

**Research Integrity Annual Statement  
1<sup>st</sup> January 2023 – 31<sup>st</sup> December 2023**

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[www.npl.co.uk/contact](http://www.npl.co.uk/contact)

**1. Introduction & key contact information**

**Web address of institutional research integrity page:**

<https://www.npl.co.uk/corporate-information/research-integrity-governance>

**Named contact points for:**

- **Questions/ information on research integrity:**
  - Chief Scientist, [Professor JT Janssen](#)
  - Head of Science, [Professor Bajram Zegiri](#)
  - Head of Metrology, [Professor Richard Brown](#)
  - Director of the Post Graduate Institute, [Professor Richard Burquete](#)
- **Concerns about research integrity or research misconduct:**
  - Please email: [integrity@npl.co.uk](mailto:integrity@npl.co.uk) (Confidential) or [ethics@npl.co.uk](mailto:ethics@npl.co.uk)

**Publication date: February 2024**

Research Integrity is a bedrock for trust in NPL, our impartiality, probity and the rigorous accuracy and reproducibility of our research. Everyone at NPL is required to act with integrity and comply with our code of conduct and our ethics policy. We are committed to the principles of the concordat to support research integrity:

1. upholding the highest standards of rigour and integrity in all aspects of research
2. ensuring that research is conducted according to appropriate ethical, legal and professional frameworks, obligations and standards
3. supporting a research environment that is underpinned by a culture of integrity and based on good governance, best practice, and support for the development of researchers
4. using transparent, timely, robust and fair processes to deal with allegations of research misconduct, should they arise
5. working together to strengthen the integrity of research and to review progress regularly and openly

As the UK's National Metrology Institute, NPL is keen to support [GO Science to implement the Concordat to Support Research Integrity within Government](#).

This statement is publicly made to fulfil the recommendations made by the Concordat for annual reporting on research integrity and covers the period 1<sup>st</sup> January 2023 to 31<sup>st</sup> December 2023. The activities detailed are being undertaken to broaden understanding of research integrity and embed good practice across the organisation. This document is designed to be stand alone, with new developments for the year highlighted in each section, with developments made in previous years that have continued also discussed.

## **2. Promoting high standards of research integrity and positive research culture**

### **2.1. Current systems and culture**

NPL's Assurance Team was expanded in 2023 to include a Senior Data Governance Analyst to bring inhouse data protection support. The new Learning Management System (LMS) completed its launch schedule and successfully integrated what 5 systems previously did into one. These both directly support our standards of Research Integrity and ensure our staff have access to appropriate training and development. The Assurance Team implemented the Three Lines Model, bringing in best practice and simplifying our approach to Assurance ([The Orange Book](#)) resulting in increased stakeholder confidence. Enhancements were made at all three lines and presented at internal Leaders Briefings, including digitising the Quality Management System, improving software quality management and internal auditor training.

In 2023 the Ethics Committee received and considered 8 project proposals that flagged one or more ethical issues in accordance with our ethics policy that needed approval to continue. Of these 8 proposals, 2 projects involved animal tissue, 5 use of human material, and 1 involved human participants as test subjects. Approval was granted and documented for each project.

A paper was presented to the NPL Board in November 2023 by Penny Owen, Director for Environment, Social and Governance (ESG) noting the ongoing work of NPL's Ethics Committee. During 2023 the Ethics Committee appointed two additional volunteer staff representatives, to provide additional perspectives on ethical matters being raised. Links have been made with the Ethics Committees of both Surrey & Strathclyde University to share guidance and sources of information.

In February 2023, the Postgraduate Institute (PGI) published the third edition of the Doctoral Research Supervision Charter [DOI: <https://doi.org/10.47120/npl.9653>]. The charter has been significantly updated and reformatted to emphasise:

- The importance of supervisors being mindful of values such as rigour, transparency, conduct, and support in every aspect of the PhD lifecycle.
- Why research integrity is important to both student and supervisor at NPL through the establishment of a mutually agreed set of guidelines.
- The availability of Resources for supervisors to signpost students towards NPL's webpage on research integrity and the Concordat.

In addition to this update, a cover page specific to NPL has been added which provides direct links to NPL guidance on a variety of key topics including policies around publishing (academic papers) and protecting intellectual property.

