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Project title:	Initiative to Support, Promote and Integrate Researchers at Risk in Europe PLUS
Call identifier:	H2020-MSCA-2021-R-01-01
Work package:	WP2
Deliverable:	D2.4_Interactive Training 2 for Researchers at Risk
Title of training	Research ethics and integrity while conducting research
Date of training:	22 June 2023
Number of attendees:	23
Weblink:	<u>https://sareurope.eu/events/understanding-research-integrity-and-</u> ethics-for-researchers-at-risk/
Due date:	30 June 2023
Submission date:	3 July 2023





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Training held: 22 June. 2023

Weblink:

https://sareurope.eu/events/understanding-research-integrity-and-ethics-for-researchers-at-risk/

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#### Training Workshop 2 – Research ethics and integrity while conducting research

Date: 22 June 2023

Time: 10am - 11:30am CET (1.5 hours)

Trainer: Dr Julia Mouatt, Research and Development Manager, University of Auckland

#### Participants: 23

- Gender split: the group of 23 participants consisted of 11 women (47.83%) and 12 men (52.17%)
- Countries of origin: The participants were originally from Afghanistan (10), Ukraine (7), Ethiopia (2), Syria (1), Palestine (1) and Myanmar (1)
- Career stage: R1 (2), R2 (9), R3 (11), R4 (1)
- Disciplines using the Frascati Manual: Social Sciences (12), Natural Sciences (7), Engineering and Technology (2), Medical and health sciences (1), Humanities and the arts (1).

#### **Selection Process**

- For this second interactive training, invitations were shared with current clients and recent alumni of programmes assisting researchers and scholars in Europe (PAUSE, PSI, SAR, Cara, SRF). Invitations were shared by each partner or associate partner with researchers from their own list of researcher-clients following baseline criteria as advised by the trainer. Programmes (PAUSE, PSI, SAR, Cara, SRF) were asked to reach out to current clients and recent alumni in Europe using the following criteria as guidance:
  - Stage of career the trainer has said that the content should be applicable to researchers at all career stages and disciplines but to target the following as a priority group:
  - early career researchers, ideally those who have been at a European institution for less than 2 years.
  - Gender split if possible, a balance in gender split though this will be narrowed down at the final stage.
  - Language participants will need to have a level of English that allows them to be part of group discussions.
- This approach will be modified for future trainings and all partners will be asked to share a short survey with researchers they are assisting, detailing the remaining trainings for the project, and asking researchers to rank the top 3 training choices. This would then be used to inform future training invites.
- In line with general interactive training practice a target group of 20-30 participants was aimed for in order to balance access and opportunity with focused attention and in-depth seminar-style engagement.
- 28 participants were identified and confirmed by organisations providing direct support to researchers at risk for this training through a direct nomination process to Cara. The number of participants on the day was 23.





- The number of participants was based on direct suggestion from the trainer who has extensive experience in delivering interactive training sessions. 20-30 participants was the suggested number, with 23 being the final number of attendees.
- Based on the learnings from the first two training sessions, a waiting list will be implemented to ensure all places are taken up if there are last minute drop outs.
- In line with the Grant Agreement the aim is for all interested clients (researchers at risk) supported by partner organisations within the consortium to have opportunity participate in at least 1 interactive training over the 3-year project. For the in-person training associated with the project's annual platform if there is more interest than space allows, priority will be given to researchers in Germany for Berlin-based training, and researchers in France for the Paris-based training.
- Data gathered from training registrants included: personal data needed for the purposes of logistics of training registration (email, name, contact number); country of origin, gender; ideas for topics to address in future interactive trainings; researchers' career level; discipline, broad research field.

