in their purpose in relation to measuring exposure of minors to alcohol advertising and/or the effect of this exposure on youth drinking:

- 18 of the studies focus on (methodologies for) measuring exposure; and
- 15 of the studies focus on (methodologies for) examining the relationship between exposure and youth drinking.

Type of media services

Of the 30 individual scientific- and grey- publications, 18 focus on the exposure of minors to alcohol advertising on television [5, 6, 7, 8, 13, 14, 15, 17, 19, 20, 21, 22, 23, 25, 26, 29, 32, 33].

Two of the 30 individual studies focus specifically on social media [10, 18] and ten studies examine multiple media services, including TV [4, 9, 11, 12, 16, 24, 27, 28, 30, 31]. Except for one study [4], these studies also covered exposure on the Internet.

Methodologies

The 33 selected studies use different methodologies including:

- (Systematic) review of studies:
 - (Systematic) review of longitudinal studies: 2 [1, 2];
 - Systematic review of prospective cohort studies: 1 [3];
- Recording or purchasing of aired TV ads: 3 [4, 14, 33];
- Analysis of viewing and/or advertising impact/occurrence data: 10 [5, 7, 9, 15, 19, 20, 21, 24, 26, 29];
- Analysis of online data/monitoring of online activity: 2 [10, 18];
- Survey: 11 [6, 8, 11, 12, 13, 16, 17, 27, 28, 30, 32];
- Simulation model: 1 [25];

- Analysis of exposure using Ecological Momentary Assessment: 1 [31].

In addition, one of the included publications is an editorial [22] and one publication contains the proceedings of a symposium [23].

Systematic review of longitudinal studies (n=2)

One study conducted a systematic review of 16 publications that report on 13 longitudinal studies, which followed up a total of 38,000 young people in the period of 1990 to 2008. Participants of the studies were youngsters below the age of 18 years or below the legal drinking age of the country of origin of the study (whichever was the higher). Each of the studies included assessed: the exposure of individuals (below the legal drinking age) to commercial communications and media; alcohol drinking behaviour at baseline and alcohol drinking behaviour at follow-up [1]. Another study reviewed 20 longitudinal studies, each including a baseline and follow-up sample(s) of youth or young adults. All studies used one or more drinking behaviours as outcomes; one or more advertising marketing, promotional, brand recognition or receptivity measures as covariates; and multivariate statistical procedures [2].

Systematic review of prospective cohort studies (n=1)

One study conducted a systematic review of 9 publications reporting on 7 cohort (longitudinal) studies that followed up 13,255 young people aged 10-26 years old. The studies evaluated exposure to advertising or marketing or alcohol portrayals and drinking at baseline and assessed drinking behaviour at follow-up in young people. Studies were identified in October 2006 by searches of electronic databases, with no date restriction [3].

Recording or purchasing of aired TV ads (n=3)

The three studies using this methodology examined the amount of video-based advertisements on television in the US [4, 33] and Australia [14]. All three studies looked into the frequency as well as the content of alcohol advertisements. In the studies the advertisements were coded on the basis of the type of products promoted, the used themes and (potential) appealing elements to minors. In addition, Pettigrew et al. and Morgenstern et al. coded the airing times and the latter also considered the channel placement. All the studies made a comparison between exposure to alcohol and non-alcohol advertisements.

Analysis of viewing and/or advertising impact/occurrence data (n=10)

Nine of these ten studies analyse data on advertising occurrence and viewership [5, 7, 9, 15, 19, 20, 22, 26, 29]. One study analyses exposure to alcohol advertising during a specific broadcast (the 2008 broadcast of the Bathurst V8 car race) by combining the results of measuring on-screen time of alcohol sponsorship combined with viewing data for that broadcast [21].

The studies differ in their measure for reporting exposure:

- Two studies report Incidence rate ratios (IRRs), which indicates the amount by which alcohol ad intensity is multiplied for a given age category, relative to a reference category [5,22];
- One study used Nielsen Media to report characteristics of the data like, exposure of certain age groups and the adherence to the audience thresholds [29];

- Two studies report Target Audience Ratio Point (TARPs), which is calculated from the number of target audience individuals exposed to the advertisement as a proportion of the total target audience, multiplied by 100 [7,19];
- Four studies use data that is similar to the data that is analysed in this study for Question 1:
 - One study reports gross impressions, which indicate the total number of times that all members of a specific audience are exposed to the advertising [20];
 - Two studies report Gross Rating Points (GRPs), which are calculated as the gross impressions divided by the relevant population, multiplied by 100 [9,15];
 - One study measured viewing trends using audience data from the British Audience Research Bureau (BARB) by two measures: the volume of spot advertising (number of commercials aired on television) and advertising expenditure. In addition, impact data was analysed [26].

Studies also differed in the age groups they used:

- 12-20 years [9, 20];
- 2-11 years, 12-20 years, 21-24 years, 25+ years [5];
- 0-12 years, 13-17 years, 18-24 years, and 25+ years [7, 19];
- 6 -11 years, 12-17 years [15];
- 13-17 years, 18-24 years [21];
- 2-9 years, 10-15 years, 16-24 years, 25+ years (for 2 countries) and 6-12 years, 13-19 years, 20+ years (one country) [22];
- 4-15 years, 4-9 years, 10-15 years, 16-24 years, 16-17 years [26];
- 13-17 years, 18+ years [29].

Hence, except for one study, all use a reference group above the LPA in their analysis, such that exposure of minors can be compared to the exposure of adults. This is also done in our analysis for Research Question 1.

Next to age, some studies reported difference in exposure based on gender, race/ethnicity, demographic group and/or household income. In addition, several studies reported difference between the types of alcohol products (e.g. beer, wine, spirits). This breakdown is also considered in our analysis for Research Question 1.

The studies were conducted using data for the following periods:

- September 1998 – February 2002 [15];
- 2001-2006 [5];
- 2001-2003 [9];
- November 2005 – October 2006 [7];
- March 2005 – February 2006 [19];
- 2008 [21];
- 2010 [20]; and
- December 2010 – May 2011 [22];
- 2007 – 2011 [26];
- May – October 2010 [29].

Hence, one study considered one broadcast [21], two studies analysed data for half a year [22, 29], three studies for a full year [7, 19, 20], one study for 3 years [9], one for 3,5 years [15], one for 5 years [26], and one study for 6 years [5].

Survey (n=11)

Ten of the studies conducted in-school surveys amongst:

- 1,996 fourth graders and 1,525 ninth graders [6];
- 3,890 seventh to tenth graders [8];
- 2,130 sixth to eighth graders (mean age 12.2 years) [32];
- 3,415 sixth to eighth graders (mean age 12.5 years) [13];
- 2,321 students (mean age 12.6 years) [16];
- 591 eighth and tenth graders (mean age 14.3 years) [17];
- 9,032 students (mean age 14.05 years) [27];
- 6,651 students (mean age 13.95 years) [28];
- 920 second year pupils (mean age 13 years) [30].

Two cross-sectional surveys were conducted amongst:

- 1,113 adolescents aged 12 – 17 years [11]; and
- 1,734 underage drinkers from 15- to 20-year-old [12].

The studies used different measures of exposure, including:

- General television exposure/TV time [12,17];
- General online exposure/Internet time [12];
- Self-reported frequency of alcohol- or other drug-related media exposure [16, 27, 28];
- Self-reported frequency of alcohol advertising exposure (on different media) [8, 11, 17, 27, 28];
- Self-reported frequency of exposure to specific ads [13];
- Self-reported exposure to alcohol brand in movies [12];
- Exposure to alcohol advertising on popular shows (combining self-reported viewing time with data on frequency of alcohol ads on these shows) [8];
- Advertisement recognition/cued recall [6, 8, 9, 13, 17];
- Self-reported exposure to alcohol advertising and recall of brand names [30, 32];
- Recall of brand names/brand naming [6, 13,17];
- Product naming [6];
- Liking of alcohol advertisements [6, 8, 17];
- Favourite alcohol ad [12]; and
- Ownership of alcohol branded merchandise [12].

The survey that is conducted as part of this study for Research Question 2 focusses on exposure on non-linear audio-visual media services and other online services. Measures of exposure that were included are general online exposure/Internet time, self-reported exposure, memory for alcohol advertising and recall of brand names.

Ten of the studies using a survey methodology examined the relationship between exposure to alcohol advertising and drinking alcohol [8, 11, 12, 13, 16,17, 27, 28, 31, 32]. Two of these studies did not only consider on alcohol advertising, but also alcohol- or other drug-related media exposure in general [16] or advertising for non-alcohol products [13].

Analysis of online data/monitoring of online activity (n=2)

Both studies examined brand activity and user engagement. Brand activity was measured in terms of posts by the brand and user engagement in the forms of posting, liking and sharing. One study focussed on Facebook and used the CrowdTangle

Discovery App that automates monitoring of Facebook activity [10]. The other study also included Twitter and YouTube next to Facebook. In this study, brand activity was measured by following the brand on each of these three online services and user engagement was analysed by age (6 –14 years; 15 –24 years) and gender, the reach (proportion of Internet users who used the site in each month) and impressions (number of individual pages viewed on the site in each month) from alcohol brands for Facebook, YouTube and Twitter using Ebiqity data [18].

Simulation model (n=1)

One study used a simulation model to determine if time restrictions on alcohol advertisements on television and radio reduce youth exposure to alcohol ads. The model used advertising data from the USA and validated this with data from an actual time restriction policy implemented in the Netherlands.

Analysis of exposure using Ecological Momentary Assessment (n=1)

One study assesses the feasibility of using Ecological Momentary Assessment to measure adolescents' exposure to alcohol (and smoking-related) media. This assessment allows for precise measurement of the specific characteristics and context of individual alcohol-related media exposures via collection of data on smartphones.

Findings regarding the exposure of minors to alcohol advertising

Studies that examine the exposure of minors to alcohol advertising use a range of different measures. The longitudinal studies included in the systematic review by Anderson et al. (2009) for example include 'estimates of volume of media and advertising exposure'; 'ownership of branded merchandise'; 'recall and receptivity'; 'expenditure on advertisements'. In the systematic review of prospective cohort studies by Smith and Foxcroft (2008), all studies included self-reported measures of exposure (including questionnaires and interviews). Unger et al. (2003) investigated correlations among alcohol advertising exposure measures (including 'TV viewing', 'exposure to sport events', 'self-reported frequency of seeing commercials', 'cued recall', 'brand recall') and found that such correlations are small to moderate.

Austin and Hust (2005) report that ads for alcohol beverages aired more frequently than for non-alcohol beverages and that the majority of these ads were for beer. Pettigrew et al. (2012) found that one in ten beverage advertisements in Australia during the period of monitoring were an alcohol advertisement.

The awareness of exposure to alcohol advertising appears to be significant. That is, through self-reported measures of exposure, people indicate that they are aware of their exposure to alcohol advertisement. For example, Jones and Magee (2011) asked respondents to indicate their level of exposure on eight different media (including TV and Internet). The results show that the majority of respondents indicated to have been exposed to alcohol advertising on these media. Collins et al. (2005) conclude that exposure to advertisements appear to result in higher levels of beer advertising awareness. According to Gordon et al. (2011), the awareness of alcohol exposure is highest for TV advertising, followed by branded clothing, sport sponsorship and price promotions.

The literature indicates that minors are not only aware of their exposure to alcohol advertising, but they also recall the advertising and/or the brand. Morgenstern et al.

(2011a/b) for example, asked a sample of German adolescents to indicate brand recall and contact frequency for nine alcohol and eight non-alcohol TV ads few students (less than 2% of the sample) answered never to have seen any of the presented alcohol advertisements (for non-alcoholic ads this percentage was around 0.5%).

The studies included in this review indicate that exposure levels differ between age groups, gender and race. For example, two studies conducted in Australia [7, 19] indicate that adults are more exposed to alcohol advertising. More specifically, these studies found that the exposure of children (0 – 12 years) to alcohol advertising is equal to one-third of the level of mature adults (25+ years) and that underage teens (13 – 17 years) have more or less the same level of exposure as young adults (18 – 24 years). Ringel et al. (2006) found that boys are more exposed to alcohol advertising than girls (and that this differential increases with age), and that African-American minors are more exposed than whites (and this differential increases over time).

Multiple studies analysed during which timeslots exposure to alcohol advertising is highest. Two studies conducted in the United States [9, 22] show that underage youth (12-20) were per capita more likely to have seen nearly 24% of all alcohol ads broadcasted than legal-age adults. In addition, Jernigan et al. (2005) report that in 2003, the 15 television shows with the largest audiences of teens all portrayed alcohol ads. Chung et al. (2010) report that almost all alcohol advertisements were broadcasted in timeslots during which minors account for 30% or less of the audience. Ringel et al. (2006) found that there was more exposure to alcohol advertising during late-night television than during prime time and that sports programming had the highest share of alcohol advertising. This was also found by Martin et al. (2002). Scharf et al. (2013) found that exposure to alcohol-related media tended to occur most in the afternoon. Morgenstern et al. (2015) found that 46% of the alcohol advertisements they analysed aired between 3 AM and 8 PM.

The study of Ofcom (2013) also investigated differences in exposure levels between channels and their results showed a shift in viewing of UK children towards commercial channels, which increases the exposure of children to advertisement in general and more specific to alcohol advertising. The Ofcom study also showed that children watch more adult programmes, which have fewer restrictions on alcohol advertisement. Morgenstern et al. (2015) also consider the channel placement of alcohol advertising and found that most alcohol ads were placed on Sports and Entertainment channels.

Jernigan and Rushman (2014) and Winpenny et al. (2013) investigated exposure to alcohol advertising on social media sites in the UK. Jernigan and Rushman (2014) found that brand- and user activity has grown dramatically over the past three years for the 15 most popular alcohol brands in the United States. Winpenny et al. (2013) found that Facebook has the highest reach of the social media sites that were investigated (Facebook, YouTube and Twitter). In the case studies they conducted for online activity of several alcohol brands, they found that each of the brands maintained a Facebook page and a YouTube channel and that the levels of user engagement varied. In addition, they found that content on alcohol could often not be accessed by underage youth on Facebook, whereas this was possible on YouTube and Twitter. By examining the policies for Facebook, YouTube, and Twitter, Jernigan and Rushman (2014) also found that how accessible alcohol brand content is to users differs per Social Networking Site, but that with various levels of ease, underage users can access alcohol brand content that is

restricted to audiences above the legal purchase age.

Findings regarding the relationship between the exposure to alcohol advertising and youth drinking

The results of the studies included in this review indicate that there is a relationship, or association, between exposure to alcohol advertising and youth drinking, but that the strength of this association differs per study.

In the systematic review by Anderson et al. (2009), 12 of the 13 included studies concluded that exposure to alcohol advertising and/or media exposure has an impact on alcohol use. It was however noted that there is variation in the strength of the association as well as in the degree to which potential confounders were controlled for.

De Bruijn et al. (2013) showed that a higher exposure to online alcohol marketing increased the odds of binge drinking in the last 30 days. They showed a robust relation which was consistent over four different countries.

Smith and Foxcroft (2008) conclude in their systematic review that data from prospective cohort studies suggest an association between exposure and subsequent alcohol consumption and that this effect is significant across a range of different exposure variables and outcome measures.

Individual scientific publications as well as grey literature included in this review indicate the same effect or association between the exposure of minors to alcohol advertising and youth drinking, although the size of the effect differs across studies [8, 11, 12, 13, 16, 17, 22, 23, 27, 28, 31].

Nelson (2010) reviewed 20 longitudinal studies of youth drinking. The review finds that 21 out of 63 estimates of the effects of advertising and promotion on adolescent drinking are significant. In addition, it is noted that there are studies with negative, no and positive effects. It is concluded that there is no causal effect demonstrated, because of methodological shortcomings in the studies.

3.2. Overview of studies to support the development of the analysis grid

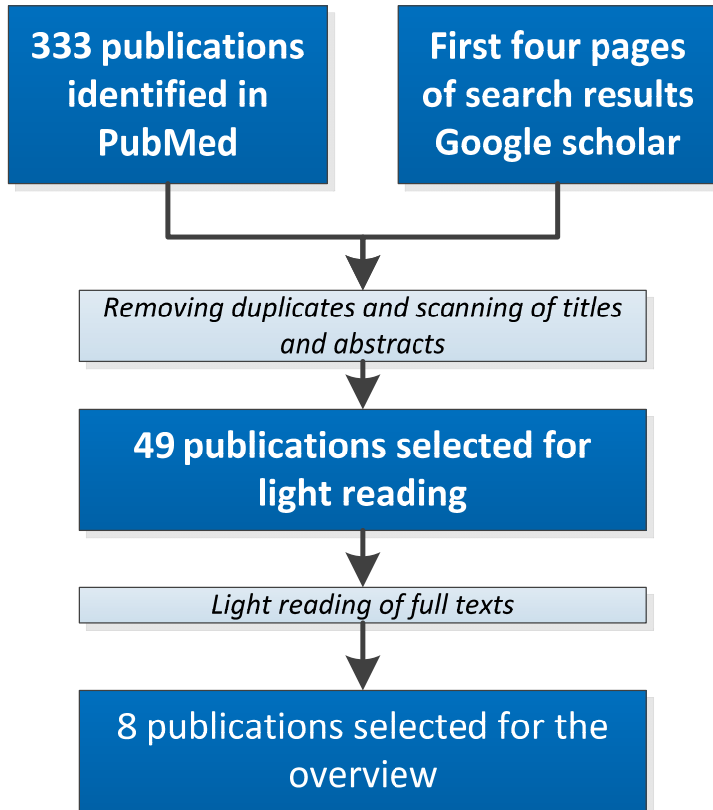
A second part of the literature review aimed to identify which features make alcohol advertising appealing to minors. The results of the review fed into the analysis grid developed as part of Research Question 3 of this study. For the development of the analysis grid, additional publications - that are outside the scope of this part of the literature review – are included. These publications are discussed in Annex H (separate document).

3.2.1. Selection of publications

The report by RAND Europe from 2012 acted as a starting point for this part of the review.

Figure 3.2 presents the process of searching and selecting publications for this part of the review.

Figure 3.2 Process of searching and selecting publications



PubMed was searched using MeSH terms and key words³⁹. Two reviewers independently scanned the titles and abstracts of 333 identified publications, after which 40 were selected for light reading. In addition, a search was conducted in Google Scholar. Nine additional publications were selected for light reading.

For the resulting 49 publications, full texts were obtained and after light reading by the reviewers, eight publications were selected for further analysis.

3.2.2. Summary of the results

Table 3.2 presents the authors and year of publication of the eight selected publications.

Table 3.2 Overview of selected publications

Ref.	Author(s) (year)	Ref.	Author(s) (year)
A	Ansu-Mensah et al. (2013)	E	Primack et al. (2012)
B	Banerjee et al. (2013)	F	Rozendaal et al. (2011)
C	Hellman et al. (2013)	G	Hartigan and Coe (2012)
D	Pettigrew et al. (2013)	H	RAND Europe (2012)

³⁹ A search with only MeSH terms yielded a limited number of results. We therefore searched PubMed using both MeSH terms and key words.

Of the eight studies included in the review, six are scientific (peer-reviewed) publications [numbers A-F in table 2-2] and two publications can be considered grey literature [numbers G-H in table 2-2].

Geographical zone

Two of the studies are conducted in the United States [B,E], one in Australia [D], one in Ghana [A] and the other four in EU countries. One of these four studies is conducted in the United Kingdom [G] and one in the Netherlands [F]. The other two cover multiple countries: the RAND study (2012) covers the United Kingdom, Germany and the Netherlands and Hellman et al. (2013) covers Denmark, Finland, Germany, Italy, the Netherlands and Poland.

Purpose of the study

The studies differ in their purpose and what they aim to examine in relation to what minors find appealing in alcohol advertising:

- Two of the included studies focus on the content of alcohol advertising and what elements of these advertisements appeal to minors [A and H];
- One of the included studies focusses on what appeals to minors and how minors respond to alcohol content encountered in different media [G];
- Two of the included studies examine ad literacy and understanding of persuasion tactics employed by advertisers [C and F];
- One of the included studies examines the prevalence of alcohol brand appearances in US popular music [E];
- One of the included studies focusses on the tactics employed by minors themselves, when creating counter-advertisements [B]; and
- One of the included studies assesses whether the new Code in Australia requires substantial changes to alcohol advertising [D].

Methodologies

The eight studies use different methodologies including:

- surveys amongst minors: 2 [A and F];
- focus groups with minors: 1 [C];
- (semi-structured) interviews: 1 [G];
- content analysis: 4 [B, D, E, H].

Of the four studies that conducted a content analysis, two did this for existing advertisements, one for references to alcohol and brand appearances in songs and one focussed on print alcohol counter-advertisement that were developed by high-school students.

Findings regarding appealing elements

Two studies identified 'humour' to be one the most appealing elements for minors in alcohol advertisements [A, H]. Other appealing elements that were mentioned in at least two studies that report on appealing elements [A, G, H] include celebrity endorsement/appearance, people having fun, people characters to whom they can relate, drinking setting (bar/party setting, nightclub scenes, social events), music, cartoons or animation, animal characters, and a simple, uncomplicated storyline.

The RAND study (2012) also elaborated on unappealing features, including product-focused aspects, poor technical presentation, negative presentation of women, exploitation or misrepresentation.

Primack et al. (2012) suggest that brand-name references to alcohol in popular US music are strongly linked to positive feelings and that these appearances are associated with, 'wealth', 'sex', 'luxury objects', 'partying', 'drugs', and 'vehicles'.

Findings regarding persuasion tactics

Banerjee et al. (2013) found that when high school- and college students had to draw their own counter-advertisement, the most often used persuasion strategies were 'having fun' and 'being one of the gang'. Other strategies used include: 'unexpected' (i.e. to include an unexpected event, image, element, etc.), 'endorsement' and 'glamour/sex appeal'.

Rozendaal et al. (2011) reported that tactics that have proven to be effective in child-directed advertising include: 'ad repetition', 'product demonstrations', 'peer popularity appeal', 'humour', 'celebrity endorsement' and 'premiums'. In addition, the study finds that the understanding of such tactics increases progressively between the ages of 8 and 12 years and it differs between tactics when children's understanding reaches the adult level. For example, this occurs at a relatively early age for 'celebrity endorsement' and at a relatively later age for 'product placement'. Hellman et al (2013) found, on the basis group discussions about televised beer commercials, that adolescents in six different European countries distinguished between the following tactics: 'branding', 'sociability' (i.e. to present social situations that adolescents identify with or with to strive for), 'scenery and setting' and 'humour'.

Pettigrew et al. (2013) analysed the content of advertisements in a two-month period approximately 18 months prior to the AARB Code in Australia. Most of the potential breaches of this new Code were related to the 'association of alcohol with success' and 'using appeals likely to be attractive to young people' (for example by depicting night club scenes or social events). Other potential breaches include: 'alcohol consumption taking precedence over other activities', 'change in mood or environment', and 'adults under 25 years'.

4. Exposure to alcohol advertising on linear audio-visual media services

The first research question for this study concerns the exposure of minors on linear AV media services:

“How much alcohol advertising does an average minor watching linear audio-visual media services in the EU see?”

To answer this question, data on general viewing patterns and on alcohol impacts was analysed.

The analysis of exposure of minors to alcohol advertising on linear AV media services was based on two datasets:

- the WFA/Ebiquity dataset providing information on global advertising impacts in 23 EU Member States; and
- the GfK/Dentsu Aegis dataset providing more detailed data for the nine selected Member States (Austria, Czech Republic, Finland, Germany, Italy, the Netherlands, Romania, Spain, United Kingdom”).

Definitions of terms and metrics used in this chapter

- The general viewing pattern data reports the rating (rat) per hourly timeslot expressed in both thousands and in percentages. The rating was calculated as follows:
 - o in thousands (rat000): the reach (that is, the proportion of the target group who was viewing) weighted by the Average Time Spent (that is, the amount of time watched per individual); and
 - o in percentages (rat%): the rat000 for a specific target group divided by the universe of that target group.

The rating per hourly timeslot can be interpreted as the audience in absolute terms (rat000) or as percentage of the target group (rat%) during that hour.

- The GfK/Dentsu Aegis spotlist data measure alcohol advertising impacts in Gross Rating Points (GRP), both in thousands and in percentages, The GRP were calculated as follows:
 - o in thousands (GRP(000)): the number of times an advertising spot was seen, which is also referred to as the ‘gross impressions’⁴⁰ of an advertising spot; and
 - o In percentages (GRP%): the gross impressions of an advertising spot in a specific target group divided by the universe of that target group.

The GRP can be interpreted as the total number of times an advertising spot was seen in either absolute terms (GRP(000)) or as a percentage of the target group (GRP%). Hence, GRP measure the exposure to alcohol advertising, which is referred to as ‘alcohol impacts’ throughout this report.

- Universe is defined as the total number of people per target group.

⁴⁰ It is called ‘gross impressions’ as it includes multiple exposures for some or all of the people that are exposed to an advertising spot. For example, if five people see an advertising spot two times, this counts as 10 gross impressions.

In the next section we present the main findings of the analysis for Research Question 1 (section 4.1). Next, we discuss the results of the analysis of the general viewing pattern data (section 4.2.) followed by a discussion of the findings with regard to the exposure to alcohol advertising based on the WFA/Ebiquity dataset (section 4.3) and the in-depth analysis of the nine selected Member States based on the GfK/Dentsu Aegis data (section 4.4). Subsequently, we present the results of the analysis of absolute and relative daily average alcohol impacts, including the weighting by average daily viewing ratings (section 4.5). Finally, we discuss the main limitations of the approach and methodology used (section 4.6).

4.1. Summary of main findings

On average, a minor in the EU saw 200 alcohol impacts and an adult over 450 in 2013

The analysis of both the WFA/Ebiquity dataset and the GfK/Dentsu Aegis dataset⁴¹ revealed that, on average, approximately 7.3% of the total number of alcohol impacts seen in the EU on linear AV media services in 2013 were seen by minors. For the nine selected Member States this ranges from 5.0% to 9.0%.

In absolute numbers this means that, on average, a minor in the EU saw 200 alcohol impacts and an adult over 450 in 2013. Similar results were seen for each Member State. A further breakdown of these results by distinguishing between two age groups for minors shows that a 15-17 year old on average saw almost 300 alcohol impacts in 2013 and a minor aged 4-14 year old 180. Hence, the average number of alcohol impacts, an individual saw on linear media services in the nine selected Member States, increases with age.

1.8% of all advertising impacts seen by minors are for alcohol advertising

Based on the data in the WFA/Ebiquity dataset we found that the percentage of alcohol impacts of total market impacts is on average 1.8% for minors and 2.2% for adults.

Most impacts are seen for the sector 'beer'

In the selection of Member States the sector 'beer' has the highest share in both the number of spots and the number of impacts seen.

Consistent results across datasets

The analysis for Research Question 1 is based on two datasets: data collected from GfK/Dentsu Aegis, and (2) the WFA/Ebiquity dataset. For both datasets a global breakdown of the number of alcohol spots and alcohol impacts in 2013 is analysed and, although there were a few differences between the datasets in terms of the definition of age groups and sectors, the findings are consistent.

The difference in the level of exposure to alcohol advertising between minors and adults may be partly explained by the differences in their viewing habits

The analysis of the viewing data for the nine Member States revealed that the viewing patterns of adults and minors differed. In order to analyse if this difference in viewing habits may explain the difference in the level of exposure to alcohol advertising between minors and adults, we weighted the absolute daily average alcohol impacts by the average daily viewing rates per age group.

⁴¹ For more information on these datasets, please see Chapter 2.

We found that after applying this weighting, the difference between the exposure of minors and the exposure of adults to alcohol advertising on linear AV media services was reduced. We also applied a weighting based on the average viewing rates per age group for a subset of channels, namely those channels that include alcohol advertising. The results showed that applying this weighting further reduced the difference in exposure between minors and adults. In several of the nine selected MS, this weighted value was even higher for minors than for adults.

Hence, the difference in the level of exposure to alcohol advertising between minors and adults may be partly explained by the differences in their viewing habits, both in terms of how often they watch television, and which channels they watch.

Majority of alcohol impacts is seen on commercial and generalist channels

An analysis of the breakdown of alcohol impacts by the type of channel revealed that in all Member States, the majority of both alcohol spots and alcohol impacts were seen on commercial channels. However, the average impact per spot appeared to be higher on public channels. Moreover, the results indicated that while in most Member States the majority of spots were on generalist (i.e., not topic-specific) channels or on 'Entertainment, Series, Movies' channels, the majority of impacts was seen on generalist channels. This may be explained by the relatively high viewing rating for these channels.

Exposure to alcohol advertising peaks in the evening

When looking at difference in terms of alcohol impacts throughout a day, we found that for the adults the peak day part was between 21:00 and 23:59 in all Member States. With the exception of one Member State, this was also the peak day part for the 15-17 years olds. For the 4-14 year olds the peak day part was between 17:00 and 20:59 in four Member States and between 21:00 and 23:50 in five Member States. Comparing these results with the peak day parts in terms of viewing patterns, we saw that for all age groups, in all nine Member States, the peak day part in terms of number of alcohol impacts was either the same as the peak day part for viewing patterns or one day part later.

With regard to hourly timeslots we found that in each selected Member State the alcohol impacts for all age groups followed a rather similar pattern with a peak in the evening. In four of the nine selected Member States, the peak hourly timeslot was the same across age groups.

Within Member States, exposure to alcohol advertising is highest for all age groups on the same week day

Finally, the results showed that there is a strong diversity across Member States in terms of the weekday with the highest number of impacts seen. Also within Member States differences between age groups were observed, but in the majority of Member States, all age groups saw on average the most impacts on the same weekday.

4.2. Viewing patterns

In order to set the scene for the analysis of the exposure of minors to alcohol advertising, we first present the findings with regard to general viewing patterns.

The data on general viewing patterns concerns ratings, in both thousands and percentages, per hourly timeslot, in 2013 for the nine selected Member States. This data was obtained from GfK/Dentsu Aegis. As explained in section 2.3.1 (Chapter 2), this data source covers a selected sample of channels in the Member States analysed⁴². Because of differences in the level of coverage of cumulative audience shares between Member States, cross-country comparisons should be made with caution.

Central focus of our analysis of viewing patterns is the breakdown between the following three age groups: 4-14 year olds, 15-17 year olds, and people aged 18+. For each of these age groups, we first present the average daily rating, after which we provide a break down by:

- day parts;
- hourly time slots; and
- channel category.

The findings outlined in this chapter are based on the information presented in the country reports in Annex C (separate document).

4.2.1. Average daily ratings

Before providing more detailed information on the general viewing patterns in each of the nine selected Member States, we first present the average daily rating in 2013 in rat%.

Table 4.1 Daily average viewing rating, per age group (year = 2013; in rat%)

Daily average rating (000)	4-14 year olds	15-17 year olds	18+ year olds
AT	81	103	190
CZ	119	117	249
FI	104	67	201
DE	63	53	189
IT	99	117	276
NL	116	103	257
RO	383	313	454
ES	118	106	229
UK	65	70	167

Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

From Table 4.1 it can be inferred that in each Member State, the daily average rating in 2013 was higher for adults than for minors.

In three Member States (Austria, Italy, and the United Kingdom) the average daily

⁴² For an overview of the selected sample of channels per Member State, please refer to the country reports presented in Annex C (separate document).

ratings increase with age, whereas in the other six selected Member States the numbers are higher for the 4-14 year olds than for the 15-17 year olds.

The average daily ratings will serve as an input for the weighting of the daily average alcohol impacts (see Section 4.5).

Next, we present the results for the different breakdowns of the viewing ratings, which provide more detailed information on the general viewing patterns for the three age groups in the nine selected Member States.

4.2.2. Viewing patterns by day part

Tables 4.2 – 4.4 provide a breakdown of average hourly viewing rates, expressed as a percentage of the universe, by day part for the three age groups per selected Member State. Orange marked fields signal the highest value within a Member State for the various day parts.

Table 4.2 Average hourly viewing rating by day part, age group 4-14 (year = 2013; in rat%)

Day part	AT	CZ	FI	DE	IT	NL	RO	ES	UK
06:00 - 09:59	1.7	3.8	7.0	1.6	1.5	3.5	9.5	1.7	1.7
10:00 - 16:59	3.4	5.1	3.9	2.6	4.2	3.6	18.3	6.0	2.1
17:00 - 20:59	8.0	12.6	9.6	5.8	6.5	12.4	28.6	7.1	8.1
21:00 - 23:59	5.2	5.7	3.2	4.5	11.5	8.5	27.2	11.2	3.5
00:00 - 05:59	0.4	0.2	0.1	0.3	0.6	0.2	3.4	1.1	0.1

Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Note: Orange marked fields signal the highest value within a Member State for the various day parts.

Table 4.3 Average hourly viewing rating by day part, age group 15-17 (year = 2013; in rat%)

Day part	AT	CZ	FI	DE	IT	NL	RO	ES	UK
06:00 - 09:59	0.9	1.4	0.6	0.5	0.8	0.8	5.3	0.6	0.6
10:00 - 16:59	3.8	4.6	1.8	2.0	5.5	1.6	13.1	4.9	2.0
17:00 - 20:59	8.6	11.1	7.9	4.1	7.2	10.2	24.4	5.3	7.9
21:00 - 23:59	9.3	10.1	6.4	5.4	13.4	14.7	26.6	11.3	6.8
00:00 - 05:59	1.7	0.8	0.2	0.7	1	0.7	3.8	2.3	0.2

Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Note: Orange marked fields signal the highest value within a Member State for the various day parts.

Table 4.4 Average hourly viewing rating by day part, age group 18+ (year = 2013; in rat%)

Day part	AT	CZ	FI	DE	IT	NL	RO	ES	UK
06:00 - 09:59	1.9	3.5	4.3	2.5	4.7	2.5	12.9	1.7	2.3
10:00 - 16:59	6.0	8.6	3.6	6.8	13.3	3.7	17.0	10.0	5.7
17:00 - 20:59	17.6	25.6	22.8	15.7	18.9	25.4	33.0	14.5	18.0
21:00 - 23:59	17.6	20.7	20.5	18.2	24.9	34.5	36.1	22.2	14.4
00:00 - 05:59	2.8	1.8	0.9	2.3	2.3	2.7	7.2	4.6	0.5

Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Note: Orange marked fields signal the highest value within a Member State for the various day parts.

The results indicate that in each selected Member State for each age group, average hourly viewing ratings increased over the day until they peaked and then declined again.

Table 4.2 shows that for the 4-14 year olds the day part with the highest average hourly viewing rates was 17:00-20:59 in all selected Member States except Italy and Spain. In these two Member States the peak for this age group is observed in the day part 21:00-23:59.

For the older two age groups it can be inferred from Tables 4.3 and 4.4. that in each selected Member State the day part with the highest average hourly ratings was the same for the 15-17 year olds and the adults.

In addition, the results of the analysis by day part show that there are five Member States for which the day part with the highest average hourly ratings was the same for all age groups:

- In Czech Republic, Finland and the UK this is the case for the day part 17:00-20:59;
- In Italy and Spain this is the case for the day part 21:00-23:59.

In the other four Member States (Austria, Germany, the Netherlands and Romania) the peak in average hourly viewing ratings for the 4-8 year olds occurred one day part earlier than those for the older two age groups.

The day part with the lowest average hourly ratings for the youngest age group (4-14 year olds) was 00:00-05:59 in all selected Member States. In Czech Republic, Finland, Romania and the UK this is the day part with the lowest average hourly viewing rates for all age groups. For the other age groups this varied per Member State:

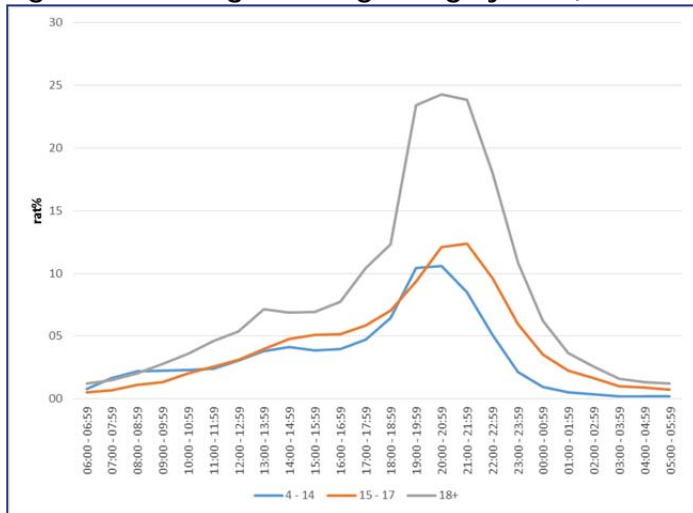
- in Austria and Spain the day part with the lowest average hourly viewing ratings was the day part 06:00-09:59 for both the 15-17 year olds and the adults;
- in Germany and Italy the day part with the lowest average hourly viewing ratings was the day part 06:00-09:59 for the 15-17 year olds and the day part 00:00-05:59 for the adults; and
- in the Netherlands the day part with the lowest average hourly viewing ratings was the day part 00:00-05:59 for the 15-17 year olds and the day part 06:00-09:59 for the adults.

4.2.3. Viewing patterns by hourly timeslot

Figure 4.1 - Figure 4.9 present the average viewing rates per hourly timeslot, for the three age groups in each Member State. These figures show that in each Member State the viewing rates followed similar patterns for the different age groups.

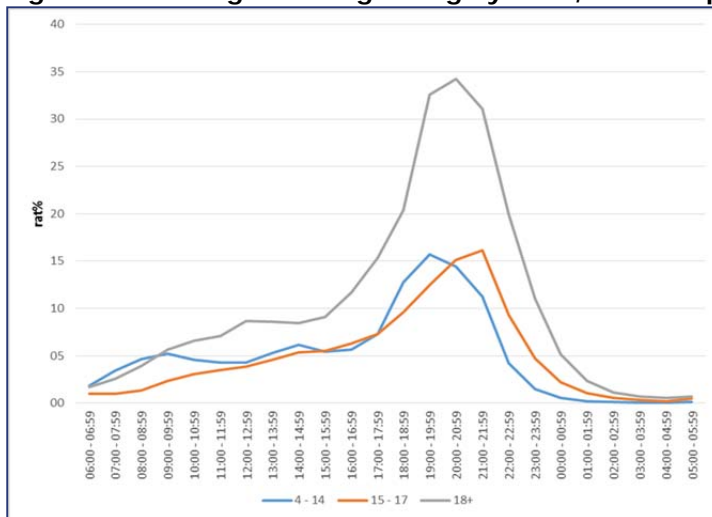
The viewing patterns show increasing rates over the day with the highest peak during in the evening. A distinct second peak was observed in Italy in the early afternoon. For the other Member States, the viewing pattern showed a more gradual increase to the prime time peak in the evening. In all Member States, there was a steep decline in viewing ratings after the evening peak.

Figure 4.1 Average viewing rating by hour, Austria (year = 2013; in rat%)



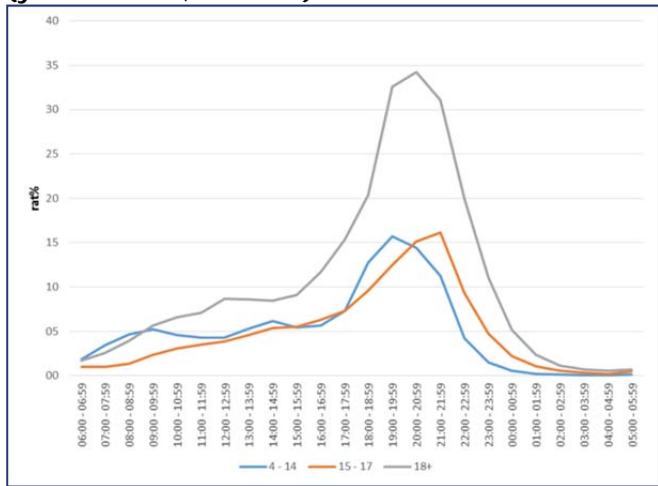
Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Figure 4.2 Average viewing rating by hour, Czech republic (year = 2013; in rat%)



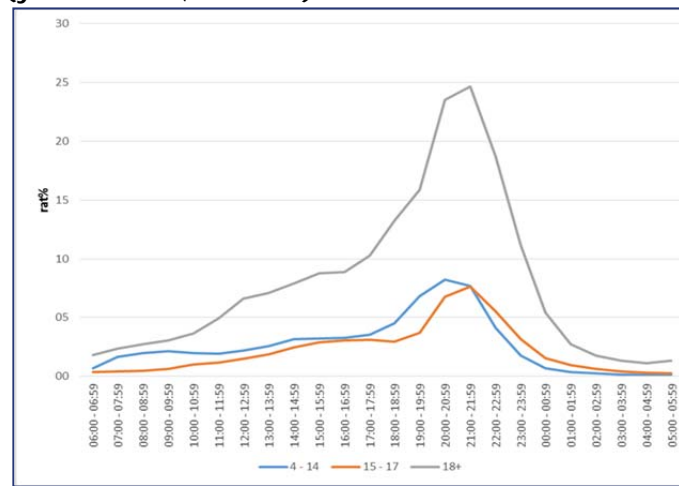
Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Figure 4.3 Average viewing rating by hour, Finland (year = 2013; in rat%)



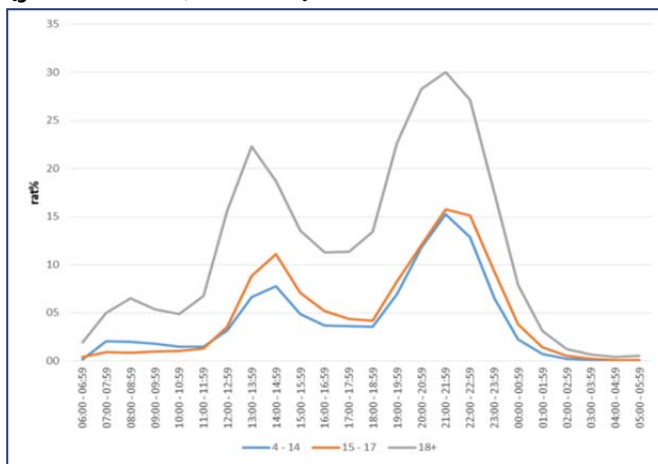
Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Figure 4.4 Average viewing rating by hour, Germany (year = 2013; in rat%)



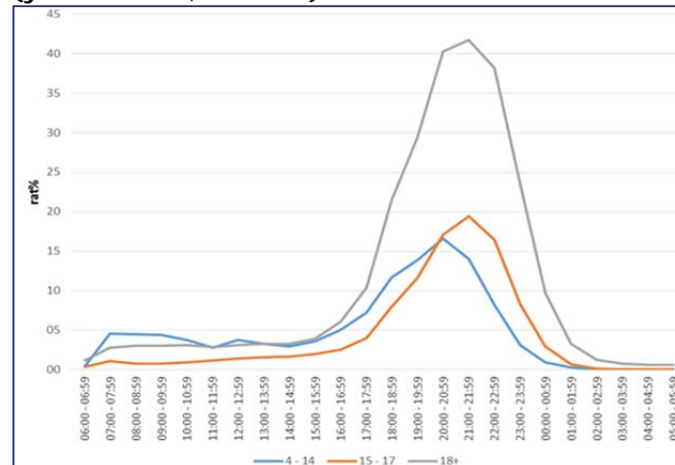
Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Figure 4.5 Average viewing rating by hour, Italy (year = 2013; in rat%)



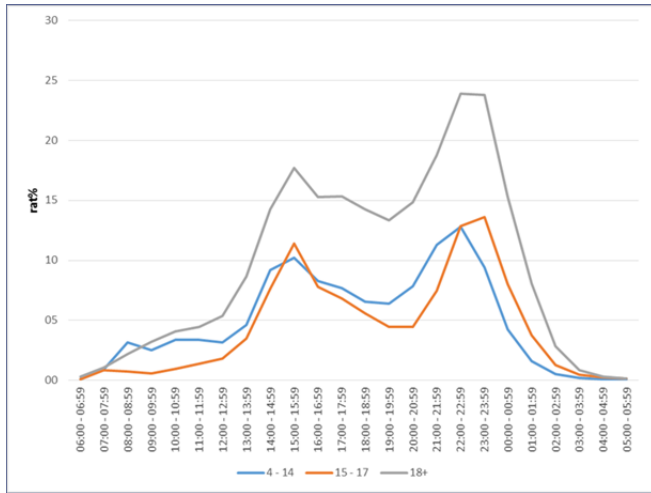
Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Figure 4.6 Average viewing rating by hour, The Netherlands (year = 2013; in rat%)



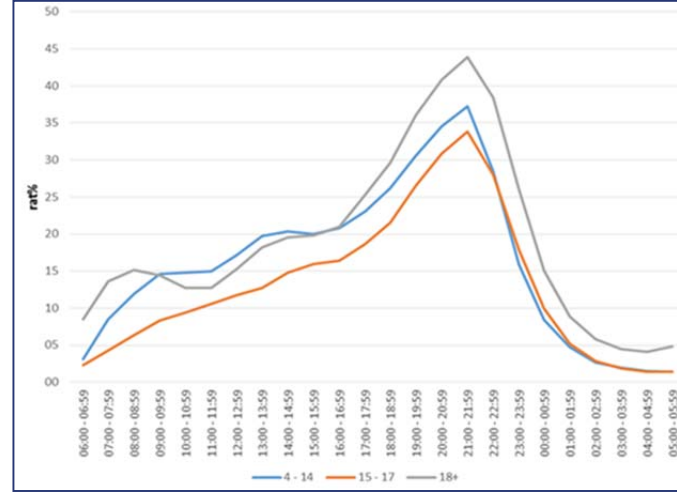
Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Figure 4.7 Average viewing rating by hour, Romania (year = 2013; in rat%)



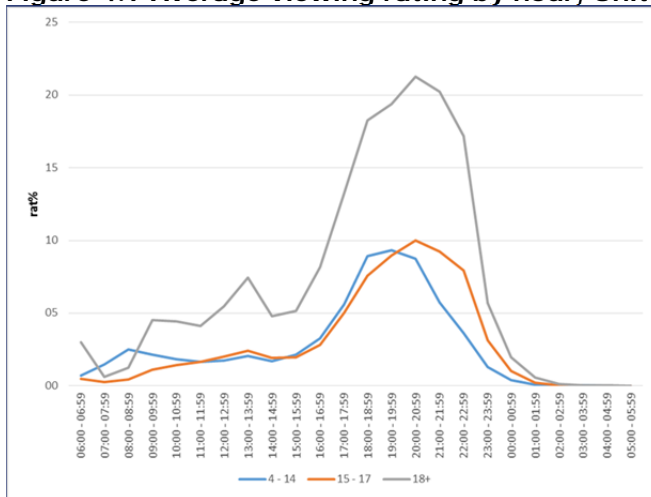
Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Figure 4.8 Average viewing rating by hour, Spain (year = 2013; in rat%)



Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Figure 4.9 Average viewing rating by hour, United Kingdom (year = 2013; in rat%)

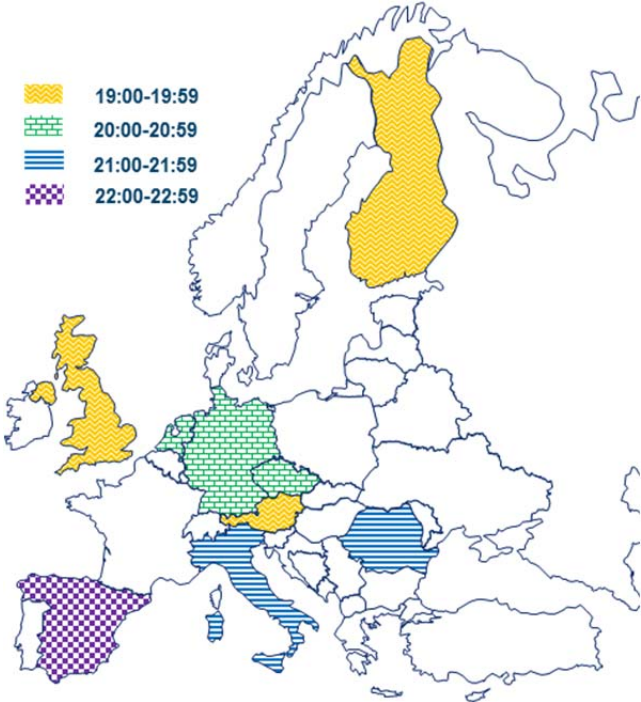


Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

As can be seen from the figures, peak hours differ across Member States and across age groups. Figures 4.10 to 4.12 present the peak hours per Member State in a map and the average ratings during these peak hours (both in absolute values and as percentages of the universe) in the table. Overall, the spread in peak hours across Member States is lowest for the 15-17 year olds. The maps also illustrate that peak hours tend to be later in the more Southern and Eastern Member States.

