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DIGITALEUROPE's submission to the public consultation on draft BEREC Guide to the 5G Radar and 5G Radar



Introduction

DIGITALEUROPE has taken good notice of BEREC's proposed 5G Radar, as well as of the draft Guide to the 5G Radar. DIGITALEUROPE thanks BEREC for organizing a consultation on this highly important topic.

By way of introduction, DIGITALEUROPE refers to its [response to BEREC's call for input on regulation and 5G ecosystem](#) of August 2019, and appreciates that BEREC has taken due consideration of the various contributions to its earlier consultation on 5G regulation.

We also observe that commenting on the 5G radar is not an easy task, as the identification of 5G relevant regulation is likely to be a moving target. Indeed, as BEREC itself points out, the topics identified by the 5G radar may change and gain respectively lose in importance or focus. Nonetheless, DIGITALEUROPE wishes to share its main observations, concerns and requests with regard to the proposed documents and the priorities for 5G regulation generally.

We have organized our observations on what we consider to be main topics of interest according to the categories of topics in the draft 5G Radar.



Roll-out

Full connectivity in Europe is a high priority for DIGITALEUROPE members to ensure that all users and businesses have access to digital services online. Though Member States have reached 100% basic broadband penetration rate, the coronavirus pandemic revealed that not all children can study online, nor can all household members watch streaming video services on TV, communicate with video through messaging applications, or reliably conduct business from their home offices. The roll-out of 5G, complemented by enhanced Wi-Fi, constitutes a crucial element of ensuring such ubiquitous connectivity, not just to ensure high speed broadband and improved connectivity to consumers and the general public but to meet enterprises' connectivity needs as they are accelerating their digital transformation strategies and transitioning to more circular and sustainable economic models. These next-

generation networks will indeed form the basis for new digitalization capabilities, the creation of new markets, and economic growth.

DIGITALEUROPE is therefore pleased to see that BEREC considers most of these 5G roll-out topics as being of high importance. At the same time, we are surprised to see that only a very limited number of topics are deemed relevant by BEREC as regards 5G roll-out, more particularly **small cells, backhaul/fronthaul/any-haul, security of network and applications, and EMF**. Hereinafter, DIGITALEUROPE wishes to highlight additional topics which are equally important for 5G roll-out and which in our view merit BEREC's utmost attention.

Ensuring swift and sufficient harmonised spectrum availability is essential for the successful roll-out of 5G. Considering the broad set of use cases for 5G, this should include a mix of spectrum bands with different propagation characteristics to suit those different purposes. It is key to ensure that Member States proceed swiftly with making available the spectrum bands identified by RSPG.¹ The allocation of 5G spectrum in line with RSPG recommendations, should not incur additional delays beyond those caused by the Covid-19 crisis. DIGITALEUROPE clearly sees a role for BEREC to stimulate efficient and swift spectrum allocation for 5G.

Additionally, DIGITALEUROPE calls on BEREC to promote **investment-friendly mechanisms to make spectrum available**. Recognising that regulators have to make choices in setting the parameters that determine the design of spectrum auctions, we strongly encourage auction formats that incentivise operators to roll out networks quickly with ambitious coverage targets over inflating short-term revenues for the state. Lower auction prices reduce consumer prices and allow quicker deployment in markets, hence leading to an overall improvement in economic welfare for the member states. Another possible action is the use by Member States of payment arrangements which support the investments required to guarantee optimal use of the radio spectrum.

Considering that enhanced Wi-Fi connectivity complements 5G and that 5G/4G/Wi-Fi/unlicensed LTE will work together, **both licensed and unlicensed spectrum will be needed**. Indeed, enabling the development of enhanced Wi-Fi by providing it with sufficient and appropriate spectrum resources will help improve the experience of connectivity and be important to key 5G use cases such as online education, home office and video streaming.² In addition, the expansion of the Wi-Fi ecosystem will complement and extend the digital innovation supported by 5G.

In our earlier [response to BEREC's call for input on regulation and 5G ecosystem](#) the members of DIGITALEUROPE already highlighted the importance for BEREC to promote **spectrum sharing, infrastructure sharing and national roaming**.

¹ https://circabc.europa.eu/sd/a/fe1a3338-b751-43e3-9ed8-a5632f051d1f/RSPG18-005final-2nd_opinion_on_5G.pdf

² A swift and harmonized allocation of the 5925-6425 MHz bands is in any event key – see: [DIGITALEUROPE Whitepaper on 5925-6425 MHz \(6 GHz\) Wireless Access Systems - Radio Local Area Network \(WAS-RLAN\)](#) (an updated whitepaper foreseen for second half of 2020)

Simplified regulations around site access and planning permissions are essential. 80% of deployment costs comes from civil engineering work including planning and permission work with cumbersome and drawn-out processes adding significant unnecessary cost to deployment. Hence, after the work that has been achieved on harmonizing the requirements for small cell deployment, DIGITALEUROPE strongly encourages BEREC to lean in on the review of the Broadband Cost Reduction Directive, where the Commission has proposed to widen its scope to “foster a more efficient and fast deployment of very high capacity networks, including fibre and 5G networks”, to include sustainability targets for the deployment of electronic communications networks, and to ensure alignment with the EEC.

