

BEREC Work Programme 2021 Consultation

November 3, 2020

1. About Qualcomm

Qualcomm is an innovator and leading developer of end-to-end design of wireless communications systems, having pioneered foundational aspects of 2G, 3G and 4G wireless systems and technologies, and is currently a leader in 5G wireless systems and technologies.

Qualcomm is a research-and-development (R&D) and a product-development company and is leading the way in the design and development of 5G. Our inventions are the foundation for life-changing products, experiences, & industries. We bring mobile to everybody and are leading the way to a world in which everything can interact seamlessly.

Since its inception in 1985, Qualcomm has spent over \$60 billion on R&D, and on average has reinvested over 20 percent of its annual revenue in foundational R&D for enabling the entire wireless ecosystem.

Our business model is based on openness and we are a strong supporter and contributor of the European Standardisation model created 35 years ago. In our view, standards are critical to building open ecosystems in which all market players jointly work toward the creation of new technologies by “plugging in” their innovations. The consensus-based and meritocratic nature of the collaborative standardization process has led to the development of superior and cutting-edge technologies.

Several studies in the past have documented the numerous benefits of technology standards: i) lower transaction costs, ii) promotion of intra industry international trade, iii) industry growth and reduced prices of products based on the standard, iv) lower barriers to entry, economies of scale, gains in productivity and efficiency. For example, the total economic value enabled by cellular standards (3G/4G/5G) has been estimated at \$4.8 trillion in 2019, with a growth estimated to approximately \$7.5 trillion in 2025.

2. Context

Qualcomm subscribes to BEREC mission to foster independent consistent and high-quality regulation of digital markets for the benefits of Europe and its citizens. We welcome the Open consultation on the Work Programme for 2021 and in the context of your strategic priority 1 on Promoting Full Connectivity and your strategic priority 2 on Thriving sustainable and open digital market and your forthcoming report on the Internet value chain, we would like to offer our views hereinafter.

3. Strategic Priority 1 on Promoting Full Connectivity

Qualcomm supports BEREC efforts in promoting full connectivity and prioritizing work that improves the general conditions for the expansion and take up of secure, competitive, and reliable high-capacity networks across Europe. In this context, wireless networks and in particular 5G have an important role and BEREC should do its best to eliminate all possible inhibitors to 5G deployment (for example fighting the disinformation about EMF exposure) while initiating effective actions to accelerate its deployment across a large number of vertical industries. 5G can be viewed as an open and flexible innovation platform that can support cross sectors use cases and environments and we would like to bring to your attention two very recent studies.

3.1 Analysys Mason study on 5G Action Plan Review for Europe

A study commissioned by Ericsson and Qualcomm to Analysys Mason has modelled the potential economic value 5G as an 'open innovation platform' will add to Europe. The conservative estimate amounts to €210 billion in benefits at a cost of €46 billion by 2025. The study clusters market segments within four key areas: Smart Production and Logistics, Smart Rural, Smart Urban, and Smart Public Services. The Smart Production and Smart Rural clusters have the largest net benefit of €70 billion and 55€ billion respectively, although their CBRs are lower than those of the Smart Urban and Smart Public Services clusters.

At the use case level, the largest economic benefits in terms of European GDP impact are from the smart factories, agriculture and FWA for suburban and rural areas use cases, providing net benefits of 58€ billion, 37€ billion, and 18€ billion respectively. The study also identifies key areas that would require partial or full public funding for the benefits to be realised. These span healthcare and hospitals, municipal buildings, education, tourism, agriculture, and urban hotspots including public transport. It found that over €50 billion of benefit can be delivered for less than €20 billion of public funding.

These use cases will be enabled through use of Europe's 5G pioneer bands. It will be essential for accelerated roll-out of 5G to continue over the coming years up to 2025, in line with the existing 5GAP. Completing the remaining spectrum awards across Europe in all 5G pioneer bands (700MHz, 3.4–3.8GHz and 26GHz) will be important to accelerate 5G deployment. The study shows that there should be a focus on reducing barriers to

deployment such as reducing deployment costs to accelerate speed of roll-out, as per the recent European Commission recommendation on a common toolbox for reducing the cost of high-capacity network deployment.

