



# Siemens uses Virtual Reality for EHS training to prevent accidents

#### What is EHS?

EHS stands for Environment, Health and Safety. The Governance department at Siemens AG in Germany is responsible for planning, implementing, monitoring and optimizing services and processes. Another focus is the promotion of a resilient health and work culture within the company and together with customers.

# New ideas needed - the use of Virtual Reality to improve work culture

Virtual Reality (VR) offers a wide range of possible applications, from basic training and employee onboarding to advanced strategies for accident prevention and risk prevention. By using VR, processes can be standardized and optimized. This makes a significant contribution to improving compliance and the health and safety culture in companies.

There is hardly any other area where the advantages of VR can be used to increase value as much as in the area of safety. In everyday work processes, often under time pressure, dangerous situations can fade into the background. This increases the risk of near misses and accidents. In addition to the legally required training, Siemens has looked for a creative way to train its employees.



As an early adopter of innovative technologies, Siemens has been leveraging VR for several years. The EHS department quickly recognized the potential of no-code VR solutions and began using them to efficiently create in-house safety training programs, complementing more complex, customized applications. For example, a virtual tour of an industrial plant was created together with VRdirect, which provides

### **SUCCESS STORIES**



information about the various workstations and important EHS concepts. Read the previous success story here.

### Virtual Reality enables ...



employees to move and interact in a simulated environment. This allows realistic training in handling systems, machines and work equipment.



improved quality of training and increased level of occupational safety, thereby reducing the risk of near-accidents and accidents.



40-60% time saving when training in VR compared to non-VR training.



a location-independent and collaborative implementation, which increases flexibility.



an effective and efficient method for training new employees and qualifying personnel for machines.



the safe training of work processes. Attention levels are heightened, and the material learned can be internalized more effectively compared to traditional analog training.



## Virtual safety training on aerial work platforms at Siemens

The in-house development of VR training courses offers the significant advantage of tailoring solutions precisely to the specific needs of each department while maintaining independence from external service providers and budget constraints. One challenge remains: Employees must be introduced to the new concepts and integrate them into existing processes. This is where meaningful reference projects and professional advice, which VR direct provides as part of the collaboration, can help. Once implementation is complete, VR has above-average persuasive power and can save time and therefore costs.

Siemens has now further developed the internal creation of virtual reality training with VRdirect and established it as an initiative. One vivid example is the development of an interactive VR training program for aerial work platforms to prevent accidents. This training provides all the essential precautions and operating instructions required for the safe operation of the work platform. Designed specifically for accident prevention, the virtual reality simulation allows employees to gain practical experience in a safe, controlled environment. Participants go through various modules, which are rounded off with quizzes to reinforce and test what they have learned. By interacting with the virtual scenarios, participants learn to recognize and react appropriately to potential dangers without taking any real risks.



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Although accidents involving heavy equipment like aerial work platforms are rare, every single incident can be fatal. This underscores the critical importance of effective prevention efforts for EHS departments. VR offers an innovative and highly engaging solution that resonates well with employees, making it a valuable tool in enhancing safety measures. The central EHS organization at Siemens is advancing various VR use cases, including accident analysis, safety onboarding, and awareness initiatives. These projects aim to raise employee awareness about health-related topics and promote preventive measures within the workplace.



"Employees can create high-quality training courses easily and independently with VRdirect."

Christoph Supplieth, Central Occupational Safety Specialist at Siemens AG

With VRdirect's no-code VR software, EHS departments can realize their VR projects independently, efficiently and with minimal personnel costs. The AI feature integrated in the VRdirect Studio maximizes the benefits for EHS. Work scenarios can be created directly on the computer without the need to produce extensive 360° images. This enables a significant acceleration of the entire roll-out of safety initiatives, as well as fast and flexible adaptation of training scenarios. All of these benefits make VR a valuable tool for workplace safety training, as it not only increases employee safety, but also improves the efficiency and effectiveness of training.



"I now only need about an hour for simple VR safety training courses that I create with the VRdirect platform."

Thomas Gröger, Safety Expert Siemens AG

### **SUCCESS STORIES**



#### **About VRdirect**

With its "VRdirect Studio" platform, the Munich-based software company VRdirect enables companies to design and publish their own virtual reality content completely without programming effort. Typical use cases of these VR apps range from corporate training and development processes, to recruiting and onboarding of personnel, to deployment scenarios in sales, customer support, or in the context of trade fairs. Once created, the content can be accessed on all common end devices. Users are thus brought particularly close to the action and have the feeling of really engaging with the simulated environment.

Further information at www.vrdirect.com

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