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## German Chamber of Commerce and Industry

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### **Competition in Virtual Worlds and Generative AI – Calls for contributions**

*We thank you for the opportunity to comment on the above-mentioned call for contributions. This opinion is based on the economic policy/european policy positions (and, if applicable, special supplementary position papers) of DIHK. Should DIHK receive further relevant statements not yet considered in this opinion, DIHK will supplement this opinion accordingly.*

#### **A. The most important aspects in brief**

The call for contributions by the European Commission takes a closer look at competitive aspects of the future AI and virtual worlds landscape in Europe. For the German Chamber of Commerce (DIHK), it is crucial that all market actors have fair conditions and are competing with each other on a level playing field.

At the same time, innovation must not be slowed down by too many regulations in AI and virtual worlds. It is up to the European Commission and the Member States to ensure that the following implementation of the AI Act and rules on virtual worlds leads to a strong, innovative, future-proof and competitive European digital single market.

#### **B. Relevance for the German Economy**

Digitalisation and the development of innovative technologies like AI are crucial for the German economy. While many companies are already deploying more and more digital solutions, there is still room for improvement. The regulatory regime around technologies like AI and virtual worlds and the competitive dynamics play a crucial role in the future development of digital companies in Germany. According to a survey on digitalisation by the German Chamber of Commerce and Industry, companies – both large and small – still face many obstacles and challenges regarding digitalisation. These include regulatory uncertainty, a lack of data access, complexity and costs of procedures. To tackle these issues, a strong European competition is necessary.

## **C. General introduction – general part/general reflections**

### **Virtual Worlds**

In order for German and European companies to compete successfully on the global market, it is necessary to review the existing competition rules and align them with equal and fair competitive conditions on the global market. Too many regulations and directives should be avoided at all costs in order not to weaken our business location and slow down innovation. Instead, the Digital Single Market must be strengthened in the area of Virtual Worlds.

Regarding the emerging virtual world market several potential entry barriers or obstacles could appear. Among others these can be the high development costs, the technological complexity, the need for significant investments in infrastructure as well as a lack of relevant resources (e.g. semiconductors, rare earth elements). These barriers may vary based on market maturity. For emerging markets there are potentially lower entry costs, but also regulatory uncertainties. For SMEs in particular, the above-mentioned barriers and the dominance of big tech companies (so-called Gatekeepers) could make it very difficult to enter the market or prevent them from even considering it. The main drivers of competition in the virtual world market could include access to critical data, ownership of enabling hardware or infrastructure, intellectual property rights, control over connectivity, or the extent of vertical integration. Additionally, the extension range of the competition depends on how broadly it will be used by end-users. Therefore, to achieve notable and lasting benefits for the European economy, the usability of the virtual world must be well-developed. Platform and payment fees could be crucial drivers of competition as well.

The current key players in the market for virtual worlds are major tech companies with the capability to develop virtual world platforms, and smaller innovative firms focusing on specific aspects like VR hardware or software. For a well-functioning European market, where innovation is encouraged, it is important that both large technology companies and SMEs can operate under fair conditions and that attractive incentives are offered to European SMEs. Companies with a high user base could transfer their market power faster to the virtual worlds, for example online video game platforms or streaming platforms. For this reason, low thresholds for new innovative players to enter the market as well as a fair level-playing field are important.

Potential new entrants in virtual world platforms could offer services in many different areas. Possibilities include avatar worlds for entertainment and social interactions, educational programmes offering interactive learning experiences, a new space for simulation/testing of innovative technologies of companies, a new form of online networking, selling virtual goods and currencies. Virtual worlds could also have a major impact in healthcare and medicine, for example by offering physical and psychological therapy options using simulation in a virtual world. However, the market of virtual worlds is still emerging, and it remains to be seen when they will have a real impact on business and potential customers and will become accessible. Potential competition issues that could appear include market concentration, data privacy and security concerns, intellectual property disputes, and access to enabling technologies. Additionally, risks of anti-competitive practices that could hinder innovation or exploit consumers.

Regarding the topic of whether open-source or proprietary software would be desirable in virtual worlds it can be said that it could significantly impact the development of virtual worlds. A balanced mix of open standards facilitating broader innovation could provide the needed legal certainty to enter the market. A particular focus should be placed on open source to consolidate standards but also to enable innovative approaches.