Figure 4.10 Peak hours and average ratings in peak hours, 4-14 year olds (year = 2013; in rat%/rat000)

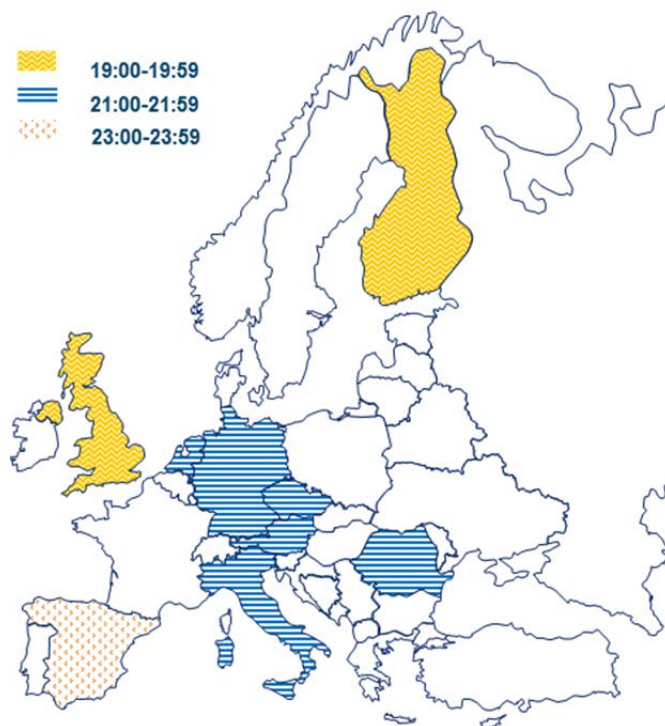
Member State	Average rating
Austria	10.6% 94,000
Czech Republic	14.4% 173,000
Finland	13.1% 113,000
Germany	8.2% 591,000
Italy	15.3% 946,000
The Netherlands	16.6% 372,00
Romania	37.2% 827,000
Spain	12.8% 649,000
United Kingdom	9.3% 727,000



Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Figure 4.11 Peak hours and average ratings in peak hours, 15-17 year olds (year = 2013; in rat%/rat000)

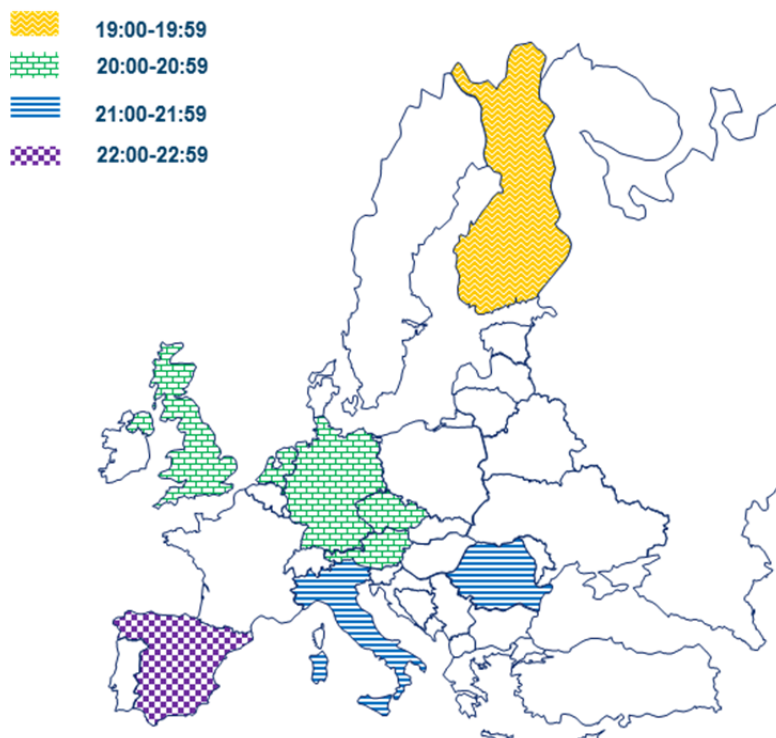
Member State	Average rating during peak hour
Austria	12.4% 37,000
Czech Republic	16.1% 45,000
Finland	12.4% 31,000
Germany	7.6% 198,000
Italy	15.7% 271,000
The Netherlands	19.4% 121,000
Romania	33.9% 194,000
Spain	13.6% 185,000
United Kingdom	10.0% 223,000



Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis

Figure 4.12 Peak hours and average ratings in these hours, 18+ year olds (year = 2013; in rat%/rat000)

Member State	Average viewing rating during peak hour
Austria	24.3% 1,618,00
Czech Republic	34.2% 2,889,000
Finland	31.1% 1,425,000
Germany	24.7% 15,171,000
Italy	30.0% 15,009,000
The Netherlands	41.8% 5,402,000
Romania	43.9% 7,123,000
Spain	23.9% 8,994,000
United Kingdom	21.3% 10,177,000



Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

4.2.4. Viewing patterns by channel categories

For the viewing data we made a split in channel categories on the basis of:

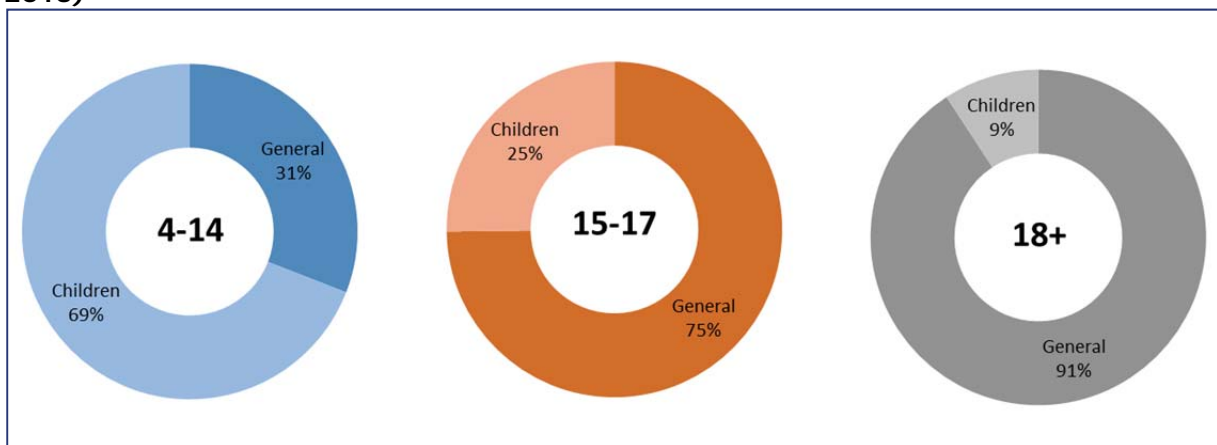
- the channel's target group: children or general; and
- the channel's type: public or commercial.

The country reports (Annex C, separate document) contain detailed information on viewing patterns by individual channel.

Channel's target group

Figure 4.13 presents the share of average hourly viewing rates by the channel's target group, per age group, for all nine Member States together. These overall shares are calculated as the sum of average viewing rates per channel's target group across Member States. The figure illustrates that on average, the share of children channels in viewing rates decreased with age, compared to that of general channels.

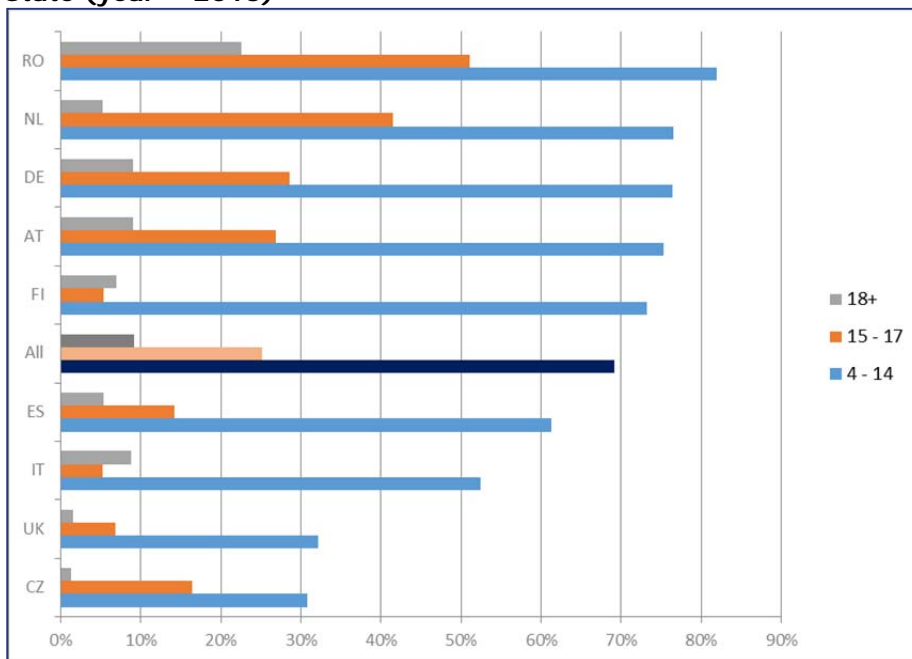
Figure 4.13 Share of average hourly viewing ratings by channel's target group (year = 2013)



Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Figure 4.14 presents the per Member State shares of hourly viewing rates for children's channels, broken down by age group. The figure also includes the overall results of the nine selected Member States combined as presented in Figure 4.14, labelled as "All".

Figure 4.14 Share of average hourly viewing ratings for children’s channels, by Member State (year = 2013)



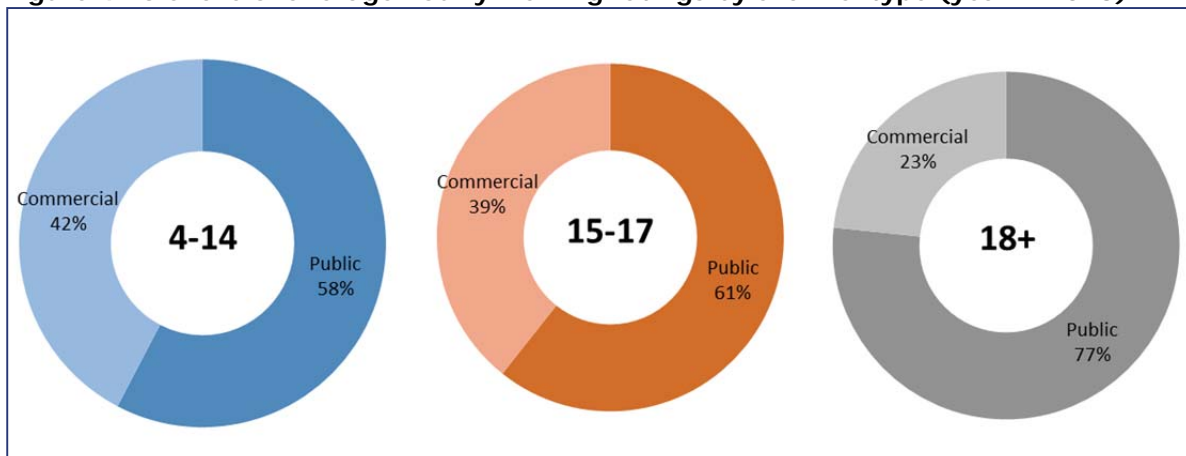
Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

The general pattern of declining shares of children channels in average hourly viewing rates with higher age categories holds for most Member States. Main exceptions are Italy and Finland, where the shares for the age category 18+ were higher than for the age category 15-17, but both were still well below those of the age group 4-14.

Channel's type

Figure 4.15 presents the share of average hourly viewing rates by the channel's type (public or commercial), per age group, for all nine Member States together. This figure illustrates that on average, the share of public channels in average hourly viewing rates increased with age, compared to that of commercial channels. This may be partly explained by the fact that the majority of children channels are commercial channels and the breakdown between children and general channels as presented above is also reflected in the viewing patterns for type of channel.

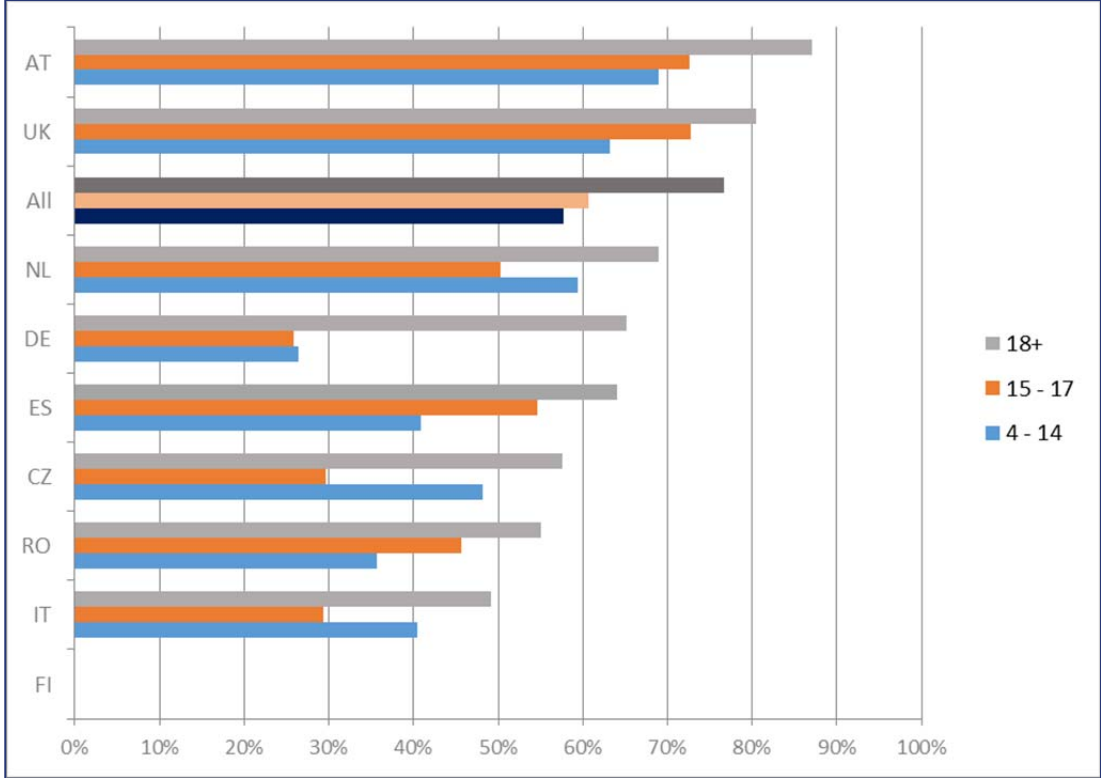
Figure 4.15 Share of average hourly viewing ratings by channel type (year = 2013)



Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Figure 4.16 presents the per Member State results for this split by reporting the percentage for public channels and also includes the overall results for the nine Member States, as presented in Figure 4.15.

Figure 4.16 Share of average hourly viewing ratings for public channels, by Member State (year = 2013)



Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.
 Note: Finland and Spain have been excluded from Figure 4.16, as the data set only contains commercial channels for these Member States.

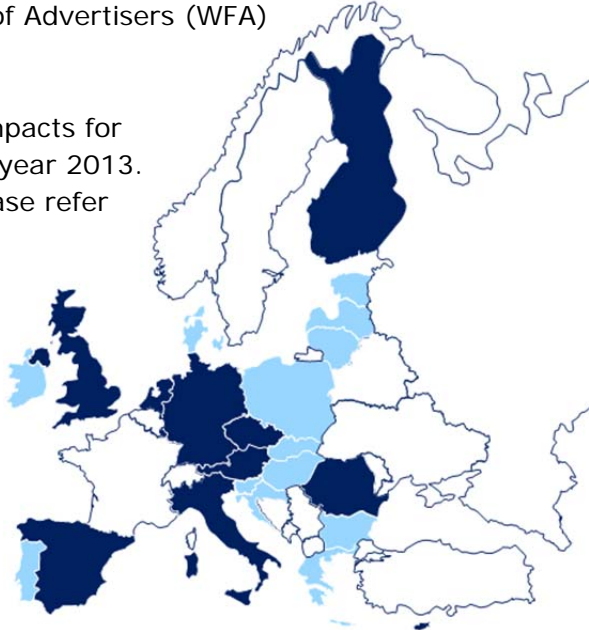
4.3. Exposure to alcohol advertising – WFA/Ebiquity data

As described in Chapter 2, we received a dataset on global advertising impacts that was compiled by the World Federation of Advertisers (WFA) and checked by Ebiquity.

The data contains information on spots and global impacts for both the total market and alcohol brands for the full year 2013. For a more elaborate description on the dataset, please refer to section 2.3.2 (Chapter 2).

Next to the nine Member States selected for this study (marked dark blue on the map), the data set covers an additional 14 Member States (marked light blue on the map):

- Belgium;
- Bulgaria;
- Croatia;
- Denmark;



- Estonia;
- Greece;
- Hungary;
- Ireland;
- Latvia;
- Lithuania;
- Poland;
- Portugal;
- Slovakia;
- Slovenia.

The number of channels covered in the WFA/Ebiquity data exceeds the channels covered in the GfK/Dentsu Aegis dataset.

Based on this data, an analysis was conducted in order to assess:

- The exposure of minors (under-LPA audience) to alcohol advertising, including their exposure to alcohol advertising compared to that of this at LPA or above; and
- Minors' (under-LPA audience) exposure to alcohol advertising as compared to their exposure to total advertising.

The results are presented in three sections:

- Number of spots;
- Exposure of minors to advertising (advertising impacts);
- Alcohol advertising per sector.

All tables and figures present information for the 23 Member States individually and when relative data is presented, a total for all Member States and a total for the nine selected Member States is included as well. The total is based on the sum of impacts and universes across all Member States and the '9MS' is based on the sum of impacts and universes in the WFA/Ebiquity data for the nine selected Member States. These figures are added to facilitate comparisons between the total sample in this dataset and the nine selected Member States for the in-depth analysis (i.e. to illustrate in how far these nine Member States appear to be representative for the total sample). Moreover, it enables comparison between this dataset and the GfK/Dentsu Aegis dataset, for which the findings of the analysis are presented in section 4.4.

4.3.1. Number of spots

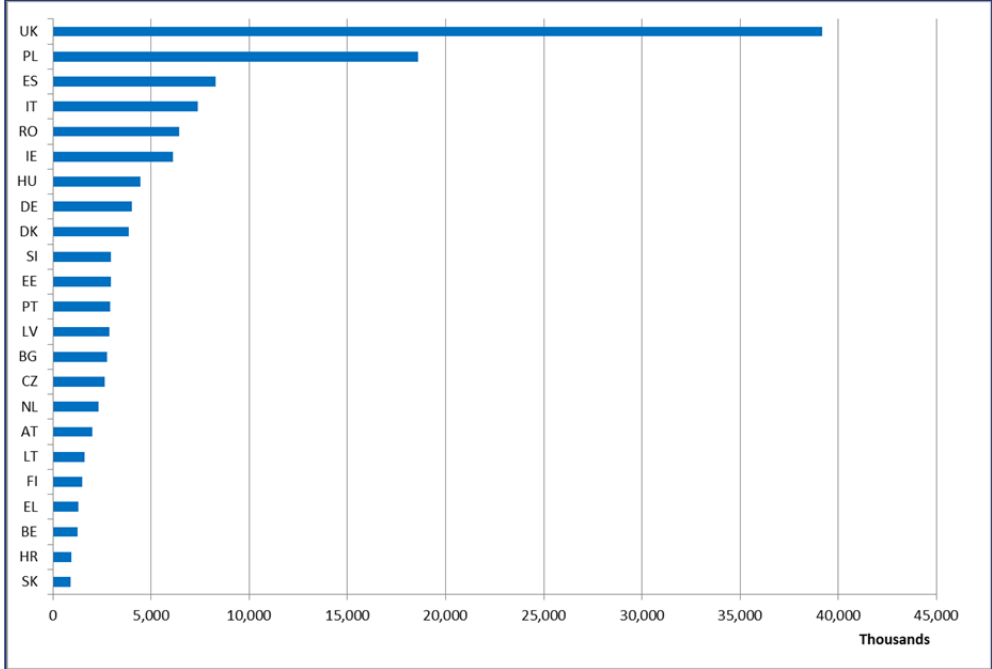
The total number of spots is presented in Figure 4.17. Between Member States, there is a high variation in the number of spots, which ranges from almost 900.000 spots in Slovakia to almost 40.000.000 spots in the UK.

This variation may be explained by differences in the level of market fragmentation between the Member States. For example, in the UK, there are over 500 channels available⁴³ and the channel with the highest market share, BBC, does not carry advertising. Spain is also one of the nine selected Member States that, next to the UK, is in the top-3 of Member States with the highest number of spots. As in the UK, the main public channel in Spain, TVE, does not carry advertising, and as there is a large number

⁴³ Source: European Journalism Centre (<http://ejc.net/>).

of (niche) channels with smaller audiences, there is a relatively high level of market fragmentation. Member States such as Austria and Finland, on the other hand, have a relatively high degree of market concentration, which may explain the relatively low number of spots in these markets.

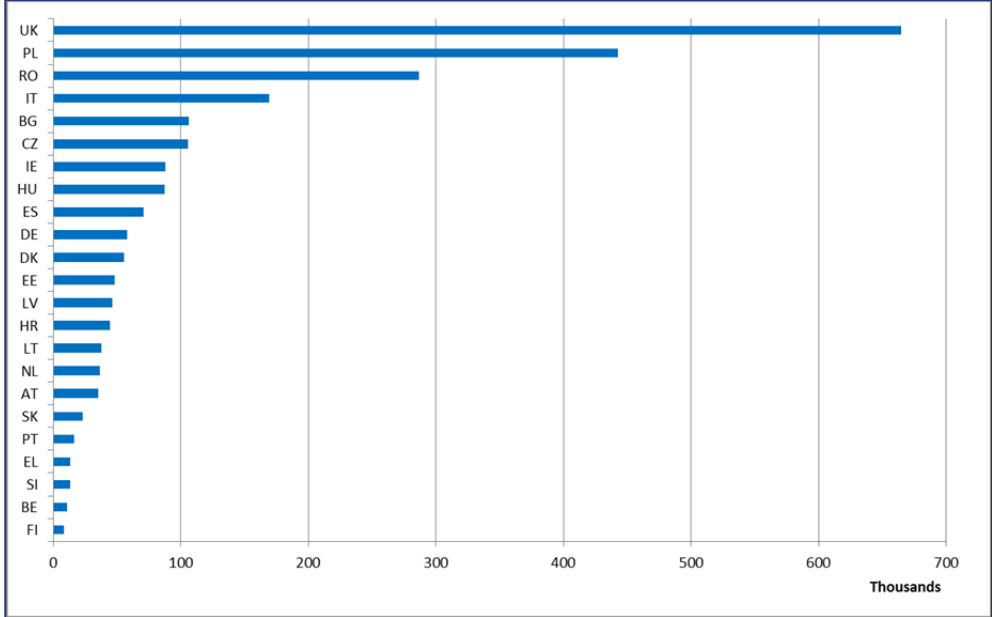
Figure 4.17 Total number of spots (total market) per Member State (year = 2013)



Source: Ecorys consortium analysis, data source WFA/Ebiquity.

The total number of alcohol spots is presented in Figure 4.18. Also here, we observe substantial differences between Member States. The number of alcohol spots ranges from approximately 8,400 in Finland to approximately 670,000 in the UK.

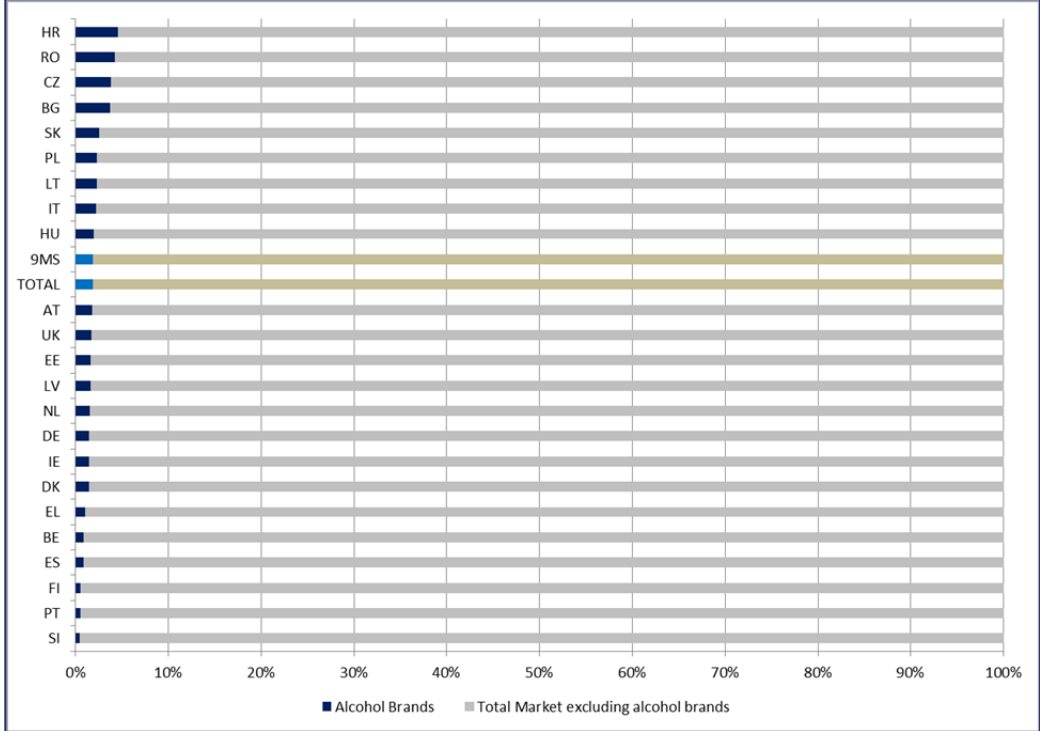
Figure 4.18 Total number of alcohol spots per Member State (year = 2013)



Source: Ecorys consortium analysis, data source WFA/Ebiquity.

The number of alcohol spots as a proportion of total market spots, as presented in Figure 4.19, is highest in Croatia (4.8%) and lowest in Slovenia (0.4%). In all 23 Member States together, as well as for the selected nine Member States (9MS in the figure), this proportion is 1.9%.

Figure 4.19 Total number of alcohol spots as a proportion of total number of spots (total market), per Member State (year = 2013)



Source: Ecorys consortium analysis, data source WFA/Ebiquity.

4.3.2. Exposure of minors to (alcohol) advertising

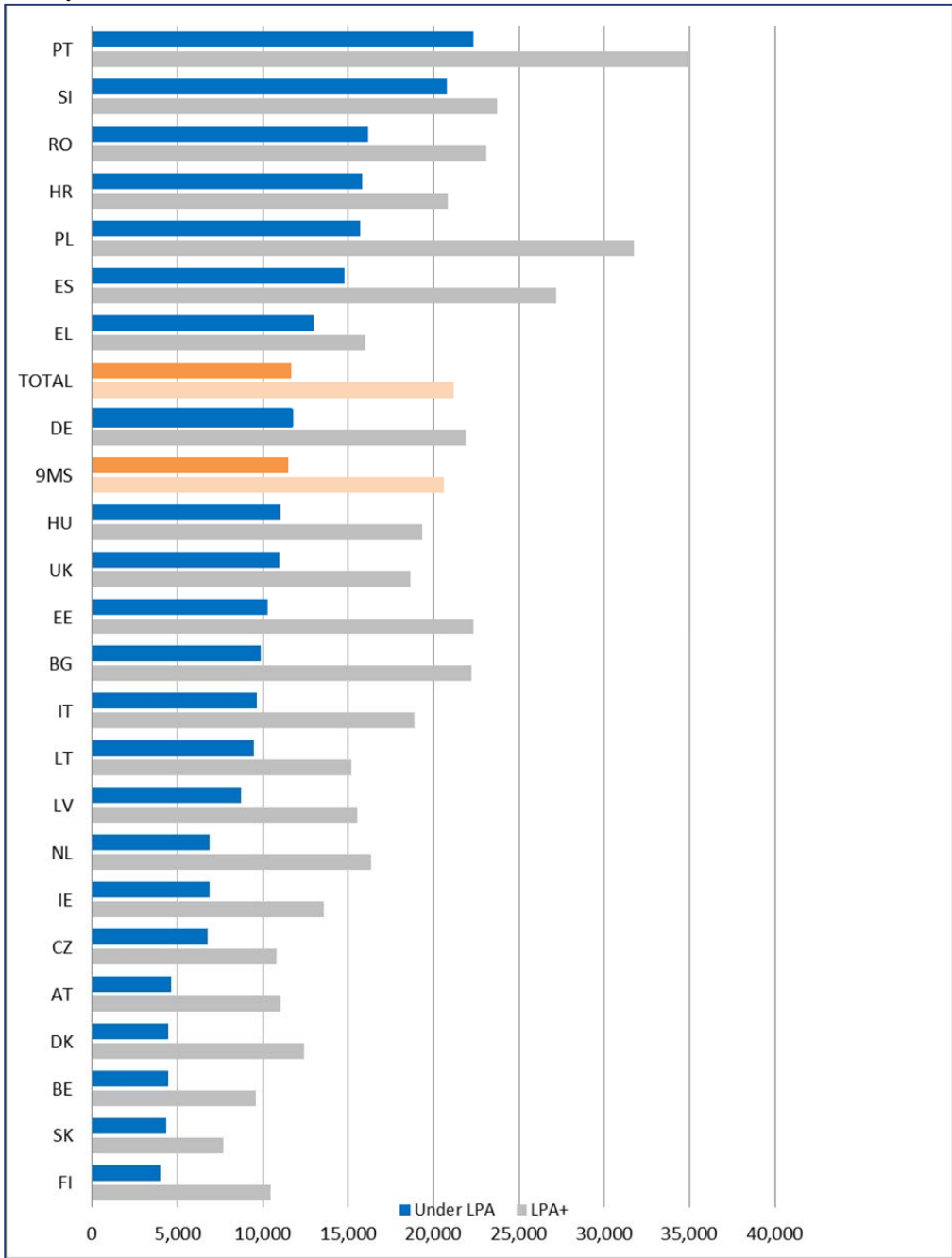
The analysis of exposure of minors to (alcohol) advertising is split in two dimensions:

- Exposure of under-LPA audience to advertising, compared to exposure of LPA audience (both for total market and for alcohol brands); and
- Exposure of under-LPA audience to alcohol advertising, compared to their overall exposure to advertising.

Exposure of under-LPA audience to advertising compared to the exposure of LPA audience

Figure 4.20 shows the number of total market advertising impacts that an average individual, per audience group, has seen. The average number of total market impacts seen per person in a group is highest for both under-LPA and LPA audience in Portugal and lowest for LPA audience in Slovakia and for under-LPA audience in Finland.

Figure 4.20 Total market: impact divided by the universe, per audience group (year = 2013)



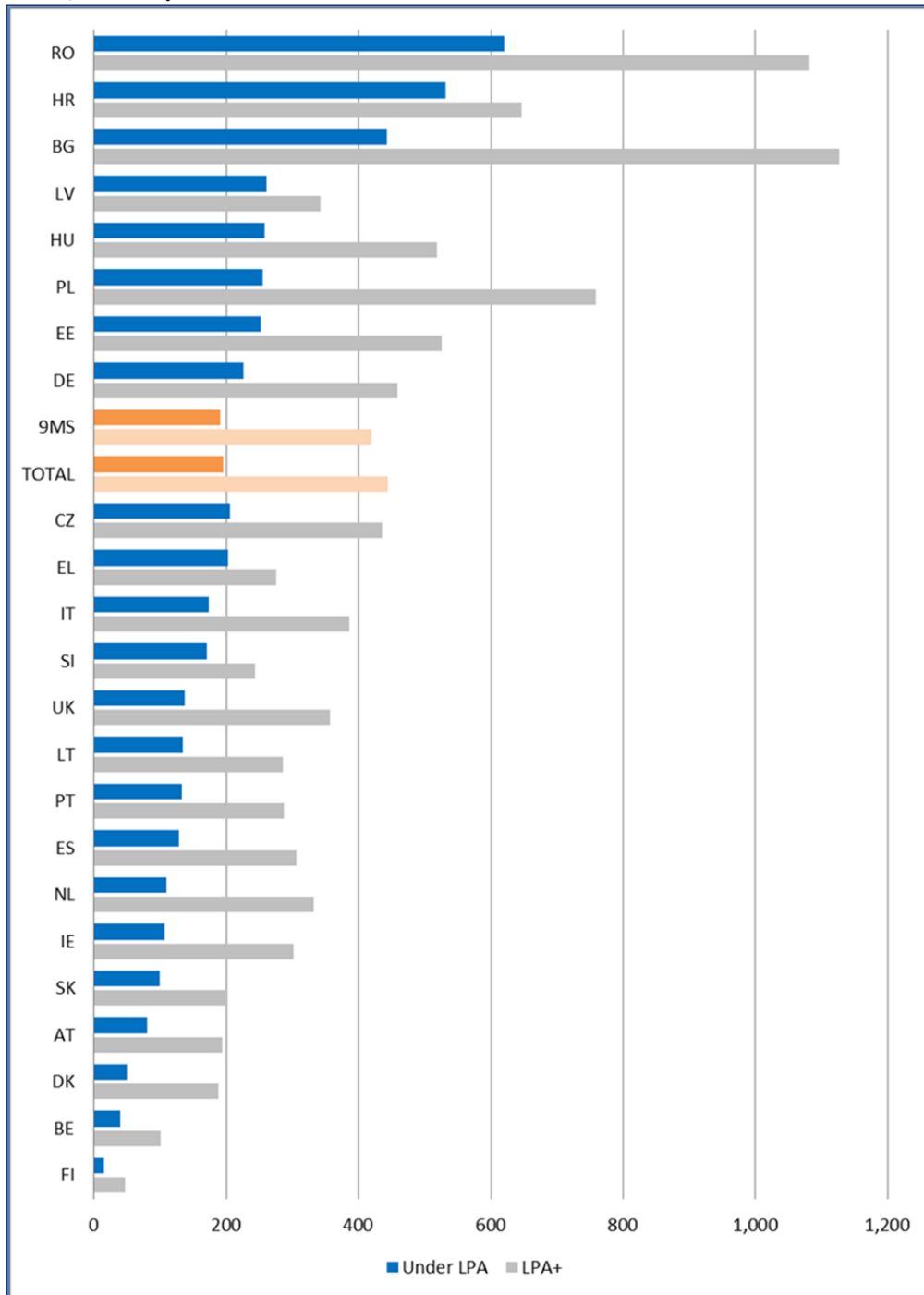
Source: Ecorys consortium analysis, data source WFA/Ebiquity.

Figure 4.21 presents the average number of alcohol impacts seen per person in an audience group. For both the under-LPA and LPA audience the average number of alcohol impacts seen per person in an audience group is highest in Romania and lowest in Finland.

For all Member States, the average number of alcohol impacts seen per person in an audience group is lower for under LPA audience than that for LPA audience. There is a significant variation across Member States in the size of this difference. In Member States like Bulgaria, Poland and many of the smaller Member States, the per person impacts seen by persons under LPA is half or less than the impact seen by persons above LPA. Meanwhile, for Croatia and Latvia, Greece and Slovenia, the difference in

impact between both groups is relatively small.

Figure 4.21 Alcohol brands: impact divided by the Universe, per audience group (year = 2013; in GRP)



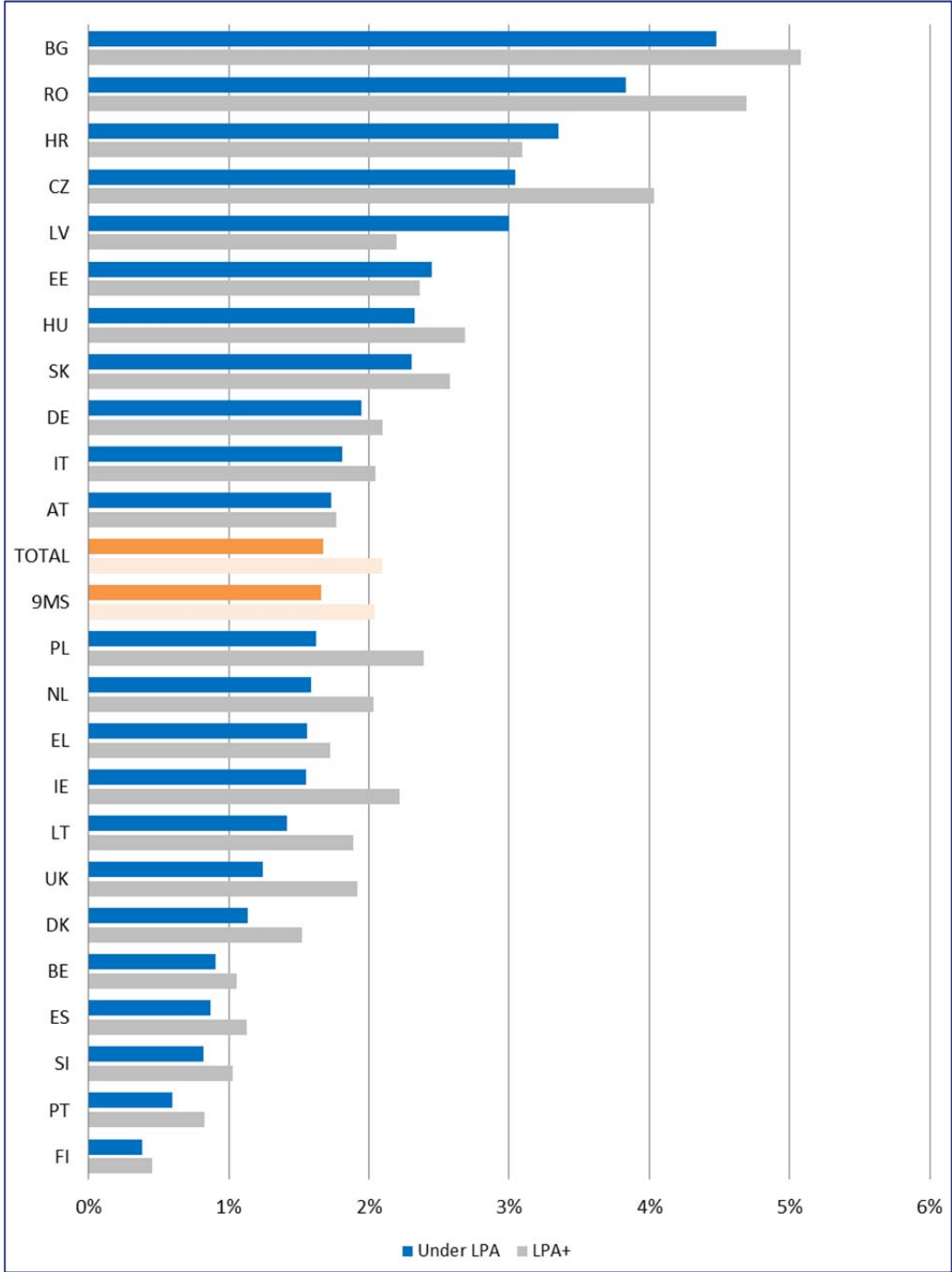
Source: Ecorys consortium analysis, data source WFA/Ebiquity.

Exposure of under-LPA audience to alcohol advertising, compared to exposure to total market advertising

Next we compare alcohol advertising impacts to total market advertising impacts. Figure 4.22 presents alcohol impacts as a percentage of total market impacts for each Member State, split by audience group.

The figure shows that the same Member States with a high absolute number of alcohol impacts show a high relative share of alcohol impacts. For all 23 Member States together, the number of alcohol impacts equals 1.7% and 2.1% of total market impacts for under-LPA and LPA audience respectively.

Figure 4.22 Impact of alcohol brand spots as a percentage of total market impact, by audience group (year = 2013)

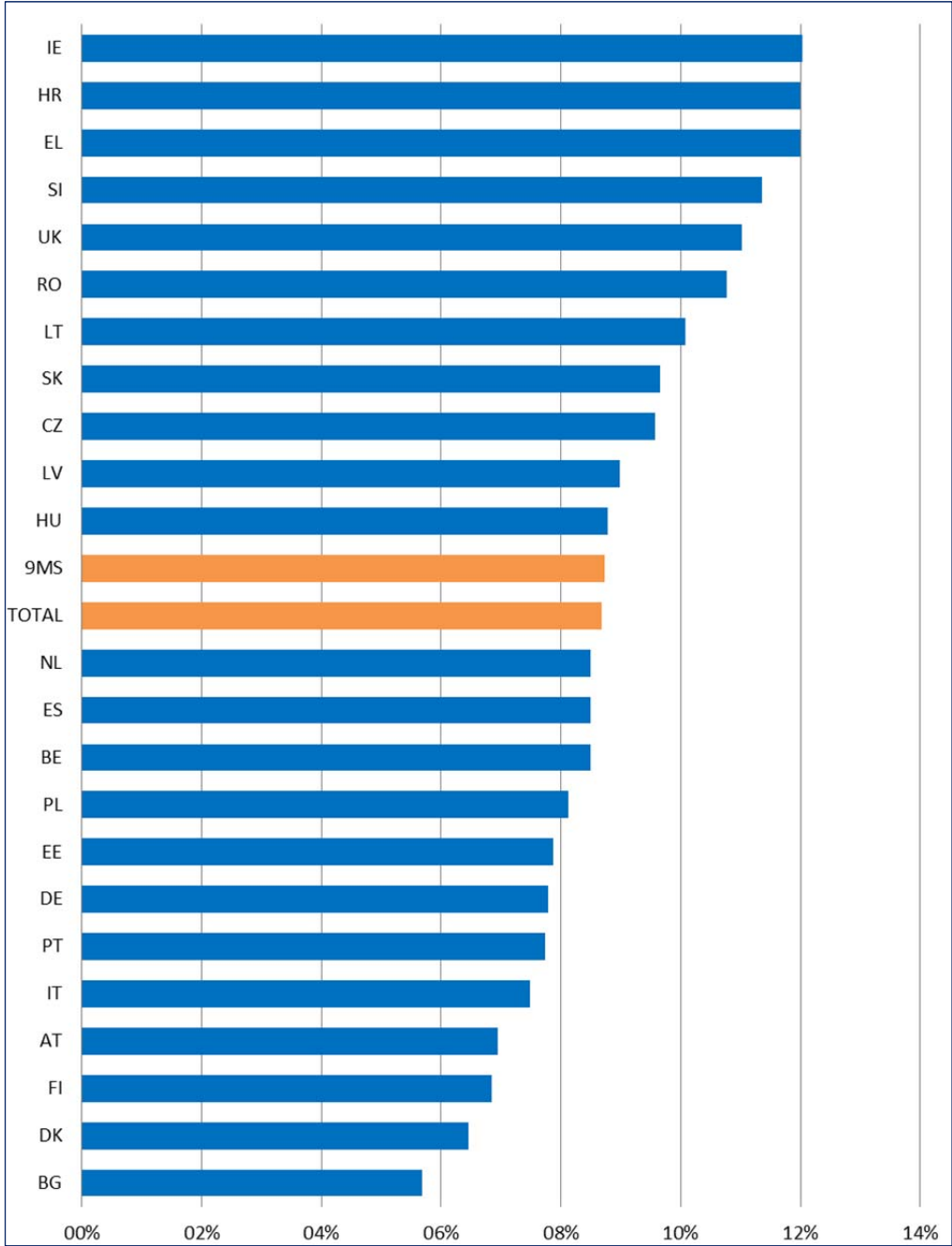


Source: Ecorys consortium analysis, data source WFA/Ebiquity.

Next we consider the number of impacts seen by under-LPA audience as a percentage of the total number of impacts seen, both for the total market (Figure 4.23) and for alcohol brands (Figure 4.24).

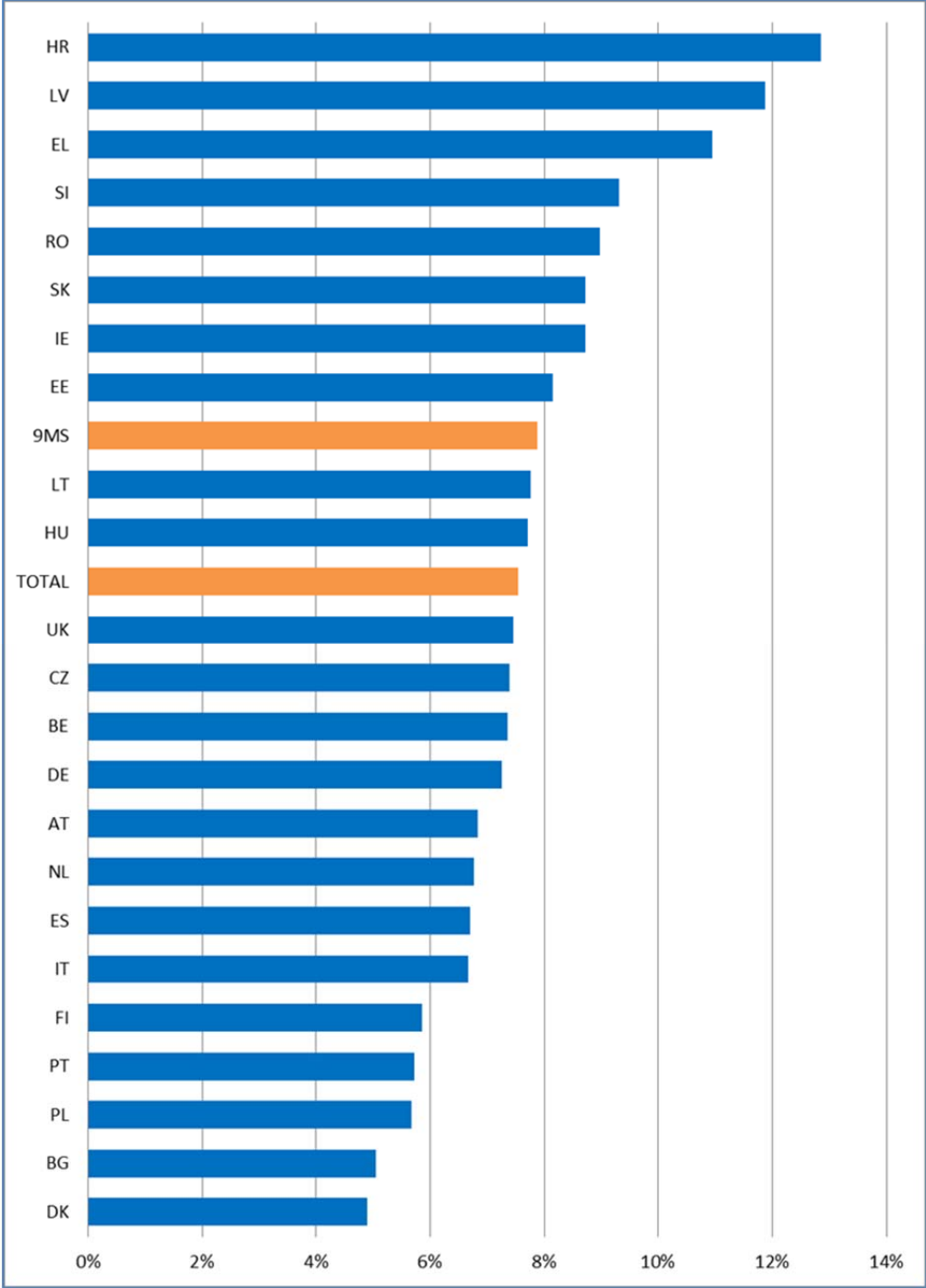
In total, 8.7% of total market impacts and 7.2% of alcohol impacts were seen by minors. For individual Member States, the figures for the total market are highest for Ireland (12.0%) and lowest for Bulgaria (5.7%). For alcohol brands, this percentage is highest in Croatia (12.9%) and lowest in Denmark (4.9%).

Figure 4.23 Total market: Impacts seen by under-LPA audience as a percentage of total impacts seen (year = 2013)



Source: Ecorys consortium analysis, data source WFA/Ebiquity.

