Statement of Principles

Co-Creation for Addressing Global Challenges

Preamble[1]

Co-creation is defined as the process of the joint generation of added value between research, industry, public and civil society along all the phases of research and development (R&D), which is increasingly significant in the context of major transitions. Co-creation differs from traditional top-down decision-making by actively engaging diverse stakeholders—such as policymakers, scientists, industry leaders and citizens—in developing innovative and practical solutions tailored to specific contexts. This collaborative approach ensures strategies which effectively balance competing priorities, like economic growth and environmental sustainability or cultural appropriateness in public health initiatives. The co-creation approach also fosters shared ownership and collective action. By involving stakeholders from the beginning, co-creation can build trust and commitment, enhance the long-term success and acceptance of interventions designed to address complex global challenges such as climate change and pandemics.

This Statement of Principles is aimed at funding agencies engaged in actively addressing global challenges. It outlines approaches to advancing co-creation practices that are effective, equitable, inclusive and sustainable, providing a framework for research funding institutions and their partners to catalyze innovation and achieve transformative impacts. By embedding co-creation into institutional and policy frameworks, these principles aim to enhance the capacity of stakeholders to collaboratively address the pressing challenges of our time. The principles outlined here build on the recognition that addressing global grand challenges requires systemic, outcome-oriented approaches that integrate diverse perspectives and expertise.

The Global Research Council (GRC) and its member institutions recognize that grand challenges such as climate change, energy security and pandemics are complex, interconnected and they demand comprehensive solutions. These challenges transcend borders, disciplines and sectors, necessitating a collaborative and inclusive approach to research and innovation. Co-creation, as a participatory framework, offers a pathway to address global issues by integrating diverse perspectives, leveraging local and global knowledge and fostering partnerships across multiple stakeholders. By engaging governments, businesses, researchers and communities in joint innovation efforts, co-creation fosters more effective, sustainable and socially responsible solutions.

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[1] The Global Research Council is a voluntary, participant-based organization that recognizes the different missions, mandates and remits of its participant organizations within their respective national research eco-systems. Its positions, decisions or statements are non-binding on participant organizations. Endorsement of such reflects that participant organizations may adopt statements in ways that are consistent with national policies and priorities.

1. Inclusivity and Equity

- Co-creation should prioritize inclusivity by involving diverse stakeholders, including academia, industry, policymakers, civil society or local communities.

- Special attention should be given to integrating underrepresented groups, ensuring that voices from both developing and developed economies contribute to and benefit from co-creation initiatives.

- Research funding bodies should design programs that reduce barriers to participation and address resource disparities. These initiatives should aim to create a level playing field by ensuring equitable access to resources, fostering inclusive participation, including addressing the unique needs of underrepresented groups throughout all stages of research and innovation.

2. Stakeholder Engagement

- Effective co-creation relies on active stakeholder participation throughout the research lifecycle—from planning and implementation to monitoring and evaluation.

- Recognizing that successful co-creation requires meaningful participation and sustained engagement from all stakeholders; it is essential to equip stakeholders with the knowledge, skills and motivation necessary for active involvement in research addressing global challenges. Efforts should be directed towards fostering scientific literacy, empowering citizen science initiatives and strengthening local capabilities in order to ensure inclusive and effective collaborations among stakeholders. By embedding capacity-building strategies within co-creation processes, we enable broader stakeholder participation, cultivate mutual trust and enhance the practical applicability and long-term impact of solutions.

- Mechanisms for continuous feedback and dialogue should be established to ensure that the perspectives of all relevant stakeholders—including funding agencies, researchers, policymakers, industry representatives, civil society organizations and local communities—are effectively integrated throughout the life cycle of co-created projects. These mechanisms should promote inclusivity, transparency and collaboration, enabling diverse voices to contribute meaningfully to shaping policies and solutions.

3. Interdisciplinary and Transdisciplinary Collaboration

- Addressing grand challenges requires integrating knowledge across disciplines and fostering collaboration among diverse sectors.

- Research funding institutions should support projects that bridge disciplinary boundaries and encourage transdisciplinary approaches, combining scientific, technological and societal insights.

- Research, development and innovation (RDI) mechanisms based on co-creation approach should serve as collaborative ecosystems where diverse stakeholders—including research

institutions, the private sector, suppliers, customers, public bodies and representatives of civil society—work together to design and develop technological advancements or solutions. These mechanisms should provide tools and methodologies to facilitate interdisciplinary knowledge exchange and collective problem-solving. By embracing diverse approaches, co-creation platforms should enable the development of holistic and effective solutions to complex and multifaceted challenges.

