

JSP 732 Research Integrity

Part 1: Directive

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Foreword

Placing high quality science, analysis and evidence at the heart of Defence is critical to us making the right decisions and protecting the UK, its territories and its allies. As part of this, the Ministry of Defence is fully committed to operating at the highest national and international ethical research standards, and upholding the values of honesty, rigour, transparency and open communication, care and respect, and accountability in our role as a funder and conductor of research.

Chief Scientific Advisers, Departmental Directors of Analysis and Analysis Function Heads of Profession, signed up to the principles of the <u>Concordat to Support Research Integrity</u> on the recommendation of the Government Chief Scientific Adviser and National Statistician. The Concordat offers guidance to ensure consistent and robust approaches to research across all research providers. This document sets out Defence's approach to implementing the Concordat.

Professor Dame Angela McLean DBE FRS MOD Chief Scientific Adviser

Charlie Pate Director General Finance Functional Owner for Analysis

Preface

How to use this Joint Service Publication (JSP)

1. JSP 732 is intended to set out the principles to which all research across Defence should adhere, provide guidance on how to implement these, and state where to seek further advice to maintain the highest standards of research integrity across Defence: including Top Level Budgets (TLBs), the Front Line Commands (FLCs), and the Ministry of Defence's (MOD's) Enabling Organisations (EOs). It is designed to be used by all those involved in research across Defence, including but not limited to researchers, those supporting researchers, funders of research and sponsors of research. This JSP will be reviewed annually.

2. JSP 732 is intended to build on, and cohere, the existing policies, procedures and good practice found across Defence. It also aims to make it easier to further develop these policies, procedures and best practice by utilising 'Research Champions' to share best practice and mutually agree approaches. This JSP sets out the requirement to annually report on research integrity, cohered by DST in the first year, in collaboration with analysis and 'Research Champions', and in the MOD Annual Report and Accounts (ARAc) thereafter.

3. The JSP is structured in two parts:

a. Part 1 - Directive, which provides the direction that must be followed in accordance with statute or policy mandated by Defence or on Defence by Central Government.

b. Part 2 - Guidance, which provides the guidance and best practice that will assist the user to comply with the directives detailed in Part 1.

4. Part 2 of this JSP is in development and will be released in due course. It will bring together best practice and provide targeted guidance as identified following the release of Part 1.

Coherence with other Policy and Guidance

5. Where this document contains references to policies, publications and other JSPs which are published by other Functions, these Functions have been consulted in the formulation of the policy and guidance detailed in this publication.

Related JSP	Title
JSP 536	Governance of Research Involving Human Participants

Further Advice and Feedback – Contacts

6. The owner of this JSP is the Analysis Function owner, with the MOD CSA and Director of Analysis as the named senior members of staff who oversee research integrity. Defence Science and Technology is the single point of contact for research integrity across MOD. For further information or advice on any aspect of this publication or to provide feedback on the content, contact:

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Definition of Terms Used

7. <u>Research Integrity</u>. While there is no universal definition of research integrity, Research integrity can be another name for 'good research practice'. The UK Concordat for Research Integrity identifies five principles of research integrity: honesty, rigour, transparency and open communication, care and respect, and accountability. The UK Research Integrity Office (UKRIO) has set out its own set of principles for research integrity in its <u>Code of Practice for Research (UKRIO, 2009)</u>, which it states should ensure that research is honest and accurate, and safeguard research participants and those who undertake research.

8. <u>**Research**</u>. For the purposes of this JSP, anything classified as research under the definition of Research used in JSP 536 or under the Frascati Definition (excluding experimental development) falls in scope:

JSP 536 definition of research: The attempt to derive generalisable or transferable new knowledge to answer or refine relevant questions with scientifically sound methods. This definition involves an attempt at generalisability or transferability, i.e. the project deliberately uses methods intended to achieve quantitative or qualitative findings that can be applied to settings or contexts other than those in which they were tested. The actual generalisability or transferability of some research findings may only become apparent once the project has been completed. Projects that are not designed well enough to meet this definition are not exempt from this policy framework.

