

# **Code of Good Research Practice at Institute for Nanomaterials, Advanced Technologies and Innovation**

**Technical University of Liberec  
Institute for Nanomaterials, Advanced Technologies and Innovation  
Studentská 1402/2  
461 17 Liberec 1**

Terms:

CxI employee - is a CxI worker who has an employment contract with CxI signed via TUL.

R&D&I worker - is an CxI employee categorized in C and B<sup>1</sup> groups thus participating within specified workload in R&D&I activities.

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<sup>1</sup> Definition as per Internal Wage Regulation of TUL



## Preamble

1. The Code of Good Research Practice at the Institute for Nanomaterials, Advanced Technologies and Innovation (hereinafter referred to as "Code" and "Cxl") formulates the constitutive requirements for ethical behavior at Cxl in activities related to scientific, research, development, innovation and other creative activities (hereinafter referred to as "R&D&I activities").
2. The Code is based on conventional and generally accepted ethical standards commonly recognized in the research area within the European Union and developed countries, taking into account specific nature of particular R&D&I activities.
3. The Code is obligatory for all Cxl scientific and research workers (hereinafter referred to as "R&D&I worker"). The individual provisions apply to other Cxl employees, employees and students of other parts of the Technical University of Liberec (hereinafter referred to as "TUL"), who cooperate and participate in R&D&I activities of Cxl accordingly.
4. Provisions in the Code formulated explicitly for the Cxl research areas apply in an appropriate manner to the specific R&D&I activities pursued at Cxl.
5. Within R&D&I activities, Cxl employee adheres to the Cxl and TUL internal standards and regulations.
6. Procedures related to the administrative activities are regulated by the Code of Good Administrative Practice at Cxl.

## Part I. R&D&I worker

1. R&D&I worker always prioritizes and performs R&D&I activities in accordance with the Cxl research areas and specialization of the research departments as a tool to increase the level of knowledge for the benefit of Cxl, TUL and society, at the same time as a means of active self-education, contribution and support of the quality of scientific work, publishing and development of R&D&I activities as well as individual R&D&I workers.
2. R&D&I worker within R&D&I activities:
  - i. considers it natural to make available the results of own R&D&I activities, publishing and other related activities, always with regard to the level of confidentiality of the publication, i.e. the conditions allowing full or limited publication;
  - ii. is responsible for the quality and credibility of the results of own R&D&I activities, publishing and other related activities;
  - iii. respects in the acquisition, storage and use of research data and results the rules stipulated by the internal standards and regulations of Cxl and TUL;



- iv. presents a personal example in complying with ethical principles within R&D&I activities to other CxI employees and other employees and students of TUL.
3. With regard to own R&D&I activities at CxI and within their implementation, R&D&I worker shall perceive personal responsibility for:
    - i. choice of R&D&I activities in view of pursued specialization, scientific field and specified focus of particular research areas and research departments of CxI, strategy of CxI and long-term strategic plan of TUL;
    - ii. contribution to the development of personal scientific profile and contribution to the development of scientific knowledge in general, particularly if the area of R&D&I activity is already explored;
    - iii. professionalism, ethical behavior, perspectivity and impartiality in R&D&I activities, adequacy of the choice of research methodology, use of laboratory equipment, compliance with health and safety regulations;
    - iv. verification, comparability and reproducibility of obtained R&D&I results;
    - v. correctness of the procedures for further processing of R&D&I results, including the appropriate method of data archiving in CxI or TUL repositories, respecting higher-level regulations stipulating data archiving;
    - vi. interpretation of own R&D&I results, correctness, consideration and impartiality towards the results of other R&D&I workers;
    - vii. pursuance of the ethically correct research, respect of equality, gender balance and dimension<sup>2</sup> and adherence to the relevant internationally recognized standards;
    - viii. choice of R&D&I activities with regard to the adequacy of the costs incurred in comparison with the expected benefits of the results achieved;
    - ix. effective use of financial and human resources and technical and laboratory infrastructure of CxI.
  4. R&D&I worker shall respect the principles of collegial behavior:
    - i. follows the principles of collegial behavior towards CxI co-workers, other R&D&I workers and the professional community, i.e. respects their personalities, the right to express an independent professional opinion and the right to freely choose own approach to R&D&I activities, provided such choice is in accordance with standards in particular scientific area and the Code;
    - ii. rejects any form of discrimination based on nationality, citizenship, gender, race, color, ethnic or social origin, genetic characteristics, language, religion or beliefs, political or other opinions, national minority, property, disability, age or sexual

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<sup>2</sup> Gender dimension in the context of R&D&I activities means the integration of findings about the influence of gender (biological and socio-cultural factors) on research practice in order to create comprehensive and excellent knowledge, relevant technologies and responsible innovations for the new markets and higher quality of life.



- orientation, or manifestation of pressure based, for example, on bossing at the workplace;
- iii. does not exercise the position of false collegiality consisting in tolerance of cases of violation of the general moral principles, internal standards and regulations of CxI and TUL and the rules stipulated by the Code.
5. R&D&I worker shall not behave inappropriately and shall not engage in unacceptable practices, in particular:
- i. does not disseminate misleading information, does not damage the good name of colleagues, CxI co-workers, other R&D&I workers and the professional community, at the same time does not knowingly engage in manipulative behavior, falsification, counterfeiting or distortion of R&D&I results, plagiarism in publishing activities or plagiarism in the concept, implementation or evaluation of R&D&I activities or in submitting final reports on R&D&I results;
  - ii. does not violate ethical rules related to the respecting of intellectual property rights;
  - iii. does not succumb to personal, commercial or political pressures, in case of conflict of interest, shall personally draw attention to the fact;
  - iv. does not damage the good name of CxI and TUL itself, during the employment contract with TUL as well as after its termination;
  - v. disseminates the principles of the Code, R&D&I worker in the managerial position supports compliance with the rules of the Code.

