

# Excellence in Grant Writing



Konzorcij projektnih pisarn za krepitev odličnosti, interdisciplinarnosti in mednarodne vpetosti slovenskega raziskovalnega prostora

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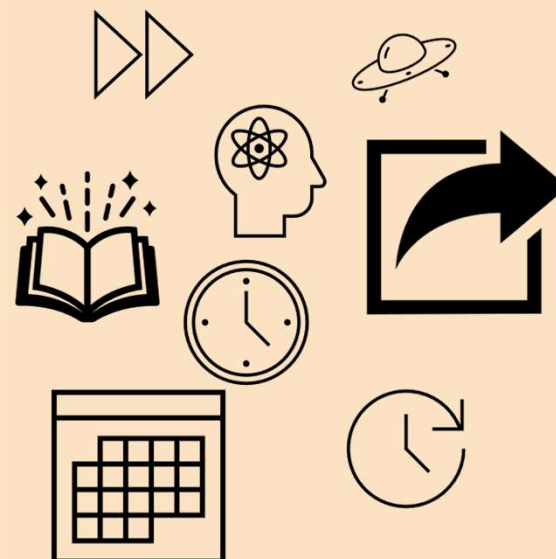
# Overview of scientific sections



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## In this presentation:

- State of the Art vs Beyond State of the Art
- Scientific Article vs Project Application



# State of the Art and Beyond



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Aspect	State of the Art (SoA)	Beyond State of the Art (BSoA)
<b>Describes</b>	- What's known and done and missing > scientific knowledge, approach, research technologies	What you will do that is new or better
<b>Role in proposal</b>	Foundation	Innovation (and its level)
<b>Shows</b>	Awareness of current research	Novelty, ambition, impact
<b>Reviewers expect to see</b>	Competence	Potential and originality

# Tips



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- Break the state-of-the-art (SoA) into separate **short paragraphs**, each focussing on a specific research **objective** of the project.
- For each paragraph, briefly outline the current level of knowledge in the research area and highlight how the project will progress the research 'beyond the current state-of-the-art'.
- Use **up-to-date references**.
- If there is SoA work being **carried out by you, your organisation, your partners**, then mention this (as it demonstrates your excellence and adequacy to carry out the research). Write your names in bold letters for easier identification by the evaluator.
- You could finish each paragraph with a bold /text-box statement of how the project is progressing the area beyond the current state-of-the-art.



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# Project proposal vs Scientific Article



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Feature	Grant Writing	Scientific Article Writing
Goal	Get funding	Share completed research
Focus	Future work	Past work/results
Audience	Mixed, broader	Specialists in the field
Style	Persuasive, strategic	Analytical, objective
Key to success	Clarity, feasibility, impact	Rigor, accuracy, novelty



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# Project proposal vs Scientific Article



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Component	Grant Writing	Scientific Article Writing
<b>Problem Statement</b>	Highlights a gap or need; emphasizes importance	Brief, sets up background for results
<b>Literature Review</b>	Shows awareness of State of the Art (SoA)	Integrated to justify methods/results
<b>Methods</b>	Proposed methods, potential challenges	Detailed and replicable description
<b>Results</b>	Projected or preliminary only	Central focus—includes data, figures, analysis
<b>Impact</b>	Emphasized heavily—scientific, societal, economic	Usually in discussion or conclusion
<b>Budget &amp; Timeline</b>	Required and critical <b>(PMO support)</b>	Not applicable



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# Tips



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- Help with catchy acronyms: <https://acronymcreator.net/>
- **An abstract should 'sell' your project and be understandable to the non-expert.** It should communicate the importance, impact and timeliness of the project and convince the evaluator that you should be funded to carry it out. Link it to the relevant policy papers, strategies and political goals, when possible. It should NOT be the usual scientific abstract.
- **Avoid jargon.** The majority of evaluators will not be expert in the specific subject area so write in a style that is accessible to the non-expert using figures/tables/charts/diagrams to illustrate where appropriate.
- Explain any abbreviations the first time you use them.
- **Use simple clear text, making sure that it 'reads well'.** Avoid long sentences. Avoid too much repetition. Sign-post or put reference to other parts of the proposal if necessary.
- Do not copy & paste information from other documents/websites. Instead, tailor information to fit with your proposal. Try to make it relevant to your proposed project.



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# Non-scientific dimensions



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- **Supported by PMO**

## In this presentation:

- Gender dimension
- Open Science
- Research Data Management
- Artificial Intelligence

evaluated





# Gender Equality



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1. Increasing **gender balance throughout the programme** is another objective, with a target of 50% women in Horizon Europe related boards, expert groups and evaluation committees, and **gender balance among research teams implementing the project** (and in leading roles) set as a ranking criterion for proposals with the same score.
2. Having a **Gender Equality Plan (GEP)** in place is now an **eligibility criterion**.
3. The integration of a **gender dimension into research and innovation content** is **mandatory**, and evaluated under the excellence criterion, unless the topic description explicitly specifies otherwise.



