



WELTEN  
MACHER

Press Kit

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## Company Overview

### Company Philosophy, Vision and Description (buyer perspective)

Virtual Reality (VR) consists of building worlds and Weltenmacher (ger.: world builder) is Virtual Reality... and additionally Augmented Reality (AR) – Extended Reality (XR) as a collective term for both.

A creative addition to our world of experience in form of XR can enrich it significantly. The access to an exclusive place in XR can expand the consciousness enormously. At the Weltenmacher GmbH we develop extraordinary learning experiences which are not possible to achieve by conventional methods. XR-technologies allow us to develop content for learning experiences which otherwise could only be learned effectively by first-hand experience. Let's take the flying of a helicopter as an example. The best method to learn it certainly is to take flight lessons by a flight instructor. For this you need: a helicopter, a reserved time period at the appropriate airfield, the journey of the soon-to-be pilot as well as the qualified flight instructor. This considerable use of resources can certainly be critically reduced by a corresponding simulator. But the simulator also needs to be costly created, is only available during limited time periods or even needs to be located first and be travelled to. In VR we simulate a world with a helicopter, an AI-based instructor and the corresponding practice units under real physical conditions. And, while this training won't replace flight lessons completely, the effort can be reduced significantly and it is available for everyone, everywhere at any time who can lend or afford a device for roughly 400,- €.

Founded in 2017, Weltenmacher was able to develop training modules in a wide variety of industries and with top-class partners to date. Boris Kantzow is joined by a team of VR-developers, learning psychologists and technology enthusiasts to let learning arrive in the virtual age. Based in the centre of Düsseldorf, Weltenmacher are in a good position for acquiring talents and working with the industry. As the next step, with the experience of a dozen projects, Weltenmacher will build a range of training products which will help a broad audience to optimize their learning: Faster AND Funnier!

### Company Description

Our mission: Practical education for everyone, everywhere. To achieve this, Weltenmacher employs XR and AI technology, in order to create worlds that intelligently allow you to simulate live learning environments in your living room. With partners and customers such as Cornelsen eCademy, Bosch, Bayer, Buderus and many others, numerous XR learning applications have been implemented for trainees and specialists as well as doctors and patients. In particular: allowing a patient to independently learn to use a dialysis machine, how to install a heating

system as a fitter or handling the big machines in chemical plants, safely only blowing up the virtual factory twin in the process.

With a team of creative experts in the areas of didactics, psychology and storytelling as well as software development, UI/UX and 3D, Weltenmacher not only ensures a high level of learning success but also a high level of user motivation by engaging gamification designs. In numerous evaluations and studies, often in cooperation with universities, the benefit of immersive trainings gets examined scientifically. Thus, the Weltenmacher are improving themselves steadily to implement XR-trainings in different learning scenarios in the best way possible.

## Products and Services Information

At Weltenmacher we generally operate in virtual worlds, whether they are Virtual Reality (VR) in the narrow sense, i.e. a whole world is created by the computer for you, or whether virtual objects are placed on your retina, appearing to exist in the real world you look at, as in Augmented Reality (AR). To address both at the same time, the acronym XR has been established. We focus on the development of XR trainings. For various use cases Weltenmacher is the company to go to, if you require a hands-on training, where access to the physical live version of the training is somehow restricted – be it by distance, limited space, cost factors or even potential hazards that come with the workspace. That's when XR shines. We are operating on two levels for our customers here:

### Projects

We have implemented dozens of projects for different partners in various industries (see Reference Customers). When accompanying an XR-Project we run the full development with our customer:

Analysis → Conception → Development → Feedback and iterative improvement till D-Day

We have already worked in a large variety of industries. The major ones to mention here are:

- Medicine
- Chemistry
- Mechanical Engineering
- Construction industry
  - Instructive collection of videos around the App where we brought the delivered content on the VR glasses: <https://www.damm Bierbaum.de/buderus-ish-2019/>

## License Products

The marketplaces for XR training applications are just getting started. We have identified that the medical sector qualifies as an early market and therefore have developed two VR Apps, that can be acquired off the shelf:

