



Salzburg, Austria, 17 th December 2021

## **Statement on the escalating COVID-19-pandemic**

Considering medical urgency – countering knowledge resistance  
– defending the rule of law – ensuring economic stability

### **Preamble**

The European Academy of Sciences and Arts as one of the bodies coordinating scientific work across disciplines in Europe and beyond notes with growing concern the renewed dissemination of a new strain of the SARS-CoV-2 virus. The threat against public and individual health is imminent and calls for immediate, resolute and foresighted action. At the same time there is a need to assess the overall impact on the global burden of disease, which includes diseases not treated as a collateral effect of any countermeasures in public health.

Over the last 24 months, our knowledge of the viral disease and how to counter it medically has increased considerably. Nevertheless, we also see a tendency that the increase in scientific knowledge has been accompanied by growing knowledge resistance. In the light of evident disregard of scientific authority, we are firmly committed to the principle of free and independent research and the quest for truth, which in turn establish a basis of knowledge for sound decision-making in open and democratic societies. However, we also note that the pandemic has occasioned multiple societal trade-offs between different fundamental rights as enshrined in the Charter of Fundamental Rights of the EU (2009). Principles of proportionality, accountability and fair balance must be upheld in a state of emergency and legally examined in the future. Yet, a number of actors are vocally engaged in extrajudicial claims of conflict settlement undermining legal security. The mitigation between the sound management of the pandemic and its economic impact is yet another area of grave concern. While European societies might move into a possible third year of restrictions, the consequences for national and global economies are potentially devastating and call for increased stabilizing efforts.



We believe that a sustainable way forward for European societies is to consider the medical urgency of the pandemic while uncompromisingly countering knowledge resistance, defending the rule of law and ensuring economic stability.

## **Part 1 – the medical urgency of the SARS-CoV-2 virus in the light of the global burden of disease**

### *Urgent situation*

The SARS-Cov-2 virus is constantly changing as the global population is still naïve to the virus, and the virus quickly spreads and mutates. This situation results from the fact that vaccination is limited mainly to developed countries, and even there, vaccination is locally insufficient. Until now, we were relatively lucky as the mutations of the virus were not more lethal, although the new variants were more contagious than previous versions. However, we cannot predict the characteristics of the coming variants and, although new medicines have been approved for the treatment of the disease, the future is uncertain.

### *The global burden of disease*

According to ‘Our World in Data’ (<https://www.worldometers.info/coronavirus/>) and Johns Hopkins (<https://coronavirus.jhu.edu/map.html>) there have been over 267 million cases of confirmed COVID-19 and over 5 million deaths caused by COVID-19 infection worldwide. In Europe alone, over 76 millions of COVID-19 patients resulted in almost 1.5 million deaths. The current pandemic exhausted healthcare professionals and whole health care systems, leaving little room for treatment of other life-threatening diseases.

### *The impact of all public health measures on diseases not treated*

Measures taken by countries to prevent spreading COVID-19 have, in some cases, reduced the incidence of respiratory infections and reduced the number of deaths caused by those diseases. However, at the same time, those measures inadmissibly delayed diagnostics and treatment of other medical conditions due to restricted access to medical care. As a result, we are facing an unacceptable increase in the number of excess deaths (JAMA, 2020, 324:510-513) and unnecessary worsening of health conditions of the whole population. Decreased access for



medical treatment and decreased search for medical help results in millions of excess deaths weekly worldwide.

### *The worrying impact on mental health*

COVID-19 pandemic led to a stark rise in depressive and anxiety disorders globally as assessed in 204 countries (COVID-19 Mental Disorders Collaborators, 2021), with an additional 53.2 million and 76.2 million cases of anxiety and major depressive disorders in 2020, respectively. Of note, the increase in the prevalence of anxiety disorders and depression was associated with both the increasing COVID-19 infection rates and decreasing human mobility. Globally, anxiety disorders prevalence was strongly associated with increased infection rates, while depression prevalence was more associated with decreasing human mobility.