On the subject of monetization in virtual worlds diverse models could emerge, ranging from direct sales and subscription services to more innovative approaches like tokenization in blockchain-based virtual worlds. Advertising, in-world purchases, and data analytics services could also be relevant.

## **Generative AI**

The main components that are crucial to build, deploy and distribute generative AI Systems are large and high-quality datasets for training to make the generative AI-system as precise as possible and advanced algorithms to broaden the functionality of AI systems. As data is the basis for functioning AI, free and fair access to data would be fundamental to train and therefore further develop AI. Nevertheless, it is important that there is a fair and clear legislative framework to ensure that companies can work on good AI systems. Also, the computational power should be considered as one of the most important components, because without the necessary hardware and power supply the development of AI is not possible. The lack of skilled labour in specific sectors that is already now affecting European economy will also be a barrier for the development of AI. Therefore, expertise in AI is urgently needed in form of highly qualified specialists. Furthermore, the interaction between these components plays a very important role, for example in view of how fast and well-developed European AI technologies will be. From a corporate perspective the main barriers to entry and expand AI-system market are access to large, high-quality datasets, high computational costs and the expertise required to develop and refine AI models. Intellectual property rights could also restrict access to crucial algorithms and technologies. Unsurprisingly, the main barriers for entering the AI market are closely linked to the main drivers of competition that makes a company a successful player in the field of AI. These include access to large and unique datasets, computational efficiency, development of user-friendly interfaces for diverse applications, beneficial brand reputation and partnerships as well as regulatory certainty and innovation-friendly regulation. Issues regarding the competition on the AI market could be data monopolization, where large companies have exclusive access to vast datasets, creating high barriers for new entrants as well as intellectual property disputes over AI algorithms and technologies. The rationale for investment and/or acquisition by large companies in small generative AI providers is the acquisition of new technologies and skilled labour, and the expansion of the business field. Another fact to consider is that big vertically integrated companies will have advantages, because customers probably prefer the "full package" which includes more available data and services etc. To strengthen the diversity of the

competition it will be important that smaller companies that are not vertically integrated also have a fair chance in the market and that all market players have access to data.

Both open-source and proprietary AI software have specific advantages and disadvantages that should be considered. While proprietary IT can offer advantages in terms of performance, support, and customization, open-source AI could foster innovation through community collaboration, reduce costs and therefore facilitate market entry for SMEs and increase adoption rates which could lead to standardization. The latter might illustrate important factors for an emerging AI market. Furthermore, interoperability can help to make the market fairer whereas "locking" customers into a particular system would not be beneficial for the market. The focus should be on acting cooperatively in the areas of standardization and open-source systems. Lack of interoperability should not contribute to less competition and to a limitation of the market to a few big players.

In terms of potential monetization models of AI-technology, there could be pay-per-use models, licensing, subscription models, tokenization or financing via advertisement.

In summary, on the one hand, it should be ensured that large (foreign) companies do not distort European competition and crowd out smaller, innovative companies in the fields of virtual worlds and generative AI. On the other hand, over-regulation and bureaucratisation of such fast-moving and dynamic economic sectors could lead to a waste of the huge opportunities available and should be avoided at all costs. It is up to the European Commission and the Member States to ensure that the following implementation of the AI Act and accompanying legislation leads to a strong, innovative, future-proof and competitive European AI sector.

#### **D. In detail – other aspects/special part**

#### **E. Contact person(s) with contact details**

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## **F. Description of DIHK**

### **Who we are:**

The 79 Chambers of Commerce and Industry (IHKs) are members of the German Chamber of Commerce and Industry (DIHK). Our common target: the best conditions for successful economic activity.

At the federal and European level, DIHK represents the interests of the entire commercial sector vis-à-vis policy makers, the administration and the public.

Several million companies from the trade, manufacturing industry and service sectors are legal members of a CCI – from kiosk owners to Dax corporations. All IHKs are legal members of the DIHK. Thus, DIHK and the IHKs are a platform for the many and varied concerns of companies. We bundle these through a defined procedure based by a legal basis into common positions of the business community and thereby contribute to the participatory debate on economic policy.

Moreover, the DIHK coordinates the network of the 140 German Chambers of Commerce Abroad, delegations and representative offices of the German economy in 92 countries.

It is enrolled in the EU transparency register No. 22400601191-42.