- **Dialysis Suite** – for patients with dysfunctional kidneys
  - **Cycler:** Learn the save application of your home dialysis device
  - **Dialysis Help:** Learn about the different options you have with malfunctioning kidneys
    - If you are having dysfunctional kidneys a dialysis machine helps you to cover for the deficiency. However, it is no trivial thing and literally a matter of life and death to handle the machine correctly. With Dial Help patients can experience the usage first hand, trial and error, do not have any real consequences and anybody can take it in their own learning speed to master the device.  
See the trailer here: [Weltenmacher DialHelp VR App - Youtube](#)



- **First Aid** - Learn how to help fellow people in need and become a life saver
  - How to position a human, that is unconscious? What do you do in a danger situation, e.g. in traffic? What other dangers can occur while calling/waiting for the ambulance? Not all there is to know about providing first aid to those in need can be perfectly trained with VR. However, particular situations cannot be simulated as immersive as with VR. Let alone, that you can do the training in your living room.  
See the trailer here: [Weltenmacher First Aid VR App - Youtube](#)



## Numbers and Facts around WM and XR

### Weltenmacher

- Founded in 2017 by Jonathan Natzel, Boris Kantzow, Syngenio AG
- +17 employees (as of Q2 2021, constantly growing)
- 1000+ user tests (ages 6-87)
- 50+ expert talks
- Awards
  - Effie Award 2019, Bronze B2B
  - delina 2019
- Several Publications
  - Virtual Reality Training Programs for Peritoneal Dialysis – only a Future Research?, Zgoura et. al, Medizinischer Kongress Kopenhagen, 2018
  - Virtual Reality Simulation in Peritoneal Dialysis Training: The Beginning of a New Era, Zgoura/Hettich/Natzel/Özcan/Kantzow, Advances in CKD, 2019<sup>1</sup>
  - Virtual Reality (VR) in der Nephrologie, Zgoura/Kantzow/Westhoff, Thieme, 2020<sup>2</sup>
  - Virtual reality device training forextracorporeal membrane oxygenation, Wolff/Bruon/Reiter/Kantzow/Kelm/Jung, Critical Care, 2020
  - Potentiale von Virtual, Augmented and Mixed Reality für HR, Jäger/Kantzow, 2021, Haufe

### Virtual and Augmented Reality (XR)

- Markets
  - Global Medical Education Market
    - > \$32 Bn (growing at 4% CAGR)
  - Corporate E-Learning Market
    - The global corporate e-learning market size will be worth \$50 Bn by 2026. With an annual growth rate of 15% from 2020 to 2026,
  - Corporate Training Market by 2024
    - Europe \$39 Bn (growing 8% CAGR from 2020-2024)<sup>3</sup>
  - VR Education Market
    - \$13 Bn in the US and \$2,5 Bn in Europe (growing at 42.9% CAGR)<sup>4</sup>

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<sup>1</sup> [https://www.researchgate.net/publication/325222771\\_FP506VIRTUAL\\_REALITY-TRAINING\\_PROGRAMS\\_FOR\\_PERITONEAL\\_DIALYSIS-ONLY\\_A\\_FUTURE\\_RESEARCH](https://www.researchgate.net/publication/325222771_FP506VIRTUAL_REALITY-TRAINING_PROGRAMS_FOR_PERITONEAL_DIALYSIS-ONLY_A_FUTURE_RESEARCH)

<sup>2</sup> <https://www.thieme-connect.com/products/ejournals/abstract/10.1055/a-1153-6387>

<sup>3</sup> <https://www.businesswire.com/news/home/20200804005143/en/COVID-19-Impacts-Corporate-Training-Market-in-Europe-will-Accelerate-at-a-CAGR-of-over-8-through-2020-2024-Digitization-of-Learning-Materials-to-Boost-Growth-Technavio>

<sup>4</sup> <https://www.fortunebusinessinsights.com/industry-reports/virtual-reality-in-education-market-101696>

- ,Is VR soft skills training more effective than traditional training methods, and is VR soft-skills-training more cost-effective to deploy than traditional methods? - The answer to both questions is „yes“. <sup>5</sup>
- 
- Added benefit of VR
  - VR dialysis application was evaluated in clinical testing (2019)
    - In an in-depth evaluation in 2019 with patients and health care professionals in three European clinics it was found that our VR-training manages to improve training results and save nurses a considerable amount of time. Thus, training costs can be reduced while increasing standardization and safety.
      - 45% less mistakes compared to control group
      - 100% increase in confidence undertaking the procedures
- Problems in Health care
  - “No one should be harmed while receiving health care and yet globally, at least 5 patients die every minute because of unsafe care”, Dr. Tedros Adhanom Ghebreyesus WHO Director-General 17th Sep. 2019
    - “Insufficient training is one major reason”, WHO Report Medication Without Harm, 2018

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<sup>5</sup> <https://www.pwc.com/us/en/services/consulting/technology/emerging-technology/assets/pwc-understanding-the-effectiveness-of-soft-skills-training-in-the-enterprise-a-study.pdf>

## Executives

Bios and Headshots of those suitable for interviews, expert commentary and speaking engagements.

