

The Impact of Over-The-Top Content Provision on the Media System

Summary of opinions submitted in the context of the public consultation

Introduction

Online media content consumption may fundamentally transform the media system in the long run; the National Media and Infocommunications Authority (Authority, NMHH) therefore wishes to address the phenomenon proactively. The new market participants, the expansion of the media market value chain and the conflicts inevitably arising in relation to the rearrangement have increasingly become the focus of attention inside the professional community, from content creators through media service providers to electronic communications operators.

Accordingly, in consideration of the increasing popularity of OTT content provision and its (expected) impact on the media and broadcasting market, the Authority has initiated dialogue with market participants and stakeholders and submitted a summary for public consultation on 30 November 2014 with the intention of promoting debate. The scope of this document does not cover all details due to the complexity of the subject; indeed, this paper is the result of preparatory work for identifying the areas where legislators and the Authority responsible for implementing the law may face future tasks to tackle.

Fifteen service providers, interest groups and individuals gave their written comments on the twelve questions submitted for consultation. The respondents include the major Hungarian electronic communications service providers, media service providers and device manufacturers. Several foreign service providers and interest groups also expressed their views on the questions presented. The replies were constructive and extremely rich in useful information, giving the National Media and Infocommunications Authority more in-depth and nuanced picture of this rapidly developing area.

The opinion of market players is vital for the Authority to allow it to craft and communicate an opinion to decision-makers on the Digital Single Market¹ proposal presented by the European Commission in May 2015 and the upcoming revision of the Directive 2010/13/EU of the European Parliament and of the Council on audiovisual media services that takes into account market player opinions.

The replies received outlined diverging opinions linked to diverging interests. Based on the feedback, generally speaking the market for OTT content services is an area under development that does not call for immediate regulation at the national level for the time being, however this may change in the future, therefore ongoing dialogue with market players and constructive participation in the creation of European Union regulation is an important task for the Authority.

The following section sums up the anonymous responses received to the twelve questions. The Authority would like to emphasise that the following replies are not the NMHH's official position and only reflect the opinion of respondents.

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<http://ec.europa.eu/digital-agenda/en/digital-single-market>, [26.05.2015]

Question 1: Do you agree with the definition of OTT services specified in point 3?

One respondent, active on the online services market, commented that the sharp distinction of OTT and traditional electronic services is not always warranted, as due to vertical integration and cooperation among market players, an OTT player can also be an electronic communications service provider (e.g. Google) or vice versa.

The opinion of one electronic communications service provider further refines this picture, giving a different perspective, explaining that the key question in distinguishing between electronic communications services and OTT services is whether the signal transmission responsibility, serving as the basis of current definitions and applying all the way to the user, does not apply to OTT players. They do not assume contractual responsibility for signal transmission or quality of access, and only engage in content aggregation, processing and presentation alongside serving their customers (customer service, billing). The service provider also commented that Internet service providers providing infrastructure do not assume full responsibility and safety for the general transmission of Internet signals, as the signals pass through numerous networks the operation of which they are not familiar with and do not monitor (nor can monitor), and some of the technical protocols intentionally do not support the option or need for troubleshooting to track lost data packets.

Another electronic communications service provider shared this view, and does not deem the following narrowing of the definition as warranted: “As such, the OTT service provider is an entity separate from, and not contracted to, the Internet service provider.” In its opinion, the main question is whom fundamentally provides a service to the subscriber (according to the valid contract): the programme broadcaster, the Internet service provider or an independent firm.

Some respondents proposed a specific definition of OTT services. One of the proposed definitions was: “OTT is the online transmission of video, audio or other content to the user’s device connected to the Internet without the participating service provider(s) or network owner/operator participating in the dissemination or checking of content.” According to this interpretation, the definition of OTT service could be created under the concept of “content dissemination implemented using OTT technology”. The current definition of broadcasting and electronic communications services could be used as the model, adding the condition of network transmission to the definition in case of the latter. In its opinion, it would be warranted to refrain from defining the provision by communications service providers of access to content to subscribers using online technology, alongside “traditional” broadcasting and/or Internet access services or mobile services by as OTT services.

According to one Hungarian electronic communications service provider, the definition given in the consultation material is too broad and could therefore apply to far too many types of service. Essentially every online content provision qualifies as an OTT service, where a continuous or long-term technical relationship links the service provider and the user, but the former is not responsible for signal transmission. Moreover, the appearance of new forms of online service provision make this set even larger. However, the service provider noted that the real question is not the applicability of the OTT definition given in the document, but the identification and distinction of the various services and service groups within the concept of OTT. These cannot be treated uniformly from either the business, user-side or regulatory perspective. The distinction of services can only yield an interpretable result, the service provider argues, if the various service types are primarily distinguished based on the type of use and substitutability, and secondarily based on business model. OTT content services do in fact comprised two types of distinct services: on-demand and linear services. Linear OTT services most

closely resemble traditional broadcasting from both a service provider and user perspective, and can only be substituted with traditional broadcasting, while on-demand OTT services fully corresponds to the AVMSD's definition of on-demand media services, and should be treated as such from a user perspective. The number of market players has risen substantially compared to the past, and they are linked by a more complex system of relationships. Content producers, formerly involved only in content production, now also engage in service provision (e.g. Hulu, NewsCorp-Sky), while device manufacturers compete with an increasing number of devices and content transmitted on them against one another and the players of the classical value chain, etc. Due to this complexity, activities and their respective need for regulation must be defined based on the objective and nature of the service.

One OTT player considers the concept of Content and Application Providers (CAPs) as more fitting, with emphasis on the absence of responsibility of CAPs and OTT players for signal transmission. This is a fundamental element for deciding whether regulation should be applied, and what type of regulation is called for. The absence of responsibility for signal transmission means that Skype, WhatsApp, Viber, Facebook Messenger and similar applications do not qualify as electronic communications services according to the European Union's set of rules on electronic communications and transposed into Hungarian national law.