As well as the economic benefits driven by investment, the study outlines many of the key environmental and social benefits from 5G connectivity. Worker safety, upskilled workforces, reduced carbon emissions and energy usage, less resource intensive production, social inclusivity and even import/export security are all highlighted as supplementary benefits.

3.2 IDATE DigiWorld study on 5G Densification in cities

The need for connectivity is global and must be provided in all territories regardless of its density and it is in this context we have commissioned a study to IDATE DigiWorld to present some solutions. In many highly populated urban areas, telecom operators are facing high cost of network densification relying on small cells and with such a scarcity of available sites, or limited space or other essential inputs such that they cannot individually deploy their parallel networks in order to supply demand. The investment challenges are colossal and infrastructure sharing is needed. The study aims at providing relevant recommendations to cities and public authorities based on network sharing agreements as a part of the solution.

Recommendations for cities

- a. Make 5G as mandatory in the smart-city strategy and promote dense 5G networks in terms of coverage enhancements, new services, and attractiveness**
 - Communicate on successful 5G use cases & services implemented in advanced countries.
 - Communicate on 5G quality of service and coverage ambitions.
 - Dedicated public funding for small cells deployments in 26 GHz band in all cities by 2025.
 - Involve vertical industries (transport hubs, port, enterprises, and venues) with new and enhanced solutions through appropriate policies based on 5G.
- b. Promote strategic collaboration between cities and MNOs (win-win deals)**
 - Build trust with MNOs: enable definition of common goals and ensure financial transparency.
 - Multiply public and private partnerships in shared infrastructures.
- c. Shared investments and deployments should be promoted**
 - V2I investments should be coordinated with 5G densification efforts. Integrate Road Sign Units for V2I and 5G small cells in order to share investments and speed-up availability of automotive services.
 - Neutral host options should be envisaged for infrastructure sharing.
 - Cities could play an important role in mobile infrastructure sharing (provision of cell sites and access to light poles and traffic lights, passive infrastructure, active infrastructure).

Recommendations for Public authorities (Ministries and NRAs)

a. Accelerate 5G deployment in all territories at national level

- Encourage new spectrum auctions.
- Continue backhauling deployment and promote alternative solution when fiber deployment is costly and complex.
- Fund collaborative projects involving cities, MNOs, tower companies, neutral hosts in order to:
- Encourage test on new and enhanced 5G experiences based on 5G densification and promote earlier 26 GHz deployments as equipment is already available.
- Encourage test IoT implementations, support of in-building connectivity, use of city network for 5G backhaul.

b. Facilitate implementation of small cells at national level

- Reduce administrative complexity - Simplify administrative process to accelerate 5G network installations (e.g. permit-exempt deployment regime).
- Define appropriate fees to trigger small cells dense deployment.
- Promote full or partial integrated small cells in urban furniture - invisible to the public
- Keep the citizens informed on the respect of the strict EU exposure limits. Public health protection is ensured by the strict exposure limits set out in Council Recommendation 1999/519/EC, which sets exposure limits at 50 times lower than international scientific recommendations that ensure public safety.

c. Define national strategic orientations on connected cars based on 5G infrastructure and target national deployment by 2025

- Promote new initiatives/trials on connected cars in Europe.
- Dedicated public funding to help auto-industry in its transformation.
 - Promote V2I infrastructure deployment based on shared infrastructures between cities, MNOs and TowerCos.
 - V2I investments should be coordinated with 5G densification efforts. Integrate Road Sign Units for V2I and 5G small cells in order to share investments and speed-up availability of automotive services.

d. Promote a common European approach in anticipating V2I and C-V2X deployments by 2025

4. Strategic Priority 2 on Thriving sustainable and open digital market

4.1 Summary of our position on digital and technology gatekeepers

Hereinafter is a compact outline of our position shared recently with the European Commission in the context of the Digital Services Act Package [consultation](#) in 4 points:

