**Annex**

*Table 1. Mapping of modifications, processes and cases referred to by Article 7b and Recital 26 exemptions*

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| **Modification** | **Process** | **Category of case** | | **Remarks** |
| ***Consent*** | ***No consent*** |  |
| **Shortened** | **Editing** | **Personal Video Recorders** | |  |
| Fast-forwarding through a recorded programme |  | This practice shortens the broadcasters’ programme although being a ‘control element’ which Recital 26 exempts from consent |
| Fast-forwarding through recorded TV commercials |
| **TV Classification Systems** | |  |
| The system’s user interface produces a full screen with a classification of programmes in categories, playing fragments of the programmes which, the viewer is pointing at, while the programme that was actually on continues to play in a smaller window in the corner of the screen |  | The resized version of a broadcaster’s video in a Classification System’s user interface qualifies as a ‘[c]ontrol element of [a] user interface necessary for [...] programme navigation’. The resized video helps the viewer keep track of where the programme he or she was watching while checking the results of the Classification System. However, all these cases involve editing for which Recital 26 does not provide any out-of-scope case or situation |
| The system’s user interface produces a full screen with a classification of programmes in categories, playing fragments of the programmes which, the viewer is pointing at, while the programme that was actually on continues to play in a smaller window in the corner of the screen at the viewer’s initiation |
| The system’s user interface overlays the broadcaster’s programme to display a classification of programmes in categories, playing fragments of the programmes that the viewer is pointing at the distributor and TV manufacturer’s initiation |
| The system’s user interface overlays the broadcaster’s programme to display a classification of programmes in categories, playing fragments of the programmes that the viewer is pointing at, at the viewer’s initiation |
|  |
| **Altered** | **Source Coding** | **Regular Distribution & Storage** | |  |
|  | Technique used to take pressure of transmission system | These are reversable processes in the signal transmission which under Recital 26 are out-of-scope |
| **Channel Coding** | **Regular Distribution & Storage** | |
|  | Technique used to correct errors incurred during transmission |
| **Modulation & Demodulation** | **Regular Distribution & Storage** | |
|  | Technique used to have an electromagnetic wave carry data |
| **Storing & Uploading** | **Regular Distribution & Storage** | |
|  | Techniques used to record / preserve data |
| **Adapting resolution and aspect ratio** | **Regular Distribution & Storage** | |  |
| Technique used to ensure best viewing experience independent of consumer device | | Adapting the video to ensure an optimal viewing is an out-of-scope case but, assessments of the extent to which a particular adaptation affects the information conveyed, depends on different factors, amongst which viewer-dependent and thus subjective |
| **Electronic Programme Guides** | |  |
| EPG service producing a full screen image with an (interactive) list of channels (all owned by the distributor), while the current programme continues to play in a smaller window provided by the distributor |  | The list of channels produced by the EPG would contain commercial communications, as the content displayed by the distributor would belong to the broadcasters |
| EPG service provided by the online video platform producing a full screen image with an (interactive) list of channels with the current programme playing in a smaller window | | Both the list of channels and the resized video qualify as control elements of the EPG’s user interface and could be exempted from consent |
| **Smart TV environment** | |  |
| Split screen in which the video is squeezed and pushed back, and the freed-up space is used to display information relating to the programme that is playing |  | The adaptation is not performed to ensure an optimal viewing experience, but rather to create room on the display for other information |
| Split screen in which the video is squeezed and pushed back, and the freed-up space is used to display a number of app tiles of which some are of a commercial nature | Room is created for, amongst others, commercial messages |
|  | Smart TV generating a PiP view | This time a control element of the Smart TV’s user interface is created which helps the viewer navigate programmes |
| **Advertising** | |  |
| Skin ads around the broadcaster’s programme which is squeezed and pushed back |  | Consent seems to be left up to individual Member States to decide |
| **TV Recommender Systems** | |  |
| The system’s user interface squeezes and pushes back the broadcaster’s video and uses the freed-up space to display the recommendations at the distributor or TV manufacturer’s initiation |  | Consent needed if the displayed recommendations contain information of commercial nature |
| The system’s user interface squeezes and pushes back the broadcaster’s video and uses the freed-up space to display the recommendations at the viewer’s initiation |
| **Classification Systems** | |  |
| The system’s user interface produces a full screen with a classification of programmes in categories, playing fragments of the programmes which the viewer is pointing at, while the programme that was actually on continues to play in a smaller window in the corner of the screen |  | The video is resized and even if the UI qualifies as ‘[c]ontrol element of [a] user interface necessary for [...] programme navigation’ it would require consent |