Figure 4.24 Alcohol brands: Impacts seen by under-LPA audience as a percentage of total impacts seen (year = 2013)

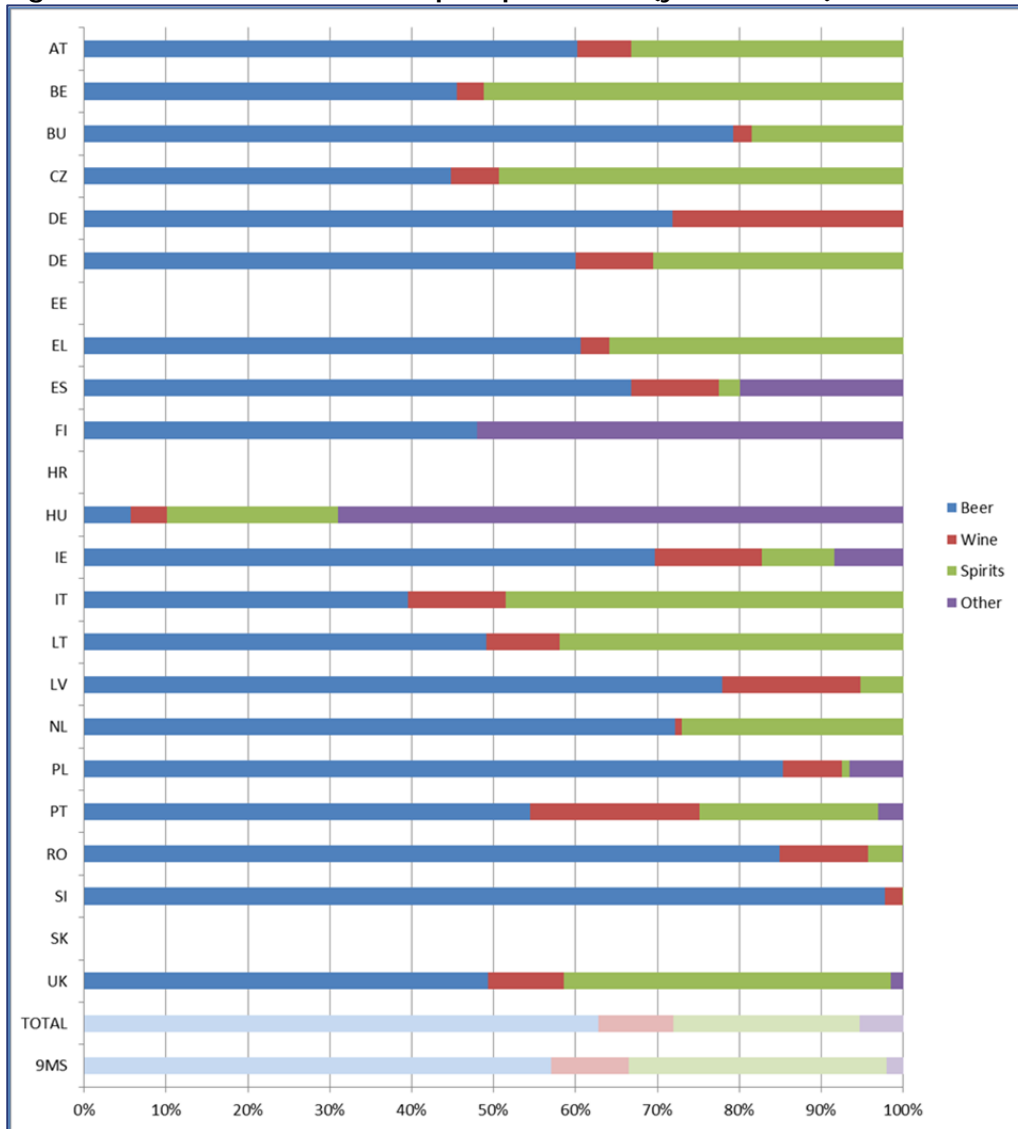


Source: Ecorys consortium analysis, data source WFA/Ebiquity.

4.3.3. Alcohol advertising per sector

Figure 4.25 presents the number of alcohol spots, broken down by sector. Throughout this Chapter, a ‘sector’ refers to the type of alcohol (beer, wine, spirits) that is advertised. It shows that in most Member States, the sector ‘beer’ has the highest share in the total number of alcohol spots with the exception of Czech Republic and Italy. In these Member States the sector ‘spirits’ has the highest share.

Figure 4.25 Number of alcohol spots per sector (year = 2013)



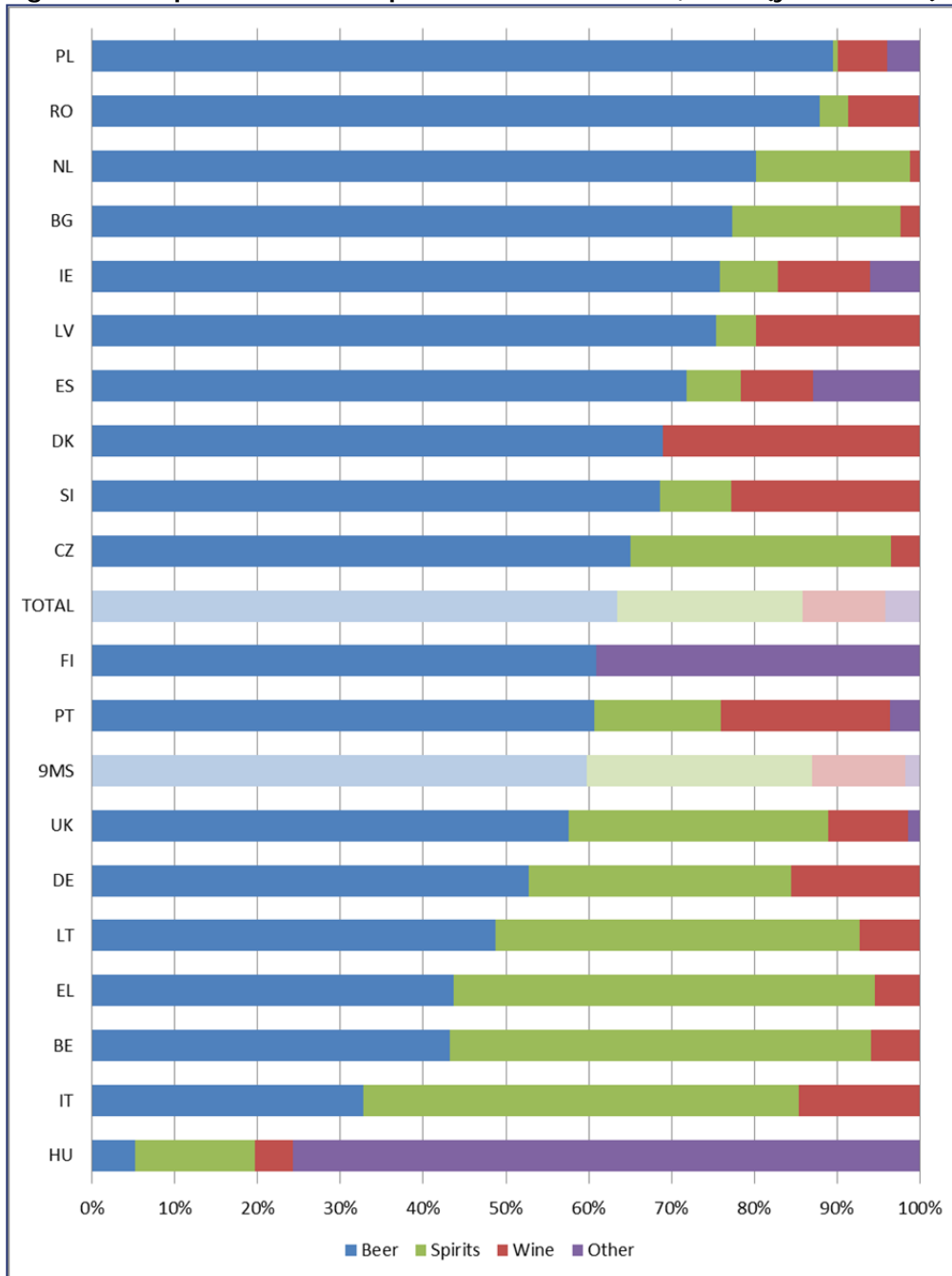
Source: Ecorys consortium analysis, data source WFA/Ebiquity.

Note: No data available on the split between sectors for Croatia, Estonia and Slovakia. 'TOTAL' and '9MS' only include the Member States for which data on the split per sector was available.

Figure 4.26 – 4.28 illustrate the split between sectors in terms of alcohol impacts, first in total (Figure 4.26) and next for both age groups separately (Figure 4.27 for LPA audience and Figure 4.28 for under-LPA audience).

For four Member States there is no information on the splits between sectors in terms of alcohol impacts: Austria, Croatia, Estonia and Slovakia. Those Member States are therefore not included in the graphs and 'TOTAL' and '9MS' are calculated on the basis of the Member States for which all data is available.

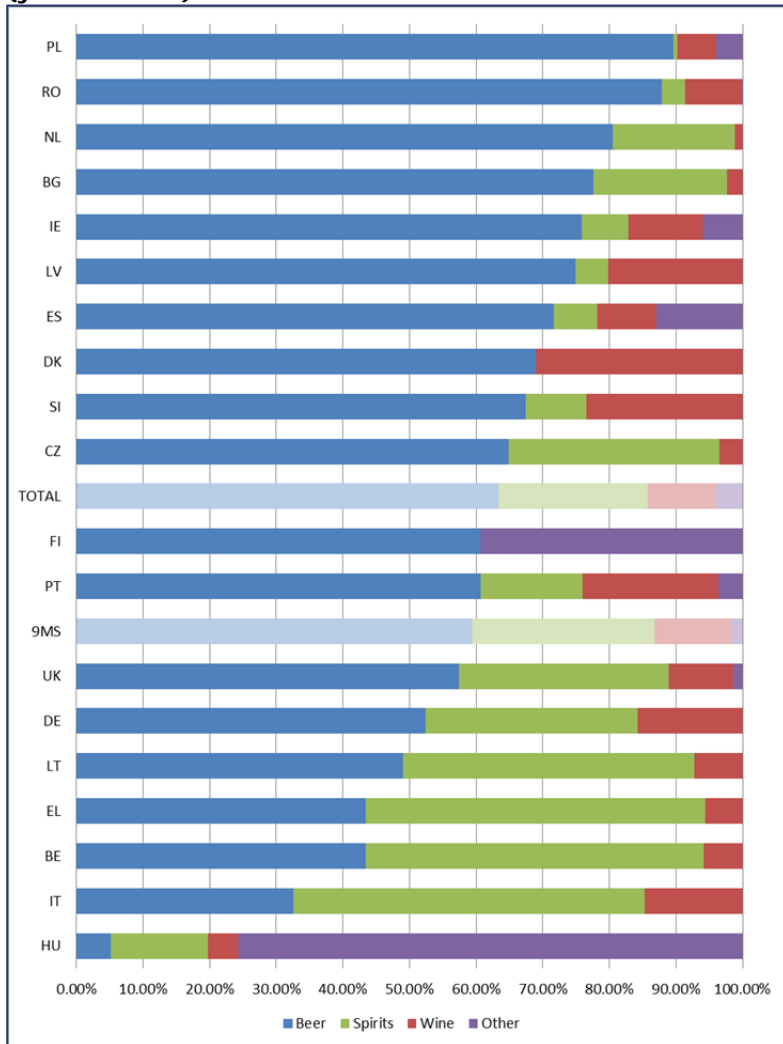
Figure 4.26 Split of alcohol impacts between sectors, total (year = 2013)



Note: '9 MS' does not include figures for Austria, because there is no information available on the splits between sectors in terms of alcohol impacts for Austria.

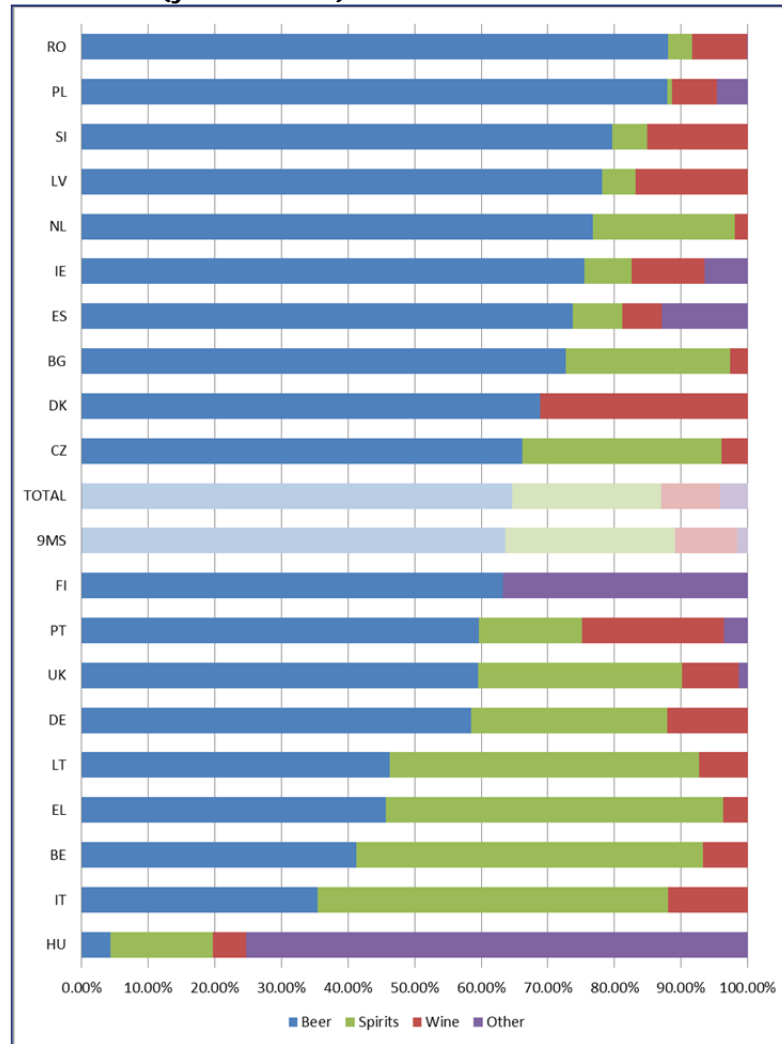
Source: Ecorys consortium analysis, data source WFA/Ebiquity.

Figure 4.27 Split of alcohol impacts between sectors, LPA+ (year = 2013)



Note: '9 MS' does not include figures for Austria, because there is no information available on the splits between sectors in terms of alcohol impacts for Austria.
 Source: Ecorys consortium analysis, data source WFA/Ebiquity.

Figure 4.28 Split of alcohol impacts between sectors, Under LPA (year = 2013)



Note: '9 MS' does not include figures for Austria, because there is no information available on the splits between sectors in terms of alcohol impacts for Austria.
 Source: Ecorys consortium analysis, data source WFA/Ebiquity.

4.4. Exposure to alcohol advertising - 9 selected Member States (GfK/Dentsu Aegis data)

This section presents the findings of the analysis of spotlist data on alcohol advertisement in 2013 for the nine selected Member States, which was obtained from GfK/Dentsu Aegis. This dataset contains more channels than the dataset on general viewing patterns and can be considered (nearly) comprehensive. For an overview of all channels included in this dataset, please refer to Annex D (separate document).

Firstly, the aim of the analysis of this GfK/Dentsu Aegis data was to provide a global breakdown of alcohol impacts in 2013 in the nine selected Member States. The results of this breakdown are presented in three sections:

- Number of alcohol spots per Member State;
- Exposure to alcohol advertising per age group;
- Exposure to alcohol advertising per sector.

In addition to a presentation of the findings of this breakdown, these sections provide a comparison of these findings with those from the analysis of the WFA/Ebiquity dataset. Due to the lack of information on total market spots and impacts in the GfK/Dentsu Aegis dataset, such a comparison is only possible for figures on alcohol spots and impacts. Although there were a few differences between the datasets in terms of the definition of age groups, the findings are consistent.

Next to a global breakdown, we also conducted an in-depth analysis for the nine selected Member States. The results of this detailed breakdown of the data on alcohol spots and impacts are presented in four sections:

- Breakdown by channel category;
- Breakdown by day part;
- Breakdown by hourly timeslot;
- Breakdown by weekday.

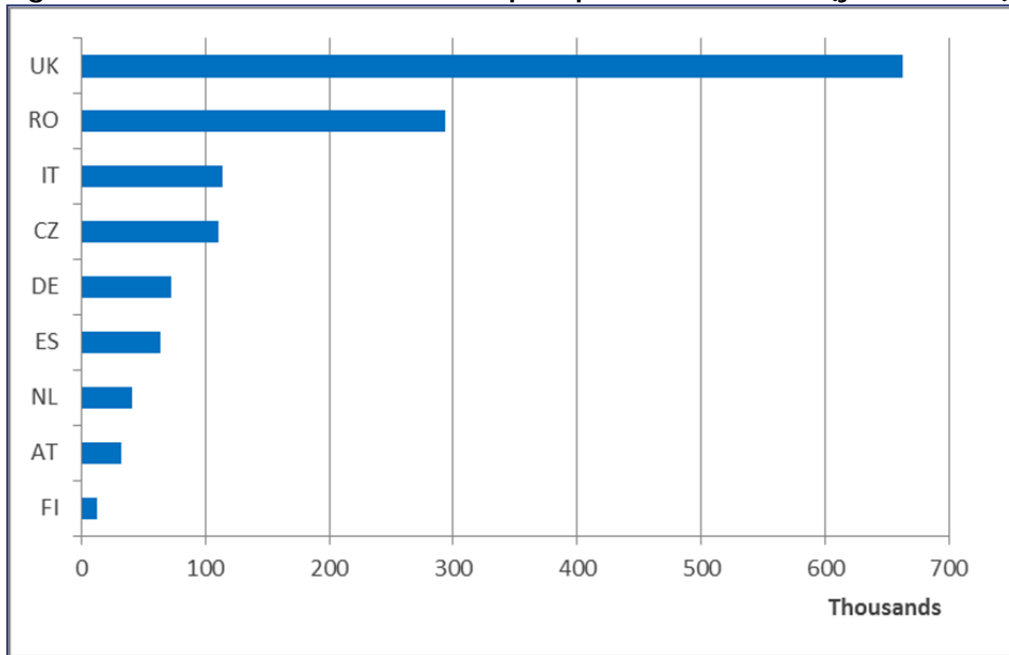
4.4.1. Number of alcohol spots per Member State

Figure 4.29 shows the total number of alcohol spots in 2013 in the nine selected Member States.

As can be observed from the figure, the United Kingdom had the highest number of alcohol spots in 2013. This nearly double the number of alcohol spots in Romania, the Member State with the second-highest figure. The Member State with the lowest number of alcohol spots in 2013 was Finland. As discussed in section 4.3.1, this may be explained by the difference in the level of market fragmentation between the Member States.

The results presented in Figure 4.29 resemble those based on a similar analysis of WFA/Ebiquity data.

Figure 4.29 Total number of alcohol spots per Member State (year = 2013)



Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

4.4.2. Exposure to alcohol advertising per age group

In this section we present the results on the exposure to alcohol advertising by age group based on the following three analyses for the nine selected Member States in 2013:

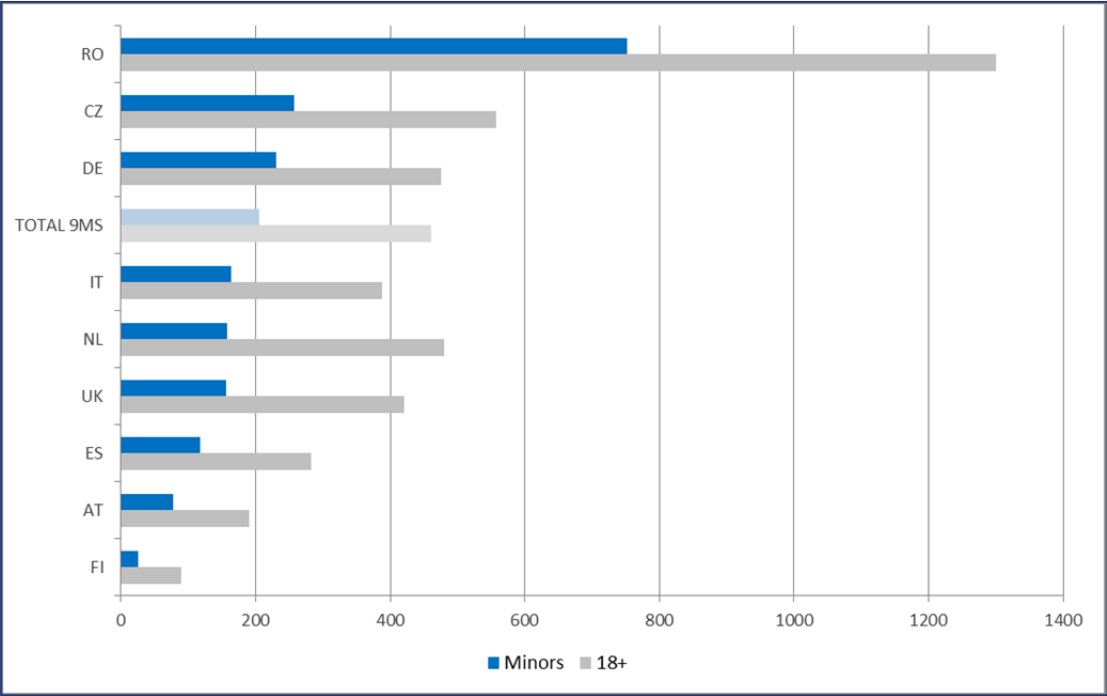
- the average number of alcohol impacts seen by an individual per age group;
- the average daily alcohol impacts for an individual per age group;
- the exposure of minors as a percentage of total exposure to alcohol advertising.

Average number of alcohol impacts seen by an individual per age group in 2013

Figure 4.30 shows the total number of alcohol impacts for minors and adults divided by the universe, i.e. the average number of alcohol impacts seen by an individual aged 4-17 and 18+.

Figure 4.30 shows that on average a minor (4-17 year old) in one of the nine selected Member States has seen approximately 200 alcohol impacts in 2013. In comparison, the number of alcohol impacts seen by an adult was on average more than 450 (more than twice as much as that of seen by a minor).

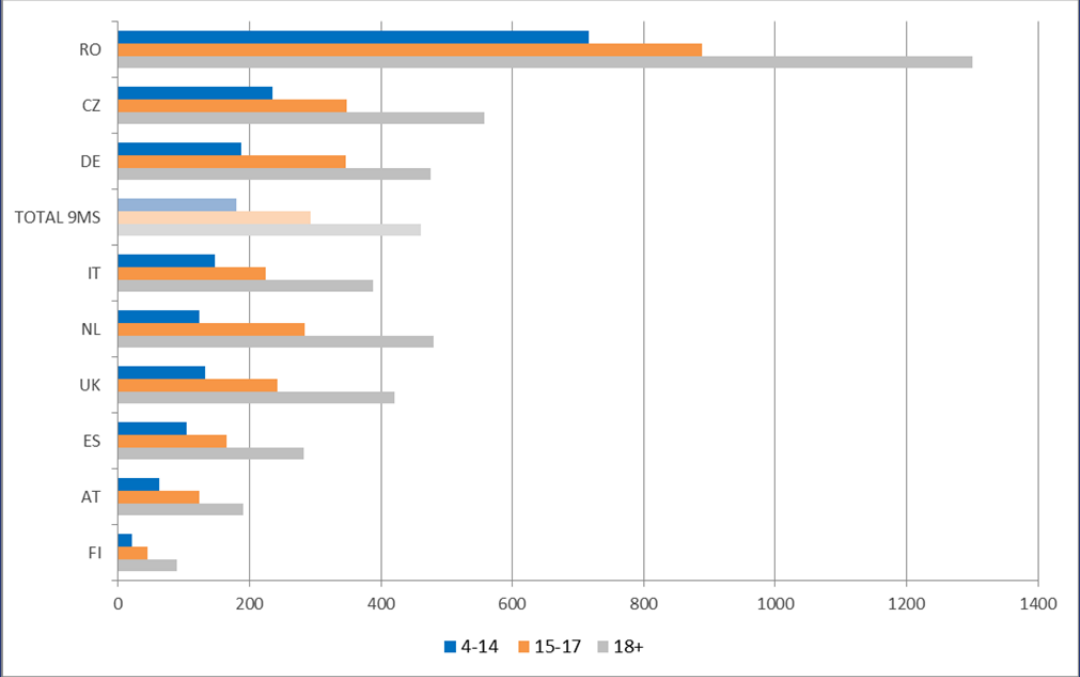
Figure 4.30 Number of alcohol impacts divided by the universe, breakdown by minors and adults (year = 2013; in GRP000)



Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Figure 4.31 provides a further breakdown of these results by distinguishing between two age groups for minors: 4-14 and 15-17 year olds. These results show that a 15-17 year old on average saw almost 300 alcohol impacts in 2013 and a minor aged 4-14 year old – 180. Hence, the average number of alcohol impacts, an individual saw on linear media services in the nine selected Member States, increases with age.

Figure 4.31 Number of alcohol impacts divided by the universe, breakdown by age group (year = 2013; in GRP000)



Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

When comparing the results of this analysis with the ones presented in Section 4.3.2, it should be taken into account that the uniform age groups used in this section do not necessarily match with the under-LPA/LPA audiences used throughout Section 4.3. As the LPA differs across Member States, the comparison is less straightforward. Nonetheless, we observe quite similar figures for most of the Member States. The results for the nine selected Member States together are also consistent across datasets. In addition, the results for the total sample (23 Member States) in the WFA/Ebiquity dataset are also similar, which provides an indication that the nine selected Member States are a representative sample.

Daily average absolute alcohol impacts

Next we analysed the daily average absolute alcohol impacts per age group.

Tables 4.5 and 4.6 present the total daily average absolute impacts in GRP000 and GRP% per age group for each of the nine selected Member States separately as well as in total. This was calculated as a sum of GRPs per age group for the full year divided by the number of days in 2013 (365).

Table 4.5 Daily average absolute alcohol impacts (in GRP000), per age group, 2013

Daily average impact (000)	4-14 year olds	15-17 year olds	Minors total (4-17 year olds)	18+ year olds
Austria	152	101	253	3480
Czech Republic	708	264	972	12872
Finland	42	22	64	1046
Germany	3696	2461	6157	80019
Italy	2498	1048	3546	53161
The Netherlands	742	478	1221	16762
Romania	4306	1402	5708	57685
Spain	1424	608	2032	28642
United Kingdom	2803	1478	4281	53519
Total 9MS	16371	7862	24233	307186

Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Table 4.6 Daily average alcohol impact (in GRP%) per individual, per age group, 2013

Daily average impact (000)	4-14 year olds	15-17 year olds	Minors total (4-17 year olds)	18+ year olds
Austria	17%	34%	21%	52%
Czech Republic	64%	95%	71%	153%
Finland	6%	12%	7%	25%
Germany	52%	95%	63%	130%
Italy	40%	61%	45%	106%
The Netherlands	34%	78%	43%	132%
Romania	196%	244%	206%	356%
Spain	29%	45%	32%	77%
United Kingdom	36%	67%	43%	115%
Total 9MS	49%	80%	56%	126%

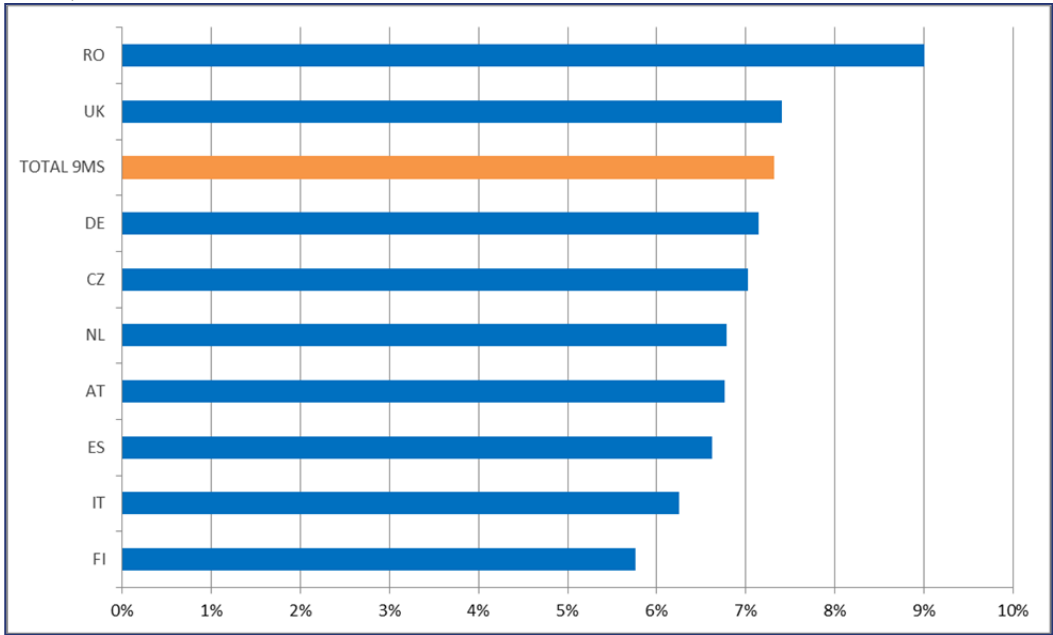
Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

These results again confirm that the exposure to alcohol advertising increases with age. In addition, the results show that the difference in these figures between minors and adults is relatively small in Member States with a relatively high daily average alcohol impact per individual (e.g. Romania, Czech Republic and Germany).

Exposure of minors to alcohol advertising as a percentage of total exposure to alcohol advertising

Figure 4.32 presents the number of alcohol impacts seen by minors as a share of the total number of alcohol impacts per Member State. As can be observed, between 5.8% and 9.0% of all alcohol impacts in a Member State are seen by minors. The results are similar to those found in the analysis of the WFA/Ebiquity data.

Figure 4.32 Alcohol impacts seen by minors as a percentage of total impact (year = 2013)



Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

4.4.3. Exposure to alcohol advertising per sector

The sector definitions that we used for the analysis on the Member State level are presented in the country reports in Annex C (separate document). These definitions may slightly diverge from definitions used in national regulations, which may explain why the results sometimes indicate spots and impacts in a certain sector whereas these are prohibited according to regulation. Examples of this can be found in Austria, Finland and Spain where there is a ban on spirits advertising⁴⁴.

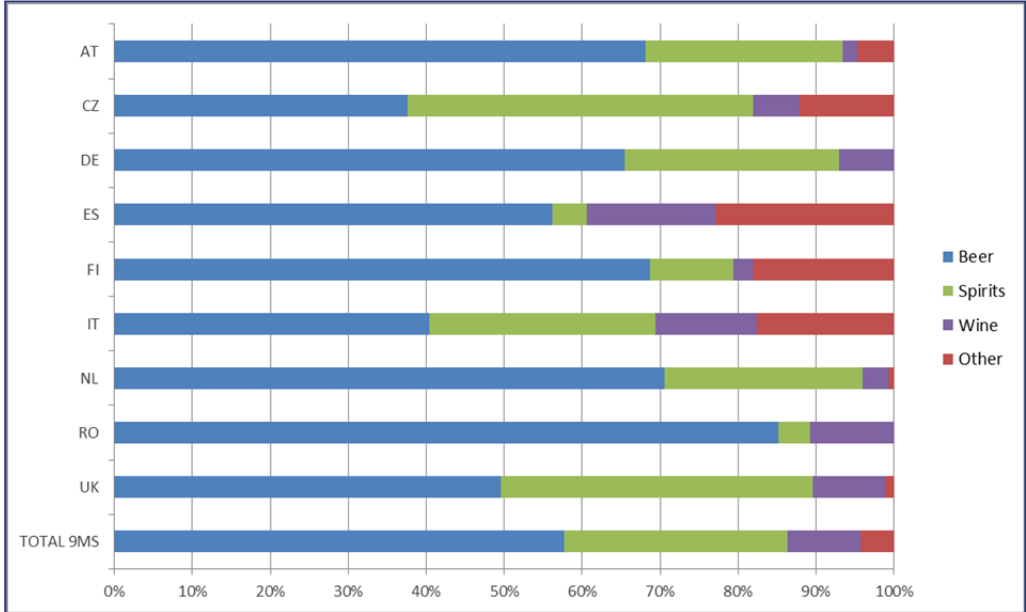
Figure 4.33 presents the share of alcohol spots broken down by sector. In all Member States with the exception of Czech Republic, most spots are for beer. In Czech Republic, spirits is the most commonly advertised type of product. On the contrary, in Spain and Romania, the relative number of spots for sprits is quite low.

⁴⁴ Source: DG Connect, Table on national rules on commercial communications and promotion of European works (http://ec.europa.eu/archives/information_society/avpolicy/docs/reg/twvf/contact_comm/35_table_1.pdf).

This figure in general resembles the figures in section 4.3.3 with two notable exceptions. In Finland, there are no spots labelled as 'spirits' or 'wine' in the WFA/Ebiquity dataset, while such spots are present in the GfK/Dentsu Aegis dataset. The most likely explanation is that in the WFA/Ebiquity data the spots in Finland for 'wine' and 'spirits' have been classified as 'other'. Moreover, the share of beer advertisements differs between both datasets: it is 50% in the WFA/Ebiquity dataset as opposed to nearly 70% according to GfK/Dentsu Aegis.

In Italy, the share of spots for spirits is significantly lower in the GfK/Dentsu Aegis dataset (around 30%) than that in the WFA/Ebiquity dataset, where the share is close to 50%. No explanation for these differences has been identified.

Figure 4.33 Share of alcohol spots by sector (year = 2013)

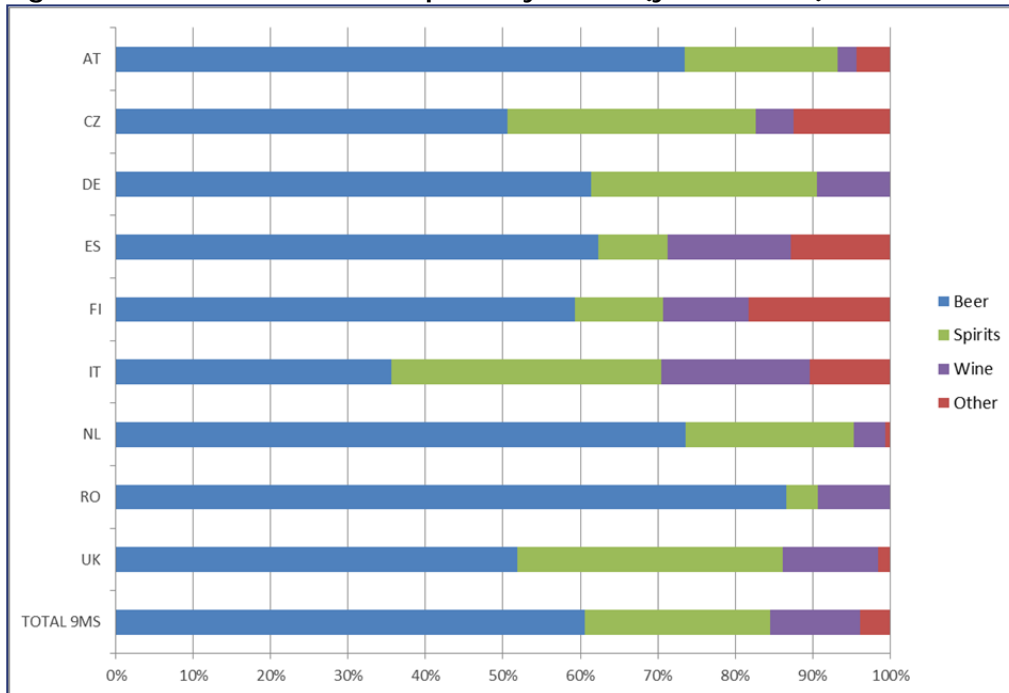


Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Figure 4.34 presents the alcohol impacts per sector. The patterns roughly resemble those on the number of spots, with beer having the highest shares – in terms of impacts also for Czech Republic – and wine and 'other' have the lowest share.

The figures also indicate that for all nine Member States together, as well as for multiple individual Member States (Austria, Finland, Germany, Italy, Netherlands), the share of wine is higher in terms of impacts than in terms of spots, indicating relatively high impact per spot for the wine sector.

Figure 4.34 Share of alcohol impacts by sector (year = 2013)

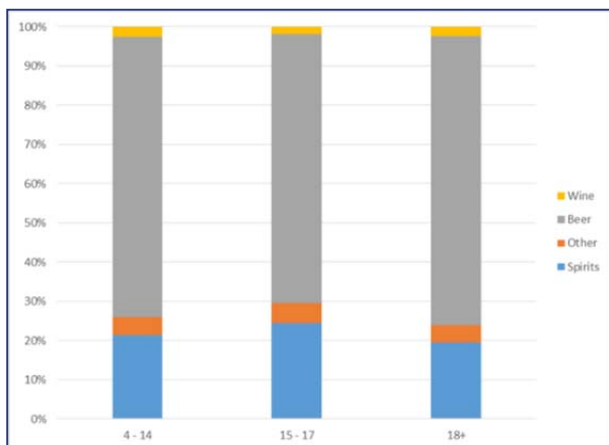


Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

The next figures (4.35-4.43) present the breakdown of impacts by sector per age group for each of the selected Member States. As the figures show, all age groups in all Member States are most exposed to beer ads and the patterns among the age groups are very similar. A pattern that prevails in some Member States is that adults are relatively more exposed to wine ads than minors, but these differences are rather modest. Other than that, no typical relation between age group and impacts per sector can be identified. Hence, both minors and adults see similar shares of impacts for beer, wine, spirits and other alcoholic beverages per Member State.

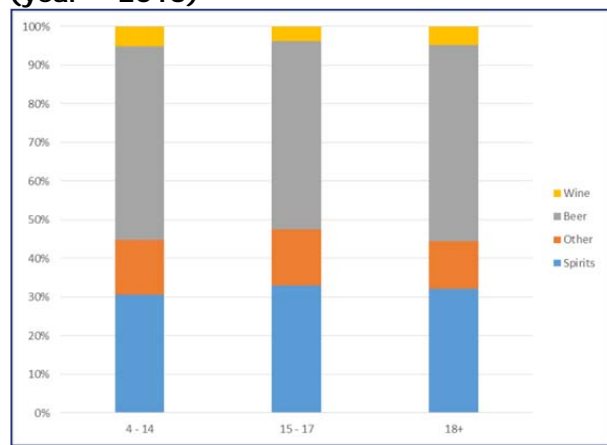
The overall breakdown of impacts per sector shows a fair resemblance with the results obtained in section 4.3.3, where the patterns of exposure are quite similar between the under LPA and LPA audiences.

Figure 4.35 Share of alcohol impact by sector, per age group, Austria (year=2013)



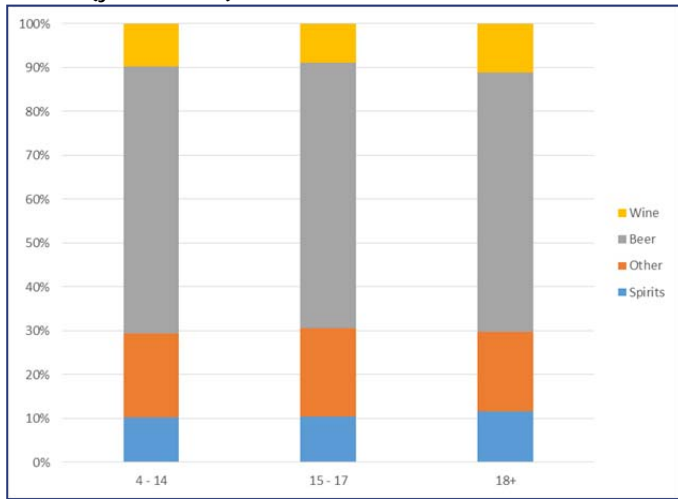
Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Figure 4.36 Share of alcohol impact by sector in, per age group, Czech Republic (year = 2013)



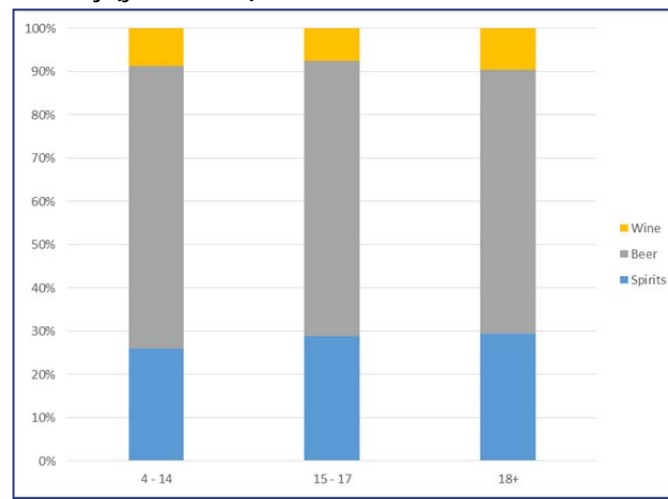
Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Figure 4.37 Share of alcohol impact by sector in, per age group, Finland (year = 2013)



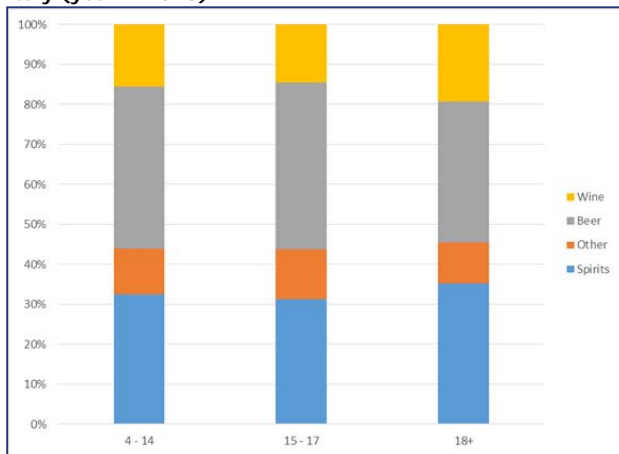
Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Figure 4.38 Share of alcohol impact by sector in, per age group, Germany (year = 2013)



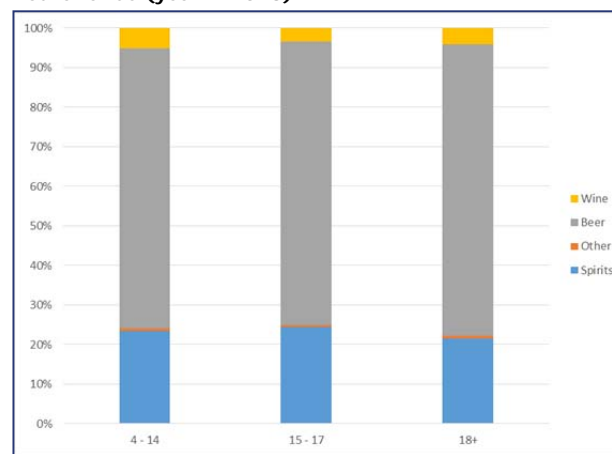
Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Figure 4.39 Share of alcohol impact by sector in, per age group, Italy (year = 2013)



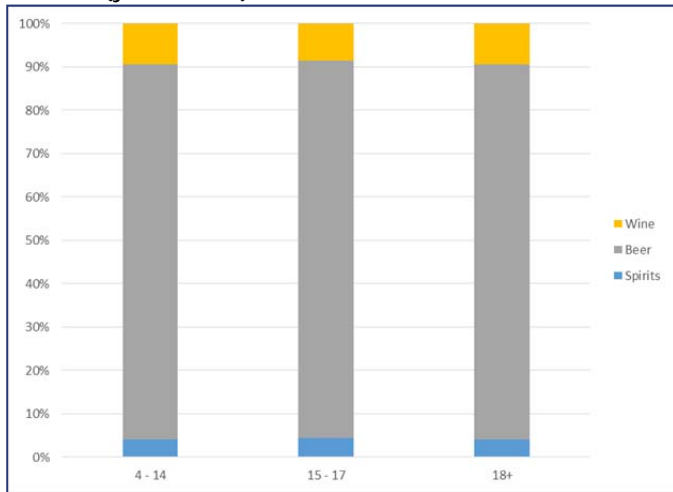
Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Figure 4.40 Share of alcohol impact by sector in, per age group, Netherlands (year = 2013)



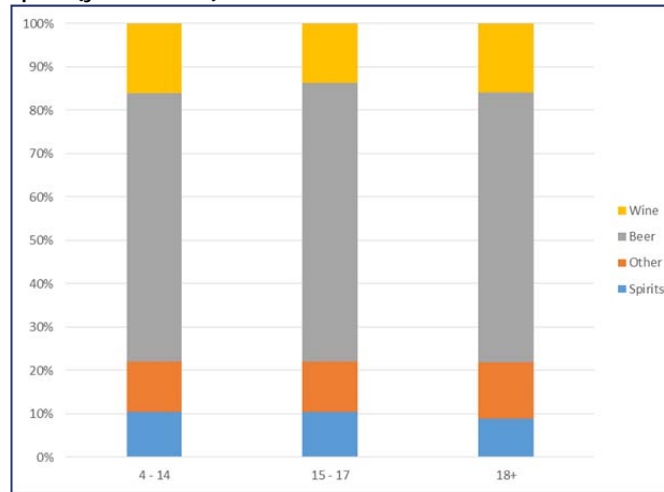
Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Figure 4.41 Share of alcohol impact by sector in, per age group, Romania (year = 2013)



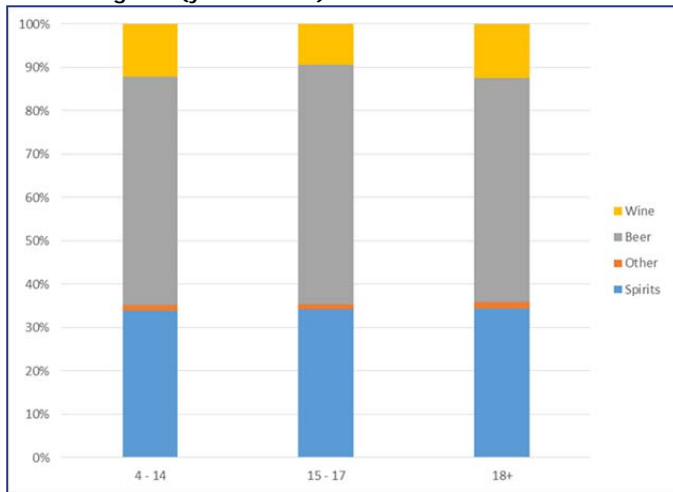
Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis

Figure 4.42 Share of alcohol impact by sector in, per age group, Spain (year = 2013)



Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Figure 4.43 Share of alcohol impact by sector in, per age group, United Kingdom (year = 2013)

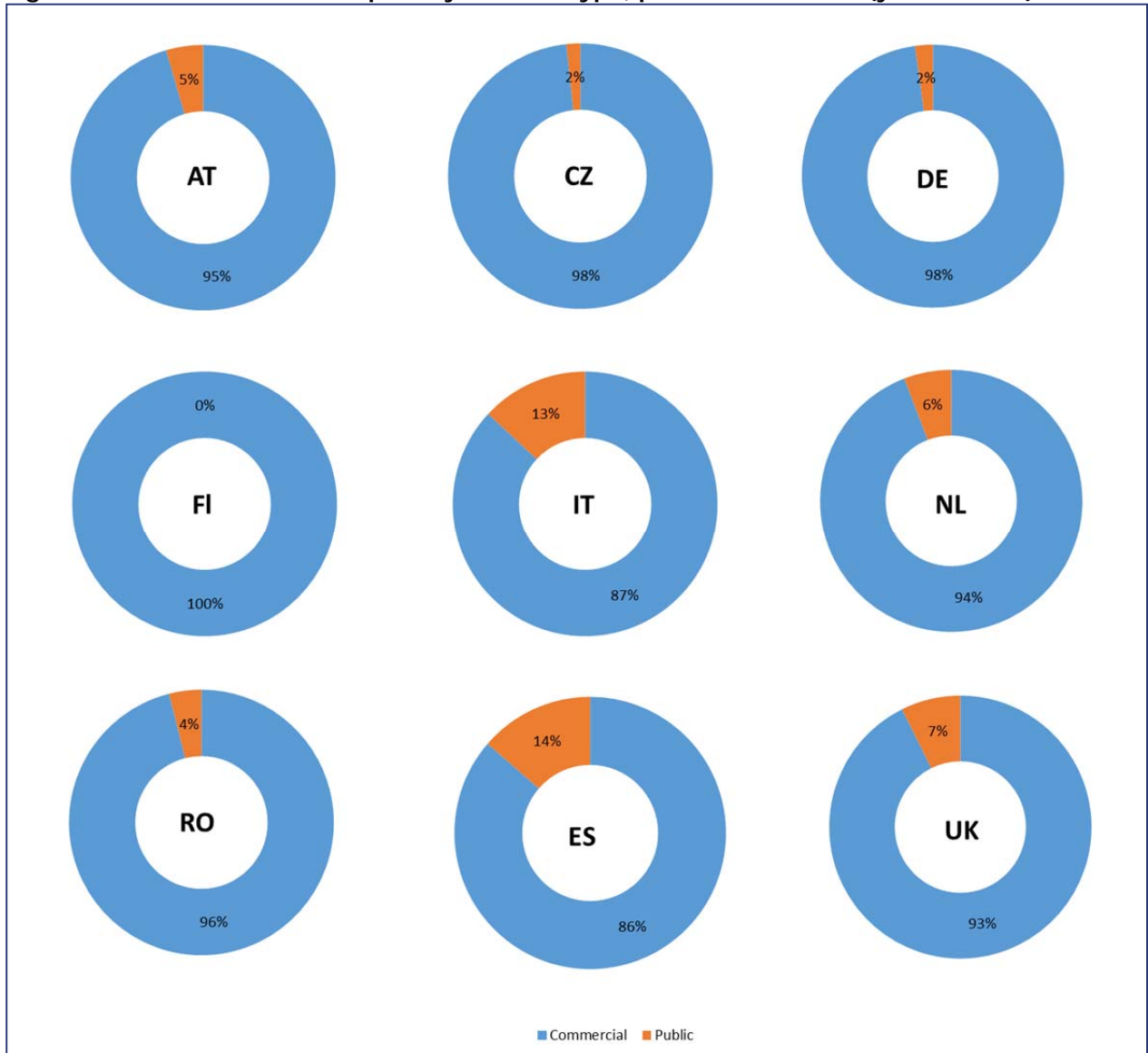


Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

4.4.4. Breakdown by channel category

The number of alcohol spots is also broken down by channel category. The breakdown of the number of spots per channel type is presented in Figure 4.44. This figure shows that the majority of alcohol spots in 2013 were aired on commercial channels. The Member State with the relatively highest share of alcohol spots on public channels is Spain (14%) and the lowest is Finland (with 0%).

