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Augmented Reality Impact Analysis Emerging Vendor Profiles: Torch 3D, Atheer, Librestream, DAQRI

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Augmented reality (AR) offers innovative technology that includes digital information to provide a composite display to users, real-time. The increasing affordability and availability of AR games on mobile devices is a major factor driving market growth. Many organizations are investing heavily in sophisticated solutions that integrate AR games to mobile devices, enabling them to enhance client experience, enrich business expansion, and increase revenue during the forecast period.

The market is segmented into types of gamers, gaming devices, and regions that include America, Europe, APAC, and MEA. Major businesses like Microsoft, Google, Apple, Sony, and Nintendo are investing in incorporating AR technology into their products and providing clients with improved gaming characteristics.

USD

Source: medium.com

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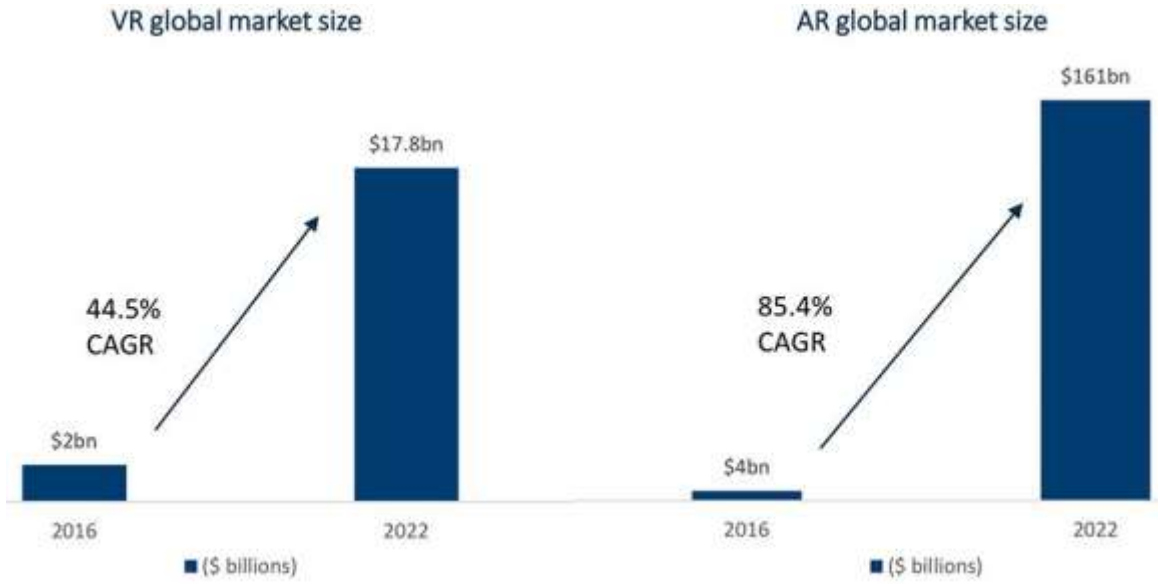
VR and AR market sizes. Gallagher C., (2018). End of year summary of Augmented Reality and Virtual Reality market size predictions.
Retrieved from: https://medium.com/xrbootcamp/a-summary-of-augmented-reality-and-virtual-reality-market-size-predictions-4b51ea5e2509



Source: medium.com

AR technology has matured to a point where organizations can use it as an internal tool to complement and enhance key business processes

Augmented Reality games are expected to reach USD 284.93 billion in 2023, growing at a CAGR of 152.7% during The forecast period 2017-2023. Increased Integration of AR into mobile devices, an increasing online population, innovation in game technology, and the demand for IoT-based applications compel organizations to integrate AR into their traditional games.
Increasing online gamers and internet penetration are a number of additional factors that contribute to market growth [1].

A number of companies have just entered the market to offer customers attractive designs and innovative features in gaming devices. Innovations in IoT and increased R&D investments from large organizations to increase equipment also contribute to market growth.

Augmented reality provides information and entertainment that covers the physical world. The potential for augmented reality technology is very broad, but is still in the development stage, with most potential applications stored in the laboratory.

