



ASOCIACIÓN ESPAÑOLA PARA LA DEFENSA DE LA COMPETENCIA
AEDC

**Contribution to the Call of the European Commission on
Competition in Virtual Worlds¹**

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On 9 January 2024, the European Commission published two calls for contributions on competition in virtual worlds and generative artificial intelligence in order to gather specific information and views from stakeholders.

First of all, the AEDC welcomes the initiative launched by the European Commission and the willingness to engage, as competition law enforcer, in a forward-looking analysis and discussion of technology and market trends to identify competition issues that may arise, in particular, in Virtual Worlds.

This document conveys the views of competition practitioners of the **Asociación Española para la Defensa de la Competencia – AEDC** on the topic of Virtual Worlds. Following the indications in the Call, the AEDC’s views on generative AI systems are filed separately. The views and comments below do not necessarily represent the opinion of all the members of the Association.

Instead of structuring our input around the questions included in the Call for orientation purposes (“orientation questions”), as competition practitioners who, to the effects of this Call, are not acting for any particular client, we have found more useful to structure our legal input around the following frameworks: (i) interaction with digital related regulation; (ii) merger control; (iii) abuses and licensing issues; (iv) vertical agreements; and (v) competition enforcement tools.

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I. Interaction with digital related regulation.

At present time, specific regulations applicable to the digital sector could also restraint, to a certain extent, the competitive behaviour of undertakings that may render online services in the form of Virtual Worlds, in certain aspects involving the exercise of market power in these digital ecosystems.

- **Digital Market Act**². It could easily be concluded that Virtual Worlds fall within the concept of core platform services (Art 2.2 DMA), given that virtual worlds are digital ecosystems with a vocation to provide online intermediation services³, and that they may also include in their portfolio some of the facilities available to end users and business users listed in the aforementioned definition. Therefore, to the extent that the undertaking responsible for organising, managing and operating the specific Virtual World is declared a gatekeeper, it is already subject to the obligations of the DMA. Therefore, in accordance with the tools, principles and case law deriving from the DMA, a contestable and fair environment in the exploitation of Virtual Worlds would be ensured.

However, we believe it is important to draw the DGCOMP's attention to the fact that Virtual Worlds can be ecosystems with new digital forms of organisation, such as decentralised autonomous organisations (DAOs) as is the case, for example, of Decentraland⁴ or The Sandbox⁵, both from the Ethereum network. Unlike private or centralised models, as in the case of Meta's Horizon Worlds⁶, the legal status of this type of DAO business organisation is not yet clear and therefore, although there is no doubt that it could fall under the concept of undertaking of Art 2.27 DMA, the real effectiveness of a hypothetical designation as gatekeeper of a DAO that runs a Virtual World is not so clear. For this reason, it would be advisable to consider imposing the requirement that DAOs operating Virtual Worlds should designate a legal representative, in a manner analogous to that provided for in Article 13 DSA⁷, and even be held liable for non-compliance with obligations under the DMA⁸.

² REGULATION (EU) 2022/1925 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 14 September 2022 on contestable and fair markets in the digital sector and amending Directives (EU) 2019/1937 and (EU) 2020/1828

³ They allow business users, on the basis of contractual relationships, to offer goods or services to consumers, with a view to facilitating the initiating of direct transactions between those business users and consumers, irrespective of where those transactions are ultimately concluded. Art 2.2 REGULATION (EU) 2019/1150 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 June 2019 on promoting fairness and transparency for business users of online intermediation services.

⁴ <https://decentraland.org/dao/>

⁵ <https://www.sandbox.game/en/>

⁶ <https://www.oculus.com/horizon-worlds/learn/>

⁷ REGULATION (EU) 2022/2065 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 October 2022 on a Single Market For Digital Services and amending Directive 2000/31/EC

⁸ As stated in Art13.3 DSA

- **Data Act⁹, Data Governance Act¹⁰ and Open Data Act¹¹** . These regulations seek to ensure the free flow of data and its exploitation by protecting the optimal allocation of data and promoting competition in the business of intermediation and exploitation of Big Data. Operators that run Virtual Worlds may enjoy an exclusive monopoly over the Big Data they manage in their ecosystems, so they will have to ensure that its design and subsequent marketing comply with this regulation, which imposes non-exclusive FRAND access models to the data that may be generated within the Virtual World. Unlike the DMA, these rules do not require to enjoy significant market power for their application, so any company that exploits a Virtual World can be a candidate for the Data Act or Data Governance Act to be applied. In this respect we have:

- a. Articles 8, 9 and 41 of the Data Act, which seek to create the appropriate contractual framework to ensure reasonable access to and compensation for the data that data recipients may request from data holders when the user of the connected product or related service has so decided.
- b. Article 12 of the Data Governance Act with regard to data intermediation services.
- c. Public sector bodies, which may decide to create and manage Virtual Worlds, this obligation to provide access and grant non-exclusive FRAND licence to re-use data they hold is laid down in articles 4, 5 of the Data Governance Act and in articles 8 and 11 of the Open Data Act¹².

