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**ARISE2 Project proposal template**

Applicants should independently prepare and submit an original proposal to develop new or improve existing methods or technologies, which can be applied to different scientific questions of other researchers as a service and integrated into Research Infrastructures.

The project should be relevant to the field(s) of the group(s) they are interested in. The proposed project should not be of local interest only, but have sufficient potential for international transfer. The proposal should, whenever possible, foresee how the developed technology will simplify or even automate FAIR data management for users[[1]](#footnote-1), throughout the data life cycle.

Applicants are required to contact the groups of their choice before submitting the proposal to get an overview of their field of work and current activities of the groups, and to discuss their idea for new method / technology development with the group or team leader(s). The EMBL groups participating in the 2025 call [are available here](https://www.embl.org/training/arise2/#vf-tabs__section-hosts).

In drafting the proposal, applicants must follow the structure outlined below and use the following formatting:

Arial, font size 11, margins (2.0 cm side, 1.5 cm top and bottom), single line spacing.

**Structure of the proposal**

* Proposal Name; Candidate Name; GTL(s) contacted; Partner Organisation chosen
* Abstract (max. 2,000 characters including spaces). This will not count towards the page limit
* Keywords for technology and life science fields
* Proposal description:

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Please ensure that sections 1-5 below do not exceed the limit of **5 pages**. It is up to the applicant to decide how many pages to allocate to each section within the page limit.

Section 1. Background, proposed project & its implementation

Section 2: Expected results & their impact

Section 3: Service to be offered

Section 4: Consideration of FAIR principals

Section 5: Ethics

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* Gantt chart
* References
* Ethics self-assessment

In the template, the instructions are in italics and should be deleted prior to submitting.

To submit, you should:

* Save your project proposal as a PDF
* Upload the final document to the application portal

**Proposal Name**

**Candidate Name**

**GTL(s) contacted**

**Partner Organisation chosen**

**ABSTRACT**

*Please provide a short summary (max. 2,000 characters with spaces) to explain in lay language your proposal (main objectives & how they will be achieved).*

*The abstract might be used in communication process with interested parties, so please do not include any confidential information.*

**KEYWORDS**

*Please select up to 3 keywords for the Technology fields and 3 keywords for the Life Science fields:*

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| **Technology fields** | **Life Science fields** |
| AI and machine learning | Agriculture |
| Automation | Biochemistry |
| Bioinformatics | Bioinformatics research |
| (Bio)chemical engineering | Biophysics |
| Biotechnology | Cancer biology |
| Cheminformatics | Cell biology |
| Chemistry and chemical biology | Chemical biology |
| Computational biology | Computational biology |
| Computational modelling | Computational phenotyping |
| Data integration | Developmental biology |
| Data management | Disease modelling |
| Data science and big data | Drug design |
| Data standards | Environmental biology |
| Detector development | Epigenetics |
| Epigenomics | Evolutionary biology |
| Flow cytometry | Genetics |
| Genomics | Genome biology |
| Genetic Engineering | Immunology |
| High-precision mechanics | Infection biology |
| Image analysis | Microbiology |
| Imaging (incl. microscopy) | Molecular biology |
| Information retrieval & relevance ranking | Neurobiology |
| Metabolomics | Planetary biology |
| Microfluidics | Proteomics |
| Molecular biology | Structural biology |
| Omics technologies | Systems biology |
| Optical instrumentation development | Tissue biology |
| Proteomics | Tissue engineering |
| Recombinant protein production | Translational research |
| Robotics and automation | Virology |
| Software development |  |
| Synthetic biology |  |
| Transcriptomics |  |
| X-ray optics |  |

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1. **Background, proposed project & its implementation**

*In this section, please provide a detailed description of the scientific and technical aspects of the proposal, demonstrating the originality and novelty of the proposed method/technology. Specifically, you should:*

* *Provide an overview of the proposal. Discuss the state-of-the-art. Specify the objectives of the proposal, in the context of the state-of-the- art in the field. It should be indicated how and why the proposed work is important for the field. Specify any particularly challenging or unconventional aspects of the proposal, including multi- or interdisciplinary aspects (if relevant).*
* *Describe the work plan and methodology of the planned work.*
* *List the EMBL group(s) you envision to develop the proposed technology with and how your project would fit into the expertise, technologies and research focus already present in the group(s).*
* *Explain, if relevant, whether parts of the proposed project would benefit from collaboration with ARISE partner organisations (available in Annex 1 of the Guide for Applicants), and if so, with which partner(s).*
* *Describe the infrastructure and facilities (e.g., any equipment; specialist software) required to carry out the proposed work, taking into consideration what is available in the hosting institute/lab(s). Describe any other necessary resources required and expected costs.*
* *List major potential risks associated with the research project implementation. Please be aware that during the interview you might be required to provide information on contingency plans/mitigation measures.*

