

# Outline of measures regarding Good Research Practice at BIFOLD

## Introduction

Good research practice (GRP) is fundamental to all areas of research; particularly so in an excellence driven research institution such as BIFOLD to fulfill the high expectations for reliable and reproducible results and to strengthen confidence in research as a whole. BIFOLD is committed to leading by example in this regard.

In 2011, the European Code of Conduct for Research Integrity was developed by All European Academies (ALLEA) and the European Science Foundation with principles for good research practices. Since the Deutsche Forschungsgemeinschaft (DFG) published its Code "Guidelines for Good Research Practices" and put them into force on August 1, 2019, all universities must implement the Code's guidelines in a legally binding manner in order to receive funding from the DFG. BIFOLD, as part of the TU Berlin, is therefore legally bound to these "Guidelines for Good Research Practices". Based on these principles, BIFOLD will enact projects and measures to foster GRP within the institute and among its researchers.

## Objectives

- 1) BIFOLD adheres to the standards of reproducibility and open science and will foster the use of reproducibility & open science among its members.
- 2) BIFOLD will develop and publish guidelines for GRP. These guidelines will enable non-discriminatory research designs and technologies based on ethical principles which will set obligatory standards for all its members.
- 3) BIFOLD will offer GRP training for its researchers at all career stages, placing additional focus on requirements particular to the fields of Machine Learning (ML) and Database Management (DM).
- 4) Two Persons of Trust will be introduced at BIFOLD, who can be contacted for confidential counseling in cases of research and ethical misconduct. They will offer low-threshold consultation.
- 5) The Persons of Trust will integrate to form a network with other actors both at the university and in Berlin. If there is concrete evidence of severe unethical behavior or violation of the standards of good research practice, they will hand the case over to the institutional Ombudspersons of TU Berlin.

## Planned Projects/ Measures

To achieve these objectives, BIFOLD proposes the following measures, which will be implemented starting in 2024:

### Development of Guidelines for Good Research Practice, fostering knowledge on GRP, especially Reproducibility and Open Science

- Based on the “Guidelines for Good Research Practice” published by the DFG and adopted by the Academic Senate of the TU Berlin, as well as The European Code of Conduct for Research Integrity, BIFOLD will develop guidelines with standards for GRP adapted to the field of AI research. For this purpose partner institutions with expertise in the societal dimensions of AI will be addressed, e.g. the Weizenbaum Institute.
- These guidelines will be circulated and are to be published on the BIFOLD website.
- BIFOLD will offer seminars & workshops on Good Research Practice for all its researchers either alone or in cooperation with other institutions. This includes:
  - A set of slides on Good Research Practice will be developed, which can be used for onboarding of new BIFOLD members or inhouse courses.
  - Mandatory inhouse courses for BIFOLD PhD candidates, which will be given annually by all senior and junior research group leaders in turn.
  - Training for researchers supervising PhD candidates on how to implement GRP into their supervision.
  - Anti-bias workshops will be offered to foster awareness for fair research designs in DM and ML (See also Plan for Gender Equality & Diversity at BIFOLD).
- To strengthen organized research data management, BIFOLD will advance its activities toward the implementation of a collaborative research infrastructure.

### Creating a BIFOLD contact point for GRP (Ombudsperson)

- The BIFOLD Persons of Trust (see Diversity plan) will also act as contact persons in cases of alleged research misconduct or misuse of power.
  - The Persons of Trust will receive training on how to proceed in cases of conflict and research misconduct. A good starting point for information on the work packages of Ombudspersons is the [Toolbox for Ombudspersons in Berlin](#).
- BIFOLD strives to guarantee the following conditions for the work of the Persons of Trust:
  - The Persons of Trust can be contacted by members of every status group working at BIFOLD as well as BIFOLD Fellows.
  - The Persons of Trust are independent and are not obliged to give accounts of their work to the institute directors or any other BIFOLD member.
  - The Persons of Trust are impartial; in the case of conflicts of interest, they will ask each other for support or another Ombudsperson at TU Berlin will step in.

- The Persons of Trust will help with confidential counseling in cases of conflict or alleged research misconduct. The information shared during a counseling session can only be shared with others or used further if the person seeking advice gives consent. The information needs to be anonymized before it is shared with others or archived.
- The aim of the internal BIFOLD Persons of Trust should always be to mediate in order to find solutions for a conflict at an early stage and without immediately involving central actors (like the TU-Ombudspersons).
- Where necessary, the Persons of Trust will cooperate with the two general Ombudspersons of TU Berlin (Prof. Dr. Gabriele Steidl und Prof. Dr. Jens Kurreck) or the national [Ombudspersons of the DFG](#).
- When there is concrete evidence of unethical behavior or violation of the standards of good research practice, the Ombudspersons will have to hand over the case to the investigating committee of TU Berlin. TU Berlin has regulated this process in “Ausführungsvorschriften zur guten wissenschaftlichen Praxis”, (published by the president of TU Berlin on May 30, 2023) by the Academic Senate of TU Berlin.

### **Adhering to ethical standards, developing unbiased and non-discriminatory technologies**

BIFOLD sees the adherence to ethical standards in research and the development of foundations for unbiased and non-discriminatory technologies as core principles:

- BIFOLD will establish a process to identify research projects that touch upon ethical or safety issues (e.g. concerning a possible bias in medical data or the usage of a real data environment in safety research) and will implement accompanying measures for critical projects.
- For ethically critical research projects BIFOLD will collaborate with actors like the ethics committee at faculty IV at TU Berlin or the Max Planck Gesellschaft to establish individual documented procedures of control and approval, to which the research projects can refer to in publications.
- BIFOLD will establish a “Responsible AI” program, which will offer external researchers the opportunity to work at BIFOLD on a responsible AI-specific project. The topic of each project will be set after discussion between the BIFOLD Directors and the participants, with publication as the end goal. A project can but does not have to include a cooperation partner from civil society, an organization or the public sector.