According to one electronic communications service provider interest group, it would be wrong to define OTT services as services for which the service provider excludes its own responsibility, according to the definition. Even more so considering that the majority of OTT services mean other services defined as a specific communications service by the law for consumers, substituting services easily "confused" by less familiar users (such as SKYPE vs. telephone, streaming online media service vs. cable television or on-demand video). The recent trend observed among these has consisted of the providers of OTT video services, for which speed is critical, providing guarantees on use by concluding contracts with Internet providers, thus providing a "traditional" service pursuant to the law. It will be considered a distortion of competition or even the misleading of consumers if the inequality of the current regulatory differences (lack of any regulation for OTT services versus detailed regulation of broadcasting in the Electronic Communications Act, the Digital Switchover Act and other legislation) is not resolved. A solution to this regulatory asymmetry could be to define quality assurance requirements and obligations for OTT services similar to the ones governing "classical" communications services (e.g. mandatory substantive requirements for terms and conditions, certification of a closed invoicing system, etc.). In addition, is the current degree of broadcasting regulation would be decreased to the necessary amount or even eliminated. In the context of these two possibilities, another viable and adequate solution would be to narrow the current regulation of broadcasting and create the same degree of regulation for broadcasting services provided on an OTT basis, with the necessary divergences. According to them, the most essential new element, distinguishing them from past forms, is the characteristic of OTT services of being the first communications-type services within the development process of communications that can be successfully provided by entities other than the owner of the communications network or the (separate) service provider providing basic Internet access. Based on the foregoing, the proposed definition would be along the lines of: *"OTT services are communications services based on Internet service that users can access from a service provider different from the service provider providing access to the Internet network."* Accordingly, services of any content type (audio, video, other data) provided via the open Internet or a virtual private Internet (VPN) or in the context of so-called "specialised service" agreements between the Internet network operator and the OTT service provider in encrypted or unencrypted, in conditional (password protected) or unconditional, free or paid form could fall into this category. It is also recommended to examine in detail the services classified as OTT

based on their nature (substitutability and their business model), and the need for their regulation in the interest of creating a differentiated regulatory method. It is also warranted to devise definitions and regulation based on the service perceivable by subscribers rather than the technology used. (This would ensure that regulation is in place in the event of any changes in technology or the appearance of new technologies.) This is considered essential not only directly from the cable broadcaster and service provider side, but also from the subscriber side, as the latter evaluates the service used rather than the technology. Technology-based regulation involves the inclusion of technological parameters in the description instead of the service parameters relevant for subscribers (that is, instead of the fundamentally available terms of service).

One Hungarian commercial media service provider fundamentally agreed with the definition included in the consultation material, but emphasised that the market — from studios to content packagers through broadcasters — fundamentally distinguish two types of OTT services:

- *Standalone OTT* — which refers to services implemented via the Internet, but where the service provider is only responsible for the provided content but not for signal transmission.
- *TV Everywhere* — which refers to service implemented in OTT form in technological terms, transmitted via Internet and with the service provider assuming responsibility for signal transmission, providing it primarily to its own traditionally broadcast television subscribers, extending their subscription to various screens (smart phones, tablets, PCs).

The main grounds for the *abovespecified distinctions* is that these rights are handled separately on the content licensing side, with studios and content producers associating different terms with standalone and TVE services.

Question 2: Do you think that the relationship among “traditional” broadcasters and OTT players in Hungary over the upcoming five to ten years will be one of substitution or complementary?

Nearly all respondents deemed that OTT content services will not substitute or replace traditional broadcaster services in the medium-term. Several respondents also noted that the matter should not be scrutinised over a five to ten year horizon, which represents such a long time in the media sector that interpretable forecasts are hard to make.

The role of substitution is set to appear progressively alongside complementarity. The complementary role appears primarily in instances where subscribers purchase extra content/services from an OTT player alongside linear media services or traditional telecommunications services, due to the limited nature of the latter.

According to one electronic communications service provider, three main questions must be addressed in terms of substitutability: first, what content does the user access in the context of either a linear or on-demand services, second, are OTT content services able to provide the same user experience, and can the content be viewed on a television set, and third, the quality of networks and the available broadband must be taken into account.

A key element in the creation of services building on various content is the type of content that is available, the availability of such use and whether content owners and rights holders aim at all to make

their content available to other aggregators/broadcasters/media service providers. In some cases, the user rights necessary for online distribution or the provision of on-demand media services are simply not available, or the rights holders demand an excessive and unreasonably high price for them. Given that classical OTT content provision competes against traditional platforms, content owners do not always have an interest in changing the value chain, therefore in the short run, we can expect to see less content available for online news. This argument goes against substitutability in respect of both linear and on-demand services. It should be specifically noted that the foregoing holds especially true for Hungary, partly because of the relatively small prevalence of online forms of use.

In the technical sense, OTT content services, whether linear or on-demand, can be regarded as a replacement product for users if they can truly be accessed in a screen-independent manner, that is on television sets. The quality of networks and the available bandwidth is a critical point in the discussion of this matter. Given that the development of networks is a priority objective and programme for both the European Union and the Hungarian government, we can assume that the technical conditions will be met in the near future.

According to another electronic communications service provider, the available market information and the analyses based on them reveal that the relationship between electronic communications Internet access services (infrastructure services) and content services, such as OTT services, is complementary: Internet access is necessary to allow users to access online content and applications, and vice versa. The consultation material addresses this topic. Another important resulting conclusion is that the social benefit of OTT and Internet access services cannot be separated: to ensure that there is incentives for innovation on both levels, both OTT and Internet service providers must get their share of this jointly created social and economic surplus. If only OTT players or consumers gain a benefit, it would create the risk of delays in or the absence of infrastructural developments, which yield mutual benefits. A regulatory environment the places significant restrictions on the pricing and contractual freedom of Internet service providers (which is relatively more significantly restrictive if similar regulation on the other side is entirely lacking) could result in such an outcome.

One Hungarian OTT player deemed that the background that would allow purely OTT services to replace current services could become a reality in approximately 10 years. This hinges upon three conditions. For one, it is important that telecommunications and data exchange networks are able to stably serve a broad range of subscribers in the world of IP, in other words a sound basic network is essential. Secondly, the technical parameters and usability of end equipment must be brought to a level that enables simple use for end users, similarly to the current CRT TV devices. Thirdly, educating users is pivotal to teach them how to use the service on a daily routine level, as well as the other associated functions.

Question 3: What barriers to entry are there in Hungary for OTT players?

The following section presents of bullet-point list of the market failures that are barriers to entry for OTT players:

1. *The absence of economies of scale:* the absence of economies of scale narrow the opportunities for entry on the Hungarian market. The size of the Hungarian market does not lend itself to the creation of large VOD libraries, which could be an issue of competitiveness

in the long run. Partly due to this factor, a purely on-demand OTT service cannot be successfully introduced to and thrive on the market.