Figure 4.44 Share of alcohol spots by channel type, per Member State (year = 2013)



Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

In addition to the number of alcohol spots, the share of alcohol impacts by channel type is investigated. The results are presented in Figure 4.45. In all Member States the share of public channels is higher in terms of impacts than in terms of spots, indicating relatively high viewership for the public channels.

Figure 4.45 Share of alcohol impacts by channel type, per Member State (year = 2013)



Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

4.4.5. Breakdown by day part

Table 4.7, Table 4.8 and Table 4.9 present for each of the nine Member States the total number of alcohol impacts per day part (in absolute numbers) and the number of alcohol impacts per day part as a percentage of the universe (in GRP%).

Table 4.7 Total alcohol impacts per day part in absolute numbers and as % of the universe, age group 4-14 years old (year = 2013; in GRP000 and GRP%)

Day part	AT	CZ	FI	DE	IT	NL	RO	ES	UK
06:00 - 09:59	3 0.3%	27 2.5%	1 0.1%	101 1.4%	59 0.9%	23 1.0%	62 2.8%	0 0.0%	73 0.9%
10:00 - 16:59	24 2.8%	148 13.5%	14 2.2%	294 4.1%	491 7.9%	20 0.9%	797 35.7%	44 0.9%	480 6.1%
17:00 - 20:59	79 9.0%	403 36.7%	26 4.1%	1,726 24.1%	661 10.7%	144 6.6%	1,572 70.7%	130 2.6%	1,100 14.1%
21:00 - 23:59	60 6.8%	204 18.6%	48 7.5%	1,682 23.5%	1232 19.8%	592 27.2%	1,754 78.8%	1063 20.8%	1,063 13.6%
00:00 - 05:59	4 0.5%	10 1.0%	3 0.5%	137 1.9%	184 3.0%	39 1.8%	269 12%	257 5.0%	181 2.3%

Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Table 4.8 Total alcohol impacts per day part in absolute numbers and as % of the universe, age group 15-17 years old (year = 2013; in GRP000 and GRP%)

Day part	AT	CZ	FI	DE	IT	NL	RO	ES	UK
06:00 - 09:59	2 0.7%	3 1.1%	0 0.2%	17 0.7%	17 1.0%	7 1.1%	17 2.9%	0 0.0%	18 0.8%
10:00 - 16:59	16 5.4%	48 17.3%	4 1.8%	126 4.9%	241 14.1%	15 2.2%	271 47.5%	13 1.0%	231 10.4%
17:00 - 20:59	35 11.9%	120 42.9%	9 4.6%	958 37%	268 15.7%	64 9.6%	489 85.6%	45 3.3%	402 18.1%
21:00 - 23:59	50 16.8%	109 39.2%	24 12.6%	1,271 49.1%	473 27.5%	385 57.9%	561 98.4%	407 30.1%	685 30.9%
00:00 - 05:59	10 3.3%	12 4.4%	3 1.5%	286 11%	104 6.1%	44 6.6%	112 19.7%	166 12.3%	183 8.3%

Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Table 4.9 Total alcohol impacts per day part in absolute numbers and as % of the universe, age group 18+ years old (year = 2013; in GRP000 and GRP%)

Day part	AT	CZ	FI	DE	IT	NL	RO	ES	UK
06:00 - 09:59	18 0.3%	223 2.6%	119 2.8%	1,016 1.7%	2229 4.5%	407 3.1%	1,245 7.6%	3 0.0%	1,338 2.8%
10:00 - 16:59	188 2.8%	1,870 22.2%	171 4.0%	6,507 10.6%	13183 26.3%	463 3.5%	10,460 64.1%	1705 4.5%	9,716 20.4%
17:00 - 20:59	1,028 15.4%	5,878 69.6%	462 10.7%	31,608 51.4%	15201 30.4%	2229 17.1%	20,534 126.1%	3280 8.7%	16,570 34.7%
21:00 - 23:59	1,282 19.2%	5,497 64.8%	1,109 25.8%	38,997 63.4%	20795 41.6%	13099 100.3%	22,773 139.9%	19188 50.8%	22,136 46.4%
00:00 - 05:59	1,171 17.6%	820 9.5%	209 4.9%	7,969 13%	4693 9.4%	1994 15.3%	4,736 28.9%	7084 18.6%	5,429 11.4%

Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

The peak day part for the 4-14 year olds differs across Member States. Whereas alcohol impacts reach their highest point for this age group between 17:00-20:59 in Austria, Czech Republic, Germany and the United Kingdom, it only reaches the peak between 21:00-23:59 in Finland, Italy, Netherlands, Romania and Spain. For the minors aged 15-17, alcohol impacts peak during the day part 21:00-23:59 in all Member States except Czech Republic, where the highest point for the 15-17 year olds is reached between 17:00 and 20:50. For the adults, the peak day part in terms of alcohol impacts is in each Member State between 21:00 and 23:59.

Comparing the relative level of impacts across Member States, for all age groups, the alcohol impact in the peak day part is highest in Romania and lowest in Finland for the

minors and in Austria for the adults. In case of the age group 4-14, the highest share is reached in Romania for the time slot 21.00-23.59. During this time, the number of impacts is 78.8% of the total number of minors. Meanwhile, in other Member States the peak share of impacts reach significantly lower levels, in particular in Austria (9.0%) and Finland (7.5%). It should be noted that a similar patterns can be observed for the other two age groups.

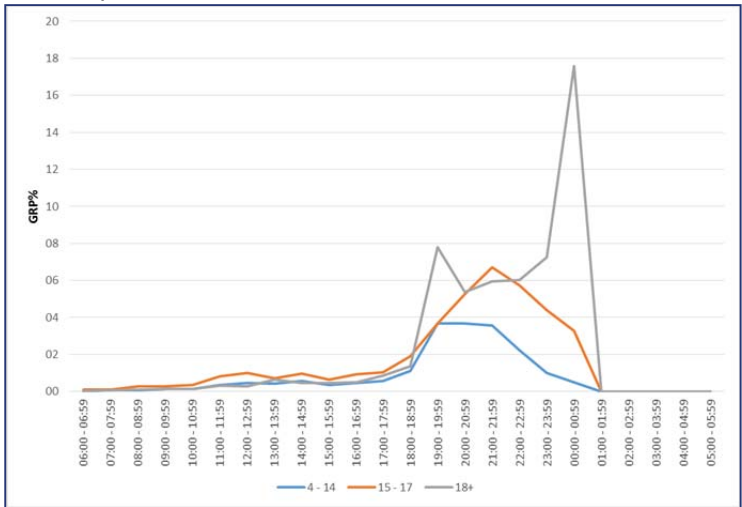
A comparison with the peak day parts for the viewing data reveals that for all age groups in all Member States it is the case that the peak day part in terms of alcohol impacts is either the same as for viewing patterns or one day part later.

4.4.6. Breakdown by hourly timeslot

Figure 4.46 – 4.54 present the number of alcohol impacts per hourly timeslot, for the three age groups in each Member State. These figures show that in each Member State the alcohol impacts followed similar patterns for the different age groups. The number of alcohol impacts increased over the day with the highest peak during in the evening. The increase in exposure in the evening appears to be particularly steep in those Member States were national regulation prohibits alcohol advertising during the day, such as in Finland (no alcohol; advertising between 07:00 and 21:00), the Netherlands (no alcohol advertising between 06:00 and 21:00) and Spain (no alcohol advertising between 06:00 and 20:30).⁴⁵

The peak hours, however, differ across Member States and across age groups. Table 4.10–4.13 show the peak hours during which the number of alcohol impacts is highest per age group. In four selected Member States, the peak hourly timeslot is the same across age groups. In Czech Republic it is between 20:00 and 20:59. In Finland and the Netherlands it is one hour later (between 21:00 and 21:59), while in Romania it is between 22:00 and 22:59. Table 4.12 provides an overview of average impact in peak hours per age group.

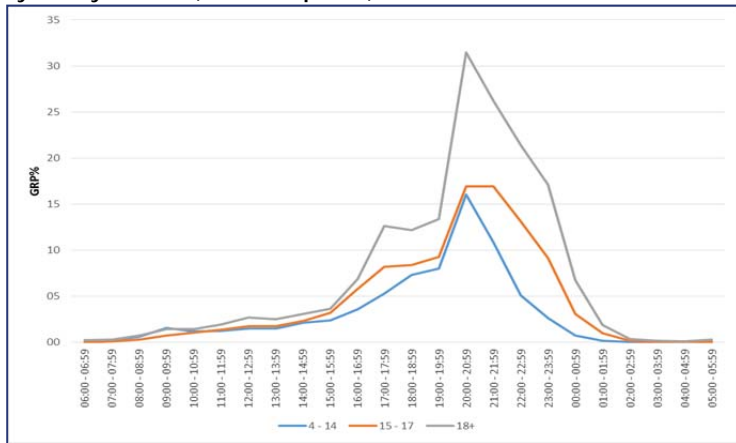
Figure 4.46 Average alcohol impacts per age group, in GRP%, by hourly timeslot, Austria, 2013



Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

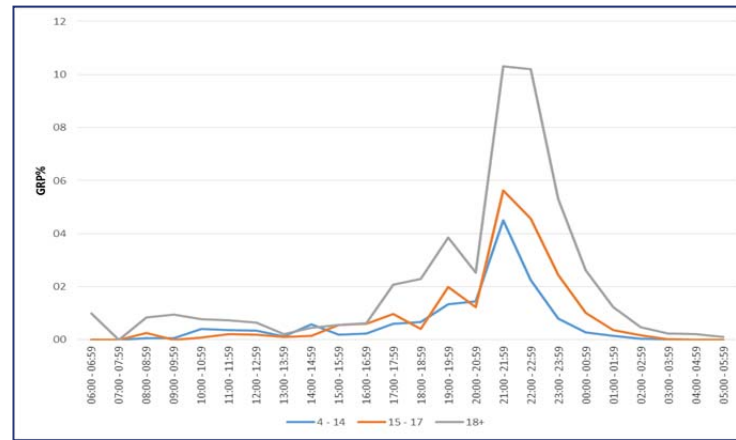
⁴⁵ Source: DG Connect, Table on national rules on commercial communications and promotion of European works (http://ec.europa.eu/archives/information_society/avpolicy/docs/reg/twvf/contact_comm/35_table_1.pdf).

Figure 4.47 Average alcohol impacts per age group, in GRP%, by hourly timeslot, Czech Republic, 2013



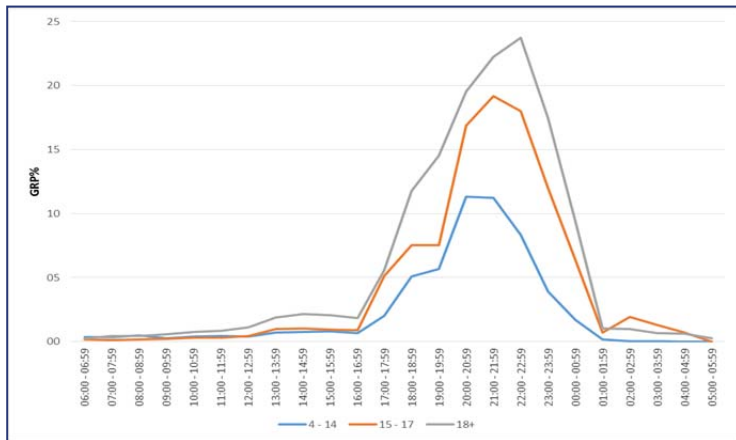
Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Figure 4.48 Average alcohol impacts per age group, in GRP%, by hourly timeslot, Finland, 2013



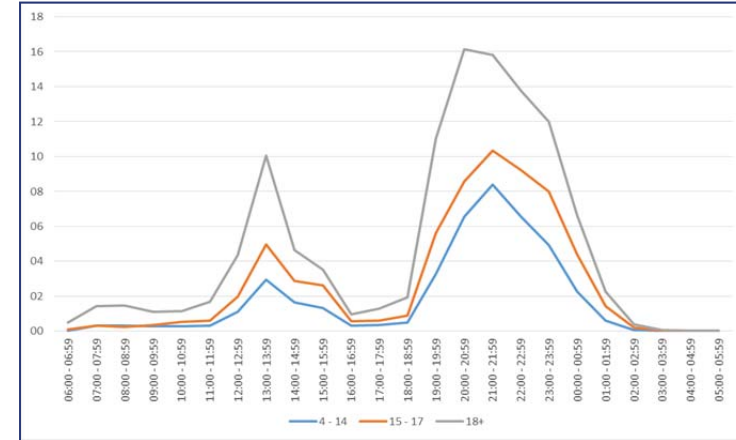
Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Figure 4.49 Average alcohol impacts per age group, in GRP%, by hourly timeslot, Germany, 2013



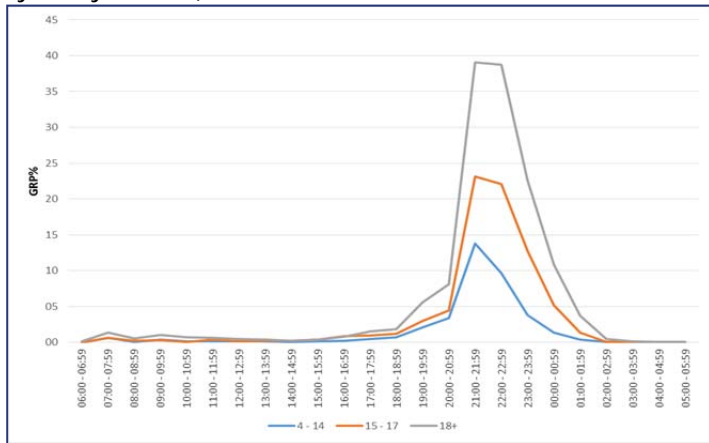
Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Figure 4.50 Average alcohol impacts per age group, in GRP%, by hourly timeslot, Italy, 2013



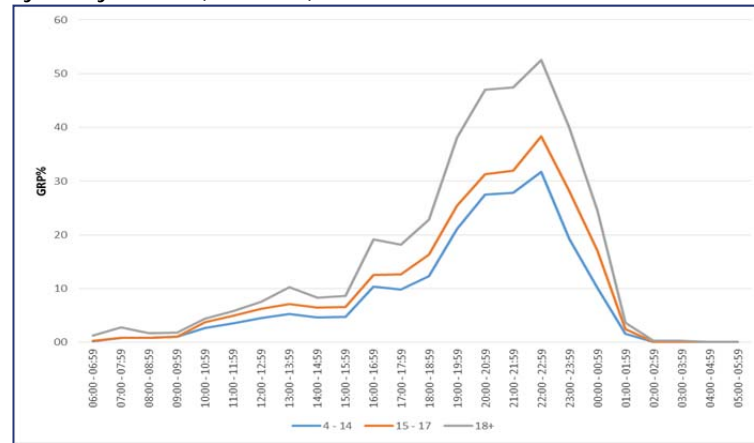
Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Figure 4.51 Average alcohol impacts per age group, in GRP%, by hourly timeslot, the Netherlands 2013



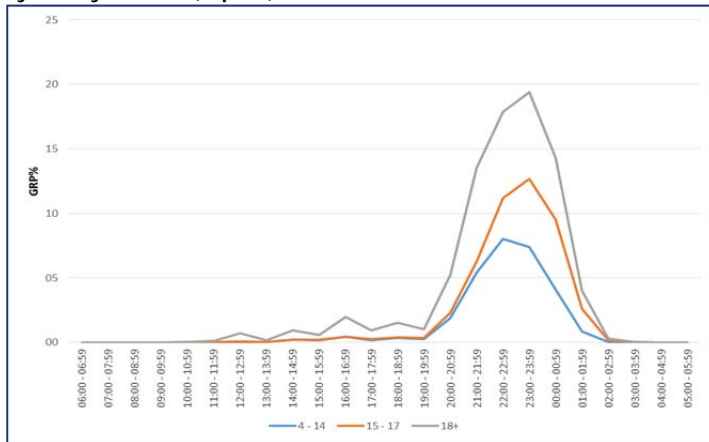
Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Figure 4.52 Average alcohol impacts per age group, in GRP%, by hourly timeslot, Romania, 2013



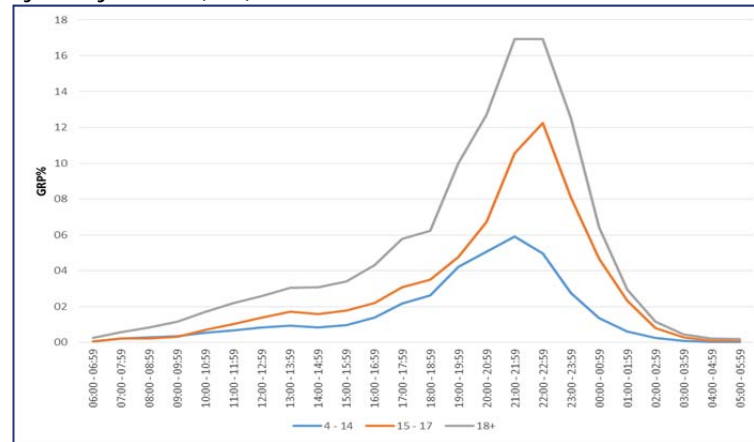
Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Figure 4.53 Average alcohol impacts per age group, in GRP%, by hourly timeslot, Spain, 2013



Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Figure 4.54 Average alcohol impacts per age group, in GRP%, by hourly timeslot, UK, 2013



Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Study on the exposure of minors to alcohol advertising on linear and non-linear audio-visual media services and other online services, including a content analysis

Table 4.10 Peak hours in terms of alcohol impacts, age group 4-14 years old (year = 2013)

Peak hour	Member State
20:00 – 20:59	AT, CZ, DE
21:00 – 21:59	FI, IT, NL, UK
22:00 – 22:59	RO, ES

Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Table 4.11 Peak hours in terms of alcohol impacts, age group 15-17 years old (year = 2013)

Peak hour	Member State
20:00 – 20:59	CZ
21:00 – 21:59	AT, FI, DE, IT, NL
22:00 – 22:59	RO, UK
23:00 – 23:59	ES

Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Table 4.12 Peak hours in terms of alcohol impacts, age group 18+ years old (year = 2013)

Peak hour	Member State
20:00 – 20:59	CZ, IT
21:00 – 21:59	FI, NL
22:00 – 22:59	DE, RO, UK
23:00 – 23:59	ES
00:00 – 00:59	AT

Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Table 4.13 Average alcohol impacts in peak hours, per age group (year = 2013; in GRP% and GRP000)

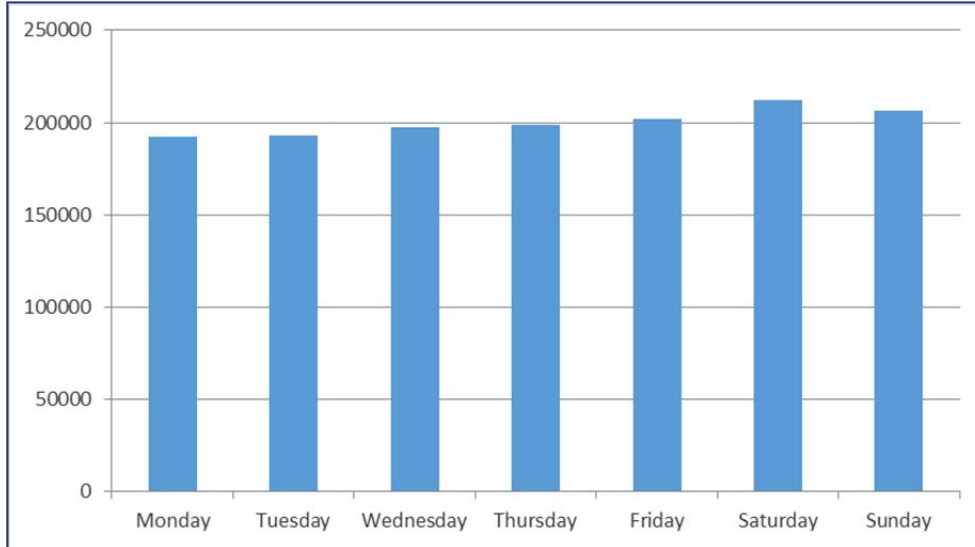
Member State	4 - 14	15 - 17	18+
Austria	3.7% 32	6.7% 20	17.6% 1,171
Czech Republic	16% 176	16.9% 47	31.4% 2,653
Finland	4.5% 29	5.6% 11	10.3% 443
Germany	11.3% 812	19.2% 496	23.8% 14,600
Italy	8.3% 520	10.4% 177	16.1% 8,075
The Netherlands	13.8% 300	23.1% 154	39% 5,097
Romania	31.7% 707	38.3% 219	52.5% 8,542
Spain	8.0% 410	12.7% 171	19.4% 7,338
United Kingdom	5.9% 461	12.2% 272	16.9% 8,087

Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

4.4.7. Breakdown by weekday

The data also allows an analysis of a breakdown by day of the week. As shown in Figure 4.55, the number of alcohol spots was in 2013 on average lowest on Monday and highest on Saturday.

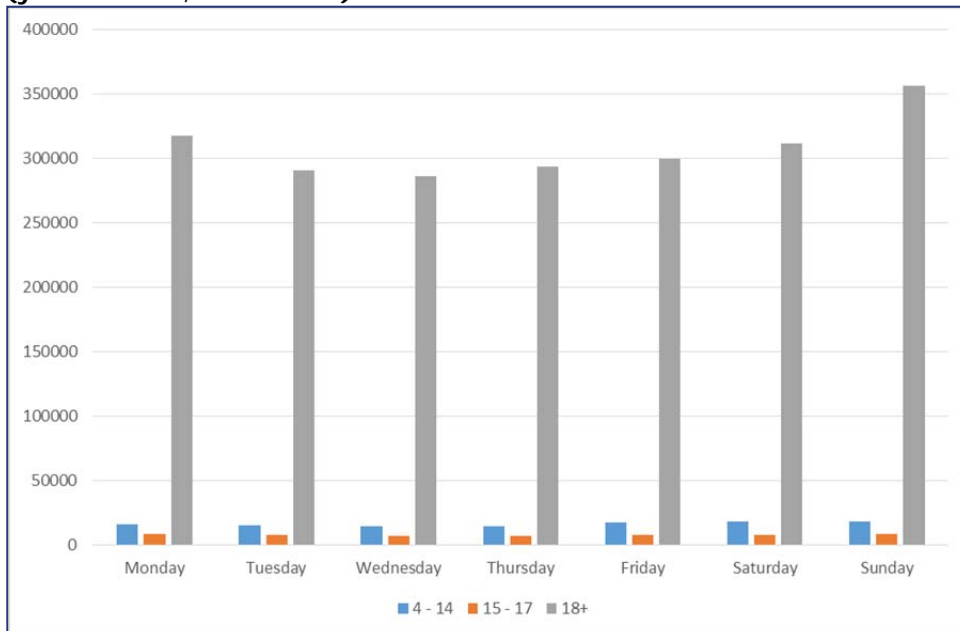
Figure 4.55 Number of alcohol spots, by weekday, all 9 Member States (year = 2013)



Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Figure 4.56 presents the average number of alcohol impacts per weekday and indicates that on average, minors aged 4-14 and adults saw the least number of alcohol impacts on a Wednesday (GRP000 are 14,846 and 28,6447 respectively) and 15-17 year olds on a Thursday (GRP000 are 7,143). Most alcohol impacts were seen on average on a Saturday by the children in the age group 4-14 (GRP000 are 18,566) and on Sunday by the other two age groups (GRP000 are 8,911 and 356,537 respectively).

Figure 4.56 Average alcohol impacts by weekday, by age group, all 9 Member States (year = 2013; in GRP000)



Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Tables 4.14 up to 4.16 show per Member State, per age group, the weekday with on average the highest and lowest number of alcohol impacts. It shows a strong diversity across Member States and this diversity is highest with regard to the day with on average the lowest number of alcohol impacts.

There are differences between the age groups within a Member State, but in the majority of Member States, all age groups see on average the most alcohol impacts on the same weekday (Austria, Czech Republic, Italy, Romania, Spain, United Kingdom).

Table 4.14 Average alcohol impacts by weekday, per Member State, 4-8 year olds (year=2013; purple indicates 'highest' and light blue 'lowest')

Weekday	AT	CZ	FI	DE	IT	NL	RO	ES	UK
Monday	Light Blue		Light Blue			Light Blue	Light Blue	Purple	
Tuesday									
Wednesday	Light Blue	Light Blue		Light Blue					Light Blue
Thursday									
Friday			Purple	Purple	Light Blue				
Saturday								Light Blue	Purple
Sunday		Purple			Purple	Purple	Purple		

Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Table 4.15 Average alcohol impacts by weekday, per Member State, 15-17 year olds (year=2013; purple indicates 'highest' and light blue 'lowest')

Weekday	AT	CZ	FI	DE	IT	NL	RO	ES	UK
Monday	Purple		Light Blue	Purple		Light Blue		Purple	
Tuesday									
Wednesday	Light Blue					Purple			Light Blue
Thursday			Purple	Light Blue			Light Blue		
Friday		Light Blue							
Saturday					Light Blue			Light Blue	
Sunday		Purple			Purple		Purple		Purple

Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Table 4.16 Average alcohol impacts by weekday, per Member State, 18+ year olds (year=2013; purple indicates 'highest' and light blue 'lowest')

Weekday	AT	CZ	FI	DE	IT	NL	RO	ES	UK
Monday	Purple		Light Blue					Purple	
Tuesday						Light Blue			Light Blue
Wednesday			Purple	Light Blue					
Thursday							Light Blue		
Friday	Light Blue	Light Blue						Light Blue	
Saturday					Light Blue				
Sunday		Purple		Purple	Purple	Purple	Purple		Purple

Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

4.5. Daily average alcohol impacts weighted by viewing ratings

As a next step we analysed both the absolute and the relative daily average alcohol impacts, that is, the absolute impacts weighted by average daily viewing ratings.

The analysis of the viewing data for the nine Member States revealed that the viewing patterns of adults and minors differed. In order to analyse if this difference in viewing habits may explain the difference in the level of exposure to alcohol advertising between minors and adults, we weighted the absolute daily average alcohol impacts by the average daily viewing rates per age group. It is important to note that this part of the analysis was conducted only for the channels included in the viewing data sample.

In this section we present the results of the weighting of the daily average alcohol impacts and in the country reports in Annex C (separate document) the results of the weighting per day part are presented.

4.5.1. Daily average absolute alcohol impacts

Before providing more detailed information on the weighted average daily impacts in each of the nine selected Member States, we first present the average daily impact (in GRP000) for the selection of channels that are also presented in viewing data (section 4.2). This was calculated as a sum of GRPs per age group for the full year (GRP000) divided by the number of days in 2013 (365).

Table 4.17 presents the absolute daily average alcohol impacts per age group in the nine selected Member States, while Table 4.18 shows the absolute average daily impacts divided by universe per age group. Both tables only include the sample of channels that are included in the viewing data, which is a subset of the channels for which the daily average alcohol impacts are presented in section 4.4.

For all age groups the daily average alcohol impacts are highest in Romania. The difference between minors and adults is the highest in Finland while it is lowest in Romania. These results are consistent with the average daily alcohol impacts for the full sample of channels, as presented in section 4.4.1.

Table 4.17 Daily average absolute alcohol impact (GRP000) per age group, 2013

Daily average impact (000)	4-14 year olds	15-17 year olds	Minors total (4-17 year olds)	18+ year olds
Austria	150	98	248	3,272
Czech Republic	569	208	777	10,082
Finland	28	13	41	671
Germany	1,054	550	1604	29,102
Italy	1,868	748	2616	38,765
The Netherlands	688	412	1100	15,427
Romania	3,682	1,164	4846	50,567
Spain	734	316	1050	16,790
United Kingdom	822	374	1196	16,768

Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

Table 4.18 Daily average absolute alcohol impact (GRP%), per age group, 2013

Daily average impact per person	4-14 year olds	15-17 year olds	Minors total (4-17 year olds)	18+ year olds
Austria	17%	33%	21%	49%
Czech Republic	52%	75%	56%	120%
Finland	4%	7%	5%	16%
Germany	15%	21%	16%	47%
Italy	30%	44%	33%	78%
The Netherlands	31%	67%	39%	121%
Romania	68%	202%	175%	312%
Spain	15%	24%	17%	45%
United Kingdom	11%	17%	12%	36%

Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

4.5.2. Relative average daily impacts

Relative daily impacts full day - all channels

Table 4.19 presents for each of the nine Member States the relative average alcohol impacts per age group for all channels and for the selection of channels that include alcohol advertisements. The average daily alcohol impacts per age group are weighted by the average daily viewing rating per age group. The results are similar to each other for all channels and for the selection of channels. Since the viewing ratings are lower for the selection of channels is a subset of the viewing rates for all channels, the weighted average daily alcohol impacts are slightly higher for almost all Member States. In the case of Austria and Germany, the relative average daily impacts are the same for all channels and for the selection of channels due to the fact that all the selected channels carry alcohol advertising.

Table 4.19 Relative average alcohol impacts per age group, 2013

Member State	All channels				Channels that include alcohol advertising			
	4-14 year olds	15-17 year olds	Minors total (4-17 year olds)	18+	4-14 year olds	15-17 year olds	Minors total (4-17 year olds)	18+
Austria	0.21	0.32	0.24	0.26	0.21	0.32	0.24	0.26
Czech Republic	0.43	0.64	0.48	0.48	0.5	0.68	0.54	0.48
Finland	0.04	0.1	0.05	0.08	0.06	0.1	0.07	0.08
Germany	0.23	0.4	0.27	0.25	0.23	0.4	0.27	0.25
Italy	0.3	0.37	0.32	0.28	0.36	0.38	0.36	0.29
The Netherlands	0.27	0.64	0.34	0.46	0.35	0.21	0.43	0.47
Romania	0.43	0.65	0.47	0.69	0.71	0.22	0.72	0.72
Spain	0.12	0.22	0.14	0.20	0.29	0.13	0.29	0.26
United Kingdom	0.16	0.24	0.18	0.21	0.36	0.16	0.38	0.56

Source: Ecorys consortium analysis, data source GfK/Dentsu Aegis.

If we compare the difference between the average daily alcohol impacts for minors and those for adults, we see that this difference becomes smaller after the weighting for average viewing times. When only including channels that carry alcohol advertising in the weighting, the difference becomes even smaller. In some Member States, the weighted average daily alcohol impact is even higher for minors than it is for adults.

These results indicate that the differences in the level of exposure between minors and adults may be partially explained by differences in viewing patterns, both in terms of the time spent watching television, as well as the channels that are watched.

4.6. Main limitations of the approach and methodology

One of the main limitations of the approach and methodology for Research Question 1 is that it only focussed on the exposure of minors to alcohol advertising on linear AV media services in 2013, whereas it would also be interesting to analyse how the results evolve over time. This would also provide the opportunity to evaluate the effectiveness of new

(self-) regulation by analysing how the levels of exposure change upon introduction of new regulation.

Another limitation concerns the level of granularity in the data: a higher level of granularity would allow for more detailed analyses and insights into differences in exposure to alcohol advertising (e.g. based on gender or a higher number of age groups for minors).

A final limitation concerns the limited sample of channels for the viewing data. Although the data on alcohol advertising impacts was based on a comprehensive sample of channels, the relative analyses had to be limited to the smaller sample for which there was also data on the general viewing patterns collected.

5. Exposure to alcohol advertising on non-linear audio-visual media services and other online services - perspective of the advertisers

The second research question of this study concerns the exposure of minors on non-linear AV media services and other online services:

“How much alcohol advertising does an average minors see on non-linear audio-visual media services and other online services in the EU?”

The exposure of minors on non-linear and other online services has been analysed from the perspective of the advertisers and from the perspective of the viewers. In this Chapter we focus on the perspective of the advertisers. The next Chapter, Chapter 6, focusses on the perspective of the viewers.

This Chapter starts with a summary of the main findings (section 5.1), followed by a discussion of the measures that online services have in place to help advertisers to advertise their products responsibly and in compliance with all applicable laws and regulations and thereby to restrict the exposure of minors to alcohol advertising on these online services (section 5.2). Next, we present the results of the enquiries to the industry with regard to their use of online services for advertising purposes as well as policies and actions taken by the alcohol industry to reduce exposure of minors to alcohol advertisements (section 5.3). Finally, we report on the results of the online data capture (section 5.4) and the main limitations of the approach and methodology (section 5.5).

5.1. Summary of main findings

From the perspective of advertisers exposure of minors to alcohol advertising is limited

From the perspective of advertisers, exposure of minors to alcohol advertising should be limited, because of (1) the measures that online services have in place, (2) the choice of advertisers for online services that offer age-gating/age verification and/or for which there is availability of audience data demonstrating that at least 70% of the likely audience is above LPA, and (3) the numerous self-regulation initiatives that are in place, at the company-, sector-, industry-, and national level. These findings were partly confirmed by the findings of the online data capture on selected YouTube channels and websites.

Almost no online exposure to alcohol advertisements observed on selected online services

In order to assess what types of advertisements are served to specific audiences, we conducted online data captures on YouTube and websites for profiles of minors (male and female) and adults (male and female) in all nine selected Member States. In the in total 1,319 screen captures for YouTube and 950 screen captures for websites (each website capture containing visits to up to 5 URLs on that website) only four unique advertisements for alcohol brands were found, of which two in pre-rolls on YouTube and two on websites in the form of banners. One of the pre-rolls advertised a non-alcohol drink and was only served on the profile of an adult. The other pre-roll was captured

three times for a minor's profile and three times for an adult profile (both male). The two banners were served on profiles of both minors and adults, where one was captured twice on both minor and adult profiles and the other was captured once on a minor's profile and four times on an adult profiles.

Initially, we planned to also include Facebook, Instagram and Twitter in the online data capture. We sought formal approval from these online services for our suggested approach, but both Facebook and Twitter informed us that they were unable to grant approval for this approach, because the creation of fake profiles breaches their terms and conditions.

Online services' policy and measures to minimise exposure

Online services typically have policies and measures in place to help advertisers to advertise their products responsibly and in compliance with all applicable laws and regulations and thereby, to restrict, or even prevent, the exposure of minors to alcohol advertising. Facebook, Instagram, Twitter and YouTube, which are among the most used online services, all have age-gating and age verification mechanisms in place. These measures ensure that when users want to access age-gated content they have to declare their age, or this is inferred from the registered user database. In addition, all of these online services prohibit in their advertising policy the direct targeting of minors in terms of placement and content. Hence, online services have several measures in place that should help advertisers to ensure that minors are not exposed to alcohol advertising on these online services.

Industry's use of online services

Alcohol industry members indicate that the use of online services varies across their portfolio, both by brand and by market. From the responses to the questionnaire amongst industry members and trade associations it is clear that the most used online service for the purpose of advertising is Facebook. Twitter appears to be the second most used online service and the responses indicate that the use of YouTube and Instagram differs across companies. Industry members indicated that in choosing an online service for advertising purposes, the following plays an important role:

- The availability of an age-gating or age verification mechanisms; or
- The availability of audience data demonstrating that at least 70% of the likely audience is above LPA.

In addition, the size of the audience and the opportunity to directly communicate with LPA+ audience were often mentioned reasons for using a specific online service.

Industry's policy and measures aimed to minimise exposure

Industry members and trade associations were also asked to share information on self-regulation initiatives in place. All respondents mentioned internal self-regulation at the company level and the vast majority also referred to national self-regulation through national Self-regulation Organisations (SROs). In addition, sector specific initiatives were mentioned as well as industry wide initiatives such as the EU Responsible Marketing Pact (RMP) coordinated by the WFA and the Digital Guiding Principle, coordinated by the IARD. All these initiatives share the notion that alcohol advertisement should not be targeted specifically at minors, both in placement and content. With regard to placement, the initiatives all mention the 70/30 rule, the use of a forward advice notice not to share content with people below the LPA, and a responsible drinking message.

5.2. Policies to restrict exposure to alcohol advertising on a selection of online services

Online services have advertising policies in place and there are typically specific rules with regard to alcohol advertising. In this section we briefly discuss the measures that Facebook, Instagram, Twitter and YouTube (a selection of the most popular online services) have in place to help advertisers to advertise their products responsibly and in compliance with all applicable laws and regulations and thereby to restrict the exposure of minors to alcohol advertising on these online services.

The results presented in this section are based on desk research, additional information received from Facebook and Google, and a discussion with spiritisEUROPE on the contents of their Digital Marketing Training⁴⁶. The effectiveness of the described policies and measures has not been tested in practice, with the exception of those on YouTube, which are partly validated through the online data capture (section 5.4).

Facebook⁴⁷

Age mechanisms

Facebook has a registered user database and age-gating system in place. When signing up for Facebook, you are required to fill in your date of birth and you can only create an account when you are at least 13 years old. Facebook creates individual user experiences based on the age of the user, which means, with regard to content related to alcoholic beverages, that the age-gating system should ensure that comments, shares and likes of alcohol brand-owned pages are invisible to minors. In addition, minors should not be able to access, or even see, pages from alcohol brands.

Advertising

Facebook's advertising policy states that "it is the sole responsibility of the advertisers to ensure that their ads on Facebook comply with all applicable laws, regulations and guidelines of the country where the advertisement is displayed". This includes applicable local laws, required or recommended industry codes, guidelines, licenses and approvals. In addition, the advertising policy mentions that for each alcohol advertisement a target audience has to be set, based on age and country that is in accordance with the targeting guidelines of Facebook and complies with applicable local laws. Hence, alcohol advertisements can only be targeted to users that are located in a country where such advertisements are admissible and are LPA+.

In terms of advertising, Facebook allows for refined targeting of advertisements and pages, based on characteristics of the users. With regard to targeting based on age: alcohol companies can only select age brackets that are above the LPA – other options are not available. Because of the age-gating system, alcohol advertising should not exist in the Facebook timeline of a minor.

The advertising policy of Facebook also mentions that the content of the advertisement cannot be appealing to users below the LPA and cannot be associated with youth

⁴⁶ This took place on 23 June, 2015, in Brussels.

⁴⁷ Sources for this section: written input received from Facebook, Facebook Advertising Policy (<https://www.facebook.com/policies/ads/>), Facebook Help Center (<https://www.facebook.com/business/help/256048321073744>) and discussion with spiritisEUROPE on their Digital Marketing Training.

culture⁴⁸.

Facebook explained that they have a comprehensive review model in place that uses both human and machine learning algorithms to detect violations. In addition, Facebook gives people (regardless of whether they have a Facebook account) the possibility to flag advertisements, content and pages that they consider inappropriate or in violation of the advertising policy. Whenever an advertisement is disapproved, the advertiser is informed on this, as well as the reason for disapproval, by email.

Instagram⁴⁹

Age mechanisms

On Instagram it is not mandatory to declare your age or date of birth when setting up an account. However, a person's Instagram profile is often linked to their Facebook profile and in that case, Instagram matches the information of the Facebook account to determine their age. Facebook explained that when someone's Instagram account is not linked to their Facebook account, and they did not declare their age when signing up, the user will be asked to confirm their age each time they want to access content or follow an Instagram account for which age restrictions are applicable. When a user indicates once that he or she is below the LPA, all age-gated accounts will be automatically unfollowed and this restriction will remain in place until the user reaches the LPA.

Advertising

It is only very recent that Instagram allows alcohol advertisements. The Facebook Advertising policies also apply to advertising on Instagram⁵⁰. Hence, alcohol advertisers have to comply with the guidelines for age and country targeting that are consistent with applicable local laws.

The targeting and serving of advertisements to Instagram users that are also Facebook users is managed by Facebook, based on the data Facebook has about these users' interest and demographics. When a minor's Instagram account is linked to their Facebook account, they should therefore not be able to see alcohol advertisement. Through the age-gating mechanism, Instagram users for which no information on age is available will not be served alcohol advertisements.

Instagram, like Facebook, has a reporting infrastructure in place through which users are able to report accounts or advertising that violate Instagram's terms.

Twitter⁵¹

Age mechanisms

For Twitter, people do not have to declare their age or date of birth when signing up. When they want to view content that is only suitable for people above the LPA, they are asked to indicate their age once and this is then remembered.

⁴⁸ For a complete overview of what is not allowed on Facebook in terms of advertising, please refer to <https://www.facebook.com/business/help/223106797811279/>.

⁴⁹ Sources for this section: written input received from Facebook, Facebook Advertising Policy (<https://www.facebook.com/policies/ads/>), article on age-gating on Instagram (<http://wersm.com/how-age-gating-works-on-instagram/>) and discussion with spiritisEUROPE on their Digital Marketing Training.

⁵⁰ For more information on Facebook's Advertising Policy, please refer to the previous section on Facebook and to <https://www.facebook.com/policies/ads/>.

⁵¹ Sources for this section: advertising policy and Terms of Use of Twitter and discussion with spiritisEUROPE on their Digital Marketing Training.

Advertisement

In principle, Twitter's Terms of Use say that one cannot promote the online sale of alcohol but Twitter allows brand building and awareness. Twitter provides online information on country specific laws, regulations and guidelines with regard to alcohol advertisement.

The Terms of Use of Twitter specify that alcohol advertisement cannot be "aimed at minors or encourage, suggest or promote drinking alcohol by minors".

Twitter, as Facebook, allows for refined targeting. In addition, Twitter provides brands/companies that want to age-gate their account with the opportunity to ask users to declare their date of birth when they indicate they want to follow the account. Once a user has declared his or her date of birth, the information will be accessible for all brands that want to engage in age-screening.

YouTube⁵²

Age mechanisms

When users create Google accounts, it is mandatory for them to declare their age. On YouTube you can watch content either with or without a Google profile. When trying to watch age-gated content without logging in with your Google profile, you are asked to log-in to verify your age. All content that is uploaded to YouTube has to comply with the community guidelines. Brands can voluntarily and proactively age-gate their brand channel and their videos. Google explained that the channel- and video- age gates work independently from each other, that is, each channel and each video should be age-gated separately.

Advertisement

YouTube allows alcohol advertising, with some restrictions. For example, alcohol advertisement may only be targeted at users in countries where these types of advertisements are allowed. The advertisements also need to comply with all applicable laws, regulations and local restrictions. In addition, alcohol advertisement may not be targeted at users below the LPA. The age gating of content and targeting of advertisements are two separately working systems.

YouTube offers various options for targeting advertisements, including demographic groups, interest and topics⁵³.

YouTube has policy filters in place to ensure that alcohol advertisements are not served on content that may be family friendly or sensitive to alcohol advertisers (e.g. depression or addiction/rehabilitation). In addition, Google explained that YouTube gives creators the choice whether sensitive advertisements, including alcohol advertisements, are shown on their content. The choice for showing alcohol advertisement on their content should be made proactively by the creator.

Users can flag videos and advertisements that violate YouTube's policy and these videos are subsequently reviewed upon which YouTube takes the appropriate action. Google

⁵² Sources for this section: Written input received from Google, YouTube advertising policy and discussion with spiritisEUROPE on their Digital Marketing Training.

⁵³ For a complete overview, please see: <https://support.google.com/youtube/answer/2454017?hl=en-GB>.

explained that, in addition, YouTube uses human review to enforce the advertising policy and the check for the appropriateness of advertisements.

5.3. Perspective of the industry

By means of enquiries to the alcohol industry, information on the relative preference for certain online services compared to others was requested. To that end, 12 industry members and three trade associations were asked to fill in a short questionnaire. Next to the relative preference, we also asked them to indicate why they prefer the use of one online service to others⁵⁴. 14 responses have been received and this section provides a summary of these responses.

5.3.1. Relative use of online services for advertising purposes

The majority of the respondents emphasised in their questionnaire that their use of online services varies across their portfolio, both by brand and by market. Because of this variation, many respondents indicated that they were not able to rank the relative use online services. Rather, they indicated in a more qualitative manner how often services were used.

From the responses to the questionnaire it is clear that the most used online service for the purpose of advertising is Facebook: all respondents indicated that it is commonly used across brands and markets and whenever a ranking was provided, it was ranked '1 (most used)'.

Twitter appears to be the second most used online service and the responses indicate that the use of YouTube and Instagram differs across companies. These two online services are scored between 1 (if so, together with Facebook) and 4 and in more qualitative terms it ranges from 'used extensively' to 'limited use'.

From the answers to the questionnaire it is clear that Pinterest, Tumbler and online gaming platforms are used rarely or not at all.

Reasons for using a specific online service more often than others

Overall, it seems that in choosing an online service, the following plays an important role:

- The availability of an age-gating or age verification mechanisms; or
- The availability of audience data demonstrating that at least 70% of the likely audience is above LPA.

The most mentioned reasons for using *Facebook* extensively included:

- Robust age-gating system in place (mentioned by all respondents);
 - Two respondents emphasised the importance of the declaration mechanism that ensures that when content is declared to be 'alcohol-related' it cannot be targeted at minors.
- Refined targeting options to ensure that appropriate audience is targeted (mentioned by more than half of the respondents);

⁵⁴ This was phrased as an open question – no suggestions for answers were provided. For more information on the questionnaire, please refer to section 2.5.1.

- Large audience/one of the most popular Social Networking Sites (mentioned by more than half of the respondents).

For *Twitter*, most of the respondents refer to the age affirmation system that is in place and that was developed jointly with the industry. In addition, it is mentioned that as age affirmation is not a requirement for general access to platform, paid advertising follows the 70/30 (for some countries 75/25) rule, based on the available audience data and the options for demographic targeting. Two respondents indicated that the use is limited because of the limited relevance of Twitter in their main market in Europe. One of the mentioned benefits of using Twitter is that it allows for direct communications with adult consumers around customer service and event-related subjects.

For *YouTube*, the possibility of activating age-verification for brand channels and/or individual videos was mentioned by most respondents as to why YouTube is used often. In addition, respondents referred to the targeting options based on demographics, including age. When this option is not available, respondents indicate they use available audience data to follow the 70/30 rule (75/25 for some countries). Two of the respondents indicated that they include forward advice notices and/or responsibility at the beginning of their videos.

For *Instagram* respondents indicate that the login via Facebook ensures robust age-gating for this online service as well. However, when users log in in a different way, age affirmation is not automatically activated and in those cases paid advertising will follow the 70/30 rule (75/25 in some countries) based on the best available audience data.

Next to reasons for why they use a platform, some respondents also provided information on how the online channels were used. Most of these respondents indicated they typically use a global page/channel per brand in combination with country specific versions of these pages/channels.

5.3.2. Self-regulation by the industry

In order to reduce the exposure of minors to alcohol advertisement as much as possible, the alcohol industry not only relies on the measures that are put in place by the online services, but also drafted self-regulation to ensure that minors will not be targeted through placement nor content. In the questionnaire sent to the industry members and trade associations it was asked to explain its main principles.

Table 5.1 provides an overview of the (type of) self-regulation initiatives that were mentioned in the questionnaires as well the number of respondents that reported it.

Table 5.1 Self-regulation initiatives mentioned in the questionnaire

Type of self-regulation	Number of respondents that mentioned this
Internal self-regulation	13
National self-regulation (monitored by national SROs)	13
EU Responsible Marketing Pact (RMP) of the WFA	9
Digital Guiding Principles (DGP) of the IARD	8
spiritsEUROPE guidelines for the development of marketing communications	4
Guidelines for responsible commercial communications for beer	2
EU Wine Communication Standards	1

Note: total number of respondents: 13; multiple answers possible.

