



Institute for Development of Freedom of Information (IDFI)

**Proposal of the Institute for Development of Freedom of
Information (IDFI) on Digital Broadcasting Policy**

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1. Defining references for digitalization policy

While developing a digital broadcasting switch-over policy it is important to clearly develop those targets that shall be in conformity with national and public interests. It shall be clearly defined what benefit will be delivered to an end user through a digital broadcasting service (better quality content, new generation interactive services, educational and other categories of information services etc). The Government shall define whether state interference aims at setting minimal quality parameters of other competing platforms (for instance, cable and IPTV broadcasting) as in case of a digital terrestrial broadcasting direction. It is similarly important to develop a state vision related to the place of the Public Broadcaster in Georgian broadcasting space during transitional and further stages.

The future strategic vision shall reflect all those new services, provision of which shall be ensured by the broadcasting network licenses that have already been issued. Namely, the licensing regulation policy shall define an opportunity for dissemination of future generation services in parallel to a broadcasting content following certain priorities. From the regulatory policy standpoint it shall be defined which network segment shall be regulated at the initial and following stages, what kind of licensing policy will be developed, while inter-platform competition regulation policy shall be adopted. In a licensing regime context it shall be defined initially whether there will be any restriction in regard to a person disposing multiplexor power (for instance restriction of a particular kind of activity, citizenship, content aggregator function etc). Legal regime of commercial broadcasters' access in cases of restricted multiplexor resource shall be defined in advance.

Digitalization policy shall define volume of state assistance in the process of planning and construction of digital broadcasting network and whether newly engaged multiplex providers shall enjoy the same kind of assistance or preferential regime. The policy defining document shall comprise standards to be developed, the deadline for validity of restriction imposed on a service or network standards, which standard will ensure the most effective use of a spectrum and protection of an end user's interests, optimization of expenses. The influence of a standard on competition and investment process shall be evaluated in advance within the policy framework. The policy shall define the way of customers' migration towards digital services and type of assistance (except customers willing to receive financial aid) required by other categories of end users. Development of correct regulation will require precise definition of quantity of viewers in big cities and regions, also description of the way receivers are concentrated in households and other technical issues from both customers' and suppliers' side.

2. Selection of an optimal model

While developing the state policy it is extremely important to find an optimal and compromising model among network construction speed, construction cost and network quality.

Installation speed, network cost and network quality (that is usually reflected in territory/population coverage indicator, digital signal existence indicator and multiplexing quantity) are the indicators that shall be balanced in accordance with all geographical areas of the county. Particular solutions for weighing in and balancing of those indicators shall be identified and for that purpose we present the following table proposed by the ITU:

Network elements	Impact	Installation speed	Low cost of the network	High quality of the network
Use of the existing sites	Sites are available at a limited cost; at a transitional stage, during a simulcast period there may be certain restriction of an access for additional services	Positive	Positive	Negative/neutral
Use of new, additional sites	Additional time for purchase and installation	Negative	Negative	Positive
Sufficiently qualified human resources	If there is no such problem, then there is a need for additional resources aimed at project planning, supervision and installation works	Positive	Negative	Neutral
Temporary transmitting devices operating in a transitional period	Better coverage	Negative	Negative	Positive
Use of frequencies in accordance with GE06	Shortage of time for extensive international negotiations with neighboring states and ITU	Positive	Neutral	Positive/Neutral

While selecting the compromising document, different approach and technical solutions shall be applied at various stages and geographic areas (for instance in regions, where population density is

low, or there is a complex relief and environment conditions). While planning the network those issues shall be taken into consideration in long term perspective.

While selecting a compromising version one should take into consideration that in case of a low quality network ensuring competition among other transmitting platforms at initial stage of digital broadcasting will not be possible, while in case of selecting the highest quality technical resolution (particularly first multiplexor case) and introducing heavy tariffs for the access (that may be based on the costs), the competition and existing broadcasting content market will be restricted.

3. Developing proposals for digital broadcasting standards

According to the EU's legal regulation relating to broadcasting and telecommunication areas, definition of standards for digital broadcasting services shall aim at ensuring compatibility throughout the country, maximum economic efficiency and universal broadcasting accessibility for the purposes of the so called "universal" and other types of broadcasting services' accessibility.

While developing standartization policy there is a risk that competition between terrestrial and other transporting platforms gets restricted. When defining the standards it is recommendable to evaluate Georgian broadcasting and telecommunication market dynamics, those standards that are incorporated in other transporting networks, quantity of users/families that use other transporting networks when receiving the service (including those satellite broadcasting users, who are not users of persons authorized in Georgia).

