

# 8 COMMERCIAL APPLICATIONS FOR MIXED REALITY IN 2022 AND BEYOND

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# INTRODUCTION

Virtual reality, augmented reality, and mixed reality have transformed the way the world does business. From allowing consumers to explore virtual showrooms to relying on expert augmented-reality support to guide field service technicians through complex repairs, these new tools are streamlining key business processes and delivering unforgettable customer experiences. In this guide, we'll explore eight fast-growing ways businesses are using these technologies and offer a closer look at the lessons for technology leaders crafting their own mixed-reality strategies for 2022 and beyond.

## Defining the Technologies

**Virtual Reality (VR)** “is an artificial environment that is created with software and presented to the user in such a way that the user suspends belief and accepts it as a real environment,” notes [TechTarget](#). Users typically wear a headset that allows them to see into the VR and which may rely on sensors held in the hands to interact with the environment.

**Augmented Reality (AR)** “is the integration of digital information with the user’s environment in real time” says [TechTarget](#). Instead of creating a totally digital environment, AR overlays information on top of the existing environment. Users might rely on devices such as smart glasses, smartphones, or tablets to see the data and interact with the digital environment.

**Mixed Reality (MR)** “is a user environment in which physical reality and digital content are combined in a way that enables interaction with and among real-world and virtual objects,” notes [TechTarget](#). These technologies are also sometimes referred to as hybrid reality, extended reality, or multi-reality tools.



# MIXED REALITY IN BUSINESS IN 2022 AND BEYOND

Just a few short years ago, virtual reality was the stuff of video games or, at best, the future of work. A closer look at the statistics shows that mixed reality has now taken root in the business world, influencing multiple factors, from how companies hire and train talent to the way factory workers and field service technicians complete complex tasks.

It's estimated that over 14 million virtual and augmented reality headsets will ship in 2022, adding to the 9.86 million that shipped last year, according to [Statista](#). For the virtual workplace, this translates into big business. [Statista](#) estimates that the potential metaverse market opportunity value ranges between \$3 billion and \$12 billion. The “metaverse” is a term that refers to the next iteration of the Internet, bringing the physical and digital together. With significant investments by players like Facebook, the metaverse offers a major boost to virtual technologies. And even for applications that are anchored more firmly in the physical world, [Goldman Sachs](#) has predicted the value of virtual reality and augmented reality to surpass \$80 billion by 2025.

Businesses are scaling their investments in virtual, augmented, and mixed reality. Research from Perkins Coie notes that these investments aren't without challenges. In [one study](#), companies highlighted privacy and data concerns, liability, and licensing and IP concerns as potential risks they're managing. However, this hasn't slowed down the adoption of technologies and the development of novel use cases. Let's dive into how companies are using these technologies in creative and innovative ways.

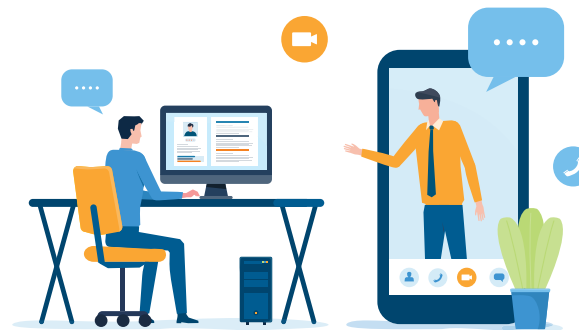


# 8 COMMERCIAL APPLICATIONS FOR MIXED REALITY AND WHAT YOU CAN LEARN FOR YOUR BUSINESS

## RECRUITING

In the face of today's critical talent shortage, your employer brand has never been more important. And having the right talent may mean hiring a remote employee who resides in a different time zone or country. Virtual reality helps companies bridge the gap and connect with the best candidates for their open roles.

Virtual reality is used in two specific ways in recruiting. Businesses create a day-in-the-life experience of specific jobs, teams, or business locations to help provide potential recruits with a hands-on look at company culture. They also use VR to conduct candidate assessments and to get a better look at a candidate's skillset and performance on directed tasks before making an offer. With virtual interviewing and digital candidate experiences, it's easier to forge strong team connections while keeping both time and financial investments in check.

