

## **Reality Substitution Machine – Out of Body Experience at The Brain Forum 2016**

**W Science Laboratories are working with EPFL’s Center for Neuroprosthetics and the Laboratory of Cognitive Neuroscience to develop the world’s first Reality Substitution Machine (RealiSM). This technology will complete the illusion of virtual reality by establishing one’s sense of embodiment in virtual worlds, breaking down the perceived boundaries between one’s physical environment and one’s experienced environment.**

“Virtual reality is the first new media platform since the invention of the television and is set to revolutionise the way we consume content across industries from healthcare to entertainment”, say Dr Jamil El-Imad, CEO of W Science Laboratories, “However, the sense of embodiment is currently missing”, he continues. The Reality Substitution Machine transposes the participant’s body in real-time into virtual environments and 360 degree video.

“Incorporating one’s body in virtual experiences, in real-time, increases the perception of being present in the scene many fold enabling a paradigm shift in the way we explore cognitive neuroscience and neurorehabilitation” states Prof Olaf Blanke, Director of the Laboratory of Cognitive Neuroscience and of the Center for Neuroprosthetics at EPFL. “The technology allows us to rapidly create volumetric “video” that a participant can move around in while integrating the participant’s body”, says Dr Bruno Herbelin, Deputy Director of the Center for Neuroprosthetics at EPFL, “We can additionally augment the virtual experience in many ways to develop unique sensations that probe the participant’s perception of themselves and the world”.

At The Brain Forum 2016, Dr Herbelin and his team will be presenting an out of body experience to showcase their technological developments. Participants are invited to step out of their own bodies and witness themselves as though they are floating out of their own bodies, thus experimenting RealiSM first-hand.

### **For more information, please contact:**

The Brain Forum:

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### **About The Brain Forum – [thebrainforum.org](http://thebrainforum.org)**

The Brain Forum, first launched in 2013, brings together novel thinkers and pioneers in brain research, technology, healthcare and the economy. Researchers, engineers, healthcare professionals, entrepreneurs, industrialists, investors, funding agencies and policy makers will meet at The Brain Forum 2016, to advance our understanding of how the brain works and to accelerate the application and value of this knowledge in society and the economy.

### **W Science Laboratories AG**





W Science Laboratories is a private company that provides funding as well as technology and leadership resources to support initiatives that enable the integration and packaging of science with information technologies that advance personal healthcare and personal lifestyles.

**Laboratory of Cognitive Neuroscience (LNCO), EPFL**

The Laboratory of Cognitive Neuroscience targets the brain mechanisms of body perception and body awareness by experimentally manipulating multisensory mechanisms of bodily self-consciousness. Specifically, the RealiSM project aims to develop immersive technologies through the collaboration of engineers, cognitive neuroscientists and neuropsychologists.