CEO & Co-Founder: Boris Kantzow



As serial entrepreneur, networker and former interim professor for media technology, Boris combines the necessary aspects of didactics, technology and content creation to develop VR and AR training modules.

[LinkedIn - Boris](#)

Head of Commercial Operations: Sandra Schwarz



Sandra is a true professional. 20 years in international sales, commodity trade and international project management have shaped her business acumen. For the past years she has added experience in organizational development enabling her now to manage both talent and business processes, while at the same time pointing and leading towards the organization's future.

[LinkedIn Sandra](#)



## Excerpt of Reference Customers



## Press Coverage



- 05.12.2017 | [Wirtschaftsförderung und IHK Düsseldorf richten Branchentreff der Kultur- & Kreativwirtschaft aus](#), duesseldorf.de
- 28.01.2019 | [Virtual Reality Meets Peritoneal Dialysis Training](#), ACUMEN Physical Solutions
- 14.03.2019 | [Ein Flugsimulator für Dialysepatienten](#), RP Online
- 01.04.2019 | [Virtuelles Lernen mit echten Vorteilen](#), Das geht auch anders! Dialog
- 06.08.2019 | [Weiterbildungen in der virtuellen Welt machen](#), Rheinische Post
- 09.09.2019 | [Startups gestalten die Zukunft mit 5G](#), Studie von DeutscheStartups und Vodafone
- 20.11.2019 | [Durch Daten Krebs verhindern: Chancen und Risiken digitaler Innovation in der Medizin](#), Kölner Stadt-Anzeiger
- 12.06.2020 | [Kreative Anwendungen im Gesundheitswesen einsetzen](#), FUNKE Medien
- 30.10.2020 | [Eine neue Technologie für die Verbesserung der Bildung zu nutzen ist großartig](#), eCademy-learning.com
- 03.11.2020 | [Ausblick in die virtuelle Realität](#), CURRENTA
- 27.11.2020 | [Currenta testet Virtual-Reality-Brillen](#), NGZ Online
- 27.11.2020 | [EON: Netze sollen von Start-Up-Know How profitieren](#), ener|gate messenger

- 21.04.2021 | [Extended Reality: Vormarsch von VR und AR auch im Bildungsbereich](#) | ZENIT
- 22.04.2021 | [► Girls'Day im Bundeskanzleramt: Cornelsen, Currenta und Weltenmacher wecken mit VR Lust ... | Presseportal](#)
- 22.04.2021 | [Girls'Day – Mädchen-Zukunftstag: Schülerinnen für den Beruf Chemikant\\*in begeistern - Cornelsen eCademy \(ecademy-learning.com\)](#)
- 21.06.2021 | [Virtual Reality ist im Arbeitsleben angekommen - IHK-Magazin \(ihkmagazin.de\)](#)
- TBD...

## Press Contact at WM

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+49 173 9911667

[LinkedIn - Markus](#)

Weltenmacher in social media:

