Executive summary:

As to the alignment of “Horizon 2020”, it is a more integrated approach to European science policy than expressed in the proposals previously drafted, and specifically considers: (i) promoting excellence in Science, (ii) establishing a sound industrial leadership and (iii) expressing an ambition to address current and future societal challenges.

In this respect, the quest for a knowledge-based economy in Europe should result in proposals for industrial and employment policies that will consolidate the major European advantages in the biomedical, healthcare and pharmaceutical sectors. Horizon 2020 also provides the possibility of adopting a more flexible and simplified management route to drive European research through innovation, research and development.

What should be additionally considered? Unmet medical needs, under pressure from demographic changes, await the generation of new medicines and health technologies which will evolve into a driver for a unified European policy. We believe that this should be focused on harnessing pharmaceutical knowledge for clinical use, as part of a response to accommodate patient needs and economic growth based on a robust, scientific approach.

The bolder ambition for European research is to unlock key bottlenecks currently undermining European competitiveness. The historical lack of an appropriate business/innovation environment with reduced access to adequate risk finance instruments has severed the path for economic growth and industrial development.

These issues are of critical importance and a solution is urgently needed to foster translation from the university to the healthcare sector through the generation and support of start-ups, spin-offs, university-industry consortia, and other platforms, which support translational research. The ultimate goal is implementation of holistic programmes: the ‘bench to bedside’ paradigm of medicines and other healthcare products.

The European Research Council supports the basic biomedical research programmes of long-term importance for development of medicines; however, fundamental research initiatives on medicines development will not be competitive in such an environment. In order to strengthen the long-term outlook, we must foster innovative research within the university sector, EUFEPS proposes that a fund for such research be set up within Horizon 2020, which would be open for individual research groups and which would include Public–Public Partnerships (complementing already existing Public–Private Partnerships).

How do we look for implementation? There is an established research agenda for medicines research that is globally focused, and which incorporates a cooperative model between universities and industry, facilitating integration of complex technologies. Regulatory Science will play an important role in this integration.

This agenda uses tools arising from systems approaches (including discovery with systems biology and also systems pharmacology) and has the potential for providing better knowledge management, as well as technological innovation (including manufacturing). It also addresses the drive towards personalised medicines and can, with support from both public and private sectors, foster translation of knowledge to new technologies and from that, to new medicinal products and complex integrated systems. This is a part of a strategy capable of solving unmet medical needs, which would increase the quality of life of patients suffering from chronic and debilitating diseases.

The instruments to allow the development of a research agenda should strengthen existing partnerships such as the IMI-JU model; allow for the creation of European-network infrastructures that can bring together existing competences with adequate European coordination, thus promoting advanced training and continuous professional development for the pharmaceutical sciences. This will be the cornerstone of a knowledge management strategy, providing education and training for healthcare professionals and scientists. A key role for EUFEPS is to help the research community to embrace these new holistic policies applied to the spectrum of pharmaceutical, medical and cognate sciences.