1. **Expected results & their impact**

*Please explain how the proposed technology / method will be useful to external researchers, and that it has potential to be offered as a service already during the fellowship time. To show the impact of the proposed technology, please describe:*

* *When do you expect to be able to start providing (pilot) access to the technology you propose to develop for other researchers (e.g., other EMBL or non-EMBL researchers)*
* *Whether the technology that you envision to be developed will be useful to other EMBL group. Which groups do you foresee could be potential first users and why?*
* *Which external (non-EMBL) researchers could be first users of the newly developed technology. Please describe why they would find the technology beneficial.*
* *Please provide a few examples of means of dissemination of results.*

1. **Service to be offered**

*Please provide practical information on the service provision aspect of your project:*

* *Please describe shortly how you envision provision of services (e.g., virtual vs physical service, users handling machines alone vs Research Infrastructure scientist performing experiments for the users, duration of service per sample/user etc).*
* *Which obstacles do you expect to encounter related to the service provision?*
* *What technology readiness level with the project have at the end of the 3-year fellowship?*

1. **Consideration of the FAIR principles**

*Please explain how the developed technology will support and facilitate the application of FAIR principles (Findable, Accessible, Interoperable, and Reusable) to data and software management for its users. Explain how your project will simplify or even automate the handling of data throughout its life cycle. To fill this section, please consult* [*EMBL's Open Science webpages*](https://www.embl.org/about/info/open-science/how-embl-makes-research-open/)*, which refers to EMBL’s Open Science Policy and Implementation Guidelines.*

* *Findability: What systems or practices will be in place to make the data generated by your method/technology discoverable to potential users? How will the developed software be catalogued (e.g., versioning, unique identifiers, repositories)?*
* *Accessibility: Discuss the methods and platforms through which the generated data will be shared and how controlled access will be managed. Describe how the software will be distributed to ensure broad access, include any relevant licensing or user permissions considerations.*
* *Interoperability: Explain how the technology will ensure that the data generated and the developed software can be easily integrated with other datasets or systems. Address the use of standards, formats, and metadata conventions.*
* *Reusability: How will the software developed and the data generated be structured, documented and preserved to ensure they are reusable by others?*

*If relevant, add considerations about the automation of the FAIR process described. Will your technology automate aspects of data management? And will your software development process include automated tools to help with FAIR compliance, such as version control, continuous integration, automated documentation, or testing environments?*

*Finally, assess the supporting infrastructure, i.e., what tools and platforms will your method/technology integrate and mention any system that will facilitate the storage, sharing, and maintenance of both data and software.*

1. **Ethics**

*If ethical issues are raised by your project proposal (you answered “Yes” to any of the questions included in the ethics self-assessment questionnaire below), please describe how they will be addressed. If not applicable, please state “N/A”.*

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**GANTT CHART**

*Please illustrate the timeline for the major achievements in the project. It must be feasible to complete the proposed project during the 36-month fellowship.*

**REFERENCES**

*Please list the references relevant to your proposal.*

**ETHICS SELF-ASSESSMENT FORM**

*Please fill out the questionnaire below about ethical issues — answer only “Yes” or “No”.*

*Please note that providing a duly filled in ethics self-assessment is part of the eligibility criteria.*

*The questionnaire is based on the ethics self-assessment for Horizon Europe projects[[2]](#footnote-2). ARISE2 is co-funded by the Horizon Europe programme and, thus, projects funded by ARISE2 must comply with the Horizon Europe ethical requirements.*

