

Project update - 11th August 2022

VR.e.Lab, already a reality!

A virtual reality (VR) chemistry laboratory has been conceived by the association Chimistes sans Frontières (ChSF) for educational purposes in underprivileged regions of Africa, with the support of the Société Chimique d'Afrique Centrale et Grands Lacs (SOCACGL).



The VR laboratory **VR.e.Lab** (pronounced "very lab") can be adapted to **SOCACGL** styles, methods and cultures in chemistry teaching, so students can get practical experience in secondary schools and universities without access to lab space and equipment.



Louis Tellier testing VR.e.Lab

Volunteers from ChSF first imagined a VR lab in which the user can perform educational practical experiments. The group 6Freedom, specialised in the creation of XR (eXperience Reality), developed the current prototype, in French and in English.

The first two experiments have been tested by students in France immersed in a VR lab with only headsets and hand controllers. Their great enthusiasm has justified our further development of the project to other, more complex experiments.

This teaching tool has been transferred to Marien Ngouabi University, Brazzaville, Congo, for further testing, adaptation and conception of additional experiments corresponding to the

secondary school's and university's curricula. This tool will first allow students in their first semester of university to discover practical chemistry. The end goal is to roll out this virtual laboratory to underprivileged regions where chemistry practical lessons are impossible, thus improving chemistry teaching, for which a practical understanding is so essential.

Chemical knowledge, and the transmission of this knowledge to younger generations, is necessary for so many applications which provide us with a safe and healthy lifestyle. Our project has been made possible by support from Arkema, Solvay and Eurofins Foundation, to whom we extend our gratitude.







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