

# CONNECTIVITY TOOLBOX

## IMPLEMENTATION REPORT OF BULGARIA

### 1. EXECUTIVE SUMMARY

Broadband internet access is a key element of the digital transformation. Non-discriminatory, safe and effective internet access must be provided as a service in public interest so that everyone can participate in economic and social life. Without high quality and sustainable digital infrastructure, not only is the efficient use of digital services severely limited or hampered, but also the use and development of technology and innovative solutions.

With an overall connectivity score of 38, Bulgaria ranks 26th among EU countries according to most recent analysis and data for digitisation in Bulgaria (DESI 2021). Bulgaria saw a small increase in fixed broadband network deployment, with fast broadband coverage (NGA) improving from 77% in 2019 to 79% and very high capacity network (VHCN) coverage rising from 42% in 2019 to 43%. The country has still a significant gap to overcome to reach the EU average. VHCN coverage shows limited growth over time, and has increased from 38% in 2018 to 42% in 2019. In rural areas, fixed VHCN coverage is only at 1% (EU average: 28%). Moreover, Bulgaria ranks very low in overall broadband take-up, with only 59% of households subscribing (EU average: 77%). It is also lagging behind in take-up of high-speed fixed broadband of at least 100 Mbps (15%; EU average: 34%), with very limited, but increasing, progress year on year: 11% in 2019 and 15% in 2020 (EU average: 34%). Take-up of ultra-fast broadband (1Gbps) is still insignificant.

The mobile broadband indicators lag behind the EU average. 4G coverage is high, at more than 99.9%. 5G readiness is at 25 % compared to the EU average of 51 % after authorizations were granted in May 2021. However, coverage is at 0% for 2020, compared to the EU average of 14%. Take-up of mobile broadband is still low at 63% (EU average: 71%). Low fixed and mobile take-up seems not correlated to high prices, as Bulgaria actually ranks relatively high (5th) in the Broadband Price index, with prices significantly lower than the EU average.

The Ministry of Transport and Communications (MTC) forms and develops the national policy framework in cooperation with other state institutions and participates in the formation of the European policy framework. MTC is an institutional partner of DG Communication Networks, Content and Technologies and DG Competitiveness of the EC.

The Communications Regulation Commission (CRC) is the national regulatory body that implements the laws, regulations in the field of electronic communications, as well as the electronic communications policy and the policy for planning and allocation of the radio frequency spectrum.

In August 2020, Bulgaria updated its broadband plan, aligning it with the targets set by the EU. Among the prioritised areas are: (i) improving access to high-speed internet in less populated regions by establishing favorable conditions for the roll-out of fiber connections; (ii) securing connectivity to all public institutions, i.e. national and local administrative organizations, schools, hospitals and universities; and (iii) bridging the digital divide.

Bulgaria plans to use financing under the Recovery and Resilience Facility for major connectivity investments. The Digital connectivity component of the National RRP aims to build a modern and secure digital infrastructure and to overcome the territorial imbalances associated with the spread of broadband access. The planned reforms and investments are aimed at developing and implementing an effective policy and regulatory framework including: (i) National Broadband Plan; (ii) Strategic

approach to digital transformation; (iii) Modern legislative framework in the sector (iv) Efficient use of the radio frequency spectrum by reduction of spectrum fees and accelerated spectrum delivery process and (v) Extending the right of access to existing physical infrastructure controlled by public sector bodies.

The envisaged measures will create preconditions for the realization of the digital transition in the country, with indirect expected positive effects in terms of social inclusion, e-government, the efficiency of public administration, and therefore of administrative burden for enterprises and the business environment in general. The reforms included in the component aim to reduce barriers to investment in connectivity. The set of proposed measures will contribute to the country's economic recovery in the medium term while creating the conditions for increasing long-term growth potential, job creation and strengthening economic and social sustainability.

As far as the goals set in the Connectivity Toolbox Best Practices, Bulgaria has already performed some of the EU recommendations regarding the reduction of network deployment costs. The platform Single Information Point (SIP)<sup>1</sup> consolidates and systematizes information on the procedures and regulations governing the deployment and maintenance of infrastructure, including the authorities competent to issue acts in the field and their respective charges; ensures access to all available sample documents for permits and other acts related to building infrastructure. Provides conditions for filling in and submitting electronically the applications and documents necessary for the deployment and maintenance of electronic communications networks and physical infrastructure, as well as, for receiving information on the course of their examination by the competent authorities.

