Safety and health at work is everyone's concern. It's good for you. It's good for business.

Exchange of good practices in OSH
Healthy Workplaces Campaign Partner event

Brussels, 13-14 June 2022
Boehringer Ingelheim in brief

- Family-owned pharmaceutical company
- Founded 1885 in Ingelheim, Germany
- Focus on Human Pharma, Animal Health and Biopharmaceutical Contract Manufacturing
- More than 52,000 employees worldwide
- R&D expenses of around 4.1 billion EUR
- 26 R&D sites worldwide for Human Pharma and Animal Health
- Net sales of 20.6 billion EUR
- 180 affiliated companies worldwide
- Investment in tangible assets: 968 million EUR
Our people, at a glance

52,391
Ø number of employees worldwide, 2021

by region

- Europe: 28,266
- Americas: 13,187
- Asia, Australia, Africa: 10,938

by function

- Production: 17,373
- Administration: 6,600
- Marketing and sales: 17,560
- Research, development and medicine: 10,109
- Apprentices: 749

Á number of employees worldwide, 2021
What We Do

“We see ourselves as the patient’s partner, providing innovative medications for better health."

• Investments in research and development in 2020: 20.0 % of the revenues (more than 4.1 Billion €)

• Our corporate vision: Value through innovation

• Main areas of research:
  ➢ Cardiometabolic diseases
  ➢ Central nervous system diseases
  ➢ Immunology
  ➢ Oncology
  ➢ Respiratory Diseases
  ➢ Retinal Health

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What We want, too…

From our EHS-Policy

...“we protect our employees, facilities, and the environment from harmful influences” always striving to provide high quality, innovative therapies in a sustainable manner”

To achieve this a lot of training is key. This should not be boring but entertaining and interactive.
What did I bring along?

“Virtual Reality as Tool for Safety Trainings”

Example Lab Safety

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How to establish a VR Training

Step 1: Basic setup

- Choose your type of training, a title and a description. Create basic scenes and name them → Develop your individual playbook

- Commercially available systems include an easy-to-use "wizard“ guides you through setup process
How to establish a VR Training

Step 2 Add Assets

- Existing images, videos, audio files and 3D models get added. The functionalities should offer the possibility to do this with just a few clicks.

- Many 3D models can be purchased and cost-effectively imported
How to establish a VR Training

Step 3 Create Interactivity

- "Triggers" by the user such as clicking or looking can be assigned to each asset.

- Actions get activated such as changing a scene, playing a sound, or showing an image
How to establish a VR Training

Step 4 Place training objects

- The pre-configured assets can then be placed in an 360° image / 3D environment (VR) or alternatively in the real world (AR).

- Previews should allow you to quickly test the draft training as a learner.
How to establish a VR Training

Step 5 Manage users and distribute the training

- Users get created
- Training gets published
- Decision is made who should be trained
Advantages of Virtual reality (VR)

1. Learning is done best by experiencing
2. Cognitive benefits
3. Gamification improves motivation
4. Scalability & Cost-effectiveness
5. Detailed analysis & quick feedback
6. Safety!!! Controlled exposure to potentially stressful situations
Disadvantages of Virtual reality (VR)

1. Illusions might be broken
2. Senses can experience conflict
3. Transformation of behaviors
4. Ergonomic complexity
5. Accessibility
6. Hygiene issues
Conclusions

- Success is not automatic → but trainings may produce great results
- Understanding difference between VR and with conventional media → recognize differences and consequences
- Active learning and the memorization of personal experiences → Head-mounted displays offer experience being immersed in simulated task environment
- Learning outcome should be measured differently
- Broader and more profound impact than traditional media → Ethical complexities related to the physiological, cognitive, behavioral, and social dynamics effects.
- Workforce development needs comprehensive understanding of various aspects of technology and related human factors
Thank you for your kind attention

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