

EU-wide Strategic Foresight Network
Thematic cluster on health innovation by 2030
Main conclusions

1- Background

Within the framework of the EU-wide Strategic Foresight Network launched by the European Commission, France led one of the thematic clusters focused on health innovation by 2030. **This work was conducted based on a foresight work initially carried out by France (High commission for planning)**, enriched by the experience brought in by other participants, based on their national initiatives and ideas of the priorities for the action to be taken at the European Union level, and against the backdrop of the lessons learned from the pandemic.

This document aims at reporting on the conclusions of this workshop and in particular on the orientations proposed by the participants for the European level.

The following conclusions are supported by Member States that took part in this work: Croatia, Czech Republic, Austria, Malta, Estonia, Poland Lithuania and France. European Commission's DG SANTE and DG RTD provided background information regarding ongoing and planned initiatives at the European Union level in the area of health policy and research and innovation.

2- Foresight/planning

These exchanges revealed many convergence points regarding the long-term trends **likely to characterise the medicine of tomorrow**. They include in particular: the ageing of the population, the increase of the chronic diseases and polyopathologies (including non-communicable diseases, e.g. cancer, diabetes or obesity), unhealthy lifestyles (such as unhealthy diet, lack of physical activity, issues for which prevention is key), as underlined as well in the European Commission's 2021 Strategic Foresight Report. The development of antibiotic resistance, the impacts of the climate and environmental risks on health, the deterioration of mental health and health risks linked to poor nutrition and water issues (water shortage and quality) could also be a matter of concern in the coming years.

It was stressed that **societal developments** should lead to safer, faster and more individualised medicine in the long term. **New technologies** should provide opportunities to face these challenges: development of telemedicine, rising importance of digital health, or increased use of artificial intelligence.

Regarding the impact of these changes, based on a study carried out by Estonia¹, **a particular emphasis should be put on financing the health system**. The need to adapt our financing models in

¹ https://arenguseire.ee/wp-content/uploads/2021/06/2020_the_future_healthcare_in_estonia_summary.pdf

view of the increased costs, matched with longer life expectancy and reduced resources ("scissors effect"), was stressed. **The social, environmental and organisational impacts of these long-term trends** should also be taken into consideration.

France has already put in place a dedicated strategy ("Innovation in Health 2030²"). Other Member States participating in the cluster are in the process of reflecting on an instrument of this type or covering this issue in various strategic documents, not necessarily specifically focused on health. For instance, Malta is addressing the issue in its national Smart Specialisation Strategy for the period up to 2027, in a post-pandemic strategy, and in its national Recovery and Resilience Plan.

More broadly, participants stressed the importance of having a long-term vision for health innovation, possibly further supported by strategic foresight exercises at the European Union level.

3- Actions to be undertaken as a priority at the European Union level:

As a preliminary remark, the participants stressed the importance of dealing with this issue at the European Union level, without duplicating ongoing initiatives and existing measures.

3.1 General principles for establishing a favourable framework reducing the time needed for the emergence and development of innovation at the European Union level:

- give priority to **brain mobility over brain drain**: this implies reflecting on the conditions likely to encourage researchers to remain in Europe rather than to move to third countries and to enhance intra-European mobility;
- **multiply and diversify research and development procedures**: possibility for one Member State to test innovation in another Member State.;
- **establish a decentralised network for innovation**: a European tool for registering innovation could be set up. This decentralised network could allow exchanges between laboratories in different Member States. This instrument would also increase the visibility for investors;
- **providing a secure environment for testing**: by developing a secure "innovation sandbox" system, major gains could be made: reducing overall risks, reducing the time needed for innovation, increasing researchers' mobility.

3.2. Ensure the development and management of innovations:

- **Ensure efficient and time-saving innovation governance**;
- **Financing**: innovation requires specific funding: on the one hand, it seems necessary to ensure in the medium-term the availability of sufficient funds to allow for high-risk taking and fast transfers of significant funds for innovation such as vaccines; on the other hand, funding aimed at financing more structural actions, likely to enable the development of innovation in a favourable environment, should also be made available via other financial instruments (Structural Funds, Horizon Europe).