UX PLANET (2019). 6 Interesting Augmented Reality Concepts, Retrieved from https://uxplanet.org/6-interesting-concepts-for-ar-experiences-359193eb1ad5

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Field services: AR technology allows field service agents to interact with the system to provide remote support to users.

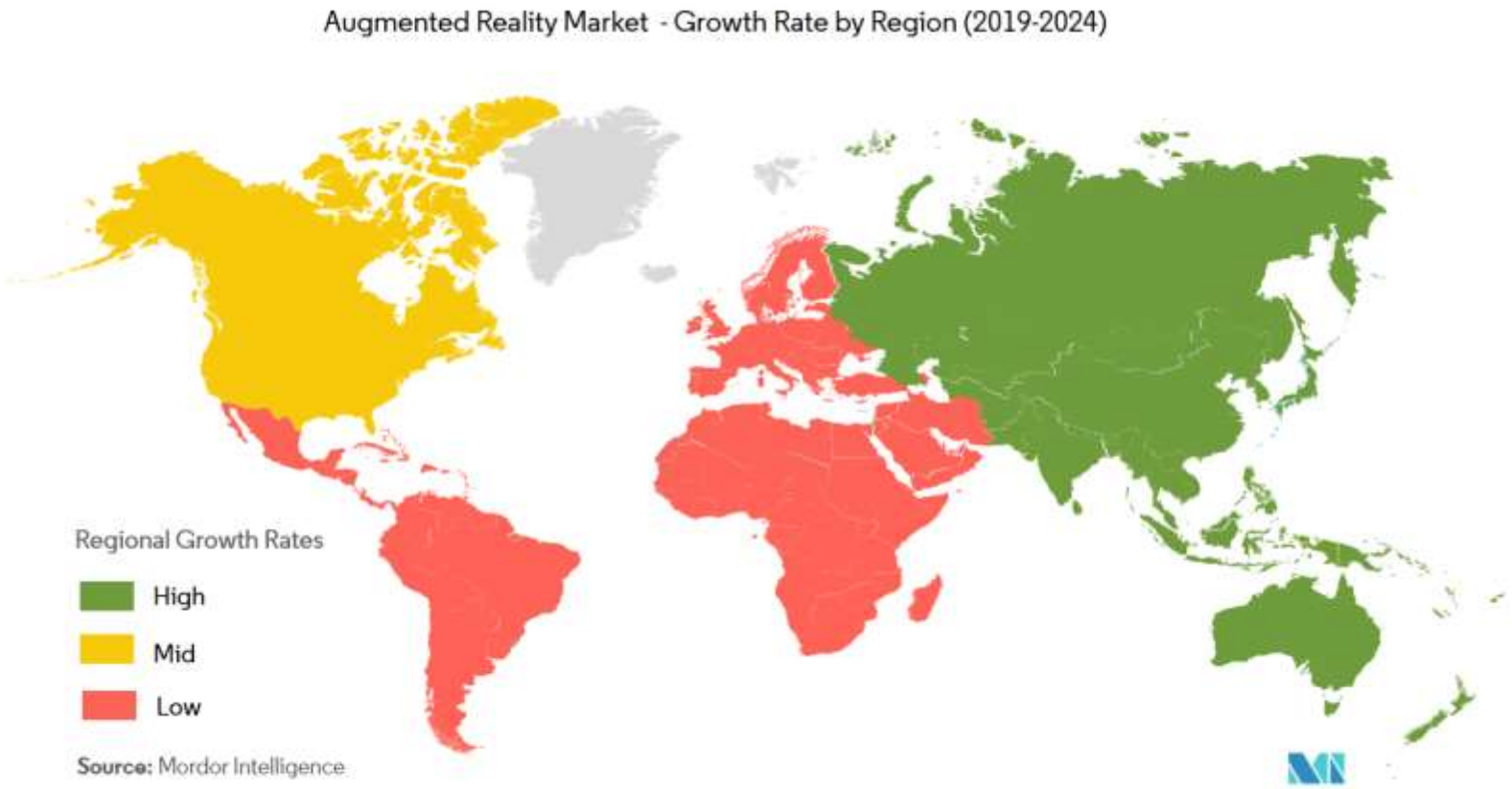
Energy and utilities: Energy companies and utility users of AR technology for asset inspection, meter reading, remote monitoring tasks, and health and safety.

