GLOBAL RESEARCH COUNCIL

EUROPEAN INPUT TO THE HOSTS OF THE
2023 ANNUAL MEETING OF THE

Global Research Council

Report from the European Regional Meeting

19-21 November 2023, Bucharest and online

UEFISCDI

SCIENCE EUROPE
Shaping the future of research

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Regional Meeting of the global research council: Research and Sustainability

INTRODUCTION AND GENERAL REMARKS FROM THE EUROPE REGION

The Europe Regional Meeting took place on the 20th and 21st November, at the Central University Library, Bucharest, Romania. The meeting was co-hosted and co-organised by The Executive Agency for Higher Education, Research, and Innovation Funding of Romania (UEFISCDI) and Science Europe.

The targeted audience comprised of representatives of GRC participating organisations, and invited guests from research funding and performing organisations from all over Europe, with a total of 77 attendees in-person and 27 online across the two days.

The event was organised as part of the five GRC Regional Meetings that take place every year in preparation for the subsequent Annual Meeting. The co-hosts of the 2024 GRC Annual Meeting - SNSF, Switzerland, and FONSTI, Ivory Coast – presented a topic proposal to the GRC Governing Board in May 2023, which was subsequently adopted.

The topics for discussion for the 2024 GRC Annual Meeting edition are research and sustainability, specifically addressing three sub- topics, namely:

- **Research For Sustainable Development**
- **Making Research Itself Sustainable**
- **Making Sure Sustainability Science Matters**

FONSTI and SNSF had prepared a document[1] that was used as a background for the discussions, summarising the state of the art of the issues at stake in each of the three areas, the challenges and opportunities from the point of view of national research councils. The document had been circulated to GRC Participants together with the invitation to register for the event.

These topics have been of increasing importance in the research policy debate in recent years. Research funding organisations share a responsibility to make research more sustainable and to contribute to the implementation of the 2030 Agenda of the United Nations, a comprehensive framework to achieve the 17 Sustainable Development Goals. Furthering discussion in these three sub-topics will allow for complementary perspectives and building synergies to address such complex issues through research activities.

[1] Discussion paper for the 12th Annual Meeting of the Global Research Council in Interlaken, Switzerland hosted by the Swiss National Science Foundation (SNSF) and the Fonds ivoirien pour la Science, la Technologie et l'Innovation (FONSTI).

The discussions that took place in all Regional Meetings are intended to input the development of a Statement of Principles, due to be adopted at the Annual Meeting of the GRC in 2024. Besides, the Regional Meetings also facilitate the establishment of regional networks and give the opportunity to take stock of the activities of the three Working Groups of the GRC: the WG on Equality, Diversity and Inclusion; WG on Responsible Research Assessment; WG on Multilateral Engagement.

The GRC European Regional Meeting in Bucharest was opened by the following speakers:

- **Adrian Curaj**, Director of the Executive Agency for Higher Education, Research, Development, and Innovation Funding of Romania (UEFISCDI), Science Europe Governing Board Member
- **Marc Schiltz**, President of Science Europe, CEO Of the Luxembourg National Research Fund, European Member of the GRC Governing Board
- **Euclides de Mesquita Neto**, Executive Secretary of the Global Research Council and Deputy Chair of the Panel for Research Collaboration at São Paulo Research Foundation (FAPESP)
- **Cristian-Silviu Buşoi**, Member of the European Parliament and Chair of the ITRE Committee
- **Tiit Jürimäe**, Senior Policy Officer at the Directorate-General for Research and Innovation, European Commission

Moreover, the three sub-topics were addressed one-by-one, in specific sessions which started with a presentation and contextualisation by Prof. **Angelika Kalt**, Director of the Swiss National Science Foundation (SNSF) and Vice-President of Science Europe.

The present report reflects the essence of the discussions held during the two-day event, including the opening speeches, keynote presentations, panel sessions and break out discussions. The points below are not attributed to any individual speaker or participant as they present the entirety of points raised collectively.

1. RESEARCH FOR SUSTAINABLE DEVELOPMENT

Research for sustainable development plays a crucial role in understanding and mitigating the environmental, social, and economic challenges that the world is facing. By investigating innovative solutions and approaches, researchers contribute to the creation of knowledge that can inform policies, practices, and interventions aimed at achieving long-term sustainability. Examples of specific sustainability challenges include for instance topics such as food insecurity, climate change, water scarcity, limited access to education, armed conflicts, and exploitative economic activities.

