



Response to BoR (21) 133

Draft BEREC Work Programme 2022

5 November 2021

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## I. About MVNO Europe

1. MVNO Europe represents various types of Mobile Virtual Network Operators (MVNOs), with different business models, addressing consumers, business users (including start-ups/scale-ups)/medium/large businesses, the public sector, ICT service/systems integrators, and Internet of Things (IoT) markets, etc. <http://www.mvnoeurope.eu/members>
2. MVNOs currently represent +/- 10% of SIM cards in the European Union.
3. The term "virtual" refers to the fact that MVNOs do not control radio frequencies and related mobile physical infrastructure (antennas, base stations etc.). However, MVNOs do control the necessary hardware/software/resources to provide wireless/mobile services and may own other telecom infrastructures depending on the extent of their business model.
4. Our members provide mobile-only offers, fixed-mobile convergent offers and offers incorporating audio-visual media content, financial services, machine-to-machine communications, embedded data SIMs for tablets, laptops and other devices, connected mobility for vehicles, IoT in a broad sense, etc. Some of our members are also active on wholesale markets as MVNE (E=Enabler) / MVNA (A=Aggregator) supporting other companies and brands that provide wireless/mobile services. MVNO Europe does not represent branded resellers.
5. MVNOs contribute strongly to innovation and competition and provide clear Business to Consumer (B2C) and Business to Business (B2B) end-user benefits.
6. MVNOs also contribute to financing mobile network infrastructure through payment of wholesale charges which assure revenues to Mobile Network Operators, whilst avoiding costly duplication of network assets. Specifically, MVNOs pay for each voice call minute, for each SMS, for each Mb of mobile data. A portion of MVNOs' traffic is traffic that would otherwise not exist on Mobile Network Operators' networks, because MVNOs often serve market segments that Mobile Network Operators are not well equipped to serve, and MVNOs develop innovative services that generate entirely new types and amounts of traffic. Therefore, MVNOs help Mobile Network Operators to grow their overall business, and contribute to Mobile Network Operators' return on investment, including the recovery of the fees that they pay for radio spectrum.

## II. Ensuring fit-for-purpose wholesale mobile access connectivity

7. **MVNO Europe wishes to expressly thank BEREC for including a Section 1.4 in the Work Programme 2022, entitled: "*Report on wholesale mobile access connectivity*". This meets a long-standing request of MVNO Europe to BEREC.**
8. Indeed, **it is necessary to address the core issues faced by Mobile Virtual Network Operators** (MVNOs) in some EU Member States, namely difficulties in obtaining fit-for-purpose wholesale access to the networks of Mobile Network Operators (MNOs). Some MVNOs are faced with:
  - a) Refusal to supply (notably of Full MVNO access and access for the purposes of IoT).
  - b) Unacceptable delays during technology transitions, for example:
    - i) Widespread +/- 18 months delay to access 4G after the MNO's own retail 4G launch, and many years longer in the largest EU Member State;
    - ii) Delay of VoLTE integration, which is still problematic today in several EU Member States;
    - iii) Denial of access to 5G, or supply of 5G access on economically unattractive terms.
  - c) Particularly unfavourable treatment of MVNOs focused on the Internet of Things (IoT), both domestically, and in terms of wholesale roaming (e.g. contractual clauses prohibiting certain IoT usage, or surcharges for such usage, above the level of regulated wholesale roaming caps). In addition, monthly fees applied per IMSI in use negatively affect innovative business cases, in particular for sensor-based and other low data consumption scenarios.
  - d) Wholesale pricing structures and margin-squeeze practices, aimed at relegating MVNOs to serving low-end market segments.
  - e) Wholesale roaming access/wholesale roaming resale access sold at the level of the EU Roaming Regulation's wholesale caps (or very slightly below), meaning that MVNOs pay more than double, and often a multiple of, the prices at which wholesale roaming is traded commercially between MNOs. This places MVNOs, which are unilateral buyers of wholesale roaming, at a structural disadvantage, which is likely to be exacerbated as wholesale roaming caps are decreasing at a rate which does not match annual data consumption growth.

