

## CALL FOR EVIDENCE FOR AN INITIATIVE (without an impact assessment)

This document aims to inform the public and stakeholders about the Commission's work, so they can provide feedback and participate effectively in consultation activities.

We ask these groups to provide views on the Commission's understanding of the problem and possible solutions, and to give us any relevant information they may have.

<b>TITLE OF THE INITIATIVE</b>	An EU initiative on virtual worlds: a head start towards the next technological transition
<b>LEAD DG – RESPONSIBLE UNIT</b>	DG CNECT
<b>LIKELY TYPE OF INITIATIVE</b>	Politically sensitive/important, New
<b>INDICATIVE TIMING</b>	Q2 2023
<b>ADDITIONAL INFORMATION</b>	–

*This document is for information purposes only. It does not prejudice the final decision of the Commission on whether this initiative will be pursued or on its final content. All elements of the initiative described by this document, including its timing, are subject to change.*

### A. Political context, problem definition and subsidiarity check

#### Political context

Boosted by technology and connectivity, virtual worlds are changing the way in which we engage with the digital space. They offer real-time, immersive and persistent environments that blend physical and virtual realities in many different areas like medicine, manufacturing or smart cities. Virtual worlds are also part of a wider, longer-term technological change: a transition towards Web 4.0 where physical and digital worlds will enable more intuitive and immersive experiences and smart devices will seamlessly communicate to perform complex tasks.

Virtual worlds are already opening up a wide range of opportunities in many industrial sectors as well as in societal areas, including culture and entertainment. The global market size forecast is +800 billion EUR by 2030 at 39.1% compound annual growth rate<sup>1</sup>.

As announced in the Commission Work Programme 2023, the Commission envisions virtual worlds that are open and interoperable, with innovative applications across industry and society, safely and confidently used by people and businesses alike.

The EU is a content and culture rich continent, with a flourishing creative industry, and a wealth of unique digitised cultural heritage. It has key players in some core virtual worlds technologies (such as 3D, industrial digital twins, location mapping, photonics, connectivity, online payments), with major EU companies, innovative start-ups and SMEs. It can also build on the significant EU investments in breakthrough technologies, digital twins and data spaces. And Europe has the industrial and manufacturing base with a wealth of use cases for virtual worlds and Web 4.0.

We want to ensure that the EU is the best place to develop business opportunities in virtual worlds and to pioneer the development of Web 4.0, benefitting from a strong digital single market. The EU is well positioned to shape this next evolution, reflecting the EU's vision for the Digital Decade 2030<sup>2</sup> and in line with the European Declaration on Digital Rights and Principles<sup>3</sup>, from the outset: open, interoperable, trusted, secure, privacy preserving, virtual worlds, respecting our legislation. A strong focus will be on harnessing business opportunities

<sup>1</sup> Bloomberg forecasts

<sup>2</sup> [https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/europes-digital-decade-digital-targets-2030\\_en](https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/europes-digital-decade-digital-targets-2030_en)

<sup>3</sup> <https://digital-strategy.ec.europa.eu/en/library/european-declaration-digital-rights-and-principles>

<p>and addressing societal challenges.</p> <p>Furthermore, the EU already has a strong regulatory framework to address potential impacts that virtual worlds may have on aspects such as competition, cybersecurity, artistic creation and privacy. EU legislation such as the General Data Protection Regulation<sup>4</sup>, Digital Services Act<sup>5</sup>, Digital Markets Act<sup>6</sup>, Net Neutrality Regulation<sup>7</sup> and the Unfair Commercial Practices Directive<sup>8</sup> will ensure that users are protected in relation to several aspects and that EU small and medium-sized enterprises are not driven out of the market. The revised Directive on Security of Network and Information Systems<sup>9</sup> will strengthen supply chain cybersecurity while the upcoming EU Digital ID<sup>10</sup> will give full control to users over their identity and data.</p>
<p><b>Problem the initiative aims to tackle</b></p>
<p>The first wave of the Internet developed mostly in an uncoordinated and unregulated manner leading to a more closed ecosystem with the prevalence of proprietary systems and gatekeepers.</p> <p>Although virtual worlds and the transition to Web 4.0 are still in the early stages, we are witnessing the dawn of a similar situation, where global corporations are massively investing in core technologies, filing trademarks, and setting de facto standards as early movers. The EU virtual worlds' ecosystem lacks big players in certain key areas, is fragmented and lacks investment capacity. There is a risk of having a small number of big players becoming future gatekeepers of virtual worlds, creating market entry barriers and shutting out EU start-ups and SMEs from this emerging market. Such a closed ecosystem with the prevalence of proprietary systems can negatively affect the protection of personal information and data, the cybersecurity and the freedom and openness of virtual worlds at the same time.</p> <p>It is essential that EU start-ups and SMEs benefit from enabling framework conditions to help them innovate and that users as well as content creators are protected online and can engage in a confident manner in virtual worlds.</p> <p>It is crucial for the EU to be present in the development of virtual worlds and their governance, and lead the way through important challenges such as setting standards, building infrastructure, and addressing legal, economic, societal and ethical aspects.</p>
<p><b>Basis for EU action (legal basis and subsidiarity check)</b></p>
<p>N/A</p>
<p><b>Legal basis</b></p>
<p>Non-legislative initiative.</p>
<p><b>Practical need for EU action</b></p>
<p>The development of virtual worlds and Web 4.0 has strong internal market dimension with companies operating and users accessing services cross-borders. Furthermore, the scale of private and public investments needed to develop virtual worlds and Web4.0 goes far beyond the capacity of individual Members States. A common EU approach can ensure that companies and consumers benefit from the scale of the internal market and will prevent uncoordinated national initiatives.</p>
<p><b>B. What does the initiative aim to achieve and how</b></p>
<p>The EU vision for this initiative to foster a common approach to the virtual worlds and Web 4.0 has the following overarching objectives:</p>