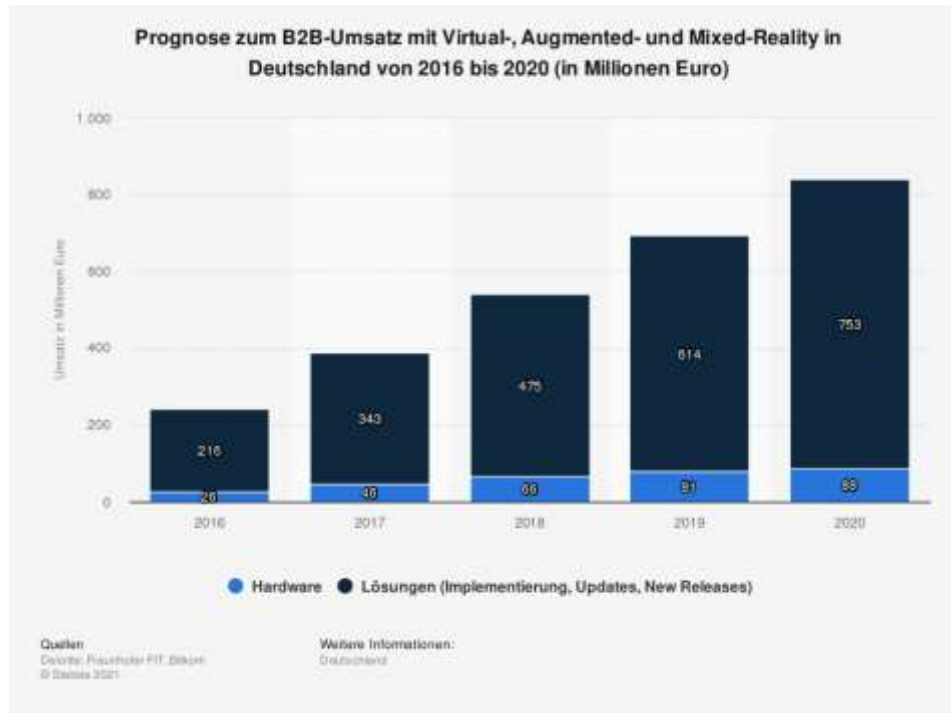
[Facebook](#)

[LinkedIn](#)

[@DieWeltenmacher](#)

