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DIRECTORATE-GENERAL FOR COMMUNICATIONS NETWORKS, CONTENT AND
TECHNOLOGY

Digital Decade and Connectivity
Radio Spectrum Policy Group
RSPG Secretariat

Brussels, 25 October 2023

RSPG23-032 FINAL

RADIO SPECTRUM POLICY GROUP

State of play regarding award of 5G pioneer bands

The attached table represents information as of 18/10/2023. The information has been provided by the RSPG Members and Observers.

Country	700 MHz			3.4-3-8 GHz			24.25-27.5 GHz		
	Public consultation	Peer review	Award	Public consultation	Peer review	Award	Public consultation	Peer review	Award
Austria	September 2019	May 2019	September 2020	February 2018	April 2019	March 2019	Aug 2019 Public consultations on principles in autumn 2022, public consultations on tender document and auction rules summer 2023.	October 2023	The auction is planned for Q1 2024.
Belgium	July 2017		Band has been awarded in June 2022.	June 2017		Band has been awarded in June 2022.	June 2019 Second public consultation September 2023.		No award planned due to lack of market demand.
Bulgaria	November 2022		<i>In 2023, a new public consultation is planned.</i>	December 2020 – January 2021		May 2021	August 2022		<i>November 2022</i>
Croatia	April 2021	10 th May 2021*	12 August 2021	April 2021	10 May 2021*	12 August 2021	April 2021	10 th May 2021*	12 August 2021
Cyprus	September 2019		<i>December 2020</i>	September 2019		<i>December 2020</i>	September 2019		<i>Not expected in 2020 (subject to clear market)</i>

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	Public consultation	Peer review	Award	Public consultation	Peer review	Award	Public consultation	Peer review	Award
									<i>demand)</i>
Czechia	June 2019 March 2020 June 2020		January 2021	3.6-3.8 GHz 2017 3.4-3.6 GHz June 2019 March 2020 June 2020	2017	August 2017 January 2021	December 2019 August 2020		No award planned 26.5-27.5 GHz open for non-commercial experiments in October 2020
Denmark	March 2018		March 2019	December 2020		April 2021	August 2018 and December 2020		April 2021
Estonia	July 2014 and November 2019		November 2022	April 2018	January 2022*	July 2022	November 2019		<i>May 2023</i>
Finland			November 2016	May 2018	April 2019	October 2018	February 2020		June 2020
France			November 2015	July 2019	September 2019	October 2020	1 st public consultation in Jun 2018 New public consultation of market demand on May-September 2022		<i>On-going process to encourage trials in various sectors</i>
Germany			June 2015			June 2019	October 2018 February 2020 August 2020	n.a.	<i>(Individual frequency assignments: - on</i>

Country	700 MHz			3.4-3-8 GHz			24.25-27.5 GHz		
	Public consultation	Peer review	Award	Public consultation	Peer review	Award	Public consultation	Peer review	Award
									<i>application - for 15 years with the possibility of extension - since end of 2020)</i>
Greece (Individual frequency rights of use assigned for the three 5G bands for 15 years with the possibility of 5 years extension, starting on the 16 th December 2020)	August – September 2020	May 2021	Completed December 2020	August – September 2020	May 2021	Completed December 2020 10 MHz (3.400-3.410 GHz) have been reserved for by the Ministry of Digital Governanc e for pilot projects. A pilot is already ongoing with another two expected to start by end of	August – September 2020	May 2021	Completed December 2020 200 MHz (24.250 – 24.450 GHz) have been reserved by the Ministry of Digital Governanc e on secondary basis for pilot project