Internal self-regulation at company level

All industry members and two of the three trade associations indicated that companies have *internal self-regulatory systems* in place to protect minors in the EU from exposure to alcohol advertising. Regarding the placement of alcohol advertising, the internal self-regulation typically follows the guidelines provided by the Digital Guiding Principles (DGP) of the IARD and the Responsible Marketing Pact (RMP) of the WFA⁵⁵. In general, internal self-regulation at the company level includes the following measures with regard to placement:

- the application of the 70/30 rule, which states that advertisements may only be placed in media where at least 70% of the audience is expected to be above the LPA;
- including a forward advice notice in shareable content;
- maintain employee awareness with internal education; and
- supporting national advertising self-regulatory organisations (SROs) in active markets.

Next to self-regulation at the company level, there is *self-regulation at the sector level*. The three trade associations, spiritsEUROPE, The Brewers of Europe and Comité Européen des Entreprises Vins, all adopted sector specific guidelines to complement existing national codes, legislation, principles and self-regulation initiatives from industry for responsible marketing communications. The sector specific guidelines are respectively the *spiritsEUROPE guidelines for the development of marketing communications*, *Guidelines for responsible commercial communications for beer* and the *EU Wine Communication Standards*. These sector-specific guidelines share very similar provisions with regard to targeting in terms of both placement and content. For example, they all refer to the 70/30 rule and the fact that the content of advertisements may not be primarily appealing to minors. The respondents to the questionnaire explained that the sector codes try to provide the industry with reference criteria for the development of (self-) regulation and codes regarding marketing communications.

Next to sectoral initiatives, there are also *industry wide initiatives*.

For example, in June 2015 the *Responsible Marketing Pact (RMP)*⁵⁶ was launched, which is an industry wide initiative at the company level. AB InBev, Bacardi, Brown-Forman, Carlsberg, Diageo, Heineken, Pernod Ricard and SAB Miller, representing approximately 1,500 brands and approximately 60% of EU alcohol ad spending, set-up the RMP, which

⁵⁵ More information on these initiatives is included later on in this section.

⁵⁶ A source for this section on the RMP is, next to the responses from the industry members and the trade associations, information provided by the WFA during a meeting that took place on 23 June 2015.

is coordinated by the WFA. This initiative aims to create and apply a common industry standard for alcohol advertising that is practical, easily understandable, measurable and applicable across all three sectors (i.e. beer, spirits and wine) . The RMP includes commitments on three pillars: (1) Social Media, (2) Appeal and (3) Placement.

The Social Media pillar relies on the implementation of a 'Standard Alcohol Profile'. This profile consists of key safeguards which the RMP members commit to use on social media accounts as Facebook, Twitter, Instagram and YouTube across the 28 EU Member States. These safeguards include using an age affirmation mechanism, forward advice notices, responsible drinking messages, guidelines stating the policy regarding user-generated content, and a statement or badge certifying the official profile of a brand. Together these safeguards form the 'Standard Alcohol Profile', which aims to increase overall consistency, efficiency and effectiveness in avoiding interaction with minors.

The Appeal pillar is in place to ensure that advertising cannot be more appealing to minors as it is to adults. This prohibits for example the use of teenage slang (e.g. 'yolo') in alcohol advertisements. With the aim of creating more tangible rules with regard to content, a Black List and a Road Test were developed. The Black List includes 50 creative features that may not be used in alcohol advertising. It is a flexible list that will be updated constantly. Next to this Black List, alcohol brands have to conduct the Road test. This test consists of a set of guiding questions with regard to assessing the presence of sources of primary appeal to minors in the content of an alcohol advertisement, also against the cultural context of a country. The Road test is mandatory, even when an advertisement does not contain any features that are on the Black List, to ensure that there remain no sources of primary appeal. Hence, the Black List and Road test work hand in hand to avoid primary appeal on the basis of both the creative materials and the cultural context of a given country where the advertisement will be placed.

The Placement pillar consists of the 70/30 rule, which states that ads may only be placed in media where at least 70% of the audience is expected to be above the legal purchasing age (LPA).

The implementation of the RMP will be annually monitored by an independent third party. The results of this monitoring will be publically available and shared with the European Commission and the EAHF.

Other examples of industry wide initiatives that were mentioned by multiple respondents are the *International Alliance for Responsible Drinking (IARD) Commitments*, such as the *Digital Guiding Principles (DGP)*. These principles represent a set of global guidelines for producers of alcohol beverages that are specifically focused on online marketing and social media use. The aim of these principles is to standardise marketing self-regulation codes across companies, digital platforms and markets and to ensure that the same standards are applied to the digital environment as it to television and print marketing. These principles include the 70/30 rule, the use and monitoring of a forward advice notice, a responsible drinking message and monitoring of user generated content posted on company controlled platforms. According to the DGP, next to these measures, an age affirmation system should be in place on platforms where alcohol advertisements are placed.

Next to the previously mentioned internal self-regulatory systems, the sectoral codes, the RMP and the DGP, the majority of the respondents also mentioned their *signatory support to national advertising self-regulatory organisations (SROs)*. 25 EU Member States, including the nine selected Member States for this study, have a national advertising SRO in place. These bodies exercise a degree of regulatory authority in addition to governmental regulation to enforce certain industry standards with regard to advertising. The advertising self-regulation codes differ slightly across Member States because of differences in culture, legal and commercial practice, but share the same purpose. The general principles all include that advertisements should not be specifically aimed at minors or show minors consuming alcoholic beverages and that media where a majority of the audience is known to consist of minors should be avoided. The European Advertising Standards Alliance (EASA) brings together national advertising SROs and organisations representing the advertising industry to promote effective self-regulation⁵⁷.

5.4. Online data capture

As described in Chapter 2, the online data capture resulted in 1,319 screen captures for YouTube and 950 screen captures for websites.

Tables 5.2 and 5.3 present the number of YouTube videos and website captures that are reviewed per selected Member State, split between minors and adults. Please note that the total numbers are somewhat lower than the total number of screen captures and that the number of captures per Member State show variation. The reasons for this are, among others, that:

- Research resources for obtaining the popular channels and websites across the nine Member States and demographic matrix did not produce equal results. Some countries-gender-age-range instances turned out more than others;
- During the two month data capture period some of the popular YouTube videos (as indicated by SocialBlade and Trends Dashboard) expired, displaying the message 'The video has been removed', therefore making some data captures redundant/irrelevant. This led to less data captures for certain Member States/age-brackets;
- Technical issues with the commercial proxies and geolocation issues meant that on certain days we were not able to make captures for some Member States (this mainly affected Austria, Germany and Czech Republic); and
- Some of the files containing the screen captures were corrupt and could not be reviewed.

⁵⁷ Source: <http://www.easa-alliance.org>.

Table 5.2 Number of YouTube videos reviewed, by Member State

	YouTube				Total
	Minors <i>Boys</i>	Minors <i>Girls</i>	Adults <i>Male</i>	Adults <i>Female</i>	
Austria	53	31	60	54	198
Czech Republic	59	63	11	9	142
Finland	70	75	18	21	184
Germany	49	59	15	13	136
Italy	38	30	57	54	179
Netherlands	26	13	38	20	97
Romania	37	28	7	8	80
Spain	48	27	53	36	164
United Kingdom	25	11	16	10	62
Total	405	337	275	225	1242

Note: the number of YouTube videos may differ from the number of YouTube captures as some captures contained multiple short videos. For a complete overview of the YouTube channels that were selected for the online data capture, please refer to Annex E (separate document).

Table 5.3 Number of website captures reviewed, by Member State

	Websites				TOTAL
	Minors <i>Boys</i>	Minors <i>Girls</i>	Adults <i>Male</i>	Adults <i>Female</i>	
Austria	22	17	15	17	71
Czech Republic	43	48	28	35	154
Finland	36	49	34	37	156
Germany	21	18	14	9	62
Italy	43	36	36	21	136
Netherlands	17	21	21	7	66
Romania	20	22	19	18	79
Spain	22	19	24	16	81
United Kingdom	33	30	20	19	102
Total	243	251	191	172	907

Note: each capture contains up to 5 URLs per website. For a complete overview of the URLs visited, please refer to Annex E (separate document).

Advertisements

For each YouTube video and website capture the number of advertisements was counted.

YouTube

The focus of the analysis of the YouTube data captures was on the so-called pre-rolls, mid-rolls and rolling banners that may be shown during the viewing of a selected video. Pre-rolls are advertisement clips varying from 10 seconds to multiple minutes that can be skipped after a certain time (if the advertisement is longer than 60 seconds). Mid-rolls are short advertisement clips usually not longer than 60 seconds that are shown during the viewing of a YouTube video. During the mid-rolls, the YouTube video is paused and it continues automatically after the mid-roll. Rolling banners are rectangle (300x60 pixels) advertisement banners overlaying the video that appear for a certain amount of time. YouTube also provides "Standard Display Ads" which are sometimes shown on the right side of the video clip on the webpage. These Standard Display Ads have not been coded specifically as these ads typically follow the message shown in the pre-roll, mid-roll or rolling banner. The content of the video clips was not analysed for other forms marketing, such as product placement.

The number of pre-rolls, mid-rolls and rolling banners for each YouTube capture have been separately counted and registered. When a new Internet session is started and

where a YouTube video shorter than twenty minutes is selected for watching, a common pattern recognized that it contains one pre-roll and no mid-rolls or rolling banners. When a video is longer than twenty minutes, it sometimes contains a mid-roll after ten minutes of watching time. Rolling banners are usually utilised if a second YouTube video is watched within the same Internet session. Since the majority of the analysed videos on YouTube are shorter than 20 minutes and the screen captures usually contained only one video, the advertisement found in these videos were mainly pre-rolls.

Websites

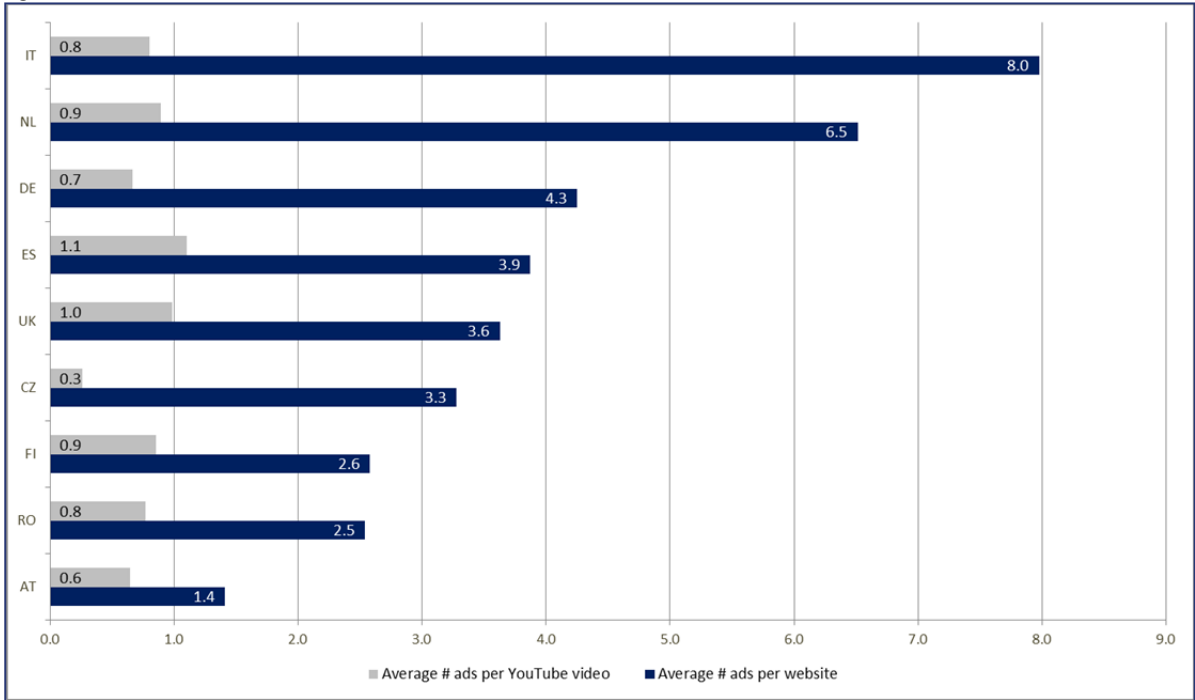
The focus of the screen captures containing Internet sites was on the number of banners on a particular domain popular for the combinations of gender and age group. Within one domain up to five randomly selected URL’s were visited and scrolled through from top to bottom. The total number of banners that were distinguishable from third-parties with the intention to promote a good or service were counted for these five URL’s together and registered.

Average number of advertisements per video or website visit

The registrations of the total amount of advertisement within an individual screen capture has been summarised for each Member State. This provides an overview of the number of screen captures analysed per genre, age group and gender together with the amount of advertisements it contained for both YouTube and websites separately.

Figure 5.1 presents the average number of advertisements per YouTube video and per website visit, by Member State. This figure indicates that the average number of ads per YouTube video ranges from 0.3 for the sample for Czech Republic to 1.1 for the sample for Spain. For websites, the numbers range from 1.4 ads per website (when visiting 5 URLs) for the Austria sample to 8.0 for the Italy sample.

Figure 5.1 Average number of advertisements per YouTube video and per website visit, by Member State



Number of alcohol advertisements

In the analysis of all captures, we encountered four different advertisements from alcohol brands:

- On YouTube:
 - Pre-roll featuring an advertisement on non-alcoholic radler:
 - This pre-roll was captured for the profile: Czech Republic, adult, male (one occurrence).
 - Pre-roll featuring a short movie sponsored by a beer producer:
 - This pre-roll was captured (on the same channel) for the profiles:
 - Spain, minor, boy (three occurrences);
 - Spain, adult, male (three occurrences).
- On websites:
 - Banner for a spirits brand:
 - This banner was captured (on the same 'online audio' website) for the profiles:
 - Spain, minor, boy (one occurrence);
 - Spain, adult, male (two occurrences);
 - Spain, adult, female (two occurrences);
 - Banner for a spirits brand on a music website:
 - This banner was captured (on the same 'music' website) for the profiles:
 - Czech Republic, minor, boy (two occurrences);
 - Czech Republic, adult, male (one occurrence);
 - Czech Republic, adult, female (one occurrence).

5.5. Main limitations of the approach and methodology

The methodology used for the analysis in this Chapter consisted of a combination of qualitative research and online data capture. Where the qualitative part mainly focusses on the online services for which users need to log-in, the online data capture focussed on the situation in which users are not logged-in, and thus age cannot be verified.

Despite close mirroring of the online behaviour of minors during the data capture, the results of the data capture may still differ from the actual exposure of minors. The three main sources, none of which could be addressed during this study, are:

- Cookies were generated during the two months of online activity – minors will typically have a richer browser history than the profiles that were generated for the purpose of this study;
- People may use ad-blocks or nanny-tags in their browsers, which prevents them from seeing any (alcohol) advertisement at all; and
- The data capture focused on the main online services and websites. It is unclear to what extent the results for these main online services and websites are also representative for the lesser-known services and websites.

In addition, it was decided not to allow for spill-overs between profiles. As a result, the profiles contained only cookies specifically for one profile, whereas, when a minor uses a shared device to go online, i.e. a device that is also used by others (such as a parents and/or siblings), the advertisements seen by minors will also be affected by the cookies of these people.

The caveats presented above mean that the results of the data capture activity should be interpreted with a certain degree of caution.

Another limitation of the methodology is that the online data capture only focusses on YouTube and websites and not on the other popular online services such as Facebook, Instagram and Twitter. As a result, we were not able to validate the findings based on the desk research and the enquiries to the industry and the selected online services.

6. Exposure to alcohol advertising on non-linear audio-visual media services and other online services - perspective of the viewers

The second research question of this study concerns the exposure of minors on non-linear AV media services and other online services:

“How much alcohol advertising does an average minors see on non-linear audio-visual media services and other online services in the EU?”

In the previous Chapter the exposure of minors on non-linear AV media services and other online services was analysed from the perspective of the advertisers, whereas this Chapter focuses on the perspective of the viewers.

Between mid June and mid July minors were surveyed to assess the exposure to (alcohol) advertisement in nine selected Member States: Austria, Czech Republic, Finland, Germany, Italy, the Netherlands, Romania, Spain, United Kingdom. This Chapter presents the results of the analysis of this survey. In the survey, questions were asked about online activity of minors, awareness of (alcohol) advertising, and, only for the age groups 9-13 and 14-17, memory for alcohol advertising.

The remainder of this Chapter is organised as follows. The first section (section 6.1) provides a summary of the main findings from the perspective of the viewers followed by a description of the sample (section 6.2). Next, we present the results of the survey (section 6.3) and the relationship between the frequency of online activity and advertisement recall (section 6.4). The Chapter concludes with a discussion of the main limitations of the approach and methodology used (section 6.5.)

The survey results per Member State are presented in the country reports in Annex G (separate document), which also contains a detailed sample description as well as additional survey results.

6.1. Summary of main findings

Alcohol among the least seen advertisements

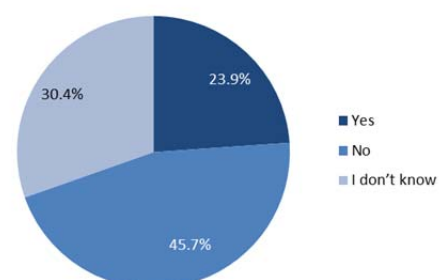
When asked what type of advertisement minors aged 9-17 recall seeing online in the last month, alcohol advertisements are the least recalled type of advertisements. Advertisements for games are the most recalled type.

23.9% of minors aged 9-17 in the nine selected Member States recall to have seen alcohol advertisements online in the last month

Minors between the ages of 9 and 17 were subsequently asked if they saw an alcohol advertisement on the Internet during the last month.

23.9% of the respondents answered ‘yes’. There are however differences between

Have you seen advertisement(s) about alcohol on the Internet during the last month?



Member States. In Austria the self-reported exposure of minors to alcohol advertising was the lowest (14.7%), while in Italy it was the highest (29.8%).

Awareness of alcohol advertisement increases with age

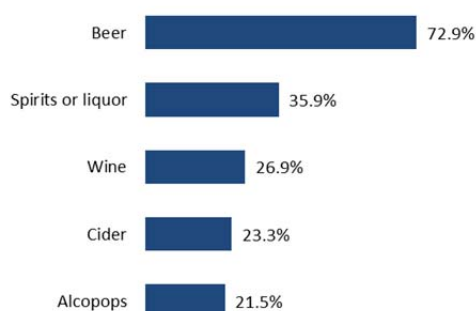
19.5% of minors aged 9 – 13 responded to recall having seen alcohol advertisements on the Internet in the last month. For minors aged 14-17 this was recalled by 29.2%.

For ethical reasons, minors in the 4-8 age group were not asked whether they have seen advertisements about alcohol on the Internet, but rather to indicate whether they saw advertisements on the Internet in general. 49% of them answered positively to this question.

Beer is the most recalled type of alcohol product

The majority of the minors aged 9-17 indicated to have seen an advertisement for beer. Advertisements for alcopops, on the other hand, were recalled the least.

For which type of alcohol product have you seen advertisement(s) on the Internet?



Memory for alcohol advertising and active brand recall increase with age

Respondents aged 9-17 were asked if they could describe an alcohol advertisement they recently saw and 23.6% of the minors aged 9-17 answered 'yes'. On average 80% of these respondents indicated that they recall the brand of the first advertisement they described. On average, both memory for alcohol advertising and active brand recall are significantly higher among the 14-17 age group than among the 9-13 age group.

In addition, *the higher the frequency of online activity, the higher the chance of recalling to have seen an (alcohol) advertisement.* 61.9% of the minors in 9-17 age groups indicated that they are active online and use Internet every day, of whom 27% recall to have seen alcohol advertisements. Similarly, there is a positive relationship between active brand recall and a frequency of use. In case of minors in the 4-8 age group, 63% of those who are active online every day indicated that they saw advertisements.

Age group 4-8 is expected to perceive the lowest level of exposure

For ethical reasons, minors in the 4-8 age group were not asked whether they have seen advertisements about alcohol on the Internet. However, based on the findings that recall of alcohol advertisements, and thereby perceived exposure, increases with age and online activity and that the 4-8 year olds are least active online, it is to be expected that the youngest age group has the lowest level of perceived exposure to alcohol advertising on the Internet.

6.2. Sample description

To analyse the exposure of minors on non-linear AV media services and other online services from the perspective of viewers, data was collected through a one-time survey

amongst minors in each selected Member State during between mid-June and mid-July 2015. Once the surveys were completed, the resulting datasets were cleaned. Cleaning included the removal of observations that were filled out without the minor present.

The total number of the minors that responded to the questionnaire is 8,086. On average, 900 minors filled in the questionnaire in each Member State.

In total, 4,043 boys and 4,043 girls answered the questionnaire. 35.4% of the respondents were aged 4-8, 35.3% were aged 9-13, and 29.2% were aged 14-17. The average age of minors that responded to the survey was 10.6 years.

For a more detailed description of the sample, please see Annex G (separate document).

6.3. Survey results

This section outlines the results of the survey that was completed by minors in nine selected Member States⁵⁸. Since the questionnaire consists of four 'chapters' of questions, the results are presented in a similar fashion.

First, we discuss the results on online activity (all age groups). Secondly, the details on online activity are presented. These results on (detailed) online activity set the scene for the analysis of the self-reported exposure of minors to alcohol advertising online and serve as an input for testing the relation between online activity to self-reported exposure.

Next, the awareness of advertising is discussed. Due to ethical reasons, the minors aged 4-8 were only asked questions about advertising in general, while the other age groups were asked about alcohol advertising specifically. Lastly, the results of the analysis of the memory for alcohol advertising are described. These questions were only included in the questionnaires for the age groups 9-13 and 14-17.

6.3.1. Online activity

Frequency of online activity

Overall (4-17 year olds)

The results of the 2008 Eurobarometer survey on Safer Internet issues⁵⁹ showed that 75% of the children aged 6-17 years old in the nine selected Member States used the Internet. Over the years, the usage of the Internet increased.

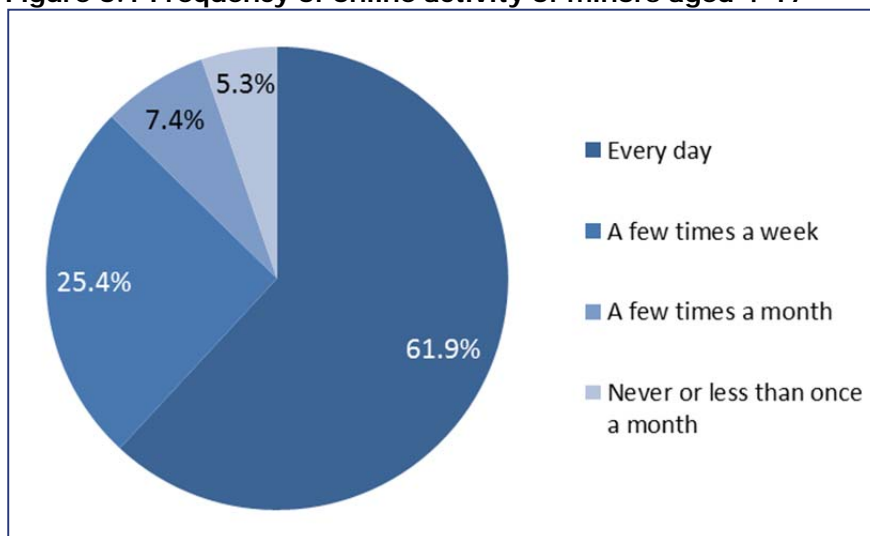
In the survey conducted for the purpose of this study, 94.7% of the minors indicated that they are active online and use Internet at least a few times a month. Figure 6.1 shows that more than half of these minors in the nine selected Member States use the Internet every day (61.9% or 5,005 minors). There are some differences between Member States. 53.6% of minors indicated that they are active online every day in Austria, whereas in Finland 75% of minors reported this. 25.4% (2,054 minors) in the

⁵⁸ For the questionnaires used in the survey, please refer to Annex F (separate document).

⁵⁹ Eurobarometer. (2008). Towards a Safer Use of the Internet for Children in the EU: A Parents' Perspective. Luxembourg: European Commission.

selected Member States go online a few times per week. This is similar to the results of the EU Kids Online survey⁶⁰, which indicated that 60% of 9-16 year old Internet users in Europe go online daily, and a further 33 per cent go online at least weekly⁶¹.

Figure 6.1 Frequency of online activity of minors aged 4-17

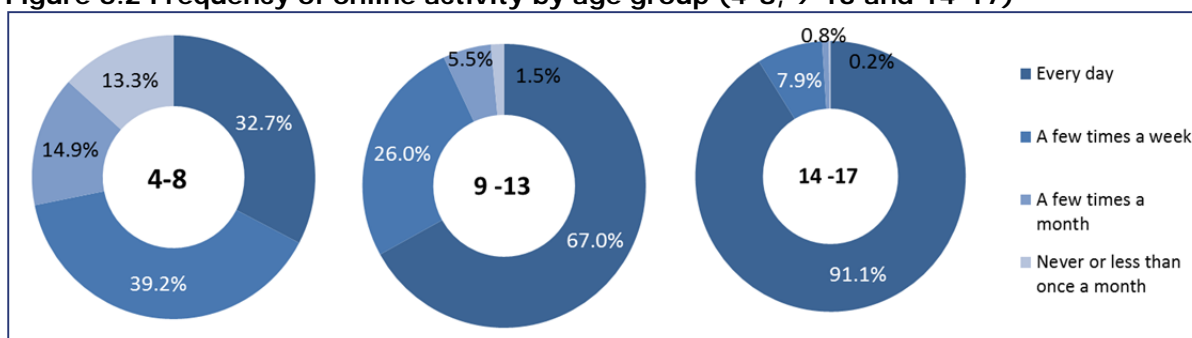


Note: total number of respondents is 8,086.
Source: Ecorys consortium analysis, data source GfK survey.

Breakdown by age group

Figure 6.2 presents a breakdown of the frequency of online activity by age group. It shows that 71.9% of minors aged 4-8 use Internet at least a few times per week. With regard to the minors aged 9-13 and 14-17, the majority reported to be active online at least a few times a week - 92.9% and 99.1% respectively. In 4-8 age group 32.7% of the minors use Internet every day. In Austria on the other hand, only 11.2% of minors in this age group use Internet every day while in Romania and the UK 47.8% each. The usage of Internet increases with age: in case of the age group 9-13 this concerns 66.9% and 91.2% for the age group 14-17. In Austria the lowest share of minors in age group 9-13 indicated to visit Internet every day (54.7%), while in Finland the highest share of minors reported so (87.8%). The share of minors in the oldest age group is even higher, ranging between 84.4% in Germany and 98.6% in Finland.

Figure 6.2 Frequency of online activity by age group (4-8, 9-13 and 14-17)



Note: total number of respondents is 2,858, 2,865, 2,363 for in 4-8, 9-13, 14-17 age groups respectively.
Source: Ecorys consortium analysis, data source GfK survey.

⁶⁰ Livingstone, Sonia and Haddon, Leslie and Görzig, Anke and Ólafsson, Kjartan (2011) EU kids online: final report. EU Kids Online, London School of Economics & Political Science, London, UK. This version available at: <http://eprints.lse.ac.uk/39351/>.

⁶¹ This survey was conducted for 25 countries during 2010.

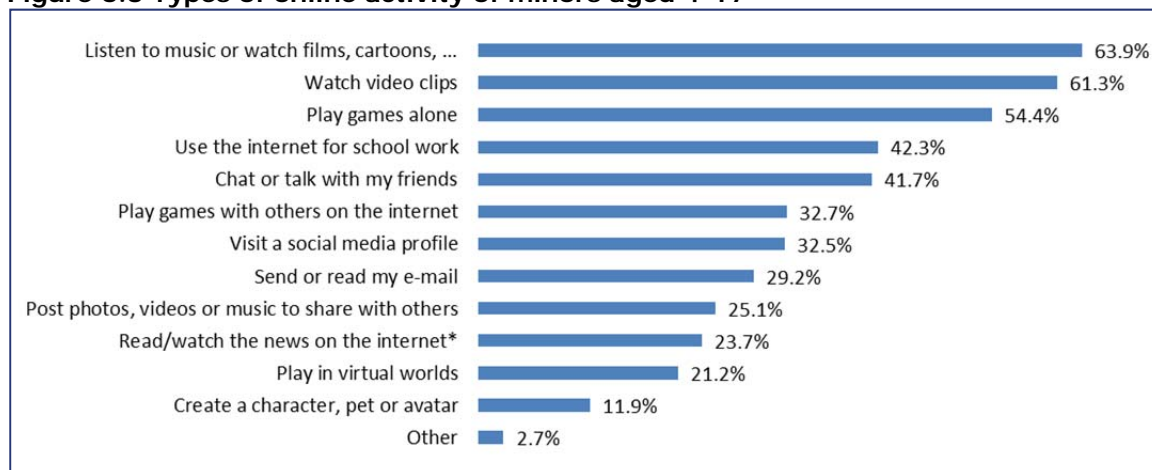
Type of online activities

Overall (4-17 year olds)

Minors are active online for different purposes, as presented in Figure 6.3. The most prevalent reported activities are listening to music or watching films and cartoons (63.9%) and watching video clips (61.3%). Playing games alone is also relatively often reported. 42.3% of respondents reported to use Internet for school work. The least mentioned type of activity is creating a character, pet or avatar.

These results are similar to the ones obtained in the EU Kids Online survey⁶² and theNet Children Go Mobile⁶³ survey⁶⁴ despite a number of differences between those two surveys and the survey conducted for the purposes of this study. For example, the activity 'listening to music or watching films and cartoons' is not included in EU Kids Online and Net Children Go Mobile while the activity 'using instant messaging' is not included in the questionnaire of this study. When accounted for these differences, the top 3 online activities are the same. Moreover, the activity 'create a character, pet or avatar' is mentioned by the lowest number of respondents in the EU Kids Online survey, Net Children Go Mobile survey and the survey conducted for the purposes of this study.

Figure 6.3 Types of online activity of minors aged 4-17



Note: total number of respondents is 8,086.

It is a multiple answer question, therefore the total number adds up to more than 100%.

Source: Ecorys consortium analysis, data source GfK survey.

Breakdown by age group

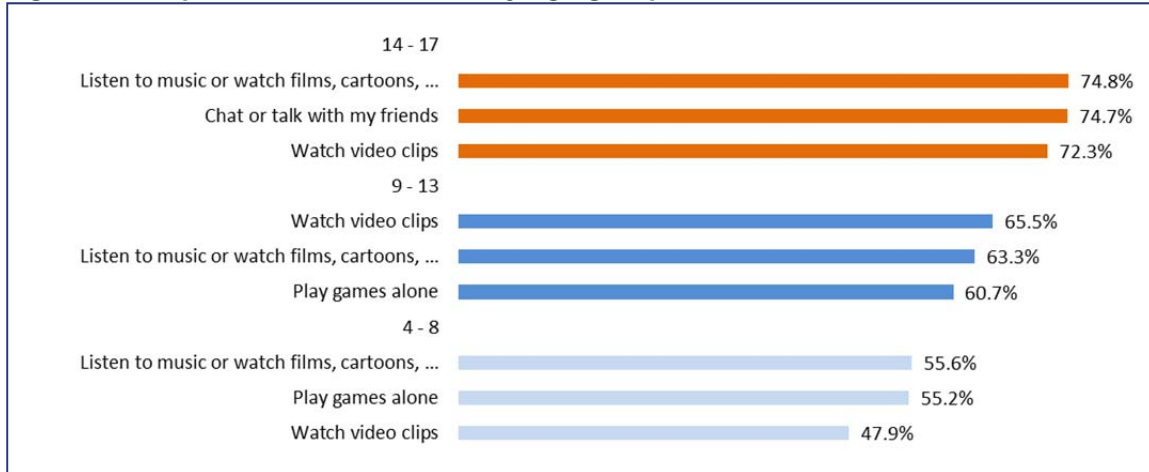
Figure 6.4 shows the top three online activities mentioned per age group. The most popular activity differs per age group. For the minors in 4-8 and 14-17 age groups the most popular activity is listening to music or watching films and cartoons, whereas the minors aged 9-13 prefer to watch video clips. For the minors aged 14-17 years chatting or talking with friends is among the most popular activities, while this does not occur in the top three lists of the other age groups. Playing games alone is a popular choice of minors aged 4-13.

⁶² Livingstone, Sonia and Haddon, Leslie and Görzig, Anke and Ólafsson, Kjartan (2011) EU kids online: final report. EU Kids Online, London School of Economics & Political Science, London, UK.

⁶³ Livingstone, S., Haddon, L., Vincent, J., Mascheroni, G. and Ólafsson, K. (2014). Net Children Go Mobile: The UK Report. London: London School of Economics and Political Science.

⁶⁴ The survey concerns 9-16 year olds in Belgium, Denmark, Italy, Ireland, Portugal, Romania, UK.

Figure 6.4 Top 3 of online activities by age group (4-8, 9-13 and 14-17)



Note: total numbers of respondents are 2,858, 2,865, 2,363 for in 4-8, 9-13, 14-17 age groups respectively. It is a multiple answer question, therefore the total number adds up to more than 100%.
Source: Ecorys consortium analysis, data source GfK survey.

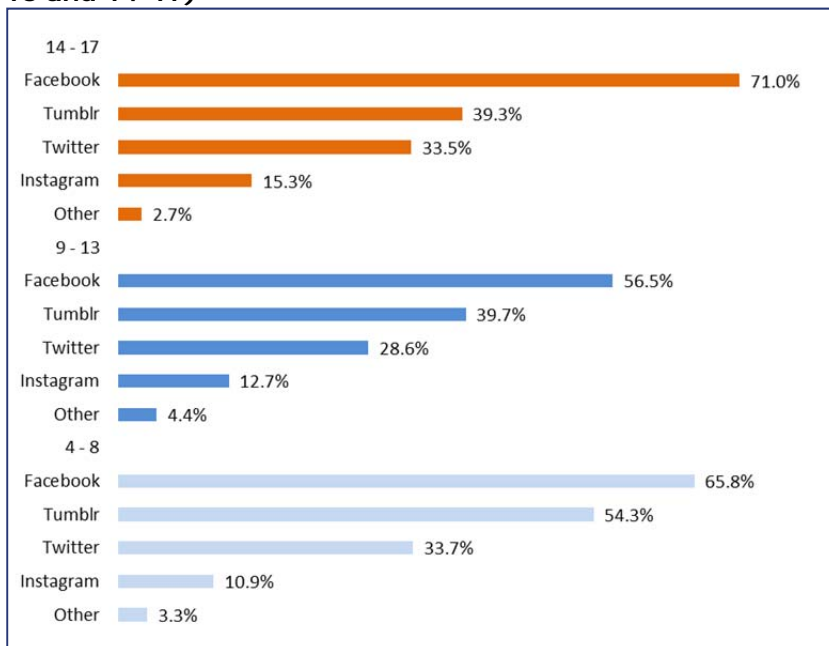
6.3.2. Details on online activity

Online services per activity

Minors use different online services for various activities. Figure 6.5 - Figure 6.8 show the online services that the minors use per activity per age group. Minors were asked to indicate which online services they use for a certain activity if they have responded that they perform this activity at least a few times a month.

Minors in all age groups indicated for visiting a social media profile, Facebook is the most accessed online service (Figure 6.5). Tumblr and Twitter are also commonly used online services.

Figure 6.5 Online services per activity: Visit a social media profile, by age group (4-8, 9-13 and 14-17)

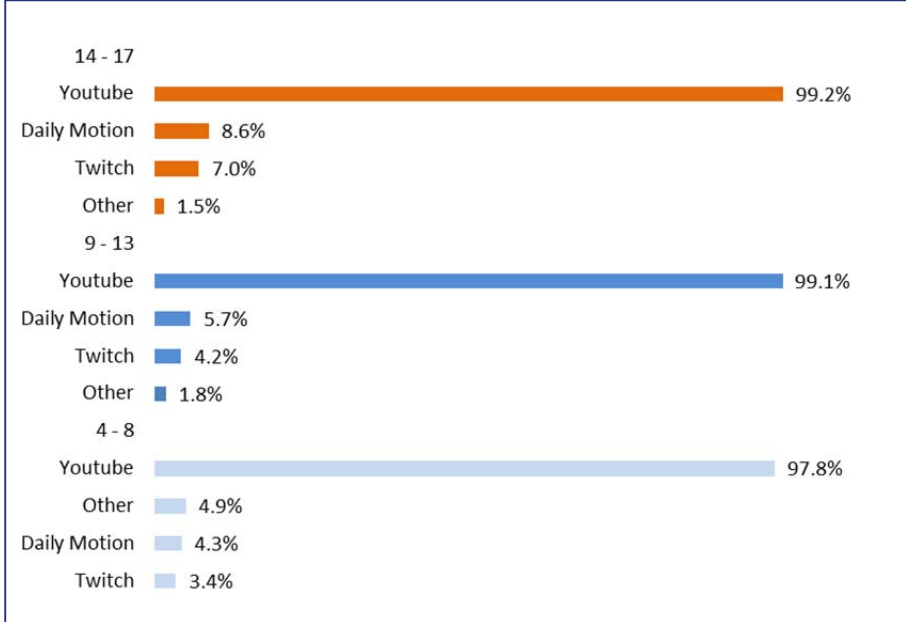


Note: total numbers of respondents are 184, 889, 1,529 for 4-8, 9-13, 14-17 age groups. It is a multiple answer question, therefore the total number adds up to more than 100%.
Source: Ecorys consortium analysis, data source GfK survey.

As described above, the most common activities are listening to music or watching films and cartoons, watching video clips, and playing games alone.

On average (per age group) 99% of minors responded that they watch video clips on YouTube. Other online services that minors accessed to watch video clips, including Daily Motion and Twitch, were indicated by less than 10% of the minors in each age group.

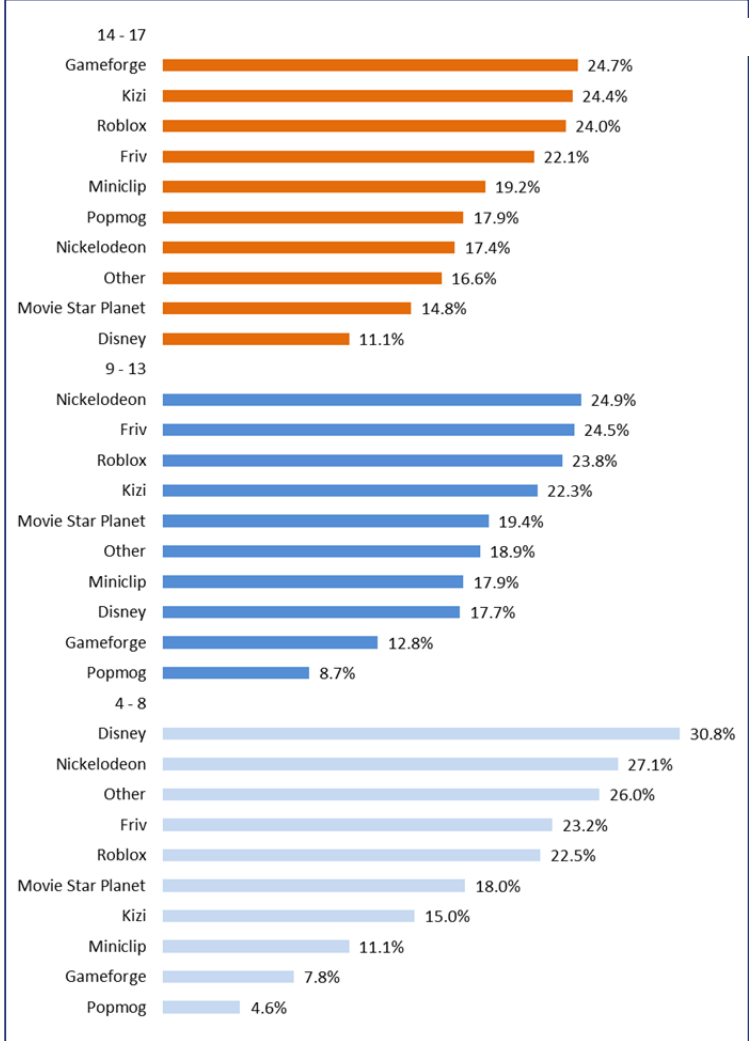
Figure 6.6 Online services per activity: Watch video clips, by age group (4-8, 9-13 and 14-17)



Note: total numbers of respondents are 1,295, 1,855, 1,700 for 4-8, 9-13, 14-17 age groups. It is a multiple answer question, therefore the total number adds up to more than 100%. Source: Ecorys consortium analysis, data source GfK survey.

Figure 6.7 shows that minors access different online services when playing games alone. While the youngest minors visit Disney and Nickelodeon, for the oldest minors prefer Gameforge and Kizi. 24.9% of respondents in 9-13 age group indicated that they visit Nickelodeon.

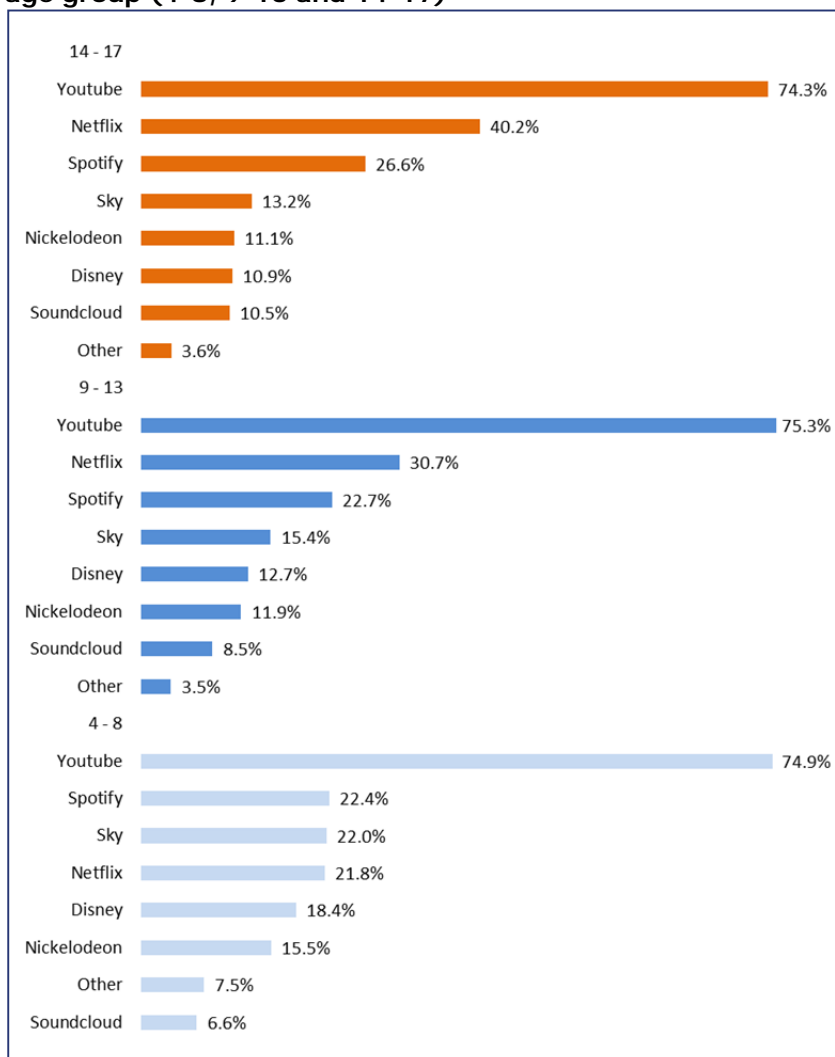
Figure 6.7 Online services per activity: Play games alone on the Internet, by age group (4-8, 9-13 and 14-17)



Note: total numbers of respondents are 1,493, 1,709, 1,074 for 4-8, 9-13, 14-17 age groups. It is a multiple answer question, therefore the total number adds up to more than 100%.
 Source: Ecorys consortium analysis, data source GfK survey.

Figure 6.8 indicates the different online services that are used when listening to music or watching films and cartoons. YouTube is the most commonly indicated service when it comes to listening to music or watching films and cartoons. Netflix is also a commonly used online service for this purpose: it was mentioned by 40.2% and 30.7% of minors in the 14-17 and 9-13 age groups respectively. For the youngest minors the second most common answer is to use Spotify: 22.4% of respondents indicated to use this online service when listening to music or watching films and cartoons.

Figure 6.8 Online services per activity: Listen to music or watch films and cartoons, by age group (4-8, 9-13 and 14-17)



Note: total numbers of respondents are 1,502, 1,779, 1,754 for 4-8, 9-13, 14-17 age groups.

It is a multiple answer question, therefore the total number adds up to more than 100%.

Source: Ecorys consortium analysis, data source GfK survey.

Accounts for online services

Overall (9-17 year olds)

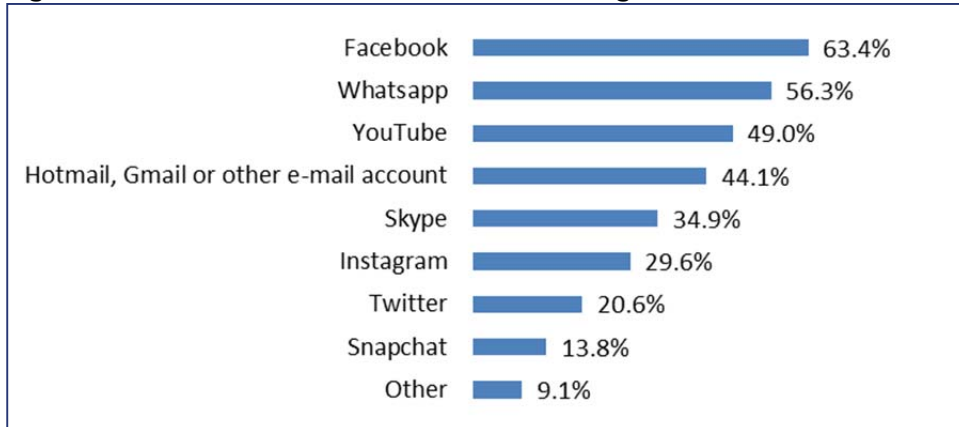
Minors use the Internet for different purposes, and for some activities an account can or has to be created. Minors aged 9-17 were asked for which online services they have an account.⁶⁵ As shown in Figure 6.9, Facebook is most often answered: 67.4% of the respondents (3,315 minors) indicated that they have an account for Facebook, followed by Whatsapp (2,943 minors reported to have an account for this). The third most common answer is Youtube (49%). In Czech Republic and Romania the third most common answer is Skype, while in a number of other countries it is Hotmail, Gmail or other e-mail account (in Finland, the Netherlands, Spain, the UK).

The results indicate that Twitter and Snapchat are less popular, since respectively 20.6% and 13.8% of the respondents reported to have an account for these online services. On average, the respondents indicated to have accounts for three different online services. In Finland minors indicated to have the largest number of accounts

⁶⁵ As many online services, like Facebook, use a minimum age of 13 for registration, the question about online accounts was only posed to the age groups 9-13 and 14-17.

(namely four accounts).

Figure 6.9 Online services for which minors aged 9-17 have an account



Note: total number of respondents is 5,228.

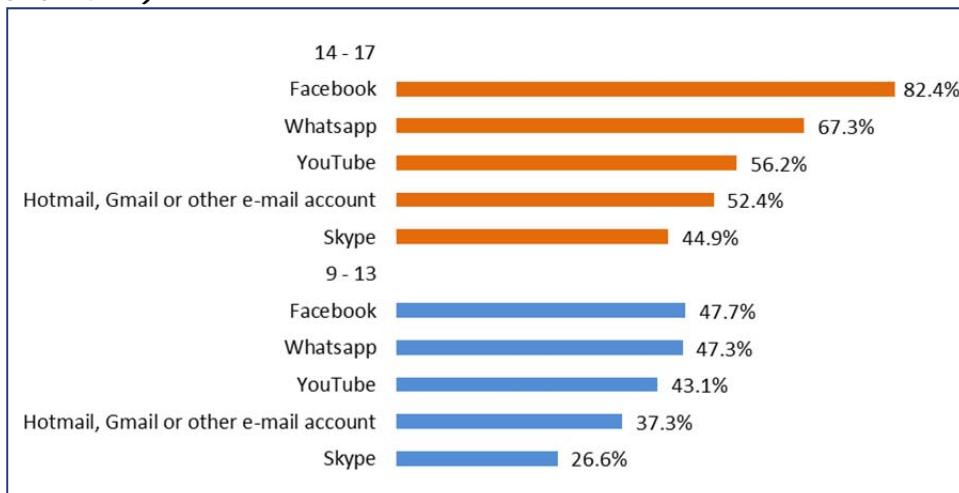
It is a multiple answer question, therefore the total number adds up to more than 100%.

Source: Ecorys consortium analysis, data source GfK survey.

