MAGICA

Maximizing the synergy of European research Governance and Innovation for Climate Action

D4.7 Recommendations to Research Funders

Advancing societal transformation for climate action: How future funding can address identified research gaps

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List of abbreviations

ECCA	European Climate Change Adaptation Conference
ERA	European Research Area
Equinox	A process initiated by JPI Climate with the aim to accelerate the development and transfer of climate knowledge to policy for urgent action
EU	European Union
FP10	EU's Tenth Framework Programme for Research and Innovation
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
IPCC	Intergovernmental Panel on Climate Change
JPI Climate	Joint Programming Initiative "Connecting Climate Knowledge for Europe"
MAGICA	Maximising the synergy of European research Governance and Innovation for Climate Action
SOLSTICE	Enabling Societal Transformation in the face of Climate Change
SRIA	The Strategic Research and Innovation Agenda for Climate Sciences (2026-2035)
SSH	Social Sciences and Humanities

Advancing societal transformation for climate action: How future funding can address identified research gaps

Knowledge-building that can inform policy and help develop innovative approaches to address complex issues such as climate action, is essential to drive societal transformation towards a sustainable future. Enabling this requires research funding that is justice-oriented and deeply integrated within society. Furthermore, it is important that the funding mechanisms increasingly anticipate future knowledge needs. For example, engaging with key stakeholders in inclusive co-creative processes can help identify emerging challenges and critical knowledge gaps and needs in funding calls and research projects. Societal transformation research needs to have a wide, all-embracing and contextual approach that builds on organisations, business and citizens and their interactions. Future research programmes and calls tailored towards advancing societal transformation for sustainable solutions to the climate crisis should align with key existing frameworks and policies (Simpson et al. 2021) and enable genuine transdisciplinary collaboration and long-term stakeholder engagement that brings together diverse knowledge systems for sustainable solutions to the climate crisis (Hermansen et al. 2021).

1 Introduction and purpose of this document

The recommendations presented here are intended as a resource to inform both EU funding as well as national research funders across the European Research Area (ERA) when preparing research programmes and calls to fill knowledge gaps for enabling societal transformation in the face of climate change. These recommendations are focused on *how* future funding can be designed highlighting the role of social sciences and humanities (SSH). Future funding refers to e.g. EU's Framework Programme 10 (FP10), relevant EU Missions, European Partnerships and JPI Climate, as well as national funding schemes. In this way, it complements the Strategic Research and Innovation Agenda (SRIA) for Climate Sciences (2026-2035), one of the main outputs of the MAGICA project that aims to be a reference framework for climate change research in ERA.

The recommendations presented here are based on:

- MAGICA Deliverable D4.6 'Lessons Learnt for Enabling Societal Transformation from Social Science and Humanities in the Face of Climate Change' (Standal et al. 2026).
- Outcomes of the Equinox Workshop on Societal Transformation in the Face of Climate Change held in Brussels 11 December 2025.
- The Strategic Research and Innovation Agenda for 2026-2035 (SRIA) (Wagner et al. in review), particularly the section on Scientific Underpinnings of Societal Transformation for Climate Action.[1]

[1] The SRIA is structured around four Strategic Research Challenges priorities and research gaps: 1) Improved understanding of the Earth's Climate System, 2) Scientific Underpinnings of Societal Transformation for Climate Action, 3) Climate Adaptation – Towards Climate Resilience, 4) Greenhouse Gas Management and Carbon Dioxide Removal

- The report on the European Climate Change Adaptation conference (ECCA) 2025, held in Rimini, 16-18 June 2025 (Canzi et al. 2026)
- Background note on thematic areas for filling research gaps for enabling societal transformations in the face of climate change for JPI Climate research call in the SOLSTICE program (Standal, Legris and Revez 2025).

