

# European initiative on resilience and pandemic preparedness for future crises through R&I

## The challenge

COVID-19 has changed our daily lives abruptly. The consequences of this pandemic will affect all areas of life in the medium and long term. Even more, the current pandemic has revealed how vulnerable healthcare systems, the economy and societies in Europe and the whole world really are as well as to which extent they are deeply intertwined. Research and innovation has played a significant role in finding answers to pressing questions and showing the importance of working together across society, sectors and disciplines in responding to the global crisis. We would like to use this momentum of research, science and innovation being in the spotlight of political debate in our Presidency: working together with all member States<sup>1</sup> on creating a comprehensive, innovative and forward-looking Initiative on Resilience and Pandemic Preparedness. Our experience with the current pandemic must serve as the basis for establishing preventive structures and measures. We also need to focus on strengthening medium and long-term resilience measures and the EU's capacity in order to act quickly and effectively in an event of future crises.

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<sup>1</sup> This includes all EFTA countries who are invited to participate in the initiative.

## A proposal for a European approach

On [15] July, the Commission will adopt a Communication on “Preparedness for resurgent COVID-19 outbreaks in the EU: Early Detection, Rapid Response & Protection of Vulnerable Group”. It will draw lessons from the current COVID-19 crisis, and will propose short and longer-term actions to enhance preparedness in the future. In order to face any future crisis further work is needed also on the role of R&I in resilience and preparedness. It should be encompassing regional, national EU levels to allow for an overall better preparedness for future crises.

Germany proposes to draw lessons from the current COVID-19 crisis and accordingly develop goals and measures for better preparedness in the future. A European approach is essential, as our economies and societies are interwoven in such a way that only better coordinated actions will be effective and convincing for European citizens. While the focus is naturally set on important global and public health issues at this stage, we need to think further and therefore propose to widen the discussion on developing preparedness strategies to disruptive events of various kinds. We also stress the need of thinking research, innovation and education as an integrated system. These fields are closely connected and need to be regarded as a unit when it comes to designing and implementing a European R&I based resilience and preparedness initiative.

1. Digital education and literacy
2. Reinforced R&I for societal resilience and preparedness
3. Better technological sovereignty and resilient value chains

While these dimensions do not fall under the clear competence of the COMPET Council, a clear need is obvious to better connect R&I policies with other policy areas such as education, industry, but also environment, health, food etc. The foreseen activation of the ERA is seen as an opportunity to establish this better connection.

However, it should be recognized that on most, if not all the mentioned dimensions, thematic priorities and topics, there are various activities and initiatives on-going at

different levels with different scales and scopes. Based on the experiences over the last months it became, however, obvious that European wide coordination and cooperation should be substantially improved, even in the R&I field where robust cooperation mechanisms proved to be stronger than in many other policy fields. Consequently, the main purpose of the proposed European Initiative on Resilience and Pandemic Preparedness for Future Crises through R&I would be to better connect and coordinate the many existing measures and activities in order to improve their European efficiency and effectiveness and allow for a more coherent and convincing communication on the whole set of measures and activities on R&I based resilience and preparedness.

For the purpose of the informal COMPET Council, Germany will focus on the dimension 'Reinforced R&I for societal resilience and preparedness and regarding the dimension "Better technological sovereignty and resilient value chains" on a research driven initiative on Green Hydrogen (cf. Working Paper on Green Hydrogen). This initiative on "Green Hydrogen" is one of the new R&I policy initiatives that will be launched under the "new ERA" and contribute to achieving the SDGs across Europe and beyond. We will also ensure that the dimension on education and further initiatives related to dimension three will be taken up by other Council configurations in an appropriate manner.

The following thematic priorities are the core of the dimension 'Reinforced R&I for societal resilience and preparedness':

**1. Resilience through more effective transnational public crisis preparedness research, including on global and public health related issues**

In facing the Coronavirus crisis Member States and Commission services developed jointly the ERAvsCorona Action Plan featuring 10 short-term R&I actions. It includes actions which vary from closer coordination of actions taken by the Member States and the Commission to joining forces in providing financial support, creating new funding opportunities, refocusing existing projects, sharing data, setting mechanisms to match great ideas with market opportunities and much more. The ERAvsCorona Action Plan was an ad-hoc initiative which allowed quick and efficient joint reaction to pandemic. It is now time to embed the further implementation of

this plan in a broader initiative that will include a stronger medium- and long-term perspective.

This broader initiative should include a global health perspective, notably on the development of new therapeutic approaches and vaccines. Pharmaceutical research and drug development should therefore be a main element of a European resilience strategy. Science and industry are mutually dependent on each other's expertise. Improving the transfer of technology between academia and industry as well as the further development of the biomedical funding landscape will be crucial.

