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# Building a Global Research Initiative On Open Science

Florian Naudet, Henriikka Mustajoki, Marin Dacos

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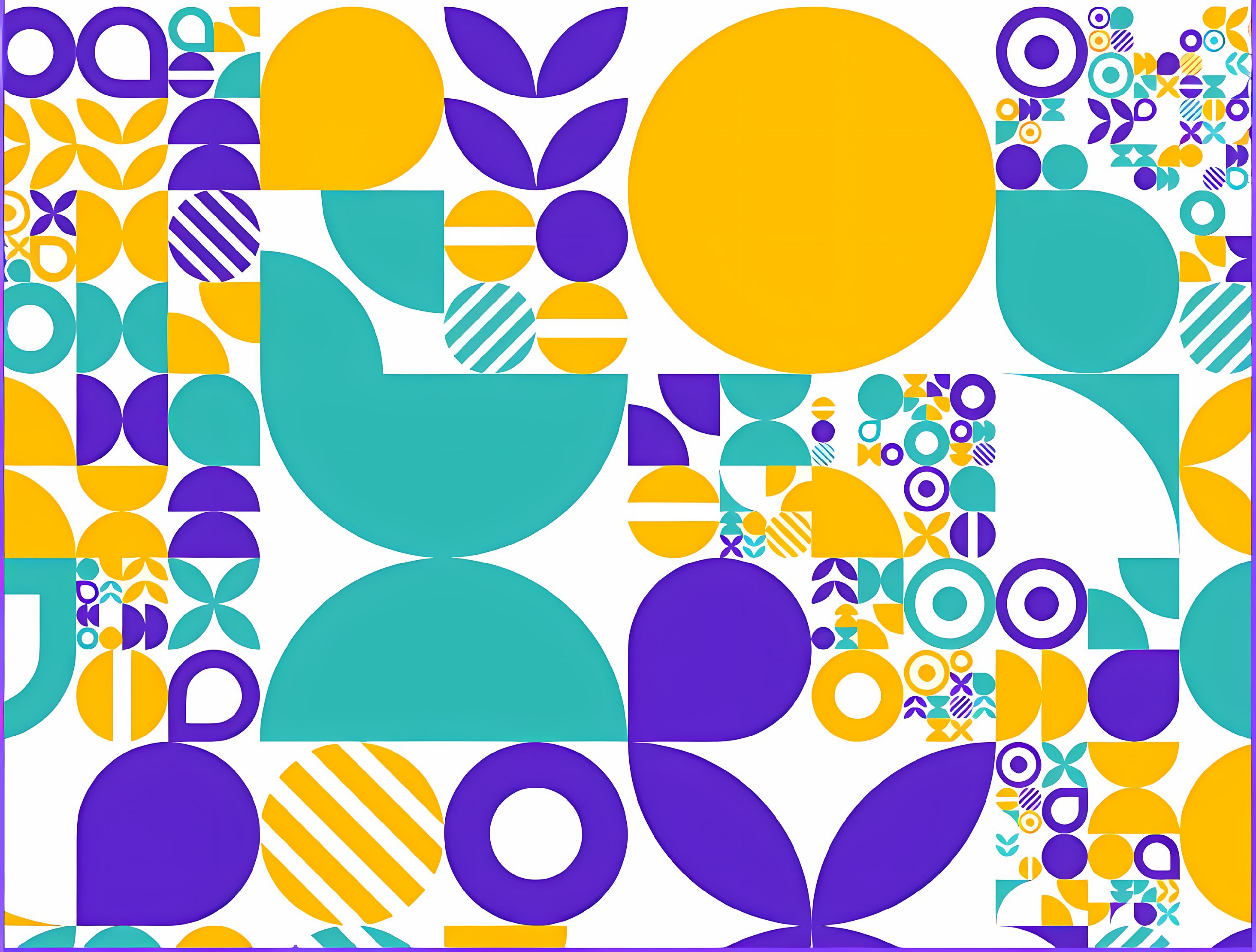


April 2024

# BUILDING A GLOBAL RESEARCH INITIATIVE ON OPEN SCIENCE

Towards Evidence based  
Open Science policies

PREPARED BY  
Florian Naudet  
Henriikka Mustajoki  
Marin Dacos





# **Building a Global Research Initiative On Open Science**

**Towards Evidence based  
Open Science policies**

**Authors:**

**Florian Naudet**

Professor, Rennes University, France

**Henriikka Mustajoki**

Secretary General for the Committee for Public Information, Finland

**Marin Dacos**

Coordinator for Open Science  
Ministry of Higher Education and Research, France

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## EXECUTIVE SUMMARY

The Global Research Initiative on Open Science (GRIOS) represents a pioneering effort to systematically evaluate, promote, and implement Open Science practices worldwide. GRIOS will address the critical gaps in our understanding and application of Open Science. This initiative is a direct response to the growing recognition of Open Science's potential to democratise access to research findings, enhance the quality of scientific inquiry, and foster a more inclusive and collaborative research environment.

GRIOS will catalyse the global adoption of Open Science by:

- Conducting in-depth reviews of existing Open Science research to synthesise current knowledge and identify best practices and challenges. GRIOS will synergise with existing Open Science initiatives and research on open science to create a unique global understanding based on all the available knowledge.
- Developing evidence-based recommendations to guide the implementation of Open Science practices and policies.
- Creating a comprehensive research agenda to address knowledge gaps and promote further investigation into Open Science.
- Establishing a global network of researchers and organisations committed to advancing Open Science, facilitating knowledge exchange, and fostering collaboration.

A cornerstone of the GRIOS initiative is its commitment to inclusivity and diversity, ensuring that the full spectrum of the academic ecosystem is represented in its efforts, particularly emphasising the inclusion of knowledge and experience from the Global South and young academics. To achieve this, GRIOS governance reflects a broad range of perspectives and expertise to ensure that the policies, practices, and research agendas it develops are informed by a wide array of experiences and needs. This approach not only enriches the initiative's outputs with diverse insights but also fosters a more equitable and inclusive Open Science landscape.

GRIOS represents a critical step forward in realising the full potential of Open Science. By systematically addressing the challenges and opportunities associated with Open Science, the initiative will play a pivotal role in shaping the future of research and its contribution to society. Stakeholders across the research ecosystem are invited to join this collaborative effort to advance Open Science and ensure that it serves the global public good.

We urge research institutions, funders, policymakers, and practitioners to support and participate in the GRIOS initiative. Together, we can unlock the transformative power of Open Science and create a more open, inclusive, and impactful research landscape.