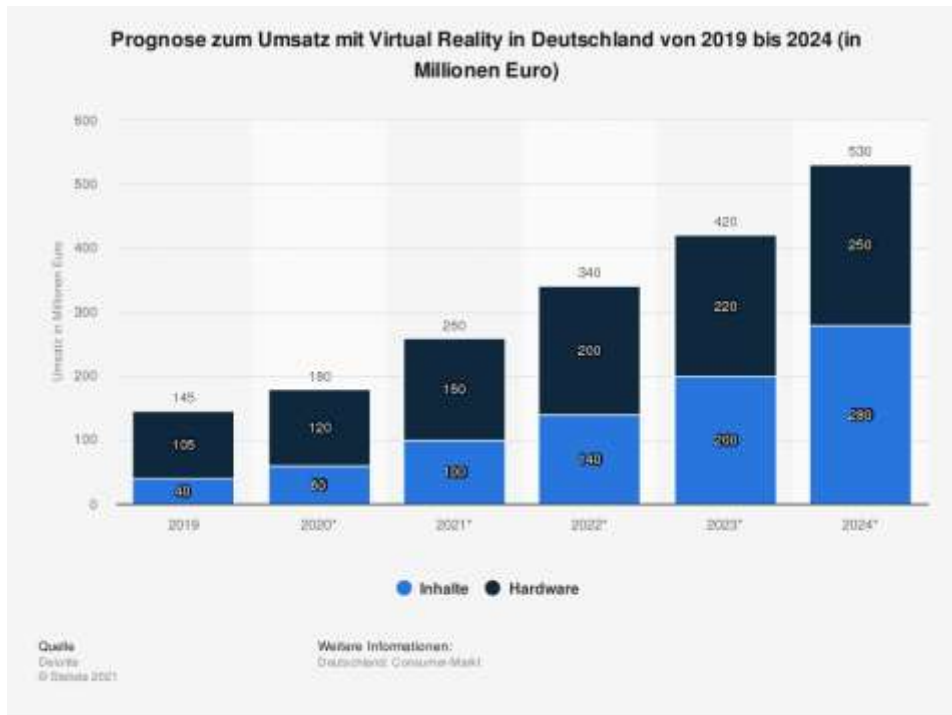
# Appendix

## Turnover XR 2016-2020



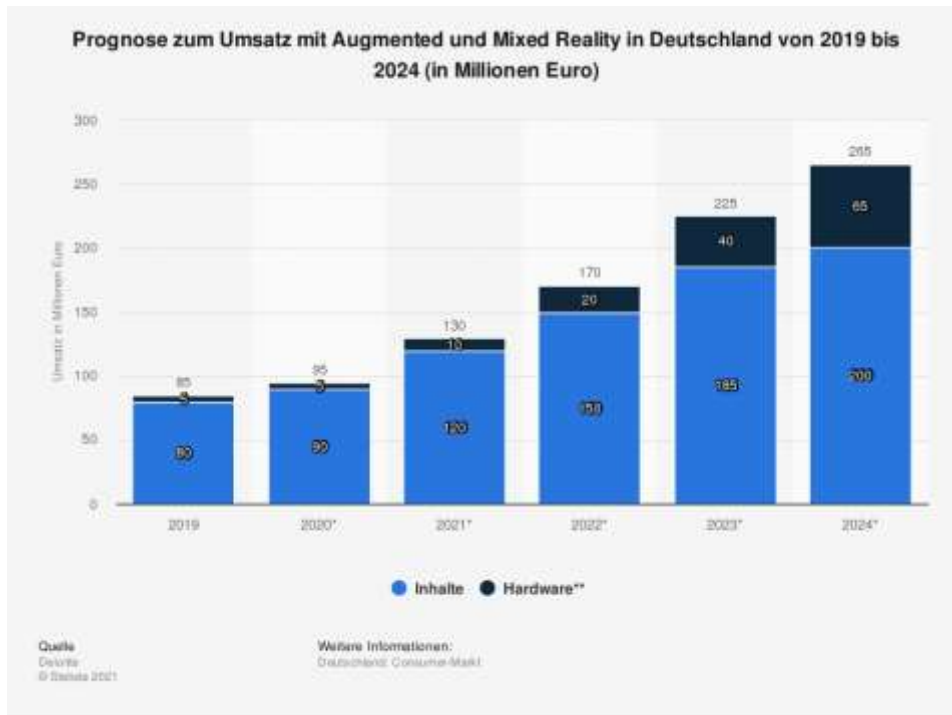
Bitkom. (2016). *Prognose zum B2B-Umsatz mit Virtual-, Augmented- und Mixed-Reality in Deutschland von 2016 bis 2020 (in Millionen Euro)*. Statista. Statista GmbH. Zugriff: 19. August 2021. <https://de.statista.com/statistik/daten/studie/578467/umfrage/prognose-zum-b2b-umsatz-mit-virtual-augmented-und-mixed-reality-in-deutschland/>

## Turnover VR 2019-2024



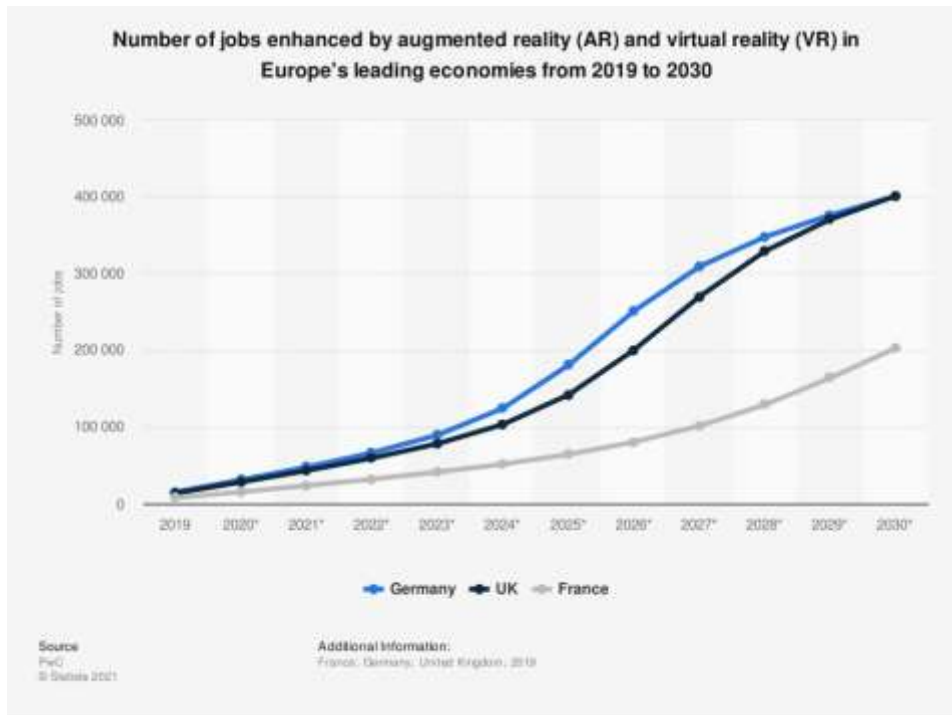
Deloitte. (2020). *Prognose zum Umsatz mit Virtual Reality in Deutschland von 2019 bis 2024 (in Millionen Euro)*. Statista. Statista GmbH. Zugriff: 19. August 2021. <https://de.statista.com/statistik/daten/studie/604199/umfrage/prognose-zum-umsatz-mit-virtual-reality-in-deutschland/>