2. *Language and cultural barriers:* the Hungarian language represents a special localisation issue, as the demand is for Hungarian content on the Hungarian market, which, however, is significant cost factor for content providers. Especially given that there are specifically dubbing-related expectations regarding content, as opposed to say the Croatian (original language, subtitled) or the Polish market (original language, voiceover narration).
3. *Content licensing environment*
 - due to the limited market opportunities stemming from the size of the market, content licensing is difficult and the acquisition of current studio content is happenstance due to the high minimum guarantee obligations, and is associated with high business barriers to entry.
 - The licensing definitions are not clear, with varied interpretations of OTT rights and OTT services, making things difficult for content producers, distributors, and packagers, as well as broadcasters.
 - OTT players must compete with traditional media service providers for exclusive rights, and market experience shows that service providers with the greatest purchasing power (e.g. the most viewers) have an advantage; but only some of these represent transmission channels of adequate quality (e.g. contract with satellite or cable programme broadcasters compared to online dissemination).
 - The resistance of media service providers is an obstacle, as viewer ratings are not measured centrally for OTT services, but by the service providers themselves. This causes fragmentation of the findings serving as the basis for the advertising market.
4. *Content exclusivity:* exclusive content represents higher value, but also comes at a higher price which further compounds the issue outlined in the previous point. Content packagers differentiate themselves with exclusive or own-produced content. Hungarian companies have little chances for this, while foreign service providers must tackle localisation problems.
5. *Payment and legal obstacles:* online payment practices have not yet gained traction in Hungary despite rapid development. In addition, the Hungarian legal environment is inflexible in terms of online invoice issuance and settlement, and does not support such services.
6. *Technical conditions:* the funding needed for providing OTT content services is also an obstacle.. To mention just one example, content owners prescribe far stricter content protection requirements compared to traditional platforms as a condition for licensing due to the fact that OTT content is not transmitted via closed networks, and meeting these requirements is costly. Of course building and/or operating networks does not represent a cost for service providers in case of OTT services, however the cost of technical investments is nevertheless elevated.
7. *Social welfare:* online content available free of charge (mainly illegally) is a much greater competitor than paid services due to the income position of the Hungarian population.

8. *Unregulated legal environment*: a significant barrier to entry for OTT services is the unregulated legal environment and the resulting absence of business models guaranteeing viable market operation, a situation perceivable by potential subscribers.

4. How would you classify the service provided by a service provider aggregating linear media services and broadcasting them using the OTT method? If they cannot be classified under the current legislative framework, does it warrant regulatory intervention for the services and if so, how?

Due to the nature of replies, we have separated the opinions of Internet service providers, content providers and other stakeholder respondents.

1. Internet service providers

Several service providers deemed that services aggregating several linear media services and disseminating them as OTT qualify as broadcasting. This classification would enable broadcasters providing such a service in Hungary to compete under equal conditions and be governed by the same legal requirements and conditions, and prevent OTT players from gaining an unfair advantage. According to the consultation material, classification under the concept of broadcasting could be contentious because the broadcaster is responsible for signal transmission vis-à-vis the end-user (based on their contractual relationship). “A classic, *pure* OTT content provider, however, does not necessarily assume responsibility for the consumer’s Internet access.” On this note, one respondent commented that OTT players assume responsibility for the signal being available online, even if they generally do not assume responsibility for ensuring Internet access in the context of the OTT service.

In satellite and terrestrial free-to-air broadcasting, the broadcaster airs unencrypted content on its own network or using another network, and viewers can access the content by concluding a subscriber contract for decrypting the content (with the service provider supplying subscriber code cards). The service provider enables the decrypting of the encrypted signal broadcast in exchange for a subscription fee, however the viewer must obtain the equipment necessary for accessing programmes itself (electricity, television sets and cables, receiving unit, i.e. the set-top-box).

Following this same analogy, the subscriber of OTT services should take steps to use the service (electricity, PC-laptop-tablet-telephone, Internet). On this basis, by making the signal accessible online, the OTT player has ensured a signal transmission and therefore its service can be classified as broadcasting.

Another service provider replied that it sees no key difference between linear OTT content services and traditional broadcasting services disseminated on the basis of a spectrum licence, with no supervision over the network, or using third-party services encompassing the entire signal transmission process (from the downlink of programme signals to their multiplexing and the lease of satellite capacity through uplinks). The sole difference identified by the Authority between these forms is merely that OTT content providers cite the fact that they are not responsible for quality issues arising from the use of third-party networks, whereas this type of responsibility is not inherent to the definition of electronic communications services, but an ancillary obligation imposed by Hungarian regulations.

In their view, the governing European Union regime, the new Regulatory Framework only harmonises the broad framework for the regulation of electronic communications, but does not address the detailed rules and thus clearly does not contain any provisions requiring broadcasters to undertake various quality target commitments. These, however, are required under Hungarian law. This gives rise to a situation of application of the law where non-traditional broadcasting has gained a slight advantage over traditional broadcasting, as certain requirements do not apply to the former. In their view, the issue could be easily resolved if the Authority would only examine service availability within the context of service provider responsibility and leave decisions on matters of quality up to users and the market. It is easy to see that an unreliable linear OTT content service plagued by continuous quality issues or difficult to use will not be competitive against traditional broadcasting platforms, and there will simply be no demand for it. The difference compared to traditional broadcasting services, they argue, could be adequately addressed by loosening the regulatory obligations applying to the latter.

On a different note, another service provider deems that OTT players should be governed by the Electronic Communications Act based on the nature of their service. If this requires a statutory amendment, action must be taken as soon as possible.

One respondent asks in the analysis whether it is warranted to extend regulation to OTT services. In their view, the consultation process should first address the question of why these services are being considered for regulation, and what type of regulation they should be classified under. There is currently an issue/market failure that can only be duly resolved by extending regulation to these services, and it remains to be seen whether extending regulation or failing to do so will not result in a regulatory failure (due to the absence of a level playing field). The legal definition is only secondary to these fundamental questions. The service provider emphasises the Court of Justice of the European Union ruling brought in the case of *UPC Dth. versus the NMHH*, in which the court cites the effective application of the regulatory framework and the attainment of its objectives as the grounds for its decision. Therefore it is subjecting OTT services to regulation is necessary for implementing a public regulation policy objective, then such regulation is warranted.