Breakdown by age group (9-13 and 14-17 age groups)

Figure 6.10 presents the top five online services for which minors reported to have an account per age group. Facebook is the online service for which the majority of minors in both groups reported to have an account: 82.4% of the respondents aged 14-17 and 47.7% of the respondents aged 9-13, even though the minimum age requirement for Facebook is actually 13. Whatsapp is the second most often reported service among minors aged 14-17, while for the group aged 9-13 this appears to be YouTube. On average, the respondents aged 9-13 reported to have two accounts and the respondents aged 14-17 reported to have 4 accounts for different services.

Figure 6.10 Top 5 online services for which minors have an account, by age group (9-13 and 14-17)



Note: total numbers of respondents are 2,865, 2,363 for age groups 9-13, 14-17 respectively.

It is a multiple answer question, therefore the total number adds up to more than 100%.

Source: Ecorys consortium analysis, data source GfK survey.

6.3.3. Awareness of (alcohol) advertising

This section concerns awareness of advertisement with the main focus on awareness of alcohol advertisement. For ethical reasons, minors in 4-8 age group were only asked to

answer a question on whether they saw advertisements online during the last month⁶⁶. The older minors were asked to answer questions about seeing alcohol advertisements online.

Advertisement recall (4-8 year olds)

Table 6.1 provides details on how many minors aged 4-8 recall to have seen advertisements in the last month. Due to ethical concerns, it was decided that the questionnaire for the youngest age groups should not include questions on alcohol advertising. 1,400 minors (49%) in this age group reported to have seen an advertisement on the Internet in the last month. Depending on the Member State the share of minors that reported to have seen an advertisement in the last month ranges between 31.1% (in Austria) and 60.2% (in Romania). 703 respondents (24.6%) indicated that they have not seen an advertisement. 26.4% of the minors responded they did not know if they have seen an advertisement.

Table 6.1 Share of minors in the age group 4-8 that recalled to have seen advertisements on the Internet in the last month

Member State	Yes	No	Don't know	N
Austria	31.1%	33.9%	35.0%	286
Czech Republic	48.1%	21.8%	30.1%	316
Finland	57.1%	15.2%	27.7%	282
Germany	41.5%	34.6%	23.9%	234
Italy	60.0%	23.5%	16.5%	345
Netherlands	38.4%	31.2%	30.3%	333
Romania	60.2%	16.6%	23.2%	362
Spain	54.0%	16.8%	29.2%	363
United Kingdom	45.1%	31.8%	23.1%	337
All Member States	49.0%	24.6%	26.4%	2,858

Source: Ecorys consortium analysis, data source GfK survey.

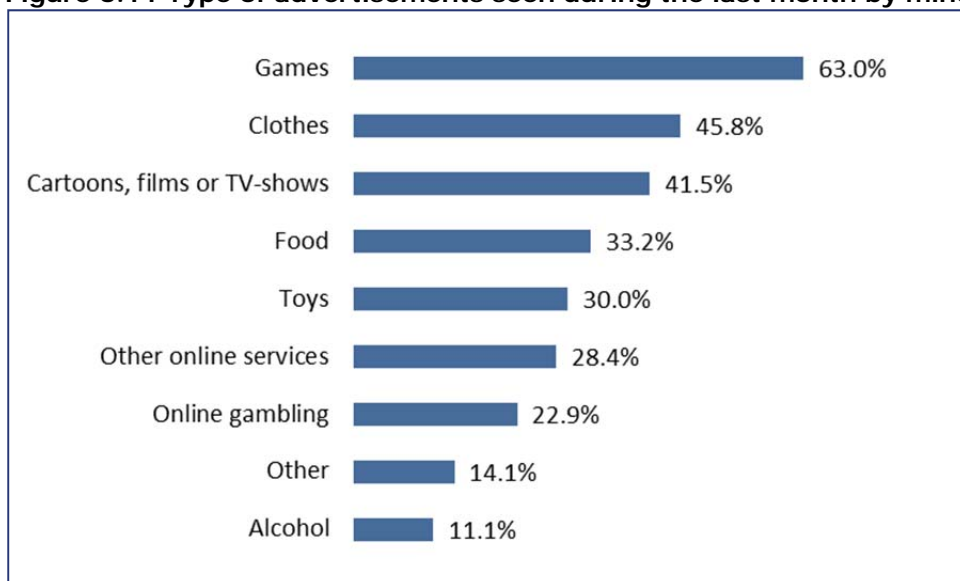
Type of advertisements recalled

Overall (9-17 year olds)

Figure 6.11 provides an overview of the number of minors that answered the question "Which types of advertisements have you seen during the last month?". The type of advertisements reported to be recalled most often is games advertisement (63.0%). The second most often recalled type concern clothes (45.8%), followed by cartoons, films or TV-shows advertisement advertisements (41.5%). The least recalled type is alcohol advertisement (11.1% or 580 minors).

⁶⁶ Due to ethical concerns, it was decided that the questionnaire for the youngest age groups should not include questions on alcohol advertising. For more details on the development of the survey and methodology applied see Chapter 2.

Figure 6.11 Type of advertisements seen during the last month by minors aged 9-17

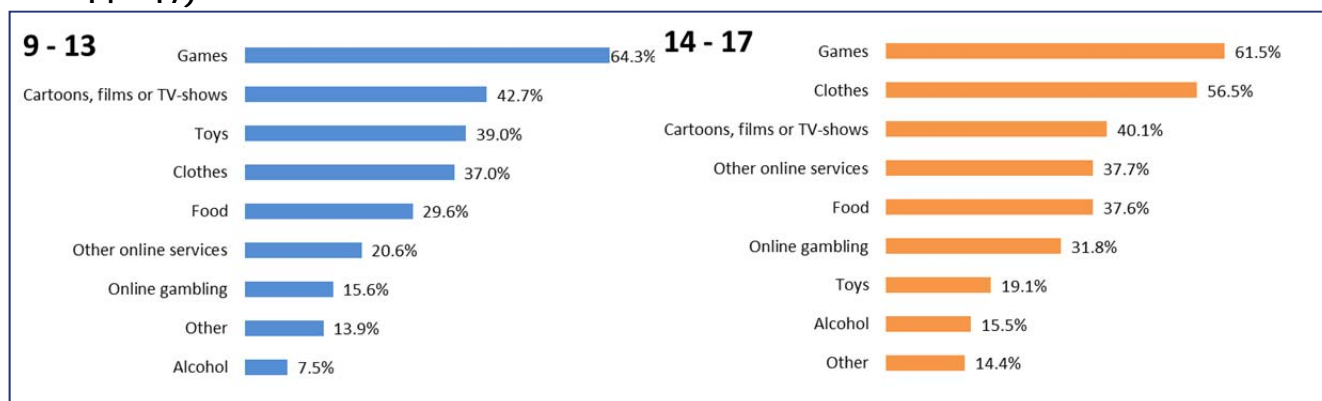


Note: total number of respondents is 5,228.
 Multiple answers allowed, therefore the total number adds up to more than 100%.
 Source: Ecorys consortium analysis, data source GfK survey.

Breakdown by age group

Figure 6.12 shows the differences in the type of advertisements reported to be seen in the last month per age group. The results indicate that recall of alcohol advertisements appears to increase with age: where only 7.5% (or 214 minors) of the minors aged 9 -13 reported to have seen an alcohol advertisement in the last month, 15.5% (366 minors) of the minors aged 14 – 17 reported to have seen such a type of an advertisement.

Figure 6.12 Type of advertisements seen during the last month, by age group (9 – 13 and 14 – 17)



Note: total numbers of respondents are 8,865, 2,363 for age groups 9-13, 14-17 respectively.
 Multiple answers allowed, therefore the total number adds up to more than 100%.
 Source: Ecorys consortium analysis, data source GfK survey.

Type of alcohol advertisements recalled

Overall (9-17 year olds)

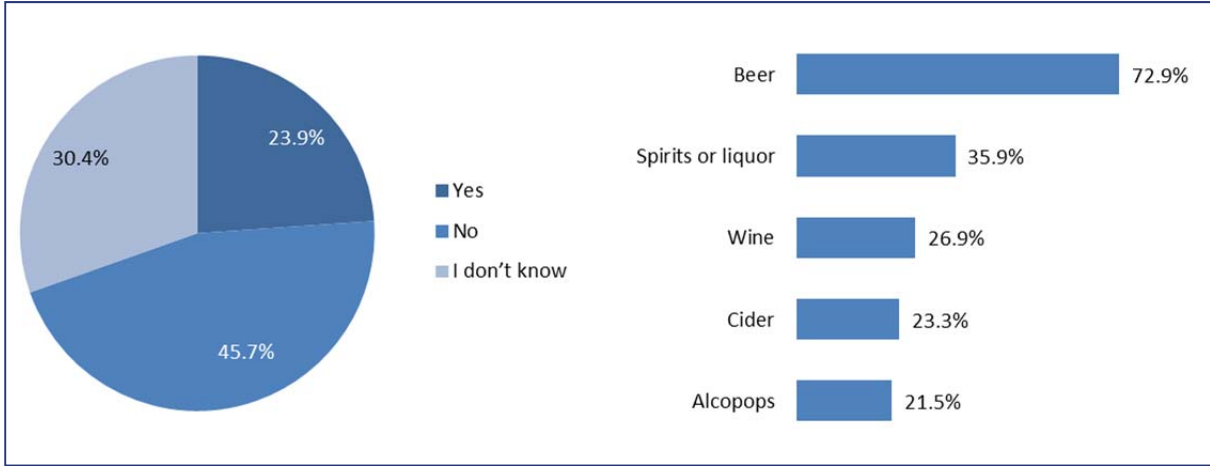
Figure 6.13 and 6.14 present an overview of the number of minors that answered the question "Have you seen advertisement(s) about alcohol on the internet during the last month? For which type of alcohol product have you seen advertisement(s) on the Internet?". 1,250 minors aged 9-17 (23.9% of respondents) indicated that they saw alcohol advertisements on the Internet during the last month. The share ranges between 14.7% in Austria and 29.8% in Italy. 2,391 minors responded that they have not seen

advertisement about alcohol while 1,587 minors answered that they do not know. When minors were asked to specify the type of advertisement they recall to have seen in the last month, fewer minors indicated that they recall alcohol advertisements (11.1% as opposed to 23.9%).

The majority of the minors that reported to recall seeing an alcohol advertisement on the internet during the last month, indicated to have seen an advertisement for beer (72.9% or 911 minors), followed by spirits or liquor (35.9% or 449 minors). Advertisements for alcopops were recalled the least (21.5% or 291 minors).

Figure 6.13 Recall of alcohol advertisement(s) on the Internet during the last month by minors aged 9-17

Figure 6.14 Type of alcohol advertisement if the minors recalled alcohol advertisement(s) by minors aged 9-17



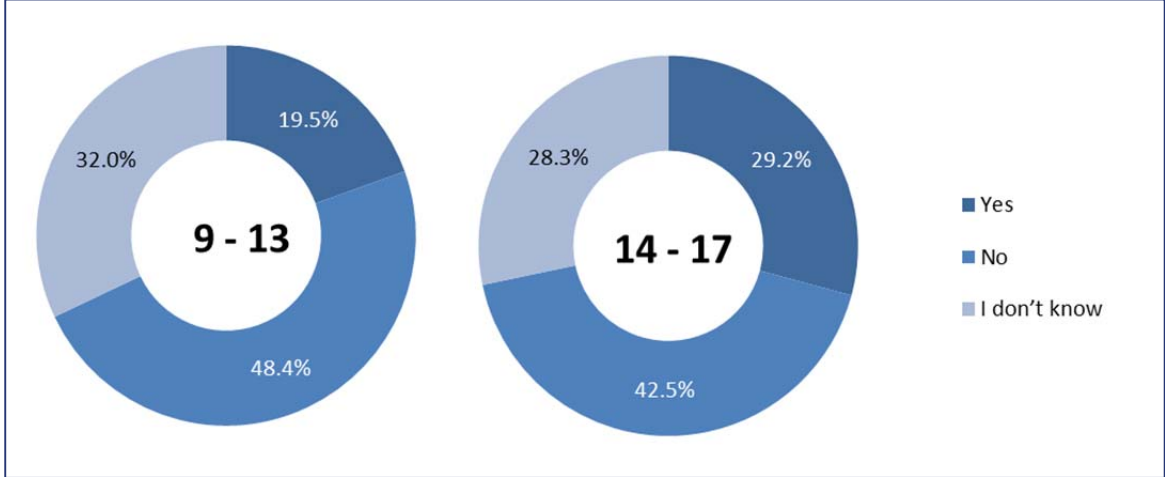
Note: total number of respondents is 5,228. Multiple answers allowed, therefore the total numbers per sector add up to more than 100%. Source: Ecorys consortium analysis, data source GfK survey.

Breakdown by age group

Figure 6.15 presents the breakdown of the number of minors per age group that have reported to recall seeing alcohol advertisements on the Internet during last month. 19.5% or 560 minors aged 9 – 13 a responded to have seen alcohol advertisements. The share ranges between 10.1% (in Austria) and 26.8% (in the UK). 1,388 answered negatively to the question whether you have seen advertisement(s) about alcohol on the Internet during the last month. 917 minors reported not to recall whether they saw an advertisement or not. In the age group 14 – 17 more minors reported to recall having seen alcohol advertisements in the last month – 690 minors (29.2%). The share ranges between 19% (in Austria) and 37% (in Spain). 42.5% of the respondents reported that they do not recall seeing such an advertisement, while 28.3% of minors reported “do not know”.

Hence, alcohol advertisement recall increases with age. Based on these results, we can make the careful qualitative extrapolation that it is likely that the percentage of minors in the youngest age group (4-8) that would recall seeing alcohol advertisements is lower than that for the 9-13 year olds.

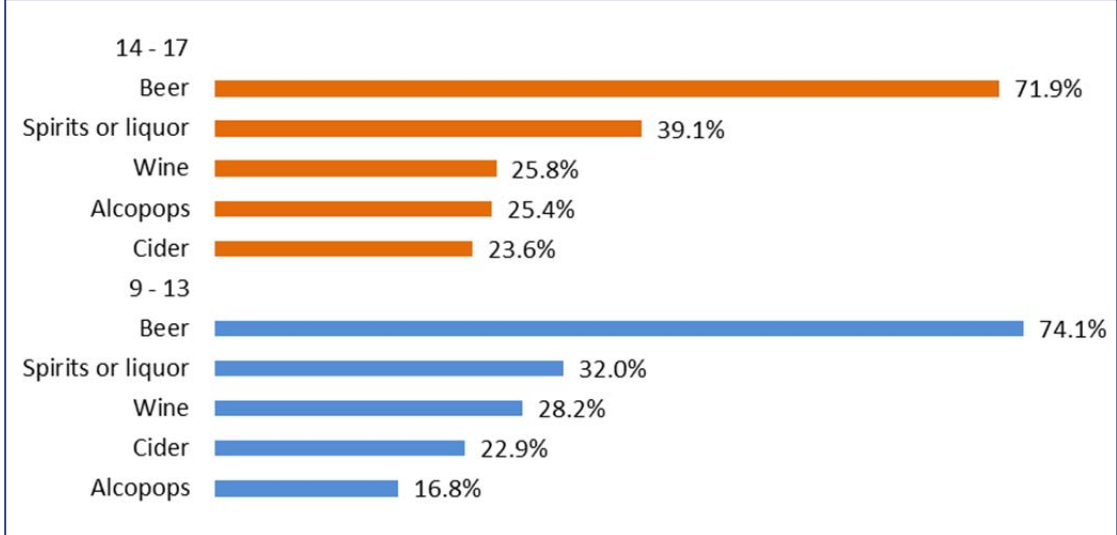
Figure 6.15 Recall of alcohol advertisement(s) on the Internet during the last month per age group (9-13 and 14-17)



Note: total numbers of respondents are 2,865, 2,363 for age groups 9-13, 14-17 respectively.
 Source: Ecorys consortium analysis, data source GfK survey.

Figure 6.16 presents the breakdown per age group of the types of alcohol products shown in advertisements that minors reported to recall having seen on the Internet during last month. The majority of minors reported to recall having seen an advertisement for beer (32% and 39.1% of minors in 9-13 and 14-17 age groups respectively). Advertisements for spirits or liquor were reported by 39.1% and 32.0% of minors in 14-17 and 9-13 age groups respectively.

Figure 6.16 Type of alcohol product that have been seen during online activity per age group (9-13 and 14-17)



It is a multiple answer question, therefore the total number adds up to more than 100%.
 Source: Ecorys consortium analysis, data source GfK survey.

Minors aged 9-17 were also asked to indicate on which online services they recall to have seen an alcohol advertisement. Table 6.2 provides an overview of the share of minors per age group that indicated that they saw an alcohol advertisement on a specific online service. The most common answers were Youtube, Facebook, Tumblr, Google, Twitch, Bing, and Twitter.

The results as presented in the Table 6.2 should be treated with great caution as some of the online services do not include advertising at all (e.g. Gameforge, Gmail, Netflix,

Popmog, Soundcloud, Whatsapp, and Wikipedia) or do not include alcohol advertising (e.g. Disney, Friv, Kizi, Miniclip, Movie Star Planet and Nickelodeon). It is therefore important to note that these are the online services where minors *perceived* to have seen alcohol advertisements.

Table 6.2 Online services on which minors (9-13, 14-17) perceived to have seen alcohol advertisements

Online Service	Age group		Online Service	Age group	
	9 - 13	14 – 17		9 - 13	14 – 17
BBC	0.063	0.078	Mymail	5.50%	4.10%
Bing	0.093	0.099	Netflix	5.90%	5.70%
Daily Motion	0.052	0.052	Nickelodeon	7.70%	3.00%
Dailymail	0.043	0.029	Popmog	3.60%	3.30%
Disney	0.071	0.039	Roblox	6.10%	3.80%
Facebook	0.205	0.245	Sky	5.20%	7.70%
Friv	0.059	0.048	Skype	5.50%	6.70%
Gameforge	0.064	0.033	Soundcloud	7.00%	6.10%
Gmail	0.052	0.083	Spotify	3.20%	5.10%
GMX	0.025	0.025	The Guardian	3.60%	4.30%
Google	0.179	0.177	Tumblr	19.10%	18.30%
Hotmail	0.061	0.061	Twitch	17.70%	15.70%
Instagram	0.045	0.043	Twitter	8.00%	8.60%
Kizi	0.054	0.032	WhatsApp	6.10%	6.10%
Live	0.036	0.043	Wikipedia	4.50%	4.20%
Miniclip	0.054	0.03	Yahoo!	0.052	0.067
Movie Star Planet	0.073	0.043	Youtube	0.361	0.322
MSN	0.041	0.068	<i>N</i>	<i>560</i>	<i>690</i>

Source: Ecorys consortium analysis, data source GfK survey.

Note: These results should be treated with great caution as some of the online services do not include advertising at all or do not include alcohol advertising.

6.3.4. Memory for alcohol advertising

Minors aged 9-17 were asked to describe the latest alcohol advertisement they have seen online. In particular they were asked to answer '*Where did you see it? Who did you see (e.g. a celebrity)? What was the advertisement about?*'. After that, the minor was asked if he or she recalled a second advertisement, and if so, a question was asked about the recall of a third advertisement. The answers to these questions are referred to as first, second and third recall throughout this section.

First recall refers to the latest alcohol advertisement a minor recalled to have seen online and was able to describe.

Second recall refers the second advertisement a minor recalled to have seen

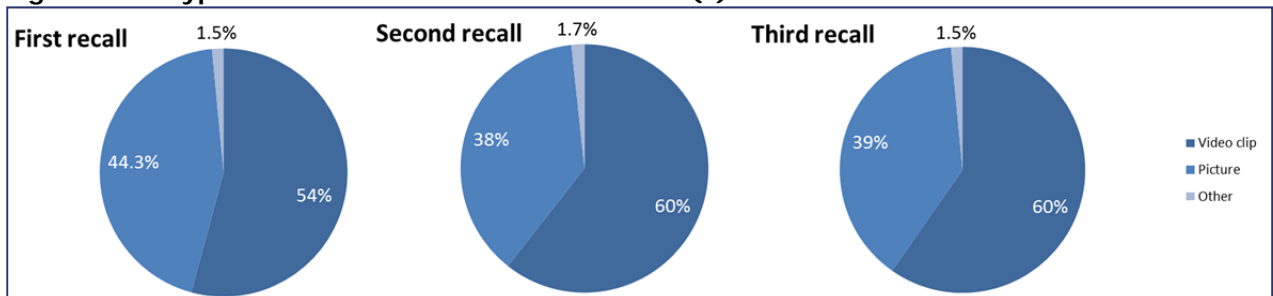
online and was able to describe.

Third recall refers to the third advertisement a minor to recall to have seen online and was able to describe.

Overall (9-17 year olds)

Figure 6.17 presents an overview of the number of minors that have indicated they could describe an alcohol advertisement they saw online recently. 1,234 minors aged 9-17 (23.6% of respondents) indicated that they could describe such an alcohol advertisement. A second advertisement could be described by 289 minors (5.5% of respondents), while 134 minors (2.6% of respondents) could describe also a third one.

Figure 6.17 Type of recalled alcohol advertisement(s)



Note: number of respondents that recalled the advertisement is 1,234, 289, 134 for first, second and third recalled ad respectively.

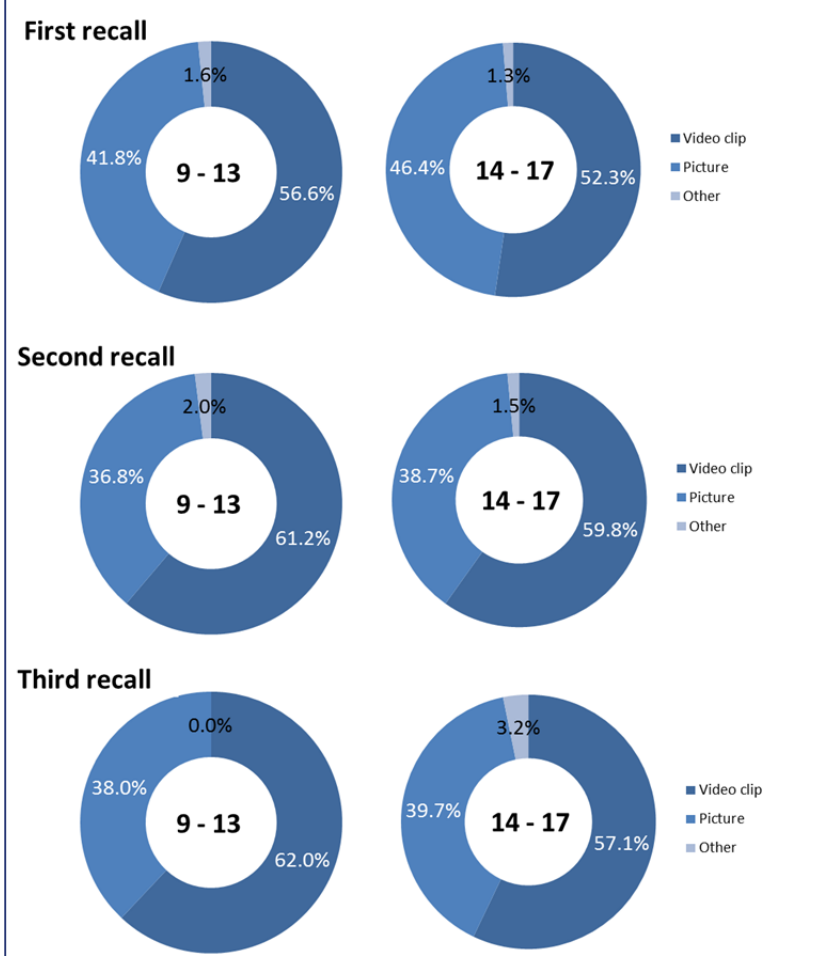
Source: Ecorys consortium analysis, data source GfK survey.

The most described type of advertisements is a video clip. For all three advertisements more than 50% of minors recalled the advertisement they described to be a video clip. Around 40% of minors recalled it to be a picture and only 1-2% of minors indicated that it was another type of advertisement.

Breakdown by age group

Figure 6.18 shows the type of alcohol advertisements that were described, per age group. For all three recalled advertisements the younger age group (9-13 years old) recalled to have seen more video clips compared to the minors in the 14-17 age group. While it is the other way around when it comes to the recalled picture ads.

Figure 6.18 Type of recalled alcohol advertisement(s) per age group



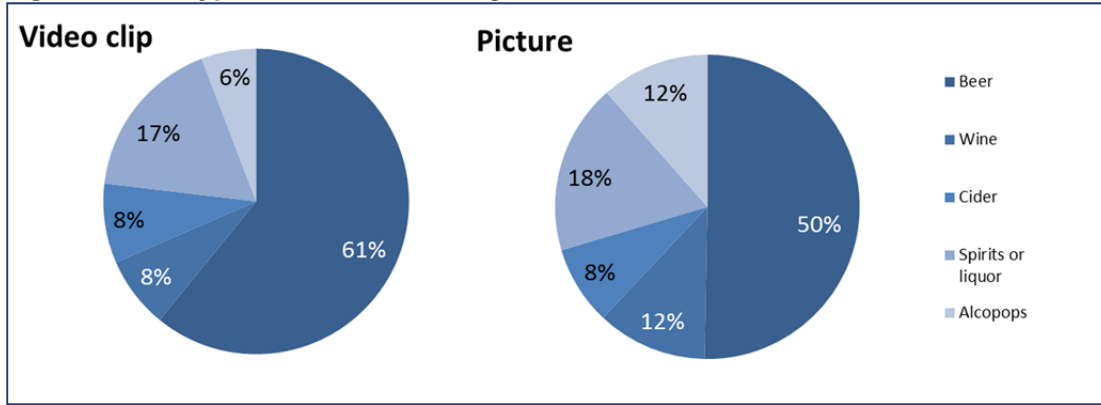
Note: number of respondents that recalled the advertisement is 1,234, 289, 134 for first, second and third recalled advertisement respectively.
 Source: Ecorys consortium analysis, data source GfK survey.

Breakdown by type of alcohol beverage

Overall (9-17 year olds)

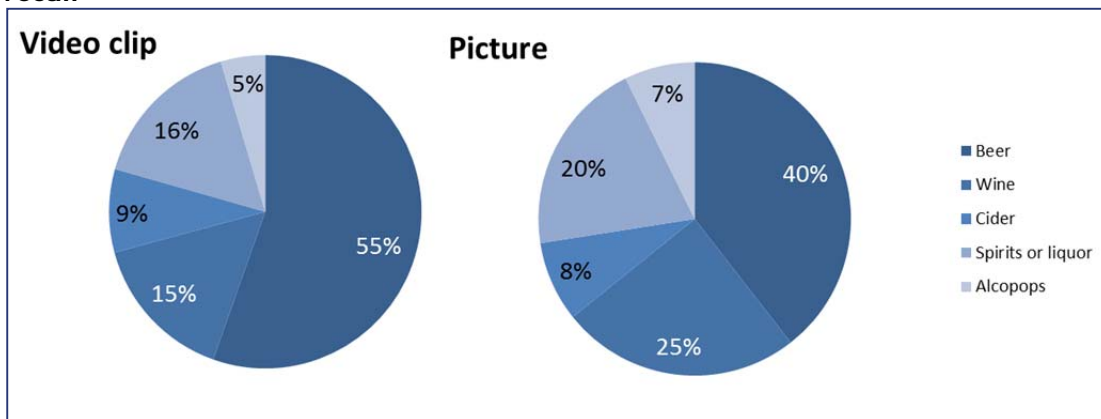
Figure 6.19 presents the breakdown of the types of alcoholic beverages for which minors described advertisements in the first, second, and third recall respectively. The majority of minors recalled and described an advertisement for beer in both video clips and pictures. The second most recalled type of alcohol in advertisements is spirits or liquor. The third most recalled types of alcohol in advertisements are cider and wine. Advertisements for alcopops and wine are the least recalled.

Figure 6.19a Type of alcohol beverages of recalled advertisement seen online, first recall



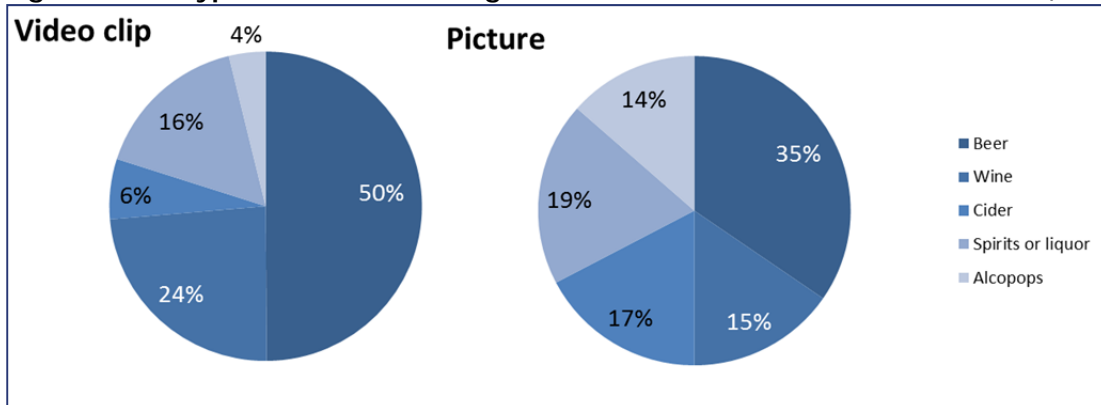
Source: Ecorys consortium analysis, data source GfK survey.

Figure 6.19b Type of alcohol beverages of recalled advertisement seen online, second recall



Source: Ecorys consortium analysis, data source GfK survey.

Figure 6.19c Type of alcohol beverages of recalled advertisement seen online, third recall

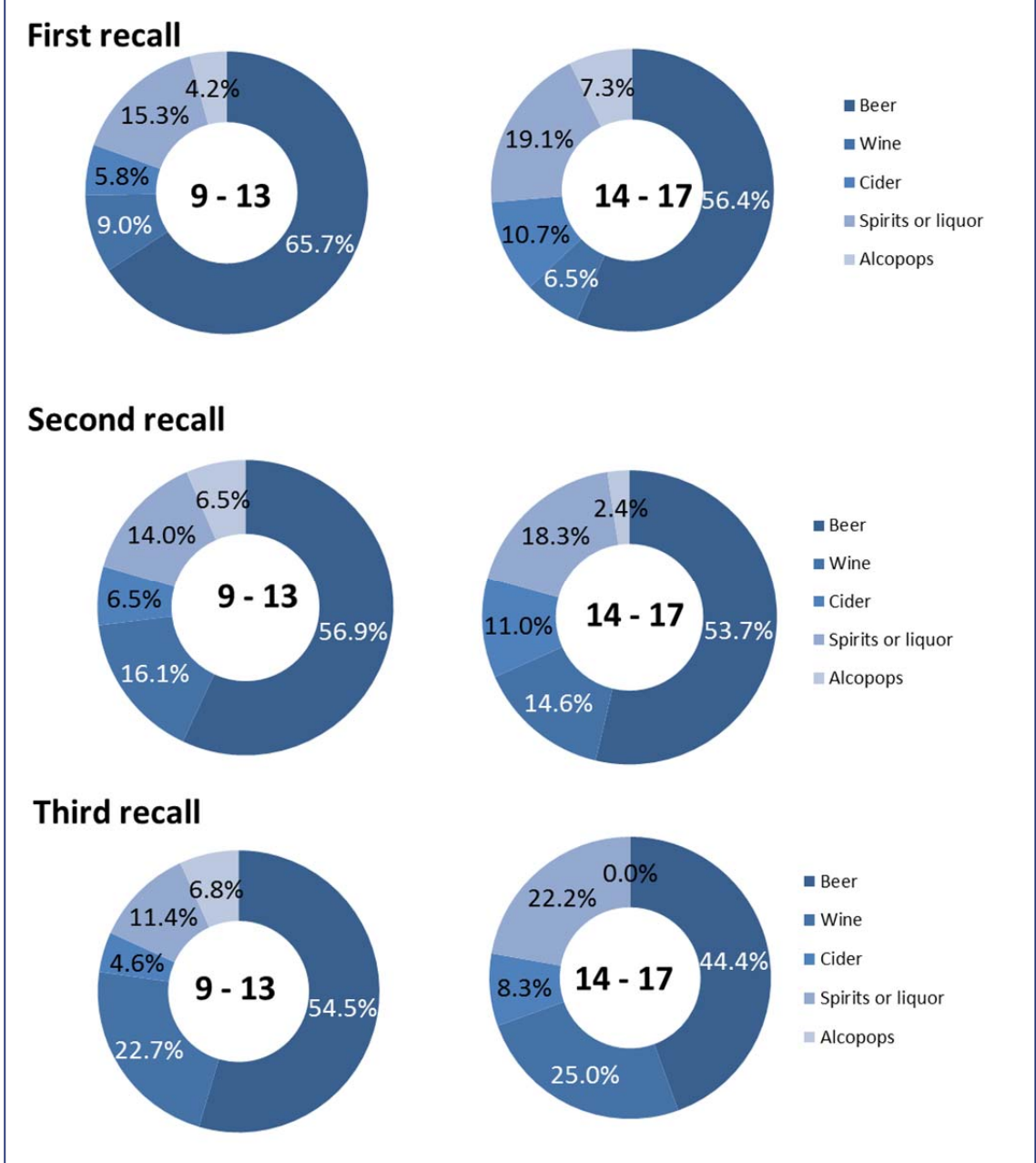


Source: Ecorys consortium analysis, data source GfK survey.

Breakdown by age group

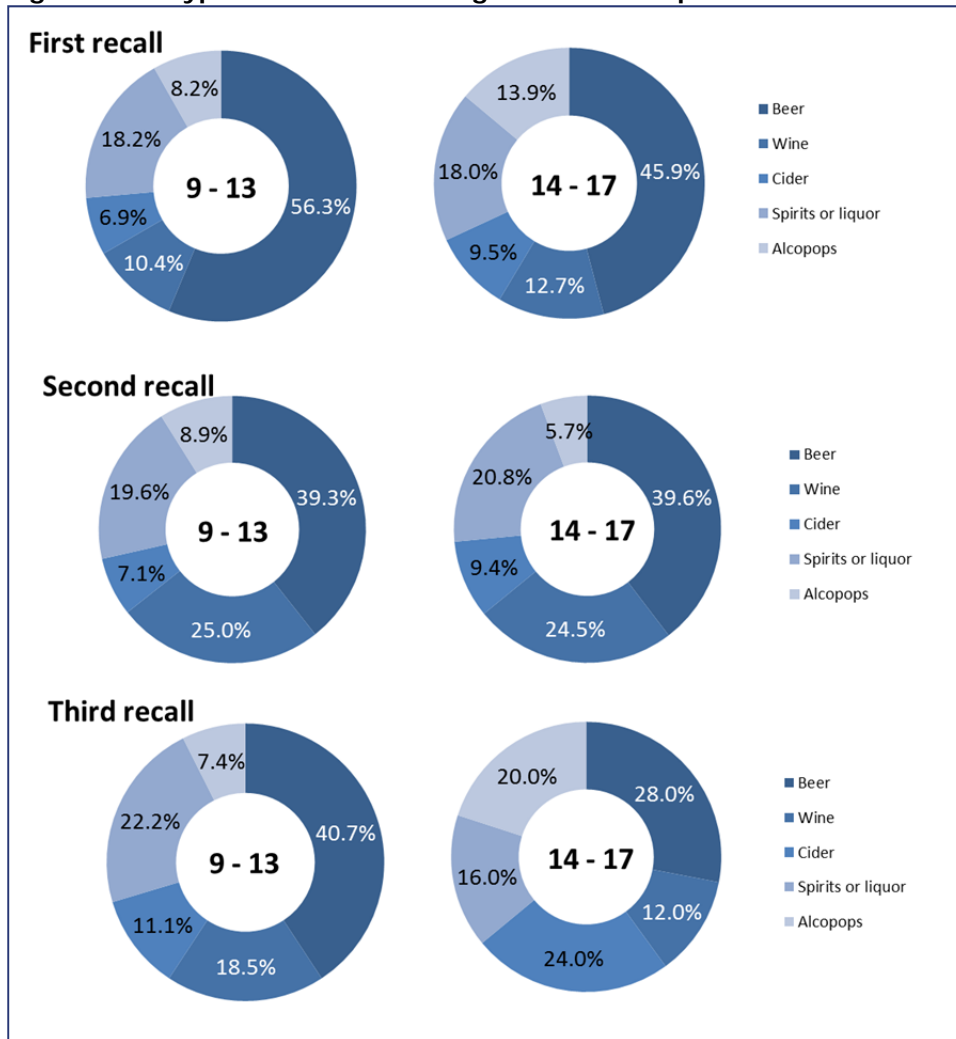
Figure 6.20 and Figure 6.21 provide an overview per age group of the breakdown of the types of alcoholic beverages that minors recall to have seen in advertisements they were able to describe. The patterns are similar for video clips and pictures. The share of minors that described a video clip advertisement about beer is higher for the 9-13 age group. The same trend is observed for second and third recalled advertisements. The only exception is second recalled picture advertisement where the share of minors that described beer advertisements are almost the same.

Figure 6.20 Type of alcohol beverages of recalled video clip advertisement seen online



Source: Ecorys consortium analysis, data source GfK survey.

Figure 6.21 Type of alcohol beverages of recalled picture advertisement seen online

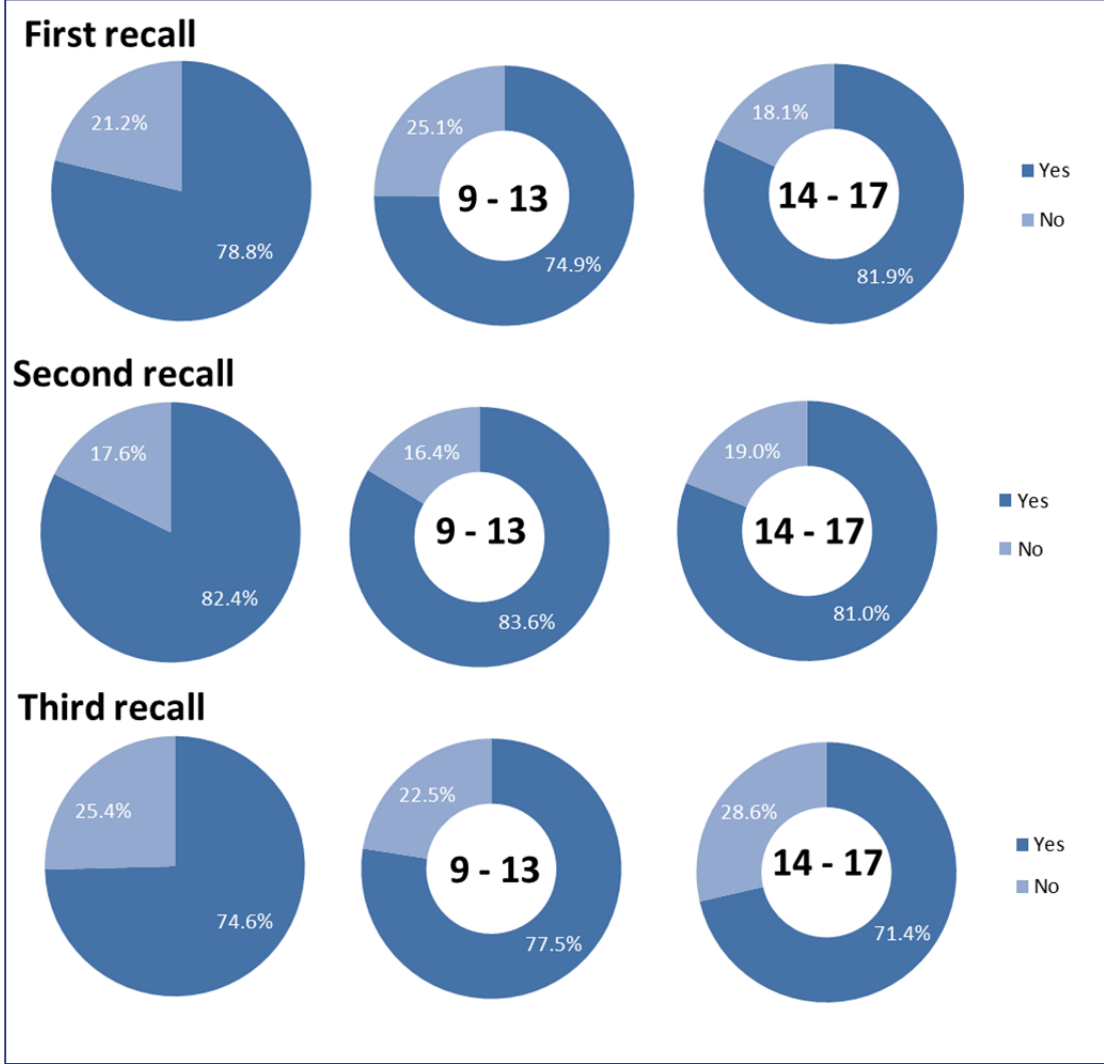


Source: Ecorys consortium analysis, data source GfK survey.

Recalled brands

Figure 6.22 presents the shares of the respondents that recall the brand of the described advertisements. Between 74.6% and 82.4% of respondents reported to recall the brand of the advertisements they described. The share of 14-17 year old minors that recalled a brand is larger than the share of younger minors in the first recall. In the second and third recall, a larger share of minors in 9-13 age groups recalled brand of the ad.

Figure 6.22 Brand recall of alcohol advertisements seen online, in total and per age group (9-13, 14-17)



Source: Ecorys consortium analysis, data source GfK survey.

6.4. Cross-tables and relationships

This section presents an overview of the results of testing the relationship between frequency of online activity and advertisement recall. The dependent variables are advertisement recall and active brand recall. These two indicators were answers to the questions “Did you see advertisements on the internet in the last month?” for minors 4-8 years old and “Have you seen advertisement(s) about alcohol on the internet?” for minors 9-17 years old. Since the answers to these questions are either yes or no (or don’t know), the relation has been tested using a logistic regression. The independent variables are frequency of internet use and online activities and devices. The frequency of internet use is treated as a linear variable while the other variables are treated as multiple responses (minors could provide multiple answers).

Recall of advertisements depending on the frequency of online activity

Table 6.3 shows the share of minors 4-8 years old that have used Internet and seen advertisements in the last month. 48.9% of the minors in this age group saw advertisements on the Internet in the last month. 63% of 934 minors who report being

on the Internet every day recall having seen advertisements on the Internet in the last month. While only 38% of 425 minors have seen advertisements on the Internet in the last month. The relationship between frequency of Internet and ad recall is positive⁶⁷. Therefore the more often Internet is used, the higher the chance that a commercial will be recalled.

Table 6.3 The relationship between the frequency of online activity and seeing advertisements on the internet in the last month (4-8 age group)

Frequency of online activity	Seeing advertisements on the internet in the last month	N
Every day	63%	934
A few times a week	52%	1,119
A few times a month	38%	425
Never or less than once a month	17%	380

Note: N = number of minors who report being on the internet every day, a few times a week, etc.
 Source: Ecorys consortium analysis, data source GfK survey.

Recall of alcohol advertisements depending on the frequency of online activity

Table 6.4 shows the relationship between the amount of time spent on the Internet and seeing alcohol advertisements on the Internet. 24% of the minors 9-13 years old that use Internet every day saw alcohol advertisements on the Internet in the last month. While 30% of the minors 14-17 years old that use Internet every day saw alcohol advertisement online. On average, advertisement recall is significantly higher among the 14-17 age group than among the 9-13 age group⁶⁸. Moreover, similarly to the youngest minors (4-8 years old), advertisement recall is significantly higher if frequency of use increases on average⁶⁹. Therefore the more often Internet is used, the higher the advertisement recall. The relationship between frequency of internet use and advertisement recall is equally strong for the 9-13 age group and for the 14-17 age group and is positive for both age groups⁷⁰.

Table 6.4 The relationship between the frequency of online activity and seeing alcohol advertisements on the internet

Age group	Seeing advertisement(s) about alcohol on the internet					
	9-13		14-17		both age groups	
Frequency of online activity	%	N	%	N	%	N
Every day	24%	1917	30%	2155	27%	4072
A few times a week	12%	746	20%	186	14%	932
A few times a month	9%	158	28%	18	11%	176
Never or less than once a month	7%	44	0%	4	6%	48

Note: N = number of minors who report being on the internet every day, a few times a week, etc.
 Source: Ecorys consortium analysis, data source GfK survey.

Based on these results, we can make a careful qualitative extrapolation of the exposure of the youngest age group to alcohol advertising from the perspective of viewers. From

⁶⁷ b = .65, z = 15.43, p < .001.
⁶⁸ It is significant on 10% significance level (coefficient is 0.71, z value is 2.75).
⁶⁹ It is significant on 1% significance level (coefficient is 0.56, z value is 6.18).
⁷⁰ For age group 9-13: Frequency of internet use has a positive effect on ad recall (It is significant on 1% significance level (coefficient is 0.68, z value is 7.32).
 For age group 14-17: Frequency of internet use has a positive effect on ad recall (It is significant on 10% significance level (coefficient is 0.44, z value is 2.81).

the results in section 6.3.1 we know that of all age groups, the youngest group is least active online. Therefore, we expect the alcohol advertising recall for the youngest age group to be lower than for the 9-13 year olds.

Recall of advertisements depending on the online activity

Table 6.5 shows the share of minors 4-8 years old that have used Internet (at least more than once a month) and reported to have seen advertisements in the last month. More than 50% of minors recall seeing an advertisement while performing a specific activity. The highest shares of the youngest minors saw advertisements while posting photos videos or music, visiting a social media profile and chatting and talking with friends. 78% of 170 minors who indicated posting photos, videos or music to share with other recall having seen advertisements on the internet in the last month. 77% of 192 minors who report visiting social media profiles online recall having seen advertisements on the internet in the last month.

Table 6.5 The relationship between type of activity on the internet and seeing advertisements on the internet in the last month (4-8 age group)

Type of online activity	Seeing advertisements on the internet in the last month	N
Visit a social media profile	77%	192
Watch video clips	56%	1,368
Use the internet for school work	65%	534
Play games alone	51%	1,579
Play games with others on the internet	65%	473
Listen to music or watch films, cartoons	56%	1,589
Send or read my e-mail	68%	219
Chat or talk with my friends	72%	252
Post photos, videos music to share with others	78%	170
Play in virtual worlds	64%	394
Create a character, pet or avatar	68%	347
Other	17%	139

Note: N = number of minors who report doing the specific activity.
 Source: Ecorys consortium analysis, data source GfK survey.

Recall of alcohol advertisements depending on the online activity

Table 6.6 shows the relationship between the type of online activity and seeing alcohol advertisements on the Internet for minors in the 9-13 and 14-17 age groups. On average 28% of minors recall seeing an alcohol commercial while performing one of the activities. In case of minors 14-17 years old, the recall is stronger (on average 32% of minors recall an alcohol advertisement compared to 24% of minors 9-13 years old). In case of most activities, the recall differs significantly between age groups for a particular activity. The only exceptions of activities are reading and watching the news on the internet and the other categories not presented in Table 6.6.

Table 6.6 The relationship between type of activity on the internet and seeing an alcohol ad on the internet (9-13 and 14-17 age group)

Type of online activity	Seeing advertisements on the internet in the last month					
	9-13		14-17		both age groups	
	%	N	%	N	%	N
Visit a social media profile*	27%	906	31%	1533	29%	2439
Watch video clips***	20%	1878	30%	1708	25%	3586
Use the internet for school work***	23%	1418	30%	1464	27%	2882
Play games alone***	19%	1739	33%	1084	24%	2823
Play games with others on the internet***	24%	1111	33%	1063	28%	2174
Listen to music or watch films, cartoons***	21%	1813	30%	1767	26%	3580
Send or read my e-mail*	26%	788	31%	1357	29%	2145
Chat or talk with my friends**	25%	1357	30%	1765	28%	3122
Read/watch the news on the internet	33%	444	36%	797	35%	1241
Post photo's, video's or music to share with others**	28%	740	36%	1116	33%	1856
Play in virtual worlds***	26%	737	37%	581	31%	1318
Create a character, pet or avatar**	29%	408	41%	203	33%	611
Other	11%	44	22%	37	16%	81

Note: *** = significant on 1‰ level, ** = significant on 1% level, * = significant on 5% level. N = number of minors who report doing the specific activity.

Source: Ecorys consortium analysis, data source GfK survey.

Recall of seen advertisements depending on the device

Table 6.7 shows the share of minors 4-8 years old that have seen advertisements in the last month per type of device used to go online. The *highest share* of minors saw an advertisement while using game consoles. However the *highest number* of minors that recall seeing an advertisement uses computer or laptop.

Table 6.7 The relationship between devices used to go online and seeing advertisements on the internet in the last month (4-8 age group)

Type of device	Seeing advertisements on the internet in the last month	N
Computer or laptop	52	1953
Tablet	55	1481
Smartphone	59	743
Game console (e.g. XboX, Wii, Playstation)	70	217
Other	15	75

Note: N = number of minors who report using a computer/laptop, tablet, smartphone, etc. to go online (multiple answers possible).