#### Format

- The interactive training was held online in a group format led by an experienced trainer. The format prioritised interactive and direct participation by each attendee and allowed for attention to individual queries and contexts. The training was not recorded in order to encourage robust and unfiltered participation by all attendees and in consideration of the security of each scholar. This format was arrived at based upon previous experience shared by organisations within the consortium experienced in organising trainings and workshops for researchers at risk, including based on feedback from participants following past events. Further reaffirming this decision, one participant asked at the beginning of the session for the trainer to confirm that the session would not be recorded.
- This format allowed all questions to be answered throughout the session, allowed for sufficient time for polls to be conducted and ensured enough time for follow-up questions at the end of the session.

#### Торіс

- The topic provided an opportunity for specific and interactive follow-up training following the Inspireurope+ public webinar held in April 2023 on 'Understanding Research Ethics and Integrity for Researchers at Risk'. The webinar took a broader approach to this topic listed under D2.4 in the GA, whilst the interactive training session focussed on the topic in the context of conducting research, ensuring it was applicable to all researchers regardless of discipline.
- The trainer, Dr Julia Mouatt, is the Research Development Manager at the University of Auckland, New Zealand. Prior to this, Julia worked with peer review training at Clarivate and was part of the Web of Science senior editorial leadership team continuing with researcher training with a focus on research integrity and peer review.

#### **Agenda Overview**

The session was intended for researchers at risk to provide them with information and guidance on research integrity, covering four main areas:

1. Why research integrity is important.





Initial discussion introduced the importance of research integrity while conducting research, looking at questionable practices, unintentional misconduct, intentional misconduct and serious misconduct and fraud.

2. Research Data

Discussion moved onto what is research data and the various forms it can take and explored a research data management plan, giving an example of a research data management plan template. The trainer went through all components of a research data management plan.

3. Collaborations and authorship

The trainer opened up conversation on the importance of establishing every collaborator's role and authorship expectations at the beginning of a research study.

4. Misconduct

The main body of the session concluded with a discussion on what researchers should do if they come across or suspect misconduct or fraud.

#### Polls

Three polls were conducted throughout to help guide the session. See Annex A.

#### Q&A

The final part of the session was dedicated to any questions participants had that had not already been answered. Questions that were asked [paraphrased here for clarity]:

- 1. What resources are best for understanding research ethics? Are there specific publications that can be recommended?
- 2. Is it ethical to pursue research that involves people who could be at risk if they participate? How can this be mitigated?
- 3. If you know for certain that misconduct has occurred, do you have to speak to the person directly involved first or can you go directly to report this to the relevant authorities?
- 4. How often should you undertake research ethics training?
- 5. Can I share unpublished manuscripts with colleagues?

#### Observations

- Ph.D. and postdoctoral participants were often hesitant to ask questions verbally; most participants asked questions via the chat function.
- Questions at the end of the session were only asked by more early career researchers (R2 or below).

#### **Summary points**

- Several participants were interested in further resources and guidelines on research ethics and integrity.
- Participants requested the trainer's slides be shared with them, and specifically asked about the data management plan template.





#### **Evaluation/Feedback**

• Feedback forms were sent out to all participants. The form template can be found in Annex B. There were four responses. 1 participant categorised the training as 'Excellent' and three participants as 'Very good'.

#### Participant guide and resource list

• Researchers were provided with the slides from the session, including links to useful resources and guidance on data management plans.





### Research ethics and integrity while conducting research

#### 22 June 2023

Dr Julia Mouatt Researcher Development Manager University of Auckland, New Zealand



### **Overview**

- 1. Short Introduction
- 2. Why Research Integrity is Important
- 3. What is Research Data?
- 4. Research Data Management Plans
- 5. Collaborations and Authorship
- 6. What to do if you suspect misconduct?
- 7. Recap & summary
- 8. Questions?



#### **1. Short introduction**

- Quick summary of my background
- What does my current role entail?













#### **2. Why Research Integrity is Important**

- Research builds upon other published research
- Responsibility to tax payers/funders
- Minimize waste of resources (time, funding)
- Building and maintaining trust in science
- Uphold the integrity of the publication record
- Supports replicable and reproducible research





### 2. Why Research Integrity is Important

A breach in research ethics and integrity can damage your reputation and career and the reputation of your institution.