In its view, such public policy objectives may include, amongst others, the protection of consumers: end-users can legitimately expect to regulation to afford the same level of protection when using OTT services as telecommunications or media services, as the former are functionally equivalent. An additional factor to consider is whether a regulatory environment that puts the central constraints on the freedom of pricing and contract of Internet service providers, which clearly qualify as electronic communications service providers, but leaves functionally similar OTT services unregulated due to legal technicalities could yield adverse social outcomes. The inequality arising from the fact that electronic communications service providers are left to shoulder the financial and regulatory costs — also compounded in Hungary by significant tax and public due burdens — of network development investments alone, while OTT players and consumers gain the mutually generated social and economic benefits must be eradicated.

A few other service providers subscribe to a different opinion. In their view, the market for online content services is still in its early stage of development, and its direction of future development is difficult to forecast, and as this remains unclear to the majority of consumers, demand-side characteristics have not yet emerged. The European Union's framework regulation system for electronic communications echoes these views: it urges avoiding premature regulatory intervention on emerging markets.

2. *Content providers*

The traditional broadcasting regulation model is based on the principle that a limited number of actors (broadcasting service providers) get access and usage rights to the scarce public resource that is broadcasting spectrum, in exchange for which these actors undertake public benefit obligations. The main reason for broadcasting regulation therefore does not apply to online video services, even if they are linear: the number of protagonists is not limited; even today, still the initial phase, there are a large number of video service providers worldwide and the resource is used for the service, the Internet, is not a public good and is not limited in quantity. Accordingly, it would be mistaken and contradict the underlying principle to transfer regulation from one medium (free-to-air broadcasting) to another one (online), even in amended form, purely because they share the common trait of offering video programmes. According to the respondent content provider, regulation must be crafted taking into account that Hungarian consumers can access online content originating from any part of the world, supplied by service providers that fall outside the NMHH's jurisdiction. In practice, many content creators on a global scale that would not even be aware of Hungarian regulations governing online video.

Another content provider explains that OTT players, and particularly *standalone* OTT players, cannot be regarded as broadcasters, as they are not responsible for signal transmission, whereas under the current definition of broadcaster, it is responsible for signal transmission irrespective of whether transmission is implemented on its own or a leased network. As stated in the consultation material, the operation of OTT players closely resembles broadcasting, but the service is provided through the open Internet and therefore they have no responsibility for signal transmission. One common feature of their operation with broadcasting is content packaging; and as content packagers, they wield great influence on the content and the packaging that is supplied to their users without having any responsibility in the transmission itself.

3. *Other opinions*

Another respondent deems that OTT services almost match the definition of broadcasting, but differ from electronic communications services in that the service provider does not engage in transmission via a network. The definition of OTT service could be crafted within the concept of "*Content dissemination implemented using OTT technology*", using the current definition of broadcasting and electronic communications services as the model, adding the condition of network transmission to the definition in case of the latter.

Another respondent shares a similar view of the classification of OTT services. It deems that services aggregating several linear media services and disseminating them as OTT qualify as broadcasting. At the same time, there is no doubt that as opposed to traditional broadcasting, in this case the service provider is not responsible for the entire signal transmission process, which the subscribers themselves must ensure. Linear OTT content providers, similarly to traditional broadcasting, take programme signals from the media service provider and forward them repackaged to the user, for which it (also) uses the networks of other service providers.

As linear OTT services are identical to traditional broadcasting both from a service provider and user perspective with the exception of this sole technological difference, they should be handled identically.

In its view, the difference compared to traditional broadcasting services could be addressed by loosening the regulatory obligations applying to the latter.

5. What do you think about the European Commission's legislative proposal for a more detailed regulation of net neutrality?

Due to the nature of replies, we have separated the opinions of Internet service providers and content providers.

1. *Internet service providers:*

There is broad support among Internet service providers for “open Internet” and net neutrality, which prioritises competition and free consumer choice. At the same time, due to the complexity of the matter of net neutrality (which carries a political, social, technical, legal and economic meaning) it is not clear who supports the principle of net neutrality and from what perspective, and what is considered a violation of the principle. The subject of potential regulation that would be conducive to the regulatory objective is also unclear.

The complexity and contradictions of net neutrality, and the dual-platform and multi-player market puts a great deal of pressure on network service providers:

- on the one hand, they are expected to protect intellectual property, personal data and minors,
- on the other hand, there is a need for guaranteeing quality, which necessarily calls for network development and the rational utilisation of capacities.

Consumers (any state intervention should be aimed at protecting their interests) expect quality and choice. From a competition law perspective, these two elements result from competition, however in reality, service providers can only achieve adequate quality and choice if applying a certain degree of traffic management. At the same time, traffic management does not violate the fairness of competition if it is implemented based on transparent principles and under the same conditions for all OTT players. Service providers with networks currently offer services and “options” along with these principles, eliciting a positive consumer response. Particularly relevant in the case of mobile services is the necessity of traffic management to ensure end-user satisfaction, as service providers are often limited in their ability to build sufficient capacities to accommodate rising data traffic.

Concerns regarding the use of traffic management in a manner restricting competition can be addressed with competition law regulation. As a result, Internet service providers feel there is no need for regulatory action as long as traffic management measures and the impact on the consumer experience are transparent. If new regulatory requirements for traffic management were to arise, they would have to factor in the following considerations:

- Traffic management is an integral part of network operation. It is not an exceptional tool, but the precondition for a smoothly functioning network. Traffic management is necessary for the protection of the personal safety and integrity of end-users. The prohibition of discrimination cannot hinder service providers from using other proportionate congestion controlling that

diverge from being application-agnostic, as these are capable of much more effectively resolving the issue without deteriorating the user experience.

- Users obviously have the right to get information on the traffic management measures applied. This information must be relevant and clear for users.
- Traffic management must be allowed to enable service providers to meet their obligations, such as the ones defined in Directive 2011/01/EU, as well as judicial decisions.

Several service providers also expressed the opinion that similarly to the former consultation on net neutrality, they do not see the need to expand regulation for the time being, as the current legislative environment (ex ante and ex post regulation) has all but necessary tools and safeguards for enforcing net neutrality. A possible expansion of regulation could yield an outcome contrary to its objective, as it may hinder the future development freedom of network service providers investing in large-scale developments and siphon off necessary investment and other resources from future developments (potentially also narrowing consumer choice).