Sustainability challenges are of a complex nature, and related to the 17 interconnected Sustainable Development Goals, which build the of the UN 2030 Agenda. Research questions addressing those challenges should be aligned to societal needs, consider the state of public awareness, and implement trans disciplinary approaches for mitigating tensions between diverging interests.

Transdisciplinary approaches support knowledge coproduction[1] among scientists and non-academic actors and stakeholders. They are particularly useful when it comes to aligning the research work to societal challenges, and to jointly develop knowledge together with non-academic actors.

THE ROLE OF BASIC RESEARCH IN ADDRESSING SUSTAINABILITY CHALLENGES

Initially met with enthusiasm by citizens and policymakers, the global discussion on Sustainable Development Goals faced some setbacks, revealing a lack of resilience and foresight vision in the face of crises. In the narrative over SDG's, emphasis is often placed on addressing sustainability issues through problem-solving research, prioritizing practical knowledge. However, concerns were expressed that this approach would potentially limit the scope of research exploration, undervaluing broader research topics that could bring up unexpected valuable insights.

The need for a plurality of research systems was therefore highlighted, namely the importance of both solution-oriented and basic research, as it has been exemplified in the rapid development of the COVID vaccine through long-term mRNA technology research.

The importance of continuous investment in basic research for genuine innovation is also crucial, particularly in understanding complex sustainability issues.

OBSTACLES TO THE DEVELOPMENT OF TRANSDISCIPLINARY APPROACHES TO SUPPORT KNOWLEDGE COCREATION

Sustainable science needs to be interdisciplinary, problem-solving, and action-oriented, using knowledge from scholars, practitioners, and the civil society. However, this approach comes with significant expectations and, consequently, tensions, objections, and conflicts, particularly due to the diverse mindsets, interests, and incentives of researchers and practitioners. Therefore, transdisciplinary research requires substantial time for development, trust establishment, and mutual understanding among professionals from different backgrounds.

While a universal recipe for trans disciplinarity in science may not exist, there is potential for general methodologies, basic principles, or assessment criteria that can be adapted to specific problems or situations. At the EU level and in some national research funding organisations,

various funding opportunities exist for initiating this kind of cooperation, but maintaining successful relationships post-funding has proven to be challenging.

Besides, initiatives in trans disciplinarity often concentrate on local levels, lacking efforts to generalize knowledge for broader visibility and applicability. Therefore, the scattered nature of insights across disciplines in sustainability research necessitates more studies and integration of knowledge.

Another significant obstacle can also lie in the mono-disciplinarity of bodies that decide upon research funding, hindering the realization of comprehensive sustainability science. This is where research funding organisations can play a role in incentivising the breakdown of barriers across disciplines.

HOW TO BETTER SUPPORT THE TRANSFER OF KNOWLEDGE INTO IMPLEMENTATION

Capacity building is essential to support the knowledge transfer. This can be developed through various initiatives, such as the establishment of career paths for researchers, mentoring programs, or also the integration of transformative research approaches into university curricula.

When it comes to research funding, developing mechanisms that provide continuous and sufficient support to all types of research is crucial. In parallel, research funding organisations should implement a monitoring mechanism to survey the scientific ecosystem, ensuring that ongoing support aligns with evolving research needs. A better identification of these needs should be accompanied with a culture of encouragement of collaborative co-design and co-production of knowledge, which will foster a sense of ownership among stakeholders. This collaborative approach increases the likelihood of successful translation of research results into practical applications.

Research funding organisations can also play a concrete role in facilitating activities that bridge the gap between research and implementation, such as knowledge translation workshops, industry partnerships, and collaborative initiatives that encourage the practical application of research findings.

Similarly, encouraging and funding proof of concept studies that demonstrate the feasibility and viability of translating research findings into practical applications, can act as important stepping stones toward broader implementation. This is the type of mechanisms that research funding organisations can put forward.

Another important element is to develop measurable criteria, including indicators for societal impact, to assess the effectiveness of research in driving positive changes in society.

Finally, strengthening communications between researchers, practitioners, policymakers, and the public, will also help to ensure that research findings are effectively disseminated and understood by relevant stakeholders.

2. MAKING RESEARCH ITSELF SUSTAINABLE

Research should address wider challenges of making research itself an expression of economic, ecological, and social responsibility. Making research itself sustainable is not only about reducing environmental footprint, but it needs to consider the wider social and economic challenges that threaten the sustainability of research.

In this regard, making research itself sustainable implies several dimensions: encouraging sustainable research practices, adopting sustainable research assessment systems, and developing sustainable research cultures.

