

The European Commission's Communication on virtual worlds - What can we learn from it?

Lighthouse Europe

19 July 2023

ANALYSIS

Introduction

On 11 July, the **European Commission** (EC) presented its [Communication on Web 4.0 and virtual worlds](#), with the aim of **getting a head start** on the **next technological transition**. The message is clear and expected. For the EC, virtual worlds will bring **unprecedented opportunities** in many societal areas (health, services, education, culture...). Nonetheless, the **Executive Vice-President in charge of a Europe fit for the digital age, Margrethe Vestager** also [warned](#) that this technological transition needs to take account of the **EU's values, principles and fundamental rights**, putting citizens at the centre and countering risks in terms of privacy protection or misinformation.

The **EC** uses the unusual term '**Web 4.0**' which was first used by **Commissioner Thierry Breton** in February 2023 at [Barcelona's Mobile World Congress](#). The **French Commissioner** underlined that the EU expected the Web 4.0 to be enabled by virtual reality and augmented-reality technologies and the 'symbiotic' interaction between humans and machines. Hence, **Web 4.0 can be understood as the 'Symbiotic Web' where humans and machines can interact with mind-controlled interfaces**.

The **European Commission** asserts that, **by 2030**, many people will be **using virtual reality daily** in fields such as healthcare, education, art and design, logistics, engineering and manufacturing... Overall, the EU is eager to **set the scene** regarding virtual worlds. The aim is to shape this disruptive technology from the outset.

In this article, Lighthouse Europe takes a closer look at the content of this Communication.

A unique opportunity to foster innovation and business

One of the main points to emerge from this Communication is the desire to **encourage innovation**. The Commission sees this technology as an **opportunity not to be missed**. The text stresses that overall forecasts for the **development of the virtual reality market are promising**, [citing Bloomberg](#) which

predicts that the size of the global market for virtual worlds should grow from **€27 billion in 2022 to more than €800 billion by 2030**. More specifically, for targeted sectors such as the automotive industry, forecasts predict an increase from **€1.9 billion in 2022 to €16.5 billion by 2030**.

The **EC** emphasises the future importance of **XR technologies**, such as virtual reality (VR) and augmented reality (AR) which are key building blocks of virtual worlds. For the institution, the development of these technologies will have significant benefits for the job market, with an estimated **860 000 new jobs related to XR in Europe by 2025**.

For the **European Commission**, the **European Union** has a **strong industrial potential** in the field of virtual worlds and Web 4.0. The Communication acknowledges the business opportunities related to virtual worlds and aims to work with businesses to develop standards.

The **EC** also focuses on **start-ups** and their **role in the future of the EU innovation** process and the development of virtual reality.

Readily available, safe, interoperable and open virtual worlds

However, for the **EC**, the development of virtual worlds could pose **challenges to fundamental rights**, in terms of protection of personal data and privacy, misinformation, cyber-security, cyber-crime, cyber-violence (gender-based) and incitement to hatred. For the institution, virtual worlds may also raise **questions of liability**, as well as the application of current rules on contracts and consumer protection.

The **EC** also places a strong **emphasis** on **skills development**, which can be understood in two ways. The idea is to **train the people who will work in and with this industry**, but also to **'educate' the public** about this new technology.

Moreover, the institution seeks to ensure the **protection of children**. It aims to empower children to engage in virtual worlds, 'while keeping them safe'. The idea is to teach children the right way to approach virtual worlds.

Finally, the **EC** intends to define **global standards for open and interoperable virtual worlds** and Web 4.0, ensuring that they are **not dominated by 'a few big players'**. Its aim is to engage with Internet governance stakeholders around the world and promote Web 4.0 standards in line with the **EU's vision and values**. These efforts will be part of the [EU standardisation strategy](#) and will build on the work of the [High-Level Forum on European Standardisation](#).

Building on what already exists to develop this technology

The **EC** mostly highlights **existing initiatives** and seems keen to play a **facilitating role**. The **European Commission** wishes to promote **collaboration and exchanges between virtual world clusters**. For

example, it will be stepping up its work with the [Virtual and Augmented Reality \(VR/AR\) Industrial Coalition](#), which brings together various industrial players along the value chain. The **EC** wants to encourage **interactions between virtual world developers and industrial users**.

Furthermore, the **EC** is promoting a certain number of **initiatives**. For example, the **EC** is currently exploring, in **consultation with Member States**, a **new European Partnership for key stakeholders** to develop the technological building blocks for **useful, inclusive and trustworthy virtual worlds systems and applications**. The **EC** reflects on how to concretize **links** between AI, blockchain, IoT, European data spaces **to materialise** the so-called '**Web 4.0**'.

To this end, the **EC** is looking to put in place a number of **regulatory 'sandboxes'** and will **work with Member States** to identify specific areas where **experimentation** should be a priority in order to ensure a coordinated approach within the EU. For example, the European executive plans to provide Member States with a **toolbox on intellectual property** and to promote a **study on innovative cooperative models in industry**. The **European Commission** wants to support the creation of **multi-stakeholder technical governance** and will launch an **expert group** to bring Member States and stakeholders together to share **common approaches and good practices**.

The Communication also highlights **several regulations** which will have an impact on virtual worlds and ensure, per the **EC**, a proper level of safety: the **Data Act**, the **Data Governance Act**, the **AI Act**, the **GDPR**, the **MiCA**, the **Copyright Directive**,.... The **European Commission** does not mention any forthcoming regulation on virtual worlds per se.

Conclusion

On the whole, many of the **European Commission's** commitments **lack perspectives** or encompass **existing initiatives**. It is unclear who will be responsible for implementing the numerous incentives. For the time being, it draws mainly on conventional methods such as **toolboxes** and **expert groups**. Although the Communication revolves around the **potential of Web 4.0**, where digital, real objects and environments seamlessly integrate and communicate, there is **little indication of how this scenario can materialise**. The proposed solution consists of adhering to the **existing European legislative framework**, but does not effectively reflect the need to **concretely** and **properly support innovation** in order to **develop the massive potential** of the virtual worlds sector and its players, nor the **appropriation** of these technologies **by European decision-makers**.

Nevertheless, the **EU recognises that it must act now** to become a major player in the emerging markets linked to Web 4.0 and virtual worlds, to **defend EU values and fundamental rights**, and to ensure that **individuals are protected and empowered**. By publishing this Communication, the EU intends to **prepare the ground for virtual worlds** and be at the **forefront of the approach** to this new technology. **New elements** could be presented in the next **European Parliament's IMCO Committee** [report on Virtual](#)

[Worlds: Opportunities, Risks and Policy Implications for the Single Market](#), currently being drafted by **MEP Pablo Arias Echeverría (EPP)** and **JURI Committee** [report Policy implications of the development of virtual worlds – civil, company, commercial and intellectual property law issues](#) currently being drafted by MEPs **Ibán García del Blanco (S&D)** and **Axel Voss (EPP)**. The **next European Commission**, appointed after the **European elections in 2024**, should also **address the virtual worlds' opportunities**.

Contact us

As a public affairs firm based in Paris and Brussels, Lighthouse Europe supports its clients in the analysis of European mechanisms as well as French and European political priorities, particularly in the digital and environmental sectors. The EC's Communication stresses that virtual worlds offer unprecedented opportunities, which we at Lighthouse Europe endorse. If you feel the same way, or if you simply want a better understanding of the European regulatory framework in relation to your activity, please do not hesitate to contact us: info@lighthouseeurope.com.

By Nicolas Rocher