Specifically, on the topic of **security of networks and applications**, DIGITALEUROPE greatly values BEREC’s expressed interest to have a closer collaboration with ENISA leading the certification and assurance work. In this respect, it’s important that technical conditions are harmonized throughout Europe (e.g. certification schemes) and thereby do not undermine the uptake of digital innovation throughout the digital single market. DIGITALEUROPE also appreciates BEREC’s role to assist in the development process within the NIS Cooperation Group and the European Commission throughout the implementation of the 5G Toolbox, gathering information in the domain of telecoms and sharing BEREC’s experience on the electronic communications market matters.

Additionally, 5G networks are now being built out and performance and capacity gains are available to be tapped by new use cases, one of the first being fixed wireless access (FWA). Therefore, DIGITALEUROPE also welcomes BEREC’s focus on **fixed wireless access**, one of the early 5G developed business cases. FWA is complementing fixed broadband networks as a faster and more cost-effective alternative to provide broadband connectivity to homes and SMEs, especially in areas with lower population density. This in turn contributes to meeting Europe’s gigabit connectivity ambitions by enabling NRAs to reach their national broadband/digitalisation goals faster and in a more cost-effective manner through combining conventional (e.g. optic fiber and xDSL networks) and wireless broadband technologies.

Lastly, DIGITALEUROPE urges BEREC to attach higher importance and more focus to the **EMF workstream** than what is currently proposed. DIGITALEUROPE thinks indeed that, together with operators and other governmental stakeholders, BEREC can play a key role in providing consistent, fact-based positions and fighting misinformation regarding EMF health effects in the context of 5G and mobile technologies in general. It has recently become very apparent that misinformation on EMF is negatively impacting network roll-out in Europe. In order to promote efficient investment and innovation in new and enhanced infrastructure, we therefore believe that it is key for BEREC to feed and participate in a sound societal debate around this issue.



New business models and value chains

While DIGITALEUROPE appreciates that BEREC intends to follow the emergence of new business models as a result of the introduction of 5G, it finds the concrete BEREC proposals under this workstream still rather unclear.

DIGITALEUROPE sees that 5G will play an essential role in the digitisation of wider sectors of the economy, leading to improvements in automation, productivity, and innovation in various business sectors. As such, BEREC should monitor that all business models are equally treated, and no regulatory bias is favouring one business model or sector over the others. For potential new business models to emerge, premature or excessive regulatory actions need to be minimised to allow innovation to happen. We also consider that the **assessment of bottlenecks or needs for wholesale access should not be 5G specific** but should be assessed on a technology neutral basis.

DIGITALEUROPE believes that BEREC already possesses a substantial toolkit of measures to efficiently enable digital business cases, based on legislation such as the EECC and Regulation (EU) 2015/2120. In this respect, DIGITALEUROPE wishes to emphasize that IoT and 5G driven innovations, boosted by the central role of data and developments in artificial intelligence, will to a very large extent be **international applications that move seamlessly over national borders**. We see that operators are increasingly offering IoT solutions to companies operating at European scale and beyond the (traditional) home market of the operator. The successive Roaming Regulations have further facilitated the provision of such cross-border solutions. The cross-border nature of these activities makes regulatory harmonization efforts by BEREC and other EU institutions particularly timely and relevant.

More specifically, the challenge today is that efforts to implement the existing telecommunications framework, as well as the EECC, are too fragmented to allow telecommunications and digital players to grasp the full potential of these new cross-border IoT opportunities and markets. Local telecommunications operators who wish to offer 5G-based innovative solutions to international customers must take into account a wide variety of national telecommunications rules that often differ materially, including those addressing end-user protection, security outages, privacy, and data retention. This fragmentation conflicts with the objectives of the EECC and discourages the adoption and roll-out of innovative digital services. Experience tells us that it is extremely difficult to predict what will be the major use cases of a new technology. Regulators can promote innovation by providing clear and consistent guidance that enables users and innovators throughout Europe to develop and use services that fulfil their needs in new and better ways.

As regards **network slicing**, DIGITALEUROPE is of the view the Open Internet Regulation as agreed by the European legislators strikes a reasonable balance between protecting the rights of end users of Internet Access Services (IAS) and ensuring freedom to continue to innovate and develop new services for the entire ecosystem. We support BEREC in ensuring its consistent application across Europe to support the development of a Digital Single Market and commercial practices for all providers to invest, conduct business and innovate in Europe. However, as

network slicing is in its early stage of deployment, a study summarizing experiences as soon as 2022 seems rather early to encompass sufficient information. We equally stress that inconsistent application of the Open Internet regulation to 5G network slicing may negatively impact the development of network slicing offerings adapted to the market needs.



