



State of the market of Virtual Worlds in Europe – key Technologies and Adoption

Fabio Perossini, Lapo Fioretti, Michael Barngrover, Lukasz Porwol



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OPENVERSE Webinar

May 5th, 2026

Welcome



- The webinar will be recorded (recording will be distributed in the next days)
- Only the speakers can use camera, mics and share the screen
- Please feel free to put your questions in the Q+A box, if you'd like to interact with the speakers

Agenda

- Introduction to OPENVERSE Project
- Keynote on key Virtual Worlds market trends in Europe
- Interview with Michael Barngrover and Lukasz Porwol
- Q&A



OPENVERSE

Fabio Perossini (Lisbon Council)

OPENVERSE Objectives



How can **Europe** help build the next generation of immersive digital environments without repeating the mistakes of earlier digital platforms? Facilitate the creation of **inclusive, open, and ethically responsible** European Virtual Worlds.

The infographic consists of five numbered items, each with a colored circle containing a number, an icon, and a title followed by a brief description. The items are: 01 (purple circle, globe icon) 'A EUROPEAN VISION FOR OPEN VIRTUAL WORLDS'; 02 (blue circle, network icon) 'A TECHNOLOGICAL FRAMEWORK FOR THE FUTURE'; 03 (green circle, scales icon) 'ETHICS, GOVERNANCE & REGULATION BY DESIGN'; 04 (orange circle, people icon) 'STRENGTHEN THE EUROPEAN INNOVATION ECOSYSTEM'; 05 (dark blue circle, handshake icon) 'CO-CREATION & MULTI-STAKEHOLDER COLLABORATION'. At the bottom, there is a dark blue banner with the European Union flag on the left, the text 'Shaping Europe's digital future with openness, trust and human-centric innovation.' in the center, and an icon of three people on the right.

- 01 A EUROPEAN VISION FOR OPEN VIRTUAL WORLDS**
Promote open, transparent and interoperable virtual worlds that empower users, ensure data portability and remove barriers to entry.
- 02 A TECHNOLOGICAL FRAMEWORK FOR THE FUTURE**
Define the key building blocks and standards—data, connectivity, computing, identity, governance and trust—needed to enable scalable, secure and interoperable virtual worlds.
- 03 ETHICS, GOVERNANCE & REGULATION BY DESIGN**
Embed European values—privacy, safety, inclusion, transparency, accessibility and accountability—into the design and operation of virtual worlds.
- 04 STRENGTHEN THE EUROPEAN INNOVATION ECOSYSTEM**
Empower SMEs, start-ups, researchers, industry and public actors to co-create, collaborate and lead in the emerging virtual worlds economy.
- 05 CO-CREATION & MULTI-STAKEHOLDER COLLABORATION**
Bring together policy makers, industry, academia and society to co-design solutions and ensure that virtual worlds serve people and communities.

Shaping Europe's digital future with openness, trust and human-centric innovation.

Objectives (1)

01



A EUROPEAN VISION FOR OPEN VIRTUAL WORLDS

Promote open, transparent and interoperable virtual worlds that empower users, ensure data portability and remove barriers to entry.

02



A TECHNOLOGICAL FRAMEWORK FOR THE FUTURE

Define the key building blocks and standards—data, connectivity, computing, identity, governance and trust—needed to enable scalable, secure and interoperable virtual worlds.

03



ETHICS, GOVERNANCE & REGULATION BY DESIGN

Embed European values—privacy, safety, inclusion, transparency, accessibility and accountability—into the design and operation of virtual worlds.

Objectives (2)

04



STRENGTHEN THE EUROPEAN INNOVATION ECOSYSTEM

Empower SMEs, start-ups, researchers, industry and public actors to co-create, collaborate and lead in the emerging virtual worlds economy.

05



CO-CREATION & MULTI-STAKEHOLDER COLLABORATION

Bring together policy makers, industry, academia and society to co-design solutions and ensure that virtual worlds serve people and communities.

OPENVERSE Achievements

In terms of outreach, OPENVERSE has built a **growing European community** through events, workshops, conferences, newsletters, digital channels, and collaborations with other major initiatives.

Thousands of stakeholders have already engaged with the project's ideas and outputs.

Most importantly, OPENVERSE is helping **Europe move from discussion to action**. It is not only analysing the future of virtual worlds, it is actively shaping it.

Visit: <https://open-verse.eu/>



OPENVERSE OBSERVATORY

A public knowledge hub mapping the virtual worlds ecosystem. 250+ organizations and 100+ national initiatives identified.



GROWING COMMUNITY & OUTREACH

27 events organized reaching 750+ participants across Europe. A vibrant network of stakeholders driving the conversation forward.



STRATEGIC & POLICY OUTPUTS

Policy briefs, analyses and governance recommendations that translate European values into actionable strategies for virtual worlds.