Most breaches in ethics and integrity is due to lack of awareness and education in responsible conduct of research.





#### **2. Why Research Integrity is Important**

- Questionable practices
  - Changing hypothesis/research question to fit results
  - Data dredging (p-hacking) to make your data significant
- Unintentional misconduct
  - Not getting ethics permits before commencing study
- Intentional misconduct
  - Ghost/guest authorship
- Serious misconduct and fraud
  - Falsifying or fabricating data





## **3. What is Research Data?**

"the evidence that underpin the answers to research questions and can be used to validate findings"

- Print, digital, physical format
- Interview/survey responses, medical records, audio/visual recordings, maps, observations, images, spreadsheets...
- Differ across disciplines
- Unique to each research project

AGCCCGTGTGAGGCTCCCTC AGCCCGTGTGAGGCTCCCTC AGCCCGTGTGAGGCTCCCTC AGCCCATGTGAAGCTCCCTC **IGCTCATGTGAAGCTCCCTC FGCTCATGTGAAGCTCCCTC IGCTCATGTGAAGCTCCCTC IGCTCATGTGAAGCTCCCTC IGCTCATGTGAAGCTCCCT** GCCCGTGTGACGCTCCCT GCCCATGTGACGCTCCCT GCCCGTGTGAGGCTCCCT GCCCGTGTGAGGCTCCCTC GCCCATGTGAAGCTCC 12 CCCCATCTCAAGCTCC



## **3. What is Research Data?**

Data can be in various forms:

- Raw or primary data (how it was collected/measured)
- Derived from primary data (cleaned up or extracted from a larger data set)
  - Pre- or post analysis/interpretation
- Derived from existing sources (published data)





## **3. What is Research Data?**

Some data is sensitive and needs to be protected:

- Personal details
- Indigenous data sovereignty
- Data can be de-identified by removing any identifiable information or coded





What is a research data management plan?

- Plan for collecting, storing, analysing, sharing, publishing, and long-term storing of data
- Who owns the data?
- Might be a requirement from funders and/or ethics committees to have a research data management plan





A research data management plan would usually contain fields for:

- Ethics
- Data governance
- Data collection
- Publishing
- Data discovery





A research data management plan would usually contain fields for:

- <u>Ethics</u>: Ethics requirements, approvals, and plans for managing potential ethics, privacy, and security issues.
- <u>Data governance</u>: Roles and responsibilities for managing research data.
- <u>Data collection</u>: How data will be collected, organized, stored, accessed by contributors, and how it will eventually be destroyed or preserved.





A research data management plan would usually contain fields for:

- <u>Publishing</u>: Whether or not the data will be published, what license it will be published under, and who owns copyright and intellectual property.
- <u>Data discovery</u>: Relevant metadata and documentation that will accompany the data to ensure it is findable and reusable.





Example of a Research Data Management Plan template from the University of Auckland

Plan & Design

B.1 Project title and abstract



#### Data Management Plan (DMP)

This DMP template (https://doi.org/10.17608/k6.auckland.7268720) is supported by a companion DMP guide (https://doi.org/10.17608/k6.auckland.7268729).

#### Dates

A. Dates			
DMP form created	DMP form last updated	Project start	Project end
DD/MM/YEAR	DD/MM/YEAR	DD/MM/YEAR	DD/MM/YEAR or Ongoing

#### Plan & Design

B1. Project	
Title	
Project abstract	
Field of research FOR code calculator or keywords	See guide



Example of a Research Data Management Plan template from the University of Auckland

Plan & Design

**B.2** Project contributors

B.3 Funding

B.4 Ethics & Privacy

B2. Project Contributors					
Name	Role	Dept.,Faculty / Institute	Email	Username	ORCID
See guide					See guide / Format: http://orcid.or g/0000-000x- xxxx-xxxx
Use tab to add row					
B3. Project Funding					
Funding agency(s)	See guide				
Funding ID(s)	See guide				
B4. Ethics & Privacy					
Do you have ethics requirements? If yes (human or animal), provide a link(s) to Ethics submission, and ID no.	Yes/No, not applicable.				
JoA_DMP_template_v04	1				:



Example of a Research Data Management Plan template from the University of Auckland

Plan & Design

B.4 Ethics & Privacy cont.