- **Future AI Act¹³** . If the Metaverse is the natural ecosystem in which AI systems will be vocationally exploited, the future AI Act (Art 10) requires avoiding discriminatory impacts and unfair biases in the design and implementation of AI systems. This is one of the principles of the obligation to implement adequate data governance of AI systems. Therefore a much more wide non-discrimination requirement in the interaction in Virtual Worlds ecosystems with AI, irrespective of whether any market power is enjoyed, will be a technical requirement to be implemented.

Therefore, we see that to a certain extent the digital specific regulation applicable to virtual worlds can supplement Competition law.

⁹ REGULATION (EU) 2023/2854 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 13 December 2023 on harmonised rules on fair access to and use of data and amending Regulation (EU) 2017/2394 and Directive (EU) 2020/1828

¹⁰ REGULATION (EU) 2022/868 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 30 May 2022 on European data governance and amending Regulation (EU) 2018/1724

¹¹ DIRECTIVE (EU) 2019/1024 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 June 2019 on open data and the re-use of public sector information

¹² Art 5.2 and Art 6 Data Governance Act, Art 8.1 and Art 14.3 Open Data Act clearly state that conditions to grant access to data shall not be used to restrict competition

¹³ Proposal of 26 January 2024 for a Regulation of the European Parliament and of the Council laying down harmonised rules on artificial intelligence and amending certain Union legislative acts. Interinstitutional File: 2021/0106(COD)

II. Merger Control.

Among the orientation questions in the call for contributions, the following ones are likely the relevant questions when considering the role and tools for merger control intervention: question 2 (main drivers of competition for Virtual World platforms); question 3 (current key players for Virtual Worlds platforms, enabling technologies and services based on Virtual Worlds); question 4 (translation of existing market power to Virtual Worlds markets); and question 5 (potential new entrants in any Virtual World platforms, new enabling technologies and/or services in the next five to ten years). How to deal with the answers to these questions will condition these interventions' outcomes and solutions as regards questions 1, 8, 9 and 10 of the questionnaire.

It is rightly assumed in the call for contributions, that digital platforms will be the dominant business model for Virtual Worlds markets where the BigTech platforms will likely be the main incumbents. They can be expected to be more often involved in launching new products and services, be they internally developed or by means of acquisitions too. Indeed, BigTech firms that today are the platform leaders are already positioned - and are further positioning - with existing infrastructure and significant investments to lead also in the Virtual Worlds space.

Still, as of today, it is difficult to visualize how the different elements that are called to support Virtual Worlds markets will merge or interact and where the revenue drivers will be.

What we can see from years ago is a variety of platforms being developed such as gaming spaces, social media virtual spaces or virtual blockchain worlds; an expansion of offerings, particularly as regards hardware devices and virtual assets; but also strategic moves leading to competitive concerns; see, for instance, Meta's acquisition of Meta Quest – formerly, Oculus -, back in 2014,¹⁴ followed by recent actions against certain Meta's requirements to users using Meta Quest VR headsets¹⁵.

However, what we are not visualizing yet is how and, to which extent, interoperability and portability within and across virtual world platforms will and should evolve.

Mergers and acquisitions are important innovation drivers. Start-ups rely on VPs to get funding for their projects. VPs, on their part, need some degree of certainty to their exit strategies. In the Virtual Worlds markets, we can observe the same digital economy's big players shaping the gateway to the metaverse, be they as regards hardware (i.e., VR headsets), operating systems (OS) (v.gr, Android OS for headsets) or app stores (i.e., Google

¹⁴ In hindsight, "naïve" appear today the critics to Facebook when it announced its acquisition of Oculus VR for 2 billion USD because Facebook allegedly had no experience in gaming or VR. Cf. with the FTC's unsuccessful challenge in 2022 to Meta's acquisition of the App creator "Within Unlimited" and its VR dedicated fitness app, Supernatural. <https://www.ftc.gov/news-events/news/press-releases/2022/07/ftc-seeks-block-virtual-reality-giant-metas-acquisition-popular-app-creator-within>

¹⁵ See the Bundeskartellamt (BKartA)'s investigation against Meta over the requirement to have a Facebook account to use the latest "Quest 2" VR glasses. Late November, 2022, Meta addressed the BKartA's concerns by waiving such requirement: <https://www.bundeskartellamt.de/SharedDocs/Entscheidung/EN/Fallberichte/Missbrauchsaufsicht/2022/B6-55-20.pdf?blob=publicationFile&v=4>

Play Store). But substantial investments are needed to bring these products to the market. For instance, when it consists of creating a licensable OS; or as regards, for example, app stores for Virtual Worlds, as of today, we do not see much choice for OEMs of headsets or whether they will end up within a similar scenario to OEMs for smart mobiles.