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	Public consultation	Peer review	Award	Public consultation	Peer review	Award	Public consultation	Peer review	Award
						August 2022.			
Hungary	June 2019	December 2018	April 2020	June 2019	December 2018	April 2020	July 2017, December 2019 and March 2022	TBD	There is no market demand for 5G. The existing operators (4 MNO and 1 broadcasting company) want to use the band for P-P purposes until the expire date of their licences.
Ireland	December 2020	June 2020	Jan 2023 ComReg Document 23/06 refers	December 2015	January 2018	May 2017	No current demand – ComReg document 21/07 refers	NA	NA
Italy	March 2018	December 2018	October 2018 Spectrum usable nationally from 1 July 2022	3.4-3.6 GHz January 2018 (for 5G use) 3.6-3.8 GHz March 2018	December 2018	3.4-3.6 GHz Extended licenses for 5G use November 2018	March 2018	December 2018	October 2018

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	Public consultation	Peer review	Award	Public consultation	Peer review	Award	Public consultation	Peer review	Award
						3.6-3.8 GHz October 2018			
Latvia	November 2021		Awarded on 16 December 2021. Available for use from February 2022.	On August 2023 a public consultation was started on the auction of the free remaining 50 MHz spectrum block.		October 2023	<i>A public consultation with market players was initiated in Q1 of 2023</i>		<i>Subject to market demand. It was concluded that at the moment there is no demand on the MNO side to use 26 GHz band. The way forward that was agreed during the consultation is to organize an auction or tender after Regulator receives a request for granting</i>

Country	700 MHz			3.4-3.8 GHz			24.25-27.5 GHz		
	Public consultation	Peer review	Award	Public consultation	Peer review	Award	Public consultation	Peer review	Award
									<i>the right to use the band, which would serve as an indicator of the of MNO actual readiness to use of the Band.</i>
Lithuania	May 2018 June 2021 October 2021	22 June 2021*	September 2022	May 2018 March 2019 January 2021 February 2021 March 2022		September 2022	April 2020		1.2 GHz is available. Waiting for requirements from MNO.
Luxembourg	May 2019		August 2020	May 2019		August 2020	October 2020		Public consultation in Q4-2020 showed no immediate demand from stakeholders; award postponed until demand apparent;

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	Public consultation	Peer review	Award	Public consultation	Peer review	Award	Public consultation	Peer review	Award
									possibility to request temporarily licences.
Malta	5 February 2021	23 March 2021*	Subject to market demand	5 February 2021	23 March 2021*	3.5-3.6 GHz: <i>Aug. 2021</i> 3.6-3.7 GHz: <i>May 2021</i> 3.7-3.8 GHz: <i>Oct. 2021</i> <i>The band 3.4-3.5 GHz remains unassigned due to a lack of market interest.</i>	5 February 2021	23 March 2021*	Subject to market demand
Netherlands	December 2019 – February 2020		<i>July 2020</i>	May/June 2021 July/August 2022	24 June 2021*	Award date is uncertain due to current legal procedure	Public consultation in 2020 showed limited market demand		Award policy is subject to market demand, which will be investigated

Country	700 MHz			3.4-3.8 GHz			24.25-27.5 GHz		
	Public consultation	Peer review	Award	Public consultation	Peer review	Award	Public consultation	Peer review	Award
									d again in 2023/2024
Poland	<i>Expected 2023/2024</i>		<i>Expected 2024</i>	<p>Preconsultation August 2018</p> <p>Consultation December 2019/January 2020</p> <p>Consultation on the block "0" (3410-3480 MHz) December 2021-March 2022</p> <p>Consultation 3480-3800 MHz, first round from 2022-12-20 to 2023-01-31</p> <p>Consultation 3400-3800 MHz, second round from</p>		<p>On the 18th of October 2023, the auction on C band has been completed. Overall 4 MNOs acquired 4 blocks, 100 MHz each - within the 3 400 - 3 800 frequency range. MNOs will have the right to use auctioned frequencies at the beginning of December 2023 according to licensing process.</p>	Subject of market demand		Subject of market demand