*If you answered "Yes" to any of the questions below, you must provide additional information about how these issues will be addressed in section "5. Ethics" of the proposal (see above).*

|  |  |  |
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| **Section 1. Human embryos/foetuses** | **Yes** | **No** |
| Does your research involve Human Embryonic Stem Cells (hESCs)? |  |  |
| Does your research involve the use of human embryos? |  |  |
| Does your research involve the use of other human embryonic or foetal tissues/cells? |  |  |
| **Section 2. Humans** | **Yes** | **No** |
| Does your research involve human participants? |  |  |
| Does your research involve physical interventions (physical, also including imaging technology, behavioural treatments, tracking and tracing, etc.) on the study participants? |  |  |
| Does your research involve conducting a clinical study as defined by the Clinical Trial Regulation 536/2014 (using pharmaceuticals, biologicals, radiopharmaceuticals, or advanced therapy medicinal products)? |  |  |
| **Section 3. Human cells/tissues** | **Yes** | **No** |
| Does your research involve the use of human cells or tissues (other than from human embryos/foetuses)? |  |  |
| **Section 4. Protection of Personal Data** | **Yes** | **No** |
| Does your research involve processing of personal data? |  |  |
| Does your research involve further processing of previously collected personal data (including use of pre-existing data sets or sources, merging existing data sets)? |  |  |
| Does your research involve publicly available data? |  |  |
| Is it planned to export personal data (data transfer) from the EU to non-EU countries? |  |  |
| Is it planned to import personal data (data transfer) from non-EU countries into the EU or from a non-EU country to another non-EU country? |  |  |
| Does your research involve the processing of personal data related to criminal convictions or offences? |  |  |
| **Section 5. Animals** | **Yes** | **No** |
| Does your research involve animals? |  |  |
| **c** | **Yes** | **No** |
| Will some of the research activities be carried out in non-EU countries? |  |  |
| In case non-EU countries are involved, do the related research activities undertaken in these countries raise potential ethics issues? |  |  |
| Is it planned to use local resources (e.g., animal and/or human tissue samples, genetic material, live animals, human remains, materials of historical value, endangered fauna or flora samples, etc.)? |  |  |
| Is it planned to import any material (other than data) from non-EU countries into the EU or from a non-EU country to another non-EU country? |  |  |
| Is it planned to export any material (other than data) from the EU to non-EU countries? |  |  |
| Does your research involve low and/or lower-middle income countries? |  |  |
| In case research involves low and/or lower-middle income countries, are any benefit-sharing actions planned? |  |  |
| Could the situation in the country put the individuals taking part in the research at risk? |  |  |
| **Section 7. Environment, health and safety** | **Yes** | **No** |
| Does your research involve the use of substances or processes (or technologies) that may cause harm to the environment, to animals or plants (during the implementation for the research or further to the use of the results, as a possible impact)? |  |  |
| Does your research deal with endangered fauna and/or flora /protected areas? |  |  |
| Does your research involve the use of substances or processes (or technologies) that may cause harm to humans, including research staff (during the implementation for the research or further to the use of the results, or the deployment of the technology as a possible impact)? |  |  |
| **Section 8. Artificial intelligence** | **Yes** | **No** |
| Does your research involve the development, deployment and/or use of Artificial Intelligence-based systems? |  |  |
| Could the AI-based system/technique potentially stigmatise or discriminate against people (e.g., based on sex, race, ethnic or social origin, age, genetic features, disability, sexual orientation, language, religion or belief, membership to a political group, or membership to a national minority)? |  |  |
| Does the AI system/technique interact, replace, or influence human decision-making process (e.g., issues affecting human life, health, well-being or human rights, or economic, social, or political decisions)? |  |  |
| Does the AU system/technique have the potential to lead to negative social (e.g., on democracy, media, labour market, freedoms, educational choices, mass surveillance) and/or environmental impacts either through intended applications or plausible alternative uses? |  |  |
| Does the AI to be developed/used in the project raise any other ethical issues not covered by the questions above (e.g., subliminal, covert or deceptive AI, AI that is used to stimulate addictive behaviours, life-like humanoid robots, etc.)? |  |  |
| **Section 9. Other ethics issues** | **Yes** | **No** |
| Are there any other ethics issues that should be taken into consideration? Please specify. |  |  |
| **Section 10. Misuse** | **Yes** | **No** |
| Does your research have a potential for misuse of research results? |  |  |

1. EMBL’s Open Science Guide, including FAIR training material, is available here: <https://www.embl.org/about/info/open-science/how-embl-makes-research-open/>. Additional information can be found on the GO FAIR project website: <https://www.go-fair.org/fair-principles/> [↑](#footnote-ref-1)
2. *Horizon Europe guide “How to complete your ethics self-assessment”:* [*https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/guidance/how-to-complete-your-ethics-self-assessment\_en.pdf*](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/guidance/how-to-complete-your-ethics-self-assessment_en.pdf) [↑](#footnote-ref-2)