

**EBC Response to the Horizon Europe Public Consultation (8<sup>th</sup> September 2019)**

**4. Please provide here your comments on where Horizon Europe should play its greatest role in terms of global challenges, Sustainable Development Goals, and EU policy priorities. (500 Characters)**

Horizon Europe should support robust measures for accelerating brain health research and decreasing the burden of diseases still ailing European citizens, without many effective cures at hand. For example, the global population is ageing and with this comes the steady increased risk and incidence of brain, i.e. neurological and psychiatric, conditions. Addressing health—in particular, brain health—must be a priority for Europe & an example for the rest of the world in addressing the biggest global challenges.

**7. In your view, how relevant is it for Horizon Europe to deliver on the following impacts for a "Competitive Europe"? Please provide here your comments or suggestions on the above (if any) (300 Characters)**

Industrial leadership in public-private partnerships for new technologies can play a big role for health. This need is quite apparent in the field of neurological & mental disorders; compared to other disease areas, the pace of innovation in this field is hindered by the complexity of the brain.

**9. In your view, how relevant is it for Horizon Europe to deliver on the following impacts for a "Fair Europe"? Please provide here your comments or suggestions on the above (if any) (300 Characters)**

Current health systems have not adapted fast enough to provide patients with optimum outcomes. This is particularly true for brain disorders. Treatment gaps (the proportion of people who require but don't receive access to care) pose the biggest barriers to improved diagnosis, treatment & care.

**13. Please provide here your suggestions for relevant Horizon Europe impacts to contribute to an "Influential Europe". (300 characters maximum)**

Fostering global initiatives through a strategic R&I agenda and coordination at the global level, feeding through existing concrete projects such as the European Brain Research Area (H2020). This demonstrates neuroscience as a link to external partners and enhances the EU's voice in global research.

**Section D: Please provide here further general input regarding the targeted impacts from Horizon Europe. (5000 characters max)**

The Health cluster, according to the Orientations document, aims to tackle diseases and to decrease the burden of diseases on citizens and health care systems. Though it mentions “Non-communicable diseases, including mental illnesses and neurodegenerative diseases, are responsible for up to 80% of EU health care costs”, there is no further prioritization of mental or neurodegenerative diseases reflected within the cluster or the missions. In 2010, it was estimated that brain disorders, neurological and mental alike, affected approximately 179 million European citizens and that the costs associated with these conditions were estimated at €800 billion annually. In 2016, neurological disorders were the cause of 276 million DALYs & 9 million deaths, with mental disorders adding approximately 8 million deaths annually. In this regard, addressing the societal impact of the most burdensome diseases should be much more disease-specific and a key requisite for improving human health and decreasing the overall burden of disease on European citizens.

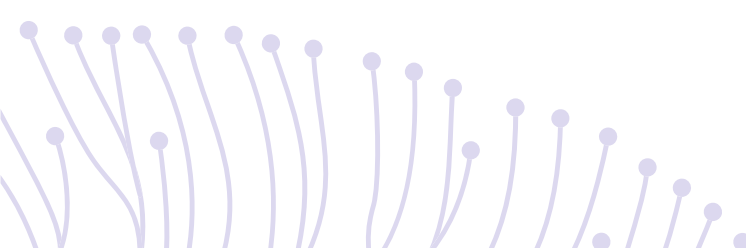
In light of the societal challenges highlighted and prioritized in the document and the staggering statistics presented by mental and neurological conditions, it is crucial that the “Health” cluster becomes a robust tool for reducing the disease burden caused by brain disorders. Such action will significantly contribute to realizing the EU’s ambitions in decreasing the overall burden of disease on European society as well as achieving Sustainable Development Goal 3 (good health and well-being). We therefore urge the European Commission to introduce specific targets and expected impacts aimed at accelerating brain research, reducing the burden of brain disorders, enhancing early diagnosis, advancing knowledge about the human brain and preventing mental and neurological conditions in the first Strategic Plan of Horizon Europe.

Concrete and measurable objectives aimed at decreasing the burden of brain disorders in terms of mortality, DALYs and economic costs to society should be added, as priority objectives of the Horizon Europe programme. Furthermore, the targeted impacts currently highlight, amongst other issues, early diagnosis and effective translation of research results. This section should be further extended in order to underline the need to diagnose people at an earlier stage and prioritize early intervention of diseases to avoid worsening and burden increase. This is particularly true for brain disorders as most still do not have effective treatments or cures.

The major unmet needs for global health security including the global burden of non-communicable diseases is mentioned but is far too vague and doesn’t consider the urgency of certain diseases over the other. The priority areas and aims could be expanded and revised in order to ensure the inclusion of robust means for addressing the burden of specific diseases, innovative treatments and enhancing early diagnosis.

Brain disorders are increasingly playing the largest role alongside cancers and cardiovascular diseases. The aims of the health cluster are to solve the big health issues plaguing the European population, yet, brain disorders remain low and unrecognized on the priority list though the majority of brain conditions remain without efficient treatment and none with full cures. The continued commitment of funding agencies to basic neuroscience research has advanced our understanding of the nervous system, as well as in the practical and clinical application of this knowledge. Yet, the inherent complexity of the nervous system hampered our translational capacity, suggesting that a higher level of integration is required.

Engagement of the scientific and clinical community at all levels is required in order for the European population to benefit from discoveries and for advances in basic science to be translated into new diagnostic tools and treatments. In this regard, we wholly support the establishment of a Brain Health partnership under Horizon Europe, to build on existing projects such as the European Brain Research Area, to improve alignment and synergies across European and global brain disease research initiatives to minimize time-to-market of preventions and treatments by intensifying scientific collaborations, identifying gaps in knowledge, improving data sharing and facilitating access to infrastructures.



Further objectives aimed at supporting activities that aim to boost the development of novel treatments for improving the lives of people living with brain disorders should become an integral part of the fifth area of activities (“new and advanced therapies for non-communicable diseases”). As an added benefit, understanding the brain provides valuable knowledge (critical in a knowledge economy) that has the potential to not only treat diseases, but also to innovate in the areas of artificial intelligence, brain-machine interfaces (BMIs), robotics, and technology.