On the other hand, while incremental and “accessory” innovations can be accelerated through acquisition deals, merger control tools and interventions should be prepared to deal with the clear incentives that the incumbent leading platforms have to prevent radical innovations from new entrants that may be capable of contesting their existing profitable business models.

In order not to undermine promising new products and services from entering Virtual Worlds markets, merger control interventions should preserve the incentives to innovate, looking for dynamic competition. In doing so, there must be awareness of the enormous sunk costs involved in these innovative spaces and the need to acknowledge and preserve the positive results derived from network economies, which naturally lead to greater concentration.¹⁶

However, in the above exercise, *new* merger control approaches and tools¹⁷ should be positively welcome as well as new theories of harm (e.g., ecosystem-based theories, privacy-focused theories, innovation theories, theories integrating longer-run effects)¹⁸, provided they are neither too timidly articulated nor too much forward-looking, considering the existing degree of maturity in Virtual Worlds markets.

III. Abuse of dominant Position

The European Parliament¹⁹ (see footnote for reference) has expressed concerns regarding to establish a dominant position by companies developing virtual worlds to engage in abusive practices in the absence of open, common standards, regulation, and interoperable platforms. Currently, virtual worlds are predominantly developed by a limited number of well-funded companies. As the market matures and penetration increases, it's expected that only a few operators will remain, potentially shaping the competitive landscape with a dominant position, individually or collectively. This could lead to exploitative or exclusionary behavior harmful to consumers and European companies, particularly SMEs. Additionally, the presence of DAOs complicates identifying a single decision-making entity as the dominant operator.

Although the DMA and DSA may mitigate anticompetitive behaviors by designating companies as gatekeepers of these ecosystems, experiences from other regulated sectors

¹⁶ See Xavier Vives, “La competencia en los mercados digitales”; Fedea, Documento de Trabajo 2024/01.

¹⁷ See Revised Market Definition Notice (C/2024/1645); EU Communication providing Guidance on the application of the referral mechanism set out in Article 22 of the Merger Regulation to certain categories of cases (“Article 22 Guidance”); Article 14 of Regulation (EU) 2022/1925 (Digital Markets Act); see also US 2023 Merger Guidelines.

¹⁸ See OECD Note “Theories of harm for digital mergers – Background Note”, 16 June 2023 and related documentation at <http://www.oecd.org/competition/theories-of-harm-for-digital-mergers.htm>.

¹⁹ [REPORT on virtual worlds – opportunities, risks and policy implications for the single market of 5 December 2023 \(2022/2198\(INI\)\)](#)

suggest that there's still room for antitrust violations by corporations operating outside regulatory frameworks.

In the absence of full interoperability between platforms and open standards, allowing third-party developers or service providers to integrate their offerings into these ecosystems, exclusionary abusive behavior might occur. Examples include refusal to supply (via governance rules), de facto or de jure exclusivity arrangements (involving specific cryptocurrencies or wallets), or predatory practices.

Furthermore, many of the multinational corporations developing virtual ecosystems are already incumbent operators in digital economy markets that interact with virtual worlds. They may have incentives to engage in discriminatory practices among dominated markets or dominated and non-dominated ones, such as, price squeeze, tying, or bundling of products or services (proprietary applications, dominant company's reward systems, required hardware and software).

Exploitative abuses of dominance, such as excessive pricing, exclusivity arrangements, discrimination, or limitations on online intermediation service offerings within the ecosystem, coupled with high consumer switching costs in the absence of platform interoperability, cannot be discounted²⁰.

While standardizing certain technologies or tools may exclude certain options, it could also grant market players access to virtual world platforms under fair, reasonable, and non-discriminatory (FRAND) conditions, ensuring sufficient market competition. Conversely, there's a risk that dominant companies will dictate metaverse protocols, favoring their own standards to the detriment of competitors.²¹

Furthermore, the interaction between intellectual and industrial property rights, protecting the proprietary technologies underpinning the metaverse, must be balanced with ensuring that dominant operators do not exploit these rights to erect artificial entry barriers in a sector already fraught with natural barriers (e.g., sunk investment costs, social network marketing actions, etc.)²².

²⁰ In this respect, reference can be made to infrastructure sharing agreements, typically for mobile telecommunications. In such agreements, operators share the use of parts of their network infrastructure, the operating costs and the cost of subsequent upgrades and maintenance. In this regard, the [Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements \(2023/C 259/01\)](#), in paragraphs 258 and subsequent paragraphs, recalls the importance of connectivity networks for the development of the digital economy and societies. It also recognizes the benefits in terms of reduced costs and improved quality and supply. However, in certain circumstances, such agreements may be restrictive of competition.

