



# The New Way Of Working Is Immersive

How The Pandemic Catalyzed Enterprise Adoption Of Immersive Technologies

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FORRESTER OPPORTUNITY SNAPSHOT: A CUSTOM STUDY COMMISSIONED BY UNITY | NOVEMBER 2021

## The Pandemic Has Reshaped Customer And Employee Experiences

COVID-19 has posed significant barriers to employees who depend on physical products, assets, or facilities for their work. As hybrid work structures take root and more customers expect digital experiences along their journeys, organizations are pressed to find solutions that allow them to be productive in all circumstances.

Unity commissioned Forrester Consulting to evaluate how the pandemic is transforming customer and employee interactions in a more distributed, digital world. Through our survey of 309 decision-makers, we sought to understand the role that immersive technologies can play in reviving pandemic-restricted processes (e.g., VR, augmented reality (AR), mixed reality (MR), or interactive/3D visualization). We found that across work phases — from product inception to showcasing — immersive technologies have helped early adopters be more innovative, efficient, and resilient.

### Key Findings



Supply chain issues and lockdown procedures have devastatingly impacted customer experience and productivity. In response, leaders are prioritizing superior digital capabilities.



COVID-19 saw immersive technology emerge as a solution to many pandemic-fueled challenges, leading 34% of current users to adopt and another 54% to accelerate their adoption.



Several use cases — including employee training and interactive 3D simulations — drove interest in immersive tech, which grew by 18%. Emerging future-of-work needs are expected to boost growth by another 42% in the next two years.

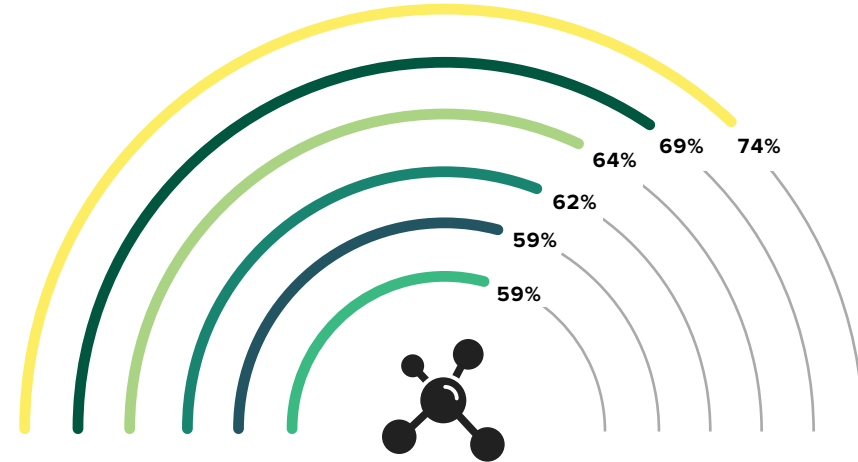
## The Pandemic Has Forever Altered Traditional Work Dynamics

COVID-19 has wreaked havoc on traditional work patterns across sectors. However, it has been especially disruptive for those industries — including AEC (architecture, engineering, construction), manufacturing, retail, transportation, and energy/utilities — that have typically relied on physical assets or in-person engagement to train employees and design, manufacture, market, sell, and repair their products or services. Over half of decision-makers report that their employees' ability to collaborate and innovate across work phases has become much more challenging since the pandemic. Disruptions have been most acute in the marketing/selling phase, where the ability to display product assortments or demonstrate features in person has been severely restricted. Work phases with a digital heritage — like design that has long used computer-aided design (CAD) tools — have been impacted less severely.

**“Within the first few months of the pandemic, how much more challenging was it to collaborate and innovate in these work phases relative to your experience pre-pandemic?”**

(Showing “Significantly” or “Somewhat” more challenging)

- Marketing/selling activities
- Operations
- Skills capture and training
- Engineering/simulation
- Production/manufacturing
- Design/prototyping



## Innovation Is Inspired By Necessity And Driven By Technology

Productivity challenges in these industries can be traced back to the pandemic. Fifty-six percent of decision-makers report limited access to raw materials, products, and facilities. While over a third say it has resulted in supply chain disruptions, diverted resources, cancelled events, and poor customer experiences.