- | Qualcomm's business model is based on openness and we are a strong supporter and contributor of the European Standardisation model created 35 years ago. In our view, standards are critical to building open ecosystems in which all market players jointly work toward the creation of new technologies by "plugging in" their innovations.
- | From what we understand, this new ex-ante regulation will go beyond competition or purely economic considerations and will also seek to uphold fundamental principles of democracy. In the context of the ongoing policy reflections, Qualcomm believes that the European Union needs additional powers to address the unfair practices that large digital platforms might adopt.
- | Ex-ante rules shall be tailored to digital platforms that play a gatekeeper role while not imposing costly and complicated obligations or remedies on other players who have no ability to engage in practices that hamper fair market competition. To use an analogy, Europe can democratize the future and replicate the "GSM model" that was born from a European political vision to create a pan-European network with the help of standardisation. Since then, the model reflects European societal values of openness, collaboration, access to all, inclusiveness, and level the playing field to the benefit of consumers and their freedom of choice. A targeted regulatory approach building on an ex ante regulation of such gatekeepers would appear much more suitable than the broadly defined enforcement powers envisaged with the NCT.
- | There is a unique opportunity to pair digital platform governance with democratic values, fair competition, and accelerate digital transformation that works for a new generation of economic growth. Qualcomm is looking forward for a continued engagement and is happy to be part of this conversation.

4.2 Our detailed position on digital and technology gatekeepers

The structural competition problems caused by large digital platforms acting as gatekeepers: Qualcomm shares the European Commission's assessment that large digital platforms that act as 'gatekeepers' are able to control increasingly important ecosystems in the digital economy, with significantly detrimental effects for competition, innovation and consumers: Such harmful conduct can cover a broad range issues such as unfair trading conditions, self-preferencing, data extraction, denying access to certain data in certain circumstances, restricting disintermediation (preventing business users from accessing data generated by their own use),

exclusivity or consumer lock-in.

One specific type of issue which Qualcomm believes deserves particular scrutiny relates to gatekeeper platforms' handling of data. Platforms with gatekeeper power are able to both (1) maximize their own extraction of consumer data and; (2) limit the ability of business users to collect data from their own consumers. Given the importance of data as an asset and input in the digitalized economy, such practices are likely to increase barriers to entry, establish an unlevel playing field and undermine the potential for future innovation. Data monopolization strategies can also have detrimental implications in emerging industries and business models such as the connected industrial verticals of the Internet of Things. An industry such as automotive could be particularly impacted if access to in-vehicle data ended up being entirely determined (and potentially restricted) by the platforms operating the vehicle's operating system, with the risk of replicating the gatekeeper issues already witnessed in the area of consumer / internet data and with damaging consequences in terms of fair competition, consumer choice, innovation and, at the end of the day, Europe's digital sovereignty.

Another significant cause of concern relates to the implications of gatekeeper power for the competitive environment in which European SMEs and start-ups / scale-ups operate, both in the short and long run. In the short run, unfair practices can undermine the ability of SMEs and scaleups to grow into successful businesses and compete on the merits with their rivals, while allowing gatekeepers to eliminate existing or nascent competitors and thus further entrenching their market power and limit contestability. In the long run, the anti-competitive barriers to the growth of SMEs and scaleups risks discouraging other firms from entering the market and investors from investing in firms focused on contesting such markets.

Why the solution is targeted regulation based on competition law principles and not competition enforcement: There is a consensus that, in the context of digital platforms, competition law cannot adequately address all practices that raise concerns. For example, competition law does not impose on digital platforms, including those that have a dominant market position, a general duty to deal with third parties. It also does not impose on them a general duty to share the collected data with third parties. Nor would it be appropriate to broaden the scope of competition law to ensure that companies have access to data.

Instead, a focused and a narrow regulation focused on addressing unfair trading practices by digital platforms that have a gatekeeping role appears to be a much more appropriate solution. Such ex-ante rules should not impose costly and complicated obligations or remedies on other players who have no ability to engage in practices that hamper fair market competition. Instead, such regulation should build on proven examples of economic regulation in other sectors such as telecom infrastructure (the "GSM model"), in which the EU has long subjected dominant network providers and service providers to positive and negative obligations, including asymmetric obligations. Such regulations were designed to work in tandem with the application of competition law and a similar approach could be adopted to address the conduct of digital platforms that act as gatekeepers. Qualcomm believes that a policy instrument like the DSA is the appropriate regulatory tool for the EU to fine-

tune its strategic autonomy, digital sovereignty and ensure global competitiveness for a fair and sustainable economy. There is a unique opportunity to pair digital platform governance with democratic values, fair competition, and accelerate digital transformation that works for a new generation of economic growth.