9. MVNO Europe is therefore pleased to see BEREC mentioning that: *"MVNOs may, however, struggle when negotiating access conditions, mainly wholesale prices, with traditional mobile network operators"*. (page 10, para 2). *"Factual investigations of the competitive dynamics are therefore important and may also affect choices available to end-users of new businesses in terms of connectivity providers (MNOs, MVNOs, other micro operators e.g. using a network slice)"*. (page 10, para 4). *"The Report should gather information about wholesale mobile access obligations and identify any issues/barriers and opportunities for new business models. This might be useful in view of market analyses and discussions on oligopolistic market structures."*(page 10, para 5).

10. **These BEREC statements are much appreciated. In addition, MVNO Europe urges BEREC to:**

- a) Specifically investigate each of the points raised by MVNO Europe in paragraph 8 above.
- b) **Focus not only on 5G** and the needs of new types of business models, **but also take into account the perspective of generalist MVNOs (providing voice/sms/data bundles)** wishing to act as competitive forces on mobile markets, and which must be able to benefit from the same RAN technologies and network coverage as Host MNOs to have a realistic prospect of maintaining and expanding their businesses.

For further elements, please also refer to MVNO Europe's response to BEREC's consultation on the '5G Radar' – BoR (20) 110 – in which we urged BEREC to not only focus on industry-specific wholesale access to 5G networks (services for industry 'verticals', involving differentiated QoS requirements, and network slicing), but also to ensure generic wholesale access to 5G networks in order to stimulate innovation and competition, thus realising the potential of 5G, and promoting end-user interests.

- c) Note that several MVNOs are innovation leaders, thanks to their ability to tailor solutions to customers, develop flexible IT solutions integrated with connectivity, etc. which has enabled them to win major contracts for connected mobility (connected cars in particular), connected industrial devices, monitoring and maintenance of complex equipment (including aeroplanes each time they land at an airport), and are developing smart campus and smart city solutions.
- d) Take into account the fact that specialist providers of (4G/5G) campus and industrial networks will often need generic MVNO access to enable personnel to remain connected when not within the coverage area of the private networks. In fact, specialist providers

may not be able to win private mobile network contracts if they do not couple it with a wide-area mobile connectivity solution.

- e) Gain a good understanding of what is required by companies wishing to operate as Full MVNOs, in technical terms and in commercial terms. In Annex I to this response, MVNO Europe provides a description of Full MVNO access, in technical terms, and in commercial terms. This can serve as a basis for BEREC's reflections when preparing the forthcoming Report.

**11. Based on what precedes, MVNO Europe calls upon BEREC to include in the Report on wholesale mobile access connectivity the need to actively promote wholesale access to mobile/wireless networks, and the points raised in this response.**

12. Furthermore, BEREC should encourage National Regulatory Authorities ('NRAs') (and, where applicable, other authorities) to **ensure that fit-for-purpose wholesale access to mobile networks is available** in their Member State, **where justified by regulatory means**. This means:

- a) Not shying away from conducting **analyses of mobile access markets** (starting, where applicable, from retail markets, and then assessing the related wholesale market(s), with a determined focus on the functioning of wholesale mobile access markets).

This is precisely what the Czech NRA has done in August 2021, after many years of poor performance of the mobile market. The Czech NRA has consulted on market definition, SMP assessment (finding joint SMP of the three MNOs), and on a full set of regulatory obligations, including a detailed margin-squeeze remedy.

It is also very relevant to study the period during which Spanish NRA had a market analysis decision on the wholesale market for mobile access and call origination in place (2006-2016 – based on a finding joint SMP of the 3 leading MNOs), which has led to the rise of MVNOs from a very low base to over 10% market share, and the most successful MVNO was able to grow to a scale where it managed to acquire the fledgling 4<sup>th</sup> MNO, and become a real force on the Spanish market (mobile and fixed). This is a clear success story, that merits description in BEREC's Report. The wholesale access obligations were able to be withdrawn, because they were highly successful. Even after their withdrawal, MVNO access remains a major feature of the Spanish market.