In terms of transparency, service providers note that the transparency tables created in the context of self-regulation and similar to the practice applied in several EU member states provide sufficient information for Internet users, and thus no further regulation is needed.

One service provider remarked that the further regulation of net neutrality was not a reason for concern as long as it served the maintenance of open Internet and did not result in putting the additional services of Internet service provider at a disadvantage.

Another respondent agrees with the European Commission's position according to which Internet service provider should be able to provide a service of guaranteed quality at a surcharge to the content and application providers that request it. The revenues generated by guaranteed quality services can be used to support the sustainable operation and further development of the network, which would enable the provision of discrimination-free best effort services at an adequate quality level.

If revenue on guaranteed quality services were lost, broadband network owners would be jeopardised due to a substantial fall in subscriber payments on account of subscribers no longer needing cable broadcasting services. In addition, slow network performance stemming from the use of bandwidth by OTT services would lead to the termination of Internet subscriber contracts, or the penalties payable to consumers for failing to the contractual performance would create hefty losses for these service providers.

The opinions also mentioned issues linked to the unequal treatment of traditional broadcasters and OTT players. OTT players do not necessarily report their services to authorities, and thereby exempted from paying taxes or meeting data protection obligations, and do not have to meet data reporting obligations. Resolving these issues would not require further regulation, as they could be addressed in the context of self-regulation. At the same time, the consistent application of a valid regulation would be called for in respect of OTT services in order to ensure an equal competitive environment.

According to another opinion, the spread of bandwidth-intensive video content is not linked to the appearance of OTT services, as content including video was already present prior to the appearance of OTT services (videos embedded into news site content, video content on social websites, video sharing websites, etc.). OTT players cannot be blamed for the demand for continuously higher bandwidth. The Internet providers that have so far been using the Internet to the greatest degree,

blaming pure OTT players, now want to regulate Internet use. They want to craft regulations and charge more for Internet use because OTT players have put a dent in their profits, deemed untouchable until now.

2. Content providers

One content provider recommended that the regulator should make a distinction between positive and negative discrimination. If an OTT player wishes to purchase dedicated bandwidth from an Internet service provider in an effort to better serve end-users or to place its servers at the specific service provider to ensure high-standard service, the service provider should not be allowed to refuse this request or to command a price higher than the market price.

The last mile should by all means be competition neutral, with no dedicated bandwidth for any content provider on this segment, thereby ensuring competition neutrality. The regulator should also stipulate that a telecommunications company with an interest in broadcasting or offering its own OTT solution or an Internet service provider should not be able to discriminate against potential competitors by restricting bandwidth. It is technologically capable of ensuring less bandwidth on its network to competitors to prevent them from providing a high standard of service to end-users.

Another content provider emphasised that the rules governing managed networks are the most interesting from its own perspective, and they have an interest in seeing service providers transmit a continuously high quality signal to end-users. Users have an interest in seeing the blocking or restriction of online content by Internet service provider essentially prohibited. Full Internet access should be provided to all users with the valid subscription (depending on the price and bandwidth of the Internet plan). Content creators expect the same thing from Internet service providers for their subscription fee. However, market stakeholder hold opposing interests. Even if this does not call for an immediate solution within the EU, in a few years market player needs will be an increasingly pressing matter. Should the Internet be regarded as a quasi public facility, in other words with full net neutrality, or should we yield to the pressure of ISPs and sacrifice neutrality to guarantee bandwidth at a surcharge? It would be important to differentiate, and to come up with an intermediate solution rather than a radical one, acceptable for content creators, Internet service providers and users alike.

6. What do you think about the EU proposal permitting content providers to sign agreements with Internet service providers on guaranteed bandwidth?

Due to the nature of replies, we have separated the opinions of Internet service providers and content providers.

1. Internet service providers

The so-called specialised services defined in the EU proposal would create the opportunity for all content, service and application providers to develop services of enhanced quality attributes and meeting higher requirements (e.g. remote healthcare services, screening, surgery, nursing, and automated transportation and self-driving vehicles). The opportunity to create and supply differentiated services is essential — for both mobile and cable broadband services — to expand consumer choice of services and service providers.

According to one Internet service provider, the business models of OTT services exhibit broad diversity and fluctuation. Accordingly, Internet service providers must be given the freedom to apply new business models, as their traditional sources of revenue are being threatened by popular OTT communication and messaging applications, as emphasised in the consultation material. The application of new business models may go hand-in-hand with the introduction of new contract terms for consumers and OTT players. Beyond the enforcement of the requirement to provide adequate, clear and transparent information to contracting parties, in particular consumers, prior to establishing a business relationship, and knowing that the competition law instruments are available to scrutinise such conduct, any further ex ante regulation — restricting the creation of differentiated offers — would be excessive in the eyes of electronic communications service providers.

Content providers have already voiced their need for higher quality Internet transmission. Numerous applications require a service with higher standard SLA parameters that generally available on the Internet and without which the services are not acceptable for clients via the Internet.

In addition, specialised services could be a new source of revenue for service providers which could be a source of funding for investments developing network capacities. The network development investments implemented to support specialised services may also have a positive impact on Internet access services specialised services and Internet access service are supplied through the same infrastructure.

Service providers also emphasised that the supply of specialised services cannot impede Internet users from accessing other applications/services available on the open Internet.

The regulation of the supply of specialised services must be first and foremost defined as a right, rather than a restriction. The rules must be sufficiently flexible, recognising that specialised and general Internet access services always impact one another to a certain degree.

Other opinions hold that the status of market players occupying multiple roles within the value chain must be interpreted differently. A key question for the near future is whether those that also provide network access and are also content producers or OTT players can distort the market by showing preference for their own services against those offered by OTT players from whom they command surcharge for “guaranteed bandwidth” needed to offer rival services. Partly due to this problem and partly due to rising demand, it remains to be seen what can be “guaranteed” at all, and if a specific point of the network becomes too saturated to serve external “purchased guarantees”, what rules of traffic management will prevail. A case warranting special attention is when an player active across a broad horizon establishes an Internet exchange point (a current example can be cited in Hungary), and the need to ensure that this does not exert a further distortive effect on the market and slow down innovation.

