

Collaboration in Developing VR Training for Workplace Safety

Dr. Brian Vaughan & Susan Costello

The Virtual Interactive Research Lab (VIRaL) & BioPharmaChem Skillnet





Summary of the Impact

TU Dublin and BioPharmaChem Skillnet have jointly launched a cutting-edge VR programme tailored for workplace health and safety training in the BioPharmaChem sector. This marks their third successful collaboration, showcasing the transformative impact of immersive technologies. By simulating real-world scenarios, the programme enhances employee preparedness and responsiveness to potential hazards, contributing to a safer work environment. This innovative approach reflects the forward-thinking nature of both partners, driving industry standards and reinforcing Ireland's position as a global leader in health innovation.

Research Description

A state-of-the-art Virtual Reality (VR) training program was designed specifically for workplace health and safety through collaborative research between TU Dublin VIRal and BioPharmaChem Skillnet. By incorporating immersive technologies, BioPharmaChem Skillnet can deliver more interactive and impactful training sessions to its clients. This not only enhances workplace safety but also boosts overall training effectiveness, equipping employees with the necessary skills and knowledge to mitigate risks and meet industry standards more effectively.

Moreover, the adoption of innovative training solutions underscores BioPharmaChem Skillnet's dedication to staying abreast of industry advancements and fulfilling its commitment to providing high-quality safety training. Consequently, this enhances BioPharmaChem Skillnet's reputation and competitiveness within the sector, positioning it as a leader in cutting-edge training methodologies.

Description of the Impact

The collaboration between BioPharmaChem Skillnet and TU Dublin has led to significant outcomes and impact for the company:

- **Product Development:** A tailored VR health and safety training program was developed, revolutionising workplace training with immersive technology.
- **Improved Training Solutions:** The VR program offers a more engaging and effective training experience, enhancing learning outcomes for BioPharmaChem employees.
- **Enhanced Workplace Safety:** Implementation of the VR program likely boosted workplace safety by instilling crucial safety protocols and reducing accident risks.
- **Recognition and Awards:** Previous VR programs developed through the collaboration garnered multiple industry awards, underscoring their quality and impact.
- **Job Creation and Economic Impact:** The development of innovative training solutions contributes to sectoral growth, potentially leading to job creation and bolstering economic sustainability.

Previous Collaboration

The collaboration is the third programme co-developed by the Skillnet Ireland Business Network and TU Dublin, which harnesses the power of VR and offers an innovative approach to mixed reality training for diverse industries. The VR technology provides a seamless interface with existing simulations in a modular framework to train staff across many sectors in Ireland. It follows on from the success of the previous two VR programmes in 'Aseptic Techniques for Biomanufacturing,' and 'Power Handling', both of which were nominated for multiple innovation and industry awards.

What SDG goals does this contribute to?

- **4** - Ensure Inclusive and Equitable Quality Education and Promote Lifelong Learning Opportunities for All.
- **8** - Promote Sustained, Inclusive and Sustainable Economic Growth, Full and Productive Employment and Decent Work for All.
- **9** - Build Resilient Infrastructure, Promote Inclusive and Sustainable Industrialisation and Foster Innovation.

Testimonials

As the BioPharmaChem sector continues to embrace immersive technologies, we identified the potential for virtual reality to address some of the known key challenges in health and safety that are high risk and time-consuming... The programme would not have been possible without their expertise and the support of Skillnet Ireland, BioPharmaChem Ireland along with the expertise and time that industry members gave to articulate the needs around this training for the sector.

Susan Costello; Network Director of BioPharmaChem Skillnet

This is our third time working with BioPharmaChem Skillnet and we have always found them to be an insightful forward-thinking organisation pushing the boundaries of training in the industry... It's always great to work with them to co-create Mixed Reality training applications that incorporate cutting-edge technologies with robust pedagogical principles and methods.

Dr. Brian Vaughan; Founder/Director of the Virtual Interaction Research Lab (VIRal) at TU Dublin

We are delighted that TU Dublin is continuing our involvement with BioPharmaChem Skillnet, an organisation that is supporting one of the largest and most important sectors in Ireland providing thousands of jobs. This research partnership highlights the world-leading research capabilities of Brian and this team in the VR/AR space and their ability and desire to solve immediate industry challenges.

Dr. Paul Maguire; Head of Innovation and Knowledge Transfer at TU Dublin

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Contact Us

www.tudublin.ie/researchandinnovation

researchandinnovation@tudublin.ie