- b) Not hesitating to impose **pro-competitive conditions/obligations in spectrum assignment proceedings**, in particular the granting of both Light and Full MVNO access.

Article 5 of the EU Radio Spectrum Policy Programme<sup>1</sup> and article 52 of the European Electronic Communications Code<sup>2</sup> both require competent authorities to assess mandated wholesale access as part of spectrum licensing. The NRAs (or other competent authority) are required by these binding texts to give reasoned consideration to potentially mandating wholesale network access as part of spectrum licensing proceedings. This covers Light and Full MVNO access, and not only national and regional roaming. The NRA (or other competent authority) proceedings are required to be explicit in this regard, i.e. they cannot dismiss wholesale network access without a substantive discussion/elaboration of the issues concerned in their decision-making processes.

Most recently, in 2020 and in 2019, NRAs in Portugal, the Czech Republic and France have included wholesale mobile access requirements in spectrum assignment proceedings, with Full MVNO access explicitly being mandated in proceedings in all three countries (in the cases of the Czech Republic and France through signed commitments of the bidders for radio spectrum).

- i) Portugal: Article 45 of the Auction Regulation for the Allocation of Rights of Use of Frequencies in the 700 MHz, 900 MHz, 1800 MHz, 2.1 GHz, 2.6 GHz and 3.6 GHz bands, addressing network access obligations (English language text available<sup>3</sup>).
- ii) Czech Republic: Invitation to tender for granting of the rights to use radio frequencies to provide electronic communications networks in the 700 MHz and 3400–3600 MHz frequency bands (English language text available)<sup>4</sup>. See especially in Annex 2A, the section requiring a Commitment to provide wholesale offer (for existing mobile network operators)<sup>5</sup> which also includes the description of a margin-squeeze test that will be applied if needed.

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<sup>1</sup> EUR-LEX reference: <https://eur-lex.europa.eu/legal-content/DE/TXT/PDF/?uri=CELEX:32012D0243&from=EN>

<sup>2</sup> EUR-LEX reference: <https://eur-lex.europa.eu/legal-content/DE/TXT/PDF/?uri=CELEX:32018L1972>

<sup>3</sup> Regulation no. 987-A/2020, of 5 November 2020: <https://www.anacom.pt/render.jsp?contentId=1573881>

<sup>4</sup> Ref. No. ČTÚ-38 426/2020-613, dated 7 August 2020. An English version of all documents is provided below the main body of the announcement of the procedure.

<sup>5</sup> Page 8 and following of Annex 2A: <https://www.ctu.eu/sites/default/files/obsah/ctu/announcement-invitation-tender-granting-rights-use-radio-frequencies-provide-electronic/obrazky/annex2adeclarationincumbentoperator.pdf>

- iii) France: ARCEP Decision on the modalities and conditions for granting spectrum rights of use in the 3,4-3,8 GHz band in metropolitan France to establish and exploit a mobile radio network open to the public<sup>6</sup>. See especially Section I.6.1, entitled "Engagements d'accueil des MVNO" (pages 33-34). This ARCEP Decision was validated by Government Decision of 30 December 2019<sup>7</sup>.
- c) Seeking **explicit voluntary wholesale access commitments from spectrum licensees** (in particular for Light and Full MVNO access), possibly in exchange for discounts on spectrum fees.
- d) Being open to **engaging in dispute-resolution proceedings relating to MVNO access**, and resolve disputes expediently and with real substantive outcomes, and be prepared to follow-up on the implementation of dispute-resolution decisions.

In 2021, two highly relevant cases occurred.