<sup>4</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:L:2016:119:TOC>

<sup>5</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32022R2065>

<sup>6</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32022R1925>

<sup>7</sup> <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=celex:32015R2120>

<sup>8</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32005L0029>

<sup>9</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32022L2555>

<sup>10</sup> [https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/european-digital-identity\\_en](https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/european-digital-identity_en)

Empowering **people** to engage in a secure, confident and responsible manner so that they benefit from virtual worlds which respect EU values, way of living and rules, while giving users the freedom to choose how and when to use their digital identity, data and assets. The initiative will put forward principles and actions for people's empowerment in virtual worlds, and for the promotion of cultural diversity, equality and non-discrimination.

Creating the right environment for investments in research, innovation, deployment, integration and scaling up of virtual worlds-enabling **technologies**, facilitating access to finance for EU start-ups/SMEs and nurturing the EU cultural and creative sectors. In addition, the initiative will look at developing the business case, i.e. how to build safe, sustainable and fair virtual worlds, and how these can help boost the sustainable competitiveness of our industries, and what it takes to promote an effective uptake of virtual world solutions by EU businesses and public sector.

The initiative could include key **cross-cutting enablers** such as the appropriate governance models to ensure EU leadership in virtual worlds development and standardisation, nurturing the talent pool needed and support skills development for technology specialists and creators as well as the need for structured and sustained foresight of key technologies.

The initiative will take a proactive approach for the EU to shape the global development of this rapidly emerging ecosystem based on openness, interoperability and EU values.

The initiative is complemented by parallel work on a performant and resilient **infrastructure** for connectivity, which will be needed to enable virtual worlds.

### Likely impacts

This initiative is expected to contribute to the development of virtual worlds and Web 4.0 environment that respect EU values and rules, and where people and businesses have the necessary tools, skills and information to take full advantage of the benefits and opportunities.

It will also contribute to steering standardisation efforts and better interoperability between virtual worlds, giving individual and corporate users more freedom of choice and the possibility to transfer their digital identity, data and assets between different virtual worlds.

The initiative is expected to create more opportunities for EU industrial players along the value chain, such as for EU providers of hardware and software components, system integrators and content creators. It will lead to more coordinated investments, both public and private, for the deployment of virtual worlds in the industrial ecosystems, societal areas, and the public sector. Start-ups will benefit from measures allowing them to scale up their virtual worlds' activities.

It will empower citizens in using virtual worlds and contribute to skills development by providing more immersive and engaging learning and training experiences in various contexts.

### Future monitoring

A close coordination with all Commission services involved will be set up in order to report on the progress of each action included in the initiative.

The Commission will also be discussing, in the framework of the Horizon Europe, Creative Europe and the Digital Programme comitologies, the development of virtual worlds. The Commission will also explore how to set up a monitoring mechanism to better understand the impact on citizens, users, market movements as well as new technological developments.

## C. Better regulation

### Impact assessment

The proposed type of act is non-legislative. Therefore, an impact assessment is not required for the preparation of this initiative. The need for assessing the impact of future actions linked to this initiative will be examined at the right time, in line with the Better Regulation guidelines.

The initiative will, however, take into account the feedback to this call for evidence, the results of the targeted consultations described in the next section, as well as available studies and reports.

<p><b>Consultation strategy</b></p> <p><b>Co-ownership consultations in the first half of 2023 empowering people of different walks of life to shape a future EU vision for virtual worlds:</b></p> <ul style="list-style-type: none"> <li>- Three citizens panels on the topic of virtual worlds taking place on 24-26 February (Brussels), 10-12 March (on-line), 21-23 April (Brussels). These panels will allow 150 EU citizens to put forward a common vision and guiding principles for the development of virtual worlds and formulate a set of recommendations to follow-up.</li> <li>- A workshop during the Safer Internet Day on 10 February 2023 to engage with young people.</li> <li>- A workshop as part of the Codeweek activities to engage educators in March 2023.</li> </ul> <p><b>Co-definition consultations with industry and academia/research in the first half of 2023:</b></p> <ul style="list-style-type: none"> <li>- Two targeted workshops with industry representatives, organised by DG CNECT, in cooperation with other DGs, in the months of January and February 2023.</li> <li>- A targeted workshop with academia and research representatives in February 2023</li> <li>- Two workshops leveraging on the virtual reality/augmented reality (VR/AR) Industrial Coalition as a core for industry partnerships in March 2023.</li> </ul>
<p><b>Why we are consulting?</b></p> <p>Given the transformative nature of virtual worlds, consulting stakeholders is fundamental to allow them to express their views and specific needs for the development of virtual worlds in line with EU values. The purpose of this consultation is for the Commission to gather stakeholders' views and input on the future actions the Commission can put forward in relation to opportunities and challenges that virtual worlds would bring.</p> <p>A series of citizen panels will allow a representative sample of EU citizens to put forward policy recommendations from the people's perspective. In addition, targeted workshops will gather the views of industrial and academic stakeholders.</p>
<p><b>Target audience</b></p> <p>The Commission is consulting a broad range of stakeholders according to their interest and expertise in the subject of virtual worlds. These include individuals, public authorities (Member States, regional and local public authorities, international organisations), businesses (large-size and SMEs enterprises, microenterprises and self-companies, consulting firms), research and academia, standardisation bodies, non-governmental organisations and social partners and representatives of professions and crafts (Chambers of Commerce, Trade Unions and other profession representatives).</p>