Despite the disruption, the pandemic also afforded companies with a unique opportunity to reinvent their operational strategies and offerings. Retailers turned to e-commerce and hybrid “buy online, pick up in-store” (BOPIS) strategies in the face of shopper fears and social distancing. Field service technicians turned to AR solutions and local partner collaboration to fix machinery without travel. Designers collaborated in VR to create new products while working from home. These experiments educated companies on the power that emerging technologies have in solving operational challenges.

**“What positive impact, if any, has COVID-19 had on your operations?”**



# 55%

Drove a new focus on technology innovation.



# 50%

Led to exploration of/experimentation with new visualization tools or techniques.



# 34%

Necessitated our creation of new and/or expanded product/service offerings.

## Digital Capabilities Lessen Work Friction

The move to a more distributed world means leaders are seeking new tech-supported solutions for workers and customers. This new focus is reflected in organizations' agendas. Now, digital capabilities that support new ways to market and sell products, collaborate with colleagues, and be productive are even more important than they were before the pandemic. In particular, the desire to improve digital marketing capabilities and bring products to market with improved visualization tools has become stronger, and it speaks to the need to alleviate acute, pandemic-fueled marketing and selling challenges.

For employees, 67% say improving remote collaboration across and beyond the organization is now crucial, while nearly as many want to digitize employee knowledge or use technology to boost productivity.

Marketers are learning that engagement and sales suffer without a way for customers to see (and interact) with a product from every angle, in every variation, and in various contexts.<sup>1</sup>



## “What impact has the pandemic had on the importance your organization places on the following goals?”

(Showing “Significantly” or “Somewhat” more important)

Increase digital marketing and/or e-commerce capabilities

79%

Bring products to market with improved visualization tools

72%

Improve remote collaboration across and beyond the organization

67%

Innovate on our product and service offerings

67%

Better leverage technology to increase employee productivity

66%

Digitize employee knowledge capture and transfer

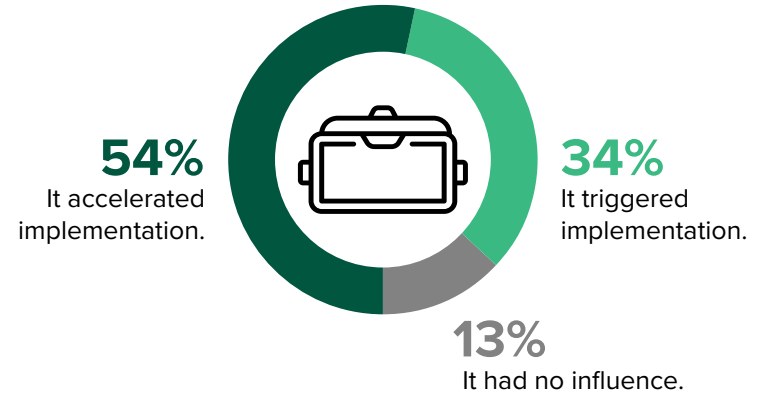
64%

## The Pandemic Led A Third Of Current Users To Adopt Immersive Technologies

An emerging segment of companies are using lessons learned during the pandemic to make bets on new business models and ways of working. These organizations have embraced immersive technologies for their potential to support more adaptive ways of responding to disruption. Once associated primarily with the media and gaming industries, the pandemic catalyzed the awareness of, and need for, immersive technology across a variety of sectors, particularly those with physical production processes like automotive, manufacturing, and AEC.

Indeed, users report that the pandemic influenced their adoption: Over half say it accelerated their implementation, while over a third say it triggered implementation. In other words, 88% of users find that the pandemic increased their implementations out of need, which could include faster time from proof-of-concept to deployment.