- i) The Czech NRA applied, on request of an MVNO which initiated a dispute, the margin-squeeze test contained in a spectrum licence, and its decision was upheld by the appeals court. This resulted in a 41% reduction of wholesale charges applied by an MNO to an MVNO<sup>8</sup>.
- ii) The German NRA resolved a dispute on the negotiation requirement contained in the 2019 5G spectrum licences in favour of an access seeker, notably specifying that negotiations must concern not only a Service Provider (resale or Light MVNO) offer, but also concern Full MVNO access (where the MVNO can use its own technical resources). The NRA imposed timing and procedural requirements on the negotiations, and confirmed its availability to intervene again in case negotiations fail<sup>9</sup>.
- e) **Addressing consolidation** between MNOs, where it is expected to lead to welfare loss.

DG Competition of the European Commission has ensured the availability of MVNO remedies on several occasions (antitrust cases relating to M&A in Austria, Spain, Ireland, Germany, Belgium). We are not providing details of the cases in this response, as we

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<sup>6</sup> Decision 019-1386 of 21 November 2019: [https://www.arcep.fr/uploads/tx\\_gsavis/19-1386.pdf](https://www.arcep.fr/uploads/tx_gsavis/19-1386.pdf)

<sup>7</sup> <https://www.legifrance.gouv.fr/jorf/id/JORFTEXT000039699703>

<sup>8</sup> From CTU website (in English): <https://www.ctu.eu/monthly-monitoring-report-no-72021-dispute-decision-wholesale-prices-mobile-data-unsolicited-calls>

<sup>9</sup> BNetzA press release dated 18 October 2021: [https://www.bundesnetzagentur.de/SharedDocs/Pressemitteilungen/DE/2021/20211020\\_BK2.html?nn=265778](https://www.bundesnetzagentur.de/SharedDocs/Pressemitteilungen/DE/2021/20211020_BK2.html?nn=265778)



assume that they are well known, and some are assessed in the BEREC Report on Post-Merger Market Developments<sup>10</sup>.

We urge BEREC to highlight in its Report the particular success of the Austrian case. We also point out that the Austrian NRA and the Austrian competition authority are currently actively engaging with stakeholders (including MVNOs) about the situation once the MVNO commitment Drei undertook towards DG Competition of the European Commission expires in 2022.

13. More broadly, we ask BEREC to **actively monitor and report on the wholesale dimension of mobile markets, including IoT and 5G**, and specifically to **expand the data collection and reporting** that BEREC already conducts for traditional mobile international roaming and wholesale call/SMS termination rates.

### III. Ensuring that Digital Gatekeepers do not restrict choice of (mobile) electronic communications provider and do not restrict functionality

14. **MVNO Europe wishes to expressly thank BEREC for including Sections 2.1 and 2.2 in the Work Programme 2022, entitled: "Report on the Internet ecosystem" and "BEREC Report(s) for an effective enforcement of the regulatory intervention on digital gatekeepers". This is in line with MVNO Europe's previous requests to BEREC.**

15. Indeed, it is necessary to address the reality that digital gatekeepers, and in particular those controlling Operating Systems, prevent or distort competition on (mobile) electronic communications markets.

16. MVNO Europe warmly welcomes the fact that BEREC is suggesting forms of ex-ante regulation – and a role for regulatory authorities, to prevent abuse of market power by digital gatekeepers. **MVNO Europe agrees that both BEREC and National Regulatory Authorities should play a role in ex-ante regulation of gatekeeper digital platforms in the future.**

17. The topic of gatekeeper digital platforms is highly relevant for MVNO Europe, given that several of our members face **unjustified technical restrictions at Operating System level**, imposed by the entity controlling a major operating system. **These restrictions damage competition for mobile electronic communications services, and harm end-user**

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<sup>10</sup> BoR(19) 119: [https://berec.europa.eu/eng/document\\_register/subject\\_matter/berec/reports/8168-berec-report-on-post-merger-market-developments-price-effects-of-mobile-mergers-in-austria-ireland-and-germany](https://berec.europa.eu/eng/document_register/subject_matter/berec/reports/8168-berec-report-on-post-merger-market-developments-price-effects-of-mobile-mergers-in-austria-ireland-and-germany)

**interests.** MVNO Europe is available to provide technical details on the acute issues that several of its members face (for example restrictions at software level on activating Voice over Wi-Fi and 5G, even where the MVNO supports these technologies).