**GENDER EQUALITY PLAN (GEP)**  
Implemented by National Institute of Chemistry (NIC)  
Ljubljana, November 2021

*"Science is not a boy's game, it's not a girl's game. It's everyone's game."*  
Nichelle Nichols, former  
NASA ambassador

*"Achieving gender equality is about disrupting the status quo, not negotiating it."*  
Phumzile Mlambo-Ngcuka,  
former UN Executive  
Director for Women

<https://www.ki.si/en/about-the-institute/gender-equality-plan/>



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# Gender dimension vs gender balance



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- **Gender balance is not gender dimension.**
  - Gender dimension is **integration of sex and/or gender analysis** in the design and delivery of research and innovation.
  - Gender should be considered when addressing **dissemination, exploitation, impact and implementation!**
- Gender dimension is not only women's issue.
- **If your research is not concerned with gender issues or other diversity aspects, you should clearly explain why and **provide a strong justification.****

**Apart from the gender dimension in research, if applicable, include other diversity aspects!**



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# Gender Bias



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“Prejudiced actions or thoughts based on the gender-based perception that women are not equal to men in rights and dignity.”

(European Institute for Gender Equality (EIGE))

➡ Do the [Implicit Association Test \(IAT\) by Harvard](#)

- You are encouraged to use gender inclusive language and not to think about gender in binary categories.
  - [Smernice za spolno občutljivo rabo jezika](#)
  - [Guidelines for using gender-sensitive language in communication, research and administration](#)



## Useful reading

- [Gender in EU research and innovation](#)
- [Gender Equality in R&I](#)
- [NIC's Gender Equality Plan](#)



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# Open Science



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**An approach to the scientific process that focuses on spreading knowledge as soon as it is available using digital and collaborative technology.**

## Open Science practices:

- **early and open sharing of research:**
  - pre-registration, registered reports, data deposition in shared repositories, pre-prints
  - open collaboration within science and with other knowledge producers/users
- providing immediate and unrestricted **open access to scientific publications, research data**, models, algorithms, software, protocols, notebooks, workflows, and all other research outputs
- **ensuring verifiability and reproducibility** of research outputs
- practicing responsible research output management (publications, data, and other outputs) in line with the **FAIR principles**
- promoting public engagement in research and innovation, bolstering **citizen science** and enhancing **public trust in science**

**A means and not a goal (in itself)!**



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# Research Data Management



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Address the management of your research data in a **Data Management Plan** (DMP) - mandatory:

- In line with the FAIR principles.
- Use persistent digital object identifiers – PID.
- Trusted repositories.
- Open licenses.
- Open publications (and exceptions).
- Include expenses.

DMP is a part of the **methodology of your project**. It should be a **formal document** and describe all aspects of the data lifecycle for the entire duration of the project.

**It is a living document:**

- new data creation
- change in data access
- change in digital stewardship
- change in goal achievement
- change in internal policies



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# FAIR principles



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F<sub>indable</sub>



A<sub>ccessible</sub>



I<sub>nteroperable</sub>



R<sub>eusable</sub>



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# Trusted repositories



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**Global Repository Registry re3data.org**

[www.re3data.org](http://www.re3data.org)

**OpenAIRE**

<https://www.openaire.eu/>

**DiRROS:** Digital repository of Slovenian research organizations

<https://dirrosdata.ck.uni-lj.si/repositoriji/>

<https://dirrosdata.ck.uni-lj.si/repositoriji/zaupanja-vredni-repositoriji/>



[EU Open Research Repository](#)

and others.



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# Open science at NIC



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## The position of the National Institute of Chemistry on open research data

- NIC supports open science and free access to research data, where feasible and in accordance with the law.
- It implements the FAIR principles (findability, accessibility, interoperability, reusability).
- It follows the principle: **“open as much as possible, closed as much as necessary”** – protection of intellectual property and sensitive data.
- Data must be appropriately protected (patents, CC licenses) before being made public.
- Compliance with legislation and ethical guidelines, especially for data that includes personal or sensitive information.
- Encouraging the preparation of DMPs and the use of trusted repositories.
- Internal training of researchers.
- Commitment to long-term data retention and development of support for open science.

Presented on May 21<sup>st</sup>, 2025



## Useful reading

- [Stališče KI do odprtih raziskovalnih podatkov](#)
- [https://msca-net.eu/wp-content/uploads/2023/04/Task-3.6-Open\\_science\\_Brief.pdf](https://msca-net.eu/wp-content/uploads/2023/04/Task-3.6-Open_science_Brief.pdf)
- [Pravilnik o upravljanju s pravicami intelektualne lastnine na KI \(2021\)](#)
- [Open Science as part of EU Strategy](#)



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# Open science at NIC



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Quality data management increases the credibility of research.  
An important part of research excellence and ethics.