### **2.2. Changes and developments during the period under review**

During 2023, an NPL white paper was generated which laid out the rationale behind NPL becoming a signatory of the San Francisco Declaration on Research Assessment (DORA, <https://sfdora.org/>). DORA advocates moving away from the application of hard metrics such as Journal Impact factor and *h*-index in assessing science quality

and in making recruitment and career progression decisions. DORA emphasises a need to apply these metrics in combination with other, more qualitative assessments of outputs. These include broader measures of research output (data sets, software) as well as indicators of impact such as the influence research has on policy or best practice. An over-reliance on bibliometrics is of global interest and has been shown to have potential deleterious impacts on diversity, research integrity and science development. In terms of the internal Governance, the generated white paper was presented to and obtained approval from NPL's Senior Science College. Formal agreement for NPL to become a signatory is anticipated in Q1, 2024. DORA principles will be fed into NPL's recruitment and promotion procedures.

Senior Leaders at NPL received a "Secure Innovation and Trusted Research" presentation from The National Protective Security Authority's (NPSA) newly launched Secure Innovation campaign. This provides security advice that can help UK organisations protect their innovations from day one. The session was an opportunity to learn about NPSA's advice for companies, how the campaign developed and why this issue is so important for UK business. It particularly focussed on newly developed IP and upstream R&D academic activities and how NPL can think about considered control measures.

The Chief Scientist Directorate at NPL initiated a Technical Output Focus Event towards the end of 2023, following on from publication of a new internal policy outlining what is expected from NPL's technical outputs. This policy brings together all existing high-level expectations into one location. The Focus Event will give our scientists a dedicated opportunity to think about how they know the data they produce and disseminate to the user community is correct and put in place actions to further improve the reproducibility of our research. The bulk of this exercise will be conducted in Q1 2024.

### **2.3. External engagement**

- Professor Ian Gilmore remains a member of the UK Committee on Research Integrity (UK CORI): <https://ukcori.org/our-people/>.
- NPL is an institutional member of the Alliance for Data Science Professionals, with four certified members of staff. The Data Science Department is actively encouraging further uptake, particularly amongst new staff.
- NPL remains subscribed to the UK Research Integrity Office (UKRIO)
- NPL remains an affiliate stakeholder of the UK Reproducibility Network.
- Professor Ian Gilmore was appointed to the University of Bristol, Data Integrity and Quality Assurance Board.

### **3. Addressing Research Misconduct**

#### **3.1 Statement on processes**

NPL has policies, procedures and processes embedded in our Quality Management System (QMS) that allow us to effectively deal with allegations of misconduct. All policies and procedures are subject to regular review and are controlled by the Quality Assurance Team. These include but are not limited to:

- Code of Conduct
- Knowledge, Information and Data Management Policy
- Technical Output Policy
- Ethics Policy
- Whistleblowing Procedure
- Bullying and Harassment Procedure
- Grievance Procedure

Staff are encouraged to raise concerns regarding research integrity and can utilise multiple mechanisms to do so, including a dedicated email inbox monitored by the Chief Scientist Directorate.

#### **3.2 The NPL Statement on any formal investigations of research misconduct that have been undertaken.**

A summary is provided in Table 1 showing the number of formal investigations completed in this period and of those, the number which were upheld (either in whole or in part).

**Alleged authorship dispute:** An investigation of potential Research Misconduct, misrepresentation and plagiarism was undertaken by the NPL Head of Science. This concerned an Authorship dispute, with potential violations of the NPL's Code of Conduct and the Laboratory's publications procedure, whose requirements specifically align with the UK Concordat on Research Integrity. The investigation was carried out in accordance with UK Research Integrity Office document "Procedure for the Investigation of misconduct in research" V2.0 and involved interviews with various parties. Although the allegation for Research Misconduct was not upheld the investigation did identify improvements in the internal governance related to the approval of publications which span different NPL Teams which will be addressed in 2024.

**Alleged breach of ethics:** A single Ethical issue was investigated in 2023, instigated by the NPL Ethics Committee in response to an approach from an NPL member of staff. This was the subject of detailed investigation, again through a series of interviews and the analysis of relevant documentation from various sources. The investigation concluded in 2023 and the outcome will be determined in Q1 2024.

NPL confirms that we have fulfilled any requirements to make reports to external bodies, including regulatory and professional bodies, regarding the initiation or completion of a formal investigation.

**Professor JT Janssen  
Chief Scientist  
National Physical Laboratory (NPL)**

**Table 1 Research Integrity Statement – 1<sup>st</sup> January 2023 to 31<sup>st</sup> December 2023**

	Number of allegations for which an investigation has been undertaken	Number of allegations upheld (in whole or in part)
Fabrication	0	0
Falsification	0	0
Plagiarism	0	0
Misrepresentation	0	0
Breach of Ethics	1	0
Breach of Duty of Care	0	0
Authorship disputes	1	0
Other e.g., unprofessional behaviour relating to research misconduct	0	0