Frascati R&D is defined as creative work undertaken on a systematic basis to increase the stock of knowledge, and uses this knowledge for the purposes of developing new products (including improved versions or qualities of existing products) or discovering new or more efficient processes of production.

The term R&D covers three types of activity:

• **basic research** – experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts, without any particular application or use in view.

• **applied research** – original investigation undertaken in order to acquire new knowledge. It is, however, directed primarily towards a specific, practical aim or objective.

• **experimental development** – systematic work, drawing on knowledge gained from research and practical experience and producing additional knowledge, which is directed to producing new products or processes or to improving existing products or processes.

For the purposes of this JSP, research that falls under 'experimental development' is out of scope.

9. <u>**Research Champion**</u>. A sufficiently senior (suggested Deputy Director or equivalent) representative for an area or organisation within Defence who is responsible for upholding research integrity within their area, and for providing assurance that the research conducted, sponsored, or funded by their area meets the principles set out in this JSP.

10. <u>**Researcher**</u>. For the purpose of this JSP, a researcher is any person who conducts research, as defined above in paragraph 6. A researcher may be working independently or as part of a team.

11. <u>**Research Sponsor**</u>¹. An individual (normally a representative of the organisation with delegated authority for signing off projects) or organisation that takes on overall responsibility for proportionate, effective arrangements being in place to set up, run and report a research project.

12. <u>**Research Funder**</u>. An individual or organisation that provides funding or joint funding through new or existing budgets or under existing programmes for research as defined above in paragraph 6.

¹ Aligned to the JSP 536 definition of 'Research Sponsor'.

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1 Introduction and Background

Purpose

1. This JSP sets out the Defence specific requirements and expectations to embed the principles for research integrity throughout the MOD. It provides an overarching framework, bringing together existing and new policies in a centralised and coherent manner to provide a comprehensive foundation for research integrity in Defence.

2. Implementation of this JSP will improve and maintain best practice across the Defence research community and provide assurance to the Government Chief Scientific Adviser (GCSA), the National Statistician, and to the public, on the integrity of all research conducted within the Department in line with the principles set out in the <u>Concordat to Support Research</u> Integrity ('the Concordat').

Background

3. A robust policy on research integrity is important to ensure that the MOD research community is working to the standards required across His Majesty's Government (Government) and the academic sector, though we do not want to be seen as merely meeting a minimum standard, we want to be seen as leading from the front. Trustworthy research, evidence and advice are fundamentally necessary to ensure that Defence takes informed decisions, that we spend money wisely, support our personnel, and crucially – that we continue to develop and maintain public trust.

4. While there is no universal definition of research integrity, the Concordat identifies five core principles: <u>honesty</u>, <u>rigour</u>, <u>transparency & open communication</u>, <u>care & respect</u> and <u>accountability</u>. Research integrity, ethical research practices and healthy research cultures are imperative to ensure a diverse and strong knowledge base. This is undermined by research that is of poor quality, is unethical, or is fraudulent, fabricated, or plagiarised. Future research that draws upon flawed knowledge will be similarly flawed, further undermining the credibility of the MOD's research community.

5. The Concordat provides a national framework for good research conduct and its governance. Committing to its principles provides a focus for Government to develop new policies and to review existing policies, ensuring consistent and robust approaches are in place. The five principles are broadly in line with the civil service code and so it is expected that all civil servants should already be upholding these values, through learning and development and line management conversations. These principles are also in line with the Royal Navy, British Army and Royal Air Force Core Values.

6. On the recommendation of the GCSA, departmental CSAs have signed up to the principles of the Concordat for the forms of scientific research undertaken within and for their departments. Similarly, on the recommendation of the National Statistician, Departmental Directors of Analysis (DDANs) and Analysis Function (AF) Heads of Profession have signed up to the principles of the Concordat for the forms of research conducted by their professions.

