

# Harnessing neurotechnology for mental and neurological well-being: Malaysia's journey from brain health to brain capital & economy

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## **ABSTRACT**

Malaysia is actively using neurotechnology to improve brain health and build its national brain capital. In the last ten years, advanced tools like brain scanners (EEG, fMRI), robotics, and virtual reality have become common in medical and research settings. They are crucial for aiding stroke recovery, monitoring epilepsy, and supporting mental health rehabilitation. These technologies allow for more accurate diagnoses, better treatments, and wider access to care. The idea of brain capital emphasizes that a population's cognitive abilities and brain health are valuable national assets. They drive productivity, and creativity. By investing in education, innovation, and mental well-being, Malaysia is turning brain health into a strategic resource for social and economic progress. This approach reflects a broader shift toward a "brain economy," where cognitive strength and mental wellness are key to sustainable development.

Keywords: Brain health, Brain capital, Neurotechnology, Well-being, Malaysia