**“To what extent did the COVID pandemic influence your implementation of immersive technologies?”**



Immersive technologies provide immersive visualization and simulation experiences that mimic real life and leverage one or more of the following: interactive/3D visualization, VR, AR, and/or MR/XR.<sup>2</sup>

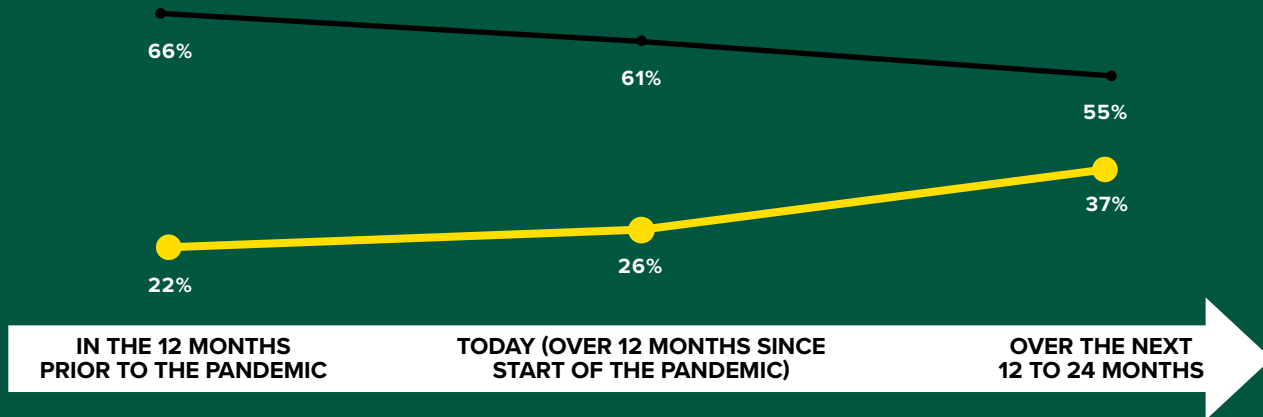
## Immersive Technologies Are Becoming A Key Part Of Companies' Collaboration Toolkits

Increasingly, companies need tools that allow workers to be productive under all circumstances. Organizations' existing and planned collaboration methods reflect that sentiment. Before the pandemic, in-person/physical modeling was the predominant way to collaborate on representations or simulations of products, buildings, environments, and/or processes. Since the pandemic, the use of immersive technologies for these tasks has grown, while reliance on in-person/physical methods has waned. The use of immersive technology today has increased 18% relative to pre-pandemic levels, and that growth is slated to accelerate. Over the next 12 to 24 months, 37% expect their organizations to be using immersive technology, representing a 42% increase over today's adoption levels and a 68% increase over pre-pandemic levels.

**“Which of these were used in the 12 months before the pandemic? Which ones are used today? What methods do you anticipate your organization will use in the future?”**

(Select all that apply)

- In-person or physical modeling
- Immersive technologies



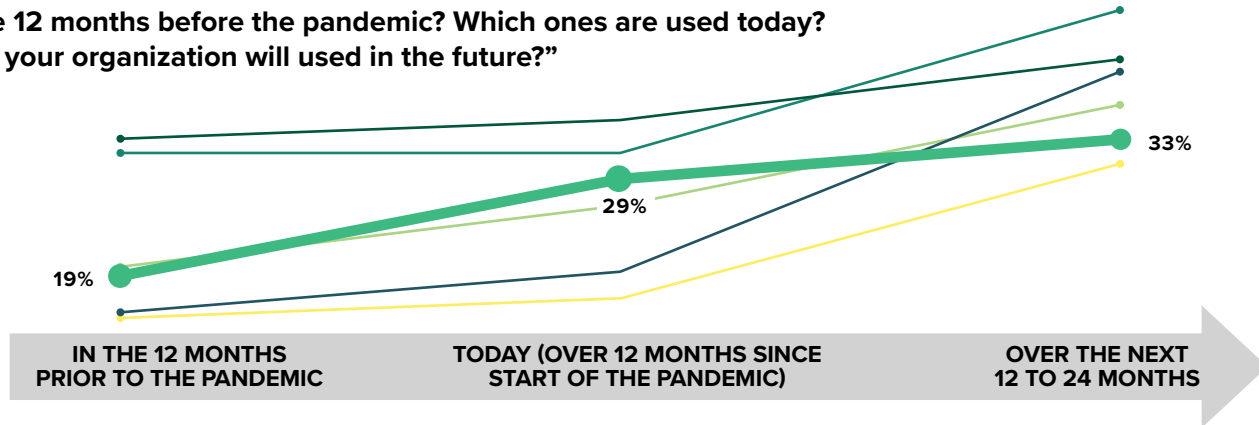
## Immersive Tools Are The New Imperative For Designers