7. Implementing aspects of the Concordat also contributes to Departments meeting professional expectations, such as those set out in the Government Functional Standard for Analysis to support well-informed decision making, to deliver better outcomes and improve the lives of citizens.

8. In signing up to the principles of the Concordat, whilst not being bound by legislation, CSAs, DDANs and AF Heads of Profession must nevertheless demonstrate a commitment to promoting and upholding the principles of reliable and honest research, and each department is required to report annually on progress.

Scope

9. This JSP must be applied by anyone at all stages and for all disciplines employed by Defence (including Service Personnel, MOD civil servants, UK civilians or foreign nationals) involved in any research (as defined in paragraph 6) to be conducted in the UK, overseas, or on operations, where the research is to be undertaken, funded, or sponsored either wholly or in part by MOD. This includes, but is not limited to, researchers, those supporting researchers, and funders/sponsors of research. <u>Any questions on scope should be referred to local research champions in the first instance.</u>

10. Where MOD- or partially MOD-funded research is being conducted within a university or other research institution which is implementing the Concordat, it is expected that the requirements set out in this JSP will complement the university or institution's own integrity, ethics and governance processes. Personnel involved in such research arrangements should follow the requirements as set out in this JSP, being mindful of the requirements in the university or institution. Personnel will be required to report within the MOD under this JSP, however reference to the institution's own annual statement will be required and MOD retains accountability for research it funds, irrespective of where it is conducted.

11. Where MOD- or partially MOD-funded research is being conducted internationally, or by a UK entity which is <u>not implementing the Concordat</u>, it is expected that the principles of research integrity and expected standards should be appropriately set out in formal international agreements, Memoranda of Understanding, Project Agreements, or contracts.

12. No monetary value or limit is suggested for a research project to be within scope, as this will vary considerably between projects.

13. An official's legal obligations, and compliance with the law, would take precedence over the requirements of the Concordat or this JSP.

14. The Concordat does not take precedence over topic and profession-specific guidance and standards, for example set out in the Government Functional Standard for Analysis, and the Government Social Research Code. In most cases however, the application of the Concordat is in full alignment with the standards and practices set out in these documents.

15. External research that is used by the MOD, but has not been funded, sponsored, or conducted by the MOD, is <u>not in scope</u> but users should remain aware of the risks of utilising research which may not meet the same standards set out by the MOD.

16. The direction and guidance in this policy is for all future research, and for 'current' research to which it can be applied without causing substantive problems to commercial and/or contractual agreements².

² For example, it does not apply to multi-study research that already commissioned and contracted with external suppliers.

Implementation

17. Implementation of this policy will be directed by Research Champions with the support of Defence Science & Technology (DST) and the Analysis Function. Research Champions must report on the progress of implementation of this JSP through a DST collated report in the first year, and in the MOD ARAc thereafter. This will provide assurance as to the effectiveness of implementation and the integrity of Defence research.

18. Additionally, CSA and Director of Analysis will annually review the implementation of this JSP with Research Champions.

2 Research Integrity Overview

Principles for Research Integrity

1. All those in scope of this JSP are expected to observe and uphold the highest standards of integrity, honesty, and professionalism in respect of their own actions and in their responses to the actions of others.

2. In line with commitment 1 of the Concordat³ and the Civil Service Code, all those in scope of this JSP are expected to follow the principles of the concordat and practice:

a. <u>Honesty</u> when proposing, conducting, reporting, and defending research, including in presentation of research goals, intentions, and findings; in reporting on research methods and procedures; in using and acknowledging the work of other researchers; and in conveying valid interpretations and making justifiable claims based on research findings.

b. <u>Rigour</u> in line with prevailing profession and departmental standards and policies; in performing research and adopting justifiable methods; and in drawing interpretations and conclusions from the research.