## 1. WHY RESEARCH ON OPEN SCIENCE?

Open Science is of great importance to both the research community and society at large. By facilitating a wider access to research outputs and methodologies, including software, data and protocols as well as publications, Open Science enhances research opportunities. It allows for more extensive sharing of knowledge, thereby increasing transparency and reproducibility, which are pivotal in enhancing the quality of research itself. Through open access, society can adopt evidence-based practices more promptly and extensively. Furthermore, Open Science is a matter of democracy and human rights: open and equitable access to research knowledge underpins both.

Despite these great expected benefits and a widely supported movement towards Open Science, we are still in the early stages of having research outputs openly available. After more than two decades, a complete open access of scholarly publications is still far from reality. It is even difficult to estimate how far the target<sup>1</sup> is. Except in specific disciplines, the research community does not know what kinds of research data exist. It is even unable to estimate what fraction of it is openly accessible. It seems safe to assume that the proportion of FAIR research data in most disciplines is very small.

Despite the challenges, Open Science is slowly being accepted as a new norm for research. As such, it should have an assessment component to make sure that it is adequately implemented and that it reaches its objectives. For Open Science to become the norm in the daily practices of academics, it is essential to meticulously examine existing barriers and successful practices. Additionally, it is important to evaluate the effectiveness of facilitating approaches across a diverse array of situations and disciplines. Producing evidence on the best practices and greatest obstacles will be instrumental in paving the way for the broader adoption and integration of Open Science principles in academic research.

More research is therefore needed to understand where communities are on the path to Open Science, what encourages change and what is holding them back. We need more evidence on how Open Science impacts the research endeavour itself, and eventually society as a whole. More evidence obtained through research on Open Science will enhance our ability to promote and advance Open Science in order to actually reach the benefits it promises. Meta-research, 'research on research', is a new field of scientific investigations that is able to provide such evidence."

The Initiative is importantly also an answer to the [G7 Science and Technology Ministers' Communiqué](#) (May 2023), which promotes cooperation to mobilise research-on-research to promote effective Open Science policy making ([Annex 1](#)):

- “v) mobilise research-on-research to promote effective Open Science policy making;*
- vi) promote inclusivity and equity in practicing Open Science, among countries and*

1 See : [https://pure.mpg.de/rest/items/item\\_3361428/component/file\\_3361648/content](https://pure.mpg.de/rest/items/item_3361428/component/file_3361648/content)  
[https://research-and-innovation.ec.europa.eu/strategy/strategy-2020-2024/our-digital-future/open-science/open-science-monitor/trends-open-access-publications\\_en](https://research-and-innovation.ec.europa.eu/strategy/strategy-2020-2024/our-digital-future/open-science/open-science-monitor/trends-open-access-publications_en)

*communities; and vii) encourage a framework for monitoring the progress and obstacles of Open Science.”*

For more details, see *Report of the G7 Open Science “Research on Research” Sub-Working Group. Prepared for the G7 Open Science Working Group, May 2023* - DOI : [10.52949/32](https://doi.org/10.52949/32)

The Global Research Initiative on Open Science has three main aims:

- provide a state of the art for Research on Open Science,
- identify knowledge gaps and promote new research,
- increase international coordination and knowledge sharing on Research on Open Science.

**As a first aim**, there is a need to gain a thorough understanding of our existing knowledge about Open Science. This Initiative will conduct an in-depth analysis of various aspects of it. This state of knowledge on research on Open Science will help decision and policymakers to help build a more open research community and to reach Open Science goals quicker than they have been able to do thus far. The Initiative will produce comprehensive meta-research, which will be published in open access reports and translated into relevant languages. This approach, supported by the production of as rich and open data as possible, is designed to enhance the appropriation and reuse of the results, thereby broadening their impact and utility.

**As a second aim**, this Initiative will identify the gaps in our knowledge on Open Science. A global and comprehensive understanding of the current knowledge will allow the community to target its research on Open Science where it is most needed. It is already known that there is a need to deepen research on Open Science at an international level: this Initiative will provide a roadmap to a more complete knowledge base and stimulate more research on Open Science. In order for Open Science to become the default in academics’ daily life, existing obstacles must be carefully studied, and the facilitating approaches tested against a variety of situations and disciplines.

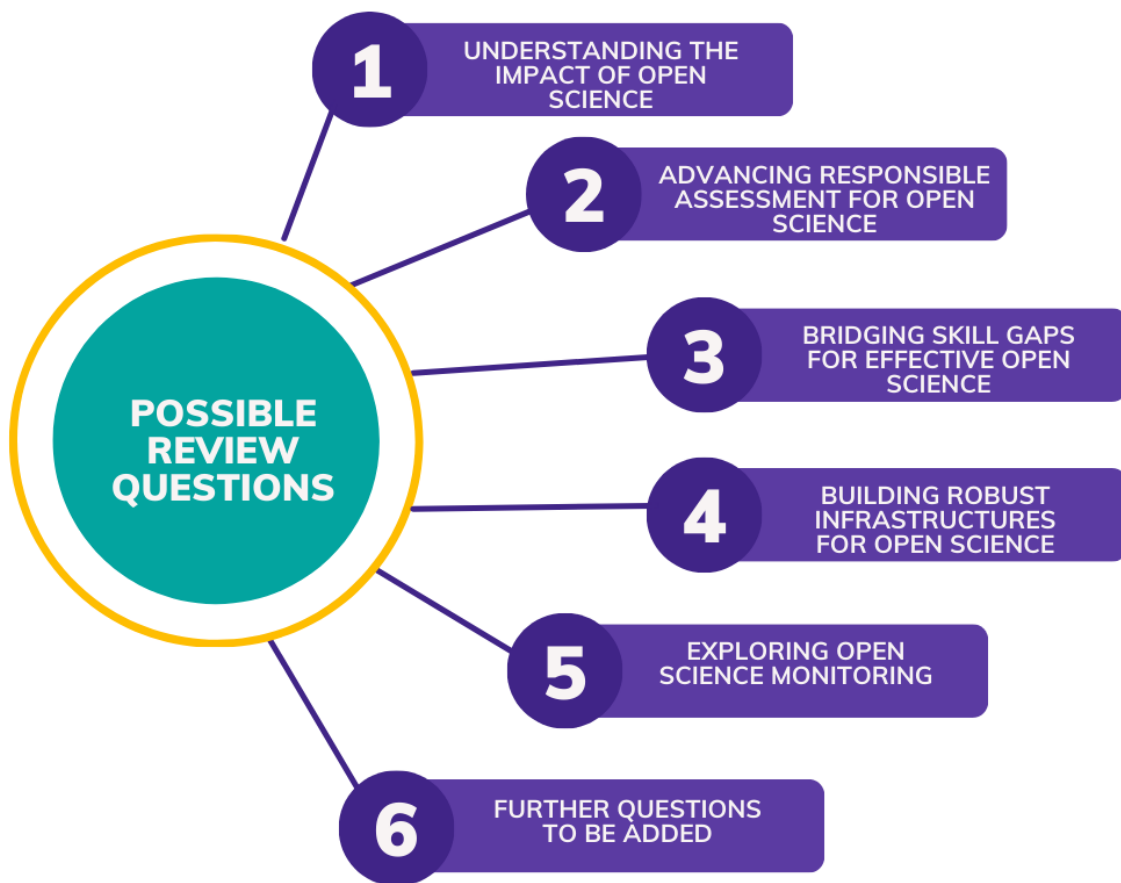
Existing research has paved the way; however, confirmation and diversification are needed on a disciplinary level, as most of the existing research is discipline-specific and exhibit strong discrepancies between disciplines. Achieving a global and comprehensive grasp of the gaps in the existing knowledge will enable the community to direct its research efforts towards areas where they are most needed. Recognising the necessity for more in-depth research on Open Science at an international level, this Initiative will offer a roadmap towards a more complete knowledge base, thereby stimulating further research in this field.