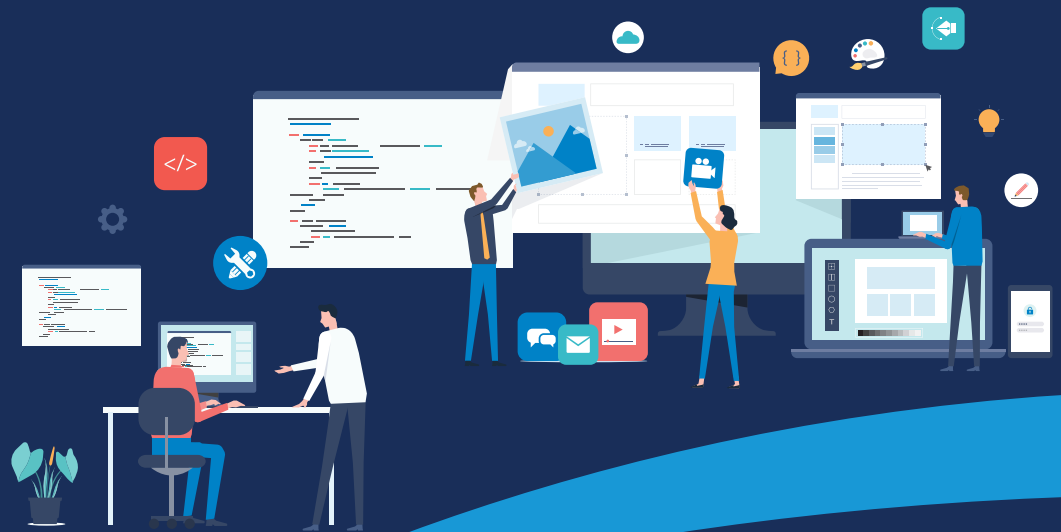


# JOB TRAINING AND EDUCATION



Onboarding and training are also hot areas for adopting mixed reality. With the right tools, training can be provided in settings that mirror the work environment to help get employees up to speed faster, without cutting corners on safety or other issues. Complex tasks that need to be practiced hundreds of times to master (e.g., advanced technology skills) can be practiced virtually and augmented with tracking that measures factors such as eye movements, hand movements, and other precision metrics to provide ongoing feedback and support.

Businesses are also turning to these tools to help onboard new employees, deliver diversity and inclusivity training, and develop the soft skills that are essential for success. Mixed-reality training solutions, for example, allow companies to train their customer service representatives on how to develop empathy, diffuse heated conversations, and navigate challenging calls. Sensitive training topics can also be handled with ease, while providing employees the space to practice their skills and develop a stronger foundation for successful engagement.



## EMPLOYEE SAFETY AND COMPLIANCE

Another use of virtual reality within the training realm is to support employee safety and compliance. Often, companies must train their employees for worst case scenarios. It can be hard to replicate these environments or adequately prepare a team to deal with a catastrophic scenario via a PowerPoint deck or training videos. Virtual reality offers a dynamic alternative that can help employees be better trained than ever before.

As [Health and Safety Magazine](#) notes, “One major benefit is bringing trainees closer to real-world experiences without exposing them to real-world dangers.” Consider the case of a company that needs to provide teams with detailed training on how to respond if a fire breaks out at a manufacturing facility. A model of the plant can be created with virtual reality, and individuals can practice the scenarios they’re responsible for—from evacuating a building to using firefighting equipment. With virtual reality, it’s possible to offer more hands-on training at lower costs.



# TASK VISUALIZATION AND INSTRUCTIONS



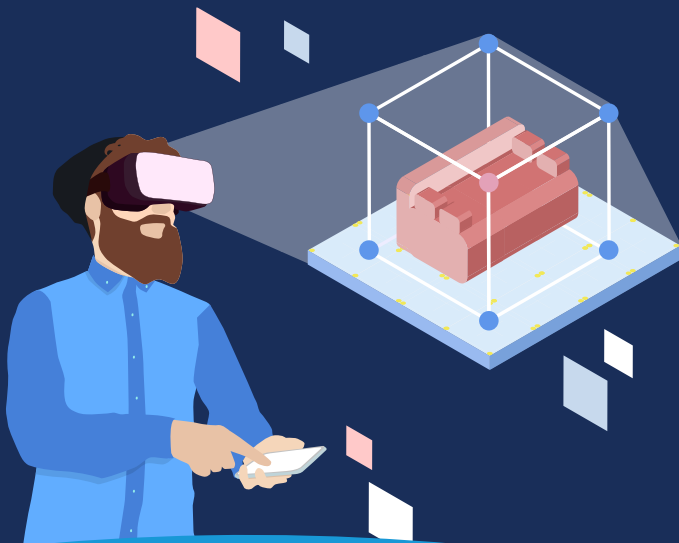
When a worker faces a complex task, strategies to simplify execution, reduce errors, and improve accuracy can have a significant impact on both the worker experience and the company's bottom line. Mixed-reality solutions can be used to support task visualization, provide essential data, and offer step-by-step task instructions while the user wears smart glasses or a headset.