C. <u>Transparency & open communication</u> in declaring potential competing interests; in the reporting of research data collection methods; in the scientific analysis and interpretation of data; and in appropriate disclosure for scientific, analytic, and ethical scrutiny, bearing in mind Government security considerations.

d. <u>Care & respect</u> for all participants in research, and for the subjects, users, and beneficiaries of research, including humans, animals, the environment, and cultural objects. Those engaged with research must also show care and respect for the integrity of the research record.

e. <u>Accountability</u> of funders, employers, and researchers to collectively create a research environment in which individuals and organisations are empowered and enabled to own the research process. Those engaged with research must also ensure that individuals and organisations are held to account when behaviour falls short of the standards set by this JSP.

Research Culture and Conduct

3. Maintaining the highest standards of research integrity requires the right environment. The MOD is committed to the ongoing development of a culture that supports and nurtures such standards.

4. It is imperative that any research conducted ensures that the principles of diversity and inclusion are adhered to. Increasing inclusivity and the diversity of those conducting, contributing to, or participating in research will bring in more varied perspectives, leading to stronger, more relevant research outcomes. Research must be open to all and make an active effort to drive diversity and inclusion.

³ A commitment to uphold the highest standards of rigour and integrity in all aspects of research.

5. Research misconduct is characterised as behaviours or actions that fall short of the standards of ethics, research and scholarship required to ensure that the integrity of research is upheld. Allegations of research misconduct are rare but if not addressed appropriately, risk causing harm to MOD personnel, and to the environment in which we operate, waste resources, undermine the MOD's research record and damage the credibility of the MOD's research.

6. Where misconduct hasn't taken place but there are honest errors or differences in, for example, research methodology or interpretations, these should be responded to, where appropriate, with training and cooperation from supervisors rather than through misconduct procedures.

3 Responsibilities

1. In line with Commitment 3 of the Concordat⁴, all those involved in research and in scope of this JSP have a responsibility to embed a culture that encourages good practice and supports knowledge sharing on the subject of research integrity, including through the undertaking of relevant training.

Responsibilities of the MOD CSA and MOD Director of Analysis

2. The MOD CSA and MOD Director of Analysis will provide direction on Research Integrity and hold the department to account. They will work with Research Champions to identify and develop research integrity best practice, and seek opportunities to share this through external engagement.

3. CSA and Director of Analysis will work together with Research Champions to strengthen the integrity of research and regularly and openly review progress of research integrity, in their areas and across the department, through the DTIB, as per commitment 5 of the Concordat⁵.

Responsibilities of each TLB, FLC and EO within MOD

4. Each TLB, FLC, and EO must designate a sufficiently senior (Suggested Deputy Director or equivalent) representative for Research Integrity ('Research Champion') who has the ability to effect change within their area and report on activities related to research integrity.

5. A list of Research Champions will be held centrally, and maintained by DST, for all staff to know who the champion is for their area.

Responsibilities of Research Champions

6. Research Champions are expected to promote and embed research integrity within their area in line with the direction set by CSA and Director of Analysis, and are responsible for providing assurance that the research conducted, sponsored, or funded by their area meets the principles set out in this JSP through annual reporting.

7. Research Champions must ensure that those in scope of this JSP under their designated area are supported to deliver their research in line with the principles of research integrity, to deliver their research in an inclusive manner, to challenge ideas, and to stay abreast of any changes in the regulatory environment to ensure compliance with relevant ethical, legal, and professional frameworks, obligations, and standards, as per Commitment 2 of the Concordat⁶.

8. Research Champions must ensure the appropriate systems are in place in their area, as per Commitment 4 of the Concordat⁷, through clear, well-articulated policies to address

⁴ A commitment to 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.

⁵ A commitment to work together to strengthen the integrity of research and to reviewing progress regularly and openly.

⁶ A commitment to ensure that research is conducted according to appropriate ethical, legal, and professional frameworks, obligations, and standards.

⁷ A commitment to use transparent, timely, robust, and fair processes to deal with allegations of research misconduct when they arise.

confidential reporting for allegations of research misconduct, investigating infractions and handling disputes. This may involve the creation of new policies and procedures, amendments to existing relevant procedures or aiding in the development of central policies. All researchers and relevant staff members must be made aware of these procedures and the support that they can offer.