**A third and integrated aim** of this Initiative is to support and enhance the global research-on-Open-Science community. To achieve meaningful outcomes within a realistic timeframe and with Open Science policies in mind, international coordination and knowledge sharing is necessary. A global community will help apply quality Open Science research methodologies and practices, which currently exists for specific questions, to a wider set of questions and settings across regions and disciplines. By fostering a more cohesive and integrated research community dedicated to Research on Open Science, the global influence and effectiveness of this Initiative can be enhanced, and more importantly, that of Open Science.



## 2. POSSIBLE QUESTIONS ADDRESSED BY THE INITIATIVE

The list of questions to be addressed is very large, as Open Science touches upon all the aspects of research and has a huge potential to impact society. We have chosen to group the research questions into five main interconnected categories (keeping in mind that the list is not exhaustive). The scope of the questions varies, depending on the level of maturity of each topic. Many of the questions explore both the methodologies of understanding the different aspects of Open Science as well as its impact and structures.



### 1. Open Science Impacts:

Open Science is believed to offer significant advantages to both research and society. The COVID-19 pandemic has shown that these expected benefits are both realistic and substantial. We also learnt that even the pandemic size demands for new scientific knowledge was not enough to change open research practices permanently or comprehensively.

Our global collective understanding of how Open Science affects research, societies, and economies still remains limited and scattered. Meta-research in this field could investigate questions such as: “How can the economic and societal impact of Open Science be measured and detailed?” and “What do we already know about it?”. Open

Science also has an impact by promoting more evidence-based practices when writing and adopting public policies. It is important to gather evidence of both how Open Science influences public policies and how we could improve the transfer of evidence based knowledge in public policy development to help societies address complex political and social issues.

Additionally, research itself is thought to benefit from being more open, in aspects such as speed of progress, reliability, cumulative nature, replicability, and integrity. It's important to explore how these benefits can be evaluated, monitored, and described across various fields and situations.

The advancement of Open Science occurs within a broad variety of cultural contexts. The degree of compatibility of openness with cultural norms varies across disciplines, institutional settings, and geographical regions. Therefore, research on the impacts of Open Science needs to shed light on the role of culture in reaching the full benefits of Open Science.

## 2. Research Assessment and Incentives:

Assessment drives practice: the way research is assessed has a direct impact on the progress of Open Science. Responsible assessment has become a significant international initiative to transform research and researcher assessment to meet the current work practices and expectations in research. The Global Research Initiative on Open Science will investigate how current assessment practices either promote or impede the adoption of Open Science in various cultural and geographical contexts, and across different disciplines. Key questions to explore include: "What can we learn from existing experiments with narrative CVs?", "How can we achieve the objective of creating fully open and reusable bibliographic and other research output databases, to ensure research assessment is based solely on FAIR (Findable, Accessible, Interoperable, and Reusable) data?" and "In a context of slow changes and economy of prestige, how can we have a real change following decades of impact factor based assessment?".

## 3. Skill Gaps

Open Science practices require specific research skills. Numerous international and local Initiatives have been launched to identify the skill requirements for Open Science and to develop activities to address these needs. These skills encompass a broad range of Open Science activities including publishing, FAIR Data design and software management. The Global Research Initiative on Open Science will examine the structure and content of the skill-related initiatives. This investigation will also delve into how the success or failure of each of these initiatives can be evaluated, both qualitatively and quantitatively. Additionally, there is a close connection between Open Science and Research Assessment: one key question is how to address the need for skills to assess alternative forms of CVs, such as narrative ones.