When defining recommended and mandatory standards, two factors shall be confronted and then different regulation shall be applied in transitional or the so called "multicast" period and after analogue broadcasting is switched off. In a transitional period, as we think, while licensing the first two national multiplexes, the state intervention shall be more intensive to ensure universal accessibility, optimization of transporting network costs and meeting end users' interests. When analogue broadcasting is completely switched off, to ensure competition, introduce new services and facilitate competition among platforms, relatively liberal approaches shall be developed, including change of mandatory standards set for the transitional period to recommended standards by the period commencing after 2015 (only those standards shall be defined that regulate compatibility issues, eliminate risks of introducing wrong standards and facilitate bringing innovations to the market).

The following standards shall be set while issuing national terrestrial broadcasting network licenses in a transitional period:

- *Television format* – SDTV
- *Transmission standard*: DVB-T2
- *Compression standard*: MPEG4

According to various existing opinions, including European and world practice (neighboring countries among them) **the standard DVB-T2 for television signal transmission has no alternative** due to various reasons (services, frequencies, competition), network costs optimization, taking note of the end users' interests that is conditioned by the opportunity to provide competitive paid interactive broadcasting services. We might not deem optimal introduction of the above standard for a transitional period due to excessive size of the costs and high cost of end users' terminals, however from a long term perspective, to ensure competition and simplify market access for service providers, noting average European indicator depending on a terrestrial broadcasting, it is optimal to introduce a standard DVB-T2 despite a high cost of the solution. Users' prospective is also a subject for consideration, since change of receivers will cause unreasonable expenses in future (switch to the new standard in Europe is complicated by the problem of changing up to 200 million old receivers).

When the first multiplex operator (of the national terrestrial broadcasting network) starts providing the service and after completion of the transitional period, a new multiplex operator shall be authorized to offer paid services based on HDTV television standard. After completion of the above stage compression technology shall become open, while access to associated types of services shall be granted in accordance with the general rules set forth by the so called EU "Framework Directive", "Access Directive" and the Law of Georgia "On Electronic Communications" (if there is no necessity for regulating competition in that direction).

As a conclusion, we may say that despite advantage of a second generation broadcasting standard, the first generation standard may be selected due to the following considerations: financial indicators of the network, price of a receiver, necessity of introducing universal free terrestrial broadcasting and simplifying access of content aggregators. Selection of **DVB-T2/DVB-T** standard depends on the state position related to financing policy and size of such financing.

A Receiver's specification shall be set in accordance with a so called „E-book“ adopted by the IEC (European 62216 standard) and recommended for European Broadcasting Association members in case of HDTV receivers.

At the initial stage of digital broadcasting, to ensure inter-platform competition and protect consumers interests, it is advisable to set minimal network QOS parameters and exercise control over them (for instance, "gitter" to be controlled in MPEG decoders) that will facilitate supply of a quality service through a broadcasting network and increase of the network traffic capacity efficiency.

A coverage parameter and especially universal distribution of the Public Broadcaster's channels are one of the important issues that shall be regulated by terrestrial network licenses/permits. It is possible to achieve the proposed 90% coverage through combination of two platforms. Selection of a model shall be based on cost effectiveness evaluation.

4. Defining issue of using sole frequency and multifrequency network (network topology)

ITU's GE06 agreement envisions both MFN and SFN, as well as existence of a mixed model within a particular broadcasting zone.

In our view, one of the positive sides of multifrequency approach is the fact that while developing a network, already existing analogue network infrastructure will be generally usable that will not only save transporting network expenses but also multiplex operators' admission cost for content producers/aggregators will be less. In case of certain technical changes in a network, the existing infrastructure may be usable for consumers as well.

Based on analysis of practice in European countries it may be said that while developing a network built upon SFN approach during a transitional or the so called "multiplex" period, the European countries have faced the following problem: television broadcasting is being carried out in a parallel regime and, hence, a certain spectrum, functioning according to MFN scheme, is held for analogue broadcasting. A model shall be selected based on an analysis of occupied and vacant frequency resource available in certain geographic area.

In our view: during the so called "multicast" period it is recommendable to carry out broadcasting through multifrequency topology or a mixed model, while after switching off an analogue broadcasting and vacating a frequency resource, a new license shall determine a sole frequency network topology.