According to another service provider, the measurability of the competition distorting impact of such services calls for analysis. Large Internet providers are already communicating their intention to run the traffic of OTT players through servers located abroad to slow down access for users. If it OTT player lacking the market heft of Netflix want to enter the market, and agreement of this sort could altogether prevent it from entering the market.

Another electronic communications service provider formulated an opposing opinion, arguing that the matter is a question of contractual freedom. At the same time, it emphasised the importance of

continuously monitoring international best practices and preventing Hungarian consumers and also Hungarian firms from accumulating a competitive disadvantage, or blocking their access to certain services due to negative business decisions in the wake of regulatory factors.

2. Content providers

One respondent noted that they agreed with the European Commission's observation stating the need to preserve the openness and net neutrality of the Internet, while a key consumer interest is to ensure access of adequate quality to OTT services. OTT players are not responsible for signal transmission under the current regulation, however ensuring the sufficient bandwidth needed for such services, and continuously increasing this bandwidth incurs a hefty investment costs for Internet service providers, especially in light of the expected rise in consumer demand for OTT services, and OTT player and content packaging requirements. New sources of revenue are needed to fund these costs, and hiking end-user consumer prices is not a viable alternative under the EU's Digital Agenda.

The service provider deems that agreements between OTT content providers, content packagers and Internet service providers should be allowed in the context of the new regulation, enabling Internet service providers to charge OTT players extra money for guaranteed bandwidth. This should all be done under the strict application of competition neutrality and the avoidance of competition distortion, requiring Internet service providers to channel the revenues thus generated into network development. In their view, competition neutrality can be best guaranteed if OTT audiovisual content providers are not only given the opportunity, but required to purchase guaranteed bandwidth and to conclude pertaining agreements.

According to some content providers, players wishing to provide a high standard of service should be able to purchase extra resources to set up a CDN. Although the provision of OTT services cannot be linked to CDNs on a statutory level, service providers wishing to invest in network development should be given legal support. It is important that this can only be used to create additional capacity without decreasing the bandwidth available to the service providers providing OTT content on a best effort basis.

Another content provider deems that the opportunity to conclude contracts on guaranteed bandwidth contradicts the fundamental values of the Internet such as the principle of nondiscrimination. Guaranteed bandwidth agreements distort the market and competition, putting less capitalised firms at a disadvantage and preventing end-users from accessing content at an adequate quality.

Another content provider also expressed the view opposing recommendations that would allow Internet service providers to put certain content providers, either part of their own company group or third-party providers, at an advantage by creating "fast lanes" or using other forms of special treatment. The content provider recommends that legislators and regulatory authorities craft regulation that does not support preferential transmission agreements, which distorts the market in a manner detrimental to innovation, competition and economic growth. In their view, such agreements contradict the fundamental principle of the open Internet and would place pressure on content providers, application developers, service providers and device manufacturers to conclude such agreements with bandwidth providers. These agreements are particularly reason for concern because Internet service providers' terminating monopoly would enable them to gradually increase prices and command more and more concessions from content providers. Finally, such agreements would create an unlevel

playing field, and result in higher consumer prices for the same general transmission experience that could be attained without these agreements.

Some respondent content providers deem that these market distortions are most significant in places where an Internet service provider grants preferential transmission to its own content services (offering content, applications and/or services). In such cases, an independent content provider would not only be simply compelled to conclude an agreement for preferential transmission with the broadband service provider in order to stay competitive, but would be at a competitive disadvantage from the outset because the broadband service provider could command a higher price from it, while offering bandwidth for its own content services free of charge or at a minimal rate.

The service provider also stressed that preferential transmission agreements are not the same as reasonable network maintenance practice by service providers offering broadband connection and serve an entirely different purpose. Reasonable network maintenance practices are governed by standardised industry protocols and technical and operating decisions that are geared towards giving the same sound, reliable and secure Internet experience for all users.

7. Do you think net neutrality needs regulating in Hungary?

Due to the nature of replies, we have separated the opinions of Internet service providers, content providers and other stakeholder respondents.

1. *Internet service providers*

Service providers emphasised the need to strive for harmonising valid regulation across member states in matters of net neutrality, which should be in harmony with pan-European regulations. Consequently, a possible amendment of Hungarian regulation until the outcome of the EU regulation currently being crafted is revealed seems warranted.

At the same time, there are various positions regarding the necessity of regulation. One service provider argues that the current legislation fully covers every aspect of net neutrality (consumer protection, competition law, communications regulation, etc.), and we must not lose sight of the original objective of regulatory intervention: ensuring and enhancing consumer welfare. Any new restriction of entrepreneurial freedom over and above the current rules in the name of net neutrality (which has no clear definition and diverse in its content) would have a contrary effect to the original objective of intervention and would narrow consumer choice.

Regarding net neutrality, another service provider stresses that the current transparency tables introduced in the context of self-regulation satisfy the requirement of transparency. They provide sufficiently in-depth information on the features of their Internet access service for Internet users. They do not see the need for further regulation with regard to the other aspects of net neutrality.

Electronic communications service providers also mentioned some issues linked to net neutrality that need to be addressed. For instance there is some specific content or pertaining agreements (if they

affect the topic of net neutrality) that, if not accessible to service provider subscribers under the same terms, may call for more in-depth domestic regulation, which could be modelled on the regulation of the broadcasting of priority media events.

2. Content providers

Content providers deem that in order to preserve the openness of the Internet, regulating various areas of net neutrality is definitely called for. At the same time, content providers see no need to accelerate Hungarian regulation and would consider it necessary to wait for the EU to craft the needed rules and then incorporate these into Hungarian regulation. Should EU-wide regulation fail, then further action to implement additional regulation on a domestic scale could be taken.

The reply a reply according to which the conflicts prevailing in western European countries have not plagued the Hungarian OTT market, leaving a few more years to create regulation reinforces this opinion. Another content provider emphasises that one of the key objectives should be to prevent Internet service providers from impeding content providers by restricting bandwidth and to foster the launch of high standard OTT services.

Another major content provider was in favour of further regulation of net neutrality. The content provider fully supports legislators and regulators in creating robust protection for the open Internet. It emphasises that open Internet is critical incentivising innovation and bolstering a strong economy. Legislators and regulatory authorities must strive to protect an environment that does not stifle online innovation by allowing Internet service providers to push up the cost of access and use. The herding of online applications, content and services towards “managed services” by telecommunications firms would exert a markedly negative impact on innovation and content creation, on growth and user choice.