TECHNOLOGICAL FRAMEWORK

A consolidated framework identifying the essential technologies, standards and building blocks for interoperable and trustworthy virtual worlds.



ETHICS & TRUST IN ACTION

Operational ethical governance, data protection frameworks and trust-by-design principles embedded throughout project activities.



TOOLS & CO-CREATION METHODS

Practical toolkits and co-creation methodologies developed to enable inclusive design and user-driven innovation.



ECOSYSTEM & ALLIANCES

Strong collaboration with European initiatives, standardization bodies and industrial ecosystems to shape the future together.



MOVING FROM INSIGHT TO IMPACT

OPENVERSE is turning ideas into actionable pathways to build open, interoperable, ethical and competitive virtual worlds for Europe.



OPENVERSE is laying the foundations for Europe's leadership in open, human-centric virtual worlds.



Achievements (1)



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Achievements (2)



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The Partners



**POLITECNICO
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DIPARTIMENTO DI DESIGN



OLLSCOIL NA GAILLIMH
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BRUBOTICS
HUMAN ROBOTICS
RESEARCH CENTER



**INTERNATIONAL DATA
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BDV BIG DATA VALUE
ASSOCIATION

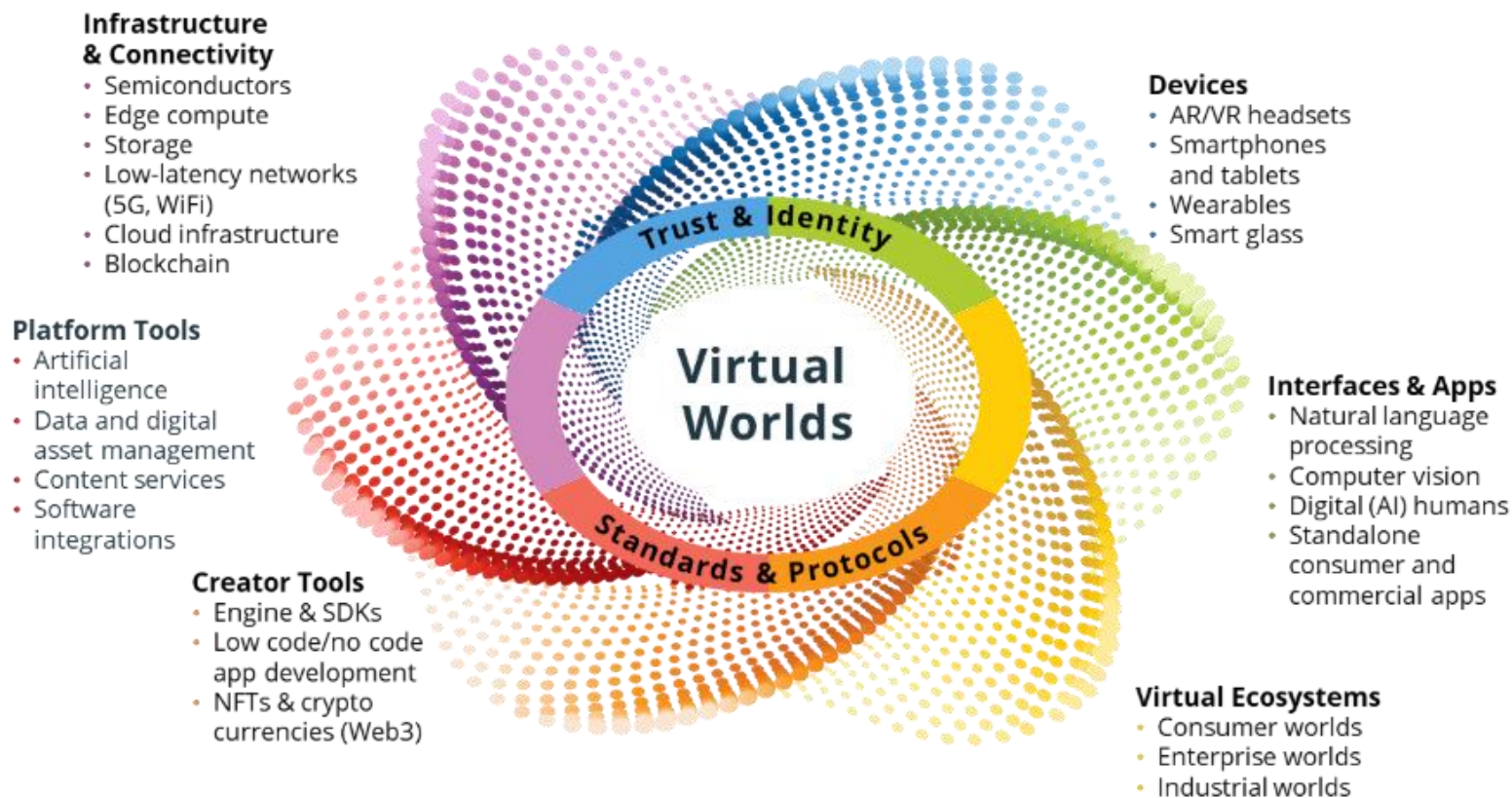




Key Market Trends of Virtual Worlds in Europe

What are Virtual Worlds?