Moreover, information concerning the terms and conditions of access to the existing physical infrastructures as defined by the respective owners or managers is made available via the SIP. The SIP guarantees also that the electronic access to the information and the format of available data is done through various different formats to enable an easy upload/download of the information. In Bulgaria, SIP provides the ability to directly upload physical infrastructure data for network deployment, including high-speed electronic communications networks, in the following formats: \* .SHP, \* .KMZ / KML, \* .XLS and \* .CSV. The automated provision of data to the Single Information Point is performed through a web-based service - REST.

In addition, we have ensured that the information made available through the SIP includes georeferenced information for existing physical infrastructure and, whenever possible to planned civil works. Finally yet importantly, we made available via the SIP information concerning physical infrastructure beyond the minimum specified in the Broadband Cost Reduction Directive in particular indicative information on the occupation level ("state of occupation") of the physical infrastructure.

## 2. STREAMLINING PERMIT GRANTING PROCEDURES

### 2.1. STATE OF IMPLEMENTATION

Best Practice		Status*
<b>BP1</b>	Introduce permit exemptions and fast track procedures and promote the application of existing lighter permit granting procedures	<b>IMPL</b>
<b>BP2</b>	Provide model regulations on electronic communications network deployment	<b>ON-GOING</b>

<sup>1</sup> [Single Information Point](#)

<b>BP3</b>	Provide informative materials and workshops for municipalities and other competent authorities	<b>ON-GOING</b>
<b>BP4</b>	Ensure the use of electronic means for permit applications	<b>ON-GOING</b>
<b>BP5</b>	Digital administrative portal/Single Information Point (SIP) coordination	<b>IMPL</b>
<b>BP6</b>	Tacit approval for rights of way	<b>NOM</b>
<b>BP7</b>	Fast track procedures for rights of way	<b>NOM</b>
<b>BP8</b>	Establish broadband coordinators	<b>ON-GOING</b>
<b>BP9</b>	Use of joint preparatory coordination procedures for granting rights of way and permits necessary for civil works	<b>IMPL</b>
<b>BP10</b>	Legal requirements with regard to the appropriateness of fees	<b>IMPL</b>

\* IMPL = Toolbox roadmap measures are already implemented; ON-GOING= Toolbox roadmap measures are being implemented; NOM= no measures planned in Toolbox roadmap as the BP is addressed by previous measures in place; DISC= measures discarded in Toolbox roadmap and no previous measures in place.

## **2.2. DESCRIPTION OF RELEVANT MEASURES IMPLEMENTING BEST PRACTICES**

In Bulgaria, the regime for the deployment of base stations is seriously relieved. According to the adopted additions to the Spatial Planning Act, no building permit is required for maintenance, equipment and/or improvement of elements of the radio transmission systems, as well as their replacement or supplementation by assembly or disassembly of elements of the radio transmission system. Nevertheless, electromagnetic field measurement (EMF) is mandatory and the National Regulatory Authority keeps an electronic register for upgraded base stations.

The Bulgarian SIP already provides an opportunity to apply electronically for permits. It acts as a single entry point for the permitting procedure. SIP is directly integrated with the eGovernment portal and provides a link to the portals of the competent authorities. SIP offers the possibility to request an electronic service to allow the deployment, maintenance and improvement of electronic communications networks and to obtain information on the progress of the publication of information from the relevant authorities. SIP also provides the opportunity to submit applications and documents necessary for the registration of an already established or improved electronic communications network.

## **2.3. ADDITIONAL INFORMATION**

### **BP2 - PROVIDE MODEL REGULATIONS ON ELECTRONIC COMMUNICATIONS NETWORK DEPLOYMENT -**

The Ministry of Transport and Communications has developed a new project financed under The European Social Fund to reinforce the capabilities of the Single Information Point. The project is planned to begin in the end of 2022 and aims to improve the work of the SIP by upgrading it with new features covering our country's obligations with regard to broadband mapping, measures to reduce the cost of deploying high-speed electronic communications networks, saving resources and reducing the carbon footprint on the environment, access to information on available infrastructure, integration with various public authorities.