All work phases are seeing an increased use of immersive technology. For example, consider the design phase: Since the pandemic, immersive technology use (from 19% to 29%, a 53% growth rate) and interest (79% report greater interest) has grown the most significantly. Design not only determines how things look but also how people interact with an object, building, or service, and what those things do in response.<sup>3</sup> Due to the pandemic, businesses have needed to reimagine these interactions, driving demand for design work. Leaders that describe their priority of bringing products to market with improved visualization tools can use immersive technology to tell more authentic stories, show off what a product or service can do, and be more helpful in contextualizing how it works.<sup>4</sup>

**“Which of these were used in the 12 months before the pandemic? Which ones are used today? What methods do you anticipate your organization will use in the future?”**

(Work phases using immersive technologies)

- Skills capture and training
- Operations
- Production/manufacturing
- **Design/prototyping**
- Engineering/simulation
- Marketing/selling





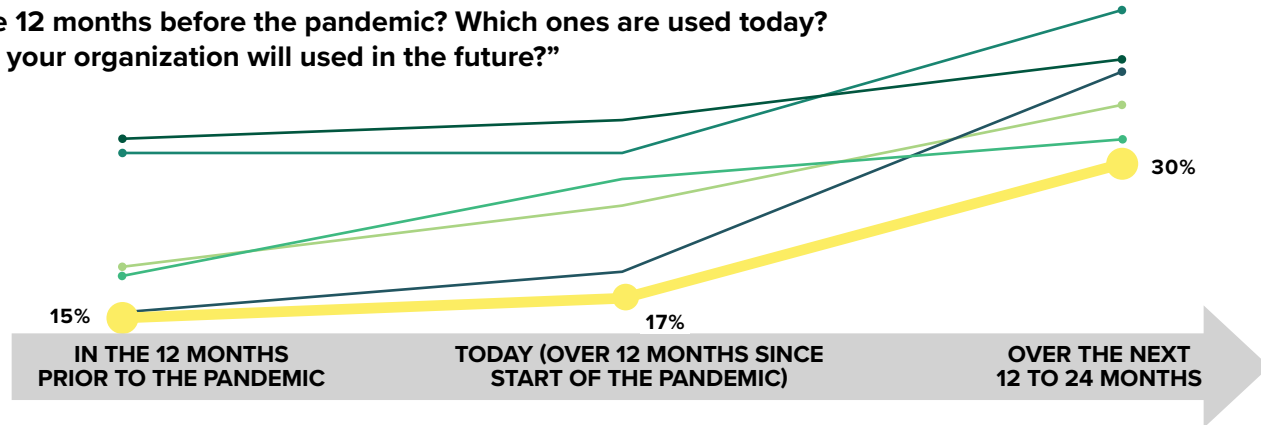
## Marketing And Sales Teams Must Offer Interactive E-Commerce Experiences

In the absence of in-person engagement and showrooms, more customers are using digital channels to research and buy products. Unfortunately, this also means that text-based descriptions and static images are showing their inadequacies. These reasons shed light on why the marketing/selling phase has been the hardest hit since the pandemic. Immersive technologies enable organizations that are making digital marketing a greater priority to help their buyers research and configure the right solution. While immersive technology use is currently the least prevalent in this phase, interest is growing. Over the next 12 to 24 months, 30% intend to use immersive technology to market and sell their products (a 77% growth rate), which is the second highest area of future growth, behind engineering (which will grow by 100%).