Health: AR technology helps users access important medical records and vital signs of patients. Nurses and doctors can use AR technology to learn about upcoming operations, for organ modeling and explain medical procedures.

Automotive: This industry has been using AR technology for more than 10 years to visualize technical information. At present, significant progress is being made with use cases for AR such as factory planning, product visualization, worker support, and customer support.

Industrial design: AR can help industrial designers experience product design and operation before completion. AR can be used to visualize the body structure of the car and the layout of the engine.

[2] Mordor Intelligence (2019) AUGMENTED REALITY MARKET SIZE - GROWTH, TRENDS, AND FORECASTS (2020 - 2025) Retrieved from https://www.mordorintelligence.com/industry-reports/augmented-reality-market



Augmented Reality Market. Mordor Intelligence (2019) AUGMENTED REALITY MARKET SIZE - GROWTH, TRENDS, AND FORECASTS (2020 - 2025) Retrieved from https://www.mordorintelligence.com/industry-reports/augmented-reality-market

Over the next years, both VR and AR applications will become increasingly sophisticated, as devices get more powerful and capable of creating higher quality visuals.

Many technology experts are considering AR as it is seen to be gaining success in almost every field it is used.

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Manufacturing is one industry that is greatly benefited from augmented reality, equipping thousands of producers with competitive advantages and effective cost-cutting tools.

More than 400 global startups working on Augmented Reality solutions for the manufacturing industry identify the most prospective application areas, giving producers the competitive advantage they need to survive digital transformation.

While AR has shown promising results and is an inseparable part of the manufacturing process, there is much more to come in view of the usefulness and flexibility of technology. This is not only about AR which makes the work process more interactive and adaptable, but also about how AR introduces another dimension for interaction with the outside world and allows it to combine the power of data and analytics with manufacturing operations.

[3] StartUs Insights (2019) 4 Top AR Training & Learning Content Startups Out Of 125 In Healthcare, Retrieved from https://www.startus-insights.com/innovators-guide/4-top-ar-training-and-learning-content-startups-out-of-125/

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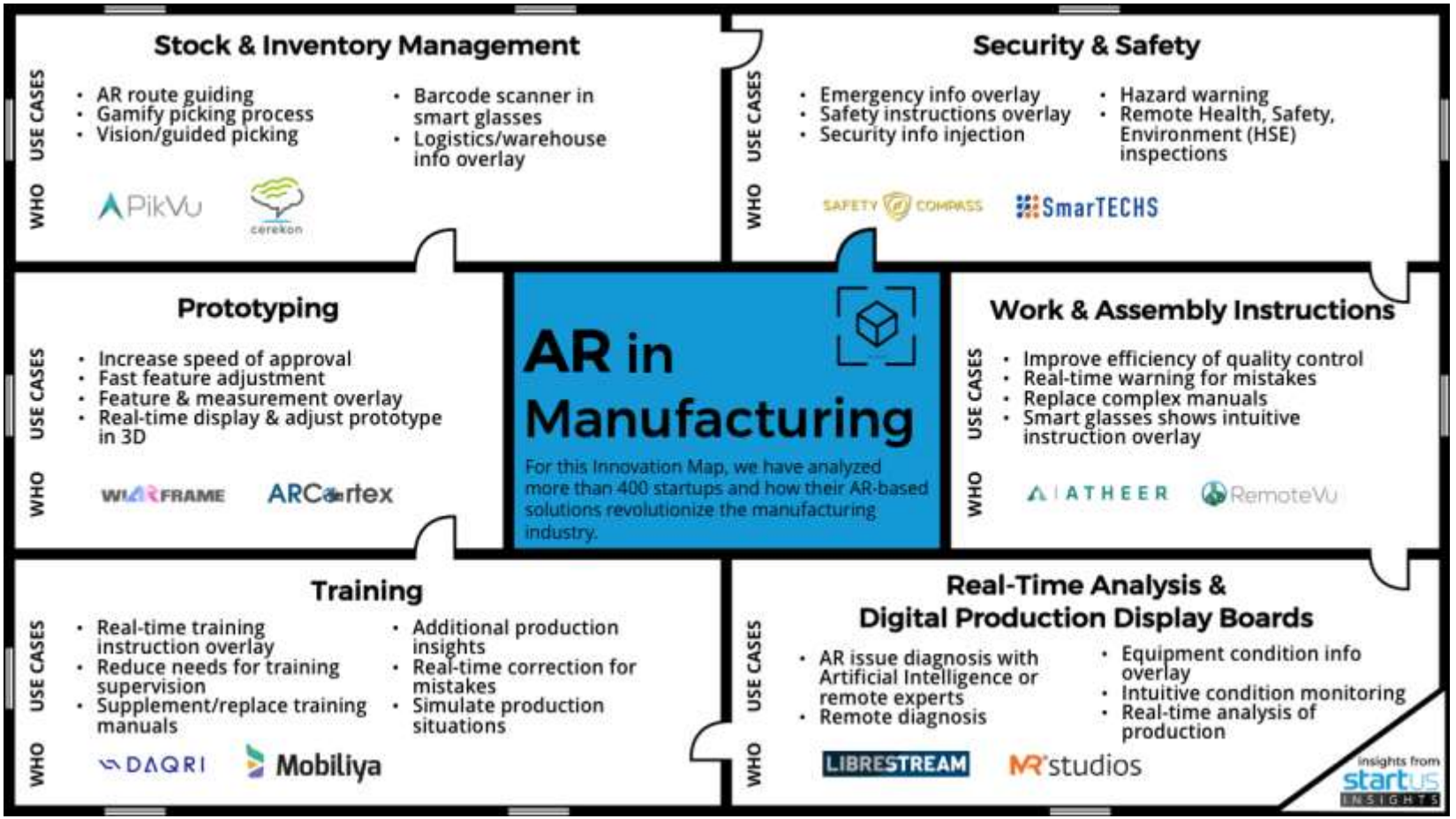

