

オープンサイエンスの役割と国際科学協力に関するハイレベル会合概要

日時: 2020年3月30日(月)13:00~16:00(パリ現地時間)

参加者: 210名(122か国、WHOやEU、アフリカ連合など。日本からは日本政府代表部の担当公使が参加)

主なポイント

- ユネスコのアズレー事務局長より、この危機的状況を予防・緩和するため、加盟国政府に、研究成果の公開の推進と科学的協力の強化を行ってほしい旨の発言があった。
- ユネスコでは、昨年11月の総会での決定を受けて、今後2年間で策定することとなっているオープンサイエンスに関するユネスコ勧告の新たな国際基準や、そのために設けられる諮問委員会について議論が展開された。
- 議論のまとめとして、コロナウイルス感染に言及するのみならず、他のサステナビリティのために差し迫った課題に取り組むために、世界規模で団結していこうという強いメッセージが発信された。今後の方向性については、短期的課題と中長期的課題に分けて報告書にまとめられた(別添参照)。



United Nations
Educational, Scientific and
Cultural Organization

Organisation
des Nations Unies
pour l'éducation,
la science et la culture

Organización
de las Naciones Unidas
para la Educación,
la Ciencia y la Cultura

Организация
Объединенных Наций по
вопросам образования,
науки и культуры

منظمة الأمم المتحدة
للتربية والعلم والثقافة

联合国教育、
科学及文化组织

Virtual Ministerial Dialogue

on COVID-19, Open Science and International Scientific Collaboration

30 March 2020

UNESCO, Paris



On 30 March 2020, UNESCO hosted a virtual ministerial dialogue on the role of Open Science and international scientific cooperation in response to the COVID-19 pandemic. For three hours, 210 participants from 122 countries participated in an online dialogue, including the Chief Scientist of the World Health Organization (WHO), the Commissioner for Innovation, Research, Culture, Education, and Youth of the European Union (EU), the Commissioner for Human Resources, Science and Technology of the African Union (AU), and 77 ministers, deputy ministers and State secretaries of science and technology.

The key issue of Open Science, the focus of an international recommendation being developed by UNESCO since November 2019, was a major topic of discussion.

UNESCO Director-General Audrey Azoulay called on governments to reinforce scientific cooperation and integrate Open Science in their research programmes to prevent and mitigate global crises. “The COVID-19 pandemic raises our awareness of the importance of science, both in research and international cooperation. The present crisis also demonstrates the urgency of stepping up information sharing through Open Science. The time has come for us to commit, all together,” the Director-General declared.

All countries are turning to science

Countries shared experiences and lessons learned on how science is informing national decision-making in this global health crisis. For example, they described how scientific advice was informing decisions on measures to prevent and contain the outbreak in their countries and ensure appropriate patient care. Ministers related how they were prioritizing research and innovation, in order to deepen understanding of the virus and develop mitigation strategies.

Ministers reiterated the importance of mobilizing their countries' scientific, social and industrial capabilities to combat the virus. Building on lessons learned, countries described how scientists and industries were working together to produce and launch testing kits as quickly as possible and identify effective candidate materials for drug repositioning. The massive scale of testing observed

in some countries has only been possible because of this cooperation between scientists, decision-makers, industry and civil society.

Unanimous support for sharing scientific information, data and knowledge

Recalling that pandemics extend beyond borders, speakers underscored the value of international scientific cooperation in ensuring widespread and timely data collection and data sharing for evidenced-based policies. Ministers remarked that all nations were dependent on the power of science at a time like this. If any good were to come of the COVID-19 pandemic, they said, it would be the opportunity to unite in finding a solution. The speed with which countries had shared information had positioned the novel coronavirus at the epicentre of borderless scientific research.

Unanimous support for a broader UNESCO Open Science initiative

Many speakers underlined the importance of ensuring that both the scientific community and the general public had timely access to digital tools and technologies. WHO mentioned that it was partnering with tech companies around the world to develop more open source products, including for non-smart mobile phones. WHO was also in the process of setting up a multi-stakeholder repository for intellectual property related to all existing and new technologies on COVID-19. It was suggested that UNESCO collaborate with WHO on Open Science, to help improve access to the scientific knowledge, information and data needed to respond effectively to pandemics.