²¹ The [Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements \(2023/C 259/01\)](#), in paragraphs 439 and subsequent paragraphs, develop the positive economic effects of standardisation agreements as well as the restrictions of competition that they may create.

²² It should be noted that the Commission has developed the [Regulation \(EU\) 2023/1066 of 1 June 2023, on the application of Article 101\(3\) of the Treaty on the Functioning of the European Union to certain categories of research and development agreements](#) which covers, inter alia, the assignment and licensing of intellectual property rights.

IV. Vertical agreements.

As previously indicated, there may be: (i) what are called centralized metaverses, in which a single entity or person exercises total authority over it (e.g., Horizon World); and (ii) decentralized metaverses, in which the users govern it (e.g., Sandbox).

Regarding decentralized metaverses, it seems a priori a bit more difficult the impact of competition law rules, although the same principles that apply to the "physical" world should prevail.

As for centralized metaverses, prima facie the provisions on e-commerce and market places contained in the VBER and the Vertical Guidelines should also be valid and fully applicable.

For example, we do not see any problems in qualifying the entities that govern or regulate the centralized metaverses as providers of online intermediation services (OIS) and, therefore, qualify them as "suppliers" under the VBER.

There should also be no problems to apply the rules on selective distribution, not only to the sale of NFTs, but to the sale of any other products and, we understand that they should not differ from how they are understood for any other online sales under the VBER.

The same happens with other possibilities such as most favored nation clauses (MFN), since each metaverse could be perfectly understood as a distinct platform.

However, we acknowledge that other issues, such as territorial allocation in exclusive distribution, could initially pose some application problems, since geographic borders with physical reference can fade away in the digital worlds. It is a matter of interpreting the rule according to the virtual reality and understanding the territory as something abstract.

In any case, we are afraid that virtual worlds -despite being a reality- are so far away from us and the market reality that it is extremely difficult to anticipate the possible developments that will require a response from the antitrust rules.

V. Competition Enforcement Tools.

The creation of metaverses could raise new challenges to the enforcement of Competition law. Not all the metaverses are equally organized. Mainly, there can be centralized and decentralized metaverses. Centralized metaverses align more closely with the traditional concept or structure of "companies", and therefore, could raise less concerns in the enforcement of Competition law. On the other hand, the structure of decentralized metaverses (DAOs) could bring particular challenges to the enforcement of Competition law, as it makes its analysis following the traditional Competition law approach more difficult.

- (a) Challenges in liability assignment: Competition law applies to “undertakings”, a concept that encompasses every entity engaged in an economic activity, regardless of its legal status and the way in which it is financed²³.

This definition of undertakings allows for a flexible interpretation not only limited to traditional legal entities. Nevertheless, the enforcement of Competition law ultimately requires the identification of an entity (understood broadly) with legal personality. This usually is not a problem in the case of traditionally formed companies, but in certain types of metaverse (specially, when there is a decentralization of the decision-making), it could raise new challenges as for example regarding the difficulty in properly identifying the structure and its composition.

- (b) Challenges when imposing sanctions: The emergence of globally-oriented and decentralized metaverses makes especially challenging to apply basic principles that are necessary for imposing sanctions.

The same happens when imposing sanctions on representatives or managers of the infringing companies. Many jurisdictions allow the competition authorities to impose fines to representatives of managers who have been involved in the infringements. As certain metaverses may not have a managerial body, it is unclear how these provisions would be applied.

When imposing penalties, the competition authorities will also have to deal with some other challenges. For example, due to the international nature of most metaverses, and especially when they have a decentralized structure, delocalization could make for the authorities quite difficult to know which is the competent authority to analyze a potential Competition law infringement.

- (c) Challenges when carrying out an investigation: In order to more effectively identify anti-competitive practices, competition authorities have investigative and enforcement powers, including the power to inspect the headquarters and other premises of undertakings suspected of infringing Competition law. However, conducting such research tasks can be challenging within the context of the metaverse.

Given its intangible nature and ongoing development, investigating such conducts requires specialized expertise from both competition authorities and courts. Inspections in the metaverse cannot be approached as a traditional dawn raid -not even as an inspection of a company active in the ordinary digital sector-, since all

²³ Article 2.27 DMA and Judgment of 23 April 1991, Höfner and Elser v Macrotron, C-41/90, ECLI:EU:C:1991:161, para. 21.

evidence will be found in the metaverse itself, and even the access to certain information could be a challenge.

In conclusion, applying Competition law to metaverse activities may present a significant challenge, as stated above. While many existing principles may still be applicable, some scenarios will require either to apply a different approach or to interpret some terms in a more flexible way.