Principles the Commission should follow when designing the ex-ante regulation on gatekeeper platforms: When designing a potential ex-ante regulation of gatekeeper platforms, Qualcomm believes the Commission should focus on the following guiding principles:

Scope of the regulation and how to identify gatekeepers:

- the ex-ante instrument should only apply to digital platforms that have a gatekeeping role without extending to those platforms that cannot wield power vis-à-vis consumers or their business partners.
- While criteria on the basis of which the existence of a “gatekeeper” position should be clearly defined, the identification of gatekeepers should not be done through the automatic application of a set of specific set of fixed criteria, but through a case-by-case, holistic approach making a thorough assessment of all relevant circumstances of a platforms’ specific situation.

Prohibitions and obligations: Qualcomm supports a **list of clear “dos’ and ‘don’ts”** aimed at providing clarity and legal certainty to both platforms and their users of what type of conduct is acceptable or not. Prohibitions should cover the potential detrimental effects mentioned above, while obligations could include transparency, interoperability, portability, non-discrimination, and in some circumstance neutrality (for digital platform or device: ensure neutral access to some services and applications). As explained above, platforms’ practices related to collecting, using, and sharing **data** deserve particular scrutiny.

Regulatory oversight: The enforcement of a new ex ante regulatory regime targeted at gatekeeper platforms requires the creation of a new regulatory authority with extended monitoring, regulatory and enforcement powers across the 27 EU Member States. This regulatory oversight should be organized both at national and EU level, through a system similar to those used for telecom and data protection regulators, to take account both of platform’s inherent reach across the EU single market and of the national specificities that continue to exist in platforms’ operations in specific member states (in particular in terms of the business users and competitors they face).

Interplay with other EU policies: The ex-ante regulatory regime on gatekeeper platforms should go hand in hand with other complementary policy initiatives, in particular in the area of data, for example with the establishment of a legal framework for the flow, access, portability and use of data in key industrial areas such as mobility as envisaged in the Commission’s data strategy.

5. Conclusion

On Strategy Priority 1 | In light of all the above, Qualcomm believe that BEREC has a unique opportunity through its planned studies and reports to positively shape the future of 5G deployment making Europe to lead the world in connectivity and economic productivity with significant returns on investment.

On Strategy Priority 2 | Qualcomm believes that BEREC has a unique opportunity to continue shaping the discussion and promote principles of neutrality and openness. There is little doubt that the digital economy has brought significant benefits to our lives. At the same time, we recognise the existence of serious concerns about the potential monopolization of digital markets by a handful of powerful global players. From where we sit in the digital and technology value chain, we have a good understanding of the problems of today and believe we can foresee the problems of tomorrow. The internet ecosystem is open and vast. All of its elements and players are intrinsically interrelated and affect each other economically and technically.

We believe we are on the verge of witnessing the emergence of a new kind of technology player in the cloud computing and artificial intelligence area: all-powerful technology kingmakers who can build technology empires and who will be in a position to strengthen their market power almost at will. They will consist of companies with outstanding cross-market significance in the value chain who will be in a position to either influence directly third parties' access to supply and sales or prevent competitors from doing business.

In short, these companies will become Technology Gatekeepers, holding the keys to the cloud computing and artificial intelligence kingdom. Left unchecked, they will affect negatively innovation, fairness, and competition. This is contrary to fundamental principles of an open internet. To conclude, gatekeepers are no longer limited to digital and platform markets. Today they already encompass related technology markets in the wide sense, and we see on the horizon market dominance and future bottlenecks that could threaten our model of open internet.

Qualcomm is looking forward to a continued engagement with BEREC and is happy to be part of this conversation.