SIP will be integrated with the Unified information System for Spatial Planning, Investment Design and Construction Permitting. This will provide an opportunity for the operators of electronic communications networks to submit electronically applications to the competent authorities (local and others) responsible for granting/refusing the necessary permits for deployment of electronic

communications networks. This integration will facilitate the provision of information on the progress of the process and on the relevant decision issued by the competent authority/ies to the applicant. Competence for permitting remains unchanged (i.e. at central/regional/local level), but the process will be maximized through digital means.

The project envisages the creation of new registers to reduce the administrative burden and facilitate the construction of infrastructure, incl. Register of Statements for the Abolition of Electronic Communications Networks (ECNs) and Register of Deployed and Improved Electronic Communications Networks.

**BP3 - PROVIDE INFORMATIVE MATERIALS AND WORKSHOPS FOR MUNICIPALITIES AND OTHER COMPETENT AUTHORITIES**

A special administrative structure has been established, which performs the functions of the Bulgarian Broadband competent office. The Bulgarian BCO started the development of active campaigns and materials on 5G and fiber deployment. Several mechanisms have been established as a permanent practice for promotion and support of stakeholders that want to develop broadband projects.

**BP4 ENSURE THE USE OF ELECTRONIC MEANS FOR PERMIT APPLICATIONS**

SIP will be integrated with the Unified information System for Spatial Planning, Investment Design and Construction Permitting. This will provide an opportunity for the operators of electronic communications networks to submit electronically applications to the competent authorities (local and others) responsible for granting refusing the necessary permits for deployment of electronic communications networks. This integration will facilitate the provision of information on the progress of the process and on the relevant decision issued by the competent authority/ies to the applicant. Competence for permitting remains unchanged (i.e. at central/regional/local level), but the process will be maximized through digital means.

**BP8 ESTABLISH BROADBAND COORDINATORS**

The Bulgarian Broadband Competence Office (BCO) will act as broadband coordinator. The BCO will develop and provide a set of informative materials and work closely with municipalities and operators.

**3. IMPROVING TRANSPARENCY THROUGH THE SINGLE INFORMATION POINT (SIP)**

**3.1. STATE OF IMPLEMENTATION**

	<b>Best Practice</b>	<b>Status</b>
<b>BP11</b>	Ensure the availability of information from different sources and enhance transparency of planned civil works	<b>IMPL</b>
<b>BP12</b>	Ensure the availability of information via the single information point (SIP) in electronic format	<b>IMPL</b>
<b>BP13</b>	Include georeferenced information (maps and digital models) in the data made available via the SIP	<b>IMPL</b>
<b>BP14</b>	Make available indicative information on the occupation level of the infrastructure and/or the existence of dark fibre	<b>IMPL</b>
<b>BP15</b>	Ensure the provision via the single information point (SIP) of transparent information regarding the conditions of access to the existing physical infrastructure	<b>IMPL</b>

### 3.2. DESCRIPTION OF RELEVANT MEASURES IMPLEMENTING BEST PRACTICES

SIP provides conditions for filling in and submitting electronically the applications and documents necessary for the deployment and maintenance of electronic communications networks and physical infrastructure, as well as, for receiving information on the course of their examination by the competent authorities.

SIP provides the ability to directly upload physical infrastructure data for network deployment, including high-speed electronic communications networks, in the following formats: \* .SHP, \* .KMZ / KML, \* .XLS and \* .CSV. The automated provision of data to the Single Information Point is performed through a web-based service - REST.

SIP is a geographic information system that maintains a centralized geobase. The data provided to and from the Single Information Point is spatial data including geographical location / route and attributive characteristics to each site.

Via the SIP information on physical infrastructure beyond the minimum specified in the BCRD is made available, in particular indicative information on the occupation level ("state of occupation") of the physical infrastructure.

SIP provides also all relevant information regarding the conditions of access to existing physical infrastructure.

