



Response to Radio Spectrum Policy Group Consultations

RSPG21-014 FINAL

Draft RSPG Opinion on a Radio Spectrum Policy Programme

and

RSPG21-006 FINAL

Draft RSPG Opinion on Spectrum Sharing

26 March 2021

I. Introduction

1. MVNO Europe welcomes the RSPG's initiative to consult interested parties on: (i) its draft Opinion on a new Radio Spectrum Policy Programme – RSPG21-014FINAL, and (ii) its draft Opinion on Spectrum Sharing: Pioneer Initiatives and Bands – RSPG21-006FINAL.
2. MVNO Europe is pleased to provide this brief contribution, which constitutes our response to both consultations.
3. MVNO Europe recognises that the RSPG's mandate concerns radio spectrum policy in the strict sense, and does not cover the entirety of the EU legal and regulatory framework for electronic communications. However, the RSPG's activity, and certainly the European Commission and Member States' decisions based on RSPG deliverables, influence or even determine market structures, notably in terms of the number of Radio Access Network operators that are entitled to be present in a given geography, and in terms of the number of Radio Access Networks that can viably exist in a given geography.
4. In this context, we wish to place emphasis on the effect of market structures on overall socio-economic welfare, and on the importance of enabling competition, notably competition between Radio Access Networks in terms of supplying wholesale markets (e.g. markets for MVNO access, roaming access (which can be international, national, regional, local, indoor), future markets based on 'network slicing', future markets based on network sharing and spectrum leasing (geographically and in time), etc.
5. We highlight that MVNOs have usually (by necessity) been innovation leaders, inject additional competition on markets that are often highly concentrated due to spectrum scarcity and spectrum allocation and assignment decisions, and that our members are long-standing leaders in Internet of Things, including for connected mobility.

II. Promotion of Competition must be a key element in the new RSPP

6. The Radio Spectrum Policy Programme (hereafter 'RSPP'), adopted by the European Commission and by EU Member States in 2012, is clearly a document which has profound influence on market structures for mobile/wireless communications. Its Article 5 on competition is essential, in that it requires Member States' authorities to assign radio spectrum in a manner that promotes competition, and it outlines the types of pro-competitive measures that can be taken to ensure competition. These measures include the imposition of mandatory wholesale access¹ on holders of rights-of-use over radio spectrum.

¹ Article 5.2(a) of <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:081:0007:0017:EN:PDF>

7. MVNO Europe considers that many Member States have taken insufficient account of the binding character of Article 5 of the 2012 RSPP, and we note that only few have proceeded to imposing wholesale access (not to mention fit-for-purpose wholesale access). This is highly regrettable. Tangible improvements in this regard are necessary.
8. Examining the RSPG's draft Opinion on the development of a new RSPP (RSPG21-014FINAL) that will eventually replace the current RSPP, we are concerned that the RSPG appears largely to promote a 'business as usual' view of the world, and that barely any attention is given to promoting competition through spectrum allocation and assignments.
9. What causes us even more concern, is that we have the impression that the RSPG may consider that an article on promoting competition might not be necessary in the new RSPP. Inaction on the promotion of competition would lead to cementing existing market structures (i.e. 3 or 4 large Mobile Network Operators per country, which in several cases do not compete vigorously on wholesale markets, and a small fringe of MVNOs where the Mobile Network Operators choose to supply wholesale access). Inaction on promoting competition might even lead to a reduction of competition between Radio Access Network operators.

MVNO Europe respectfully submits that an article on competition must be included in the new RSPP, and we call on the RSPG to modify its draft, such that the final RSPG Opinion:

- a) explicitly calls on the European Commission and Member States to include a dedicated article on the promotion of competition through spectrum assignments in the new RSPP,
- b) elaborates on this, by stating that this article should be drafted in a manner making the adoption of pro-competitive measures in spectrum licenses an explicit binding requirement on Member States' authorities assigning radio spectrum, and to include a supervision and reporting mechanism to ensure that Member States' authorities effectively implement it, and,
- c) opines that the article should include a reference to wholesale access, and contain details on what constitutes fit-for-purpose wholesale access (or refers to an Annex or further guidance to be issued by the European Commission or BEREC on what constitutes fit-for-purpose wholesale access).

10. In Annex to this response, we provide MVNO Europe's position on what constitutes fit-for-purpose Full MVNO access, in technical terms and in commercial terms. This could be a good starting point for developing the RSPP's section or annex, or European Commission or BEREC guidance on wholesale access.

III. Wholesale access should be recognised as an indirect way to share scarce spectrum resources

11. MVNO Europe welcomes the fact that Point 1.3 of the RSPG's draft Opinion on Spectrum Sharing (RSPG21-006FINAL) contains the following statement:

The RSPG invites Member States to consider network slicing and roaming agreements, as well as other forms of access to spectrum resources, as complementary elements to promote spectrum sharing.

12. We regret that it is the only mention of forms of wholesale access in this document, and that the RSPG's draft Opinion on the RSPP does contain any such mention.

13. Network slicing is an essential feature of 5G, is a way of promoting new forms of sharing, new forms of competition and innovation more generally. It would be a pity if 'network slicing' were not to materialise, or would not become available under fair and reasonable conditions. We ask the RSPG to explicitly recognise network slicing in both its final Opinions as a valuable pro-competitive tool.

14. MVNO Europe wishes that the RSPG would recognise the value of wholesale access in its various modalities more generally (international/national/local/indoor roaming, (full) MVNO access, network slicing, etc.) as an indirect way to share scarce spectrum resources, and to avoid duplication of network investments where direct RAN competition is not feasible or desirable.

15. We emphasize in this context that MVNOs pay network operators for the wholesale access they take up, which contributes to financing mobile network infrastructure and assures revenues to Mobile Network Operators, whilst avoiding costly duplication of network assets.

MVNO Europe respectfully submits that Point 1.3 of the RSPG's draft Opinion on Spectrum Sharing should be extended, and also included in the RSPG's draft Opinion on the RSPP, with modifications we put forward, as follows:

The RSPG invites Member States to promote network slicing and roaming agreements, as well as other forms of wholesale access to spectrum resources and networks, such as (Full) MVNO access, as complementary elements to promote spectrum sharing. The RSPG invites Member States to included mandatory wholesale access in spectrum licenses where necessary in order to promote innovation and competition, including for the achievement of a Single Market for Internet of Things.

IV. About MVNO Europe

16. 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 (hereafter 'IoT') markets, etc. <http://www.mvnoeurope.eu/members>
17. MVNOs currently represent +/- 10% of SIM cards in the European Union.
18. 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.
19. 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.
20. MVNOs contribute strongly to innovation and competition and provide clear Business to Consumer (B2C) and Business to Business (B2B) end-user benefits. 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.

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 - 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:

- g) 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.
 - h) No restrictions on type of services provided, and on the type of customers (retail and wholesale) to whom services are provided.
 - i) No restrictions on the setting of retail prices to customers and wholesale charges to third parties.
 - j) No restrictions on the receipt of wholesale call / SMS termination payments.
 - k) No restrictions on the Full MVNO to organise its own international roaming.
 - l) 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).
21. 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.
22. 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 have already been announced: for example, at the May 2019 MVNOs World Congress in Amsterdam, an MNO announced its 5G retail network launch. When questioned about MVNO access, it answered that this would probably be forthcoming 12 to 18 months later.