In this context an issue related to modification of GE06 allocation seems to be particularly interesting. We think that, first of all, the issue of separating digital zoning existing by ITU shall be revised in the nearest future to ensure its optimization. When there are certain obstacles caused by existing allocation of zones, where a satisfactory service cannot be obtained by using a Plan entry, it is possible to ask ITU to amend an allocation plan in accordance with requirements set forth by Article 4 of GE06. If such changes do not create compatibility problems with neighboring countries, those changes will not require their approval. Therefore, a document existing in non-bordering zones may be amended according to the state interests.

5. Developing proposals related to licensing and authorization issues in the field of broadcasting

According to Georgian legislation general and specialized broadcasting is carried out through terrestrial and orbital stations of television and radio satellite systems (according to the decision of the Constitutional Court of Georgia “cable network broadcasting” has been removed since 11.04.2012) or broadcasting programs by means of a frequency spectrum.

According to the European practice, the EU framework directive and recommended regulation of a broadcasting sphere (approach towards wired and non-wired broadcasting shall be identical) to ensure conformity with technological neutrality principle (it is noteworthy that the Constitutional Court abolished licenses for broadcasting through use of cable networks) the rule for awarding content production rights shall be regulated separately (according to the Law of Georgia on Broadcasting) and the right to operate a telecommunication network through use of frequency spectrum shall be granted independently. The provisions regulating the above regime have been incorporated in the Law of Georgia “On Electronic Communications” since 2008, while the Law of Georgia “On Broadcasting” requires significant changes.

For regulating purposes (especially licensing) we should consider a radio frequency network as one of the platforms that is qualitatively distinct from other distribution platforms, however, is used “to deliver identical content to users”. By virtue of cutting the contact between the right to create a broadcasting content and designating the frequency, a spectrum management system will become more transparent and technical neutrality principle will be ensured.

A state policy related to issuing licenses shall comprise the following three rights:

- **A right to use the spectrum**, covers the right to use a radio frequency spectrum in a particular geographic area for a particular period of time; an obligation to create a network for distribution of television services in short intervals (roll-out obligations); an obligation to ensure qualitative parameters (service level obligations) that include broadcasting standards, geographical/population coverage indicators, access to services/network etc;
- **A right of a broadcasting distribution** covers a television content distribution permit in a certain geographic area and during a certain period of time based on a digital broadcasting platform as set by licensing terms. The right shall be accompanied by the following obligations:
 - a) An obligation to provide certain television services (including “**must carry**”);
 - b) An obligation to transmit the Public Broadcaster (there is a public interest and a license shall envision an obligation to transmit its content; or the content that is important for the

public shall be transmitted along with a particular commercial content, for instance news distribution);

c) An obligation to ensure a service quality that covers broadcasting standards, geographic/population coverage indicators, service/network accessibility that is divided according to frequency line/multiplexor power services, etc.

- **Operation right** authorizes an operator to create (through admittance) and carry out a broadcasting infrastructure operation in a particular geographic area and time interval through following such aspects, as regulation of environmental impact and health hazards. The operation right shall include an obligation to share infrastructure, namely sites (network operator or infrastructure owner (a company that owns a television tower) leases the tower resource at certain commercial terms) and an obligation of joint use of antennas (a network operator assumes an obligation to provide access to broadcasting antennas if technically possible).

Noting that a multiplex operator serves a key function in the chain of supplying end users with broadcasting, a particular model out of the existing two major ones shall be selected (the first – independent, commercial multiplex operator with an access obligation and the second – managed multiplexor (in fact having a technical function) that is managed by the government official). **In our view, a multiplex operator, apart from a mandatory distributable content, shall have an independent right to grant an access to a person having a broadcasting license/authorization based on initially announced terms (mainly price), in a non-discriminatory way and transparent fashion. State interference with content allocation shall be determined while making a decision on mandatory content issues and access related issues considered by a regulatory commission.** An intervention shall occur in a transitional period and a national broadcasting network, i.e. national multiplex operator shall assume that obligation under license terms and preliminary regulation of competition.

After transitional and analogue broadcasting switch off, a multiplex operator's license shall regulate among the so called "digital broadcasting chain" elements and apart from management right, the following directions:

Content producer	Service aggregator/collector	Multiplex operator	Service provider	Content distributor	Device supplier

The listed factors may be regulated separately in the form of licenses if there is a necessity of their separation due to the market conditions.

