

Note on the establishment of a new European Research & Innovation Partnership for Pandemic Preparedness

Context

This partnership aims to improve the EU's preparedness to predict and respond to emerging infectious health threats by better coordinating funding for research and innovation at EU, national (and regional) level towards jointly agreed objectives and an agreed strategic research and innovation agenda (SRIA).

This partnership responds to the request for better coordination, as expressed in the context of the ERA vs Corona Action Plan¹ and as recommended in the scientific opinion on 'Improving pandemic preparedness and management'². The partnership will contribute to building a coherent European Research Area (ERA) enabling Member States and the European Commission to rapidly and jointly support R&I in pandemic preparedness. The most appropriate form for the partnership and its budget need to be agreed once the objectives of the partnership have been further defined. A co-programmed approach is however likely to speed up the start of the partnership.

Its partners (initially Member States and the European Commission) should develop and agree on an aligned multi-annual agenda with common objectives for R&I actions in pandemic preparedness, building on experiences dealing with COVID-19, SARS, and influenza, and considering new emerging pandemics, e.g. in the context of climate change, deforestation and biodiversity loss.

Following discussions in two Horizon Europe Member State committee meetings in December 2020³ and as confirmed by further comments from Member State representatives, there is now a general consensus to **focus this partnership on epidemics/pandemics**. Accordingly, the title of this partnership has been changed in the Horizon Europe Strategic plan 2021-2024 from European Partnership on Pandemic Preparedness *and* Societal Resilience' to the '**European R&I Partnership for Pandemic Preparedness**'.

The partnership should work in synergy with the proposed new EU Health Emergency Preparedness and Response Authority (HERA)⁴. While the set-up of the partnership will primarily focus on epidemics/pandemics, its scope may be revised to include further health threats that would be in scope of the activities of the proposed HERA. Close collaboration with the European Centre for Disease Prevention and Control (ECDC) and European Medicines Agency (EMA), and other relevant actors will be ensured for the identification of priority research needs and for the smooth integration of research in pandemic preparedness activities.

Proposed activities

The Pandemic Preparedness Partnership in R&I aims to better coordinate, in a flexible manner, R&I funding in Europe on epidemics in **4 major areas** outlined below. There is

¹ https://ec.europa.eu/info/sites/info/files/research_and_innovation/research_by_area/documents/ec_rtd_era-vs-corona_0.pdf

² <https://op.europa.eu/en/publication-detail/-/publication/a1016d77-2562-11eb-9d7e-01aa75ed71a1/language-en/format-PDF/source-171481573>

³ HorizonEurope Shadow Health Programme Committee of 27-12-2020 and Strategic Programme Committee of 4-12-2020 (clarified scope with Italy), where a deadline to Member States for sending in further comments were set on 18-12-2020.

⁴ COM Nov 11, 2020 - Building a European Health Union: Reinforcing the EU's resilience for cross-border health threats'

however a 5th area of work that is cross-cutting, i.e. to establish the synergies with HERA and other partnerships, to strengthen the international collaboration and to ensure sustainability of the actions.

1. New scientific knowledge and innovation	<p>Research and Innovation activities for</p> <ul style="list-style-type: none"> - Better understanding the biology of the pathogen⁵ (virus, bacteria, etc.), its (changing) characteristics and its transmission, its interaction with hosts (humans, animals and plants) and the role of the environment (One Health approach), etc. - Better application of enabling technologies for supporting immunobiological research, for accelerating pre-clinical and clinical trials, for improving preparedness and pandemic emergency management.
2. Development of counter measures	<p>Research and Innovation activities - depending on the pathogen - for:</p> <ul style="list-style-type: none"> - Preventive measures, design and development of vaccines, fast and reliable diagnostics, new or repurposed therapeutics or prophylactics, monitoring tools at population level, personal protective equipment & digital solutions. - New solutions to increase Europe's autonomy of supplies, e.g. pharmaceuticals and medical equipment.
3. Improved evidence generation for (public) health policy decisions	<p>Research and Innovation activities for :</p> <ul style="list-style-type: none"> - Public health measures (including modelling) and their impact on social resilience, mental health and vulnerable groups. - New strategies to create a more agile public health and healthcare response in public health emergency situations. - Better dissemination and uptake of evidence across the broader public to tackle misinformation, which in itself undermines policy responses (e.g. anti-vax communities). - Data analytics, AI solutions and robotics to assist understanding, tracking, monitoring and management of pandemics in relationship with health data space
4. Support for setting up enabling EU-wide infrastructures	<ul style="list-style-type: none"> - Research and Innovation for improved data collection methodology and tools, data sharing and harmonisation across sectors (human health, animal health, environment, climate and ecosystems), scientific knowledge, open access, contribution to building the EU health data space. - Timely translation of research findings into emergency response actions. - Clinical trials: preparing tools for increasing operational readiness of trial sites across Europe; facilitating development and use of standard/harmonised trial protocols.
5. Synergy with HERA and sustainability	<ul style="list-style-type: none"> - Scoping and synergy with HERA - Synergies with other partnerships (one health,) - International collaboration

⁵ based on the WHO blueprint of pathogens www.who.int/research-observatory/analyses/rd_blueprint/en/

	- Sustainability
--	------------------

-

- Next steps:

Q4 2020 - Q2 2021	<p>Discuss and agree with Member States about the scope, the objectives, the type of partnership and about the type of partners.</p> <p>Once the scope has been agreed upon, a Strategic Research and Innovation Agenda with common objectives for R&I can be developed by a core group of Member States and the EC (foreseen for January/ February 2021).</p> <p>The draft first work programme of Horizon Europe proposes the following actions to prepare for the initiative:</p> <ul style="list-style-type: none"> - Funding a small secretariat (EUR 2mn through an Horizon Europe Coordination and Support Action, starting late 2021) to take over the coordination for building a long-term Strategic Research and Innovation Agenda with strong buy-in from future partners and stakeholders. - Funding other Horizon Europe actions in Work programmes 2021-22 (actions starting early 2022, indicatively EUR 50 mn) in collaborative R&I actions in Cluster 1- Health and in coordination with support to innovative start-ups in pillar 3 (EIC)⁶
2022-2023	Launch of the partnership

⁶ Building on the experience of the EIC Accelerator https://ec.europa.eu/research/eic/pdf/ec_rtd_cv-accelerator-projects.pdf which funded a number of startups with innovative solutions for pandemic preparedness