<ul> <li>How will you manage ethics issues?</li> <li>Do you have consent for data preservation, sharing or publishing?</li> <li>How will you protect the identity of participants if required?</li> <li>How will you securely store and transfer sensitive data?</li> <li>How will Māori data be subject to Māori governance?</li> <li>If necessary, how will you ensure your data is destroyed appropriately?</li> </ul>	See guide	
Consider other data privacy and security issues. • What are the risks to your data security? • How they will be managed? • How will access be controlled? • Are there formal standards to comply with? • How will Māori data be subject to Māori governance?	See guide	



Example of a Research Data Management Plan template from the University of Auckland

Plan & Design

B.5 Policies & Guidance

B.6 Responsibilities & Resources

B5. Policies & Guidance	
Check related policies and document actionable points.	See guide
B6. Responsibilities & Re	sources
<ul> <li>Who will be responsible for data management?</li> <li>Who is responsible for implementing, reviewing and revising the DMP?</li> <li>Will data ownership and responsibilities be part of any consortium agreement or contract agreed between partners?</li> <li>Who has long-term data stewardship?</li> </ul>	See guide
Consider the skills, support and resources you may require to deliver your plan? • Is additional specialist expertise/training required? • Do you require hardware or software in addition to	See guide



Example of a Research Data Management Plan template from the University of Auckland

Create & Collect

C.1 Data organization

#### **Create & Collect**

C1. Data Organisation (	Collection/Creation, File Management, Storage Locations)
<ul> <li>What data will you create/collect?</li> <li>Give a brief description of your data including existing data or third-party sources.</li> <li>What is the type, format and volume of the data?</li> </ul>	See guide
How will the data be collected/created? This includes equipment and processes such as calibration, repeat samples or measurements, standardised data capture or recording, data entry validation, peer review of data or representation with controlled vocabularies.	See guide
What non-digital data/physical assets will you create/collect? • Where will the non-digital data/assets be stored?	See guide



Example of a Research Data Management Plan template from the University of Auckland

Create & Collect

C.1 Data organization cont.

How will the data be organised? Consider: file and folder naming conventions; version control; folder structures; creating a structured database – schema, tables and relationships	
<ul> <li>How will the data be stored and backed up during the research?</li> <li>Do you have sufficient storage?</li> <li>Will you need to request additional storage services?</li> <li>Where do you intend to store your data?</li> <li>How will the data be backed up (how often, how many copies, location of backups, by whom)?</li> </ul>	See guide



Example of a Research Data Management Plan template from the University of Auckland

Create & Collect

C.2 Sharing & Access Control

C2. Sha	aring & A	ccess Control
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Do you have sensitive data?

UoA\_DMP\_template\_2018\_v04

University of Auckland Data Management Plan (DMP)





Example of a Research Data Management Plan template from the University of Auckland

Discover & Reuse

D.1 Metadata & Documentation

#### Discover & Reuse

D1. Metadata & Docume	ntation
<ul> <li>What documentation and metadata will accompany the data to support its discovery, use and increase impact?</li> <li>What information is needed for the data to be read and interpreted in the future?</li> <li>How will you create this documentation and metadata?</li> <li>Where will it be recorded?</li> <li>What metadata standards will you use and why?</li> <li>The actual documentation and metadata will likely reside elsewhere. Provides link(s) to your metadata files.</li> </ul>	See guide
Spatial extent or location of data origin:	See guide
Temporal extent: If applicable, state the period(s) of time over which your data is associated.	See guide



Example of a Research Data Management Plan template from the University of Auckland

