

NERRI Project – Published summary

The Neuroenhancement Responsible Research and Innovation (NERRI) project was developed to initiate a Europe-wide societal engagement with the ethical, social, legal and economic aspects of neuroenhancement technologies, and to develop sustainable forms of stakeholder engagement with science and technology in this area. Furthermore, the project seeks to contribute to a normative framework underpinning the governance of neuroenhancement technologies. This report summarizes the main achievements in NERRI's substantive work packages.

NERRI started with a review of the state-of-the-art in neuroenhancement. The initial phase of the project, Reconnaissance, was based on extensive interviews and reviews of relevant documentation in all the countries of the consortium. It included the classification of enhancement techniques currently available in Europe and its contexts of use; the identification of key stakeholders; the mapping of relevant ethical and moral values at play in European society; and the identification of regulatory frameworks that may have implications for research, innovation and usage of neuroenhancement technologies. Reconnaissance delivered input to subsequent stages and to dissemination, providing solid grounds for the organization of mobilization and mutual learning (MML) activities.

Under work package Societal Dialogue, NERRI conducted more than 60 MML activities across Europe. These exercises brought together researchers, users, companies, health professionals, NGOs, students, the media and the broader public, providing the stage for discussion on the main views, expectations and concerns of European citizens about neuroenhancement. The project thus designed and carried out a range of "laboratories" for exploring options and dimensions for responsible research and innovation (RRI) in neuroenhancement, as well as for developing new formats for multiple-stakeholder engagement and deliberation. Drawing on the insights gained from the MLEs, a survey questionnaire was designed covering a range of issues related to enhancement. The survey was administered to representative samples of 1000 people in each country of the NERRI consortium as well as in the USA.

Analyses, reflections and recommendations derived from the MLEs were developed in work package Governance of Responsible Research and Innovation. The NERRI White Paper condenses and substantiates the main lessons from the project, presented as a set of recommendations for regulation of research and innovation in neuroenhancement. Topics covered by this agenda include the important distinction between restoration and enhancement; implications for research strategies and funding programs; the need for a governance framework; human and fundamental rights as valid guiding principles for regulation of neuroenhancement; and valuable inputs that public engagement can deliver. NERRI expects that development of this agenda should continue after the conclusion of the project. To this end, a self-sustained deliberative public platform was put in place using the online application, Netivist.org, which will be linked to the NERRI webpage for two years after the end of the project.