These dimensions are all inter-related, since developing a more sustainable research culture will require more sustainable forms of research assessment, which in turn should encourage more sustainable research practices and an end to ways of working that make our research environments unsustainable.

The process of creating sustainable research ecosystems requires a greater understanding of the footprints of research broadly defined, ecologically, socially, economically etc. and the adoption of specific actions that reduce those footprints. This will not only lead to meaningful research for society but will, more broadly, contribute to the United Nations' Sustainable Development Goals.

GOOD PRACTICES ENCOURAGING MORE SUSTAINABLE RESEARCH PRACTICES

The development of positive research cultures is key to attracting and retaining a diversity of talented people, contributing to research quality and sustainability of research systems.

In this respect, a few best practices can be noted that help to foster this environment.

Creating spaces and occasions that avoid the fragmentation of research practices, by shedding lights on sustainable R&I initiatives with other stakeholders or establishing databases on established measures, help to foster a positive and accessible approach to sustainability. This was for instance done through initiatives such as DORA and COARA, which provide guidelines and examples to introduce sustainability in the research assessment. These platforms are an illustration of a successful cocreation approach, aimed at defining principles in cooperation among experts from different disciplines.

It is also important to publicly recognise the long-term dimension of impact and accept this as an inherent aspect of making research sustainable. In a current political landscape that is driven with immediate and short-term impact with predefined objectives, it might be tempting to give into the mainstream discourse, but the reality is that making research sustainable also means focusing on the quality of research itself.

Another element is to reinforce the iterative process of research evaluation, meaning offering more possibilities for research funding applicants to explain their sustainable approaches to evaluators and funders. This can allow for more flexibility at the application phase.

RESEARCH ORGANISATIONS ASSESMENT OF THEIR RESEARCH EVALUATION SYSTEMS

The transition from sets of metrics in assessing the research as surrogates for quality to research assessment that allows time to quality on top of quantity, is a long process, and different models are competing at the moment. Some research funding organisations include, in their evaluation systems, indicators such as contribution to strategies and policies. This kind of indicator is difficult to assess but helps to transition from a metrics-focused approach.

As mentioned above, initiatives such as DORA and COARA have also proved to be helpful in providing guidelines to introduces sustainability in research assessment.

However, an obstacle remains when it comes to making research systems more sustainable. Indeed, sometimes sustainability requirements for researchers in calls for R&I funding applications can be quite restrictive and led to some RFO's to give lighter criteria in the proposal phase but, more requirements once the project is selected. As mentioned above, some flexibility is therefore needed in the research evaluation system to allow for researchers to have opportunity to introduce sustainability later in the R&I process.

CHALLENGES FACED WITH SUSTAINABLE RESEARCH PRACTICES

Many changes in sustainable research system require changes in behaviours and values which take time. It is important to be aware of the long-term nature of these changes beforehand.

Besides, there might be a conflict arising between different goals: sustainability goals might sometimes be at odds with goals of economic competitiveness for instance. Therefore, putting sustainability as a priority implies to have political support.

Another obstacle that is faced by many research funding organisations is the structural lack of funding available to foster sustainable research practices. Because of the complex and long-term nature of this transition, funding needs to be provided accordingly and in the long run. It is therefore crucial that the role and impact of research funders is acknowledged by policy makers, and that they receive the adequate support. This will in turn require that universities also get the necessary funding since they play, too, an important role in fostering and implementing sustainable research practices.

3. MAKING SURE SUSTAINABILITY SCIENCE MATTERS

Supporting scientific knowledge will benefit not only policy makers but also society as a whole. However, making most of research results for policy makers and society requires specific efforts and structures.

The challenges are especially high when it comes to the application of sustainability science, because of the urgency of the questions for our future as a society, and also because the application of results often requires changes to the social fabric and established economic systems. Changing behaviours and beliefs has often proved to be challenging and leading to fundamental questions of values and identity.

In this context, researchers are societal actors among others. They are aware that sustainable transformation is only possible through co-creation and joint action. Climate science is a striking example: scientists have established what is at stake and what could be done, yet action is slow, since it stays in the realm of policy makers. Besides, the relevance and reliability of scientific results can be contested by a minority of researchers, illustrating that science is not static, and do not automatically lead to consensus.

Since systemic conditions are required to support co-creation and cultural change, learning from successful experiences is key.

