Annual Statistics on Formal Investigations of Research Misconduct in Ireland - 2016 Calendar Year

The National Forum on Research Integrity[1] ('the National Forum') was established in June 2015. In April 2016, the National Forum agreed to publish an annual consolidated report about formal investigations of research misconduct concluded within its member research performing organisations (RPOs) in the preceding calendar year. The exercise represents the first time in Ireland that data of this nature has been collated centrally and made available to the public. It accords with Action 7.3b in Innovation 2020,[2] Ireland's strategy for research, development and innovation "Agree a process and format for the publication of the outcome of research integrity investigations having regard to existing regulations relating to misconduct and discipline." This approach aligns Ireland with other European countries such as Denmark and Austria, which have established national committees/structures on research integrity, and are in the practice of publishing similar reports.

The National Policy Statement on Ensuring Research Integrity in Ireland[3] adopts the definitions of research misconduct from the OECD document "Best practices for ensuring scientific integrity and preventing misconduct". [4] These are summarised in the table below:

Core "Research Misconduct"	Research practice misconduct
• **Fabrication of data** • **Falsification of data** • **Plagiarism** FFP normally includes: - Selectively excluding data from analysis - Misinterpreting data to obtain desired results (including inappropriate use of statistical methods) - Doctoring images in publications - Producing false data or results under pressure from a sponsor	- Using inappropriate (e.g. harmful or dangerous) research methods - Poor research design - Experimental, analytical, computational errors - Violation of human subject protocols - Abuse of laboratory animals
Data-related misconduct	**Publication-related misconduct**
- Not preserving primary data - Bad data management, storage - Withholding data from the scientific community NB: the above applies to physical research materials too	- Claiming undeserved authorship - Denying authorship to contributors - Artificially proliferating publications - Failure to correct the publication record - Including authors without permission

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[1] http://www.iua.ie/research-innovation/research-integrity/
[2] https://dbei.gov.ie/en/Publications/Publication-files/Innovation-2020.pdf
[3] http://www.iua.ie/wp-content/uploads/2014/06/National-Policy-Statement-on-Ensuring-Research-Integrity-in-Ireland-2014.pdf
[4] http://www.oecd.org/sti/scienceandtechnologypolicy/40188303.pdf

Personal misconduct in the research setting	Financial, and other misconduct
- In appropriate personal behaviour, harassment - Inadequate mentoring, counselling of students - Insensitivity to social or cultural norms	- Peer review abuse e.g. non-disclosure of conflict of interest, unfairly holding up a rival's publication - Misrepresenting credentials or publication record - Misuse of research funds for unauthorised purchases for personal gain - Making an unsubstantiated or malicious misconduct allegation

The National Forum agreed to publish the following information:

- The number of formal research misconduct investigations completed in the preceding calendar year;
- The number of those investigations where the allegations were upheld;
- An overview of the types of misconduct seen in those investigations (as outlined in the table above).

Formal research misconduct investigations are those investigations carried out by the RPO following a preliminary review of allegations made against an individual or individuals. The preliminary review involves checking a) whether the allegations fit within the published definitions of research misconduct as outlined above, b) if the allegations are frivolous, mistaken or malicious and c) if there is sufficient substance to justify a formal investigation. More details on the process can be found in the National Forum's guidance document "Guidelines for the Investigation of Misconduct in Research".[5]

During summer 2017, the National Forum gathered the information outlined in the list above for the calendar year 2016 on a confidential basis from all of the RPOs represented at the Forum. This includes the seven universities, fourteen institutes of technology, the Royal College of Surgeons in Ireland, and Teagasc.[6,7]

The data gathering exercise determined that there were **four** formal investigations concluded in the calendar year 2016 in the RPOs, of which **one** investigation was upheld. The investigations pertained to:
- Fabrication
- Plagiarism
- Publication-Related Misconduct (allegations upheld)
- Financial and Other Misconduct

A number of international examples exist of reported concluded investigations in similar contexts. For example, the Austrian Commission for Research Integrity, established in 2008, in its Annual Report for 2016,[8] reported on eight concluded inquiries, of which four were upheld. The most recent available Annual Report of the Danish Committee on Research Misconduct, from 2010,[9] reported on five concluded investigations, of which none were upheld. In general, the number of cases reported by these entities varies from year to year. It is important to note that both Austria and Denmark invest more in research in Higher Education annually than Ireland. According to the OECD, the annual Higher Education Expenditure on Research and Development (HERD) in Austria and Denmark is $2.92bn and $2.64bn respectively, compared to $861m in Ireland.[10]

The National Forum is pleased to launch this inaugural report. It represents an important step towards improving transparency around the investigation of instances of research misconduct reported within Irish RPOs and provides indications of where particular issues might need to be addressed through strengthened policies and training. The National Forum looks forward to making this report available on an annual basis and acknowledges the support and openness of the RPOs in making available the information within it.

[5] https://www.iua.ie/download/68523/
[6] Note: The Marine Institute joined the Forum in October 2017, after the data gathering exercise was completed.
[7] There are approximately 22,000 researchers (students and staff) across these organisations combined. https://dbei.gov.ie/en/Publications/Publication-files/Survey-of-R-D-in-the-Higher-Education-Sector-2014-2015.pdf
[8] http://www.oeawi.at/downloads/Annual%20Report_en_2016_final.pdf
[9] Formerly the Danish Committees on Scientific Dishonesty, established 1992. https://ufm.dk/filer/publikationer/2011/uvvu_aarsberetning_2010_en/pdf/uvvu_aarsberetning_2010_en.pdf
[10] http://www.oecd-ilibrary.org/science-and-technology/main-science-and-technology-indicators-volume-2017-issue-1/higher-education-expenditure-on-r-amp-d-herd-at-current-prices-and-ppp_msti-v2017-1-table43-en

ABOUT THE NATIONAL RESEARCH INTEGRITY FORUM

The National Forum on Research Integrity ('the National Forum') has its origins in the publication of the "National Policy Statement on Ensuring Research Integrity in Ireland".[2] It was established in June 2015 with representation from research performing organisations, research funders and other stakeholders to ensure continual development and adoption of good practice towards a strengthened approach to ensuring research integrity in Ireland. The Forum is coordinated by the Technological Higher Education Association and the Irish Universities Association and is chaired by Professor Anita Maguire, Vice President for Research & Innovation at University College Cork (UCC). The Deputy Chair is Dr. Jennifer Brennan from the Technological Higher Education Association.

Key responsibilities of the National Forum:
- To support the implementation of research integrity policies and processes in a harmonised manner across the research performers;
- To support national research funders in implementing harmonised research integrity statements in grant conditions and associated audit processes;
- To agree a process and format for the public dissemination of the outcome of research integrity investigations having regard to existing regulations relating to misconduct and discipline in the research-performing organisations, and the Terms and Conditions of grants awarded by the research funding organisations;
- To support the development and roll-out of research integrity training programmes for staff and students in the research performers;
- To monitor international developments and policy in the area of research integrity, and making appropriate recommendations for adjustments in research integrity policy and practice in Ireland;
- To communicate the importance of research integrity to the Irish research community and to the general public.

More information on the members and role of the Forum can be found at http://www.iua.ie/research-innovation/research-integrity/