This approach allows users to complete tasks while keeping their heads up and hands free. Consider an employee working on a robotics project. They can receive complex instructions, see visualizations of project end states, and access data right from their headset, enabling real-time troubleshooting and the ability to execute sophisticated processes with precision and ease.



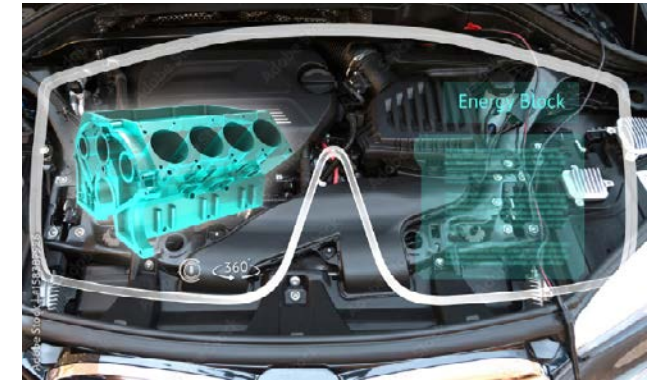


## EXPERT ASSISTED FIELD SERVICES



Field services is a crucial element of a company's ability to maintain ongoing relationships with happy customers. Field services respond to customer complaints, repair broken equipment, and conduct routine maintenance and upgrades. However, there's an increasingly complex technological landscape that may be challenging for field services technicians to master. Many companies are now using augmented reality to pair field services representatives with subject matter experts.

For example, a utility company's field services technician makes a site visit to a customer who has complained about an issue. In the past, the technician may have been able to diagnose the issue but fixing it would often require a second visit by a more senior technician.



Today, the field services tech can simply don smart glasses with the right software and relay everything they're seeing to an expert. The expert can communicate with them by voice and even share information in a way that overlays visuals or provides instructions over the physical environment to guide the repair. Customers are happy because their issues are solved faster, and companies reduce their travel expenses and total time spent resolving problems.

# VIRTUAL SHOWROOMS AND SHOPPING



For businesses that rely on helping customers envision a finished product long before it's completed, virtual and augmented reality can be a powerful marketing tool. Construction companies and retailers are now creating virtual showrooms. At major big box stores, shoppers can see how furniture will look in their homes before purchasing. Contractors and construction companies can offer virtual tours of their finished projects so prospective buyers can see the value of their investments.

Meanwhile, beauty and fashion brands are leading the way with augmented reality tools. Users can upload a picture of themselves or use a live camera session to see how hair dyes, cosmetics, clothing, and accessories will look on them prior to making the purchase. As sales increasingly shift online, it's important to find creative ways to help customers evaluate products—and digital tools can increase buyers' security that the products they're purchasing are the right fit for their needs.



# SALES PRESENTATIONS



In a world where many sales are going online, virtual reality and augmented reality make digital interactions more tangible. For example, a commercial real estate company showing space in a property that's still under construction can take prospective tenants on a virtual tour of the finished property. Adding dynamic elements to sales presentations helps bring the possibilities of a product or service to life.



Incorporating mixed-reality elements into the sales process offers several possibilities. The first is bringing together sales reps and stakeholders in a virtual environment so interactions feel more organic and personal. MR also offers the capability to showcase complex concepts and bespoke experiences for high-end products and luxury goods. Sales representatives can even personalize the presentation to demonstrate how a product or service would directly impact a particular customer. Utilizing better tools to engage with prospects, sales teams can provide personalized virtual experiences that help brands stand out from the competition.

# PROCESS DESIGN



As businesses discover the need to rethink complex processes, mixed-reality tools can make it easier. For example, redesigning the production flow in a manufacturing environment has a wide range of implications, from the way machinery is configured to how the workforce interfaces with the process. Attempting to reflow processes without the right level of visibility can lead to unanticipated challenges along the way.

Mixed-reality tools are designed to allow teams to test out different process redesign strategies, identify potential snags, and ideate solutions before ever touching the physical environment. In industrial settings where a single day offline can lead to losing tens or even hundreds of thousands of dollars in revenue, the ability to redesign processes with ease allows companies to tackle lingering problems rather than waiting for them to resolve.



# NEXT STEPS

VR, AR, and MR all offer the opportunity to introduce new technologies that can solve ongoing challenges in your organization. Yet knowing where to get started, what technology to purchase, and how to roll out a successful initiative can be daunting. Have these eight commercial applications for mixed reality whet your appetite to see how these technologies can transform your business?

**Contact Connection today to discover the solutions and services that can make your virtual reality investment a success.**

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