

## Open-access research facilities for human behavioral studies

### Establishment of ABL

In Otakaari 5 Magnet House, ABL starts operating directly under the Department of Neuroscience and Biomedical Engineering (NBE). It offers two measurement rooms and versatile devices for subject monitoring, such as EEG, eye tracking, thermal imaging, EMG, EDA, ECG, and accelerometry.



2014

2015



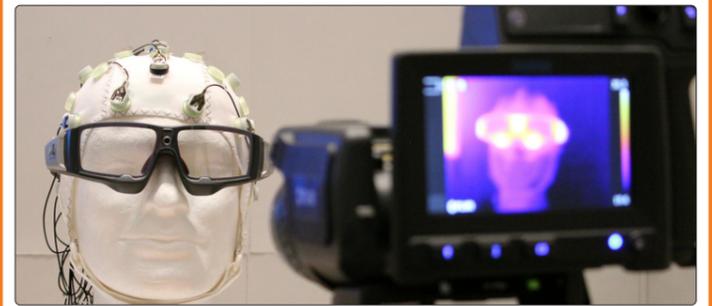
### Aalto NeuroImaging

In December 2017, by the decision of the Dean of Aalto University School of Science, ABL joined in Aalto NeuroImaging Infrastructure (ANI). At the time, ANI included AMI Centre, MEG Core and Aalto TMS laboratory, which were combined in 2013.

2017

### Virtual Reality

Varjo VR-1 virtual reality headset was installed in the ABL. VR-1 was world's first "Human eye-resolution VR headset", with a 60 PPD resolution bionic display. The headset was developed only for industrial and research purposes and had an integrated 100 Hz eye tracker.



2020

### iMotions

Biometric research platform for desktop, online and mobile applications. Enables data collection, data analysis and data synchronization across different modalities including facial expressions detection (AFFECTIVA), eye tracking and VR data.

Via collaborators in the Finnish bioimaging platform, ANI was included first in Finland's strategy and roadmap for research infrastructures 2014-2020 by the Academy of Finland and Ministry of Education and Culture, and again 2021-2024.

2021

### MAGICS

ABL is part of MAGICS joint effort of Aalto University, University of the Arts Helsinki and Tampere University to form a network of infrastructures. MAGICS facilities include Virtual/Augmented reality, Motion Capture-, Immersive audio- and volumetric capture studios, object scanning- and haptics interaction devices and a gamification laboratory.



### Extended reality headset XR-3

Varjo XR-3 has front see through cameras, which enable augmented and mixed reality along with ultra-high resolution virtual reality experiments. Headset also includes a 200Hz eye tracker.



2022

2024

### Marsio

ABL will have facilities also in the new Marsio building (Otakaari 2A), where MAGICS and Aalto Studios will locate. ABL will have two measurement rooms for single and multisubject measurements there.

