

## Inputs from Simula Research Laboratory to the FP10 thematic consultation by the Norwegian Ministry of Education and Research (KD)

On October 9<sup>th</sup>, 2024, Simula Research Laboratory AS was invited by the Norwegian Ministry of Education and Research (*Kunnskapsdepartementet*) to provide inputs on thematic areas of national interest for collaboration in FP10, the EU's next Framework Programme for Research and Innovation. We would like to contribute the following suggestions and recommendations.

Several areas covered by the Pillar-2 clusters of Horizon Europe (HE) remain key societal challenges that are important to address at a European level; they will continue to be as relevant, if not more relevant, in the timeframe of FP10 as they are today. It is in Norway's interest to collaborate on these, to advance our own innovation, industry, and societal preparedness, as well as to contribute to European competitiveness and progress. The following topics stand out as particularly important:

- **Health** (HE cluster 1) remains a substantial societal challenge across Europe, and the value of addressing health challenges at a European level has become increasingly evident. Norway should encourage a strong collaboration on health research in FP10, including *interdisciplinary research on employing emerging digital technologies in medicine and healthcare*.
- **Digital security and sovereignty** (HE cluster 3). In challenging times there is a need to focus on how to keep Europe safe and secure. These are issues that should be addressed on a European level. *Both basic and more applied research are necessary to ensure resilience and (cyber) security of our common European infrastructures*, in the face of growing, hybrid threats of both digital and physical nature and in a context of geopolitical instability. An important research topic is *understanding the risks to digital value chains arising from Norway's and EU's dependency on foreign hardware and software in critical infrastructures*. Finally, *protection of European citizens' security and privacy, aligned with shared European values*, should also remain a topic where research efforts are devoted.
- **Digital technologies** (HE cluster 4) are a key driver of innovation in industry and society, and will be an essential part of maintaining European competitiveness and addressing societal challenges. Collaboration at the European level should emphasize *inter-disciplinary research devoted to employing digital technologies in grand societal challenges, including health and climate*. Two areas in the digital realm are worth highlighting as topics where cross-European collaboration and synergies are necessary to ensure that Europe as a whole does not lag behind: *AI and quantum technologies*. Both provide opportunities for the continent to be a world leader and are well aligned

with national strategies, but they will require massive efforts and a sustained, long-term R&I plan that may only work at scale.

- **Climate and energy** (HE cluster 5) will continue to be a grand societal challenge in the foreseeable future, and one that clearly needs to be addressed at the European (or global) level. Continued research into *climate modeling and climate change prediction, climate adaptation strategies, and emerging energy sources and energy systems* should be a continued focus. Additionally, increasing emphasis should be put on *deploying digital technologies for energy optimization and utilization* (i.e., research on the twin transition).

Yours sincerely,



Dr. Lillian Røstad  
Managing Director  
Simula Research Laboratory AS