## Turnover AR&MR 2019-2024



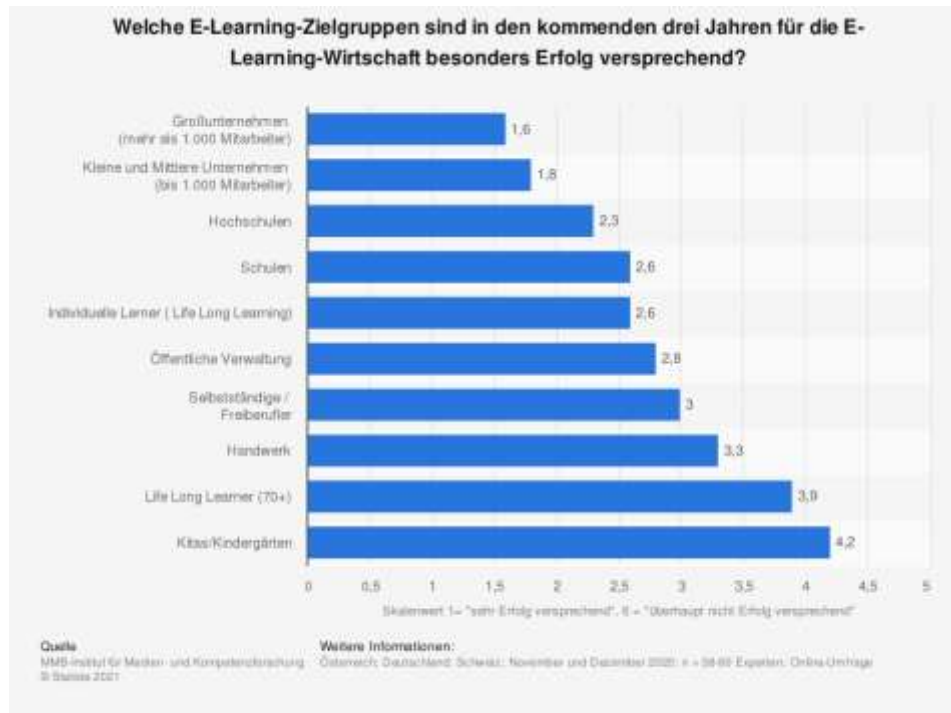
Deloitte. (2020). Prognose zum Umsatz mit Augmented und Mixed Reality in Deutschland von 2019 bis 2024 (in Millionen Euro). Statista. Statista GmbH. Zugriff: 19. August 2021. <https://de.statista.com/statistik/daten/studie/1247610/umfrage/prognose-zum-umsatz-mit-augmented-reality-in-deutschland/>