AR in Manufacturing. StartUs Insights (2019) 4 Top AR Training & Learning Content Startups Out Of 125 In Healthcare, Retrieved from https://www.startus-insights.com/innovators-guide/4-top-ar-training-and-learning-content-startups-out-of-125/

TORCH.

www.torch.app

Torch 3D is an Augmented Reality Design Platform. Torch 3D is the developer of an AR and VR prototyping platform for the ongoing transformation of the way applications are built and experienced.

The company's augmented reality and virtual reality platforms help designers to develop and design in 3D for a deep VR environment almost instantly, without prior knowledge about game development or software. It also empowers teams to switch to cross-team prototypes, on any platform or device, in real time [4].

Torch 3D has raised a total of USD 3.5 million in funding over 1 round. This was a seed round raised on 2017.

[4]Torch 3D, Retrieved from www.crunchbase.com

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Working Faster

With the help of AR glasses that use depth sensors, cameras, and motion sensors that line the image to the real world during work, engineers can see bolt rendering, cables, part numbers, and instructions on how to assemble certain components.

Solving Daily Shop Floor Problems

With augmented reality in manufacturing, staff in manufacturing activities can demonstrate the maintenance teams and technicians all the issues directly. They can also see real-time KPIs as well as diagnose and solve the problem without interfering with manufacturing.

Accessing Data Efficiently

Service technicians and manufacturers can go up to recognize any item to get any data from the back-end resource planning system of a company.