"Persistent, 3D, real-time, immersive environments, blurring the line between real and virtual, for socializing, working, learning, transacting, playing, and creating."

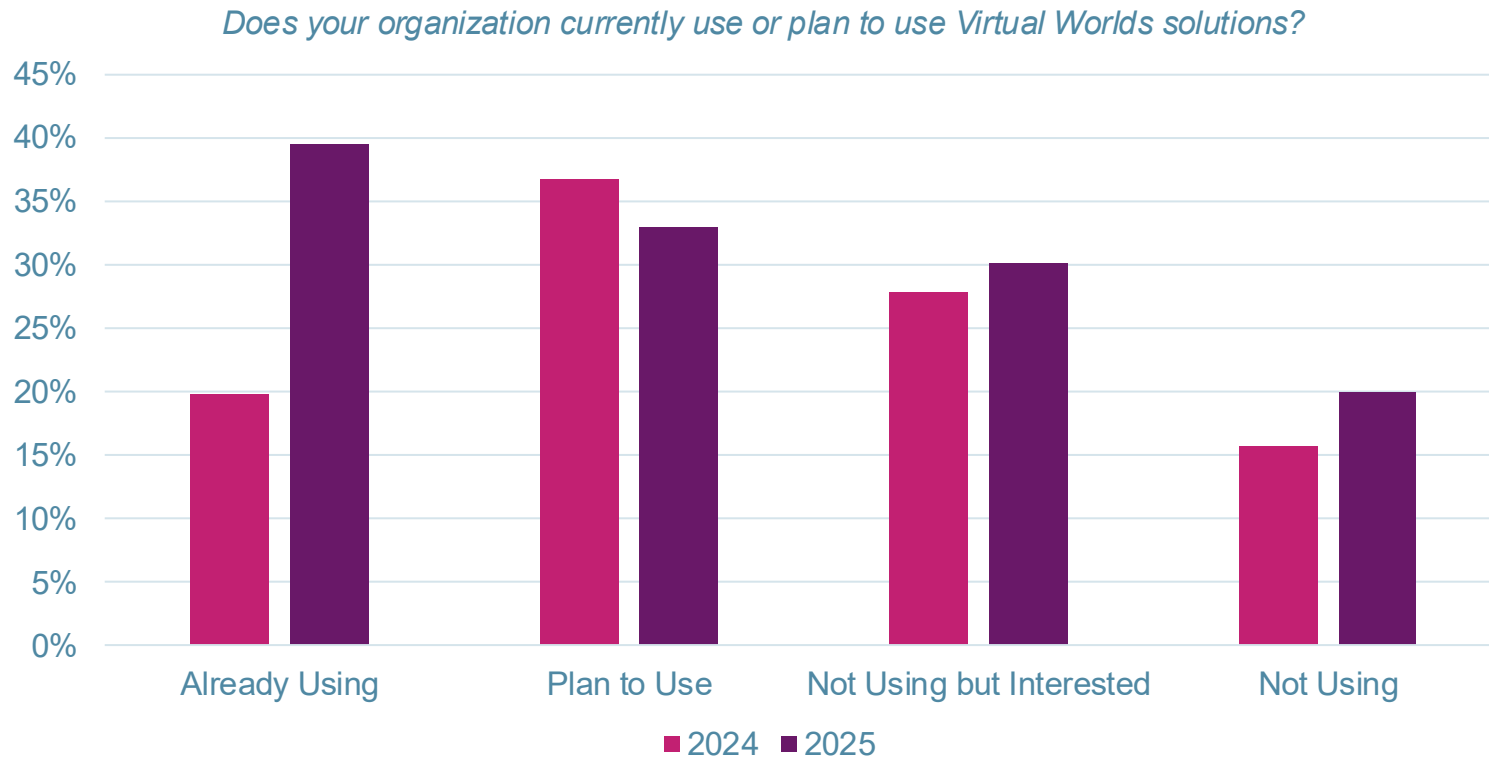


Source: IDC, 2026

Market Adoption



Evidence of Growing Adoption and Stable Interest in Virtual Worlds Solutions



Key highlights

- Engagement **growing** from 2024 to 2025.
- Active users near **40%** — real deployments, not pilots.
- “Plan to use” shrinking — planners turning into users.
- ~**30% interested** but not yet adopting — strong pipeline.
- ~**20% not using** — barriers: cost, skills, unclear value.

