

## Climate protection, energy transition, pandemic preparedness: Science academies publish statements for the G7 summit

01.06.2022

At the Science7 Dialogue Forum in Berlin on Tuesday, 31 May, the science academies of the G7 states published science-based statements on topics on this year's agenda of the G7 summit at Schloss Elmau. Key topics of the statements prepared under the leadership of the German National Academy of Sciences Leopoldina are the effects of climate change on polar regions and ocean, measures for decarbonisation, the development of antiviral drugs for pandemic preparedness and the need for a One Health approach to address zoonoses and antimicrobial resistance. Earlier in May the group of leading think tanks from the G7 countries – Think7 – handed over key recommendations to the German government as the G7 chair.

The science academies of the G7 states are calling for urgent international action to protect the ocean and polar regions and to accelerate decarbonisation. In the healthcare sector, scientists demand increased global pandemic preparedness and the implementation of a One Health approach, which considers the health of humans, animals, plants and the wider environment as closely linked and interdependent. Their recommendations are set out in four statements which were submitted to the German federal government yesterday at the Science7 Dialogue Forum 2022 in Berlin. The joint recommendations developed by the G7 science academies under the leadership of the German National Academy of Sciences Leopoldina will inform the deliberations of the heads of state and government at the G7 summit, which is taking place at Schloss Elmau in Germany from Sunday, 26 June to Tuesday, 28 June.

Prof. Dr. Gerald Haug, President of the Leopoldina, said when he submitted the four statements to the Head of the German Federal Chancellery, Wolfgang Schmidt:

*"The G7 summit must provide leadership on climate action, the energy transition, global pandemic preparedness and One Health. Our recommendations show the need and make the case for urgent international action. The four topics are interlinked and each considers the Earth system as a whole."*

### Urgent need for coordinated measures to protect the ocean and the cryosphere

The global ocean and the ice and snow regions that make up the cryosphere are changing faster than ever before as a result of global warming. Ice loss has strongly accelerated in both Antarctica and Greenland and the Arctic permafrost is thawing. The seawater is becoming more acidic and warmer and sea levels are rising. Faced with these dramatic developments, the G7 science academies are calling for a substantive reduction in greenhouse gas emissions, global protection of marine ecosystems as well as enhanced international scientific cooperation and data sharing for an Earth observation and forecasting system based on high performance computing.

### Achieving climate neutrality by accelerating decarbonisation

To achieve climate neutrality by 2050 or earlier, decarbonisation is needed in electricity generation, the heating and cooling of buildings, the mobility and transport sector as well as in industry and agriculture. To this end, the G7 science academies recommend building a carbon neutral and resilient energy system, and supporting a just energy transition through the introduction of an international trading system for renewable energy and a global CO<sub>2</sub> pricing mechanism. The risks of climate change also need to be better communicated and carbon-neutral lifestyles promoted.

## Development of antiviral drugs for increased pandemic preparedness

The COVID-19 pandemic demonstrated that the world is insufficiently prepared for pandemics and urgent action is needed to develop new antiviral drugs. The G7 science academies therefore call for long-term support for the development of specific and broad-spectrum antiviral drugs, an international coordination body for clinical studies and improved international coordination in the field of pandemic preparedness.

## A One Health approach to zoonotic diseases and antimicrobial resistance

The disruption of ecosystems fosters the emergence of human pathogens from animal populations and vice versa (zoonotic diseases). Due to increasing antimicrobial resistance (AMR), the antimicrobial drugs (e.g. antibiotics) used to treat infectious diseases are losing effectiveness. To address these complex problems, the G7 science academies recommend a stronger focus on the One Health approach, which considers the health of humans, animals, plants and the wider environment as closely linked and interdependent. They also call for the use of new digital technologies for effective surveillance of zoonoses and AMR and fostering research and development focused on the One Health approach.

## Science7 process

The science academies have been accompanying the annual G7 summits for more than fifteen years. In the run up to each summit, they address scientific agenda-related issues that require multilateral action. As the German National Academy of Sciences, the Leopoldina has been officially mandated by the German government to lead the preparation of science-based policy advice (the Science7 process) as part of the German G7 Presidency this year. The Leopoldina last had this role in 2015.

## Think7 recommendations

At 23 May the group of leading think tanks from the G7 countries – Think7 – handed over their key recommendations to the German government as the G7 chair. The communiqué is the result of the Think7 Summit, which brought together more than 300 researchers from G7 countries and beyond. It summarises around 70 papers by the Think7 presenting policy recommendations for the G7 Summit at Schloss Elmau. Aligned with the priorities of the German government's G7 agenda, Think7 researchers make recommendations for: Strong alliances for a sustainable planet, Setting the course for economic stability and transformation, Enhanced preparedness for healthy lives, Sustainable investments in a better future and a Stronger together.

## Further reading

- Leopoldina (31.05.2022): [Joint statements of the G7 science academies](#)
- Leopoldina: [More information about the G7 process and the advisory role of the science academies](#)
- Think7: [300 researchers publish Communiqué with recommendations for action to G7](#)

Source: Leopoldina, Think7

Editor 01.06.2022 by Tim Mörsch, VDI Technologiezentrum GmbH

Countries / organization: Germany, G7 / G20, Global

Topic: Energy, Life Sciences, Environment & Sustainability

[Back](#)

---