4. Citizen Science and Public Participation

- Co-creation efforts should leverage citizen science initiatives to involve the public in data collection, analysis and dissemination.

- Public participation enhances transparency, trust and the societal relevance of research outcomes.

- Research funders should promote frameworks that enable citizens to contribute meaningfully to scientific endeavors and benefit from the resulting innovations. Educational campaigns should also be launched to enhance public understanding of and engagement with scientific processes.

5. Capacity Building and Knowledge Sharing

- To maximize the impact of co-creation, research funding institutions should invest in capacity-building programs that enhance skills, knowledge and infrastructure.

- Training programs should focus on fostering intercultural competencies, collaborative methodologies and adaptive management strategies.

- Knowledge sharing platforms should be developed to address gaps in access and ensure the dissemination of best practices, case studies and lessons learned. Global repositories tailored for co-creation data and methodologies should be established to enhance accessibility, foster collaboration and drive continuous improvement in co-creation initiatives

- Funding bodies should prioritize initiatives that support the dissemination of best practices, case studies and lessons learned from co-creation platforms. While many open science initiatives already exist, gaps remain in ensuring equitable access to knowledge, the availability of tailored repositories and the dissemination of practical guidance. To address these gaps, funding bodies should organize seminars, publish research findings and create online portals that provide stakeholders with access to valuable insights and actionable methodologies. By highlighting exemplary projects and sharing lessons learned, these efforts can inspire and guide future co-creation initiatives, fostering a collaborative culture that drives continuous improvement and innovation. Additionally, the GRC could develop a structured framework to outline processes, methodologies and best practices for collaborative research and innovation, while facilitating targeted international collaboration through joint RDI projects, workshops and exchange programs. These actions would ensure that co-creation efforts are both effective and transformative in addressing global challenges.

6. Leveraging Emerging Technologies

- Emerging technologies such as artificial intelligence (AI), blockchain and the Internet of Things (IoT) should be strategically utilized to enhance co-creation processes.

- These technologies can enable real-time collaboration, improve decision-making, transparent data sharing and streamline project management.

- Research funding institutions should ensure that the adoption of technology in co-creation adheres to ethical standards, promotes transparency and mitigates risks such as algorithmic bias and data privacy concerns. Investments in technology literacy programs can ensure that stakeholders are equipped to effectively use these tools.

7. Sustainability and Long-term Impact

- Co-creation initiatives should align with the principles of sustainability, addressing economic, social and environmental dimensions.

- Research funders should prioritize projects with clear pathways for scalability and long-term impact, ensuring that solutions are adaptable to changing global conditions.

- Metrics for evaluating sustainability and impact should be integrated into funding and reporting frameworks. These metrics should include environmental footprints, social equity indicators and economic viability assessments to provide a comprehensive understanding of project outcomes.

8. Accountability and Governance

- Robust governance structures are essential for ensuring transparency, accountability and ethical integrity in co-creation initiatives.

- Research funding institutions should establish clear guidelines for resource allocation, intellectual property rights and conflict resolution.

- Periodic evaluations and audits should be conducted to assess the effectiveness, integrity and inclusivity of co-creation activities. To address power imbalances and logistical barriers, co-creation initiatives should incorporate clear governance structures, equitable access to resources, mechanisms for inclusive dialogue and strong leadership to ensure all voices are heard and collaborative efforts remain focused on shared goals. Publicly accessible reports can further enhance trust, transparency and encourage sustained collaboration

Implementation Strategies

To operationalize these principles, the following strategies are recommended:

- **Development of Co-Creation Platforms:** Establish inclusive platforms where stakeholders can collaboratively design, implement and evaluate projects. These platforms should include features that support multilingual communication, virtual participation and real-time collaboration.

- **Funding Mechanisms:** Introduce adaptive funding programs that support multi-stakeholder partnerships, incorporate underserved communities and address emerging challenges. Flexibility in funding structures can encourage innovation and responsiveness to unforeseen challenges.

- **Policy Advocacy:** Advocate for policies that foster co-creation, including regulatory frameworks that encourage innovation and protect stakeholder rights. Advocacy efforts should highlight the societal benefits of co-creation to, for example, garner public support.

- **Global Collaboration:** Strengthen international partnerships by facilitating knowledge exchange, joint funding schemes and shared infrastructure. The creation of international co-creation consortia can further unify efforts toward common goals.

- **Monitoring and Evaluation:** Implement comprehensive evaluation frameworks to measure the impact, equity and sustainability of co-creation initiatives. These frameworks should include both quantitative and qualitative indicators to provide a balanced assessment.