Responsibilities of Researchers, those Supporting Researchers and Funders/Sponsors of Research

9. All researchers, those supporting researchers and funders/sponsors of research are responsible for ensuring their research is conducted, funded or sponsors in line with the principles of research integrity.

10. All researchers, those supporting researchers and funders/sponsors of research are responsible for ensuring their research is appropriately inclusive.

11. All researchers, those supporting researchers and funders/sponsors of research are responsible for ensuring their research is secure, in line with appropriate security policies alongside any other relevant JSPs, law or frameworks.

12. All researchers, those supporting researchers and funders/sponsors of research are responsible for classifying their research appropriately and considering the potential implication and applications of their research in the long term when doing so, to ensure a strategic advantage can be maintained.

Openness and Transparency

1. MOD must be as open and transparent as possible with publicly funded research, which should be free to access wherever possible, and released promptly and in a way that promotes public trust.

Open Science Principles

2. When research is conducted, funded, or sponsored, open science principles should be adhered to, as much as is consistent with security considerations, across the entire research lifecycle. While there is no formal agreed set of open science principles across all of research, they are generally about increasing the rigour, accountability, and reproducibility of research, as well as working to promote inclusion, collaboration, and information-sharing.

3. It is hoped that by, when possible, embracing open science principles, this will help to reduce bias, improve transparency, and foster greater public confidence in the work of government.

Disseminating Research and Knowledge Management

4. All researchers must consider the dissemination of their research both within and outside of Defence and government, in line with internal policies and procedures where relevant.

5. All research conducted, funded, or sponsored by MOD should aim by default to be shared externally and at the earliest appropriate point to maximise transparency, accessibility, and value for money **inasmuch as such actions are consistent with security considerations**. This should be in accordance with permission to publish policies and with all relevant professional standards, such as the <u>Government Social Research</u> <u>Publication Protocol</u>. External sharing of research could be via academic publication or release on gov.uk.

6. <u>However, neither the Concordat nor this JSP supersede UK law</u>. In the event that transparency requirements under the Concordat or this JSP are inconsistent with UK law, compliance with the law will have priority. Relevant statutes, areas of law and legal obligations include: the Official Secrets Acts 1911 and 1989, the Freedom of Information Act 2000 and the Constitutional Reform and Governance Act 2010; Intellectual Property law; and contractual obligations of the Ministry of Defence. Where inconsistencies with the law are identified, or the application of the law is uncertain, seek legal advice.

7. Other reasons why it may not be possible to publish research conducted funded or sponsored by MOD include but are not limited to:

a. security or national security considerations or restrictions, often reflected by the classification of the research.

- b. commercial confidentiality.
- c. non-disclosure agreements.
- d. ongoing investigations or legal proceedings.

e. where the research relates to the formulation or development of government policy.

f. data-sharing limitations or constraints associated with sharing research securely including value for money.

8. Where external publication of research is not possible due to the reasons given above, <u>MOD must document the reasons internally and Research Champions should be consulted</u>. In addition to documenting the reasons for restricting publication, the research should still be made available to the largest community possible. As a minimum, MOD must ensure that there is a record of research having been conducted, subject to security considerations, justifying the level of access we allow.

9. Maintenance of good records management standards, and integration where possible, is essential so that the research can be retrieved and reused or referenced within MOD. This will ensure value for money, prevent duplication of research, and increase transparency where appropriate.

10. To facilitate both successful external or internal dissemination of research, MOD has mandated in the <u>Defence and Security Industrial Strategy (DSIS</u>) that all MOD funded research proposals include a research publication strategy that contains, as appropriate: a commitment to publish research externally and whether this will be open access, how publication will be resourced in terms of cost and time for write up and publication administration, internal publication plans, and an explanation for why internal and/or external publication is not possible.