6. Award procedures

We think that after transitional and analogue broadcasting switch off happens, exceptions from general licensing rules shall be permitted, noting award fee, contest terms and other issues that are important for the transitional period from the standpoint of awarding specific obligations. For award purposes we deem it reasonable to introduce not auction or the so called „first come first served” principles but rather **public contest** that allows, prior to a license award, to essentially evaluate network solutions proposed by contestants, use of a frequency spectrum, admittance tariffs and other important issues defined by contest terms set by a Regulatory Commission through administrative proceedings. The above contest terms will be available to all interested parties in an electronic form (the Commission’s website) at the initial stage of public administrative proceedings. It is recommendable that Government and the Regulatory Commission’s officials provide special definitions, consultancy and advice to all interested persons, media organizations and NGO sector. In our view contest terms shall set minimal quality parameters of digital broadcasting services designated for end users and the contest winners shall be obliged to follow those paramets. Along with an obligation to transmit the Public Broadcaster’s content and ensure “**must carry**”, a license shall include terms for protection of competition and access to information and transparency obligations.

Selection of a first multiplex operator - the so called “national television broadcasting network provider” based on contest terms is related to obligations that shall be connected to an operator implementing content multiplexing (that is important for the public) in a transitional period.

At first stage it is recommendable not to connect a contest model with an auction model to select a multiplex operator, since during a transitional period it is better to select a multiplex operator that will be in a position to provide better access services (high quality and low access fee) during multiplex operations following the established quality parameters. Quantity of broadcasting channels and network construction speed are no less important. The above multiplex operator will in fact bear the so called “universal broadcaster’s” function.

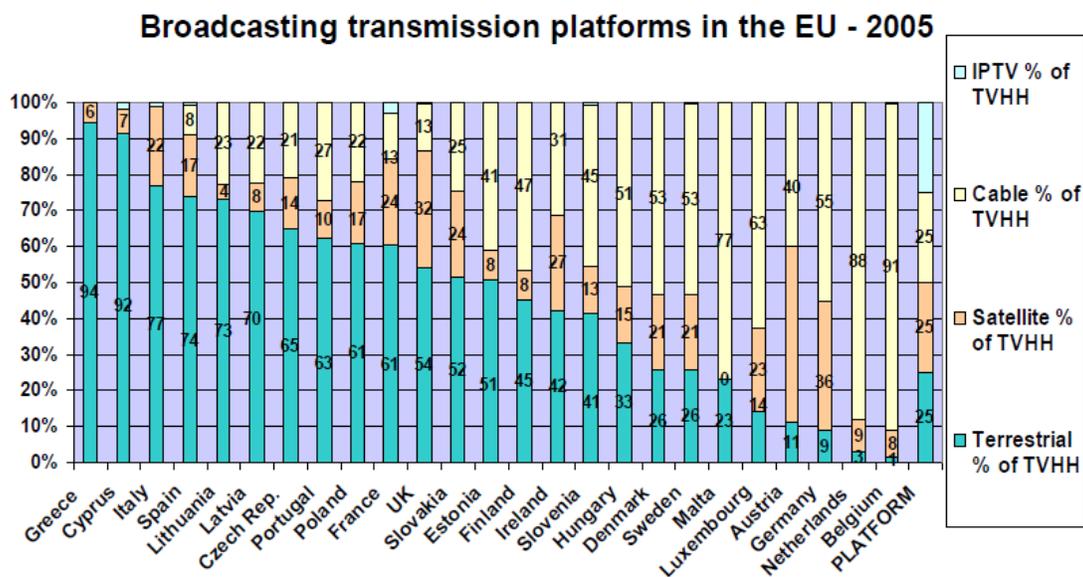
The most effective use of the spectrum represents one of the most important issues. In other words, while setting contest terms and making evaluations, the most effective and minimal use of allocated frequency spectrum for solving issues envisioned by a license as well as technical solution for setting up a network shall be considered a positive factor. The above issue shall be evaluated from economic efficiency standpoint as well, namely, a proposed economic model shall provide for solutions requiring the lowest financial costs.

7. Regulation of „Must Carry“ obligation

Although the so called “Universal Service Directive” recognizes necessity of existence of “Must Carry” procedures, that particular issue might be closely linked to digital broadcasting related issues only after defining quantity of end users.

No avoid restriction of commercial content distribution and access to multiplex operator, the so called “Must Carry” and quantitative quota of commercial channels shall be particularly defined (for instance 5 most rated commercial channels) according to widely practiced “broadcasting priorities” research methodology. Selection criteria shall be defined in advance, while selection of the content shall be transparent. According to the EU recommendations the platform that ensures access of “significant quantity of end users” to the so called “universal” content shall be selected. In some regions it is recommendable that satellite broadcasters are tasked with that obligation, while fulfillment of end users’ rights may occur through free distribution of receivers or their supply at minimal prices.