### 3.3. ADDITIONAL INFORMATION

## 4. EXPANDING THE RIGHT OF ACCESS TO EXISTING PHYSICAL INFRASTRUCTURE

### 4.1. STATE OF IMPLEMENTATION

	Best Practice	Status
<b>BP16</b>	Ensure access to physical infrastructure controlled by public bodies	<b>IMPL</b>
<b>BP17</b>	Entrust a body with a coordinator and/or promoter role	<b>ON-GOING</b>
<b>BP18</b>	Development of guidelines for all governance levels	<b>NOM</b>

### 4.2. DESCRIPTION OF RELEVANT MEASURES IMPLEMENTING BEST PRACTICES

#### **BP17 ENTRUST A BODY WITH A COORDINATOR AND/OR PROMOTER ROLE**

The Bulgarian Broadband Competence Office (BCO) will be strengthened by providing special training for the team members on using GIS tools; providing support for operators and public bodies. In accordance with the Toolbox recommendations, the BCO will act as broadband coordinator. The BCO will develop and provide a set of informative materials aimed at municipalities and other competent authorities.

### 4.3. ADDITIONAL INFORMATION

In accordance with the Decision 558 of the Council of Ministers as of December 2020, the free capacity of the fiber networks controlled by public sector bodies will be provided for use to commercial operators, where they have no interest in building such networks or consider opportunities to reduce their investment costs. With the same decision is established that while implementing infrastructure projects with public funds, requirements will oblige beneficiaries, where possible, to prepare investment projects involving the construction of protective pipes and cable shafts.

## 5. DISPUTE RESOLUTION MECHANISM

### 5.1. STATE OF IMPLEMENTATION

Best Practice		Status
<b>BP19</b>	Include an optional prior/parallel conciliation mechanism	<b>IMPL</b>
<b>BP20</b>	Ensure transparency, awareness and trust in the dispute resolution mechanism by issuing guidelines	<b>IMPL</b>
<b>BP21</b>	Ensure electronic communication and submission for parties	<b>IMPL</b>

### 5.2. DESCRIPTION OF RELEVANT MEASURES IMPLEMENTING BEST PRACTICES

**BP19** - According to art. 86 of LECNPI parties in a dispute can ask for conciliation.

**BP20** - A special section has been created on the NRA's website (Home> Areas of Regulation> Electronic Communications Networks and Physical Infrastructure), which contains the entire legislation on ECNPIA and information on current and completed procedures under the law.

**BP21** - Disputes and supporting evidence can be submitted via electronic means. According to national law, the position of parties is presented in live hearing in front of an experts' panel of which, if it is possible, is conducted via virtual means.

### 5.3. ADDITIONAL INFORMATION

For improving transparency, CRC has implemented and published Procedural rules of the Commission for the regulation of communications for the settlement of disputes under chapter eight of the law on electronic communications networks and physical infrastructure

<https://crc.bg/files/Pravna/4.%D0%9F%D1%80%D0%BE%D1%86.%D0%BF%D1%80%D0%B0%D0%B2%D0%B8%D0%BB%D0%B0%D0%B3%D0%BB%D0%B0%D0%B2%D0%B0.8.pdf>

## 6. REDUCING THE ENVIRONMENTAL FOOTPRINT OF NETWORKS

### 6.1. STATE OF IMPLEMENTATION

Best Practice		Status
<b>BP22</b>	Limit the negative environmental footprint of the electronic communications networks	<b>ON-GOING</b>

### 6.2. DESCRIPTION OF RELEVANT MEASURES IMPLEMENTING BEST PRACTICES

### 6.3. ADDITIONAL INFORMATION

As high performance fiber has the lowest energy usage per data unit in transmission in comparison to any other technology, Bulgarian authorities continuously promote its deployment.

## 7. ENVIRONMENTAL IMPACT ASSESSMENT

### 7.1. STATE OF IMPLEMENTATION

Best Practice		Status
<b>BP23</b>	Assessment of environmental effects	<b>IMPL</b>

## 7.2. DESCRIPTION OF RELEVANT MEASURES IMPLEMENTING BEST PRACTICES

## 7.3. ADDITIONAL INFORMATION

According to the Bulgarian Law, the deployment of broadband infrastructure is subject to Environmental Impact Assessment.