Source: Ecorys consortium analysis, data source GfK survey.

Recall of alcohol advertisements depending on the device

Table 6.8 shows the relationship between devices used to go online and seeing alcohol advertisements on the internet for minors in the 9-13 and 14-17 age groups. In case of minors aged 14-17, the alcohol advertisement recall is stronger (on average 33% of minors recall an alcohol advertisement compared to 22% of minors 9-13 years old while

using one of the devices). In case of most activities, the recall differs significantly between age groups for a particular device. The only exception to this is the game console.

Table 6.8 The relationship between devices used to go online and seeing alcohol advertisements on the internet (9-13 and 14-17 age group)

Type of device	Seeing advertisement(s) about alcohol on the internet					
	9-13		14-17		both age groups	
	%	N	%	N	%	N
Computer or laptop***	21%	2177	29%	1985	25%	4162
Tablet***	21%	1438	37%	888	27%	2326
Smartphone***	23%	1485	30%	1762	27%	3247
Game console (e.g. XboX, Wii, Playstation)	27%	368	32%	398	30%	766
Other	19%	32	38%	13	24%	45

Note: *** = significant on 1% level, ** = significant on 5% level, * = significant on 10% level. N = number of minors who report mostly using a computer/laptop, tablet, smartphone, etc. for all their online activities (multiple answers possible).

Source: Ecorys consortium analysis, data source GfK survey.

Memory for alcohol advertising depending on the frequency of online activity

Table 6.9 shows the relationship between amount of time spent on the internet and actively recalling at least one advertised brand for minors in the 9-13 and 14-17 age groups. 18% of minors in the 9-13 age group who report being on the internet every day actively recall at least one alcohol brand for which they have seen an advertisement recently, while 24% of the minors 14-17 years old that use Internet every day actively recall at least one advertised alcohol brand. On average, active brand recall is significantly higher among the 14-17 age group than among the 9-13 age group⁷¹. Moreover, active brand recall is significantly higher in case of a higher frequency of use⁷². Therefore the more often Internet is used, the higher the active brand recall. The relationship between frequency of internet use and active brand recall is slightly stronger for the 9-13 age group and for the 14-17 age group and is positive for both age groups⁷³.

Table 6.9 The relationship between amount of time spent on the internet and actively recalling at least one alcohol advertisement (9-13 and 14-17 age group)

Frequency of online activity	Active recall of at least one advertisement					
	9-13		14-17		both age groups	
	%	N	%	N	%	N
Every day	18%	1917	24%	2155	21%	4072
A few times a week	8%	746	17%	186	10%	932
A few times a month	6%	158	22%	18	7%	176
Never or less than once a month	7%	44	0%	4	6%	48

Note: N = number of minors who report being on the internet every day, a few times a week, etc.

Source: Ecorys consortium analysis, data source GfK survey.

⁷¹ It is significant on 1% significance level (coefficient is 0.93, z value is 3.26).

⁷² It is significant on 1% significance level (coefficient is 0.56, z value is 5.58).

⁷³ For age group 9-13: Frequency of internet use has a positive effect on active brand recall (It is significant on 1% significance level (coefficient is 0.73, z value is 6.62).
For age group 14-17: Frequency of internet use has a positive effect on active brand recall (It is significant on 5% significance level (coefficient is 0.38, z value is 2.30)).

Memory of alcohol advertisement(s) depending on the online activity

Table 6.10 shows the relationship between the type of online activity and actively recalling at least one advertised alcohol brand for minors in the 9-13 and 14-17 age groups. On average 21% of minors recall at least one advertised brand while performing one of the activities. In case of minors 14-17 years old, the recall memory is higher (on average 27% of minors recall an advertisement alcohol brand compared to 19% of minors 9-13 years old). In case of most activities, the recall differs significantly between age groups for a particular activity. The only exceptions of activities are reading and watching the news on the internet and the other categories not presented in Table 6.10.

Table 6.10 The relationship between type of activity on the internet and actively recalling at least one alcohol advertisement (9-13 and 14-17 age group)

Type of online activity	Active recall of at least one advertised brand					
	9-13		14-17		both age groups	
	%	N	%	N	%	N
Visit a social media profile**	20%	906	26%	1533	24%	2439
Watch video clips***	15%	1878	25%	1708	20%	3586
Use the internet for school work***	17%	1418	24%	1464	21%	2882
Play games alone***	14%	1739	26%	1084	19%	2823
Play games with others on the internet***	18%	1111	27%	1063	22%	2174
Listen to music or watch films, cartoons***	16%	1813	25%	1767	20%	3580
Send or read my e-mail	22%	788	24%	1357	23%	2145
Chat or talk with my friends***	18%	1357	25%	1765	22%	3122
Read/watch the news on the internet	27%	444	29%	797	28%	1241
Post photo's, video's or music to share with others***	22%	740	29%	1116	26%	1856
Play in virtual worlds***	20%	737	30%	581	24%	1318
Create a character, pet or avatar***	21%	408	35%	203	26%	611
Other	7%	44	16%	37	11%	81

Note: *** = significant on 1‰ level, ** = significant on 1% level, * = significant on 5% level. N = number of minors who report doing the specific activity.

Source: Ecorys consortium analysis, data source GfK survey.

6.5. Main limitations of the approach and methodology

The results of the survey, as presented in this Chapter, should be interpreted with caution because of several caveats associated with the methodology.

First of all, the survey relies on self-reporting measures of exposure by asking recall questions, which induces the risk of recall-bias. Hence, where minors indicated that they recall to have seen (alcohol) advertisements, it does not necessarily mean that the (alcohol) advertisement actually was carried out there. Table 6.2 could serve as an example of this, where a number of online services were mentioned by minors to include alcohol advertisements while in reality they do not include any alcohol advertisements. This may lead to overestimation of self-reported exposure.

On the other hand, minors were filling in the questionnaires with their parents present

and this may have led to underestimation of self-reported exposure as they were trying to avoid punishment.

It is also important to note that the respondents were not provided with a demarcated definition of 'alcohol advertising'. Therefore the reported exposure to alcohol advertising is subject to interpretation of what is perceived as 'alcohol advertising' by minors. This again may lead to overestimation of self-reported exposure.

7. Content analysis

The third research question of the study concerns a content analysis of selected advertisements on AV media services (both linear and non-linear) and other online services, in the nine selected EU Member States:

“For audio-visual media services (both linear and non-linear) and other online services, what type of alcohol advertising does an average minor see in the EU? Are minors specifically targeted by alcohol advertising? In how far is alcohol advertising appealing to minors and how? In particular, in how far do the provisions of the AVMSD and their application afford the required level of protection?”

The content analysis reflects what type of alcohol advertising an average minor sees in the EU, if alcohol advertising is specifically aimed at minors and to what extent alcohol advertising is appealing to minors and in what way. Hence, the analysis goes beyond the AVMSD and takes a broader perspective with the aim to analyse what is actually the content of advertisements, and if this can be considered appealing to minors. This does not reflect any judgement on the presence of certain elements, but rather describes what the content is.

The content analysis covers a selection of alcohol advertisements in the nine selected Member States. The analysis has been conducted in spring 2015 by a multidisciplinary team of senior researchers with backgrounds in sociology, communication and cultural studies. The researchers have expertise in how symbols influence and have an impact on individual behaviour and society in general.

This Chapter starts with a description of the analysis grid that was developed for and used in the content analysis (section 7.1). Next, the main findings of the analysis are presented (section 7.2), followed by two sections in which we discuss the results of the analysis of alcohol advertisements on respectively linear AV media services and non-linear AV media services and other online services (sections 7.3 and 7.4). Subsequently the results are presented per beverage type (section 7.5) and in the final section of the Chapter we discuss the level of protection by the AVMSD (section 7.6).

7.1. Analysis grid

The research team first developed an analysis grid for the assessment of the content of the selected alcohol advertisements. The grid consists of two types of assessment criteria. The first are elements directly derived from article 22 of the AVMSD, in order to evaluate to what extent the research material reflect the criteria. The second type of assessment criteria have been developed on the basis of literature reviews, and theoretical and methodological discussions among the experts in the research team in order to assess whether the advertisements, in a more general sense, can be claimed to be appealing to minors⁷⁴. The grid has been pilot tested and validated by a peer review panel⁷⁵.

⁷⁴ Annex H (separate document) discusses the (sub)categories included in the analysis grid in more detail, based on extensive literature reviews.

⁷⁵ For more information on the development of the analysis grid, please refer to Chapter 2.

The assessment criteria are divided into the following eight categories (derived from article 22 of the AVMSD):

- Aimed specifically at minors (22a);
- Physical performance (22b);
- Social success (22c);
- Sexual success (22c);
- Mood-altering effects (22d);
- Enhancement of agency (22d);
- Immoderate consumption, abstinence and moderation (22e);
- High alcoholic content (22f).

The main categories of the assessment are derived from article 22 of the AVMSD. However, the purpose of the content analysis was to go beyond the AVMSD criteria and give a more general description of themes in alcohol advertisements that according to the research literature appeal to minors⁷⁶. It is worth noting that many of the elements that advertisers utilise to make the advertisements noticeable, and the products desirable, are not target group specific. We recognize that none of the themes included in the analysis grid are primarily appealing to only minors, but they are elements that have been identified in the research literature as central in terms of minors' interests. Depicting, for example, celebrities or sports activities in advertisements appeal to wider audiences, but as these elements have been shown to be important to minors as well, we have included them in the grid.

The assessment grid is split in two parts: one part concerning whether advertisements are aimed specifically at minors, and the other part concerning the other seven categories of assessment criteria. An overview of the assessment grid is presented in Table 7.1 and Table 7.2. Within both parts of the assessment grid a distinction is made between the criteria derived from article 22 of the AVMSD (coloured cells) and those that go beyond the Directive (non-coloured cells). For more information on the sub-categories, please refer to Annex H (separate document).

Table 7.1 Analysis grid, part 1: content aimed specifically at minors

Aimed specifically at minors (22a)
Appearance of the age of protagonist(s) >18/<18 (22a)
Protagonist(s) as a primary group or reference group for minors
Young people's partying as a context of alcohol use
Humour ⁷⁷
Celebrities ⁷⁸
Animals
Online-participation

Note: The subcategories that are derived from the AVMSD are coloured (brown).

⁷⁶ For more details on this, please refer to Annex H (separate document).

⁷⁷ The sub-category 'Humour' refers here to all humorous elements in advertisements.

⁷⁸ The subcategory 'Celebrities' was used systematically in adverts portraying celebrities.

Table 7.2 Analysis grid, part 2: AVMSD criteria and themes appealing to minors

Physical performance (22b)	Social success (22c)	Sexual success (22c)	Mood-altering effects (22d)	Enhancement of agency (22d)	Immoderate consumption, abstinence and moderation (22e)	High alcoholic content (22f)
Alcohol as enhancement of physical performance (22b)	Alcohol is associated with and/or is shown as contributing towards social success (22c)	Alcohol is associated with and/or is shown as contributing towards sexual success (22c)	Therapeutic, stimulating or sedative effects of alcohol (22d)	Alcohol portrayed as a solution to a personal problem (22d)	Positive portrayal of immoderate consumption (22e)	Positive price/content message (22f)
Connection to driving a vehicle (22b)		Enhanced sexual performance or enjoyment (22c)			Occasions and settings indicative of immoderate consumption (22e)	High-content ingredient of a mixed drink highlighted (22e)
					Cautious attitudes, moderation or abstinence in a negative light (22e)	

Representation of athletic bodies	Tokens of wealth	Male/female sexualized body as attention grabber	Alcohol transforms and/or helps to sustain the mood of the setting	Protagonist portrayed as extraordinary competent autonomous agent	Presence of abstinent person as an outsider	
Presence of sport activities	Alcohol enhances or sustains social interaction		Alcohol is associated with relaxation	Enhancement of competence related to gender roles	Downplaying the risks of alcohol	
Alcohol as a reward after exercise						
Adventurous or risky setting						
Alcohol as an enhancement of physical performance in youth setting						

Note: The subcategories that are derived from the AVMSD are coloured (brown).

7.2. Summary of main findings

In order to answer Research Question 3, 123 alcohol advertisements were analysed. Out of these 123 advertisements, 90 aired on television (linear AV media services) and 33 appeared as banners online (non-linear AV media services and other online services) in the nine selected Member States. The main findings, based on the content analysis, can be summarised as follows:

- 87% of the television advertisements and 63% of the online advertisements (banners) contained at least one element that can be considered appealing to minors;
- Most commonly occurring themes found in the television advertisements were drinking associated with social interaction (56% of the advertisements), with formation of positive atmosphere (39%) and with humour (30%);
- The most common theme that occurred in the online advertisements was online participation (53% of the advertisements);
- The overall occurrence of the sub-categories in online advertisements was low. Only seven sub-categories of all 33 sub-categories were found (among television advertisements 26 sub-categories were found);
- No occurrences of using minors as protagonists were found. 20% of the television advertisements depicted young adults that can be argued to be a reference group which minors may associate themselves with or strive for;
- 18% percent of the television advertisements depicted young people partying and/or utilised animations and animal characters;
- 37% of the television advertisements reflected at least one of the sub-categories derived from the article 22 AVMSD;
- None of the online advertisements reflected the criteria of the article 22 AVMSD;
- 28% of the television advertisements reflected the criteria of the provision 22c (social and sexual success).

We remark that the results are only applicable to the study samples of advertisements from the nine selected Member States, containing advertisements from the most commonly advertised beverages and the campaigns with most insertions in 2013.

7.3. Advertisements on linear AV media services

An overview of the results of the content analysis of advertisements that aired on television (i.e. on linear AV media services) per subcategory is presented in Tables 7.3 and 7.4. Again, the criteria directly derived from the AVMSD have a coloured background.

Tables 7.3 and 7.4 reveal that:

- Categories with most frequent occurrences are: social success (detected in 57 of 90 advertisements, altogether 77 occurrences of 3 sub-categories), aimed specifically at minors (detected in 47 of 90 advertisements, altogether 89 occurrences of 7 sub-categories, although there were no occurrences of the sub-category derived from article 22a of the AVMSD), and mood-altering effects (detected in 50 of 90 advertisements, altogether 66 occurrences of 3 sub-categories);
- Sub-categories that have occurred most frequently in the analysis are: social interaction (50 of the 90 advertisements), mood of setting (35 of the 90 advertisements) and relaxation (22 advertisements);

- There were no occurrences of the subcategories: age under 18, physical performance in youth setting, enhancement of physical performance, driving, downplaying risks, moderation in negative light, positive price/content message and high-content ingredient highlighted.

Table 7.3 Overview content analysis results for sample of television advertisements (N=90 advertisements), part 1: content aimed specifically at minors

Criteria	Number of occurrences	% of occurrences
Aimed specifically at minors		
Appearance of age: under 18	0	0%
Protagonist/s as primary group/reference group	18	20%
Young people's partying as a context of alcohol use	16	18%
Humour	27	30%
Celebrities	3	3%
Animals	5	6%
Online participation	21	23%

Note: The subcategories that are derived from the AVMSD are coloured (brown).

Note: The subcategories 'Humour' and 'Celebrities' were coded non-specifically as youth-oriented, because already in the trial coding it turned out to be impossible to distinguish humour or celebrities that are primarily appealing to minors. This is elaborated on in section 7.2.1.

Table 7.4 Overview content analysis results for sample of television advertisements (N=90 advertisements), part 2: AVMSD criteria and themes appealing to minors

Criteria	Number of occurrences	% of occurrences
Physical performance		
Alcohol as enhancement of physical performance	0	0%
Connection to driving a vehicle	0	0%
Representation of athletic bodies	3	3%
Presence of sport activities	13	14%
Alcohol as a reward after exercise	2	2%
Adventurous or risky setting	6	7%
Alcohol as enhancement of physical performance in youth setting	0	0%
Social success		
Alcohol is associated with/contributing towards social success	13	14%
Tokens of wealth	14	16%
Alcohol enhances or sustains social interaction	50	56%
Sexual success		
Alcohol is associated with/contributing towards sexual success	15	17%
Enhanced sexual performance or enjoyment	1	1%
Male/female sexualized body as attention grabber	18	20%
Mood-altering effects		
Therapeutic, stimulating or sedative effects of alcohol	9	10%
Alcohol transforms the mood of the setting	35	39%
Alcohol is associated with relaxation	22	24%
Enhancement of agency		
Alcohol as a solution to a personal problem	6	7%
Protagonist portrayed as extraordinary competent autonomous agent	10	11%

Criteria	Number of occurrences	% of occurrences
Enhancement of competence related to gender stereotypes	8	9%
Immoderate consumption, abstinence and moderation		
Positive portrayal of immoderate consumption	1	1%
Occasions and settings indicative of immoderate consumption	2	2%
Cautious attitudes, moderation or abstinence in a negative light	0	0%
Presence of abstinent person as an outsider	3	3%
Downplaying the risks of alcohol	0	0%
High alcoholic content		
Positive price/content message	0	0%
High-content ingredient of a mixed drink highlighted	0	0%

Note: The subcategories that are derived from the AVMSD are coloured (brown).

The next sections zoom in on specific parts of the above tables and describe the results per category in detail. In these sections the results related to the sub-categories derived from article 22 of the AVMSD and those that go beyond the Directive are discussed separately.

7.3.1. Aimed specifically at minors

The category 'aimed specifically at minors' contains seven sub-categories of which one is derived from article 22a of the AVMSD:

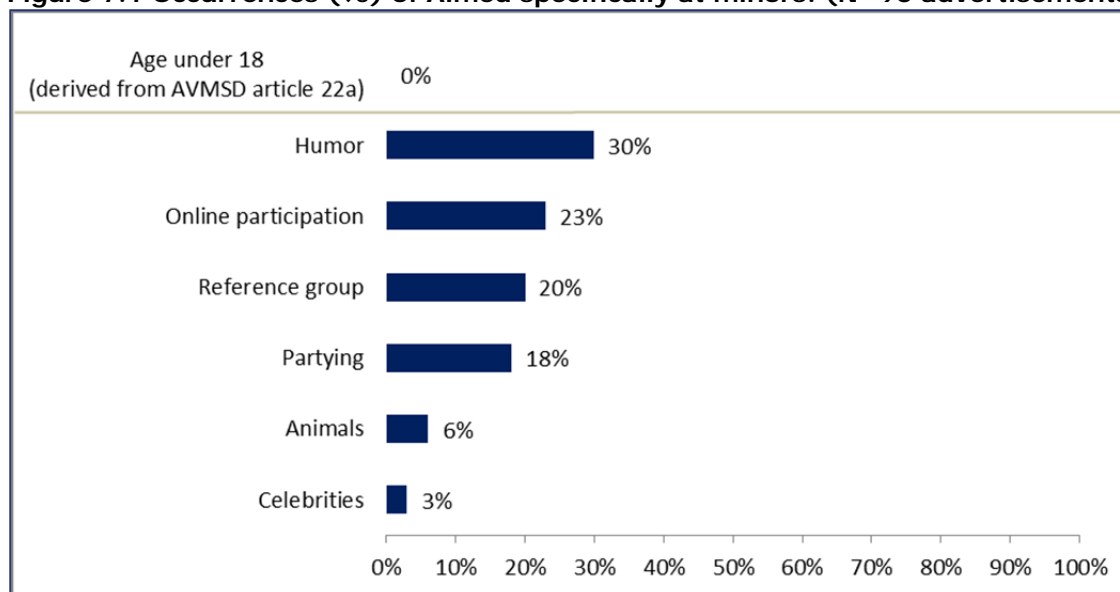
- Appearance of age

The other sub-categories are:

- Protagonist(s) as primary group or reference group for minors
- Young people's partying as a context of alcohol use
- Humour
- Celebrities
- Animals
- Online-participation

Figure 7.1 presents the occurrences of each of these sub-categories in the 90 selected alcohol advertisements.

Figure 7.1 Occurrences (%) of Aimed specifically at minors: (N=90 advertisements)



Sub-category derived from article 22a of the AVMSD

Appearance of age. After reviewing all 90 advertisements, we found no occurrences of depicting minors in consuming alcoholic products, nor any clear attempts to make the actors look under aged. The evaluation of whether the actors in the advertisements were under or over the age of 18, were based on subjective assessments by the coders. On one occasion an expert panel member disagreed with the coding of actors being over 18 of age in a cider advertisement (UK08, see figure 7.6). As this turned out to be a deviating assessment in view of all other reviewers (some coders even estimated the actors to be around the age of thirty), the advertisement was in the end coded for actors being over 18.

Sub-categories that go beyond the Directive

Humour and Celebrities. Humorous events were depicted in 30%, celebrities only in 3% of the advertisements. Previous research indicates that humour and celebrities are important elements in advertising and especially related to the contents that interest minors. The sub-category Humour was originally restricted to coding advertisements involving humour for minors specifically. Similarly, the aim was to distinguish celebrities that minors particularly would favour. However, these are not specific features for attracting minors, but they are also employed for attracting adult viewers as humour and celebrities are employed widely in all kinds of advertising. Utilisation of these elements in advertisements does not alone indicate that minors would be addressed, and already in the trial coding it turned out to be impossible to distinguish humour or celebrities that are primarily appealing to minors. Therefore the sub-categories of humour and celebrities were coded non-specifically as minor-oriented, so that whenever there were humorous elements or celebrities in the advertisements they were systematically coded under the corresponding sub-categories.

Online participation. The advertisements were coded with Online-Participation if they marketed and recommended an associated website, a Facebook page or/and a Twitter or Instagram hashtag. All in all 23% of the advertisements provided with an opportunity to interact with the brand and its products online, or to participate in competitions by links to web pages. We are aware that age limits are applied in online marketing for

protecting minors from being exposed to alcohol advertising. As these age-limits do not fully guarantee that minors would not get an access to online alcohol advertising or products' websites, we have assessed the suggestions of online participation as part of the content analysis.

Reference group. 20% of the advertisements portrayed young looking actors that could be considered to represent a reference group for minors. Despite the lack of under aged actors/ protagonists – and perhaps even more importantly in view of elements that may appeal to minors – in many advertisements the actors could be considered a reference or a primary group which minors are able to associate themselves with. The reference group code was used when the actors appeared to represent a sub-cultural group with particular style or clothing, or more generally youth related lifestyles. For example, if the advertisement portrayed young adults in informal setting – partying, having fun, relaxing – and having trendy, young outfits, the advertisement was coded under the sub-category of protagonist(s) as primary group or reference group for minors, as in one of the analysed mixed drink advertisements (AUT10).

Figure 7.2 Example of an analysed mixed drink advertisement



Partying. A total of 18% of the advertisements was coded as associating the product with young people's partying. Young people's partying as a context of alcohol use was a code employed in cases when the advertisements related drinking to young people's informal celebration in a bar, disco, clubbing, festival or home party settings. However, not all bar scenes were automatically considered specifically young people's partying settings. There were several advertisements in which the plot was set to a bar or a nightclub milieu, with adult actors behaving in an adult manner and/or having more formal clothing (suits, cocktail dresses). A good example of such night club scene is one of the analysed beer ads (NLD02), in which a man enters a night club, flirts with a dancing lady but soon notices that there are men tailing and watching over him (and hence do not get a chance to approach the lady). The James Bond kind of opening scene is followed by similar occasions happening in several locations around the world. Four out of five reviewers considered the context a "young people's partying scene", but, in the end, the team decided not to code it as such. Other advertisements portraying young people partying were very different from this specific beer advertisement's setting, where evidently older people (middle aged, and above middle aged) appeared. Also, the formal clothing and the arrangement surrounding the party scene connoted rather clearly a more mature social setting and lifestyle context.

Figure 7.3 Example of an analysed beer advertisement



Animals. Animal characters were found in 6% of the advertisements. The sub-category Animals was coded both for real and animated animal characters.

7.3.2. Physical performance

The category of Physical performance appears far less frequently than Aimed specifically at minors and the themes were rather easily recognisable in the advertisements.

In the category of Physical performance there were 7 different sub-categories of which 2 derived from the AVMSD 22b criteria:

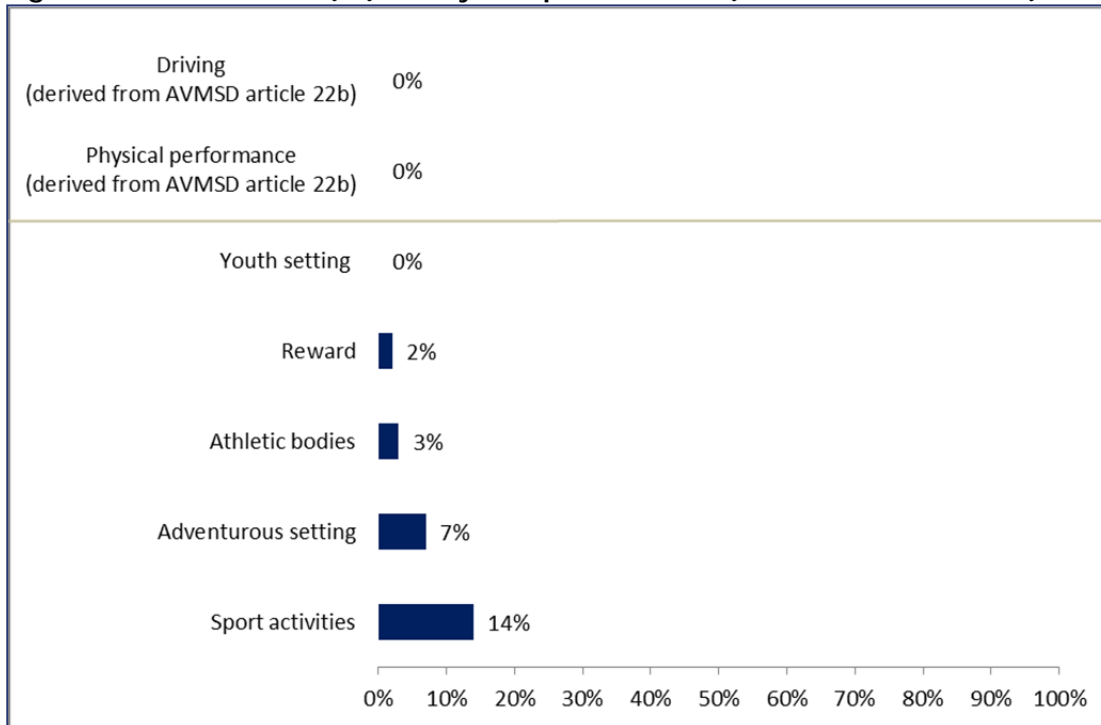
- Alcohol as an enhancement of physical performance
- Connection to driving a vehicle.

The other five sub-categories related to physical performance are:

- Representation of athletic bodies;
- Presence of sport activities;
- Alcohol as a reward after exercise;
- Adventurous or risky setting;
- Alcohol as an enhancement of physical performance in youth setting.

Figure 7.4 presents the occurrences of each of these sub-categories in the 90 selected alcohol advertisements.

Figure 7.4 Occurrences (%) of Physical performance (N=90 advertisements)



Sub-categories derived from article 22b of the AVMSD

Two subcategories were derived from the AVMSD 22b criteria: '*Alcohol as an enhancement of physical performance*' and '*Connection to driving a vehicle*'. The criterion for using the sub-category of 'alcohol as an enhancement of physical performance' indicated that an advertisement would suggest that alcohol improves performance in physical, such as sport activities. Using the sub-category 'connection to driving a vehicle' required that the advertisement would associate drinking with driving a vehicle (not only appearance of vehicle). None of the advertisements reflected the criteria of AVMSD provision 22b.

Sub-categories that go beyond the Directive

Presence of sport activities. 14% of the advertisements associated alcohol with sport activities, most typically to football and ice hockey. If the advertised brand was associated with any sport activities, including watching or participating in sports as well as the sponsorship messages, it was coded under the sub-category of Presence of sport activities. A cider advertisement that was analysed (UK06), and also reviewed by the expert panel, portrayed men playing snooker. One reviewer considered it a sport activity, but as the AVMSD criteria emphasises physical performance and the advertisement was more about tackling mental stress in a social situation, it was not marked with any of the above mentioned sub-categories.

Adventurous or risky setting indicated that the product is associated with challenging and/or competitive activities such as mountain climbing or rafting or other risky surroundings. This association was found in 7% of the advertisements.

Representation of athletic bodies was used in advertisements where there were athletic, muscular bodies portrayed in a highlighted manner. Athletic bodies were found in 3% of the advertisements.

Reward after exercise. Alcohol as a reward after exercise was used whenever the advertisement implied that alcohol can be used as a means to reward oneself after physical activities. Alcohol was used as a reward in 2% of the advertisements.

The idea behind the sub-category of *Alcohol as an enhancement of physical performance related to youth setting* was to point out advertisement that would indicate a link between using the product and improvement of performance in youth setting, such as party, disco or skate-boarding, an association often utilised by energy drink marketing. However, we did not find any appearance of these themes in the material.

7.3.3. Social success

The AVMSD 22c states that the advertisement shall not create the impression that the consumption of alcohol contributes towards social success. This was translated into the subcategory:

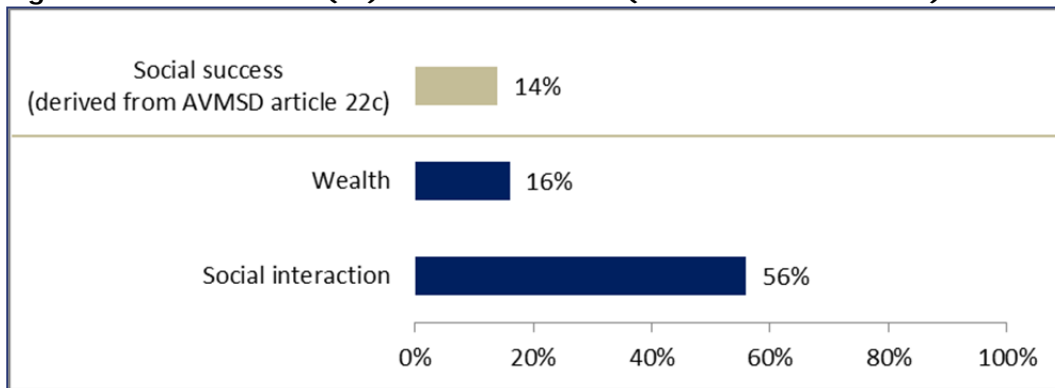
- Alcohol is associated with and/or is shown as contributing towards social success

Two additional sub-categories related to social success are:

- Tokens of wealth
- Alcohol enhances or sustains social interaction.

Figure 7.5 presents the occurrences of each of these sub-categories in the 90 selected alcohol advertisements.

Figure 7.5 Occurrences (%) of Social success (N=90 advertisements)



Sub-category derived from article 22c of the AVMSD

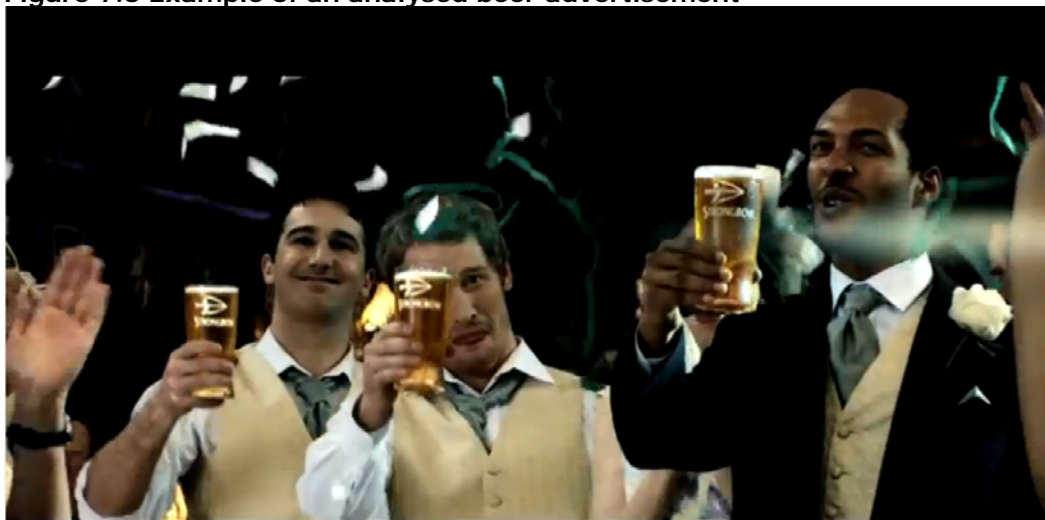
Social success. 14% of the advertisements indicated that alcohol would contribute towards social success. As social occasions, togetherness and companionship were frequently used themes in the advertisements, it was fairly difficult to distinguish those that could be seen as parallel with the AVMSD 22c. Our criteria for using the sub-category of Alcohol is associated with and/or is shown as contributing towards social success in the coding indicated that the advertisement would portray the protagonist/s using the product as being popular and socially successful, or attracting positive attention, or that the advertisement would imply that using the product makes a person more popular and attractive. Social success was defined not only as a positive attention by others, but also as belonging to and as an inclusion in a group. The sub-category additionally covers occasions in which the product is associated with personal confidence

and ease in social settings.

A majority of the advertisements associated the product with social occasions. However, the sub-category social success was not employed mechanically for all of them as the AVMSD article indicates that product should be shown as contributing towards social success, involving an impact relation that occurs over time in the plot of the advert. For example, one of the analysed beer advertisements (SPA06) portrays men, presumably friends, in a bar. They order a beer that is 'scandalously good' and start dancing. The product is thus associated with sociability, but it does not indicate that the connection between the key actors would have been caused by it. Rather, the advertisement implies that the product caused the transformed interaction, dancing. Therefore the sub-category of Alcohol enhances or sustains social interaction (see below) was used instead. Also, a group of people raising a toast, a frequently and typically employed image in the advertisements, was not automatically considered an indication of social success caused by the product.

The advertisements that were considered and coded under social success had to make the connection between alcohol consumption and success rather explicit. For example, in the above-mentioned cider advertisement (UK06) the key protagonists beat the stress in challenging situations (playing snooker, giving a wedding speech) and the friends toast them with pints of cider (Figure 7.6).

Figure 7.6 Example of an analysed beer advertisement



In one of the analysed beer advertisements (SPA03) a group of friends enjoy beer and each other's company in a bar. The advertisement states that there are many important doors, but a very special one leads to a bar where the advertised beer and your friends are waiting for you. The message is that the product and the context of friends will make you become your true self. A relatively tricky mixed drink advertisement (SPA08) shows a split screen with two different takes of a youngish and stylish man in a bar. One of them is lucky and ends up meeting a group of women. The punch line of the advertisement is 'Luck is an attitude'. The tricky part for the coding along the grid criteria is that also the unlucky man is having a drink of the advertised product. With the slogan and the storyline the advertisement says that your future is up to you (not up to choosing this particular product), but simultaneously the lucky attitude and success is associated with the brand of the alcoholic beverage.

In all these examples the events and the storyline is seen from the key protagonist's point of view, or they address individual consumer's concerns as in the above mentioned beer advertisement portraying friends in a bar (SPA3), and as such the individual's perspective of an enhanced social performance can be connected to the drink. For these reason, we saw that they can be seen as indicating a link between the product and social success.

Figure 7.7 Example of an analysed mixed drink advertisement



Sub-categories that go beyond the Directive

Social interaction. 56% of the advertisements associated the products with social interaction and sociability. Above, we have accounted for the theme of an individual's enhanced social performance, but the typical portrayals of sociability in the advertisements did not focus on individual actors, nor did they indicate a change in the events or in the social setting as a result of the product being introduced. When interpreted in this sense, the advertisements in our sample rarely indicated a causal relationship between using the product and social success. Rather, the advertisements typically portrayed a group of happy people having a drink in a relaxing setting, thus associating alcohol with the social setting, but strictly speaking, not claiming that there had been less social coherence and enjoyment without the beverage.

The sub-category of Alcohol enhances or sustains social interaction was meant to cover all the portrayals of sociability in the advertisements but its occurrence would not, in a strict sense, meet with the AVMSD criteria. The sub-category was coded when the advertisement associated the product with bonding with other people and with a positive and pleasant atmosphere in a social situation. A typical example of this feature is that there appears to be a change in the social interaction after the product and/or brand is introduced. For example, people start dancing, partying or the interaction is becoming more intense. Also, in this case, the advertisement may just associate the good atmosphere with drinking, implying that alcohol caused the good mood.

Tokens of wealth. Tokens of wealth and luxury products occurred in 16% of the advertisements. The sub-category of Tokens of wealth indicated that fancy products and known indicators of wealth and success occurred in the advertisement, and as such associating drinking, beverage or brand with high status luxury objects such as expensive electronics, boats, jewellery, luxury clothing etc.

7.3.4. Sexual success

Article 22c of the AVMSD also states that the advertisement shall not create the impression that alcohol would contribute towards sexual success. The provision was

operationalised, similarly to the sub-category of social success, as:

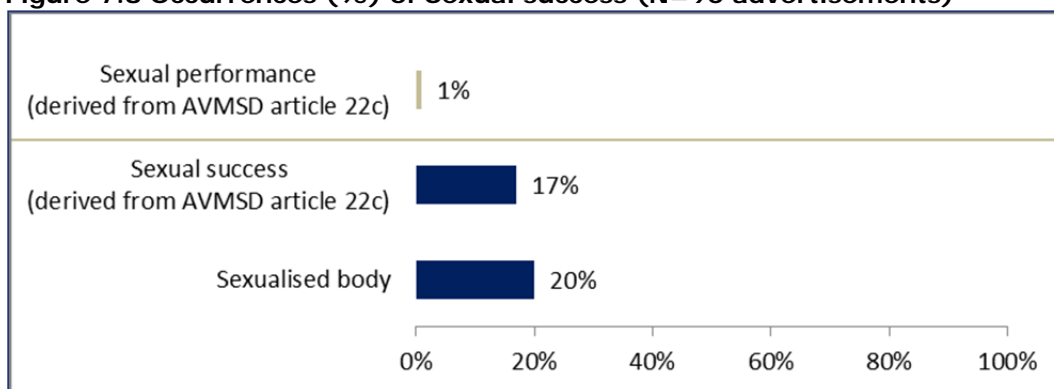
- Alcohol is associated with and/or is shown as contributing towards sexual success;
- Enhanced sexual performance or enjoyment.

The category of sexual success also contained a sub-category of:

- Male/female sexualized body as attention grabber.

Figure 7.8 presents the occurrences of each of these sub-categories in the 90 selected alcohol advertisements.

Figure 7.8 Occurrences (%) of Sexual success (N=90 advertisements)



Sub-categories derived from article 22c of the AVMSD

Contributing towards sexual success. 17% of the advertisements were found to associate the product with sexual success. Advertisements that associated the product with persons who are portrayed as attracting sexual attention, and/or suggested that the product makes a person more sexually attractive, and/or helps in finding a sexual partner were coded under the category of Alcohol is associated with and/or is shown as contributing towards sexual success. A good example of the typical portrayals of sexual success is a beer advertisements (SPA02) portraying good-looking young adults having a party outdoors (Figure 7.9). An indie band is playing, men are cooking and sipping beer, a bikini-clad woman jumps in the swimming pool, meaningful looks are exchanged between men and women, <more beer is enjoyed>. Towards the end of the advertisement, a woman and a man are dancing and kissing and eventually the whole group of friends go swimming. Hence, the sexual play between male and female actors develops during the course of events: an initially playful mood transforms into more intense interaction when the day turns into night and while more beer is consumed.

Figure 7.9 Example of an analysed beer advertisement



Enhanced sexual performance or enjoyment. Enhanced sexual performance or enjoyment was used whenever the advertisement suggested that the product contributes to a better performance in sexual acts or increases sexual pleasure. This theme was utilized in one advertisement.

Sub-category that goes beyond the Directive

Male/female sexualized body. The sub-category of Male/female sexualized body as attention grabber was employed in cases when the advertisement portrayed a barely dressed male or female body as sexualized object. For example, in the above-mentioned beer advertisement (SPA02) the camera gazes over two bikini-clad women. As the point of view of the advertisement is so articulated a male perspective, the women in bikinis are shown as something to pursue at, objectified rather than being active protagonists in the advert. Such sexualized bodies were depicted in 20% of the advertisements.

7.3.5. Mood-altering effects

The Article 22d states that the advertisement shall not claim that alcohol has therapeutic qualities or can be used as a stimulant or a sedative. This can be translated as the sub-category of:

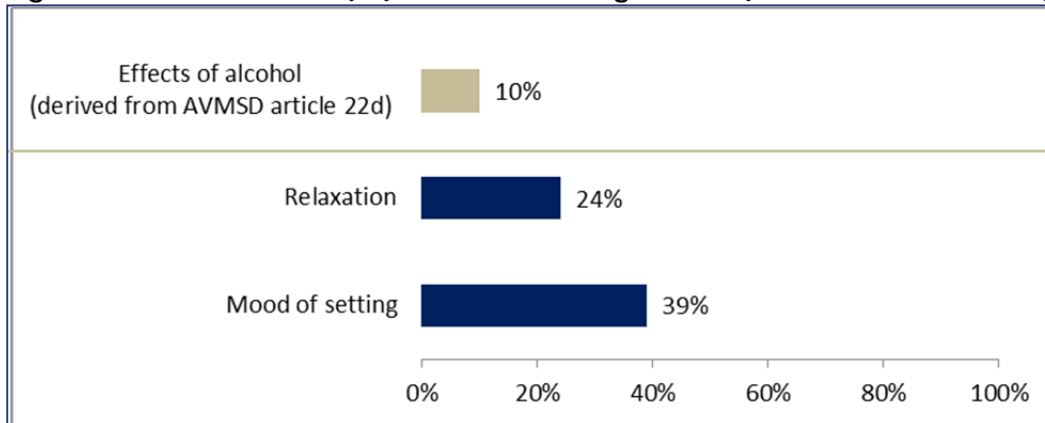
- Therapeutic, stimulating or sedative effects of alcohol.

We added two sub-categories:

- Alcohol transforms the mood of the setting;
- Alcohol is associated with relaxation.

Figure 7.10 presents the occurrences of each of these sub-categories in the 90 selected alcohol advertisements.

Figure 7.10 Occurrences (%) of Mood-altering effects (N=90 advertisements)



Sub-category derived from article 22d of the AVMSD

Therapeutic, stimulating or sedative effects of alcohol. In the coding, the sub-category was ticked if the advertisement suggested that the product can be used as a means of altering one's state of mind, for example to calm or to stimulate oneself, and, importantly, if the change in the state of mind is portrayed. For example, in one of the analysed beer advertisements (FIN02) a group of friends are playing 'spin the bottle' and the person that the bottle points at must carry out a silly task, like running around in a pink bunny suit, or kissing a stranger (as this is a male-oriented beer advert, the stranger is a beautiful woman). The course of events begins with an empty bottle of the advertised beer being dropped on the table: a rather quiet evening in the bar eventually turns into something else. The advertisement suggests 'your turn your [brand name]. Open for more'. Another example of stimulating effects is found in a beer advertisement in which there are four male protagonists chilling on the beach when suddenly a big wave knocks them over (Figure 7.12). Three stereotypical Inuit girls appear with bottles of the advertised product. The men sip the beer and the camera focuses on one man whose eyes open up with joy. They all start dancing with the girls. These kinds of mood-altering effects were portrayed in 10% of the advertisements.

Figure 7.11 Example of an analysed beer advertisement



Sub-categories that go beyond the Directive

Alcohol transforms the mood of the setting. The beer advertisement in Figure 7.12 (CZH04) also serves as a good example of the sub-category Alcohol transforms the mood of the setting. The criteria for using this sub-category in the coding was that the advertisement was to suggest that the product was the cause of the good mood of the

setting, and/or there were a significant change in the general mood or atmosphere after the alcoholic beverage was introduced. Typically the advertisements portray joyful people drinking together, thus suggesting that the product contributes towards the happy and pleasant mood. 39% of the advertisements indicated that the product helps transforming the mood of the setting in such a way.

Figure 7.12 Example of an analysed beer advertisement



Alcohol is associated with relaxation. The final code of this category, Alcohol is associated with relaxation, was ticked whenever advertisements portrayed the product in a relaxing setting indicating holiday or free-time leisure. As most advertisements associate alcohol with free-time and relaxation, we decided to tick this sub-category in cases when the advertisements portrayed the protagonists as breaking out of something or having fun outdoors, on the beach etc. Most of the bar scenes were not included in this sub-category, as being in a bar did not automatically count as relaxation in the coding grid. The relaxing setting code was ticked in 24% of the advertisements.

7.3.6. Enhancement of agency

According to the article 22d of the AVMSD the advertisement shall not claim that alcohol can be used as means of resolving personal problems. The provision is covered with the sub-category:

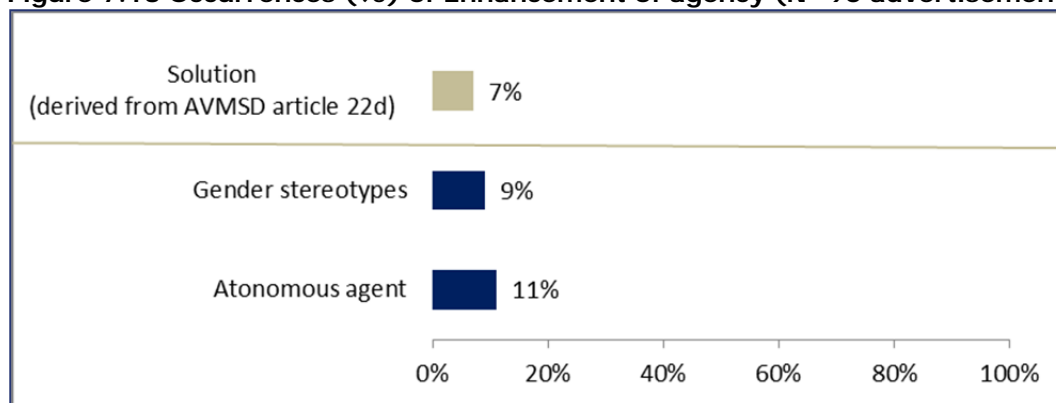
- Alcohol portrayed as a solution to a personal problem.

The other sub-categories of the overall category 'Enhancement of agency' are:

- Protagonist portrayed as an extraordinary competent autonomous agent; and
- Enhancement of competence related to gender roles.

Figure 7.13 presents the occurrences of each of these sub-categories in the 90 selected alcohol advertisements.

Figure 7.13 Occurrences (%) of Enhancement of agency (N=90 advertisements)



Sub-category derived from article 22d of the AVMSD

Solution to a personal problem. Alcohol was portrayed as a solution to a personal problem in 7% of the advertisements. The sub-category was employed whenever the advertisement was considered to imply that the product can be used as means for solving and mitigating personal conflicts and tensions. An example of this is a humorous beer advertisement (UK05) where a man goes to a spa with his spouse. He meets other men who are as uncomfortable in the setting and together they plan an escape to a brewery. At the end scene they succeed in smuggling beer into the spa and the main protagonist enjoys a sip. Here, the personal problem refers to the man's unwillingness to spend time in a feminine spa setting, and anxiety and tensions are solved with the advertised beer brand. Another example under this sub-category was a vodka advertisement (ROM09) portraying a man is sitting in a bar and an apparently over feminine, sexually dubious woman is approaching him. The man looks at the vodka glass and suddenly sees images of him and her in different situations, the woman embarrassing and irritating the man. He decides to refuse the woman. The product makes the man realize the dubious nature of the woman but also provides him with the strength to say no (simultaneously, the product is associated with sexual success).

Figure 7.14 Example of an analysed beer advertisement



Sub-categories that go beyond the Directive

11% of the advertisements portrayed the key *protagonists as autonomous agents*, and 9% of the studied advertisements contained *gender roles related competences*. Advertisements that were ticked for the code Protagonist portrayed as an extraordinary competent autonomous agent depicted protagonists who were able to master situations and positioning themselves in situations differing from the ordinary and not conforming to conventional norms or authorities. Good examples of these kinds of autonomous agents were found in three beer advertisements from the same brand (NLD02, SPA01 and NLD06). All these advertisements portray a man in difficult, adventurous but also humorous situations with elements of and references to James Bond movies. The advertisements also serve as good examples of the sub-category Enhancement of

competence related to gender roles. The men in the advertisements not only master the whole spectrum of situations (new, demanding, ordinary etc.) but they are also master seducers, thus fulfilling a stereotypical heroic masculinity position.