#### 4. Open Science Infrastructures

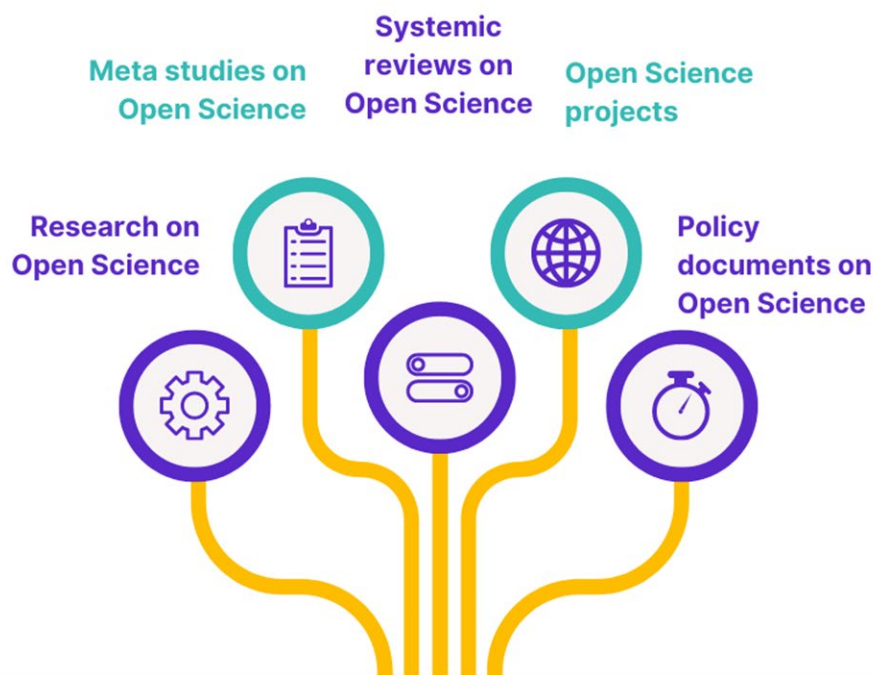
The feasibility of Open Science hinges on the availability of robust, open, and globally compatible infrastructures that facilitate all aspects of Open Science. The Global Research Initiative on Open Science will examine which infrastructures are deemed essential, analyse their ownership structures, and determine the missing ones. Key questions to explore include: “Do Open Science badges effectively promote Open Science practices in areas where they have been implemented?”, “How can we assess the success (or failure) of an Open Science infrastructure beyond just counting the number of file downloads or the volume of data transferred?”, “How can we determine the extent to which an existing infrastructure fulfils its intended purpose?” and, additionally, “How might we evaluate and monitor, over the long term, the usage and benefits of Open Science infrastructures for both the academic community and society at large?”.

#### 5. Open Science Monitoring

The transformation brought about by Open Science in the way research is conducted, shared and benefited from is complex and costly. Consequently, there is a global necessity to monitor the progress of Open Science as identified by the [Unesco Recommendation on Open Science](#). This implies quantitative measures of how open research outputs are, as well as qualitative assessments of how the research community values are evolving towards Open Science. The Global Research Initiative on Open Science Initiative will evaluate the various methods used to monitor Open Science from local, national, and international perspectives. These studies will assess the significance and practical applications of Open Science monitoring, while at the same time exploring potential biases that may inadvertently influence monitoring. The focus will be on understanding the methodologies, data, and practices involved in Open Science monitoring.

### 3. INITIATIVE OUTPUTS AND IMPACT

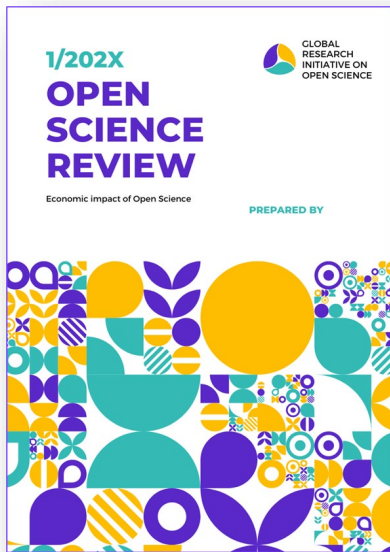
In large and diverse teams, researchers will look at the identified questions from a meta-level so as to form a comprehensive understanding of it. The review process will include addressing multiple sources of information to create a comprehensive understanding of the questions. The sources include existing research, meta-analysis as well as systemic reviews. In addition to this, the review process will incorporate knowledge created in diverse Open Science projects and policy documents.



## Evidence synthesis creating meta knowledge

As a result, the Initiative will produce four different types of outcomes aimed at producing an impact on Open Science: our understanding, our practice and policies, our further research and how we collaborate.

## Review Report



Review Chapters will provide an up-to-date state of knowledge regarding Open Science, for the research community as well as for society . Indeed, Open Science exerts influence across all domains of the research landscape and has the potential to influence society in multiple ways. The prevailing research culture is evolving to align with Open Science principles, but it still has a long way to go.

The Initiative will produce a series of state-of-the-art Review Chapters covering the research questions. These evidence-based Review Chapters will employ comprehensive documentation reviews, which will not only describe the current state of knowledge but will also explore the reasons and methods by which the current position has been reached, as well as the steps which remain necessary to advance Open Science

practices.

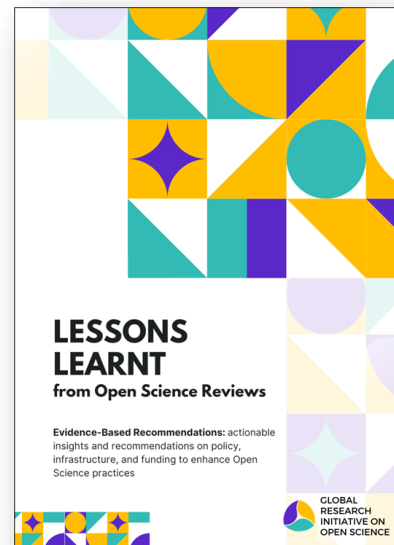
The Review Chapters support collective stewardship of scientific breakthroughs along with the dissemination of research outputs as openly as possible. Open Science practices reflect the diversity of research cultures and disciplines. The Review Chapters welcome and encourage a diversity of geographical and field specific perspectives in the analysis of the impact of Open Science as well as the structures that support it.

Some of the review questions will explore methodological questions on how to conduct research on complex global questions related to Open Science. The Task Forces working on the reviews will explore key methodological issues. Used methodologies share the goal of systematically gathering, analysing, and synthesising existing research, while they may vary in their specific focus, depth, and approach.

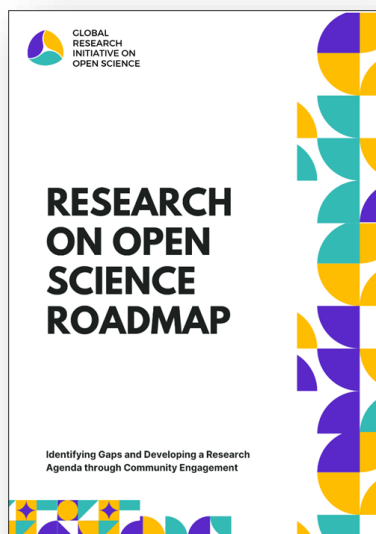
The Review Chapters will together form a substantial Research on Open Science Review Report. The Report will have 10-20 main chapters and up to 1000 pages of high quality research on Open Science. It will be available in Open Access providing a comprehensive understanding of the present state of Open Science.