Interoperability

In addition to the new capabilities in the 5G radio, 5G will interoperate with other key networking technologies, not unique or limited to 5G but central to deliver the end to end transformation of mobile network, most notably virtualisation, increased reliance on software, network slicing and automation. 5G is also fundamentally different from its previous generations because it will shift from old custom hardware to a fully software-based, virtualized architecture. That is to say, in order for 5G networks to enable digitisation of verticals, above and beyond providing enhanced connectivity and higher speeds, the shift to 5G has to go beyond the radio access network and transform the network end to end, from the core network over the transport layer to the radio access network. This transformation is necessary to enable a broad range of use cases with positive spill-over effects in other network industries, such as transport, energy etc.

Against that background, DIGITALEUROPE agrees with BEREC that it is key to encourage interoperability, particularly interoperable standards. Even though this might go beyond BEREC's strict mandate, we believe that BEREC can play a key role in encouraging interoperable standards as an important vehicle for harmonization on technology, business and policy considerations and thus also for the achievement of the EU Digital Single Market.



End-user

While DIGITALEUROPE acknowledges that 5G offerings and applications may have implications on **privacy**, and that all providers should comply with relevant legal requirements, we do not believe that this is an area where BEREC should play an active role. Indeed, this domain is clearly outside of BEREC's remit and is already dealt with by a large number of institutions and stakeholders, like the national DPA and the EDPB. Also, we see no specific angle to assess the privacy situation specifically for 5G networks or services. Hence, DIGITALEUROPE appreciates that BEREC qualifies this topic as being of low importance. That said, DIGITALEUROPE is of the view that the privacy topics should in reality be entirely deleted from the BEREC 5G radar.

With regard to **transparency about coverage**, DIGITALEUROPE agrees that it can be important to provide information to end-users and drive investments. Most operators already provide maps on a voluntary basis to indicate about likely network performance at specific places and the EU-funded project for mapping of broadband

services already provides coverage maps for EU. It appears important that the BEREC efforts in this area build on existing initiatives.



Numbering & Roaming

On the topics of numbering and roaming, DIGITALEUROPE refers to its earlier contributions in its [response to BEREC's call for input on regulation and 5G ecosystem](#).

National roaming should in our view rather be seen as a tool for 5G roll-out than as an element of a broader roaming policy.



Sustainability

5G networks and improved connectivity will have a two-fold role when addressing Europe's sustainability targets. Beyond the importance of 5G networks' energy efficiency for the telecommunications industry, the connectivity enabled take-up of innovative digital solutions can significantly contribute to making our society greener. Benefits can be direct, such as remote diagnostics reducing the need for repair call-outs of machinery or trucks, or advanced teleworking solutions reducing the need for business travel. Other benefits will be indirect, such as sensor-based farming minimizing pesticide overuse and managing water more efficiently. Smart Cities, meanwhile, could enable connected and autonomous driving systems and seamless multimodal public transport that could eliminate road congestion. 5G networks will play a key role in the take-up of all these innovative use cases.

DIGITALEUROPE believes strongly in the need to deploy sustainable very high capacity networks to contribute to reaching the new EU climate objectives. Making more efficient use of IT and ensuring that data centres are powered with clean energy will be cornerstones in the effort of industries across the board to improve their environmental footprint. DIGITALEUROPE will therefore be happy to participate in BEREC's reflections around this topic.

About DIGITALEUROPE

DIGITALEUROPE represents the digital technology industry in Europe. Our members include some of the world's largest IT, telecoms and consumer electronics companies and national associations from every part of Europe. DIGITALEUROPE wants European businesses and citizens to benefit fully from digital technologies and for Europe to grow, attract and sustain the world's best digital technology companies. DIGITALEUROPE ensures industry participation in the development and implementation of EU policies.

DIGITALEUROPE Membership

Corporate Members

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National Trade Associations

Austria: IOÖ

Belarus: INFOPARK

Belgium: AGORIA

Croatia: Croatian Chamber of Economy

Cyprus: CITEA

Denmark: DI Digital, IT BRANCHEN, Dansk Erhverv

Estonia: ITL

Finland: TIF

France: AFNUM, Syntec Numérique, Tech in France

Germany: BITKOM, ZVEI

Greece: SEPE

Hungary: IVSZ

Ireland: Technology Ireland

Italy: Anitec-Assinform

Lithuania: INFOBALT

Luxembourg: APSI

Netherlands: NLdigital, FIAR

Norway: Abelia

Poland: KIGEIT, PIIT, ZIPSEE

Portugal: AGEFE

Romania: ANIS, APDETIC

Slovakia: ITAS

Slovenia: GZS

Spain: AMETIC

Sweden: Teknikföretagen, IT&Telekomföretagen

Switzerland: SWICO

Turkey: Digital Turkey Platform, ECID

Ukraine: IT UKRAINE

United Kingdom: techUK