## No. of Jobs enhanced by XR 2019-2030



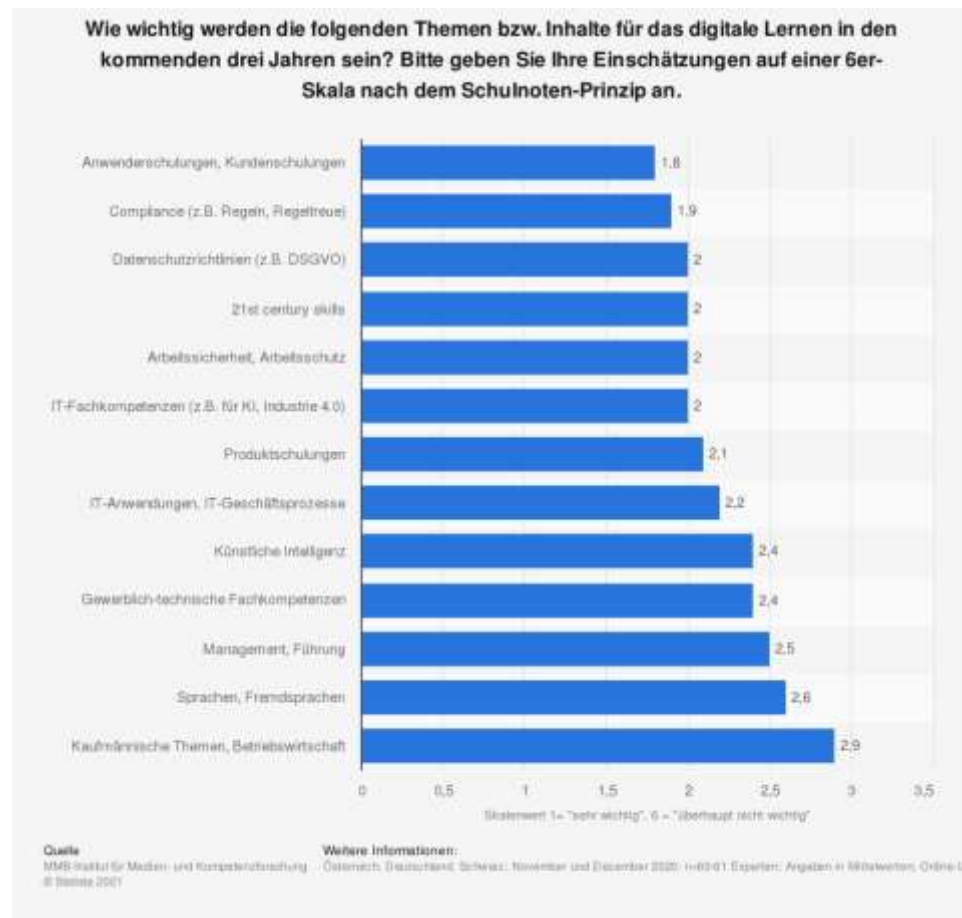
PwC. (2019). Number of jobs enhanced by augmented reality (AR) and virtual reality (VR) in Europe's leading economies from 2019 to 2030. Statista. Statista Inc.. Accessed: August 19, 2021. <https://www.statista.com/statistics/1121646/number-of-jobs-enhanced-by-vr-and-ar-in-europe-s-leading-economies/>

## Most promising E-Learning-Target groups



MMB-Institut für Medien- und Kompetenzforschung. (2021). Welche E-Learning-Zielgruppen sind in den kommenden drei Jahren für die E-Learning-Wirtschaft besonders Erfolg versprechend?. Statista. Statista GmbH. Zugriff: 19. August 2021. <https://de.statista.com/statistik/daten/studie/164930/umfrage/zielgruppen-von-elearning-in-deutschen-unternehmen/>