## Lessons Learnt from the Research on Open Science Review Report

Drawing on the Review Report, the Initiative will formulate evidence-based 'Lessons Learnt'. The Lessons Learnt will provide evidence-based recommendations for actions to help the global research community develop better policy, infrastructure, assessment, and funding instruments in order to support and advance Open Science practices, as well as the impact open scientific knowledge can have on society. The Lessons Learnt are a basis for strategic guidance, which offers targeted, research-based direction for effective implementation and scaling of Open Science Initiatives globally



## Knowledge Gaps and Research Roadmap



As part of the Initiative, a deeper understanding of the knowledge gaps in the current state of knowledge on Research on Open science, will be produced. With the interconnected Review Chapters, each identifying specific knowledge gaps, the Initiative will develop a comprehensive research agenda to meet the research needs of Open Science. The aim is to increase research on Open Science and see the identified knowledge gaps addressed by the research community.

## Community for Research on Open Science

The Initiative is based on a large community effort to understand Open Science: its impact, structures, reasons why it works, as well as what prevents its wide adoption. Through the Initiative, the community for Research on Open Science will strengthen and grow. The Global Research Initiative on Open Science will create a network of organisations and researchers around Research on Open Science. This will be a global network bringing together knowledge and knowledge holders who may otherwise not work together.

While research is international and digital tools allow for reaching out to other organisations and researchers with relative ease, a community requires a sustained effort and resources to grow and flourish in the busy research environment. The Initiative will actively facilitate connections between researchers and organisations, share information with partners and create a vibrant forum for sharing and creating evidence based knowledge on Open Science. In the increasingly hectic and demanding working conditions for researchers, the facilitated networking will provide curated information and targeted spaces for researchers to meet and share. This will allow for our collective understanding to develop and create strong benefits through sharing and co-creating. The network is open to all those interested in Research on Open Science. The Initiative will actively seek potential members for the network to facilitate a global exchange of research and knowledge.

The Initiative will work with key partners, mainly through existing events and meetings. It seeks to raise the profile of Research on Open Science through presentations, organising side-events and inviting key partners to create themes on Research on Open Science. The Initiative will also create curated and targeted information on Research on Open Science and share it both with key individuals and widely with a broader research audience.

## 4. KNOWLEDGE PRODUCTION PROCESS

This Initiative will provide research outputs that will be based on rigorous reviews of existing knowledge and research outputs. The adopted research methodology invites collaboration and openness to create a maximum impact. The entire process is informed by the following methodological principles:

### 1. Detailed Methodology:

**Approach:** Follow a systematic approach to search, appraise, and synthesise evidence from various studies. Each review will use rigorous methodology and protocol that is best suited for the task. The methodologies may vary as, for example, some topics will call for systematic reviews with or without meta-analyses while others may need scoping reviews. The Task Forces will identify the approach that fits the topic under study.

Detailed and openly accessible protocols are an essential part of the review process. In all cases, the protocol design outlines the question that the Review Chapter authors are addressing, detailing the criteria against which studies will be assessed for inclusion in the review, and describing how the authors will manage the review process.

### 2. Collaboration:

**Multidisciplinary Team:** Task Forces writing Review Chapters are multidisciplinary teams of researchers and experts in methodology. Key members of each Task Force include an information specialist. The Task Forces will follow existing good practice guidelines e.g. [PRESS guidelines](#)

**Stakeholder Involvement:** Stakeholders may be involved in the review process to ensure relevance and usability.

### 3. Transparency:

**Protocols:** The protocols, including search strategies and inclusion criteria, are made publicly available.

**Reporting:** The processes and findings are reported transparently to allow for reproducibility and scrutiny.

### 4. Advanced technology Use:

**Automation:** Reviews may utilise technology and automation tools to streamline the processes of literature search, data extraction, and analysis.

**Data Management:** Efficient data management systems are used to handle the continuous influx of new data during the review process.

### 5. Continuous Update:

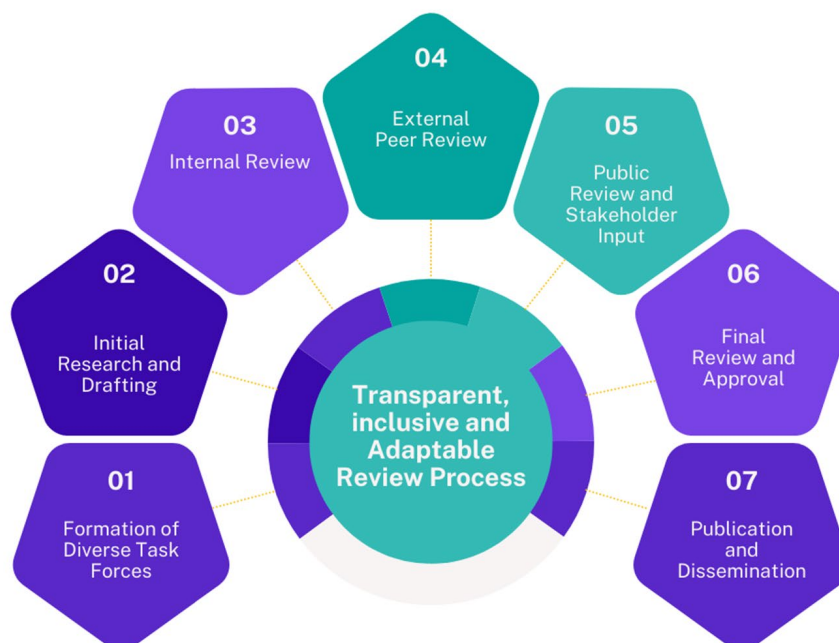
**Dynamic Nature:** Needs for review update or revision are proposed by the Task Force preparing the Review Chapter. The final decision on engaging in an update/review process is taken by the Academic Advisory Board.

**Timeliness:** They aim to provide timely and relevant information to policymakers, and researchers.



## Review Process

The Global Research Initiative on Open Science seeks to provide highest quality scientific knowledge on Open Science, as well as evidence-based recommendations for practice. To ensure that the process of both research and the formulation of recommendations is rigorous and thorough, the process of approving Review Chapters and Lessons Learnt follows the Intergovernmental Panel on Climate Change (IPCC) model for verifying recommendations. This model is a robust and comprehensive approach that involves extensive review and verification processes to ensure the accuracy and credibility of the information and recommendations provided.



As overarching principles, the process of creating Review chapters and Lessons Learnt is informed by the following values:

**Transparency:** Ensure that the entire process is transparent and that all data and methodologies are openly accessible.

**Inclusivity:** Promote diverse and inclusive participation throughout the process.

**Adaptability:** Be open to adapting the process as needed, based on ongoing feedback and changing contexts.

### 1. Formation of a Diverse Task Forces

**Objective:** Assemble Task Force teams of experts from various fields related to Open Science focusing on reviewing identified topics relating to Open Science.