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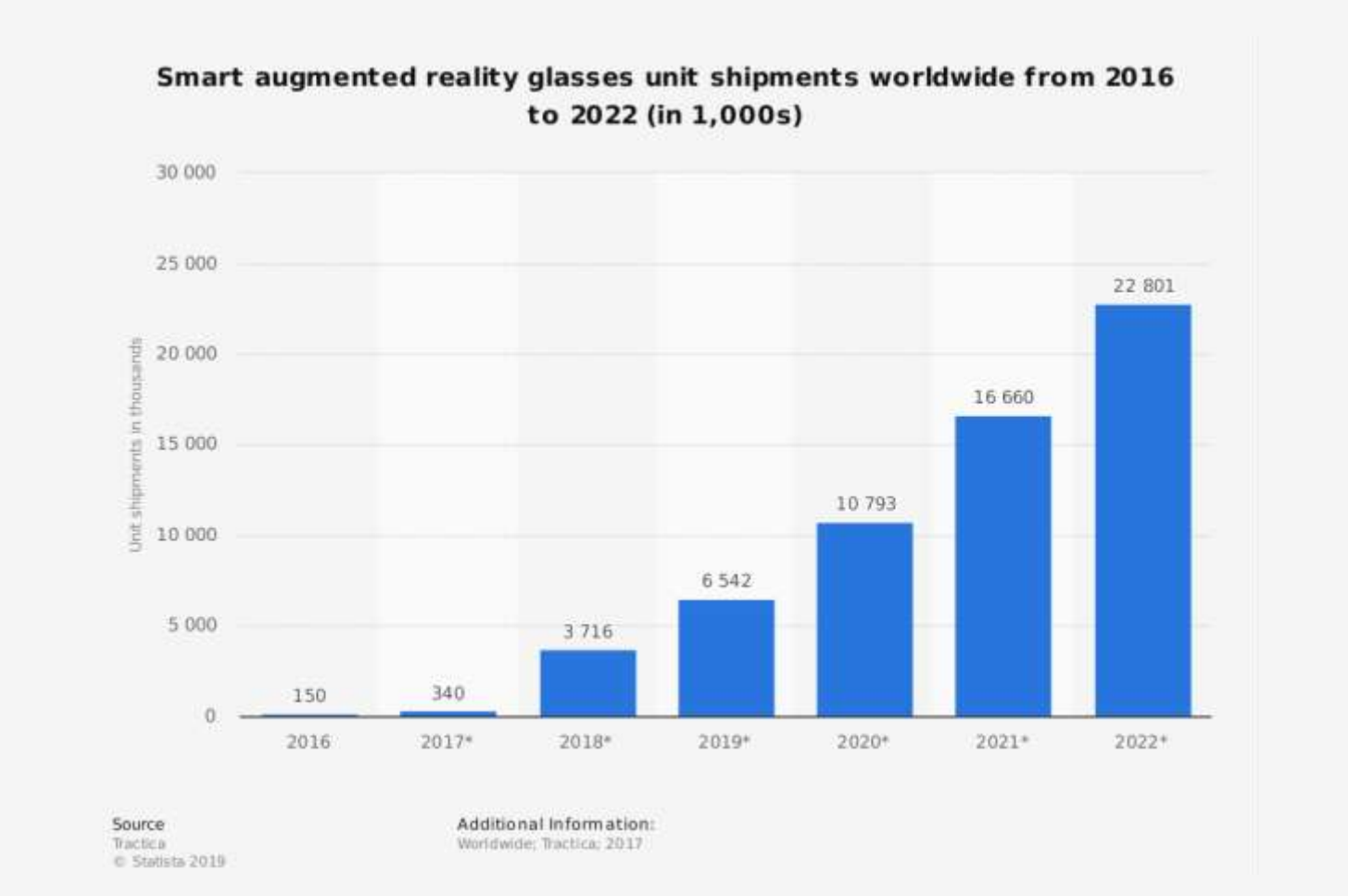

Smart augmented reality glasses unit shipments worldwide from 2016 to 2022. Statists (2019). Smart augmented reality glasses unit shipments worldwide from 2016 to 2022. Retrieved from: https://www.statista.com/statistics/610496/smart-ar-glasses-shipments-worldwide/

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Reducing Maintenance Time & Production Downtime

If manufacturing companies face production cessation because the engine breaks down, hundreds of thousands of dollars in cost can occur. However, with the help of augmented reality devices, they can identify defects and prevent downtime from ever happening.

Avoiding Errors

A very nice illustration of this is the inspection of fuselage bracket installation when a tablet camera superimposes a virtual picture of the as-designed assembly over the actual as-built item. This technology allows the engineer to detect any shortcomings rapidly.

AR Training

In terms of training, both VR and AR have shown excellent potential. On the other side, in simulator training for military activities, aircraft pilots, maritime operations, sophisticated surgery, and so much more, VR has already shown excellent potential [7].

In manufacturing domain, augmented reality was less effective in application focus. Despite many talks about its potential, it is currently being used by fewer systems.

[7] CBInsights (2019) ,Retrieved from https://https://www.cbinsights.com/research

AR aims to produce efficient operations by cutting down production downtime, quickly identifying the problems, and keeping all the services and processes going.

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