NIC recommendations are **a living document** subject to regular updates in line with the developments in the field. **As should be also your DMPs!**

## NIC's role:

- ✓ Provides support to researchers (data stewards)
- ✓ Promotes the preparation of DMPs and the use of appropriate tools.
- ✓ Supports open science and collaboration



Data stewards (until 30.6. 2026)

**Dr. Jaka Sočan (modeling);  
Dr. Matic Kisovec (life sciences);  
Dr. Goran Dražić (materials).**



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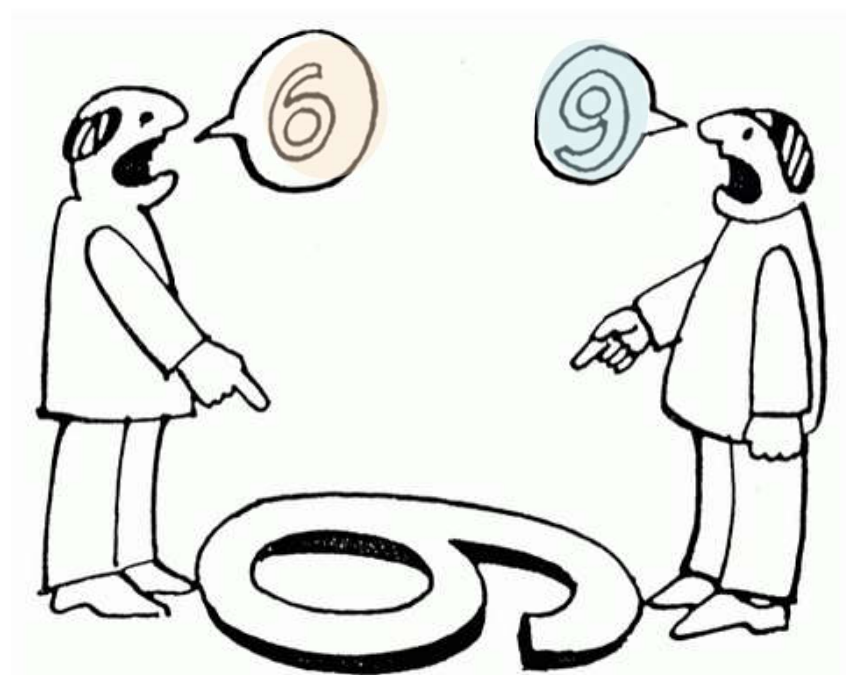
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# Artificial Intelligence in Science



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AI-assisted  
writing tools  
used in  
research grant  
writing



Developing  
and/or using  
AI in research



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## KEY RECOMMENDATIONS

### RESEARCHERS should...

- 🔍 Follow key principles of research integrity, use GenAI transparently and remain ultimately responsible for scientific output.
- 🔒 Use GenAI preserving privacy, confidentiality, and intellectual property rights on both, inputs and outputs. !
- 🧠 Maintain a critical approach to using GenAI and continuously learn how to use it responsibly to gain and maintain AI literacy.
- 🚫 Refrain from using GenAI tools in sensitive activities e.g. peer reviews or evaluations.

### RESEARCH ORGANISATIONS should...

- 🏢 Guide the responsible use of GenAI and actively monitor how they develop and use tools.
- 📄 Integrate and apply these guidelines, adapting or expanding them when needed.
- 🔒 Deploy their own GenAI tools to ensure data protection and confidentiality.

### FUNDING ORGANISATIONS should...

- 🏢 Support the responsible use of GenAI in research.
- 📄 Use GenAI transparently, ensuring confidentiality and fairness.
- 🚫 Facilitate the transparent use of GenAI by applicants.

[https://research-and-innovation.ec.europa.eu/document/download/edc8027b-2811-4347-82f4-fa8b29ece534\\_en?filename=ec\\_rtd\\_ai-guidelines-factsheet.pdf](https://research-and-innovation.ec.europa.eu/document/download/edc8027b-2811-4347-82f4-fa8b29ece534_en?filename=ec_rtd_ai-guidelines-factsheet.pdf)



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# Principles of Research Integrity



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1

## RELIABILITY

in ensuring the quality of research, reflected in the design, the methodology, the analysis, and the use of resources.

## HONESTY

in developing, undertaking, reviewing, reporting, and communicating research in a transparent, fair, full, and unbiased way.

2

3

## RESPECT

for colleagues, research participants, society, ecosystems, cultural heritage, and the environment.

## ACCOUNTABILITY

for research, from idea to publication, for its management and organisation, for training, supervision, and mentoring, and for its wider impact.

4

<https://www.eurodoc.net/news/2021/integrity-transparency-openness-key-issues-for-european-research>



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# Use of AI-assisted writing tools



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## Be careful!

- Verify and fix any mistakes in the content and citations.
- Make sure you list all your sources (including the ones used by AI).
  - OpenAI. (2025). *ChatGPT* (June 2025 version) [Large language model]. <https://chat.openai.com/>
- Watch out for plagiarism!
- Do not share private, confidential or intellectual property with AI tools.
- Recognise the limitations of the AI, including biases and errors.



## Useful reading

- [Living Guidelines on the Responsible Use of Generative AI in Research](#)
- [AI Act](#)
- [Artificial Intelligence \(AI\) in Science](#)
- [Scientific Advice Mechanism to the EU](#)
- [Pravilnik o upravljanju s pravicami intelektualne lastnine na KI](#) (2021)
- National and EU legislation on IPR and GDPR