Number of platforms accessible for majority of population differs. Noting peculiarities of Georgian geographical landscape an example of Austria seems to be particularly interesting, where terrestrial broadcasting holds 11%, satellite – 49% and cable – 40%. Almost the same situation is in Germany, where cable broadcasting platform holds 55%, terrestrial – 14%, while satellite – 23%.



A problem rests with a condition of a broadband main network, which due to lack of a market research and analysis is vague. Noting the tendency of convergence, facilitation of a high speed

internet network development shall take place in parallel to supply such important content as educational and health care ones.

In Germany a must carry obligation is imposed on cable television network operators (to have certain free channels); in Malta such quota fluctuates from 2 to 7 channels. The same approach is used in Poland and the same regulation concerns analogue broadcasting network providers. In Italy terrestrial network providers shall allocate 20% of their capacity to such content.

To confront a platform and that obligation it may be noted that the obligation is mainly imposed on network providers. There are a few exceptions, namely in practice applied in France and Lithuania, where such obligation is imposed on satellite broadcasting network owners (Denmark).

In our view, after defining the quantity of end users and identifying dominating platforms, noting interests of mountainous regions, an economic model of must carry channels selection (with or without the Public Broadcaster) and access to a platform or platforms shall be developed within the above policy, including a research necessary for their selection and other important issues.

8. Financial aid provided to socially vulnerable families and those living in mountainous regions

To develop a vision related to the above topic it is important to note that the issue is closely linked to necessity of supplying public content within universal broadcasting service supply (in case we consider the Public Broadcaster's content within a must carry, it is possible to consider that obligation in a single contest). Out of existing or planned transporting networks in Georgia only terrestrial and satellite platforms have capacity of fulfilling the above task. According to our data the existing analogue network will not be able to cover mountainous regions of Georgia due to numerous objective and subjective reasons, while construction and maintenance of digital terrestrial network will be related to significant financial resources due to difficult landscape location and lack of site infrastructure network. Based on experience of some European countries a satellite platform may be deemed as an alternative platform for content transmission along with terrestrial platform that may be supported through state funding. The above issue is topical for Kakhetian mountainous region, Mtskheta-Mtianeti region as well as western Georgia mountains. The issue is topical because according to the existing regulation and submitted project a coverage obligation is not defined according to territorial coverage criteria but rather based on population coverage criteria.

All existing transport networks shall be studied and based on the researched information those geographic areas, where the Government will finance not only receivers but also costs related to satellite receivers (if the existing satellite broadcasters do not place relevant terminals in those zones). In that context it is important to set a DVB standard for satellite broadcasting.

9. Developing measures related to public awareness

Public awareness shall happen in several directions:

- Providing information about free and paid digital terrestrial broadcasting signals and date for analogue broadcasting switch off;
- Information about parameters of receivers and TV sets necessary for receiving digital terrestrial service; also information about receiving antennas and parameters and data of supplying cables;
- Information about financing the requirements of vulnerable groups and persons with peculiar abilities, measures envisioned for assistance during information and installation processes.

10. Identifying necessity of making amendments to legislative acts, participation in drafting of amendments and making relevant recommendations

The Law of Georgia “On Electronic Communications” is in conformity with the EU Framework Directive regulating telecommunication area, however, we think that the following articles shall be amended:

a) Article 2 (definition of terms), subparagraphs “b”, “f”, “q”, “x”, “z³⁶”, „z⁴¹“, „z⁴⁵“); Article 49 (license, license terms);

b) According to the EU and COE Directive N140 of 2009 the definition of the so called collocation and the so called “joint use” part (Article 12 – collocation and joint use of electronic communication network elements and elements related to them) became broader.

Where, according to the existing legislation, companies providing electronic communication services have a right to locate or install their devices in private and/or state property, or are in a position to ensure forced use of that property, national regulators shall be authorized to impose an obligation on such companies to share their operation assets following commensurable principle.