## **Part II. Teamwork**

1. The ethical and moral duty of R&D&I worker is to contribute with own education, know-how, approach and work commitment to the results of the whole team, teamwork is the basis of R&D&I activities at CxI.
2. R&D&I worker, as a member of the research team, recognizes equality, gender balance, religious and racial impartiality and mental, material and practical contributions of other team members.
3. R&D&I worker participates in the individual R&D&I activities of the work team, implements and further develops them. Within R&D&I activities, while participating in the team, shall contribute in particular by:
  - i. pragmatic approach to the solution, processing, evaluation and transfer of R&D&I results to other team members;
  - ii. factual and critical attitude towards own results and the results of the work team;
  - iii. effort and openness to a pragmatic and constructive discussion of own results and the results of the work team;
  - iv. respecting the views and comments of other members of the work team;



- v. collegiality, esteem and respect for the expertise of individual team members, willingness to involve workers of various professions and expertise from all career stages, including students.

### **Part III. Planning, preparation and implementation of projects and grants, contract research and commercial activities**

1. In the process of planning, preparation and implementation of projects and grants (hereinafter referred to as "projects"), contract research and commercial activities at CxI, R&D&I worker is obliged in particular to:
  - i. use generally accepted and socially correct procedures in submitting and acquiring external and internal projects, contract research and commercial activities;
  - ii. be responsible for the effective planning of the financial budget for external and internal projects, contract research and commercial activities, specify and develop clear and controllable rules and mechanisms for its use;
  - iii. specify and adhere to the rules and fair relations with other project managers, co-managers, partners from the academic and commercial spheres during the joint solution of projects, contract research and commercial activities;
  - iv. prevent conflicts with fund providers during the period of implementation, completion and sustainability of the projects, always adequately resolve any conflicts concerning R&D&I workers personally or R&D&I activities of the work team.

### **Part IV. Rules for publication of R&D&I results**

1. R&D&I worker or the entire work team when dealing with R&D&I results (e.g. research reports, inventions, patents, utilities and industrial designs, publications, professional and media presentations, etc.) are obliged to comply with the contractual provisions of CxI partners and TUL itself, to comply with conditions of the providers, copyright laws and other rules for publishing and dissemination of R&D&I results according to the customs and established procedures and rules at CxI or TUL within the academic and commercial spheres.
2. R&D&I worker shall base the distribution of the authorship share of R&D&I results upon the objective assessment of the personal contribution as well as the contribution of co-authors or the whole work team. In particular, shall consider creative contribution and the level of participation, i.e. the authorship of the idea, creation, design and implementation, as essential preconditions for results to be achieved and published.
3. R&D&I worker or the entire work team ensure the publication of results and the transfer of knowledge in good faith so as to increase the number of quality results and the application of CxI and TUL results in practice.



4. Within the publication and transfer of the results, R&D&I worker considers it natural to:
  - i. be responsible for the veracity and correctness of the data while describing the results achieved and presented;
  - ii. review the significance and necessity of the use of all literary and information sources and citations in cases, where it is obligatory to cite all used sources rigorously;
  - iii. make a correction, amendment, prepare an Erratum on the basis of subsequent finding of erroneous data, results or interpretations in the presented and published results;
  - iv. objectively evaluate the benefits of publishing the results taking into account own expertise and the expertise of CxI, focus of its research areas and research departments.
5. For publication of the results, R&D&I worker shall select journals and conferences with regard to the professional focus, quality and credibility of those in such a way as to avoid publication in so-called 'predatory journals or predatory conferences'<sup>3</sup>.

## **Part V. Principles of loyalty to CxI and TUL**

1. R&D&I worker adheres to the principles of loyalty to CxI and the entire TUL. Loyalty in this context means respecting the institution as the place to work, to achieve R&D&I results, to use technical and personnel background, i.e. acknowledging that the results obtained by R&D&I activities at CxI or TUL are part of CxI or TUL respectively.
2. Results provided to the third parties for the personal benefit of R&D&I worker is considered to be disloyal and immoral act.

## **Part VI. Approach to the results, data and information obtained at CxI**

1. Results, data and information achieved by R&D&I activities at CxI are treated as sensitively and carefully as personal data, i.e. always in such a way as to minimize the possibility of their misuse, to preserve their confidentiality and eliminate the possibility of disclosure to the third parties without the approval of CxI or TUL management.
2. R&D&I worker uses the results, data, provided information and CxI information systems exclusively for the purpose of increasing the quality of R&D&I activities at CxI or TUL.

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<sup>3</sup> Predatory journals and predatory conferences make it possible to publish the R&D&I results through a questionable business model that allows, in exchange for financial contribution, to publish articles without thorough revision, quality and legitimacy control of presented results, citation and plagiarism control, etc., and without allowing for editorial and publishing services standardly provided by legitimate scientific journals and conferences.



3. R&D&I worker, in particular at the position of project manager, co-manager, key person in the projects, contract research or commercial activities, or other members of the work teams who have access to the results, data and information databases, always respect the requirements of GDPR in accordance with the provisions stipulated in the internal legislation of CxI and TUL and also in accordance with generally binding legal regulations.

## **Part VII. Violation of the provisions of the Code**

1. Proceeding with R&D&I worker in the event of a breach of the Code is pursued in accordance with the internal standards and regulations of TUL. According to the Code of Ethics for Employees and Students of TUL, violations of TUL standards and regulations by an employee are judged by the ethics committee, and violations by students judged by the disciplinary committee. Violations, regulation of which is not included in the Code of Ethics for Employees and Students of TUL, are resolved by the Director of CxI, in disputable cases with obligatory presence of the Ombudsman of CxI.