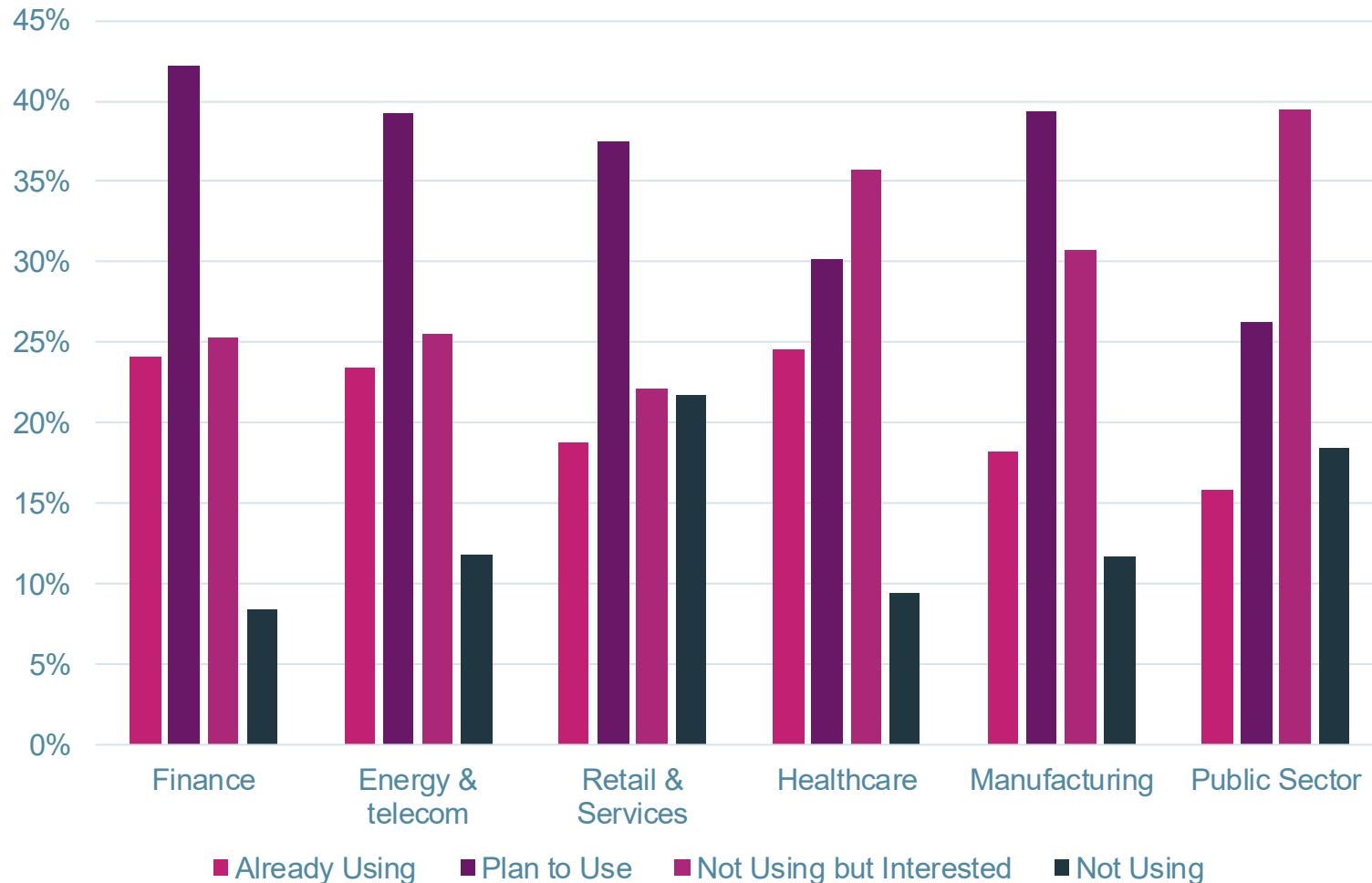
Takeaway: intent is converting into adoption.

Source: IDC Emerging Technologies Survey, 2024 (Europe n=640), IDC Emerging Technologies Survey, 2025 (Europe n=370)

Industry View



Does your organization currently use or plan to use Virtual Worlds solutions?