Publish & Report

E.1 IP/copyright

#### **Publish & Report**

E1. intellectual property rights (Including Copyright)		
Copyright and other IP a appropriate)	re owned/held by:	(select as
The University of Auckland (normal situation for research undertaken by University staff)	Yes / No	
The student (in the normal course of study, which does not fall into the other categories.)	Yes / No	
Joint ownership (copyright and IP ownership are held by more than one person or organization)	Yes / No	
If yes, state the relationships, agreements and relative rights to use, store, publish and re-use the data.		
	E1. intellectual property Copyright and other IP a appropriate) The University of Auckland (normal situation for research undertaken by University staff) The student (in the normal course of study, which does not fall into the other categories.) Joint ownership (copyright and IP ownership are held by more than one person or organization) If yes, state the relationships, agreements and relative rights to use, store, publish and re-use the data.	E1. intellectual property rights (Including Copyright)         Copyright and other IP are owned/held by: appropriate)         The University of Auckland (normal situation for research undertaken by University staff)         The student (in the normal course of study, which does not fall into the other categories.)       Yes / No         Joint ownership (copyright and IP ownership are held by more than one person or organization)       Yes / No         If yes, state the relationships, agreements and relative rights to use, store, publish and re-use the data.       Yes / No



Example of a Research Data Management Plan template from the University of Auckland

Publish & Report

E.1 IP/copyright cont.

E.2 Publishing

Third party data	Yes / No
(data owned by third party or generated under UniServices agreements)	
If yes, state the relationships, agreements and relative rights to use, store, publish and re-use the data.	
I do not know and I need to find out.	
Document actions and progress.	

E2. Publishing Your Research Data	
Outline how data will be prepared and where it will be published.	See guide
Licensing Consider which licence(s) are suitable for your data when you decide to make it publicly available.	See guide



Example of a Research Data Management Plan template from the University of Auckland

Publish & Report

E.3 Retention & Disposal

E3. Retention & Disposal		
Data must be retained after submission of thesis or publication of results for a minimum of: (select)		
6 years (standard minimum retention after last publication based on data)	Yes / No	
10 years (for medical research involving clinical trials from the end of the trial)	Yes / No	
Until patient reaches 26 years of age, and at least 10 after last treatment (for clinical research involving children)	Yes / No	
21 years from the date of filing a patent related to this research	Yes / No	
Other specified time	DD/MM/YEAR	
Based on the above, data must be kept until at least	DD/MM/YEAR	
Preferred method of data disposal/destruction		



Example of a Research Data Management Plan template from the University of Auckland

Publish & Report

E.4 Archival

E4. Long-term Archive / Preservation (20+years, if applicable)		
Do you think your data will be of long-term value and/or irreplaceable (to society/culture/ environment)?		
<ul> <li>What is the long-term preservation plan for the dataset?</li> <li>How will your datasets be preserved and curated beyond the project lifetime?</li> <li>Will you deposit your data / use a data repository?</li> <li>Are there likely areas of risk (e.g., proprietary formats)?</li> </ul>		

DCC. (2013). Checklist for a Data Management Plan. v.4.0. Edinburgh: Digital Curation Centre. Available online: <a href="http://www.dcc.ac.uk/resources/data-management-plans">http://www.dcc.ac.uk/resources/data-management-plans</a>



Tips for **organizing and describing** your research data:

- <u>Naming and organizing files</u> to help you and your collaborators find your data files and understand its contents
- <u>Describing research data with README</u> helps explain the background of a research project and for others to understand the data
- <u>Research metadata</u> make your data more discoverable, reusable, reproducible, and verifiable
- <u>Version control</u> keep track of files and data as they change over time





Plan for **responsible storage** of your research data to:

- Reduce data loss from human or technical errors
- Ensure you meet legislative, funder, and institutional requirements
- Ensure you meet data sovereignty or sensitive data requirements (if they apply)
- Assist your collaborators to access the data





Choosing the right **storage options** for your research data:

- How much data will be collected/created?
- Do you require access off campus?
- Do you require access once/if you leave your institution?
- Who else needs access to the data?
- Are you working with sensitive/confidential data?
- Does the option include automatic back ups?
  - How long can they be retrieved for?