18. **MVNO Europe urges BEREC to affirm a requirement of 'device neutrality'**, i.e. the principle that inescapable device manufacturers should not, merely for their own business reasons, be allowed to deliberately degrade the selection of functionalities on their own devices. Electronic communications operators, including all types of MVNOs, should be entitled and readily be able to access the functions of operating systems they need to fully provide their services and enable their users to use all features of devices/operating systems in all parts of the value chain.
19. **We therefore expect BEREC to follow-up on the BEREC Report on the ex-ante regulation of digital gatekeepers**<sup>11</sup>. We welcome that this report contained the following statement: *"In this line, BEREC considers that device manufacturers and providers of operating systems which hold a gatekeeper position should not be able to impose restrictions on mobile operators/service providers, on app developers, and on end-users, which limit access to key device functionalities (e.g. the generation of mobile technology, mobile Internet, Voice over LTE or Wi-Fi, GPS, voice commands, etc.) for purely commercial reasons."*
20. In this regard, MVNO Europe supports specific **amendments to the EC legislative proposal on the Digital Markets Act** (e.g. put forward in the European Parliament's ITRE Committee's opinion<sup>12</sup>), which are as follows:
- a) Amendment 120 which suggests to revise **Article 6.1 (e)** as follows:

*[...] refrain **in any form from reverting to the applications of the gatekeepers and restricting the ability of end users to switch between and subscribe to different software applications and services to be accessed using the operating system or the cloud computing services of the gatekeeper, or controlled by the gatekeeper, including as regards the choice of providers of electronic communications networks and services for end users, or using its virtual assistant;***

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<sup>11</sup> BoR(21)131: [https://berec.europa.eu/eng/document\\_register/subject\\_matter/berec/reports/10043-berec-report-on-the-ex-ante-regulation-of-digital-gatekeepers](https://berec.europa.eu/eng/document_register/subject_matter/berec/reports/10043-berec-report-on-the-ex-ante-regulation-of-digital-gatekeepers)

<sup>12</sup> OPINION of the Committee on Industry, Research and Energy for the Committee on the Internal Market and Consumer Protection on the proposal for a regulation of the European Parliament and of the Council on contestable and fair markets in the digital sector (Digital Markets Act) (COM(2020)0842 – C9-0419/202 – 2020/0374(COD)): [https://www.europarl.europa.eu/doceo/document/ITRE-AD-693907\\_EN.pdf](https://www.europarl.europa.eu/doceo/document/ITRE-AD-693907_EN.pdf)

b) Amendment 33 which suggests to revise **Recital 51** as follows:

*Gatekeepers can hamper the ability of end users to access **electronic communications services including internet access service**, online content and services including software applications. Therefore, rules should be established to ensure that the rights of end users to access an open internet are not compromised by the conduct of gatekeepers. Gatekeepers can also technically **and commercially** limit the ability of end users to effectively switch between different Internet access service providers, in particular through their control over operating systems or hardware. This distorts the level playing field for **electronic communications (including Internet access services)** and ultimately harms end users. It should therefore be ensured that gatekeepers do not unduly restrict end users in choosing their **electronic communications network or Internet access service provider**.*

**21. We urge BEREC to take the above elements into account, when developing and formulating its own points, and interacting with co-legislators working on the Digital Markets Act, and for the contents of the forthcoming BEREC Reports.**

#### IV. Response to further selected elements of BEREC's draft Work Programme 2022

##### **Strategic Priority 1: Promoting full connectivity**

22. MVNO Europe supports BEREC's work in this area. We do not comment on the items relating to fixed networks (e.g. copper network migration/switch-off) and backhaul, although it is clear that MVNOs have an indirect interest in backhaul provision being as competitive as possible.