**“Which of these were used in the 12 months before the pandemic? Which ones are used today? What methods do you anticipate your organization will use in the future?”**

(Work phases using immersive technologies)

- Skills capture and training
- Operations
- Production/manufacturing
- Design/prototyping
- Engineering/simulation
- **Marketing/selling**



## Immersive Technology Has A Wide Application

The opportunity to use immersive technology spans several use cases with cross-industry appeal outside of gaming and media. Leaders are interested in a number of these applications, including interactive 3D simulations, remote collaboration, and customers' interactions with customizable online products. Employee training is generating considerable interest as well. Immersive technologies allow companies to scale their training program at a time when many skilled frontline and industrial workers are retiring and transferring institutional knowledge to new workers for processes like manufacturing. In many verticals, learning in a virtual world is also safer, cheaper, and more carbon friendly.<sup>5</sup>

Immersive technologies can also solve industry-specific needs. In manufacturing, they can be used to create a digital twin of a manufactured product or facility; in AEC, they can improve collaboration of different disciplines during design review; and in retail, they can build immersive digital marketing experiences.

### “Which of these use cases for immersive technologies are driving your interest?”

**51%**

Providing immersive training for employees

**50%**

Creating interactive 3D simulations

**47%**

Enabling remote collaboration

**46%**

Empowering customers to interact with and customize products online

**39%**

Designing immersive human-machine interfaces (HMI)

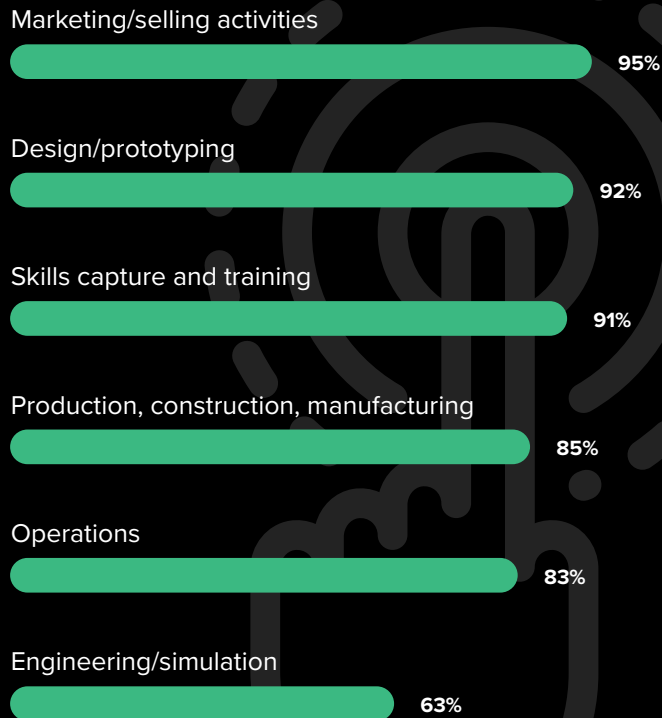
## Immersive Experiences Provide Value To Both Users And Customers

While it is still early, those using immersive technology are already seeing the impact, including a meaningful improvement in their ability to collaborate and innovate across work phases. Over 80% report an improvement for production/manufacturing and operations phases, and 91% say the same for skills capture and training. Improvement has been highest for design/prototyping and marketing/selling, where over 30% describe the improvement as significant. Seeing as its use is still developing even among existing users, immersive technology has great potential to improve work across phases even more as adoption matures.

Sixty-one percent of users cite improvement in product/service reliability, which can likely be traced back to superior design. And 59% report improved customer experiences, i.e., those that digital, interactive marketing/selling tactics are more likely to support.

## “What improvement have you realized in your organization’s ability to collaborate and innovate in these work phases by using immersive technologies?”