## **Part 2 – the adverse impact of knowledge resistance to decision-making and societal cohesion**

### *The ‘infodemic’*

The pandemic has, according to WHO (2021) been accompanied by an ‘infodemic’: a viral spread of misleading information has invaded societal discourse. Phenomena like disinformation (the intentional spread of false information), misinformation (the unintended dissemination of false information) and conspiracy theories (meaning-making narratives, particularly in times of crisis) expressed by state and non-state actors alike have blurred efforts to understand the SARS-CoV-2 virus and its dangers to human society properly.

### *Six contested areas*

This relates in particular to six specific and contested areas: 1) the origin of the virus, 2) its dissemination, 3) its mortality and morbidity (and related statistics), 4) countermeasures in public health and politics, 5) vaccination against COVID-19 and 6) general causal explanations of the outbreak of the pandemic and its management (MSB, 2021). The general public has been exposed to a host of conflicting analyses which also have been connected to various agendas in global as much as national politics.



### *Knowledge resistance as driver of radicalization*

To a significant degree, the infodemic is characterized by an increasing knowledge resistance, defined as “the tendency not to accept available knowledge” (Wikforss, 2018) and in particular the denial of scientific knowledge. Over the last two years, it has been possible to witness how knowledge resistance has mobilized to protests against scientifically motivated countermeasures designed to contain and end the pandemic. Scientific expert knowledge has been framed as a tool in the hand of elite manipulation of the world population. Science has been equated with any other opinion. In this heated climate, which repeatedly has driven radicalization into violent extremism, the integrity of science as the basis of sound decision-making has to be restored.

### *The restoration of trust in science*

Trust in science needs to be restored in order to contribute to societal cohesion. To achieve these objectives, underlying cognitive, psychological and existential dimensions of knowledge resistance have to be taken into account. Not only need scientists defend the integrity of their standards (a proper understanding of scientific theory and method), but also appreciate how generalized fears and anxieties are drivers of conspiratorial science denial. The situation calls for a threefold strategy in which the promotion of standards of source criticism and critical thinking are combined with a deeper psychological understanding of emotional and existential factors behind knowledge resistance. Any attempts to counter the infodemic have to take these three dimensions into account: the epistemological level (knowledge), the emotional level (psychology) and the existential level (values and world views). From a cognitive, psychological, and sociological point of view we have to understand the mechanisms driving radicalization, extremism and splitting societies. There is affirmative information processing, affective-driven cognition (e.g., perception, sense-making, memory, decision making), or reactance to perceived restrictions.

### *Science as learning system*

From an epistemological point of view, we have to understand and to communicate scientific procedures to the public: If we take all the known contributors and mechanisms of failures and incorrect decisions seriously, e.g., in science, technology, or policy, we have to concede that



also science is not immune against this. Especially at the moment, all protagonists seem to act under urgency for decisions and acting. It could substantially contribute to the reliability and authenticity of science to explore and communicate the mechanisms of her own pitfalls, biases and limitations, as we proceed it as normal in every journal review and scientific dispute. Beyond this we will increase the public trust in science if we concede the complexity and multi-perspectivity of science as a learning system.

### **Part 3 – the need to defend the rule of law during states of emergency**

#### *State of emergency*

A global pandemic such as occasioned by the SARS-CoV-2 virus constitutes without doubt a state of emergency in the exercise of power. As much as citizens expect governance to avert the negative consequences of a pandemic, fundamental rights and the rule of law must be upheld as fundamentals of accountable power. It is therefore appropriate to ask which fundamental rights that have been affected by the COVID-19-pandemic and how they are balanced fairly against each other. However, we have also witnessed an increase of pseudo-legal arguments raised by different actors with the aim to undermine legitimate public action.

#### *Fundamental rights*

On EU-level, member states have adopted specific measures, which in certain cases also have restricted fundamental rights (Trstenjak, 2020). In practice, (public) health has almost always been applied as reason or legitimate aim for a limitation to all the fundamental rights. There were restrictions based on considerations for public health such as: restriction of free movement, infringements of protection of data protection, and restriction of free economic activities and enterprise (e.g. compulsory closure of shops). On the EU-level the term ‘fundamental rights’ denotes both human and civil rights. These are enshrined in the Charter of Fundamental Rights of the EU with 54 articles (2009), part of primary law of the union and considered on par with constitutional legislation.