There was unanimous support for UNESCO to pursue a broader Open Science initiative. UNESCO was urged to use its long-standing normative role promoting international scientific collaboration to boost Open Science in order to reduce the knowledge gap, tackle pandemics, address environmental crises and combat other global threats.

The vital importance of international collaboration and solidarity

To fight this global health crisis, international collaboration and solidarity in all their forms will be vital. Ministers highlighted the value of Open Science in ensuring that information and data were shared in a spirit of solidarity.

Many speakers advocated for the creation of a shared repository of scientific information and data, on clinical trials for instance, and the extension of this repository to cover innovation and industrial and engineering solutions. A suggestion was made to involve existing UNESCO facilities that offer open research infrastructures, technologies and scientific networks (e.g. CERN and SESAME).

There is a need for greater coordination between existing scientific structures (national and regional) for international collaboration. Multidisciplinary and multi-stakeholder Open Science approaches will be crucial to ensure preparedness for future global pandemics, because their complexity calls for a wide range of solutions, from the social sciences, behavioural sciences and data science. With its cross-cutting mandate, UNESCO is well placed to support countries in building comprehensive strategies combining education, social sciences and natural sciences to tackle current and future global challenges.

Call for more investment in a culture of science

There is evidence that those countries which have rapidly contained the pandemic have increased investment in science, technology and innovation (STI) over the past three decades or more. Countries were therefore urged to strengthen their national STI ecosystems to support public-private partnerships for the design and upscaling of solutions and innovations for the benefit of all. They were also encouraged to explore the soft power of science and science diplomacy, taking inspiration from the examples of CERN and SESAME. More investment is required to train and

build the capacities of the next generation of scientists and to build a global critical mass in STEM fields to make science work for all, leaving no-one behind.

Conclusion and next steps

This dialogue sent a strong message of global solidarity, not only to address the COVID-19 pandemic but also to tackle other pressing sustainability issues. The COVID-19 crisis has demonstrated that a true coalition of scientists, working in a spirit of Open Science, is sharing scientific and technological data to manage the pandemic. The ministerial meeting reaffirmed the critical role played by science in containing global threats and ensuring our preparedness for the future. Participants at the meeting called for more international scientific collaboration by boosting Open Science and channelling broad scientific advice and support from the local to the global levels.

The key take-home messages:

In the short term

- Open access to relevant scientific information and datasets should be ensured through the creation of a global open access platform/shared repository for scientific data on COVID-19 and other pandemic research, treatment and prevention.
- UNESCO was called on to bolster a centralized open access portal (repository) for the sharing of scientific data and knowledge.
- Unanimous support was given to UNESCO to coordinate an international Open Science coalition to respond to pandemics, environmental crises and other global threats, and to reduce the knowledge gap.
- UNESCO was called on to establish a forum/platform/network to support cooperation between science ministers by sharing experiences on the current crisis and ways in which to address future crises through scientific knowledge.
- Additional investment in science and innovation and international scientific collaboration should be an imperative for a multidisciplinary approach to the COVID-19 and beyond;
- Open access to relevant digital tools and open source products should be encouraged to enable all segments of the population to obtain the information needed to combat the crisis.
- Policy incentives should be shared and measures taken to ensure science-based decision-making and sharing of information in the event of pandemics.
- UNESCO was called on to launch a multi-sectoral multi-dimensional initiative covering all of the Organization's fields of competence, including education, the social and human sciences and the natural sciences, to assist Member States in fighting the pandemic.

In the medium/long term:

- Participants supported a global pact on Open Science (science as a common good of humanity).
- Participants will support and actively contribute to the consultative and inclusive process led by UNESCO to develop a new international standard-setting instrument, the UNESCO Recommendation on Open Science, due to be adopted by the UNESCO General Conference in 2021.
- Participants supported innovative public-private partnerships for the design and upscaling of solutions and innovation for the benefit of all.
- National and regional STI strategies need to be revised, the science-policy dialogue needs to be strengthened, evidence-based decision-making and science diplomacy need to be reflected in policies.

- The culture of science needs to be enhanced among the general public.
- More investment is needed to train the next generation of scientists and build a global critical mass in STEM.