**Action:** Invite Task Force teams to apply for the role of creating state of knowledge review topics identified by the Academic Advisory Board. These Task Force teams should include scholars and could also include technical/support staff, end-users, policymakers, and other stakeholders with expertise in Open Science, research methodologies, data management, etc. Selection of Task Force teams complies with conflict of interest/commitment rules set out for the Initiative.

## 2. Initial Research and Drafting

**Objective:** Conduct research and draft initial findings and recommendations.

**Action:** The Task Force conducts research on the impact of Open Science, drafts initial findings, and formulates preliminary recommendations.

## 3. Internal Review (AAB decision)

**Objective:** Ensure the initial draft is accurate, comprehensive, and coherent.

**Action:** The Academic Advisory Board will review the draft internally, checking for accuracy, coherence, and completeness. This can be done in parts before and after data collection, to explore research questions and methods. Adjustments are made to the research protocol based on this internal review.

## 4. External Peer Review

**Objective:** Systemic external peer reviews will be standard for all Review Chapters before and/or after the data collection. Arrangement of these will consider any potential conflict of interest of the external peer reviewers, taking into account the relatively small research community on Research on Open Science as well as potential financial and political contraindications. The Academic Advisory Board arranges the external review to enhance the quality and credibility of the findings. They may utilise other task forces as reviewers. Each review should consist of minimum two reviewers with different expertise (e.g. research, data scientists, field experts).

**Action:** Share the draft with external experts in Open Science and related fields.

Collect feedback regarding the accuracy, relevance, and comprehensiveness of the draft. Adoption of Open Peer Review where both reviewers and reviews are openly available. Reviews will be assigned a DOI and reviewers are credited for their work.

## 5. Public Review and Stakeholder Input (AAB decision)

**Objective:** All protocols, lessons learnt and recommendations will be shared for public review and stakeholder input. This will ensure inclusivity and relevance. All open reviews will be carried out with full publication of reviews and reviewers.

**Action:** Make the draft available for open review and invite comments and suggestions. Organise webinars or forums to discuss the findings and gather additional insights from the broader community.

## 6. Final Review and Approval

**Objective:** Ensure the final Review Chapter is of high quality and has considered all relevant input.

**Action:** Conduct a final review of the Review Chapter by the Academic Advisory Board, ensuring all feedback has been appropriately addressed. The Task Force may be required to respond to comments made by the Academic Advisory Board.

## 7. Publication and Dissemination

**Objective:** Share the findings and recommendations with the wider community and relevant stakeholders.

**Action:** Publish the final Review Chapter in open formats and through various channels. All Review Chapters are published on the same Open Access platform. Disseminate the findings through conferences, workshops, webinars, and media outlets.

## After Reviews are published

### 1. Implementation and Monitoring

**Objective:** Ensure the recommendations are implemented and monitor their impact.

**Action:** Work with relevant stakeholders to facilitate the implementation of recommendations. Monitor and evaluate the impact of the implemented recommendations on Open Science practices.

### 2. Periodic Review and Update

**Objective:** When the environment is changing rapidly, the Steering Committee will define :

- if updates are needed;
- if continuous updates are relevant;
- the timeframe for those updates.

**Action:** Assign periodic review protocols based on the review topic, the type of Lessons Learnt being based on new findings, technologies, and practices in Open Science.

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## 5. PARTNERSHIPS AND GOVERNANCE

### Partners of the Initiative

GRIOS will seek key partnerships with organisations working on Open Science and having an interest in Research on Open Science. The aim is to synergise with all existing Open Science initiatives and create an inclusive network of partners already enhancing Open Science through research and policy efforts. GRIOS will not compete in the space of providing research funding for Research on Open Science, but will focus on the review and analysis of all existing research, data and policy efforts to provide the research community with a much needed birds-eye view on Open Science and a roadmap for its enhancement.

Partners will benefit from the review information and participate in the formulation of recommendations for global and local strategic changes to enhance Open Science. They will also be world leaders in the dialogue on Open Science supported by the evidence-based recommendations.

There are two kinds of key partnerships, which are not mutually exclusive.

1. Financial partnership with countries/organisations contributing to the overall costs of the Initiative. Potential partners include
  - a. G7 countries, currently France, Canada, UK. Other countries outside the G7 we very welcome to join the Initiative
  - b. Research Organisations e.g. [CERN/NASA](#),
  - c. Funders e.g. Open Research Funders Group ([ORFG](#))

The Initiative has room to grow with the number of partnerships. The annual cost for partnership is estimated to be around 100 000€.

2. Knowledge partnerships with organisations which have a unique understanding or role in advancing Research on Open Science. There are many potential partners that have the capacity of forming Task Forces to complete reviews. The list of possible knowledge partners include Center for Open Science (COS), EU funded research programs on Open Science and reproducibility (e.g. OSIRIS, Tier2 and iRISE), QUEST, CWTS, AIMOS, and RORI.

The legal structure of the Initiative should be kept as simple and light as possible. The Initiative structure options include:

1. Informal organisation within an existing research framework (e.g. [ESF](#))
2. French not for profit association

## Governance structure



The governance structure for the Initiative is designed to ensure a balanced approach, where strategic, financial, and academic aspects are overseen by specialised bodies, ensuring the robustness and credibility of The Global Research Initiative on Open Science. The clear delineation of tasks and structured relationships facilitate smooth operations and effective achievement of the Initiative objectives.

### 1. Steering Committee

**Composition:** Funders, partners and other key stakeholders.

**Tasks:**

- Strategic Oversight: Define and oversee the strategic direction of the Initiative.
- Budget Management: Allocate, monitor, and approve the budget.
- Risk Management: Identify and mitigate potential risks.
- Policy Making: Formulate policies and ensure compliance.
- Communication: Facilitate communication between all governance levels.

**Relationships:**

- With Academic Advisory Board: Steering Committee provides strategic direction and receives advice on academic matters.
- With Task Forces: Steering Committee sets overall objectives and receives updates on progress.

## 2. Academic Advisory Board

**Composition:** Key partners, including Editors-in-Chief from the Task Forces

**Tasks:**

- Academic Oversight: ensure the academic rigour and quality of the Initiative.
- Methodology Approval: validate and approve research methodologies.
- Peer Review Management: organise and manage peer review processes.
- Publication Strategy: develop and oversee the publication strategy.
- Ethical Oversight: ensure ethical standards in research practices.
- Knowledge Sharing: facilitate knowledge exchange among various Task Forces.