### *Proportionality of limitations*

Fundamental rights are not absolute and can be subjected to limitations if these are provided by law (both on EU and membership state level) and subject to the principle of proportionality, for instance how they affect other freedoms. Important is also the principle of temporal limitation, which is especially important for the limitations introduced due to the corona crisis. Proportionality as a condition for limitations of fundamental rights under Art. 52(1) of the Charter is an extremely important criterion of assessment which entails three elements: the appropriateness (in German: die Geeignetheit), necessity (in German: die Erforderlichkeit) and reasonableness (in German: die Angemessenheit) of the adopted measures.

### *The principle of fair balance*

During the Corona-crisis the key issue has been linked to the question when and under what conditions fundamental rights could be limited and what is the fair balance in a case of collision of several rights. Articles affected by collision in the Charter are most obviously: Health care (Art. 35), Right to liberty and security (Art. 6), Protection of personal data (Art. 8), Freedom of assembly and of association (Art. 12), Equality before the law (Art. 20), Consumer protection (Art. 38) and Respect for private and family life (Art. 7). Other rights have also frequently been referenced in the discourse, such as the right to life (Art. 2) or the right to human dignity (Art. 1). Moreover, prohibition of discrimination (non-discrimination) (Art. 21,1), freedom of religion (Art. 10), freedom to conduct a business (Art. 16), rights to property (Art. 17) or right to judicial remedy (Art. 47) have been affected. Much tension was caused by provisions about freedom of expression and information (Art. 11).

### *Future legal remedies*

It remains to be seen whether all limitations of fundamental rights were justified and whether the limitations were proportionate. The courts will have the final say on these questions. In many future legal proceedings national courts will have to assess possible interferences with fundamental rights under national law, taking into law. At present, it is not possible to give definitive answers as to which rights have been justifiably or unjustifiably limited. The answers will depend on the circumstances of every situation and the facts of the case. For this a number of legal remedies both at national and union level are available. Although the highest possible level of protection of fundamental rights is to be advocated for in the EU, it should also be



emphasized that in some cases the protection of fundamental rights is guaranteed in such a way that interference with certain other fundamental rights is needed in order to ensure the protection of other rights considered as more important in a given time. However, such limitations on fundamental rights must be imposed under strictly defined conditions and provided by the highest legal acts, i.e. in national constitutions and in the Charter at the EU level.

### *European Convention on Human Rights beyond the borders of EU laws*

But fundamental rights are not only restricted to the EU Charter of Fundamental Rights (2000 and 2009). However, according to its own wording (Art 51), it is only applicable as far as the application of EU law is concerned; moreover, it is limited to the EU. The EU is certainly a central project for Europe, but Europe clearly goes beyond the borders of the EU. Therefore, it would be important to also mention the European Convention on Human Rights (ECHR 1950) and its additional protocols adopted within the framework of the Council of Europe and the fundamental rights enshrined therein. The ECHR has arguably had more influence on the enforcement of fundamental rights over the past 70 years than the relatively recent EU Charter of Fundamental Rights. It also applies independently of the application of EU law and far beyond the borders of the EU. The Council of Europe also includes, for example, Great Britain, Norway, Switzerland, all Balkan states, Turkey, Ukraine, Russia and the Caucasus states.

### *Undermining of legal security*

An unfortunate side-aspect of the contested nature of limitations of fundamental rights during the COVID-19-pandemic has been the ‘juridification’ of arguments in the societal debate. Different actors have claimed a prerogative of interpretation of legal texts or resorted to pseudo-legal arguments in order to undermine the legitimacy of public measures of crisis management. These attempts to undermine legal security are not constructive towards the defense of the overall rule of law.





## **Part 4 – the need to ensure economic stability in times of crisis**

*How is the (global) economy affected by the pandemic?*

Many sectors of the economy have suffered losses due to the pandemic. Some measures, such as short-time allowances or government grants, have cushioned these economic losses, which seldom affected the labor market. In total, however, the losses cannot be fully compensated. A decline in corporate profits and the simultaneous support measures by the state have increased government debt by far.