Key highlights

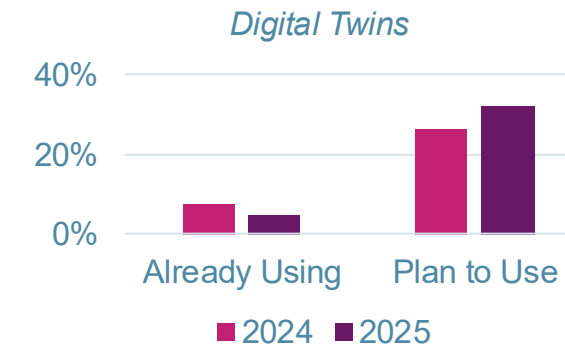
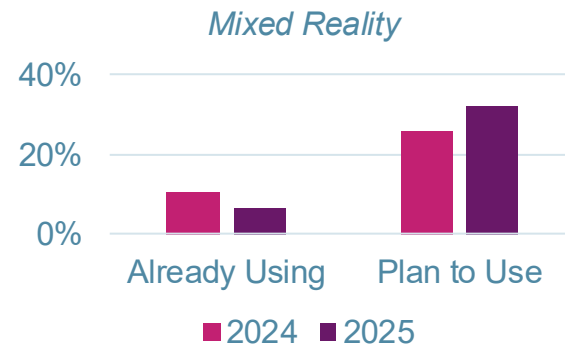
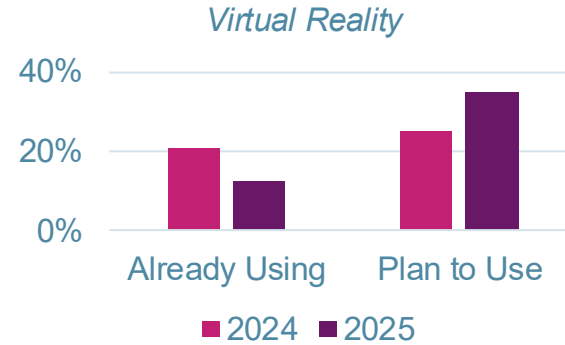
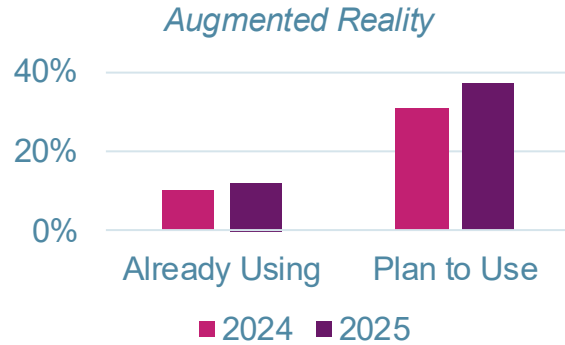
- **Finance leads** — 66% already using or planning to.
- **Healthcare** ties Finance on active use (~24%) and has the second-largest interested pool.
- **Public Sector lags** in adoption but has the largest interested group (~40%) — pipeline to unlock.
- **Retail & Services** shows the most resistance — 22% not using and not interested.
- **Manufacturing** is mid-pack today but plans to act (39% planning).

Adoption is broad-based, not confined to one sector.

Key Technologies



Technology Deep-Dive



Key highlights

- **Plan to use grew across all four technologies** from 2024 to 2025.
- **AR leads intent** — 37% planning to use, the highest of any technology.
- **VR jumps** from 25% to 35% planning — strongest year-on-year gain.
- **Digital Twins & MR** both reach ~32% planning — steady, broad-based momentum.
- Active use stays modest (~5–12%) — the market is still in early deployment.