23. Item 1.3: Report on the 5G Value Chain: MVNO Europe welcomes this BEREC workstream, but regrets that MVNO access is not mentioned, and wishes to express its concern that BEREC seems to limit its ambition to reporting, and gives no indications that it is prepared to provide active guidance to NRAs, or that it intends to encourage NRAs to act to resolve issues. This is insufficient. Many MVNOs are confronted with tacit or explicit negative responses to their requests for access to 5G networks. Without action being taken, it is likely that (inevitable) competition problems will be allowed to emerge, and will be addressed too late, after (irreversible) damage to competition and consequently to end-user interests has occurred. **MVNO Europe explicitly requests BEREC to expand item 1.3 to address generic MVNO access to 5G networks, and to link item 1.3 with item 1.4, the Report on wholesale mobile access connectivity.**

24. Item 1.4: Report on wholesale mobile access connectivity: MVNO Europe has addressed this item in Section II of this response, since it the most important part of the BEREC Work Programme 2022 from the MVNO perspective.
25. Items 1.9.1 and 1.9.2: BEREC Report on the regulatory treatment of business services and External study on evolution of business services: MVNO Europe supports BEREC developing these workstreams, and will take an active interest in them. **Our request is simple: these workstream should not only address fixed networks and services, but also mobile/wireless networks and services.**

### **Strategic Priority 2: Thriving sustainable and open digital markets**

26. Item 2.1: Report on the Internet ecosystem (carry-over, before named: Report on the Internet Value Chain), and Item 2.2: BEREC Report(s) for an effective enforcement of the regulatory intervention on digital gatekeepers: MVNO Europe has addressed these items in Section III of this response, since it the second most important part of the BEREC Work Programme 2022 from the MVNO perspective.

### **Strategic Priority 3: Empowering end-users**

27. Item 3.1: Workshop on the application of rights of end-users in the EECC (and also Item 5.2.1: BEREC Opinion on Article 123): MVNO Europe wishes to ask BEREC to exercise restraint in formulating its Opinion on Article 123 of the EECC (review procedure on end-user rights). Given that the EECC transposition was (or still is) substantially delayed in many Member States, it is clearly too early to contemplate revisions to the EECC, since there has been little or no experience with its application so far. MVNO Europe does wish to ask BEREC to be involved in the Workshop that is planned on end-user rights. At present, this appears to be a closed workshop, perhaps even only a bilateral workshop with BEUC. In MVNO Europe's opinion, industry stakeholders should also have the possibility of contributing to this workstream.

### **BEREC's other tasks**

28. MVNO Europe notes that much of this work is triggered by draft legislation or by formal requests from EU institutions. We thank BEREC for being generally open to MVNO Europe's proactive input in this regard, and we appreciate having been able to make our views known in particular on mobile roaming. We expect this to be the case again in the future, notably in the context of the implementation of the soon to be revised Roaming Regulation.

29. Item 5.1.5: Peer review process: As every year, MVNO Europe feels compelled to make the observation that the peer review process remains a black box, and that it is impossible for MVNO Europe to know whether BEREC participates in a manner that MVNO Europe would support or may disagree with. In MVNO Europe's opinion, BEREC needs to bring not only the full connectivity dimension to the table, but also the promotion of competition and end-user interests. We highlight in this context the contents of Article 5 of the Radio Spectrum Policy Programme, which enables pro-competitive conditions (e.g. wholesale access including Light and Full MVNO access) to be included in spectrum assignment proceedings. Also, BEREC proposes no exchanges with stakeholders regarding the peer reviews. This is problematic. It is essential for stakeholders to understand BEREC's role and attitude in peer review processes. The outcome of peer reviews should also be published.

30. Item 5.2.3: International Roaming Benchmark Data Report: MVNO Europe welcomes this BEREC workstream. BEREC's data gathering and reporting has always yielded highly relevant information for policy-makers, regulators, industry and consumers, notably on the wholesale charges set by MNOs when they negotiate roaming bilaterals compared to the wholesale charges paid by MVNOs as unilateral buyers of wholesale roaming. More attention is needed to the level of wholesale charges incurred by MVNOs, and to how (and why) these are far higher than charges for domestic wholesale access to mobile networks. More attention is also needed to the very large discrepancy between retail tariffs and the wholesale caps. MVNO Europe reiterates its suggestions for additions to BEREC's monitoring activities, as follows:

- a) Wholesale international roaming for IoT and 5G (generic wholesale mobile international roaming and attention to specific arrangements for NB-LTE/LTE-M/5G): data collection and reporting on availability, whether international roaming agreements are concluded, and applicable wholesale inter-operator charges.
- b) IoT and 5G MVNO access and other forms of wholesale access enabling MVNOs to provide 5G-based services (Enhanced Mobile Broadband and Massive Machine Type Communications / Ultra-Reliable & Low Latency Communications): data collection and reporting on availability and whether agreements are concluded for the provision of wholesale access and available and used on a multi-country basis.
- c) 5G 'network slices': data collection and reporting on availability and whether bilateral agreements have been concluded between network operators, agreements have been concluded between network operators and MVNOs, and with industrial users, for the provision of 'network slices'. This should specifically include reporting on whether multi-country agreements setting out the characteristics of 'network slices' or some forms of

international roaming or exchange of 'network slices' at specified quality and price levels are agreed.

31. Item 5.2.4: Inputs to any legislative proposals of the European Commission on roaming: MVNO Europe continues to count on BEREC to advocate, as it has done in the past, for:

- a) Reduced wholesale caps.
- b) Imposing on MNOs that act as Host to MVNOs the pass-on of any discounts they have negotiated at wholesale level to MVNOs they host. This is justified because the outbound roaming traffic generated by MVNOs contributes to the volumes negotiated by the Host Mobile Network Operator.
- c) Improvements to ensure that 5G and IoT are adequately encompassed by the future EU Roaming Regulation. This includes changing the wording of Article 3 to no longer narrowly refer to Machine-to-Machine (M2M) communications and to acknowledge the growing importance of diversified Internet of Things (IoT) use cases and traffic types, including those for connected and automated mobility, etc. Legislative solutions in the EU Roaming Regulation are necessary to ensure competitive pan-EU IoT services markets, including in configurations justifying permanent roaming. Note: MVNOs are the most apt and agile market participants to serve pan-EU and IoT needs.

32. Item 5.2.6: Update of BEREC retail Guidelines on the Roaming Regulation, Item 5.2.7: Update of BEREC wholesale Guidelines on the Roaming Regulation, Item 5.2.8 VAS database and Item 5.2.9 Emergency communications database: MVNO Europe considers that these are necessary and important workstreams for 2022. We stand ready to contribute actively, including on any technical work, to ensure the best possible outcomes, for competition, and ultimately for end-users. Clearly, stakeholders should be involved to the maximum extent, through both informal and formal consultations.

33. Item 5.3.9: Report on monitoring of the termination rates for mobile and fixed voice calls: MVNO Europe strongly supports continued data collection and publication by BEREC. The existence of the Delegated Regulation on 'Eurorates' does not justify BEREC ceasing or reducing monitoring activity. It will in particular be of key importance for BEREC data to reveal whether some large operators or operator groups trade below the 'Eurorates' with each-other, while discriminating others. Attention to non-price aspects of wholesale call termination, and especially non-discrimination, will likely need to increase. BEREC should consider adding this to this workstream, or create a separate workstream to address it. Monitoring SMS TRs has proven its usefulness in the past, and should not be abandoned.

### **Stakeholder engagement**

34. MVNO Europe is thankful for having been invited to ask questions at BEREC's 2022 Stakeholder Forum and is grateful for the responses received from the incoming chairpersons for 2022 and 2023. We were especially encouraged by the statement on the importance of MVNO access going forward by the future BEREC chairperson for 2023. We encourage BEREC to enable MVNO Europe to also participate in panels at these recurring BEREC events in the future.
35. MVNO Europe also reiterates its thanks to BEREC for the inclusion of a workstream on mobile wholesale access in the draft Work Programme 2022. See Section II of this response above.

