

# The impact of COVID-19 on Irish research and innovation

Survey 1 / 2020



Acadamh Ríoga na hÉireann  
Royal Irish Academy

The purpose of this paper is to help identify immediate impacts of COVID-19 on research processes, as determined by a survey of members of the Royal Irish Academy: world-class researchers who teach and research in the sciences, humanities and social sciences.

The response of the research community to mitigating the health, social and economic destruction wreaked by COVID-19 is critical, in the short, medium and long term. It is important to recognise the contributions that our members and their research teams of fellows and graduate students have made since the crisis developed, in providing expertise and innovative approaches to handling the many challenges to be faced. These contributions have involved efforts relating to diagnoses, contact tracing, developing instrumentation, mathematical modelling and providing informed commentary.

The Royal Irish Academy works to promote the conditions necessary to ensure that Ireland continues to provide the best environment for research and innovation.

We recognise that the government has finite resources with which to ensure that Ireland provides such an environment. In the face of this unprecedented crisis, however, we hope that universities, policymakers, research funders and government will be able to prioritise the long-term survival of Ireland's research capacity and ensure that research and innovation in Ireland continue to thrive. The breadth of the challenge now facing us can only be addressed successfully by leveraging the expertise of our research community.

This will involve considering not only ways to lessen the immediate impact of COVID-19 on research activities, but also the steps that could be taken to address the needs of staff—particularly those on fixed-term contracts linked to research grants, PhD students and early-career researchers—in order to ensure the long-term survival of Ireland's research base.

## Key findings

- Researchers have moved quickly to respond to the changes arising from the closure of campuses and laboratories. For many, the immediate priority has been the provision of online teaching and the delivery of modules, course materials and tutorials via online platforms: a time-consuming but essential endeavour that has allowed students to complete the taught elements of their courses with a minimum of interruption.
- Many researchers report that they have pivoted their research work programmes where possible, moving from an emphasis on fieldwork, data collection and laboratory-based experimental work to data analysis, scientific report writing and preparation of grant proposals. This has allowed them to minimise the impact of the crisis on their research insofar as is possible.
- Natural and life sciences report the greatest impact on research activities arising from the closure of research laboratories and the subsequent pause on experimental work and data collections. Seasonal fieldwork and data collection have similarly paused for many disciplines, such as agri-tech and archaeology.
- Respondents note that the pause on laboratory-based work and fieldwork is a particular problem for PhD students and doctoral fellows in the data-collection phase of their research. Respondents called for the extension of PhD timelines and stipends to account for this period of disruption and for the extra time students will now need to complete their projects.
- Research projects involving longitudinal data that can now not be collected may need to be halted entirely or completely re-imagined.
- The short- to medium-term impact of a temporary pause on laboratory or fieldwork, particularly that funded by external sources, includes the potential loss of research talent where fixed-term projects contracts are tied to individual researchers. In the case of research projects that involve industry partners, some researchers feel it is currently a challenge to keep those partners engaged.

- The likely negative impact of the current restrictions on the research practices and opportunities available to early career researchers—many of whom are on fixed-term contracts—is a major concern. Postponed or cancelled fieldwork or experimental work, lack of access to libraries or archives, cancellation of international scientific conferences are likely to lead to overruns on project times and the submission of PhD theses, and therefore to curtail opportunities to share findings and build international collaborations for early-career researchers.
- Ireland’s capacity to provide costed extensions for fixed-term contract researchers attached to externally funded projects is by far the most immediate concern identified by survey respondents. Respondents note that early-career researchers often have niche expertise invaluable to the completion of the project, the final delivery of which is vital to their career development.
- Researchers are using a mix of tools to support their research. Digital resources such as databases, online repositories, archives, library collections, scientific and scholarly journals, and online meeting tools are amongst the most often cited resources allowing research to continue, and access to such resources is ensuring a continuity of collaboration and contact with team members. Not all primary research and archival materials can be accessed digitally, however, and this has caused difficulties for many research projects, particularly in the humanities and social sciences.
- The ability to pivot to online teaching and research activities, including online classes, webinars, video conferencing, e-project meetings, relies entirely upon access to stable and adequate internet connections. Unsatisfactory access (not just poor bandwidth, but also latency and jitter issues) emerges as a strong concern and is more prominent for, but not limited to, respondents from areas in rural Ireland.

## Looking ahead

The Royal Irish Academy recognises and supports the ongoing discussions by policymakers, research funders and higher-education leadership to identify and explore options to retain the talent pool of researchers, particularly those on fixed-term contracts, and to adopt appropriate and responsive measures to funded research projects where direct adverse impact has occurred.

- Researchers and higher-education institutions are already taking steps to ensure that researchers can continue to conduct their work. Allowing higher-education institutions to enable a phased return to research to continue (for example, a gradual re-opening of research laboratories—even at reduced capacity) should enable Ireland to better maintain its research momentum and position it to help the country respond to the challenges ahead.
- Consideration must be given to how this crisis could affect the careers of early researchers, especially those on precarious fixed-term employment contracts. We must not allow promising research talent to be lost. Funding for costed extensions must be provided to all research funders.
- Investment by the higher-education sector and government in online teaching and learning, online repositories (such as the Digital Repository of Ireland) and databanks, and the upskilling of staff to use new technologies and platforms has provided the necessary baseline structure and know-how to allow teaching and learning and research activities to continue. Investment in these research supports should be accelerated to achieve a parity of access to and quality of such resources across all higher-education institutions and rural Ireland and ensure alignment with best international practice. The current crisis highlights the ways in which the current move towards open access to research being promoted by the European Commission and through Plan S can benefit researchers by giving them greater access to publications.
- Funding sources for the costs of hosting online conferences and events should be introduced so that, where possible, this increasingly popular method of holding environmentally friendly events is allowed

to continue. Online interactions and meetings and virtual events are not, however, a viable substitute in all cases and must not be treated as such.

- Time-sensitive fieldwork and laboratory experiments should be prioritised and enabled to restart as soon as possible.
- Research funders will need to be flexible with researchers in order to minimise the impact of restrictions on their research projects. Researchers who have not been able to use secured external grant funding or to conduct planned activities due to the restrictions should be granted an appropriate extension to complete their work, in consultation with their research funders.

## About the Royal Irish Academy

The Royal Irish Academy promotes and supports excellence in scholarship across the sciences, humanities and social sciences. It is an independent, self-governing body of Ireland's most distinguished and internationally renowned scholars and scientists. The Academy encourages and facilitates scholarly informed debate and discussion on issues of public interest in line with its members' expertise.

For more information on this submission, please contact the Royal Irish Academy, [policy@ria.ie](mailto:policy@ria.ie)

