Virtual and Augmented Reality in Europe

Extended Reality technologies are becoming more prominent in the EU and globally. Other than the creative industries', they offer a **wide range of applications** in other sectors: retail, manufacturing, healthcare, construction and architecture, journalism, etc…

Understanding their **evolution**, the most important **trends**, their still **untapped potential**, as well as the challenges and opportunities faced by the industry, is paramount to ensure the uptake of VR and AR in Europe.

To guide both policymakers and the industry in future actions, the Directorate-General for Communication Networks, Content and Technology (DG CONNECT), has commissioned a **strategic paper** with a market assessment and policy recommendations.

The **VR/AR Industrial Coalition** is a key initiative within the European Commissions' Audiovisual Media Action Plan launched in December 2020, aiming to **boost the performance** of this industry in Europe and **support its optimal deployment**.

Here are the main takeaways, check the full paper for more in-depth information!
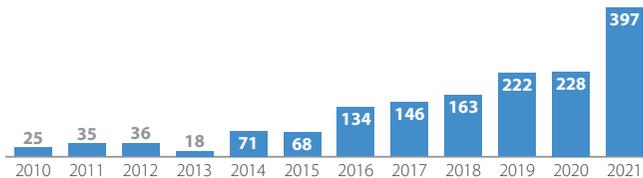
Did you know that…

…gaming captures the highest **share of the VR/AR** market in Europe?

- ● Gaming | **29%**
- ● Media and Entertainment | **19%**
- ● Retail | **15%**
- ● Healthcare | **11%**
- ● Military and Defense | **7%**
- ● Manufacturing | **7%**
- ● Other | **13%**

…VR/AR solutions have the potential to raise the **profit margin of businesses**? Companies adopting VR/AR solutions have noticed improvements in…

Efficiency

Environmental performance

Consumer awareness and engagement

…VR/AR companies in Europe raised almost **€ 400 million** in 2021?

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
25	35	36	18	71	68	134	146	163	222	228	397

…the majority of funding happens at **early stages** of projects, while mid-sized companies have difficulty to access finance to support their potential scaling-up?

- ● Seed | **37%**
- ● Early Stage Venture Capital | **36%**
- ● Late Stage Venture Capital | **13%**
- ● Private Equity | **5%**
- ● Debt | **3%**
- ● Convertible | **2%**
- ● Other | **4%**

…Finland, France, Germany and the Netherlands are the countries in the EU registering more **patents in relation to VR/AR technologies**?

A promising forecast

VR and AR are no longer emerging but **maturing technologies**, with a positive record of market growth and a **promising future perspective** in Europe.

The **market value** was
€ 9.6 billion
in 2021

The **expected increase**
by 2025 = between
€ 35 and 65 billion

An estimate of
37% of compound annual growth rate

Creating employment
for **440 000** to
860 000 people

Great opportunities in the European VR/AR sector…

High-quality content development based on European cultural heritage and high research and innovation potential.

Ethical, sustainable and inclusive solutions aligned with European principles.

Diversity in the VR/AR industry, with applications across many industry verticals, see examples in page 4!

… despite the challenges.

Ecosystem fragmentation through the value chain and across borders, due to differences in regulation and entrepreneurial traditions among countries.

Access to finance for VR/AR companies compared with other regions, particularly regarding private financing.

Brain drain of VR/AR talent to global tech giants and to more traditional sectors and engineering disciplines due to the transferable expertise.

Concrete applications of VR/AR

VR simulation is used in **aviation** to enhance pilots' skills, and practice risky maneuvers in a safe environment. The European Union Aviation Safety Agency (EASA) has officially qualified the VR-based flight simulation training device, developed and built by VRM Switzerland, featuring Varjo's (Finland) latest human-eye resolution VR headsets and a technology developed by the Swiss flight training solution provider.

With a background in traditional **video games**, some developers invest part of their resources in VR/AR. For instance, Ubisoft (France) announced a new VR game, part of the Star Trek franchise, called Bridge Crew. Other have made VR/AR their core business, it is the case of Beat Games (Czech Republic) developer of the best-known Beat Saber and SUPERHOT Team (Poland), developer of the homonymous award-winning game.

VR/AR technologies are also used in **smart city planning**. For instance, EU-supported project 'MindSpaces' by the Greek Centre for Research and Technology, Hellas, aims to create a novel approach to urban and architectural design by generating dynamic and adaptive VR environments to help engage users in the design process.