## 8. INCENTIVES FOR INVESTMENT

### 8.1. STATE OF IMPLEMENTATION

Best Practice		Status
<b>BP24</b>	Promote adequate reserve prices	<b>IMPL</b>
<b>BP25</b>	Timely availability of 5G harmonised bands	<b>IMPL</b>
<b>BP26</b>	Review National Spectrum Plans on a regular basis	<b>IMPL</b>
<b>BP27</b>	Enable payments of award fees in instalments	<b>NOM</b>
<b>BP28</b>	Individual authorisation regime for the 24.25-27.5 GHz frequency band	<b>ON-GOING</b>
<b>BP29</b>	Combine coverage obligations with financial incentives	<b>NOM</b>
<b>BP30</b>	Promote the opportunity of infrastructure sharing	<b>IMPL</b>
<b>BP31</b>	Structure of recurrent spectrum fees to incentivise roll-out	<b>IMPL</b>
<b>BP32</b>	Use financial aid as a complement to incentivise investments	<b>NOM</b>

### 8.2. DESCRIPTION OF RELEVANT MEASURES IMPLEMENTING BEST PRACTICES

#### BP24 PROMOTE ADEQUATE RESERVE PRICES

With a Council of Ministers' decision, the amount of one-off fee was reduced by 50% and the annual fee for spectrum use - by 35% in the 800 MHz, 900 MHz, 1.5 GHz, 1800 MHz, 2 GHz, 2.6 GHz and 3.6 GHz bands (excl. the annual fee in the 3.6 GHz band). A one-off fee and an annual fee for the use of radio frequency spectrum in the 700 MHz band were set.

The reduction of fees was based on a benchmarking method. The one-off fee is used as a reserved price in the spectrum auctions.

#### BP25 TIMELY AVAILABILITY OF 5G HARMONISED BANDS

The required spectrum in the 3.6 GHz and 26 GHz bands, as well as 2x20 MHz in 700 MHz bands had been made available for 5G.

NRA conducted an auction for granting authorizations for use of individually assigned scarce resource – radio frequency spectrum in the 3.6 GHz band for carrying out electronic communications through terrestrial network (TDD mode of operation) with national coverage. The auction was finalized successfully with assignment of the foreseen radio frequency resource to the three bidders according to the auction procedure rules and the proposed bids.

The 700 MHz band is not entirely available for civil purposes. This is the main reason indicated during consultations by the mobile operators for the absence of interest now to acquire spectrum. They prefer this to happen when the entire band is available for terrestrial networks. Following national consultations, nearly the full band (2x30 MHz) is planned to be released with the exception of 2x0.5 MHz that will be reserved for non-civil use until 2031.

The probable year announced by the operators for the acquisition of radio frequency spectrum is 2023. Therefore, NRA plans in 2022 to hold a public consultation for the provision of a resource in the 700 MHz band.

As a result of public consultations in 2021, three companies received radio spectrum in the 2.6 GHz band (2x20 MHz to each of them) for a terrestrial network enabling the provision of electronic communications services. An additional resource in the 2 GHz band was also provided to the three main mobile companies, and now the entire 2 GHz spectrum of 120 MHz is evenly distributed.

#### **BP28 INDIVIDUAL AUTHORISATION REGIME FOR THE 24.25-27.5 GHz FREQUENCY BAND**

2.578 GHz in 26 GHz band has been made available for 5G. During 2019, regulatory conditions have been created for providing spectrum in 26 GHz band. From December 2020 to March 2021, public consultations were held on the interests in using the 24.25-27.5 GHz band, including administrative procedures for the provision of spectrum in geographically limited areas. The undertakings have expressed a principal interest. Conditions have been created also for testing and experimental use of spectrum, as well as for secondary spectrum trading and leasing.

For the time being there are two existing authorised networks for radio relay links and Fixed Wireless Access. The band is also partly used for military purposes. NRA envisaged by the elaborated secondary legislation<sup>2</sup> the possibility undertakings having authorizations for use of frequency resource in the 26 GHz band for fixed networks to be able to use the provided to them spectrum both for networks from the fixed service and for 5G networks under managed shared use. The approach, we believe, shall increase the potential for investment in deployment of high density 5G networks, flexibility in spectrum use, more effective use of the spectrum and last but not least a smooth transition from one technology to another at a lower cost. The NRA plans to put in place a public consultation also for the use of resources in the 26 GHz band during this year.

#### **BP30 PROMOTE THE OPPORTUNITY OF INFRASTRUCTURE SHARING**

The amendment to the Electronic Communications Act, introducing the provisions of the Code, promotes infrastructure sharing. There are no restrictions on the sharing of passive and active infrastructure or joint deployment of infrastructure.