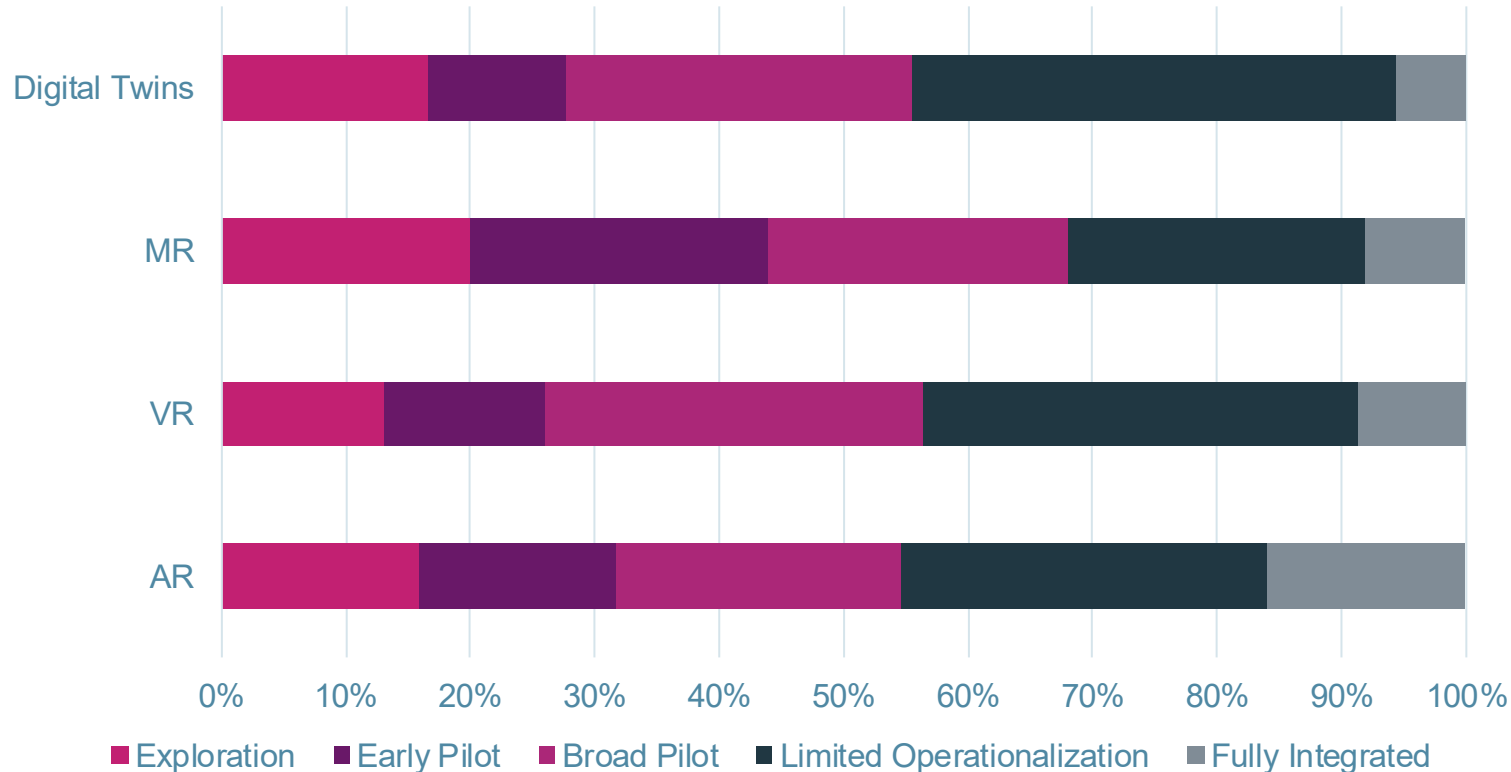
A diversified tech foundation — backing OpenVerse's focus on interoperability.

Source: IDC Emerging Technologies Survey, 2024 (Europe n=640), IDC Emerging Technologies Survey, 2025 (Europe n=370)

Adoption Vs Maturity



At what stage is your organization with each of the following virtual worlds technologies



Key highlights

- **AR is the most mature** — 16% fully integrated, ~2x the other technologies.
- **Digital Twins are deployed, not scaled** — 39% operationalised, only 6% integrated.
- **VR is close to scale** — 35% operationalised, on the edge of broader rollout.
- **MR is the least mature** — 44% still in exploration or early pilot.
- Across all four, fewer than **1 in 6** are fully integrated — scaling is the next hurdle.

Europe is past experimentation — but not yet at scale.

Source: IDC Emerging Technologies Survey, 2025 (Europe n=370)

Expected Impact

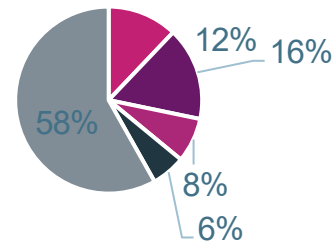


Impact: Society, Business, Workforce

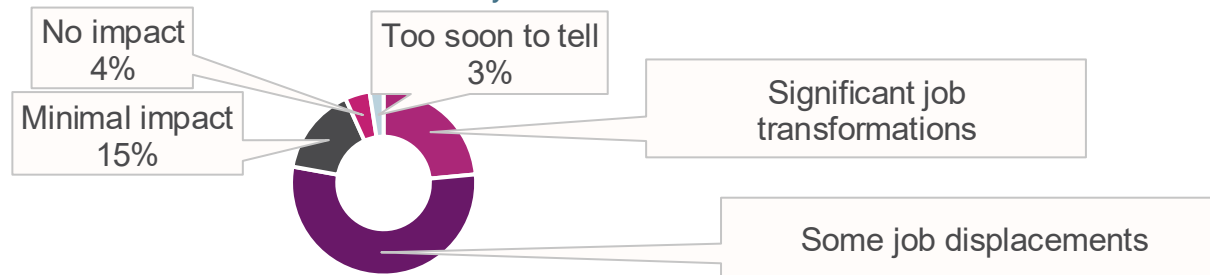
When do you believe are most likely to have a significant transformative impact on your organization and industry?



Which of these technologies do you believe are most likely to significantly change people's lives by helping address current societal challenges?



How does your organization expect emerging technologies to impact your workforce in the next 3 years?



Key highlights

- **Impact is near-term.** Most organisations expect transformation within 2 years.
- **VR moves fastest** — 35% expect immediate impact.
- **Digital Twins peak at 2 years** (39%) — slower start, bigger payoff.
- **VR & AR lead on societal impact** — 16% and 12% — the human-facing technologies.
- **~78% expect workforce change in 3 years** (54% displacement, 24% transformation).

