Croatian Presidency of the
Council of the European Union

Research and innovation for the recovery of Europe

- ***Policy debate***

Introduction

It is beyond doubt that COVID-19 has been an important lesson for humanity. Everything we do and how we do it – e.g. the way we work, educate our children, live or travel – has been challenged by this crisis. All sectors of our economy are affected, and while some manage to adapt faster to the changing environment, others seem to be struggling with its negative effects. We will all have to step up our efforts in saving our economies and helping our societies to overcome the negative consequences imposed by this pandemic. However, this cannot come at all cost or with a disregard to other urgent priorities, such as combating climate change or keeping the bar high on our global competitiveness.

On 7 April 2020 Research Ministers had an exchange of views on the role of research and innovation (R&I) in the short, medium and long-term response to COVID-19. The debate demonstrated a widespread understanding that R&I play an extremely important role, primarily in the field of vaccine development, enhancement of diagnostic tools and therapies, but also in contributing to a broader, long-term strengthening of the resilience of our societies. Ministers called for an exit strategy building on the contributions of R&I, as well as artificial intelligence (AI), in order to find solutions to the global pandemic. Also, ministers welcomed the ERAvsCorona Action Plan, as a set of urgent measures, and called for an inclusive approach in its implementation, as well as a synergetic and complementary use of all available EU programmes and funds.

Recovery Plan and the role of R&I

In the coming days the Commission is to publish a Recovery plan for the Union. Its *Roadmap for Recovery*[1], from April 21, has based the plan of recovering Europe on the principles of solidarity, cohesion and convergence. It stresses green transition and digital transformation as key factors which will contribute to job creation and calls for the strengthening of the strategic autonomy of the Union.

The Recovery Package should support system-wide resilience. This includes, among other, incentives for firms to maintain their economic activity, invest in people and in R&I during the crisis. It is also relevant to step up investments in new and safe ways of working, including through the acceleration of digital skills at all levels.

[1] https://www.consilium.europa.eu/media/43384/roadmap-for-recovery-final-21-04-2020.pdf

In utilising R&I for this change, the EU has great instruments at hand, for example, those under the Framework Programme and other R&I investments at European level. In addition, effective synergies between various programmes and instruments are more important than ever.

By creating an EU-wide knowledge network based on excellence and openness, R&I enable development of new knowledge, technologies and innovative products having an impact on boosting the economy, improving health outcomes, and coping with climate, social, health and economic challenges. This is why the Presidency is convinced research and innovation should lie at the core of the future Recovery plan.

We are contributing to the well-being of society and enabling Europe to become a global leader by keeping up the investments in R&I, strengthening collaborative research, promoting inclusion and a wider EU mobilisation of excellence, and investing in skills needed for Industry 4.0 and the upcoming Industry 5.0. In this sense, the new Industrial Strategy for Europe, published in March 2020, emphasizes that Europe needs an industry that is becoming greener, more circular and increasingly digital. Also, as stated in the strategy, „Europe has everything it takes to lead this new technology race. It must build on its strengths, including a robust industrial base, high quality research, skilled workers, a vibrant start-up ecosystem, mature infrastructure and a leading position in the use of industrial data.“[2] It is expected that the Recovery Plan will further build also on the priorities as set out by this Strategy.

Although the COVID-19 pandemic is a difficult period, it can also be a time to highlight the role of science, as well as to improve and develop future jobs. This crisis has not only demonstrated the importance of constant investment in R&I and trust in science but also the need for joint, complementary and effective efforts in different areas to enable the digital transformation and green transition.

(Re)thinking future jobs

Considering the impact of COVID-19 crisis, *Future jobs*, one of the priorities of the Croatian Presidency in the field of research, gains even more importance now. It is clear that research and technological development have an important role to play in driving the change.

For example, AI has proven to be such strategic technology that can offer a response to the current crisis in many areas. During COVID-19, AI was used to diagnose coronavirus in humans through the detection of visual signs, or to process huge amounts of unstructured textual data to predict the number of possible new cases. Certain AI

[2] https://ec.europa.eu/info/sites/info/files/communication-eu-industrial-strategy-march-2020_en.pdf

applications can also detect fake news and certain AI has the ability to quickly search large databases and process enormous amounts of medical data, as one foresight study developed for the European Parliament already argued[3].

However, the synergetic effect AI has can only be achieved with a full recognition of the role of R&I. Considering the lessons learned from the COVID-19 crisis, we probably need to go even further, e.g. towards the joint prioritization of specific areas which are most in need of AI solutions. The effect this crisis will have and already has on the economy and society points to the necessity to rethink long-term recovery strategies and opportunities to create new jobs.

Several segments should be kept in mind. For example, whether automation is driving job creation, whether human labour will remain competitive, how can humans and machines work together, etc. The rapid growth of emerging technologies brings many challenges, such as data protection, responsibility, cyber security and reliability, but only investment in their continuous growth will lead to improvements and better understanding with an aim of making future technologies more open, comprehensible, secure, transparent and useful.

Lessons learned

Immediately after the COVID-19 outbreak, Member States and the European Commission acted in a fast and efficient manner in mobilizing appropriate funding to fight the pandemic, and stepped up coordination efforts to implement key priority actions, such as those targeting the exchange of research data and information across the EU and with other international partners.[4]

Citizens' involvement is essential for identifying solutions that increase well-being and enhance resilience in an inclusive way. A good example is the recent positive experience with the first Pan-EU Hackathon. In addition, evidence-based scientific advice for policy-making is fundamental to strengthen citizens' trust in public institutions.

This crisis also demands an empowered approach to the alignment of international efforts that should create mechanisms and capacity building for dealing with societal and economic consequences, including for most vulnerable countries. Furthermore, a strengthened international collaboration through sharing of research results, data and experience remains crucial in effectively tackling the COVID-19 around the world.[5] In

[3] https://www.europarl.europa.eu/RegData/etudes/ATAG/2020/641538/EPRS_ATA(2020)641538_EN.pdf

[4] R&I actions are an essential part of the coordinated EU response: https://ec.europa.eu/info/live-work-travel-eu/health/coronavirus-response_en

[5] SFIC opinion on "International R&I cooperation in view of the global COVID-19 pandemic" (1345/20)

this regard, the global efforts streamlined through the work of WHO and initiatives such as CEPI and GAVI, along with the Vaccine Alliance, further emphasized the importance of a coordinated and joint action.

In global emergencies, such as the Covid-19 pandemic, it is essential to remove all obstacles to the free flow of data, researchers and ideas. Full, timely and fair access to scientific information and research results during crises for researchers, journalists, medical staff and all citizens is of outmost importance for accurate and affordable science-based responses.

Furthermore, coordination, sharing of data, citizen engagement, full commitment and joint funding are typical key objectives of the European Research Area (ERA). The crisis has shown that strengthening the institutional setting of the ERA can provide a significant added value, making our action more effective and tangible for the benefit of the Union and all Europeans. The Commission will present its Communication on the future of the ERA shortly: this will kick-off a joint reflection on the way to make the ERA stronger.

Conclusion

Following all said above, the Presidency wants to stress the importance of keeping up R&I investments at European, national and regional levels. Europe should maximize the potential of scientific approach. The recovery and modernization of the economy should be built on fair chances for all, inclusion, green transition and digital transformation.

Questions for the policy debate

Against the above setting, the Presidency would like to invite the Ministers for an exchange of views on the following questions:

1. What are, in your view, the main lessons learned in the management of this crisis from the R&I policy perspective?
2. How can R&I investments be used to boost the development of future jobs?
3. How can we embed this overall experience in the transformation of the European Research Area?