According to the second part of the Article, the member states shall be authorized by the owners listed in paragraph 1 to impose an obligation to share a property and means of communication (including physically commensurable building) or make the parties cooperate and coordinate (take environmental protection measures according to city planning, health care and other goals). Regulation may touch construction and planning of passive or active network infrastructure, as well as development of its future joint exploitation rules.

c) Article 19 shall be amended to include an obligation of the so called “operators licensed for multiplexing” to ensure unlimited access of interested persons to capacities falling under their

control based on cost oriented tariffs and non-discriminatory terms. Termination of access shall be permissible only with the Commission's consent in case of existing preconditions. To ensure transparency it is recommendable to obligate operators to publish the so called „reference offer“.

d) A radio frequency spectrum license to develop a distribution network of digital television signals shall be issued on the basis of a competition.

e) Article 56, a second paragraph of the same Article shall define minimal quality parameters of the FTA digital terrestrial broadcasting.

This Article shall include minimal standards of digital terrestrial television services provided to end users and define:

1. Standard resolution television signal;
2. Transmitting standard DVB-T2; and
3. Signal compression standard MPEG4.

f) Conditions for use of an individual access system shall be amended from transparency, copyright and other standpoints), as well as in case of API and EPG.

11. Amendments to the Law of Georgia “On Broadcasting”

a) Article 2, paragraphs “x”, “c” and the one describing terrestrial broadcasting shall be amended, Article 4, paragraph 3 of Article 5 (only provisions setting license terms, issuing of licenses shall remain in force, it shall be defined whether a right to create a broadcasting content is granted through authorization or a license); Article 12; Article 17 (the Article shall be moved to the Law of Georgia “On Electronic Communications” if it is decided that the Public Broadcaster shall have its own network, through which it will carry out commercial activity, namely lease the property and gain income through economic activity); Articles 36 and 37; Article 37¹; Part of Chapter 4 shall be removed, while the other part shall be revised according to the selected model.

b) Chapter 10 shall be removed, Chapter 11 shall be revised according to the selected economic model.

12. Issues for preliminary regulation of competition

During policy development stage it is recommendable to define competition related issues if we assume that in future there will be a threat of restrictions imposed on competition, meaning that at a transitional stage only one multiplex operator will exist for a certain period that may lead to creation

of a closed and exclusive model. To avoid that case one should carry out preventive measures and implement initial regulation of competition.

According to the 2003 recommendation of the EU, the member states have been recommended to regulate wholesale broadcasting transmission to deliver broadcast content to end-users (market 18) within the framework of initial regulation. In that case a market entry becomes available to those subjects, which are willing to offer broadcasting service transmission services (to ensure inter-platform competition). Also those companies willing to provide services within the platform through supply of the so called end to end transmission capacity services shall be granted a market entry opportunity. Two markets shall deviate from the 18th market: the first is attributed to the so called managing transmission services, while the second part – to access to network elements. While defining the policy, within the so called preparatory activities, it shall be initially decided which market will be chosen for the state intervention purposes, however, despite preliminary regulation, the state (a regulator and a Ministry) shall exercise a systematic and tough control in that direction during the initial stage of DTT broadcasting.

The state shall ensure regulation of competition in regard to dominant platforms (e.g. satellite or cable). That is why it is recommendable to state that the right to use a spectrum at the initial stage of digital broadcasting and its network and capacity access issues shall be regulated as effectively as possible both under the law and on the basis of a market research and analysis made by the Commission. To ensure the most effective and timely access of multiplex operators to the existing passive and active network infrastructure, a regulatory commission shall identify the market segments that are closely linked to the so called 18th market segment as quickly as possible.

Regulation of competition in terms of access to related devices is equally important. The Law on “Electronic Communications” comprises certain regulation and covers openness of an access, obligation of open program interface existence and other obligations. Nevertheless, at the following stage of regulation the above issues may be revised and if necessary regulated in detail within preliminary regulation.

13. A recommended business model

There are a few models of Public Broadcaster’s content distribution, although we think that a multiplexor management right (that will also comprise broadcasting terrestrial signal switch/distribution obligation) shall be granted to a commercial legal entity, that will enjoy all rights and assume all obligations, including an obligation to distribute the Public Broadcaster’s aggregated content and “must carry” content, based on general authorization and a broadcasting signal distribution license. A license “carrying” that obligation shall be issued on the basis of a contest, while

the next similar licenses shall be issued as a result of a two-stage auction. Access to multiplexor capacity shall be granted through cost oriented tariffs and on the basis of a provision identical to paragraph 3, Article 19 of the Law of Georgia on “Electronic Communication” (similar to mutual access part).

Along with support of the above business model, besides implementation of the “must carry” obligation, the state and a taxpayer will save the money that is spent to maintain network infrastructure used by the Public Broadcaster (after analogue broadcasting switch off the money may be used to cover expenses sustained by a Digitalization Foundation).

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