

# Foreword

The *OECD Science, Technology and Innovation Outlook 2021* is the latest in a series that reviews key trends in science, technology and innovation (STI) policy in OECD countries and several major partner economies. This edition focuses on the COVID-19 pandemic, which has triggered an unprecedented mobilisation of the science and innovation communities.

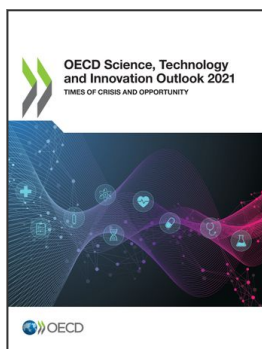
Science and technology offer the only exit strategy from COVID-19: they have been central in informing governments' efforts to limit the virus spread; and they have underpinned the rapid development of effective vaccines in record time. The pandemic has underscored the importance of science and innovation to being both prepared and reactive to upcoming crises.

The pandemic has also stretched research and innovation systems to their limits, revealing gaps that need filling to improve overall system preparedness for future crises. It is a wake-up call that highlights the need to recalibrate STI policies to better equip governments with the instruments and capabilities to point research and innovation efforts towards the long-term goals of sustainability, inclusivity and resiliency.

The eight chapters in this edition of the STI Outlook cover a range of topics, including research system responses to the pandemic, impacts on the research workforce, and likely implications for government support to business research and innovation. The rapid development of COVID-19 vaccines has relied on strong international STI co-operation that offers policy lessons for dealing with other global challenges. It also underscores the fact that national self-interest will most often be best served by international collaboration. Emerging technologies have important roles to play in tackling the pandemic and its impacts, and the STI Outlook considers two such technologies – engineering biology and robotics – that show promise in helping enhance the health resiliency of societies. A final chapter reviews various governance challenges, including the need for governments to renew their policy frameworks and capabilities to fulfil a more ambitious STI policy agenda.

The world is still in the midst of the COVID-19 crisis and there remain many uncertainties that will shape research and innovation systems, and the extent to which these systems can help solve societies' longer-term grand challenges. The STI Outlook provides evidence and analysis that should help policymakers when weighing their options in these times of crisis and opportunity.

This edition of the STI Outlook has a dual format, comprising both this book and a set of topic webpages with supporting content (see <http://oe.cd/sti-outlook>). The STI Outlook team has also built an online monitoring tool of governments' STI policy responses to COVID-19 (<https://stip.oecd.org/covid>) that provides evidence used in this book and beyond.



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