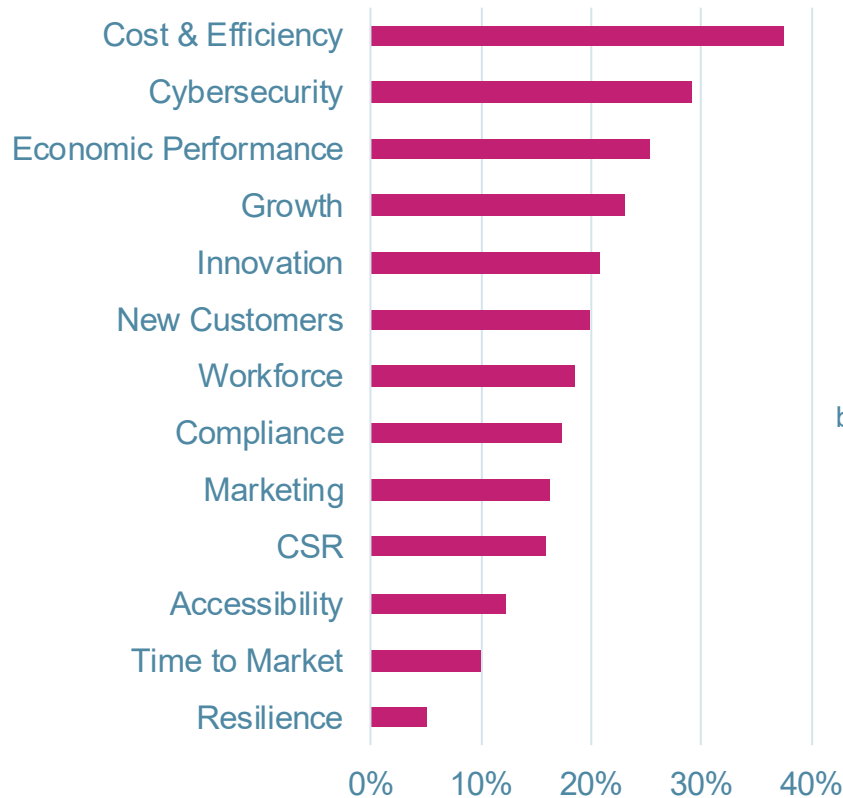
Reskilling and ethical governance are urgent, not optional.

Source: IDC Emerging Technologies Survey, 2025 (Europe n=370)

Key Benefits and Drivers to Adoption

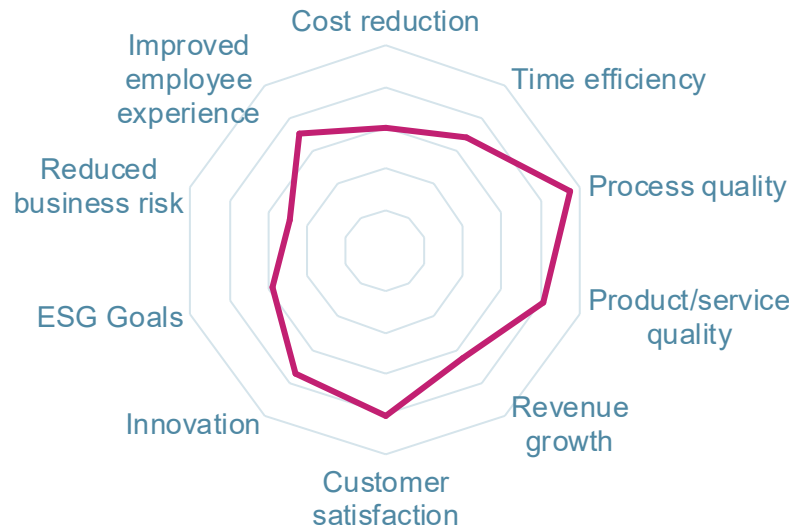


Key Drivers



Expected Benefits

Which of the following measurable results has your organization achieved or expects to achieve thanks to the implementation of Virtual Worlds technologies?



Key highlights

- **Cost & efficiency** is the #1 driver — 38% of organisations.
- **Cybersecurity** is the surprise #2 driver (29%) — trust matters.
- **Quality leads benefits** — process & product quality top the results (24% & 20%).
- **People wins are real** — customer satisfaction (20%) & employee experience (18%).
- Revenue (16%) and cost reduction (15%) confirm **bottom-line impact**.

