

| CRediT - term and definition English | examples to illustrate the definition in the context of our research field |
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| Conceptualization | |
| <i>Ideas; formulation or evolution of overarching research goals and aims.</i> | <ul style="list-style-type: none"> • formulation of objectives or methods/approaches to be used, • definition of specifications, • hypothesis formulation, • conceptual modelling (e.g. scientific modelling, data/information modelling, system modelling) |
| Data Curation | |
| <i>Management activities to annotate (produce metadata), scrub data and maintain research data (including software code, where it is necessary for interpreting the data itself) for initial use and later re-use.</i> | <ul style="list-style-type: none"> • selection of an pre-existing data model (otherwise, use the 'Methodology' category), • organisation/structuring of data, • metadata creation, • data cleaning/selection, • data conversion/formatting or reformatting |
| Formal Analysis | |
| <i>Application of statistical, mathematical, computational, or other formal techniques to analyse or synthesize study data.</i> | <ul style="list-style-type: none"> • statistical analysis, • formal analysis – where the context and concepts are defined comprehensively and precisely, • data analysis and interpretation, • DataViz (use/exploitation of graphical representation of data and information to gain the insight). |
| Funding Acquisition | |
| <i>Acquisition of the financial support for the project leading to this publication.</i> | <ul style="list-style-type: none"> • individuals/persons who obtained funding for the publication • in the case of funding through an incentive programme, name the local project manager <p>Potential funders (who provide financial or technical support) should be mentioned in the 'Acknowledgements' section of a publication.</p> |
| Investigation | |
| <i>Conducting a research and investigation process, specifically performing the experiments, or data/evidence collection.</i> | <ul style="list-style-type: none"> • collection/acquisition of new data (information based on human testimony, desk-based research or fieldwork), • conducting the research process, • conducting/executing experiments |
| Methodology | |
| <i>Development or design of methodology; creation of models.</i> | <ul style="list-style-type: none"> • development of protocols, • elaboration, design/adaptation of statistical methods or models |

| Project Administration | |
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| <i>Management and coordination responsibility for the research activity planning and execution.</i> | <ul style="list-style-type: none"> • administrative project management, • project coordination |
| Resources | |
| <i>Provision of study materials, reagents, materials, patients, laboratory samples, animals, instrumentation, computing resources, or other analysis tools.</i> | <ul style="list-style-type: none"> • provision of data (input data), instruments, materials, samples, • provision of “computational resources” (intranet, VPN, security, backup, etc.) and IT equipment |
| Software | |
| <i>Programming, software development; designing computer programs; implementation of the computer code and supporting algorithms; testing of existing code components.</i> | <ul style="list-style-type: none"> • people involved in the ‘development pipeline’ (algorithmics, pseudocode, code implementation, etc.), • people involved in the tests of existing components |
| Supervision | |
| <i>Oversight and leadership responsibility for the research activity planning and execution, including mentorship external to the core team.</i> | <ul style="list-style-type: none"> • effective management of staff, • steering/monitoring/control of actions, • guidance and orientation given to staff |
| Validation | |
| <i>Verification, whether as a part of the activity or separate, of the overall replication/reproducibility of results/experiments and other research outputs.</i> | <ul style="list-style-type: none"> • procedures for evaluating results, • repetition, replication of results |
| Visualization | |
| <i>Preparation, creation and/or presentation of the published work, specifically visualization/data presentation.</i> | <ul style="list-style-type: none"> • composition/creation of presentation elements - graphic elements, figures, data tables, diagrams, • formatting of visual layout, • bibliography formatting, text formatting, typography (index, table of contents) |

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| Writing - Original Draft Preparation | |
| <i>Preparation, creation and/or presentation of the published work, specifically writing the initial draft (including substantive translation).</i> | <ul style="list-style-type: none"> • preparing the document structure, • compiling the state of knowledge and bibliography, • writing the original text – summary, method, evaluation, argumentation |
| Writing – Review & Editing | |
| <i>Preparation, creation and/or presentation of the published work by those from the original research group, specifically critical review, commentary or revision – including pre- or post-publication stages.</i> | <ul style="list-style-type: none"> • writing, proofreading, corrections (content and meaning, clarification, stylistic corrections, text harmonisation, etc.), • amendment/modification of bibliographical references, • external proofreading or editing (content, meaning) (does not apply to editors/reviewers participating in the evaluation of the document in a journal or at a conference), • external translation ('secondary responsibility' of the content) • The use of LLM must be mentioned in the form of a comment added at the bottom of the CRediT note, specifying its role and nature (e.g. AI-generated/assisted translation from French to English (the name and version of the AI tool used)). |

The CRediT text should be extended to include remarks concerning the use of artificial intelligence tools in any stage of research (conceptualisation, data preparation, research, writing, etc.). In accordance with the COPE statement on AI tools (COPE Council 2023), AI tools – which cannot be held responsible for the integrity, originality or validity of published work – cannot be credited as authors. The author(s) must describe the content created or modified with the help of artificial intelligence tools and cite the name and version of the AI tool used.

Standard tools used to improve spelling and grammar are not included in the parameters of this guideline.