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Mechanisms for Responsible Research and Innovation: An Investigation of Ethical Advisory Bodies on the topic of Human Enhancement Technologies

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The new emerging technologies such as synthetic biology, neurotechnology and various other potential human enhancement technologies (HET) offer promises for numerous positive and negative changes for the individual and society. While many of the risks involved are not necessarily novel when compared with older, now established technologies, the increasing scope, speed and impact of the new technologies does bring additional potential dangers. As the recent trends in the policies and economics of most developed countries show, the new emerging technologies are expected to produce innovations especially in the domains of energy and medicine, and thus serve as the main drivers of innovation and economic growth in the coming decade. One example of such an orientation is the EU initiative of the Innovation Union. On the other side, building on the negative experiences with technologies such as nuclear power, asbestos and numerous pollutants, there have been many attempts to anticipate and prevent negative technological side effects even before they manifest themselves, chief amongst which is the EU precautionary principle.

The paper examines the relatively new conceptual notion of “upstream” investigations of the ethical, legal and societal implication (ELSI) of new emerging technologies, along with the mechanisms for the engagement and mobilization of various stakeholders, as well as the participation of the general public, which have recently been summed up under the concept of Responsible Research and Innovation (RRI). In the empirical part, the paper focuses on the attempts to implement these concepts and mechanisms in practice, specifically in the scope of the already established expert institutions that were formed and charged with the mission of providing ethical examinations of new scientific and technological developments, especially developments in medicine and the life sciences, at the level of nation states – the national Ethical Advisory Bodies (EABs).

Our research of national EABs thus examines whether national EABs, which are predominantly ethics committees, have attempted to establish any of the mechanisms or engage in any of the activities that comprise the RRI approach, and whether they have tackled any of the issues being raised by HET in academic and expert circles, and increasingly even among the general public. We thus examine several mechanisms that have been proposed for realizing the innovative potentials of new emerging technologies, while mitigating the potential negative consequences, such as ELSI examination, transparency of procedures, stakeholder engagement, and public participation mechanisms. The data for our empirical research was drawn from a survey that we conducted in the scope of the FP7 EPOCH (Ethics in Public Policy Making: The Case of Human Enhancement) project among 20 institutions in 14 selected countries, from the overview of individual EAB websites and from an in-depth analysis of selected EAB opinion documents dealing with various potential HET.