

Feedback from the European Brain Council on the White Paper on Artificial Intelligence

The emergence and development of Artificial intelligence (AI) across the EU creates new opportunities for strengthening research, enhancing the management of diseases, reshaping the delivery of healthcare and ultimately improving citizens' quality of life. This is particularly true for the brain research space as these new technologies hold the promise of boosting research and innovation and improving treatments for brain-related diseases, which are widespread and highly disabling conditions.

The European Brain Council (EBC) therefore welcomes the adoption of the European Commission's White Paper as AI could contribute to developing solutions to some of the challenges associated with brain disorders, including both mental and neurological diseases. However, in spite of the many robust policy options presented in the White Paper, we believe that boosting the uptake and deployment of AI for the purpose of fostering innovation in the neuroscience and mental health space as well as reducing the burden of brain diseases in Europe should be further prioritized within the current document.

Early detection and diagnosis is, for many brain disorders, crucial as this allows interventions to be made early-on, which is of paramount importance for optimizing outcomes and slowing down the progression of certain diseases. In recent years, we witnessed many promising developments as regards the use of AI in supporting the detection of brain-related conditions at the early disease stages. As such, the common European approach on AI, presented in the White Paper, should further support the development of innovative AI tools and solutions for enhancing the early detection and diagnosis of mental and neurological conditions.

Moreover, AI holds the potential to support researchers in their efforts to advance the understanding of the human brain and progress therapeutic innovation in the brain research area. The White Paper should therefore include more ambitious goals and targets aimed at, through the use of AI, generating knowledge about brain diseases and accelerating the development of new and better treatments that can make a meaningful difference for patients living with these conditions. This will not only contribute to alleviating part of the burden of brain diseases on European society but also help

achieving the White Paper's wider ambitions as regards improving the lives of EU citizens and enabling scientific breakthrough.

Finally, AI itself can benefit from the latest neuroscientific insights with regard to developing brain-inspired novel algorithms that potentially outperform currently available methods. At present time, AI and brain sciences are entering a new phase of closer interactions to synergistically promote advancements in both fields. This aspect of neuro-inspired AI research and development would also deserve a stronger emphasis in the White Paper.

In order to ensure the effective and efficient implementation of the European approach to AI, the White Paper should enable and further reinforce synergies with EU schemes for funding research and innovation, including the Horizon Europe and Digital Europe programmes. What is more, the proposed measures and policy options laid down in the White Paper should align with European and national strategies for accelerating brain research.

Enhancing the development and uptake of AI has the potential to progress science and improve human health, to the benefit of patients affected by brain disorders. We therefore sincerely hope that the proposed recommendations will be taken into account as these are a prerequisite for realizing the EU's objectives in addressing brain-related diseases and developing solutions that could have a real and meaningful impact on people living with a mental or neurological illness.