*What are the immediate consequences?*

Consequences are being discussed controversially for instance in Germany. From the perspective of an economic mainstream, economically burdened companies should quickly find their way back to strength and competitiveness. Public budgets would also benefit from this by increasing tax revenues again. At the same time, politicians, scientists but especially representatives of environmental organizations have repeatedly stated: we cannot do our 'housekeeping' after COVID-19 the way we have done so far. However, there is often a lack of practical and realistic alternatives.

*How can economic stability be achieved?*

We need a new understanding of stability and equilibrium based on sustainability economics. For example: climate change, biodiversity loss but also inequality must be managed within the framework of economic activity. The available publications and reports also provide examples of how 'sustainability concepts' can be implemented and what obstacles need to be overcome. A key demand, primarily to politicians but also to other social actors such as scientists, consumers and producers, is that a coherent sustainability concept be developed and implemented as part of a consistent process. After COVID-19, we need a so-called 'economic stimulus package' to secure our ecology, economy and society. Let us develop and implement a 'sustainable economic stimulus package'. This would promote the dynamics of sustainable development.





## **Recommendations**

In the light of the state of the art related to the SARS-CoV-2-pandemic as a global crisis, the EASA calls for action in the following four areas:

### **(I) Considering medical urgency**

- *vaccination is the only action that can control the severity of the pandemic worldwide:* That is not only an urgent request for European countries. Poorer countries (e.g., Africa) must be supported with vaccination to slow down a permanent evolution of new mutants worldwide.
- *medical care of other diseases must not be restricted by Corona patients:* When introducing restrictive measures to control pandemics, take care not to limit access to healthcare for other diseases.
- *foster good science-based education in health sciences to improve the situation of medical doctors and other healthcare professional:* Evidence-based medicine and science-based education in health sciences must be the basis of medical decisions.
- *with respect to mental health, the effects of pandemic and measures against it must be evaluated over the whole life span:* The side and long-term effects of the pandemic and of all the measures against it (e.g., social distancing, closing schools, distance learning, lockdown of branches of the economy) have to be evaluated for mental health developments of people over the whole life span (from young children to people well advanced in years) including families and social networks.

### **(II) Countering knowledge resistance**

- *science is the way out of the infodemic:* trust in science as the basis of sustainable societal decision-making must be restored through increased confidence-building efforts such as transparent communication of science as a learning system.



- *knowledge resistance must be understood properly*: the mechanisms behind dis- and misinformation and conspiracy beliefs as a growing societal challenge must be analyzed without prejudice and stigmatization.
- *countering the infodemic requires a combined approach*: epistemological, emotional and existential aspects of knowledge resistance must be addressed in shared collaboration and responsibility between public and private actors.

### **(III) Defending the rule of law**

- *rule of law in a state of emergency must be upheld*: despite the severity of the situation, the rule of law must not be compromised and limitations of fundamental rights (such as enshrined in the EU Charter) follow the principles of proportionality, accountability and fair balance.
- *legal remedy against limitations of fundamental rights must be sought within the legal system*: no other legal authority than national courts or the courts of the EU must determine the legality of public measures taken during the COVID-19 pandemic.
- *extrajudicial claims of conflict settlement must be rejected*: despite the gravity of the ongoing crisis, claims to establish systems of parallel justice and extrajudicial prerogative interpretation of legal norms must be rejected.

### **(IV) Ensuring economic stability**

- *Economic stability needs ecological and social stability*: Representatives of politics, business and science must recognize that there can be no long-term economic stability without ecological and social stability.



- *Request for sustainability strategies:* The Federal Government (of Germany) has committed itself in the National Sustainability Strategy that sustainable development should shape policy-making. There is still a lot of catching up to do here also on a Europe-wide level.
- *Reduction of lobbying:* Sustainable development as a policy-shaping concept requires a significant reduction in lobbying.

### **Summary:**

What we need is a scientifically based full evaluation of the pandemic, the measures and the diversity of effects. From a complexity science perspective, it is a multifactorial network with many (nonlinear) feedback loops which has to be developed with support of experts from many disciplines (and actors outside academia). Like climate models we should develop a complex bio-psycho-social model of all concerned processes of the self-organization of (mental) health all over the world. This is not only about epidemiology but about all important factors of health. A closer look at this will reveal that most scientific disciplines have to be included.