Figure 7.15 Example of an analysed beer advertisement



7.3.7. Immoderate consumption, abstinence and moderation

According to the provision 22e, the advertisement shall not encourage immoderate alcohol consumption or present abstinence or moderation in a negative light. Three sub-categories were developed to meet these requirements:

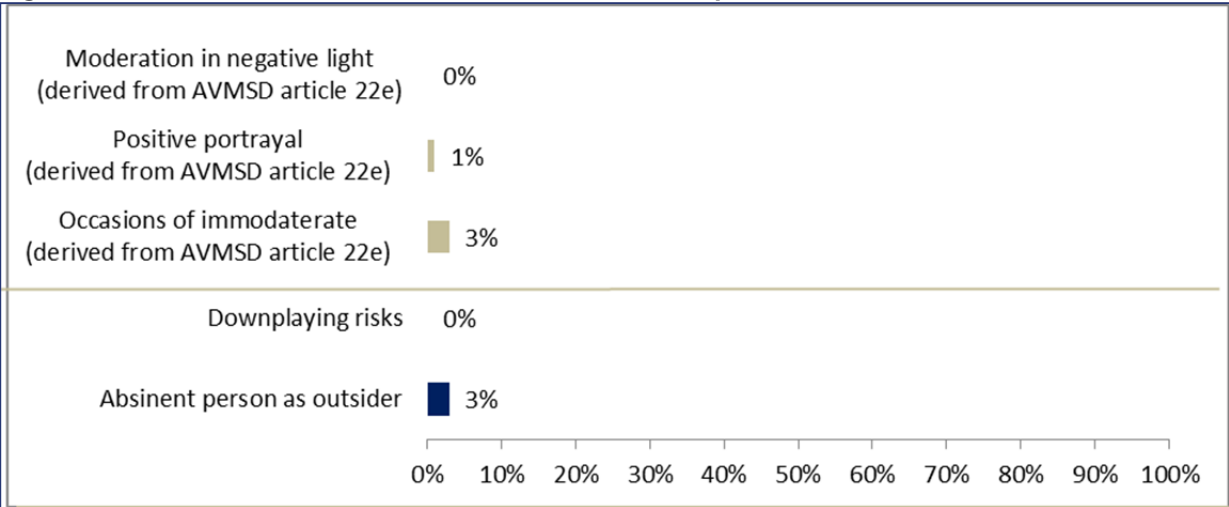
- Positive portrayal of immoderate consumption;
- Occasions and settings indicative of immoderate consumption; and
- Cautious attitudes, moderation or abstinence in a negative light.

Other sub-categories are:

- Presence of abstinent person as an outsider and
- Downplaying the risks of alcohol.

Figure 7.16 presents the occurrences of each of these sub-categories in the 90 selected alcohol advertisements.

Figure 7.16 Occurrences (%) of Immoderate consumption (N=90 advertisements)



Sub-categories derived from article 22e of the AVMSD

All these themes were rare in the advertisements of the study. We found no occurrences of *moderation in a negative light*, and only 2% of the advertisements depicted settings indicative of *immoderate consumption* such as a rather violent and dark gang party scene in one of the analysed beer advertisements (GER02). Only one advertisement could be interpreted as encouraging immoderate consumption. The advertisement may not necessarily portray immoderate consumption as such, but associate the product positively with settings that indicate intoxication or transgressive, mind-altering experiences.

Sub-categories that go beyond the Directive

We found no occurrences of *downplaying risks* and 3% of the advertisements were coded as depicting non-drinkers as outsiders. The criterion for ticking the sub-category of *Presence of abstinent person as an outsider* was that the advertisement would portray non-drinking persons who are not part of the in-group. An example of this is the above mentioned beer advertisement (UK05), in which the spouse is shown as an outsider, representing a joyless feminine order as opposed to fun-loving, sociable and inventive masculinity (explicitly associated with the brand). Downplaying the risks of alcohol was a category to be ticked for advertisements that would imply that drinking alcohol is not risky or would ridicule risk-averse attitude.

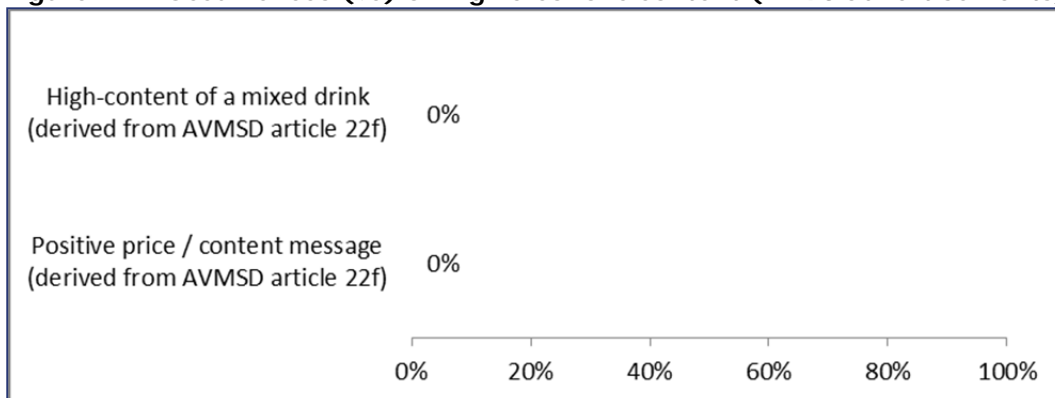
7.3.8. High alcoholic content

Article 22f of the AVMSD states that the advertisement shall not place emphasis on high alcoholic content as being a positive quality of the beverage. In the grid we created two sub-categories for this requirement:

- Positive price/content message;
- High-content ingredient of a mixed drink highlighted.

Figure 7.17 presents the occurrences of each of these sub-categories in the 90 selected alcohol advertisements.

Figure 7.17 Occurrences (%) of High alcoholic content (N=90 advertisements)



Sub-categories derived from article 22f of the AVMSD

The use of the sub-category *Positive price/content message* indicated that the advertisement would suggest the product as having high alcoholic content despite a reasonable price. *High-content ingredient of a mixed drink highlighted* means that the advertisement would portray a high alcohol content in a mixed product as a positive

quality, not only as product information. There were no occurrences of either of these sub-categories in the sample.

7.4. Advertising on non-linear AV media services and other online services

In addition to the television advertisements, the team also analysed 33 alcohol advertisements that have aired online. The online advertisements can be divided into the following sub-categories of alcoholic drinks:

- 16 Beer advertisements 48%
- 13 Spirits advertisements (including cider) 39%
- 4 Wine advertisements 13%

The same grid as for the television advertisements has been applied. The results show that most criteria were not present in the online advertisements. The low occurrence of themes that are appealing to minors is likely due to the fact that our sample of online advertisements consists only of banners, which typically feature merely images of products and brands.

We only found presence of the following sub-categories in online- advertisements:

- Online-participation (18)
- Young people's partying as a context of alcohol use (5)
- Presence of sport activities (5)
- Humour (2)
- Tokens of wealth (2)
- Celebrities known to young people (1)
- Adventurous or risky setting (1)

A full overview of the results is presented in Tables 7.5 and 7.6.

Table 7.5 Overview content analysis results for sample of online advertisements (N=33), part 1: content specifically aimed at minors

Criteria	Number of occurrences	% of occurrences
Aimed specifically at minors		
Appearance of age: under 18	0	0
Protagonist/s as primary group/reference group	0	0
Young people's partying as a context of alcohol use	5	15
Humour	2	6
Celebrities	1	3
Animals	0	0
Online-participation	18	53

Note: The subcategories that are derived from the AVMSD are coloured (brown).

Table 7.6 Overview content analysis results for sample of online advertisements (N=33), part 2: AVMSD criteria and themes appealing to minors

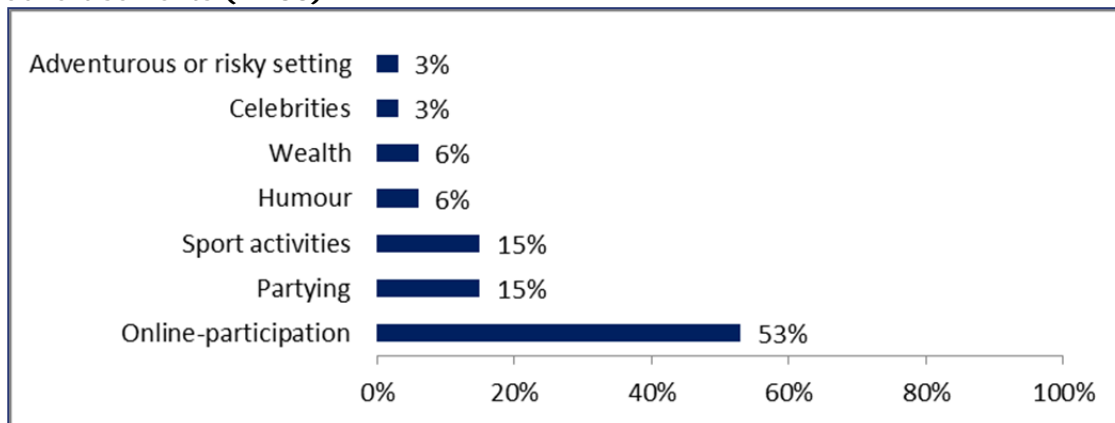
Criteria	Number of occurrences	% of occurrences
Physical performance		
Alcohol as enhancement of physical performance	0	0
Connection to driving a vehicle	0	0
Representation of athletic bodies	0	0
Presence of sport activities	5	15
Alcohol as a reward after exercise	0	0
Adventurous or risky setting	1	3
Alcohol as enhancement of physical performance in youth setting	0	0
Social success		
Alcohol is associated with/contributing towards social success	0	0
Tokens of wealth	2	6
Alcohol enhances or sustains social interaction	0	0
Sexual success		
Alcohol is associated with/contributing towards sexual success	0	0
Enhanced sexual performance or enjoyment	0	0
Male/female sexualized body as attention grabber	0	0
Mood-altering effects		
Therapeutic, stimulating or sedative effects of alcohol	0	0
Alcohol transforms the mood of the setting	0	0
Alcohol is associated with relaxation	0	0
Enhancement of agency		
Alcohol as a solution to a personal problem	0	0
Protagonist portrayed as extraordinary competent autonomous agent	0	0
Enhancement of competence related to gender stereotypes	0	0
Immoderate consumption, abstinence and moderation		
Positive portrayal of immoderate consumption	0	0
Occasions and settings indicative of immoderate consumption	0	0
Cautious attitudes, moderation or abstinence in a negative light	0	0
Presence of abstinent person as an outsider	0	0
Downplaying the risks of alcohol	0	0
High alcoholic content		
Positive price/content message	0	0
High-content ingredient of a mixed drink highlighted	0	0

Note: The subcategories that are derived from the AVMSD are coloured (brown).

Online-participation. The most frequent sub-category found among the online advertisements was online-participation, it was suggested in 53% of the advertisements. Online banners typically contain a link to the product's website for further information, so that if a person clicks the banner, it opens a new window for the website. However, in online- advertisements the sub-category was employed when it was explicitly suggested in the advertisement to check the products website, to participate in a competition, or if

a twitter hashtag and/or a Facebook reference was provided. For example, a beer advertisement depicts cd covers with for example a humorous version of Nirvana's (here Biervana) famous album cover. The banner suggests the viewer to participate in a completion on the product's Facebook page to win concert tickets. The advertisement also gives an example of the difficulties of assessing elements that appeal to minors. The Nirvana album modified in the advertisement came out in 1990, and is thus likely to be unknown for most minors.

Figure 7.18 Occurrences (%) of elements appealing to minors in the online advertisements (N=33)



Young people's partying. 15% of the online advertisements connected the product young people's partying context. For example, a cider advertisement suggested the viewers to tell how they will begin with the advertised cider with hashtag 'beginwith[brand name]', beginning presumably referring to a starting up a party or a night out.

Sports activities were depicted in 15 % of the online advertisements, as in a beer sponsorship message of Rugby league game.

Humour. 6 % (2 advertisements) utilized humorous elements.

Tokens of wealth were portrayed in two wine advertisements of the same brand. The advertisement states 'Leading men to triumph' and portrays a smart looking youngish business man.

Celebrities were present in one advert. A beer sponsorship message advertised an event where for example Calvin Harris was one of the performers.

Adventurous setting was portrayed in a whisky advertisement in which two men are portrayed on the mountains.

Table 7.7 reveals that for the criteria that are present in both television and online advertisements, only online participation (unsurprisingly) occurred more frequently in the online advertisements.

Table 7.7 Comparisons of content analysis: television (N=90) and online advertisements (N=33)

	TELEVISION	ONLINE
Criteria	% of occurrences (N=90)	% of occurrences (N=33)
Young people's partying as a context of alcohol use	18%	15%
Humour	30%	6%
Celebrities	3%	3%
Online-participation	23%	53%
Presence of sport activities	14%	15%
Adventurous or risky setting	7%	3%
Tokens of wealth	16%	6%

7.5. Results per beverage types

The sub-categories of the analytical grid give a rough measure for the study sample's overall level of appeal among minors. However, the criteria within the grid cannot be considered as equally strong (towards minors). The impact also depends on circumstances and contexts of the plot. An advertisement may, for example, depict humorous, animated animal character dancing in the jungle (such as a beer sponsorship message portraying a dancing sloth (CZH06). This will make the message noticeable for very young viewers, without containing a high overall frequency of appealing themes. Presence of sport activities, on the other hand, may give a strong message, but is likely to address (male) viewers of all ages, not only minors.

Figure 7.19 Example of an analysed beer advertisement'



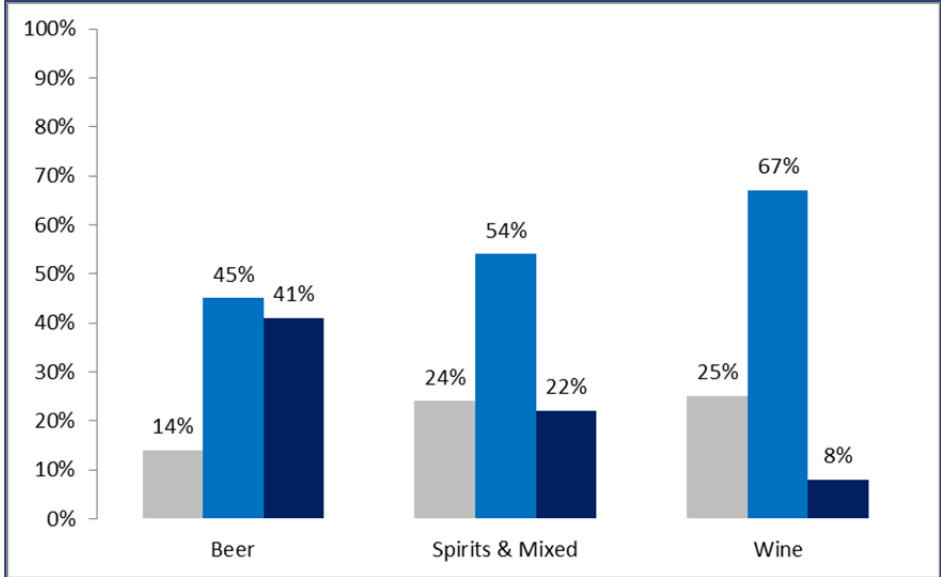
We combined all sub-categories of the grid to one cumulative variable to compare the frequencies of minor appealing contents in advertisements of different beverage types.⁷⁹ For this we have categorised each advertisement according to the number of depicted subcategories of the analysis grid. We defined three levels of appeal according to the following categorisation:

- No occurrences of appealing themes: 0 occurrences;
- Low level of occurrence: 1-3 occurrences/advertisement;
- High level of occurrence: 4-9 occurrences/advertisement.

⁷⁹ All spirit, pre-mixed drink, alcopop and cider adverts were combined into the category of spirits and pre-mixed drinks. There were only 4 cider adverts in the sample.

Figure 7.20 below shows the percentages of advertisements that contain no occurrences, low occurrence or high occurrence of themes that minors find appealing within different beverage types. 41% of the beer advertisements contained more than 4 appealing elements (and are thus categorised as 'high occurrence') and 14 percent involved no appealing contents at all. The wine advertisements contained least appealing elements (only 8% of the advertisements analysed can be categorised as 'high occurrence').

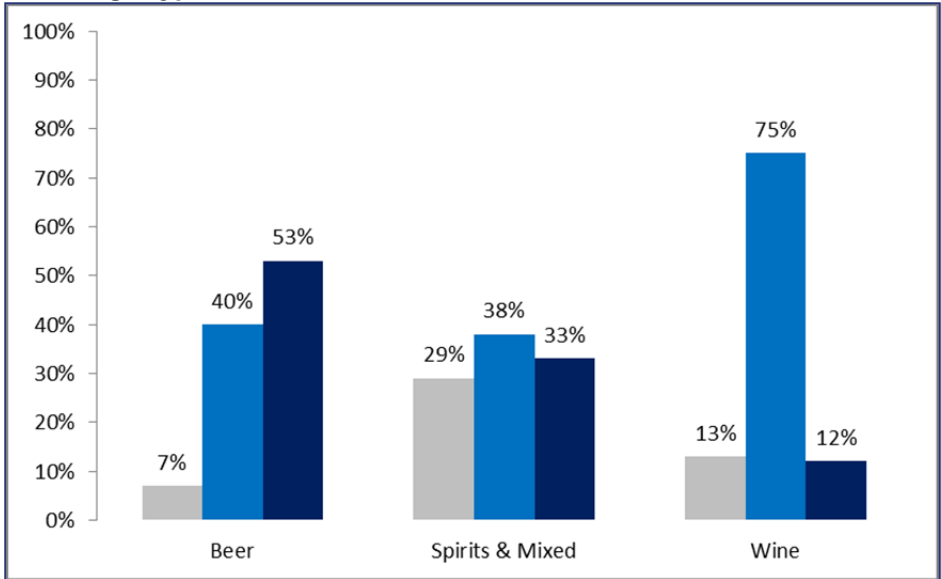
Figure 7.20 Occurrences (%) of sub-categories, by sector (beverage type) (N=123)



No occurrences; Low occurrence: 1-3 occurrences; High occurrence: 4-9 occurrences.

There were no high occurrence advertisements among the online sample. When considering only television advertisements (see figure 7.21), 53% of the beer advertisements and 33% if spirits and mixed drink advertisements were of high occurrence.

Figure 7.21 Occurrences (%) of sub-categories in television advertisements, by sector (beverage type) (N=90)

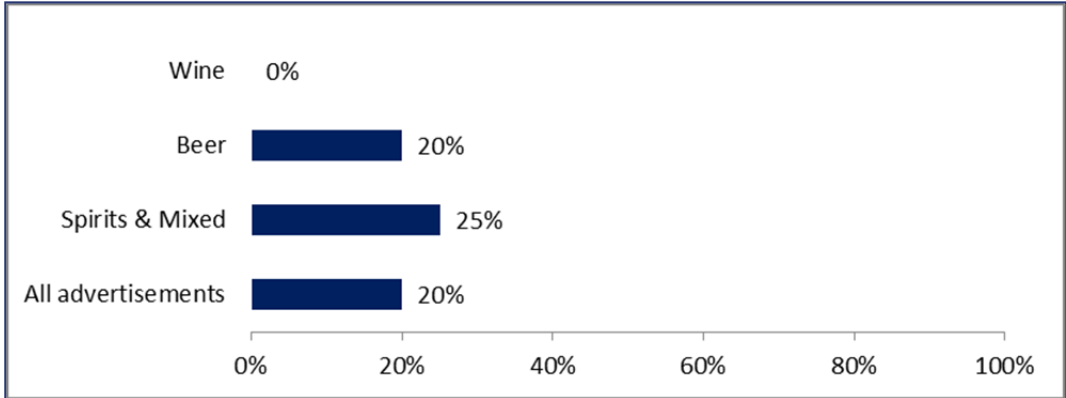


No occurrences; Low occurrence: 1-3 occurrences; High occurrence: 4-9 occurrences.

A total of 6 out of the 123 ads were coded with 8-9 sub-categories. What unites these advertisements is the product's function in creating a setting in which one can let go and bring out one's true competence, such as in the beer advertisement (SPA03) in which young adults gather together in a bar finding their real selves and enjoying intense socially entailed emotions. In a beer advertisement portraying men who were knocked over by a wave (CZH04) the product transforms an ordinary beach setting into a carnival for four average looking male protagonists, involving a promise of sexual contact with some sexy girls portrayed in a stereotypical manner as of Inuit descent (see figure 7.12).

We found no evidence of using minors or actors looking under aged among the coded sample of advertisements. However, we considered young adults representing young lifestyles as reference groups for minors. Accordingly, we consider youth lifestyles and reference groups in the advertisements as appealing to minors. 20% of the television advertisements involved young adults as actors in a way that could be interpreted as a reference group for minors. 20% of the beer advertisements and 25% of the spirits and mixed drink advertisements portrayed a reference or a primary group for minors. 56% of the advertisements that depicted a reference or a primary group for minors were coded at least one of the sub-categories derived from the article 22 AVMSD. In comparison, of the television advertisements that were coded as not depicting a reference group for minors, 32% was coded with at least one of the AVMSD criteria (see more detailed analysis for AVMSD protection in the section 7.5).

Figure 7.22 Television advertisements (%) portraying young adults as a reference group for minors, by sector (beverage type)



Typically, young adult protagonists were involved in a celebration or a party taking place outdoors. For example a beer advertisement (AUT02) portrays differing imaginings of a music festival: from the perspective of a mother, a grandfather and a father. The mother's imagery involves heavy music and scary male figures, the grandfather associates to hippie girls in a 1960s milieu, while the father thinks about a collapsed tent in a pouring rain. The final scene is supposed to show what music festivals really are like: a group of friends sitting on a van, the sun is shining and they all raise a toast with pints of beer.

Figure 7.23 Example of an analysed beer advertisement



One of the analysed mixed drink advertisements (ITA05) introduces a drink containing Prosecco and the advertised product. It shows young adults departing from their work settings after a work day, removing all formal clothing on their way to the beach where the brand's party is about to start. The camera focuses on a couple kissing and on a flirtatious female bar tender. The product is associated with a happy, trendy and relaxed atmosphere.

7.6. Level of protection by the AVMSD

7.6.1. AVMSD criteria

According to our coding of the material, a total of 37% of the 90 television advertisements of the sample reflected at least one of article 22 AVMSD criteria. Among the 33 online advertisements, we found none that reflected one of these criteria. All in all, among all 123 advertisements 25 % were coded with at least one of the sub-categories derived from the AVMSD criteria.

According to our operationalization of the articles 22 a-f, the provision most frequently met was 22c which concerns the portrayals of social and sexual success (see figure 7.24 and 7.25). 12% of all advertisements (N=123) suggested that the product would improve sexual success or the likelihood to meet a sexual partner. In its most explicit form, the advertisements depicted how drinking a particular alcoholic product would be followed by sexual attention by attractive women (for example the beer advertisement 'Déjà vu' [NLD02] described above). 10 % of all advertisements implied that the product would contribute towards social success. All in all, the sub-categories derived from the provision 22c was coded to 21% of all advertisements (N=123), and to 28 % of the television advertisements (N=90)

The sub-category covering the provision 22d (the effects of alcohol and portrayals of alcohol as a solution to a personal problem) was found in 11% of all advertisements and the 22e, which states that the advertisement shall not encourage immoderate consumption, in 2 %. We found no themes that would reflect the provisions 22a, 22b and 22f in the sample.

Figure 7.24 Television advertisements matching with at least one of the AVMSD criteria (%) (N=90 advertisements)

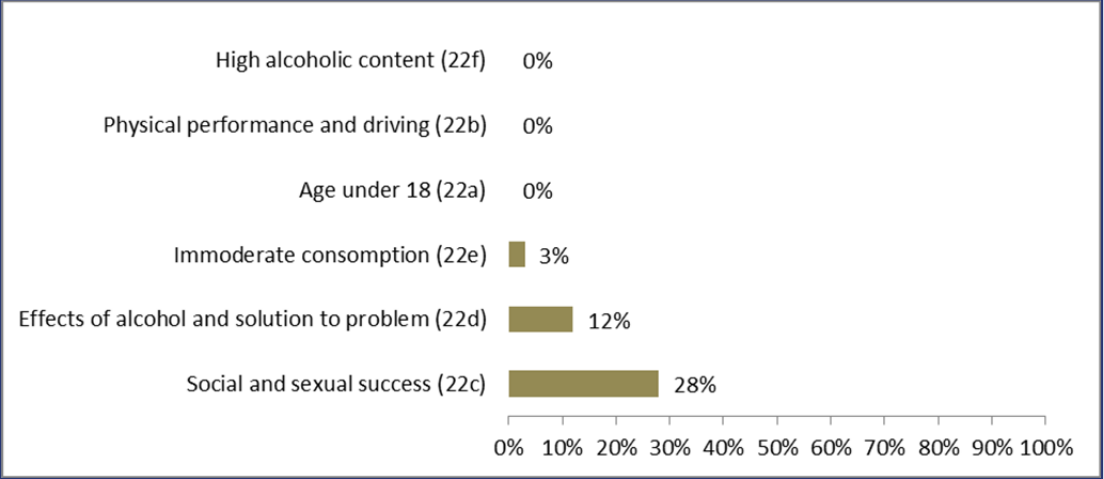
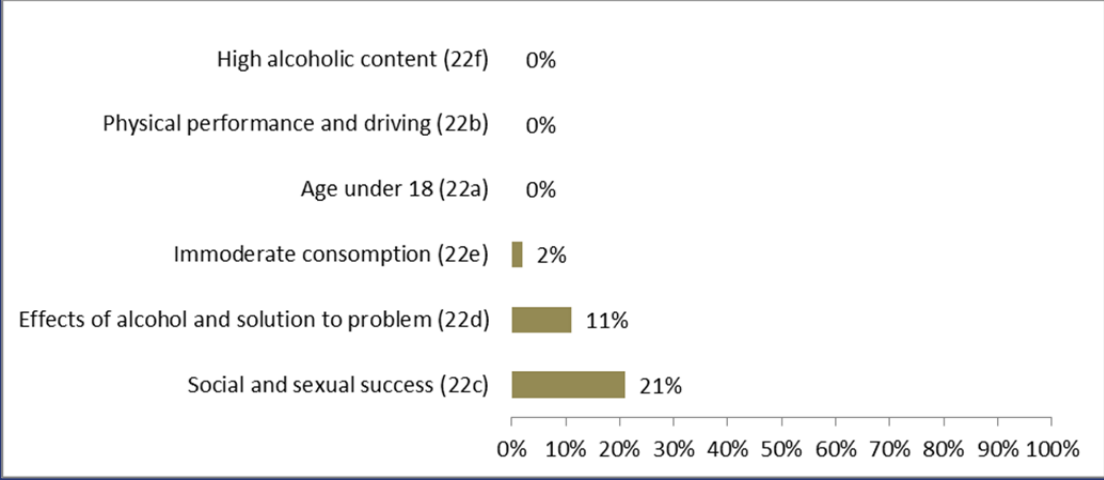
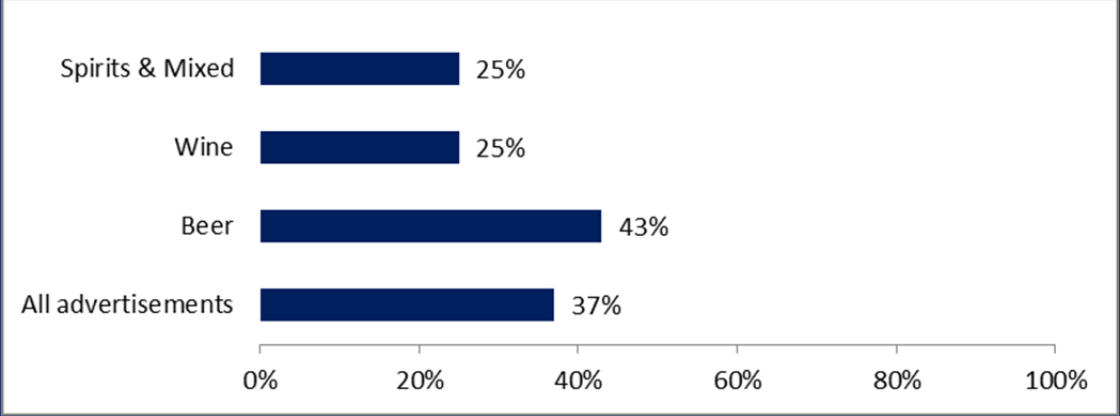


Figure 7.25 advertisements matching with at least one of the AVMSD criteria (%) (All advertisements, N=123)



When comparing the different beverage types among television advertisements (figure 7.21), most AVMSD derived sub-categories were found in beer advertisements (43%).

Figure 7.26 Television advertisements (%) matching with at least one of the AVMSD criteria, according to beverage type (N=90 advertisements)



7.6.2. AVMSD criteria – difficulties of definitions in content analysis

The analysis of contents that meet the criteria of article 22 AVMSD is not aimed at indicating violations, but to highlight the ways in which advertisements depict themes of the AVMSD criteria. Our analysis shows that the criteria are not easily operationalized for the purpose of content analysis. This is likely to indicate difficulties confronted by regulators to actually detect violations, as well as by the alcohol industry and advertisers to follow the criteria.

A typical example of the challenges related to the interpretation of the AVMSD criteria is the article 22c which states that the advertisement 'shall not create the impression that the consumption of alcohol contributes towards social or sexual success'. The article refers to a causal relationship between the product and success. In a strict sense the violation of the criterion would mean that the advertisement depicts chronologically how introducing the product is followed by positive consequences, and that positive consequences are achieved because of the product. A hypothetical example of this kind of plot would portray a lonely and sad protagonist who is introduced with the alcoholic product, and after consuming it the protagonist would start to draw positive attention. Advertisements in the sample rarely made use of this kinds of very simple and straight-forward causal associations, making the coding of the material challenging.

Associations of social and sexual success, popularity, sociability and enjoyment with alcohol consumption are part of wider cultural representations of what drinking is about. In this sense, advertisements do not even need to make the causal association explicit. Hinting towards the general cultural imagery of drinking by merely showing people consuming alcoholic beverages and having fun the causal link is activated in the minds of the audience, but without violating any codes or criteria regulating alcohol advertising.

The AVMSD articles regulate alcohol advertising in all EU member states. Within the EU there are very different traditions and culture specific, historical patterns of alcohol consumption. The content analysis presented in this chapter has not included an assessment of culture specific themes of alcohol advertising in relation to, for example, Northern and Southern European drinking cultures. It is likely that the contents of alcohol advertising highlighted in the article 22 have differing importance depending on the cultural context. Comparative analyses of culture specific meanings of drinking could be of great help in further developing the article and to make it more applicable and protective in differing cultural contexts.

8. Conclusions and recommendations

The first report on the application of the AVMSD⁸⁰ was published on 4 May 2012. This report indicated that with regard to alcohol advertising, further investigations were necessary to assess, amongst other things, the exposure of minors to commercial communications for alcoholic beverages. Against this background, the purpose of this study was to answer three research questions:

1. How much alcohol advertising does an average minor watching linear audio-visual media services in the EU see?
2. How much alcohol advertising does an average minor see on non-linear audio-visual media services and other online services in the EU?
3. For audio-visual media services (both linear and non-linear) and other online services, what type of alcohol advertising does an average minor see in the EU? Are minors specifically targeted by alcohol advertising? In how far is alcohol advertising appealing to minors and how? In particular, in how far do the provisions of the AVMSD and their application afford the required level of protection?

To answer these questions we used a combination of research methods, including a literature review, analysis of general viewing pattern data and spotlists for alcohol advertising for the nine Member States selected for this study (Austria, Czech Republic, Finland, Germany, Italy, the Netherlands, Romania, Spain, United Kingdom) in 2013, and analysis of data on global advertising impacts for 23 Member States in 2013. In addition, we developed and applied an analysis grid for a content analysis of advertisements that appeared both on linear and non-linear AV media services and other online services in the nine selected Member States in 2013. To include the perspective of the advertisers on the exposure on non-linear AV media services and other online services, we conducted desk research, and surveyed selected online services as well as industry members and trade associations. We also collected online data captures for selected YouTube channels and websites. With regard to the perspective of the viewers on exposure to alcohol advertising on the Internet, we conducted a survey amongst minors in each of the nine selected Member States.

Below, we present our main conclusions for each of the research questions, as well as the limitations of the approach taken to answer the questions. Finally, we formulate recommendations for further research.

8.1. Research Question 1: How much alcohol advertising does an average minor watching linear audio-visual media services in the EU see?

Based on the data in the WFA/Ebiquity dataset we found that the percentage of alcohol impacts of total market impacts is on average 1.8% for minors and 2.2% for adults.

Moreover, the analysis of both the WFA/Ebiquity dataset and the GfK/Dentsu Aegis dataset⁸¹ revealed that, on average, approximately 7.3% of the total number of alcohol

⁸⁰ Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. First Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the application of Directive 2010/13/EU "Audiovisual Media Service Directive" Audiovisual Media Services and Connected Devices: Past and Future Perspectives, /* COM/2012/0203 final */.

⁸¹ For more information on these datasets, please see Chapter 2.

impacts seen in the EU on linear AV media services in 2013 were seen by minors. For the nine selected Member States this ranges from 5.0% to 9.0%.

In absolute numbers this means that, on average, a minor in the EU saw 200 alcohol impacts in 2013, while an adult saw over 450 in the same period. Similar results were seen for each Member State.

A further breakdown of the results by distinguishing between two age groups for minors showed that a 15-17 year old on average saw almost 300 alcohol impacts in 2013 and a minor aged 4-14 year old 180. Hence, the average number of alcohol impacts an individual saw on linear AV media services in 2013 the nine selected Member States, increased with age. As described in the literature review in Chapter 3, multiple studies on the exposure of minors to alcohol advertising on linear AV media services report findings that are consistent with the notion that the level of exposure increases with age.

The findings with regard to the breakdown by sector revealed that in the vast majority of Member States the sector 'beer' has the highest share in both the number of spots and the number of impacts seen. From the literature, as described in Chapter 3, we know that this finding is consistent with results for other countries, including countries outside of the EU.

Next, we conducted an in-depth analysis for the nine selected Member States.

The analysis of the viewing data for the nine Member States revealed that the viewing patterns of adults and minors differed. In order to analyse if this difference in viewing habits may partly explain the difference in the level of exposure to alcohol advertising between minors and adults, we weighted the absolute daily average alcohol impacts by the average daily viewing rates per age group. We found that after applying this weighting, the difference between the exposure of minors and the exposure of adults to alcohol advertising on linear AV media services was reduced. We also applied a weighting based on the average viewing rates per age group for a subset of channels, namely those channels that include alcohol advertising. The results showed that applying this weighting further reduced the difference in exposure between minors and adults. In several of the nine selected Member States, this weighted value was even higher for minors than for adults. Hence, the difference in the level of exposure to alcohol advertising between minors and adults may be partly explained by the differences in their viewing habits, both in terms of how often they watch television, and which channels they watch.

As part of the in-depth analysis, we looked at several detailed breakdowns of the alcohol spots and impacts.

One of these analyses was focused on the type of channel. We found that in all Member States, the majority of both alcohol spots and alcohol impacts were seen on commercial channels, but that the average impact per spot appeared to be higher on public channels. Moreover, the results indicated that while in most Member States the majority of spots was on generalist (i.e., not topic-specific) channels or on 'Entertainment, Series, Movies' channels, the majority of impacts were seen on generalist channels. This may be explained by the relatively high viewing rating for these channels.

When looking at difference in terms of alcohol impacts throughout a day, we found that for the adults, the peak day part was between 21:00 and 23:59 in all Member States. With the exception of one Member State, this was also the peak day part for the 15-17 years olds. For the 4-14 year olds, the peak day part occurred between 17:00 and 20:59 in four Member States and between 21:00 and 23:50 in five Member States. Comparing these results with the peak day parts in terms of viewing patterns, we saw that for all age groups, in all nine Member States, the peak day part in terms of alcohol impacts was either the same as for viewing patterns or one day part later.

With regard to hourly timeslots, we found that in each selected Member State the alcohol impacts for all age groups followed a rather similar pattern with a peak in the evening. In four of the nine selected Member States, the peak hourly timeslot was the same across age groups.

Finally, the results showed that there is substantial variation across Member States in terms of the weekday with the highest number of impacts seen. Moreover, within Member States, differences between age groups were observed, but in the majority of Member States, all age groups saw on average the most impacts on the same weekday.

8.2. Research Question 2: How much alcohol advertising does an average minor see on non-linear audio-visual media services and other online services in the EU?

The exposure of minors to alcohol advertising on non-linear AV media services and other online services has been analysed from both the perspective of the advertisers and the perspective of the viewers. We found a discrepancy between both groups: whereas from the perspective of advertisers exposure is supposed to be limited, the viewers perceived a substantial level of exposure.

Perspective of the advertisers

The results indicated that from the perspective of the advertisers, the level of exposure of minors to alcohol advertising on non-linear AV media services and other online services is supposed to be limited, because of (1) the measures that online services have in place to help advertisers to advertise their products responsibly and in compliance with all applicable laws and regulations and thereby, to restrict, or even prevent the exposure of minors to alcohol advertising; (2) the choice of advertisers for online services that offer age-gating/age verification and/or for which there is availability of audience data demonstrating that at least 70% of the likely audience is above the LPA; and (3) the numerous self-regulation initiatives that are in place at the company, sector, industry, and national level.

This view was partially confirmed by the results of the online data capture: of the 1,319 screen captures for YouTube and 950 screen captures for websites (each website capture containing visits to up to 5 URLs on that website) only four unique advertisements for alcohol brands were found. Of these four, two were served in pre-rolls on YouTube and two on websites in the form of banners. One of the pre-rolls advertised a non-alcoholic drink and was only served on the profile of an adult. The other pre-roll was captured three times for a minor's profile and three times for an

adult's profile (both male). The two banners were served on both minors' and adults' profiles, where one was captured twice on profiles for both minors and adults and the other was captured once on a minor's profile and four times on an adult's profile.

Perspective of the viewers

Viewers, on the other hand, perceived quite a substantial level of exposure: although alcohol advertisements are the least recalled type of advertisements by minors aged 9-17⁸² in the nine selected Member States, 23.9% of these minors recalled to have seen an alcohol advertisement online in the last month.

The results also indicated that the recall, and thus the perceived awareness of alcohol advertising, increases with both age and online activity. The respondents aged 9-17 were also asked if they could describe an alcohol advertisement that they recently saw and 23.6% of these minors answered 'yes'. In addition, on average, 80% of these respondents indicated that they recalled the brand of the advertisement. The results showed that both the memory for having seen alcohol advertising as well as active brand recall also increased with age and online activity. The finding that minors indicate to be aware of alcohol advertising through self-reported measures of exposure and that this increases with age and the number of exposures is consistent with the existing literature on advertisement recall.

Combining the results from the two perspectives

The results from the two perspectives diverge and this may be the result of different factors, including:

- Over-estimation of self-reported exposure because of methodological limitations of the survey: First, the survey relies on self-reporting measures of exposure by asking recall questions, which induces the risk of recall-bias. Hence, where minors indicated that they recall having seen (alcohol) advertisements, it does not necessarily mean that the (alcohol) advertisement was actually provided. Second, no strict definition of advertisement was provided in the survey and therefore the reported exposure to alcohol advertising is subject to interpretation of what is perceived as 'alcohol advertising' by minors. For example, minors may have indicated that they recalled seeing an advertisement, whereas in reality, they saw user-generated content rather than commercial communications produced by advertisers;
- Over-estimation of exposure based on online data capture: people may use ad-blocks or nanny-tags in their browsers, which prevent them from seeing any (alcohol) advertisement
- Under-estimation of self-reported exposure: some respondents might have underreported their exposure because they were trying to avoid punishment.
- Under-estimation of exposure based on online data capture because of several caveats in the methodology: For example, cookies were generated during two months of online activity, whereas minors will typically have a richer browser history than the profiles that were generated for the purpose of this study. In addition, the data capture had a limited focus and only generated activity on a computer, whereas minors typically use different devices to go online. Also, there was no spill-over between profiles, whereas in reality minors may share a device with adults;
- Limited scope of the online data capture: as this part of the methodology was limited to a selection of YouTube channels and websites, it was difficult to draw conclusions

⁸² For ethical reasons, minors in the age group 4-8 were not asked questions on alcohol advertising, but rather on advertising in general and their online activity.

with regard to the exposure on other popular online services, including Facebook, Instagram and Twitter.

Because of the discrepancies in the results, it is difficult to draw overall conclusions with regard to the level of exposure of minors to alcohol advertising on non-linear AV media services and other online services. It can, however, be concluded that self-reported exposure to alcohol advertising increases with age and online activity and that both the online services and the industry try to ensure minimal exposure through implementing measures and self-regulation.

8.3. Research Question 3: For audio-visual media services (both linear and non-linear) and other online services, what type of alcohol advertising does an average minor see in the EU? Are minors specifically targeted by alcohol advertising? In how far is alcohol advertising appealing to minors and how? In particular, in how far do the provisions of the AVMSD and their application afford the required level of protection?

Existing literature shows that for minors, the most important context of using alcohol is partying and celebration, and 17% of the advertisements in the sample portrayed this context. Animal characters – most likely to attract minors – were shown in 4% of the advertisements. Despite the fact that the majority of the advertisements in the sample contained at least one element appealing to minors, it does not indicate that minors would be the target in the majority of advertisements. The difficulty is that elements that minors find attractive are very similar to those that appeal to (young) people over 18.

This being said, the analysis grid includes elements that according to existing research are relevant for minors in relation to alcohol. After developing and validating the analysis grid, we analysed both television and online advertisements, the former covering short film inserts and sponsorship messages shown in relation to television programmes, the latter consisting of banners. It appeared that there is a wide variety of themes employed in the advertisements, the most common one being the association of alcohol with sociability, and depicting drinking with humorous tone.

Associations of social and sexual success, popularity, sociability and enjoyment with alcohol consumption are part of wider cultural representations of what drinking is about and these were also the most central themes in the advertisements. The advertisements in the sample created a strong link between enjoyable social occasions, on the one hand, and alcohol, on the other hand, corresponding with general cultural representations of drinking with respect to adults and minors alike. Considering the role of sociability in the advertisements, and the high relevance of social relations and belonging to minors, it is plausible to say that alcohol advertising is likely to be appealing to under-aged audiences.

In addition, we found that 25% of the advertisements (37% of the television advertisements and 0% of the online advertisements) reflect at least one of the criteria described in AVMSD. The provisions in the Directive refer to causal links between the product and its effects, which are, for the most part, the kinds of simple storylines that are mostly avoided in advertisement contents. The advertisements rarely suggested positive outcomes caused by the products. Rather, they were focused on associations that are possible to create within a few seconds (for example by portraying drinking among young, trendy people) and without highlighting causality (being attractive and socially successful is caused by consuming the product).

8.4. Limitations and recommendations for further research

In conducting the study, we encountered several limitations in both the approach taken and methodologies used. These are listed below as well as our recommendations for further research.

One of the main limitations of the approach taken concerns representativeness of the results for all EU Member States, given that the focus of the study was on nine Member States. For Research Question 1 we know that, based on the comparison of the results of the nine Member States with the results based on the WFA/Ebiquity dataset, the selection of Member States appears to be representative for a larger selection of Member States. For the other two Research Questions such comparisons could not be made.

In addition, the scope of the study included certain types of advertisements. It is recommended to include other forms of alcohol advertising, for example product placement, in a potential future study.

Research Question 1

The analysis conducted in this study provided interesting results on the exposure of minors to alcohol advertising on linear AV media services in 2013. As a next step, it would be interesting to analyse how the results evolve over time. This would also provide the opportunity to evaluate the effectiveness of new (self-) regulation by analysing how the levels of exposure change upon introduction of new regulation.

Another limitation concerns the level of granularity in the data: a higher level of granularity would allow for more detailed analyses of differences between (age) groups in terms of the level of exposure to alcohol advertising. For example, it may be interesting to split the group of adults into multiple age groups to allow for a comparison between the older minors and young adults, or to include data on gender to facilitate an analysis of potential differences within age groups based on gender.

A final limitation concerns the sample of channels. The data on alcohol advertising impacts that was analysed for Research Question 1 was based on a comprehensive sample of channels. The analysis of the general viewing patterns focussed on a more limited selection of channels. In order to conduct more relative analyses, weighting alcohol impacts by average daily alcohol impacts, we would recommend including a larger sample of channels. This would ensure that the relation between viewing habits and exposure to alcohol advertising can be investigated in more detail.

Research Question 2

One of the perspectives analysed for Research Question 2 concerns the perspective of the advertisers. For this purpose, we analysed different measures and initiatives that are in place with the aim to restrict the exposure of minors to alcohol advertising using input from the industry and selected online services. This provided insights into what the level of exposure to alcohol advertising is supposed to be. The results could partially be validated through the online data capture. However, as this part of the methodology was limited to a selection of YouTube channels and websites, it was difficult to draw conclusions with regard to the exposure on other popular online services, including Facebook, Instagram and Twitter. It would therefore be recommended to search for other ways to monitor the exposure on these online services. This could for example be done by recruiting minors in Member States and asking for their permission to monitor their activity on these online services. This would also overcome some of the other limitations with regard to the online data capture. For example, it would allow monitoring of a profile with a rich browsing history, with activity on multiple devices, and from devices on which multiple people are active. On the other hand, it is important to recognise that such an approach would not provide results from the perspective of advertisers, as it then no longer is possible to investigate what type of advertisements are served to specific audiences, but rather to a mixed profile.

As discussed before, the results of the survey to minors should be interpreted with caution because of several caveats associated with this methodology. First of all, the survey relies on self-reporting measures of exposure by asking recall questions, which induces the risk of recall-bias. Hence, where minors indicated that they recall to have seen (alcohol) advertisements does not necessarily mean that the (alcohol) advertisement actually was served there. Table 6.2 could serve as an example of this, where a number of online services were mentioned by minors to include alcohol advertisements, while in reality they do not include any alcohol advertisements.

It is also important to note that the respondents were not provided with a demarcated definition of 'alcohol advertising'. Therefore, the reported exposure to alcohol advertising is subject to interpretation of what is perceived as 'alcohol advertising' by minors. In addition, some respondents might have underreported their exposure to avoid punishment.

Further research is therefore needed to study the exposure of minors to alcohol advertisement online in more detail. We would also recommend doing this longitudinal.

Another way to overcome some of the limitations identified might be to use focus groups or individual interviews, rather than a survey. This is, however, a very resource-demanding approach. In addition, it may be interesting to include adults in the survey in order to facilitate a comparison between self-reported exposure by minors and adults.

Research Question 3

The limitations of the content analysis are related, firstly, to the difficulties in estimating the elements of advertising that are primarily appealing to minors, secondly, to the ambiguities of the subcategories of the analysis grid, and, thirdly, to the generalizability of the results.

Recognising contents that would appeal only to minors is difficult, if not impossible. Most of the elements of advertising have general appeal, meaning that they are likely to stimulate reactions in wider audiences, not only in one target group. On the grounds of previous research it is possible to say that minors are likely to be appealed, for instance, by advertisements that utilise humour and music. However, these elements also attract adult viewers, and they are therefore widely used in advertising. Humour and music are central ways of making an advert noticeable among minors, but utilisation of these elements does not alone indicate that minors would be the target. This means that the content analysis, the grid and its subcategories are based on elements that according to the existing research are appealing to minors, but they are not necessarily specifically appealing to only them.

The aim of the content analysis was to go beyond the scope of the AVMSD and to assess in a wider sense in what ways alcohol advertising appeals to minors. For this reason the development of the analysis grid was based on existing research regarding the meanings and functions that minors associate with alcohol use. The approach aimed at bringing a broader view of underage drinking to the study on alcohol advertising, especially when assessing the effectiveness of marketing regulations. Meanings and functions that young people attach to alcohol use can be portrayed in advertisements in a variety of ways. Advertisements play with cultural representations people already have in mind, and their messages are to a great extent symbolic and associative. These symbolic dimensions make contents of adverts ambiguous, enabling a variety of interpretations. Accordingly, the analytical grid needed to address both the symbolism employed in advertisements and their possible manifestations. The task was challenging, as the reliability of content analysis depends on accurately defined criteria that can be easily followed in the actual coding process.

Coding of textual and visual material always requires interpretation, regardless of the analytical approach. The more ambiguous the codes and their criteria, the more space is left for coder's subjective consideration. For example, the AVMSD criteria concerning social and sexual success were difficult to operationalise for coding purposes as the advertisements contained various strategies of associating the products with social relations. For further strengthening the analysis grid, a reception study involving minors is recommended in order to define the criteria in more detail. The analysis of minors' perceptions of ambiguous contents of advertisements would help to determine, for instance, what they see as representations of social and sexual success.

The results of the content analysis are based on 123 linear and non-linear alcohol advertisements from nine EU Member States, a small sample considering the total amount of advertisements appearing in all AV media services in the EU. In addition, the sample for non-linear and other online services was limited to online banners. As such, the results are not generalizable to all alcohol advertisements. However, the results are applicable for assessing the variety of themes and elements utilised by alcohol advertising.

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