PROMISING MODELS FOR BUILDING TRUST AND MUTUAL UNDERSTANDING BETWEEN RESEARCHERS, POLICY MAKERS, AND SOCIETAL ACTORS

In conducting research, all actors involved must be carefully considered and integrated into the broader research community. Establishing trust is a crucial aspect requiring collaboration among various stakeholders, including private enterprises, government entities, and communities, and a process that may be time-consuming. Trust building can be particularly challenging in times of crisis, as it has been exemplified with the Covid crisis.

Researchers can play a pivotal role in showcasing the fundamental mechanisms of their work. It is imperative for researchers not to operate in isolation but indeed to engage with the public, explaining their activities and ensuring transparency. This outreach is particularly effective when targeting a young audience, whom, once convinced, can influence their peers and family. Collaboration with schools becomes essential in this context, were educating children about research fosters curiosity. Direct contact with the public is therefore a strong promising model, encouraging researchers to step out of their comfort zones, engage in conversations with a wider audience. Science cafes for instance, are an example of direct contact with the public when addressing scientific topics, which are on the rise at the moment.

Another good method to foster trust among stakeholders is to develop co-designing research approaches with policymakers from the outset. In some countries, this has been institutionalized with policymakers being advised by researchers, which showcases the importance of exchange patterns in building trust and understanding other realities.

Last but not least, ex-post analysis conducted by research funders is significant work, but can greatly inform research processes and policymaking. Developing acute methods of deep ex post analysis will be among the future challenges for many research funding organisations.

INCLUDING CIVIL SOCIETY IN THE DIALOGUE BETWEEN RESEARCHERS AND POLICY ACTORS

As mentioned above, it is important that researchers work on transcending the "ivory tower" and engage with society, all along the R&I process. Several best practices exist and should be scaled up to foster a culture of citizen engagement in science. In this regard, research funders are called upon to be more cognizant of this imperative. A comprehensive strategy is needed, encompassing diverse situations, collaborative efforts with policymakers, and a proactive approach to public engagement.

ETHICAL CONSIDERATION WHEN INVOLVING NON-ACADEMIC STAKEHOLDERS

There are indeed several important ethical considerations when involving citizens in the research process, or when communicating science to them. In the past, an overlook of these ethical principles led to “Citizen washing”, i.e. pretending to involve people’s perspectives without really taking them into account.

When involving citizens in an active and sustained participation, training is necessary to clarify the responsibilities of the citizens and those of the researchers. The question of whether it is exploiting free labour may arise, this is why in some instance, compensation for citizens can be considered as an ethical initiative.

Another important element is to manage expectations of different actors involved, explaining the purpose of their involvement and what should be expected in terms of impact. Transparency is indeed key and is also relevant when communicating the results of research. Working on the accessibility of the research discourse for all audiences should be a dimension of responsible and ethical research.

Ethical considerations are also relevant for policymakers, non-profit organisations and companies that are involved in the research process. These types of actors also might not have the same scientific literacy but could be key partners in ensuring that sustainability science matters. This is why co-creation, based on mutual understanding from the ideation phase is a key element when considering ethics.

FINAL REMARKS

As a summary of the two-day event, European GRC participants agreed on the points summarised below.

Research For Sustainable Development

- International and interdisciplinary R&I collaborations are necessary to understand and tackle the specificities of global challenges, building on existing networks and good practices.
- Complex challenges linked to sustainability often require sustained support for long-term research, especially to get qualitative, reliable, and accessible data.
- More efforts should be deployed to identify the needs for new skills among the research community to properly tackle complex sustainability issues, calling for more bridges between research funding/performing organisations, and universities.

Making Research Itself Sustainable

- Fostering a culture of sustainability in research implies supporting innovative career models for researchers, which recognise and reward efforts conducted in knowledge transfer.
- The outcomes and impacts of policies and practices need to be evaluated to identify promising models to foster a culture of sustainable research.
- Research funding organizations can play a role in incentivising sustainability of research through a flexible approach, while building capacity for researchers and research organisations to achieve this.

Making Sure Sustainability Science Matters

- Developing accurate methods of ex-post analysis of research results will be a key element in assessing the impact of scientific projects on sustainability.
- Aside from providing financial support, research funding organisations have the intellectual capacity and legitimacy to drive change in research culture and in social acceptance of research.
- It is crucial to reinforce the dialogue and trust between researchers and policy makers, to ensure that all types of research lead to ambitious, evidence-based policies.
- Citizen engagement in science should be encouraged and supported, while tackling the issue of lack of trust and easy to interpret, accessible data.