(Showing “Significant” to “Moderate” improvement)



Base: Variable; global leaders with authority over technology decisions at their organizations using immersive technologies  
Source: A commissioned study conducted by Forrester Consulting on behalf of Unity, September 2021

## The Future Of Work Is Immersive

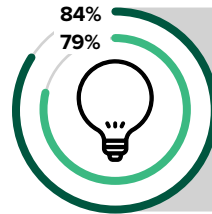
While the pandemic has been a significant driver of immersive technology use, other forces will further catalyze its adoption. Decision-makers believe immersive technology can help their organizations thrive as the future of work transforms. Most of all, they predict the following over the next three years: 1) immersive technology will become a significant competitive differentiator; 2) demand for metaverse-like digital experiences will grow; and 3) spikes in systemic risks to their operations will become more common. Most agree that immersive technology can help organizations solve for areas of risk and significantly enable opportunities related to these and other future-of-work scenarios.

At least 40% either have plans to or have already implemented digital twins, computer vision, interactive/3D visualizations, AR, or VR.

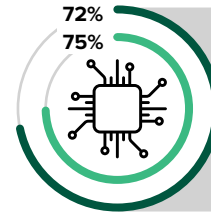


### Forces Behind The Future Of Work Will Further Accelerate Immersive Adoption

- Percentage who believe each area will describe the future of work over the next three years
- Percentage who believe immersive tech can help solve or significantly enable each area



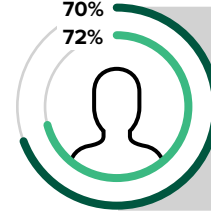
Innovation via the adoption of emerging technologies will become a significant competitive differentiator.



Demand for metaverse-like digital experiences that intersect with the digital world will grow.



Spikes in systemic risks to our organization will become more common.



Customer expectations for self-service capabilities (e.g., ability to configure and view products on their own) will grow.

## Conclusion

The pandemic has accelerated the use of immersive technologies to prepare organizations for the next global disruption. Companies have seen the value, and now it's time for them to leverage immersive technologies to innovate by:

**Connecting employees at many stages of work.** Leverage immersive technologies to train employees, operate your businesses, design and produce goods, and go to market. Developing immersive solutions by work phase allows you to capture the most opportunity.

**Transforming the future of work.** Leading-edge innovators use immersive technologies to radically restructure work. Thinking big in your long-term goals will make immersive technologies more powerful.

**Meeting and exceeding shifting buyer needs.** Deepen your relationship with customers by allowing them to experience, manage, use, and co-create those products with you.

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### Contributing Research:

Forrester's Future of Work  
research group

THE NEW WAY OF WORKING IS IMMERSIVE

## Methodology

This Opportunity Snapshot was commissioned by Unity. To create this profile, Forrester Consulting supplemented existing Forrester research with a custom survey administered to 309 global leaders responsible for the technology used by their organizations for collaboration and innovation across various work phases. The custom survey fielding began in August 2021 and was completed in September 2021.

### ENDNOTES

<sup>1</sup> Source: "Scale Your Content Creation With 3D Modeling," Forrester Research Inc., December 8, 2020.

<sup>2</sup> Immersive technologies refer to one or more of the following: interactive/3D visualization (interactive and immersive 3D visualizations in which objects look and behave like reality); VR (full immersion in an artificial environment in which a user feels like they are visually present); AR (provides users the ability to interact with the real world while digital content is overlaid virtually); and/or MR/XR (a more advanced form of AR in which objects are not only overlaid on the real world but are also interactive).

<sup>3</sup> Source: "The Design Industry, 2021," Forrester Research Inc., March 18, 2021.

<sup>4</sup> Source: "Use Rich Media To Drive More B2B Conversions," Forrester Research Inc., September 3, 2020.

<sup>5</sup> Source: "Your Virtual Office In The Cloud," Forrester Research Inc., August 13, 2021.

### ABOUT FORRESTER CONSULTING

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## Demographics

REGION	
EMEA/Latin America	40%
North America	39%
APAC	20%

INDUSTRY	
Manufacturing	33%
Retail	17%
AEC	17%
Energy/utilities	17%
Transportation/logistics	16%

SENIORITY	
C-level/VP	17%
Director	31%
Manager/senior manager	52%

COMPANY SIZE (ANNUAL REVENUE USD)	
\$100M to just under \$1B	17%
\$1B to just under \$3B	49%
\$3B to just under \$5B	25%
\$5B or more	9%

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