### **Potential BEREC work for 2023 and beyond**

36. Item 7.1: Update of the report on third-party payment charges: MVNO Europe has expressed its reservations about this work item, prior to it being launched, and in response to the public consultation in 2021. We remain of the view that BEREC should handle this topic prudently, in order to avoid introducing new overly bureaucratic rules, which might end-up harming competition rather than promoting it. It is not a topic readily suitable for harmonization, since the national practices differ widely and have complex roots and implementation structures.

## **V. MVNO Europe Contact Details**

Should you require any clarifications or further information on the elements and positions set out by MVNO Europe in this document, please contact:

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## Annex I: MVNO Europe's Description of Full MVNO Access

### Full MVNO access – in technical terms

In technical terms, we believe that the following conditions must be fulfilled in order to achieve Full MVNO access, and thereby achieve the necessary technical independence of the MVNO from the Host Operator(s):

- a) Rights-of-use over numbering resources granted by the national regulatory authority directly to the Full MVNO, including: IMSI mobile network code, MSISDN number range, non-geographic numbers, signalling point codes, operator ID code/number portability code, etc.
- b) Own SIM cards, including control over all SIM card functionalities.
- c) Control over all network elements, with the exception of the Radio Access Network (RAN), and – at the Full MVNO's discretion – with the exception of backhaul from the RAN. This implies that the Full MVNO has its own HLR (Home Location Register), MSC (Mobile Switching Centre), SMSC/MMSC (SMS and MMS Switching Centre(s)), SGSN/GGSN (Mobile Data network elements).
- d) Control over all OSS/BSS (Operations Support and Business Support systems), billing system, customer care system, ability to provision post-paid and pre-paid customers, etc.
- e) All calls, SMS/MMS, and data sessions are delivered to the Full MVNO's equipment (i.e. none stay 'on-net' of the Host MNO, none are routed end-to-end by the Host MNO).
- f) Full MVNO benefits from the same RAN technologies (e.g. 2G/3G/4G LTE + LTE-M/NB-IoT and 5G) and the same RAN coverage as the Host MNO.

Note: In some cases, the Full MVNO may wish to 'outsource back' the ownership and/or management of certain technical resources or technical processes to the Host MNO, or to outsource them to another provider. This is acceptable as long as it is clear that it is done by the Full MVNO on a fully voluntary basis, without coercion or operational/financial pressure from the Host MNO, and likely under a contract that is separate from the wholesale access contract.



### Full MVNO access – in commercial terms

In commercial terms, we believe that the following conditions must be fulfilled in order to achieve Full MVNO access, and thereby achieve the necessary commercial independence from the Host Operator:

- a) Full MVNO unequivocally owns its customer base, and is able to migrate that customer base to another Host MNO, to its own network, to sell that customer base, etc.
- b) No restrictions on type of services provided, and on the type of customers (retail and wholesale) to whom services are provided.
- c) No restrictions on the setting of retail prices to customers and wholesale charges to third parties.
- d) No restrictions on the receipt of wholesale call / SMS termination payments.
- e) No restrictions on the Full MVNO to organise its own international roaming.
- f) No restrictions on the ability to contract with any third parties (in particular no exclusivity; the Full MVNO must be able to use multiple domestic Host MNOs and international roaming partners if it so wishes).

On the basis of its experience, MVNO Europe considers that where regulatory obligations are imposed on MNOs towards MVNOs, these should include internal-external non-discrimination and transparency principles not only on quality, but also on the wholesale access charges, and specific safeguards against margin-squeeze, in order to ensure that MVNOs are able to replicate ALL retail/channel offers marketed by the Host MNO at all times, without facing a margin-squeeze situation.

In addition, there is a need for specific safeguards for innovation, specifically the prohibition of technical and commercial restrictions as set out above, and a guarantee that MVNOs will be able to benefit from the same RAN technologies (e.g. 2G/3G/4G LTE + LTE-M/NB-IoT and 5G) and the same RAN coverage as the Host MNO, at the same time as the Host MNO. This is important because we are aware of cases where, for example, 4G was offered to MVNOs several years after the Host MNO started providing it to its own retail customers. Time lags on 5G MVNO access are already a reality today.