| The system’s user interface produces a full screen with a classification of programmes in categories, playing fragments of the programmes which the viewer is pointing at, while the programme that was actually on continues to play in a smaller window in the corner of the screen at the viewer’s initiation |
| **Interrupted** | **Interrupting** | **Irregular Distribution** | |  |
| ‘Red Button’ solution is filtered out |  | When the information corresponding with that ‘solution’ is considered part of the signal |
| ‘Addressable Advertising’ solution is filtered out |
| Catch-up service is filtered out |
| **Electronic Programme Guides** | |  |
| a partial interruption of the broadcaster’s signal (video is interrupted) in favour of the EPG’s user interface, which is inserted, displaying a list of channels |  | Certain channels promoted over others for commercial reasons cannot be called necessary for programme navigation |
| **Advertising** | |  |
| Pre-roll ad during non-linear content on the open internet |  | Online Video Platforms intending to interrupt linear or non-linear content with commercial communications |
| Mid-roll ad during live broadcast on the open internet |
| Expandable pre-roll ad during non- linear content on the open internet |
| **Smart TV environment** | |  |
|  | Smart TV generating a PiP view | The sound of a broadcaster’s programme is being muted to create a control element of a Smart TV’s user interface to assist viewers navigate programmes |
| **Overlaid for commercial purposes** | **Merging** | **Smart TV systems** | |  |
|  | TV Manufacturer’s social networking app generating an overlay ‘hoovering’ over the broadcaster’s programme and featuring the viewer’s social network feeds | The overlay has no commercial purposes |
| **Advertising** | |  |
| TV independently playing overlay ads |  | If the manufacturer did not ask for consent |
| TV playing overlay ads when triggered by certain events (volume adjustment, device switch on) | If the viewer did not authorise the overlay ad |
|  | TV playing overlay ads when triggered by certain events (volume adjustment, device switch on) if initiated by the viewer | If the viewer authorised the overlay ad |
| **TV Recommender Systems** | |  |
|  | The system’s user interface overlays the broadcaster’s programme to display the recommendations at the distributor or TV manufacturer’s initiation | In case of unbiased recommendations |
| The system’s user interface overlays the broadcaster’s programme to display the recommendations at the viewer’s initiation |
| The system’s user interface overlays the broadcaster’s programme to display the recommendations – System produces results biased in favour of Distributor’s/TV manufacturer’s commercial interests at the distributor or TV manufacturer initiation |  | In case of biased recommendations generated from commercial negotiations |
| The system’s user interface overlays the broadcaster’s programme to display the recommendations – System produces results biased in favour of Distributor’s/TV manufacturer’s commercial interests at the viewer’s initiation |
| **Home Security Services** | |  |
|  | The system’s user interface overlays the broadcaster’s programme to display security information at the viewer’s initiation | Since the overlay does not have commercial purpose |
| **Electronic Programme Guides** | |  |
| EPG service producing a full screen image with an (interactive) list of linear and non- linear services, completely covering the images of the programme that is on, but without cutting of its sound provided by the hybrid distribution platform |  | Solid overlay with displayed information based on paid for prominence, thus commercial communications are present |
|  | EPG service provided by the distributor or TV manufacturer producing a transparent overlay with an (interactive) list of channels covering the current programme, without commercial purposes | Since the overlay does not have commercial purpose |
| EPG service provided by the distributor or TV manufacturer producing a transparent overlay with an (interactive) list of channels covering the current programme, with commercial purposes |  | The outcome would be different if the viewer would effectively have had a chance to explicitly refuse or call for the EPG to display information of a commercial nature |
| **Classification Systems** | |  |
|  | The system’s user interface overlays the broadcaster’s programme to display a classification of programmes in categories, playing fragments of the programmes that the viewer is pointing at | Overlay with unbiased classification, irrespective of the initiator |
| The system’s user interface overlays the broadcaster’s programme to display a classification of programmes in categories, playing fragments of the programmes that the viewer is pointing at, at the viewer’s initiation |
| The system’s user interface overlays the broadcaster’s programme to display a classification of programmes in categories, playing fragments of the programmes that the viewer is pointing at |  | Overlay with biased classification, irrespective of the initiator, has a commercial purpose. No consent would be needed unless the viewer was offered the chance to refuse the commercially driven classifications |
| The system’s user interface overlays the broadcaster’s programme to display a classification of programmes in categories, playing fragments of the programmes that the viewer is pointing at, at the viewer and distributor and TV manufacturer’s initiation |

*Table 2. Stakeholder argumentation relating to signal integrity*

|  |  |  |
| --- | --- | --- |
| **ECONOMIC ARGUMENTATIONS** | **CULTURAL ARGUMENTATIONS** | **SCOPE OF THE MEASURE** |
|  | **Broadcasters** |  |