#### **BP31 USE FINANCIAL AID AS A COMPLEMENT TO INCENTIVISE INVESTMENTS**

With a Council of Ministers' decision, the amount of one-off fee was reduced by 50% and the annual fee for spectrum use – by 35% in the 800 MHz, 900 MHz, 1.5 GHz, 1800 MHz, 2 GHz, 2.6 GHz and 3.6 GHz bands (excluding the annual fee in the 3.6 GHz band). A one-off fee and an annual fee for the use of radio frequency spectrum in the 700 MHz band were set.

### **8.3. ADDITIONAL INFORMATION**

With a Council of Ministers decision the amount of one-off fee was reduced by 50% and annual fee for spectrum use - by 35% in the 800 MHz, 900 MHz, 1.5 GHz, 1800 MHz, 2 GHz, 2.6 GHz and 3.6 GHz

---

<sup>2</sup> Rules for use of radio frequency spectrum for terrestrial networks, allowing the provision of electronic communications services after issuing an authorization and the Rules for use of the radio frequency spectrum by electronic communications networks from the fixed service after issuing an authorization



bands (excluding the annual fee in the 3.6 GHz band). A one-off fee and an annual fee for the use of radio frequency spectrum in the 700 MHz band were set.

The reduction of fees was based on a benchmarking method. The one-off fee is used as a reserved price in the spectrum auctions.

The required spectrum in the 3.6 GHz and 26 GHz bands, as well as 2x20 MHz in 700 GHz bands had been made available for 5G.

NRA conducted on April 6th 2021 an auction for granting authorizations for use of individually assigned scarce resource – radio frequency spectrum in the 3.6 GHz band for carrying out electronic communications through terrestrial network permitting provision of electronic communications services (TDD mode of operation) with national coverage. The auction was finalized successfully with assignment of the foreseen radio frequency resource to the three bidders according to the auction procedure rules and the proposed bids.

In addition, as a result of the public consultations, three authorizations in the 2.6 GHz band were granted for a terrestrial network allowing the provision of electronic communications services. An additional resource in the 2 GHz band was also provided to the three main mobile companies.

The National Spectrum Allocation Plan is updated annually in accordance with international and EU decisions.

## **9. ENHANCED COORDINATION AT UNION LEVEL ON SPECTRUM ASSIGNMENT FOR CROSS-BORDER INDUSTRIAL USE**

### **9.1. STATE OF IMPLEMENTATION**

	<b>Best Practice</b>	<b>Status</b>
<b>BP33</b>	Use coherent practice for granting rights of use for radio spectrum based on the European Electronic Communications Code	<b>ON-GOING</b>
<b>BP34</b>	Facilitate interoperability through the development and application of standards	<b>IMPL</b>
<b>BP35</b>	Make use of harmonised technical conditions developed by the European Conference of Postal and Telecommunications Administrations (CEPT) / Electronic Communications Committee (ECC), if common dedicated frequency ranges are deemed necessary	<b>IMPL</b>
<b>BP36</b>	When identifying the appropriate authorisation regime Member States should pay particular attention to any specificities resulting from a cross-border dimension	<b>IMPL</b>

### **9.2. DESCRIPTION OF RELEVANT MEASURES IMPLEMENTING BEST PRACTICES**

#### **BP33 USE COHERENT PRACTICE FOR GRANTING RIGHTS OF USE FOR RADIO SPECTRUM BASED ON THE EUROPEAN ELECTRONIC COMMUNICATIONS CODE**

So far, there has been no interest on the part of the users of the radio frequency spectrum on the territory of Bulgaria, as well as interest on the part of Bulgaria's neighboring countries for joint authorization. There are no applications from the industry for vertical use cases with a cross-border

dimension, so we have not yet applied a coherent practice. The conducted auction procedure, on 6 April 2021, started before the entry into force of the amendment to the Electronic Communications Act, introducing the provisions of the Code.

**BP34 FACILITATE INTEROPERABILITY THROUGH THE DEVELOPMENT AND APPLICATION OF STANDARDS**

With the entry into force of the amendment to the Electronic Communications Act, interoperability through the development and application of standards is established.