Choosing the right **storage options** for your research data:

- <u>Institutional research drives</u> Data storage hosted on-site, backed up regularly, suitable for sensitive data. Ideal for actively used data which changes frequently. Sharing access with internal University members is easy.
- <u>External drives e.g dropbox</u> Ideal for collaborating with people outside the University.





Determine at the very beginning of the planning of the research:

- The role that each and everyone will play
- Who will have authorship (and who will be acknowledged)
- If applicable (varies by discipline) the order of authorship on any publications stemming from the research





What constitutes authorship?

Larger studies will often have multiple authors who fill various roles around:

- 1. Concept and/or design of the study
- 2. Sample and/or data collection
- 3. Data analysis and interpretation
- 4. Writing up and revising the work





To be an author on a published piece of work you would have provided a **significant intellectual contribution** and are **accountable for the accuracy and integrity of the work** 

Journals and institutions have various guidelines around what constitutes authorship





<u>Ghost authorship</u> – when someone who has contributed significantly is left out of the author list

<u>Gift authorship</u> – when someone is included in the authors list without having contributed significantly





## 6. What to do if you suspect misconduct?

- Speak to the person involved to see if it is just a misunderstanding
- Seek advice from your immediate supervisor/academic advisor or mentor
- Seek advice from to your institution's ethics and integrity team





Research ethics and integrity is important because:

- 1. Builds trust in science and the publication record
- 2. Minimizes waste of resources
- 3. Supports reproducible and replicable research



Research data is:

- 1. Unique
- 2. Takes many formats and forms
- 3. Some data is sensitive and needs to be protected



Data management plans help researchers be responsible with their data when:

- 1. Collecting
- 2. Storing
- 3. Analysing
- 4. Sharing
- 5. Publishing



Data management plans are important as researchers have a responsibility to:

- 1. The public
- 2. Funders
- 3. Publishers
- 4. Institution
- 5. Collaborators

to be able to access, retrieve, and share their data (including raw data) at any stage during the conducting of the research and many years after the research has been published.



Every collaborator's role and authorship expectations should be determined at the beginning of a research study.

All authors of a published work need to have contributed a significant amount intellectually.



If you come across or suspect misconduct or fraud you can:

- 1. Make sure it is not just a misunderstanding or unintentional by talking to the people involved
- 2. Seek assistance from someone at your institution



#### Resources

- COPE <u>https://publicationethics.org/</u>
- Web of Science <u>https://clarivate.com/products/scientific-and-academic-research/research-discovery-and-workflow-solutions/webofscience-platform/</u>
- EMBO <u>https://www.embo.org/policy/research-integrity/resources-</u> to-foster-research-integrity/



Thank you for listening!

<u>Contact:</u> <u>Julia.Vilstrup.Mouatt@auckland.ac.nz</u> or <u>researcherdevelopment@auckland.ac.nz</u>



Annex A: Polls conducted during session.



Poll 1: Do you think it is important to maintain high levels of integrity while conducting research?



Poll 2: Do you know what a research data management plan is?





Poll 3: Have you been involved in an authorship dispute?



#### Inviting Feedback: Training on Research Integrity

The Inspireurope+ project would welcome your feedback on our interactive training on research integrity, held on 22 June 2023.

Please note that your responses to this evaluation are strictly confidential and anonymous. If you have questions, please contact <u>inspireurope@mu.ie</u>

\* Required

- 1. Overall, how would you rate this interactive training?
  - Excellent
    Very good
    Good
  - ) Fair
  - ) Poor

2. Do you have any improvements to suggest for future interactive trainings?

- 3. Was the interactive training too long, too short, or about the right length of time? \*
  - Too long



Too short

- 4. Did the interactive training advance your knowledge about research integrity? \*
  - Yes
    No
    Other
- 5. What additional information, if any, would you have found helpful?

6. Do you have suggestions for future interactive training topics for researchers at risk in Europe?

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