| Distributors are actively filtering out the red-button solutions or indirectly when the device does not support Hbb functions  Hbb functionalities are negotiated in commercial agreements which are difficult to settle  They cannot impose the preferred technology over the distributor thus filtering out issues will continue to exist  Recommender systems guide viewers towards the content, services or other advertising material that gives the most financial benefits  Discrimination of content offered in recommender systems through algorithm bias  PVR services allow to fast-forward the advertisements and results in less financing from advertisers  EPG services can be abused by third parties to promote their own programs  Fake linear content channels (on-demand channels disguised in linear ones) are integrated in the EPG and viewers are guided towards content beneficial to the platform  The spaces in the EPG are filled with promotional pictures that are of economic interest of the platform  Scaling down a program gives distributors the opportunity to commercialise the broadcaster’s content | Responsibility regarding everything linked to the signal towards the viewer  Responsibility regarding the information in terms of public and accessibility issues  Recommender systems are problematic in terms of media diversity and plurality  Recommending quality content to the viewer is not the primarily aim of a recommender system  Linear content must always be visible and available to viewers  Tricking viewers into thinking that the on-demand channel is actually a linear one (fake linear channels)  Viewers do not make conscious decisions thinking that the results are organic, and thinking that the UI is a default part of the system  The user is not always aware of his/her actions on the platform and it is difficult to return to a neutral picture or original functionality  Concerns over prominence and diversity  EPG services displayed on the home screen of smart TVs direct the viewer to non-linear services first (decided in commercial agreements with the manufacturer) before the viewer can reach the linear content | Broad interpretation of Article 7b (audio, video and data signals) also in order to make it future proof as new services and new ways of going around the rights of broadcasters would be possible  Consent is needed for overlays and features such as split screen, picture-in-picture, addressable advertising solutions, etc.  The signal integrity does not protect the broadcaster against concerns over recommender systems |
|  | **Distributors** |  |
| Broadcasters cannot impose the preferred technology over the distributor  Consent for advertising overlays should be asked from the AVMS provider but not for other services, functions and functionalities such as EPG, PVR and recommender systems because they are initiated by the viewer which is an exception covered by Recital 26  Some services, functions and functionalities have been offered by broadcasters without contractual negotiations, whereas some do require the contracts | The goal is to direct the viewers to the right content that is highly valued by customers and provide a variety of channels while ensuring that the viewer has the best experience  Recommender systems are not used as a strategic function at this point but only to direct customers to the content they are interested in based on their viewing behaviour (recommender systems have to be as neutral as possible)  The use of personal data (privacy) might be an issue relating to recommender systems | Narrow interpretation of Article 7b (audio and video signals)  HbbTV solutions should not be part of the signal integrity because they are offered in parallel to the signal and serve a different purpose  There is no link found between recommender systems and the context of signal integrity |
|  | **TV manufacturers** |  |
| Investments are made to enable services, functions and functionalities; when distributors filter them out, they remove the value added to players in the value chain  It is not in their interest to filter out any part of the signal  There is a lot of pressure put by broadcasters onto the regulators in transposition of Article 7b  Broadcasters fear the internet competition and that other sources will interfere with their commercial content  TV recommender systems need the information supplied by broadcasters  Broadcasters want more prominence and to have a veto on certain technical tools the manufacturer is offering  Relating to recommender systems, consumers desire access to everything and broadcasters ask manufacturers to lock consumers in | Features are crucial for consumers and their absence will mean a big change  It is not convenient for the user to not be able to consent to features from the TV’s setting  TVs offer consumers control over features at the device installation point from which they can opt-out  Recommendations are crucial to customers; the task of the manufacturer is to provide good recommendations  The TV is a natural environment to provide recommendations  If too much burden is put on the TV set the customer will turn to other devices that offer recommendations and mirror it on the TV  Some fear that Article 7b will prevent TV manufacturers from innovating | A mixed view with some rooting for a broad interpretation, others for an in-between but most for a narrow interpretation of Article 7b  Overlays are understood as part of the UI and thus only linked to images and sound, thus the narrow interpretation.  There is a need for clarifying the meaning of ‘signal’ – what it is, its components and services carried  Some think that Article 7b handles audiovisual content and not the signal whereas others think that it actually handles the physical signal  Article 7b protects weak broadcasters |