The ex ante regulatory framework ensuring net neutrality is capable of preserving a competitive playing field were consumers, rather than broadband Internet providers, decide which content providers they want to see thrive. Special precautions must be taken to make sure that broadband providers do not intentionally/artificially impede access to the open Internet in a manner analogous to a “dirt road”.

3. Other opinions

The matter of net neutrality is not necessarily the most important one requiring regulation in the area of OTT content regulation, and not the only matter. The matter has been brought to the forefront because the regulation of OTT content provision is topical in Western Europe. The Hungarian market, smaller and exhibiting different characteristics, will probably only see OTT content services offered as ancillary services for some time. Therefore the market and regulatory conflicts related to OTT seen in Western European countries will only reach Hungary in two to five years, so it can wait for the market and regulatory experience of its West European peers and learn from them when crafting its regulation of OTT content services in the context of national legislation.

8. Are there issues on the Hungarian market in terms of access to smart platforms? Do you think regulator intervention could be called for in this matter in the future? If so, what tools should be used?

Due to the nature of replies, we have separated the opinions of Internet service providers, content providers and other stakeholder respondents.

1. Internet service providers

Electronic communications service providers do not perceive any issues in terms of access to smart platforms, and service providers do not consider this market segment developed enough to be addressed in terms of regulation. One service provider noted that the necessity for potential intervention can only be assessed following a thorough analysis of the various market trends once they have actually emerged, in function of the best international regulatory practices.

Another service provider said that according to current practice, the selection of content displayed on smart devices currently depends on the device manufacturer, and as this choice is a rather subjective one, future guidelines may need to be defined and regularly reviewed.

2. Content providers

Content providers raised several issues against Internet service providers regarding smart platforms and the consumable content available through them. One major media content provider deemed that the issue was currently the limited amount of content and the weak signal reception of devices. They only see regulatory intervention as warranted in the interest of protecting minors.

Another major media content provider raised several issues regarding smart platforms, commenting that they can mostly be addressed on a European Union level. The key points raised were:

- Smart TV manufacturers should not be able to refuse the publication of an application as long as it functions smoothly on a given platform.
- Smart TV manufacturers should not be able to charge for the developer environment of their interactive applications.
- They shall not be able to oblige software developers to apply the advertising or payment solutions of smart TV manufacturers.
- Alongside smart TV manufacturers, applications should be able to run on the interactive set-top-boxes of digital broadcasters. The uniform regulation governing television should be extended to these systems.
- Every application should get the same rights to being displayed on TV platforms; smart TV manufacturers should not be allowed to show a preference for certain applications.
- Requiring manufacturers to allocate a certain percentage of their revenues to local smart TV application developments would foster development. This could be a logical step because manufacturers would be able to sell the newest TV sets equipped with these applications.

The above statements show that the respondent has made these proposals in an effort to curb the abuse of monopoly by smart device manufacturers.

3. Other opinions

The platform is used in smart TVs exhibit a great degree of inhomogeneity and as a result of continuous development, mainly Asian manufacturers introduce new platforms on their devices as

often as every year. This significantly increases the cost of application development, which ultimately prevents users from making most of the opportunities of smart platforms.

Television manufacturers try to gain a competitive edge or extra revenues by offering ancillary services through their smart platforms. By contrast, the past years have seen a variety of incompatible middleware published, resulting in non-interoperable applications and services, and thus missed business opportunities. This begs the question of whether it is possible to reduce regulation to enable access, devoid of any distortive interests, to media/content, interactive and information services for entertainment and social media, etc.

A similar situation prevailed in certain Western European countries a few years ago, which was ultimately resolved by obliging competing satellite service providers to (also) use a single conditional access system for their service. Satellite service providers try to restrict subscribers from moving to the competition by applying different conditional access systems, which limited competition as a sort of economic barrier once their subscribers had purchased the relatively expensive satellite receiver. The new regulation allowed subscribers to freely choose between competing service providers. Which could be used to compel manufacturers to include a comment, preferably open smart platform in their television sets.

The issues plaguing smart platforms also has consumer protection aspects that the regulatory should address. Oftentimes the TV models purchased in Hungarian stores, destined for the “Asian TV segment”, do not even exist according to manufacturer websites, and constitute unidentifiable “regional versions”. The platforms installed on these devices include a large number of valueless/useless applications, or applications that cannot be accessed in Hungary, while a host of other applications are only available in the limited manner (from the manufacturer’s inventory) and often at an extra charge.

Question 9: Do you think there is a realistic risk of media service providers governed by the AVMSD being put at a competitive disadvantage compared to media service providers not subject to the Directive?

Most respondents replied that media service providers subject to the AVMSD would clearly be put at a disadvantage compared to OTT content providers not subject to the Directive. One respondent (an electronic communications service provider) specifically states the disadvantages compared to media services established in the United States, namely:

- Non-European service providers expanding in the US and Europe characteristically operate in English-speaking regions and therefore do not have any translation or subtitling costs.
- When a film reaches Europe, advertising is more or less already taken care of, i.e. overseas OTT players face lower marketing costs. The European programming quota system is strict and is difficult to adhere to.
- American companies operating in Europe are not required to meet strict EU rules.
- The various directives (AVMSD, E-commerce, ECS) governing services within the European Union also jeopardise the success of companies.
- Lack of common European standards.
- Complicated and harmonised intellectual copyrights rules.
- Far stricter taxation in Europe.

Another electronic communications service provider emphasises that media service providers not subject to the AVMSD only account for a small market share on the Hungarian media market, and rapid change is not expected in the upcoming two to three years. Online content providers should, in its view, of course meet certain content regulation requirements (prohibited content, etc.), however this is not a competition regulation matter. In this regard we could look to the regulatory practice applied in countries more advanced in this domain (such as the US).

Question 10 : Can the impact of the lack of standardisation among the various smart TV platforms be felt in Hungary today?

Only few respondents deemed that the lack of standardisation does not cause any issues and market operation. They see the current (relative) underdevelopment of the Hungarian market as the underlying reason for this. However, the majority of respondents agreed that the absence of common standards can already be felt. Certain respondents claim that smart TV platform manufacturers only use their proprietary platforms and develop them separately from their competitors. The platforms are closed, applications are not interoperable, “foreign” applications cannot be installed on them and manufacturers only provide access to content providers based on business preference.