Beside the global health perspective, the initiative should entail a foresight-driven perspective on a broader set of potential future crisis, including on environmental, social and economic crises. Here an interdisciplinary approach encompassing social science and humanities as well as natural sciences will be instrumental.

The following topics appear to be of relevance within this priority and could be addressed when further developing the initiative:

- a. Ex-post analysis of the COVID-19 crisis for better future prevention and preparedness, including on psycho-social issues;
- b. Strengthening and facilitating transnational cooperation in public health-related fields such as public health research, epidemiology, modelling and related disciplines, psycho-social impacts of the COVID-19 crisis, strengthening SME in the health sector, vaccine research and other pharmaceutical research
- c. Building the scientific basis for better infrastructures for the exchange of health and other relevant data according to the FAIR principles and fully use the potential of R&I infrastructures to increase the knowledge base and capacities for pandemic preparedness and response
- d. coordination and cooperation of existing health related science advice structures;
- e. Foresight based joint collaborative R&I initiative on crisis prevention, preparedness and resilience for potential environmental, social and economic crises

## **2. Strengthening the European research and science system**

While the first thematic priority deals with a number of rather ‘foreseeable’ potential crises, it needs to be acknowledged that Europe might also be exposed to completely unexpected crises, where other mechanisms of R&I based preparedness and resilience are needed, notably an overall resilience-oriented strengthening of the European research and science system. Obviously, this thematic priority feeds into the forthcoming overall ERA debate, which kicked-off with the adoption of an ERAC opinion in December 2019 that will be followed by a Commission communication in the second half of 2020 and an adoption of ERA Council Conclusions in November 2020.

Especially a free, independent, value-based and responsible curiosity driven research, involving the whole European science community, is at the core for providing the needed knowledge to cope with unexpected crises. This should entail a European commitment to R&I investments with a particular focus resilience related issues, including on public R&D and the role of curiosity-driven science and research. Other issues include open science and innovation, data exchange, adequate human resources, functioning technical infrastructures and the effective use of available instruments to strengthen the collaboration in Europe. More generally and as a first step, a political agreement on common ERA values and principles, in particular on scientific freedom.

The following topics appear to be of relevance within this priority and could be addressed when further developing the initiative:

- a. The future and contribution of investment targets to R&I based resilience
- b. Common ERA values and principles for effective, free and responsible R&I
- c. Preconditions for an European-wide R&I resilience against unexpected crises, in particular by facilitating transnational cooperation and collaboration, including on social and human sciences, open science and open innovation issues and the potential of R&I infrastructures
- d. Human resources needs and working conditions for researchers as core element of R&I based resilience

- e. strengthen science management standards across Europe as contribution to R&I based resilience

### **3. Improved participation of society through science communication measures**

The potential of R&I for societal resilience and preparedness will depend to a substantive extent on its societal recognition as a provider of trustworthy and reliable advice, knowledge and potential solutions. In order to ensure that science fulfils these needs, the interaction between society and science should be further improved. In addition, science should play an active role in the fight against fake news and ensure that citizens have access to reliable, trustworthy and easy to understand scientific knowledge. Against this background, science communication measures and novel approaches to involve society, including citizens in the prioritization and programming of R&I should be strengthened and be applied more widely.

The following topics appear to be of relevance within this priority and could be addressed when further developing the initiative:

- a. Regular European citizen science campaigns across the EU (with 'plastic pirates' as pilot) in co-operation with existing initiatives and networks
- b. Provision of reliable and easy to understand scientific information for the media to fight fake news and the roles that different stakeholders in R&I and society more widely should play in this
- c. Better coordination of science communication activities at all levels, including local, regional and national levels – for instance through sharing good practices and the building competences in scientists, the media, public authorities, and civil society
- d. Strengthening and facilitating cooperation and mutual learning on transdisciplinary R&I programming and knowledge exchange between science and society, including novel approaches for science–industry links, the use of open science principles and actions and the involvement

of libraries in the dissemination of scientific culture to the public of all ages

- e. Regular monitoring of the societal recognition of science

Regarding the citizen science pilot project “Plastic Pirates – Go Europe” a joint initiative by DE, SL, PT will be launched as part of the Trio–Presidency. The main objectives of Plastic Pirates are a closer scientific cooperation in Europe, promoting excellence in citizen science and advocating a responsible and sustainable approach to the environment (cf. Working Paper on European Citizen Science Campaigns).

## Steps towards the goal

On the occasion of the informal COMPET Council on 21 July, the German presidency will seek support from Member States, EFTA countries and Commission for the set-up and implementation of an overarching European resilience and preparedness initiative, notably with the objective to

1. Exchange of views on the overall policy approach;
2. gain orientation on the potential main priorities for the further unfolding of this initiative.

## Slido questions

During the Informal Council Meeting, Slido questions will be presented in order to gather information from all participating countries. Slido questions will be sent out in good time before the meeting.