



## G7 Research Compact

As Open Societies with democratic values we believe in academic freedom. The freedom to pursue intellectual enquiry and to innovate allows us to make progress on shared issues and drive forward the frontiers of knowledge and discovery for the benefit of the entire world. We recognise that research and innovation are fundamentally global endeavours. Nations, citizens, institutions, and businesses have made huge strides forward, not otherwise possible, through open research collaboration across borders. Working together we will use our position as leading science nations to collaborate on global challenges, increase the transparency and integrity of research, and facilitate data free flow with trust to drive innovation and advance knowledge.

### Shared Values

The global response to COVID-19 has demonstrated the progress that arises from long-term collaboration which puts science at the heart of prevention, preparedness, response, recovery and resilience. This progress requires sustained investment in research and supporting infrastructure, including in basic research and high-risk, high-reward undertakings. As our nations and communities start to recover from the pandemic and build resilience for future shocks, we will continue to work with our research and business communities to remove barriers to the open and rapid sharing of knowledge, data and tools, to the greatest extent possible, recognising the importance of research security in particular in cutting-edge fields, and to promote open science and increase open, safe and transparent dissemination of science to citizens, and to strive to minimise technology-related risk.

We can only tackle the greatest challenges that we face and will face over coming decades – such as climate change, pandemics and biodiversity loss – through transparent, open and agile research collaboration. We must bring the widest possible range of resources, expertise and perspectives to bear on solutions which will benefit people across the globe.

We commit to promoting international research cooperation and the conditions of freedom, independence, openness, reciprocity and transparency under which it flourishes. Our governments have the right and responsibility to effectively ensure the security and integrity of the research ecosystem, in partnership with the research community, preventing the theft, misuse and inappropriate exploitation of our intellectual property and personal data, and other forms of misconduct.

We are committed to developing a strong, diverse and resilient science and research community which is inclusive of all groups, as recognised by the Working Group on Financing Science for Inclusive Growth. It is important to deepen participation of underserved, underrepresented and marginalised communities and expand their participation in the research and innovation ecosystem. Inclusion will enhance the strength of our research base and increase momentum on dismantling the social, legal, and regulatory barriers limiting participation, and complementing our G7 gender equality goals by tackling gender gaps. Principles and practices of inclusive growth distribute the benefits of science among diverse communities and regions across the G7 and beyond.

## Actions

Openness, reciprocity and cooperation are shared G7 values. We commit to work together to uphold and protect the principles that underpin effective international collaboration that is as open as possible and as secure as necessary. To facilitate this, we support continued collaboration on Open Science through continuation of the existing G7 Working Group and establishing a new Working Group on the Security and Integrity of the Research Ecosystem. In light of this, the G7 nations commit to work together to:

- Maintain policies, legal frameworks and programmes which promote research collaboration – among our scientists, research institutions and innovative businesses;
- Promote the efficient processing and sharing of research data as openly as possible and as securely as necessary across the G7 and beyond, by improving the availability, sustainability, usability and interoperability of research data, technologies, infrastructure and services. We will work together to address the administrative, legal, and regulatory barriers that hinder our scientific cooperation and slow our ability to respond to crises. A specific case study focussed on data sharing in an emergency will increase our resilience by working through barriers;
- Explore incentives, including enhancements to research assessment that foster recognition and reward collaboration across all disciplines and topics to drive a culture of rapid sharing of knowledge, data, software, code and other research resources. Investigate how open science practices help achieve increasingly robust, reliable and impactful research outcomes;
- As we continue to see the benefits of international collaboration in response to the Covid-19 pandemic, we have a shared aspiration for more flexible and agile research collaborations facilitating rapid, interdisciplinary, and evidence-based responses to future systemic crises and natural disasters across G7 nations and beyond. We will explore how existing and potential new mechanisms and initiatives can support risk reduction, prevention and response to these events;
- The G7 Working Group on the Security and Integrity of the Research Ecosystem will develop a common set of principles which, when implemented, will help to protect the research and innovation ecosystem across the G7 from risks to open and reciprocal research collaboration, and preserve the principles of open science and research freedom and independence. The Group will develop proposals for a virtual academy and toolkit, bringing together and developing the skills and experience of researchers, innovators, business leaders, and policy makers from any nation to develop a shared understanding of research integrity and security. This will embed the behaviours, systems and processes needed to protect valuable knowledge and technology assets where necessary, allowing international collaboration to continue with confidence.