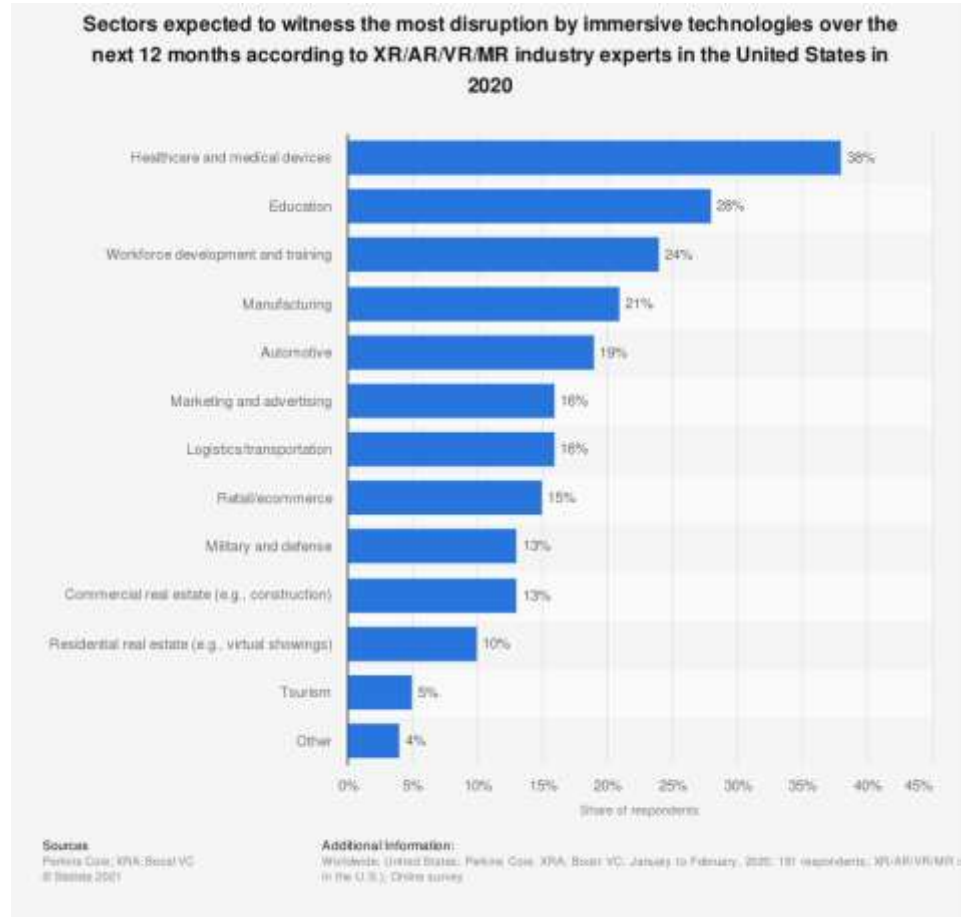
## Most important E-Learning topics



MMB-Institut für Medien- und Kompetenzforschung. (2021). Wie wichtig werden die folgenden Themen bzw. Inhalte für das digitale Lernen in den kommenden drei Jahren sein? Bitte geben Sie Ihre Einschätzungen auf einer 6er-Skala nach dem Schulnoten-Prinzip an.. Statista. Statista GmbH. Zugriff: 19. August 2021. <https://de.statista.com/statistik/daten/studie/164931/umfrage/themen-von-elearning-in-deutschen-unternehmen/>

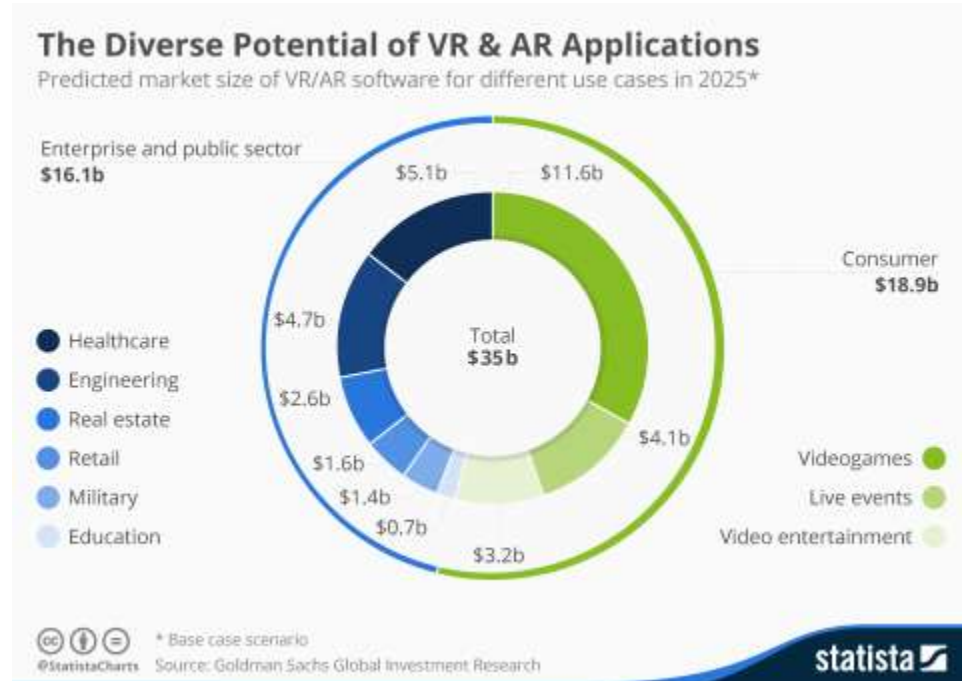


## Sectors most disrupted by XR



Perkins Coie. (2020). Sectors expected to witness the most disruption by immersive technologies over the next 12 months according to XR/AR/VR/MR industry experts in the United States in 2020. Statista. Statista Inc.. Accessed: August 19, 2021. <https://www.statista.com/statistics/1185060/sectors-disrupted-immersive-technology-xr-ar-vr-mr/>

## Diverse potential of XR-Applications



Richter, F. (2016). *The Diverse Potential of VR & AR Applications*. Statista. Statista Inc.. Accessed: August 19, 2021. <https://www.statista.com/chart/4602/virtual-and-augmented-reality-software-revenue/>