However, opinions diverged on whether state intervention in market processes would be warranted. Media service providers perceive the absence of standardisation and transmitting content to the different platforms is time-intensive, thus standardisation is an essential element for them. In order to be present across all platforms with a television service or smart TV application, content providers or OTT players would need to develop and run at least six to eight different versions of software and spend heavily on the effort, which would drastically increase development and operating costs, not to mention the fact that only the biggest service providers are able to reach all platforms (e.g. YouTube, Netflix). Thus this high degree of differentiation among televisions and the interactive platforms of digital television service providers are clearly barriers to entry.

By contrast, one respondent involved in the development of smart platforms deems that smart televisions and smart television platforms are still in their early stages of development. Regulation that would hinder new innovative opportunities for consumers should not be extended to these devices still under development, unless the extended regulation is warranted by a clear need to resolve a long-term market issue or express consumer disadvantage. In the latter cases, regulation must be crafted so that its potential negative impacts are kept to a minimum.

According to a major Hungarian electronic communications service provider, the absence of unified European standards is also an issue for most European companies, alongside Hungarian ones. The main shortcomings are content portability and negative discrimination among network-PVR, client-PVR, archive TV and OTT services. This hurts the biggest OTT players and also negatively impacts the market's arrival of smaller OTT players. As a smart TV platforms can now easily create international cloud platforms (for instance, an entire OTT service can easily be set up through the Windows Azure cloud system) which can be operated from abroad, and the consumption of content in other countries can be implemented using simple, albeit illegal methods (Hulu and Netflix content can be accessed from Hungary using a foreign proxy server), Authority regulation would only impact the market entry and market operation of legally operating service providers that adhere to the law, but would not reach its objective.

Question 11 : Do you think the matter of content integrity warrants regulatory intervention?

The majority of respondents feel that regulatory intervention in this area is currently unwarranted. Even media service providers are divided on this topic. One Hungarian commercial service provider feels that the matter, as presented in the consultation material, should be regulated in line with the EBU's position, while another Hungarian commercial media service provider feels that there is no need for regulation of the matter, which should be clarified by market players.

According to one electronic communications service provider, the protection of content integrity is a private law matter and is duly regulated by general copyrights and civil law rules. In addition, the contracts between content owners and various user groups (broadcasters, on-demand service providers, other platform operators) also provide in-depth regulation of this area, rendering further regulation, authority supervision or intervention unnecessary. In our experience, practice unlawfully violating content integrity and infringing content owner interests have not been observed on the Hungarian market so far.

According to other electronic communications service providers, it is too early to examine this matter, as the market still lacks the degree of development to assess the need for regulatory intervention. One electronic communications service provider rejected the need for regulation claiming that consumer interests must supersede the interest of content integrity, as consumers are the ultimate "rulers" of the screen, i.e. they should be given the choice of whether to take advantage of technological opportunities.

Finally, one broadcasting service provider tried to outline the interests of both sides in the debate. In its view, it is the shared legitimate business interest of media service providers to see the content edited or created by them be transmitted to subscribers in unaltered form if their revenue depends on the broadcasting of certain content (e.g. advertising segments). Content creators also have a similar legitimate interest (e.g. advertising during sporting events). The contract terms between the parties ensure the unaltered form of such content. At the same time, broadcasters and Internet service providers, or other parties also have an interest in maximising their revenues. Content modification or the provision of additional services building on content may be a new business opportunity particularly for smart platform developers. Broadcasters are currently capable of transmitting their own messages through their own platforms while preserving content integrity (e.g. information channels or system messages).

Question 12 : Which areas of the AVMSD call for amendment, in your view?

Respondents cited several factors that the European legislator should consider for the pending amendment of AVMSD. The recommendations pertain to the following areas:

- The need to extend the Directive to OTT players operating in the EU should be clearly stated, in an effort to eliminate the unwarranted competitive advantages against media service providers registered in the EU.

- A loosening of the stricter rules applying to linear media services is called for, that is
 - o the regulation of the proportion of European works should be uniform for linear and non-linear (on-demand) services, and
 - o abolishing time limits in the context of advertising regulation for programmes where limits apply to interruptions, abolishing the 30-minute requirement between advertising interruptions (as media service providers will apply self-restrictions in the interest of retaining viewers).
- Alcohol advertisement requirements should also apply to non-linear on-demand services. Non-linear/on-demand services should also be required to display classification markings/warnings for the protection of minors, similarly to linear service providers.
- Media service providers should not be allowed to use tying practices, i.e. adding popular products or services to their portfolios, but making access to them conditional on the purchase of poorer quality product services by consumers.
- The regulation of programming quotas calls for reform, as it creates excessive burdens for media service providers.
- With regard to child protection provisions, it should be examined whether new technological opportunities enable child protection measures at the user/subscriber level, which could allow the loosening of regulation. An example worth following is the opportunity to access adult channels during the daytime if a child lock is set. In addition, self-regulation and co-regulation may play an important role in this area.

One electronic service provider deems that many of the tasks currently assigned to media regulation could be reallocated to other legal domains. In its view, separate regulation specifically created for audiovisual services is not warranted, and the objective defined could be achieved in the context of other regulation:

- Most member states prohibit incitement to hatred in the context of criminal law.
- The prevention of media service providers from broadcasting films intended for cinemas outside the periods agreed on with licence holders is regulated in the context of copyrights and civil law (broadcasting outside periods agreed in user agreements simply constitutes a breach of agreement).
- The prohibition of surreptitious audiovisual commercial communication and general rules governing commercial communication (e.g. recognisability, advertising of alcohol and cigarettes, minors, pharmaceuticals, etc.) are for the most part regulated under member state advertising laws.
- Certain sections of the regulation are already irrelevant, as mentioned in the preamble to the AVMSD: (85) Given the increased possibilities for viewers to avoid advertising through the use of new technologies such as digital personal video recorders and increased choice of channels, detailed regulation with regard to the insertion of spot advertising with the aim of protecting viewers is not justified.
- Exclusive broadcasting rights could probably be duly regulated in the context of the regulation of competition.

- The legal institution of press correction in Hungary adequately ensures the right of reply and was set out in the Civil Code prior to the implementation of the AVMSD, and functioned effectively in regulating the matter.