Country	700 MHz			3.4-3.8 GHz			24.25-27.5 GHz		
	Public consultation	Peer review	Award	Public consultation	Peer review	Award	Public consultation	Peer review	Award
				2023-04-6 to 2023-05-12					
Portugal	<p>April 2018 & Oct.2019 (RoU and award procedure)</p> <p>Consultation on the auction rules was launched Q1 2020, it was suspended due to pandemic and ended in July 2020.</p>		<p>Initially planned for Q2 2020, due to the suspension of the public consultation, it started on the Q4 2020. The licences were awarded in 2021.</p>	<p>2023-04-6 to 2023-05-12</p> <p>April 2018 & Oct.2019 (RoU and award procedure)</p> <p>Consultation on the auction rules was launched Q1 2020, it was suspended due to pandemic and ended in July 2020.</p>		<p>Initially planned for Q2 2020, due to the suspension of the public consultation, it started on the Q4 2020. The licences were awarded in 2021.</p>	<p>April 2018 (1st consultation).</p> <p>A second consultation took place between December 2021 and March 2022.</p> <p>By decision of 13 July 2022, ANACOM approved the report of the public consultation.</p>		TBD according to market demand.
Romania	<p>First public consultation: July-August 2019 (but the multi-band auction in WAPECS bands was postponed).</p>		<p>The auction phase of the 2022 selection procedure has finished on 15.11.2022. Three FDD blocks (2x5 MHz each)</p>	<p>First public consultation: May-June 2015. Second public consultation: July-August 2019 (but the multi-band</p>		<p>An amount of 255 MHz (FDD and TDD) in the 3.4-3.8 GHz band has already been allotted by</p>	<p>First public consultation (by a strategy for a multi-band auction in WAPECS bands, including the 26 GHz band): February-March</p>		<p>In 2019: the 26 GHz band was postponed after the finalisation of the multi-band auction for</p>

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	Public consultation	Peer review	Award	Public consultation	Peer review	Award	Public consultation	Peer review	Award
	Second public consultation: July-August 2022.		were awarded (valid during 2023-2047), out of six FDD blocks and three SDL blocks, that were available.	<p>auction in WAPECS bands was postponed). Third public consultation: July-August 2021. Fourth public consultation: July-August 2022.</p>		<p>auction since 2015 (valid during 2016-2025). After the refarming from FDD to TDD, an amount of 90 MHz in the 3.4-3.6 GHz band (not awarded in 2015) was put to auction in 2021, but only 5 MHz TDD were allotted (valid during 2022-2025). The auction phase of the 2022 selection procedure</p>	<p>2019. Second public consultation (by a dedicated questionnaire on market demand in the 26 GHz band): August-September 2022.</p>		<p>the rest of the WAPECS bands (not yet awarded at that time). In 2022: there was no interest expressed by the market. ANCOM will issue a new questionnaire during 2024-2025, in order to assess again the market demand.</p>

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	Public consultation	Peer review	Award	Public consultation	Peer review	Award	Public consultation	Peer review	Award
						has finished on 15.11.2022. An amount of 310 MHz TDD was awarded (valid during 2026-2047), out of 400 MHz available.			
Slovakia	December 2019		December 2020	December 2021 – January 2022		3.4-3.6 GHz: May 2016 3.6-3.8 GHz July 2017 3410 – 3800 MHz awarded in May 2022 (100 MHz for three operators, 90 MHz for one operator) Licence validity	August 2022		Public discussion result – persistent disinterest on the market. Next public discussion in planned on the end of 2023. Part of the band (27,1 – 27,5 GHz) is subject of negotiation with

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	Public consultation	Peer review	Award	Public consultation	Peer review	Award	Public consultation	Peer review	Award
						09.2025 – 12.2045.			military.
Slovenia	Q3 2020	December 2018 October 2020	June 2021	Q3 2020 (3.42-3.8 GHz) Q2 2022 (3.4-3.42 GHz)	October 2020 June/July 2022	June 2021	Q3 2020	October 2020	June 2021
Spain	2017 and 2019	December 2020	July 2021	2017		July 2018 20 MHz awarded in April 2021	2017, 2019 and 2021	30 September 2022*	December 2022 (450 MHz reserved for verticals, first come-first served approach)
Sweden	July 2018	May 2018 February 2019	December 2018	July 2019	April 2019	National licenses January 2021 Local licenses November 2021	December 2019 May 2022		November 2021 Local licences in 24,25 – 25,1 GHz
Iceland	2015		2017, the lowest 2x10 part assigned 2022	2015		3.5-3.8 GHz already assigned for 5G			No clear market demand.