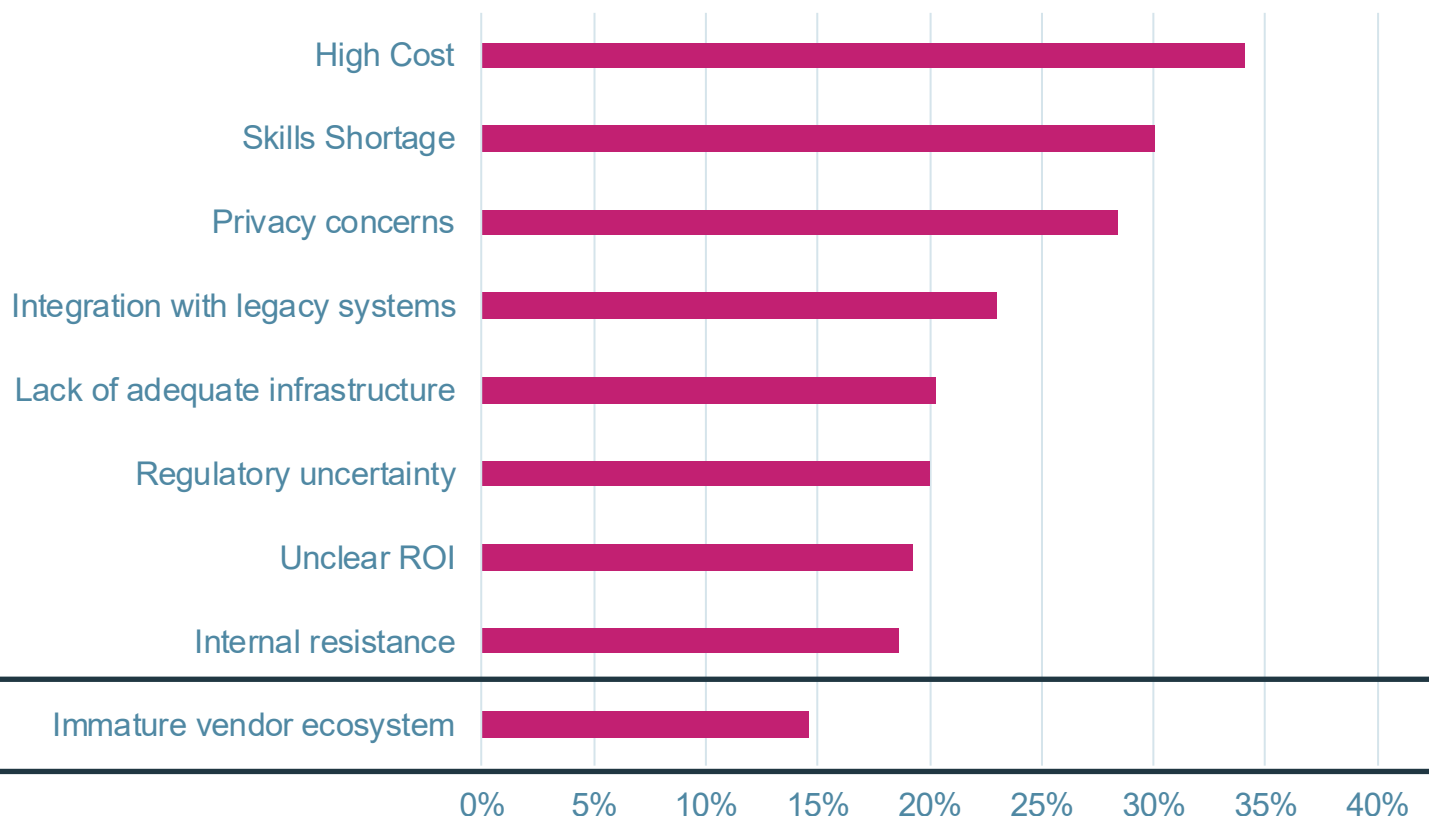
Bought for efficiency, valued for quality and people.

Source: IDC Emerging Technologies Survey, 2025 (Europe n=370)

Key Challenges – What’s Hindering Adoption



What are the main barriers to virtual worlds adoption in your organization?



What type of support would most effectively help your organization accelerate its adoption of virtual worlds technologies?

- 1 Training and upskilling programs
- 2 Financial incentives for tech adoption
- 3 Access to cloud-based platforms for experimentation

Source: IDC Emerging Technologies Survey, 2025 (Europe n=370)

Panel Discussion



Lapo Fioretti
Senior Research Analyst
IDC



Michael Barngrover
Managing Director,
XR4Europe



Lukasz Porwol
Insight Centre,
University of Galway

Q&A

What's Next – the Webinar Series Continues



 OpenVerse

Concrete applications of Virtual Worlds in Europe – Use Cases, Drivers & Challenges

May 26 | 10:30 -11:30 CEST | Online

open-verse.eu

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 OpenVerse

Key Requirements for a Sustainable European Virtual Worlds Ecosystem – Partners, Ethical and Legal Requirements and Governance

June 16 | 10:30 -11:30 CEST | Online

open-verse.eu

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