² <https://solidarites-sante.gouv.fr/actualites/presse/dossiers-de-presse/article/innovation-sante-2030>

- Exploring new remuneration models for innovative therapies to ensure that costs are sustainable in the long term and affordable for all patients.

3.3. Improve the transition from innovation to industrial phase:

- **Ensure adequate testing infrastructure** (set up accessible sandboxes where innovations could be easily tested);
- **Increase the visibility of private investors and access to finance** (making new investment projects more visible to investors);
- **Ensure easy and affordable access to legal advice and assistance to guide innovators and protect innovations** and build balanced strong networks, including partnerships with investors;
- **Improve the link between academia, government, industry and social partners** ;
- **Ensure that intellectual property on innovative products is retained** when they are disseminated more widely, especially in third countries, in line with the EU's position at the World Trade Organization (WTO).

3.4. Other priorities:

o Data:

- Obtaining and managing data has an economic potential that should not be overlooked. In order to fully exploit it, the question of data sharing for research and innovation purposes could be further explored. It is also proposed to continue efforts to **strengthen the European Health Data Space**.
- It is necessary to guarantee the protection of personal data, which will be more and more important in the context of an increasingly individualised medicine, and to ensure storage of these data.

o Technology:

Digital health, at the heart of the health revolution, must have a strong ambition to ensure an effective response to the challenges of the sector and accelerate the shift towards a so-called “5P medicine”: Personalised, Preventive, Predictive, Participatory and Proven

It would be interesting to identify the main existing technologies, as well as the alternatives, which could be used. For example, **artificial intelligence (AI) and blockchain** will play a major role in innovative digital health applications. These technologies will enable developments in other areas as well such as remote patient monitoring systems and AI and bioinformatics applications for mature health sectors such as pathology and radiology. More specific action in this area could be taken at the European Union level.

o Key health policies areas:

- **Mental health:** Alongside the increase in infectious diseases, mental health has deteriorated across the EU, putting an increasing burden on the whole psychiatric and psychology sector. The whole issue

requires a new comprehensive approach, developing the potential of tele-health solutions, and increasing leadership for mental health.

- **Biotherapy and biomanufacturing of advanced therapies:** The health industry is currently undergoing a real revolution with the arrival of medicines whose active ingredients are produced from living organisms and are the result of the most fundamental research in biotechnology. The rise of these biotherapies has enabled the development of so-called personalised medicine by providing therapeutic solutions that have proved their worth in many indications (oncology, immunology, virology, rare diseases, etc.). The development of biotherapies and the bio-production of these therapies hold both promises and major challenges for the European Union. It should be ensured that the required infrastructural tools and a regulatory framework which may stimulate this sector in the EU are made available and fit for purpose.

- **Combating emerging infectious diseases and CBRN** (chemical, biological, radiological and nuclear) threats: the COVID-19 crisis has highlighted the major impacts that the emergence of new pathogens can have in health, but also in the economic and social fields. The initiatives taken by the European Union to strengthen its risks preparedness and its response capacity against new major health crises (emerging infectious diseases or radionuclear threats) in the coming years, in particular through HERA³, in conjunction with the actions undertaken in the Member States, in supporting innovation and development of their pharmaceutical sectors, including through national institutes, must be a priority.

- **Reducing the burden of non-communicable diseases** (e.g. cancer, diabetes): there is huge potential at the European Union level for health innovation to deliver personalised primary and secondary prevention aimed to minimise the morbidity and mortality burden of non-communicable disease among European population. The aim would be to avoid or delay the onset of such diseases as much as possible through the encouragement and reinforcement of healthy lifestyle choices through the life course, whilst helping those with established disease to prevent complications and to maximise their well-being till the end of life, aiming to reduce the period of morbidity and resultant disability at the end of life to a minimum.

³ *The Health Emergency Preparedness and Response (HERA) department's mission is to prevent, detect, and rapidly respond to health emergencies. HERA, created in the aftermath of the COVID-19 pandemic, will anticipate threats and potential health crises, through intelligence gathering and building the necessary response capacities.*