**Relationships:**

- With Steering Committee: Academic Advisory Board advises Steering Committee on academic matters and implements strategic directions.
- With Task Forces: Academic Advisory Board provides academic guidance and receives updates on research findings.

## 3. Task Forces

**Composition:** Research teams focused on specific areas/aspects of the Initiative.

**Tasks:**

- Research Execution: Conduct research as per the defined methodologies.
- Data Management: Collect, analyse, and manage research data.
- Report Writing: Compile research findings into comprehensive Review Chapters.
- Collaboration: Work with other Task Forces to ensure coherence and synergy in research.

**Relationships:**

- With Academic Advisory Board: Task Forces adhere to the academic and ethical guidelines provided by Academic Advisory Board and provide information on research outcomes

### Editor-in-Chief (for each Task Force)

**Tasks:**

- Content Review: Ensure the quality and accuracy of research outputs.
- Editing: Ensure clarity, coherence, and consistency in research outputs.
- Publication: Oversee the publication of research findings.

## Interplay and Workflow between governance structures

**Strategic Alignment:**

- The Steering Committee sets the strategic direction and allocates resources.
- The Academic Advisory Board ensures that the strategic direction aligns with academic standards and ethical practices.



**Research Execution and Oversight:**

- Task Forces conduct research and produce outputs.
- Academic Advisory Board ensures that publications align with the overarching publication strategy

**Communication and Feedback Loop:**

- Regular updates and reports flow upward from Task Forces to Steering Committee, ensuring transparency and informed decision-making.
- Feedback and guidelines flow downward from the Steering Committee to Task Forces, ensuring alignment and compliance.

**Continuous Improvement:**

- Post-publication feedback is collected and analysed.
- The Steering Committee and Academic Advisory Board utilise feedback for continuous improvement in strategy and academic practices respectively.

## Secretariat, Timeline and Budget

A professional secretariat is essential for effective achievement of the Initiative outcomes. The secretariat focuses on coordinating Task Forces, facilitating communication between different partners, facilitating the growth of the Research on Open Science Community, managing the financial and legal issues of a global Initiative as well as communicating the Initiative outcomes effectively in order to achieve the Initiative outcomes.

Depending on the size of the Initiative and the number of partnerships created, it is possible to envisage two options for the Initiative and supporting Secretariat.

### OPTION A Core Initiative:

The Core Initiative will seek to produce up to 10 Review Chapters with up to five partners involved. Research Community activities will be of smaller scale and mostly associated with existing meetings, conferences and events.

#### Secretariat Tasks:

##### 1. Coordination and Communication:

- Facilitate communication between the Steering Committee, Academic Advisory Board, Task Forces, and other stakeholders.
- Coordinate meetings and manage correspondence.

##### 2. Documentation and Reporting:

- Compile and maintain documentation.
- Prepare summary reports for the Steering Committee and Academic Advisory Board.

##### 3. Community Engagement:

- Assist in building a network of researchers through engagement activities.
- Coordinate Research on Open Science themes in existing conferences.

##### 4. Governance Support:

- Assist in the decision-making process by preparing necessary documentation and reports.
- Support the maintenance of key collaborations and partnerships.

#### Staff Requirements 2FTE:

- **Executive director:** Oversees all secretariat activities and ensures effective communication among all levels of the Initiative.
- **Office and communication manager :** Handles scheduling, and document management and communicates effectively about the Initiative. Assists with community engagement and event coordination.

### OPTION B Extended Initiative:

The Initiative will seek to produce up to 20 Review Chapters with up to 10 partners. The Research Community activities will be more proactive and seek to create new connections



globally. The Secretariat will have its own data analyst to curate combined data from the review chapters, allowing the secretariat to effectively communicate the Lessons Learnt from the Review Chapters.

### Secretariat Tasks:

- 1. Coordination and Communication:**
  - Act as a liaison between all governance levels and key partners.
  - Manage extensive communication channels, like newsletters, bulletins, and web updates.
- 2. Advanced Documentation and Analysis:**
  - Conduct thorough analyses of Review Chapters to identify knowledge gaps and draft Lessons Learnt.
  - Develop comprehensive recommendations based on Review Chapters concerning topics including policy, infrastructure, and funding.
- 3. Active Community Building:**
  - Initiate and manage a community platform for continuous engagement.
  - Organise webinars, and workshops.
- 4. Governance and Strategy Development:**
  - Participate actively in strategic planning and decision-making processes.
  - Facilitate the formation of new partnerships and collaborations.
- 5. Monitoring and Evaluation:**
  - Implement a framework for monitoring Open Science trends and outcomes.
  - Evaluate the impact of the Initiative's activities and recommendations.
- 6. Conflict of Interest Management:**
  - Oversee the implementation of conflict of interest guidelines.
  - Handle disclosures and ensure compliance.

### Staff Requirements: 3-5FTE

- **Executive Director:** Leads the secretariat, participates in strategic planning, and oversees all activities.
- **Network manager:** Manages and supports community platforms for continuous engagement. Actively builds new collaborative networks, specifically in the Global South. Support executive director with collaborative partnerships-
- **Office and Communication Manager:** Manages internal and external communication, including publicity and public relations. Supports community-building efforts, including events and digital engagement.
- **Research Analyst:** Conducts analyses of reports and assists in the preparation of state of knowledge reports and recommendations.