Country	700 MHz			3.4-3-8 GHz			24.25-27.5 GHz		
	Public consultation	Peer review	Award	Public consultation	Peer review	Award	Public consultation	Peer review	Award
						3.4 GHz award waiting for a market demand			
Liechtenstein	November 2022		December 2022	November 2022		December 2022			No market demand at this time
Norway	2018		June 2019	August 2019		September 2021	September 2022 and May 2023. Planned consultation in December 2023.		Planned award in 2024.
Montenegro	Preliminary public consultation with mobile operators to express interest started in October 2020; Public consultation on Draft Public Bidding Documents - 26 May to 8 July 2022		FDD: 2x30 MHz (6 blocks of 2x5 MHz) awarded on 9 February 2023; SDL: 15 MHz (3 blocks of 5 MHz) were subject of the public bidding procedure but remained unawarded due to lack of demand; Public bidding procedure (multiband	Preliminary public consultation with mobile operators to express interest started in October 2020; Public consultation on Draft Public Bidding Documents - 26 May to 8 July 2022		400 MHz (40 blocks of 10 MHz) awarded on 9 February 2023; Public bidding procedure (multiband spectrum auction: 700 MHz, 3.6 GHz and 26 GHz) started on 26 October	Preliminary public consultation with mobile operators to express interest started in October 2020; Public consultation on Draft Public Bidding Documents - 26 May to 8 July 2022		1000 MHz (5 blocks of 200 MHz) were subject of the public bidding procedure but remained unawarded due to lack of demand; Public bidding procedure (multiband spectrum auction:

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	Public consultation	Peer review	Award	Public consultation	Peer review	Award	Public consultation	Peer review	Award
			spectrum auction: 700 MHz, 3.6 GHz and 26 GHz) started on 26 October 2022.			2022.			700 MHz, 3.6 GHz and 26 GHz) started on 26 October 2022.
Republic of Moldova	Public consultations held during the adoption of the Government Decision No. 987 of 12-22-2020 regarding the approval of the Spectrum Management Program for the 2021-2025 years.		Spectrum award scheduled for Q3 2024.	Public consultations held during the adoption of the Government Decision No. 987 of 12-22-2020 regarding the approval of the Spectrum Management Program for the 2021-2025 years.		Spectrum award scheduled for Q3 2024.	Public consultations held during the adoption of the Government Decision No. 987 of 12-22-2020 regarding the approval of the Spectrum Management Program for the 2021-2025 years.		Spectrum award scheduled for Q3 2024.
North Macedonia	2020,2021		2022, 2x20 MHz assigned for 5G (two existing mobile operators)	2020, 2021		2022, 3.6-3.8 GHz assigned for 5G (two existing mobile operators)	2020, 2021		No market demand.

Country	700 MHz			3.4-3.8 GHz			24.25-27.5 GHz		
	Public consultation	Peer review	Award	Public consultation	Peer review	Award	Public consultation	Peer review	Award
			lowest 2x10 MHz not awarded (reserved for third mobile network operator)			3.5-3.6 GHz not awarded (reserved for third mobile network operator)			
Serbia	Public call for expressions of interest to use radio frequencies from the 700 MHz band – May 2021 – 4 parties submitted their expression of interest		Expected in 2024 (depends on the decision of the competent Ministry)	Public call for expressions of interest to use radio frequencies from the 3.4-3.8 GHz band – May 2021 – 4 parties submitted their expression of interest		Expected in 2024 (depends on the decision of the competent Ministry)			Not expected to be awarded in the upcoming award process

*Peer Review Forum held in line with the provisions of Article 35 of the [European Electronic Communications Code](#).