**BP35 MAKE USE OF HARMONISED TECHNICAL CONDITIONS DEVELOPED BY THE EUROPEAN CONFERENCE OF POSTAL AND TELECOMMUNICATIONS ADMINISTRATIONS (CEPT) / ELECTRONIC COMMUNICATIONS COMMITTEE (ECC), IF COMMON DEDICATED FREQUENCY RANGES ARE DEEMED NECESSARY**

One of the main goals of NRA is to provide conditions for coordinated and harmonized use of the spectrum allocated for civil needs in accordance with the electronic communications policy within the European Union.

NRA regularly introduces in the secondary legislation harmonized technical conditions related to the use of radio frequency spectrum, developed by CEPT/ECC, taking into account the national peculiarities.

**BP36 WHEN IDENTIFYING THE APPROPRIATE AUTHORISATION REGIME MEMBER STATES SHOULD PAY PARTICULAR ATTENTION TO ANY SPECIFICITIES RESULTING FROM A CROSS-BORDER DIMENSION**

In March 2021, the amendment to the Electronic Communications Act came into force, introducing the provisions of the Code. In determining the technical conditions for the use of frequency bands, as well as the techniques for spectrum access and interference mitigation, we adhere to the harmonized technical conditions developed at EU level, taking into account national specifics. In the presence of cross-border cases, any specificities will be considered.

**9.3. ADDITIONAL INFORMATION**

One of the main goals of NRA is to provide conditions for coordinated and harmonized use of the radio frequency spectrum allocated for civil needs in accordance with the electronic communications policy within the European Union.

NRA regularly introduces in the secondary legislation harmonized technical conditions related to the use of radio frequency spectrum, developed by CEPT/ECC, taking into account the national peculiarities.

**10.ASPETS RELATED TO ELECTROMAGNETIC FIELDS AND PUBLIC HEALTH**

**10.1. STATE OF IMPLEMENTATION**

	<b>Best Practice</b>	<b>Status</b>
<b>BP37</b>	Promote continuous scientific research on electromagnetic field (EMF) emissions carried out by credible and independent institutions	<b>IMPL</b>
<b>BP38</b>	Coordinated and targeted communication for informing and educating on 5G implementation	<b>IMPL</b>
<b>BP39</b>	Inform the public on the compliance of Radio Base Stations installations with applicable EMF safe limits	<b>IMPL</b>

## **10.2. DESCRIPTION OF RELEVANT MEASURES IMPLEMENTING BEST PRACTICES**

### **BP38 COORDINATED AND TARGETED COMMUNICATION FOR INFORMING AND EDUCATING ON 5G IMPLEMENTATION**

Competent authorities carry out news campaign, round tables, web seminars and forums. Information is regularly published on the Ministry of Transport and Communications and NRA websites.

### **10.3. ADDITIONAL INFORMATION**

Undertakings are obliged to comply with the provisions of Ordinance 9 of 1991, which sets the maximum limits of permissible electromagnetic fields and the conditions for protection of the population from electromagnetic radiation (including emissions from 5G networks). According to this ordinance, the control of these limits is within the competence of the Ministry of Health.

Competent authorities carried out a news campaign, round tables, web seminars and forums. Information is regularly published on the Ministry of Transport and Communications and NRA websites.

There is a specially created website for the purposes of the National Center for Public Health and Analysis at the Ministry of Health, informing the public about health protection, including 5G and public health, and maintains an Information system for the sources of electromagnetic fields.

## **11. CONCLUSION**

*[In this section, MS should provide conclusions on the perspective of the continuation of the process of implementation of the Connectivity Toolbox in each MS, what outcome is expected and by when.]*

A favorable investment framework is essential for achieving a European gigabit internet society in which access to and use of very high-capacity networks allows the ubiquitous use of products, services and applications within the digital single market. Bulgaria, as a member state of the European Union, is developing strategic goals in line with the priorities and strategic objectives set out in the programming documents of the EU.

Bulgaria will continue to work towards the full and efficient implementation of the Connectivity Toolbox and its main principles. The reforms set in the NRRP will focus on maximizing the digitalization and facilitating the investment process in connection with the construction of very high capacity networks. Work will continue on the efficient use of radio spectrum as the authorities streamline the launch and completion of auctions and communication of assignment of spectrum to operators in the 26 GHz band and 700 MHz band. All available frequency bands shall be assigned based on criteria ensuring transparency and promotion of competition in networks and underlying services.