### Budget

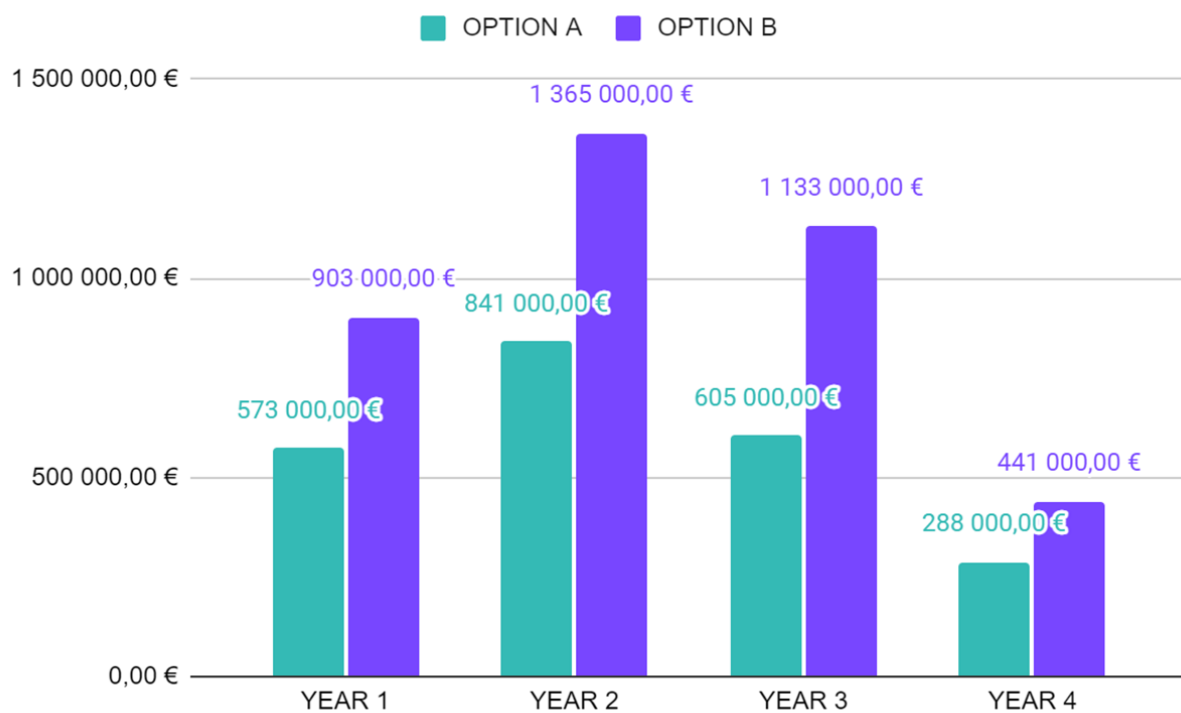
Budget has three main categories:

- Funding for Review chapters - estimated cost 80 000€-140 000€ / review
- Professional coordination and communication - secretariat with 2-5 FTE
- Office and travel

Proportional budget allocation between three main categories:



The budget will be dependent on the number of partners joining the Initiative. The estimated annual contribution per partner could vary from 50 000€ to 100 000€. With sufficient partnerships the overall budget for options A and B would be:





## 6. CONCLUSION

This Initiative is essential in advancing Open Science on the global scale. Equipped with the curated and synthesised knowledge it will produce, the global community is able to adopt evidence-based strategies to accelerate Open Science for the benefit of society and research itself.

Specifically, this initiative will contribute to five key global outcomes:



**Global Perspective.** The Global Research Initiative on Open Science will produce a unique global perspective on Open Science that has never been seen before. The perspective will form through a thorough analysis and a complete review of all existing research and experience on Open Science. The existing knowledge will be drawn from the global community conducting research on and advancing Open Science in all the different contexts.

**Comprehensive understanding.** The review chapters produced in this Initiative will provide a comprehensive understanding of Open Science: a global state-of-the-art knowledge on the advances and challenges faced by the advent of Open Science. The reviews will also allow a new and unique perspective on the impact Open Science has on societies and on the global research community.

**Research Community.** Research is a collective endeavour : the Initiative will help create a vibrant 'Research on Open Science' -community. Open Science is a transformative global movement: understanding it requires a diverse group of researchers and policymakers to engage in dialogue and collective learning in order to both create a new global understanding and take on the next research challenges.

**Transformative Knowledge.** Research on Open Science needs to be synthesised for the results to reach their transformative potential. The Initiative will curate the global research on Open Science into openly available transformative knowledge that is easily available and usable for anyone working to enhance Open Science globally.



**Evidence-Based Policies.** The curated meta knowledge on Open Science will allow for countries, organisations and new initiatives to develop and adopt Open Science Policies which are based on evidence. A new understanding will be brought forth for the design of policies that foster and optimise the increase in the openness of the research processes and products.

## ANNEX 1: GUIDELINES FOR MANAGING CONFLICT OF INTEREST/COMMITMENT

Conflict of interest guidelines promote impartial decision-making and prevent improper influence on the resolution of matters.

These guidelines apply to all members associated with the Global Research Initiative on Open Science, including the secretariat, Steering committee, Academic advisory board and task force members.

### What constitutes a conflict of interest/commitment?

Grounds for conflict of interest arises:

- if they or their close associate is directly involved with the matter in discussion or decision to be made;
- if they or their close associate assists or represents someone who is expected to gain particular benefit or harm from a decision to be made;
- if they or their close associate stands to gain particular benefit or suffer particular harm from a decision to be made.

"Close associate" refers to:

a trustee's or staff member's spouse; their child, grandchild, sibling, parent, grandparent; and any person particularly close to the trustee or staff member as well as the spouse of such a person;

Working for someone involved in the case, or someone who could either directly benefit or be harmed by the decision;

Example: An Academic Advisory Board member would be on the editorial board of a publication series, which could form a key component of review material that has a conflict of interest when reviewing the suitability of the publication for inclusion as material for the review.

Example: An Academic Advisory Board member (or their close associate) would be on the board of a foundation contributing to the funding of a task force, has a conflict of interest in choosing task force members.

A relationship of friendship, enmity, or controversy only constitutes a basis for conflict of interest/commitment if it undermines impartiality.

Co-authorship can cause conflict of interest/commitment when it involves genuine collaboration and a jointly produced publication. Articles in the same collection are not joint publications. Co-authorship expires in three years.

The three-year rule also applies to a trustee or staff member as a supervisor, subordinate, or work director.

#### Reputation Management - How Does It Look

When considering conflicts of interest, it is worth considering "How does it look?" from an outsider's perspective. Therefore, a trustee or staff member should readily recuse themselves if not doing so poses a risk to impartiality from a reputation management perspective. The key consideration is whether there is sufficient organisational distance between the individuals?

#### How are conflicts of interest/commitment reported and decided?

The responsibility for recognising conflict of interest/commitment rests on the members themselves. A member with a conflict of interest will inform others of the conflict immediately.

Questions regarding conflicts of interest must be resolved without delay. The appropriate body where the conflict exists decides on the disqualification of a member, presenter, or other person present. The member could be excused from all discussions on the matter/decision or only from formal decision-making on the matter. If necessary, the matter can be referred to higher level decision-making in the Initiative.

Conflicts of interest/commitment and their reasons are noted in the relevant processing documents. In practice, this typically means meeting memorandums (e.g., statements).