### **References**

- Dey, Subbasish and Davidson, Jessie: “The Determinants of Non-COVID-19 Excess Deaths During the COVID-19 Pandemic: A Cross-country Panel Study“, *Studies in Microeconomics* 9(2) 196–226, 2021 DOI: 10.1177/23210222211046412 (accessed 17 December 2021)
- Johns Hopkins University, 2021: “COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE)”, <https://coronavirus.jhu.edu/map.html> (accessed 17 December 2021)
- Kékulé, Alexander, “Der Corona-Kompass. Wie wir mit der Pandemie leben und was wir daraus lernen können”, Ullstein: Berlin 2020, [ISBN 978-3-550-20140-0](https://www.ullstein.de/isbn/9783550201400)
- Leopoldina. National German Academy of Sciences: “Corona virus pandemic: Clear and consequent measures – immediately!”, 27 November 2021, <https://www.leopoldina.org/publikationen/detailansicht/publication/coronavirus-pandemie-klare-und-konsequente-massnahmen-sofort/> (accessed 17 December 2021)
- Mainzer, Klaus, “Leben als Maschine: Wie entschlüsseln wir den Corona-Kode?“, Brill/Mentis: Paderborn 2020. ISBN 978-3-95743-222-3 (paperback), ISBN 978-3-95743-689-4 (e-book).



- MSB (The Swedish Civil Contingency Agency), “Conspiracy theories and COVID-19: The mechanisms behind a rapidly growing societal challenge”, 2021,  
URL:<https://www.msb.se/sv/publikationer/conspiracy-theories-and-covid-19--the-mechanisms-behind-a-rapidly-growing-societal-challenge/?fbclid=IwAR1fLcw839HuLtljrX03WH49Hm3Q9Z66wW38TJQg63-6bb02sbF0n0C98MI> (accessed 17 December 2021).
- National Library of Medicine (US): “Global prevalence and burden of depressive and anxiety disorders in 204 countries and territories in 2020 due to the COVID-19 pandemic“  
[COVID-19 Mental Disorders Collaborators](#). 2021 Nov 6;398(10312):1700-1712. doi: 10.1016/S0140-6736(21)02143-7
- “Science, Reason & Responsibility – Forward thinking for the Post-Corona Era,”  
M. Molls, J. Eberspächer *et al.* (Eds.). TUM Forum Sustainability 2021  
ISBN: 978-3-95884-055-3 e-book: <https://mediatum.ub.tum.de/1578813>
- Trstenjak, Verica, “The Corona Crisis and Fundamental Rights from the Point of View of EU Law” in E. Hondius, M. Santos Silva, A. Nicolussi, P. Salvador Coderch, C. Wendehorst and F. Zoll (eds.), “Coronavirus and the Law in Europe”, Intersentia Online, 2020, URL: <https://www.intersentiaonline.com/library/coronavirus-and-the-law-in-europe> (accessed 17 December 2021).
- WHO, “WHO public health research agenda for managing infodemics”, 2021, <https://www.who.int/publications/i/item/9789240019508> (accessed 17 December 2021).
- Wikforss, Åsa, “Knowledge resistance”, 2021, URL: <https://www.su.se/english/research/research-projects/knowledge-resistance-causes-consequences-and-cures?open-collapse-boxes=research-project-description,research-project-members> and <https://knowledge-resistance.com/the-project/> (accessed 17 December 2021).
- Woolf SH, Chapman DA, Sabo RT, Weinberger DM, Hill L. Excess Deaths From COVID-19 and Other Causes, March-April 2020. JAMA. 2020;324(5):510–513. Doi:10.1001/jama.2020.11787
- Worldometer, 2021: <https://www.worldometers.info/coronavirus/> (accessed 17 December 2021).



**Editorial Group:**

Prof. Dr. Klaus Mainzer (President)

Prof. Dr. Andreas Oennerfors (Dean Class I)

Prof. Dr. Günter Schiepek (Class II)

Prof. Dr. Ursula Schmidt-Erfurth (Vice-president)

Prof. Dr. Kurt Schmoller (Dean Class V)

Prof. Dr. Dusan Suput (Dean Class II)

Prof. Dr. Verica Trstenjak (Class V)

Prof. Dr. Michael von Hauff (Class V)