2 The role of social sciences and humanities in advancing the understanding of societal transformation

In the face of climate change, there is a need for societal and technological transformations concerning energy, land use, urban infrastructure and industrial systems (IPCC, 2018: SR15). This transformation concerns a fundamental shift in social organisation and human activities: moving beyond technological fixes, improved management, or incremental policy or behavioural changes. Instead, it calls for transforming political, economic, and social structures that maintain the current system (IPBES 2024; O'Brien 2012). In other words, effective climate mitigation and adaptation depends on public understanding, trust and support and systemic, holistic approaches that integrate social, environmental and economic dimensions of resilience (Canzi et al. 2026).

Social sciences and humanities (SSH) are instrumental in this knowledge-building as they advance scientific, conceptual, or theoretical understanding of needed shifts in governance, socio-economic and cultural factors, and knowledge systems that are required for enabling a fair and sustainable transition towards a climate neutral and climate resilient society that safeguards the well-being of future generations and ecosystems. Further, SSH are needed to address issues of morality and ethics, including whose voice and knowledge is recognised as relevant (epistemic justice), how injustices are resolved within legal systems (procedural justice) and distribution of benefits and responsibilities in the climate transition (Newell et al. 2023). These aspects are important to provide the necessary legitimacy, societal trust and social cohesion for climate action.

3 Identified research gaps within societal transformation

The recommendations presented in this document are focused on societal transformation and are related to the research gaps presented in the SRIA's Strategic Research Challenge 2 - *Scientific Underpinnings of Societal Transformation for Climate Action* (Wagner et al. in review) and key messages drawn from the discussions and conclusions from the 2025 ECCA conference (Canzi et al. 2026). These research and innovation priorities and knowledge gaps are summarized here:

Transformative governance and policy: Current research lacks a systematic understanding of how governance structures, institutional arrangements, key actors and legal–financial frameworks interact to shape climate policy across governance levels and sectors. There is also limited insight into how climate policies produce uneven impacts across communities, and how trust and inclusive participation can be strengthened to improve climate governance effectiveness. This relates to policy effectiveness and just outcomes, unlocking climate finance, legal frameworks and climate litigation.

The role of climate perceptions: There is a lack of an integrated understanding of how climate action perceptions are shaped by political worldviews, experiences of extreme events, increasingly distorted information ecosystems and declining trust in science and institutions. This is essential to inform how responsibilities for climate mitigation and adaptation can be communicated in meaningful and trustworthy ways that develop social cohesion around climate action.

Just transition and climate resilience: Research needs to increase the understanding of how climate action can be made more just, inclusive and context sensitive. This is particularly relevant at the local level where bottom-up approaches can be more effectively tailored to community needs and contexts through transdisciplinary collaboration and participatory approaches. This includes how context-specific approaches that promote low-carbon lifestyles and community resilience can be scaled, sustained, and integrated into wider systems of change, as well as how increasing capabilities, community empowerment and integrating diverse forms of knowledge can build sustainable and just futures.

Global economy and international security dynamics: Current research provides limited insight into how geopolitical dynamics, trade relations and power (im)balances influence environmental systems, societal resilience and the multilevel implementation of climate action. There is insufficient understanding of impacts across sectors. This relates in particular to international governance regimes, geo-political turbulence and shifts in resource flows.

4 Recommendations for future funding to fill the research gaps to advance societal transformation

Building on the research gaps summarised in section 3, this section provides recommendations to research funders on how future funding can be designed and operationalised to address these gaps and advance societal transformation. The recommendations are organised along four dimensions in which SSH are instrumental: 1) Thematic priorities for enhanced societal relevance, 2) Building cooperative structures and knowledge integration and 3) Supporting, communication, impact and learning and 4) Practical recommendations concerning calls and structural support.

4.1 Thematic priorities for enhanced societal relevance

- **Dimensions of marginalisation and justice need to be integrated as a cross-cutting issue in funding calls.** Justice is relevant across all thematic areas related to societal transformation for climate action. A lack of focus on justice may lead to policy backlash and hinder sustainable climate solutions. Funding calls can facilitate justice for society and nature through clear requirements and guidance for research projects. As such, applications for research calls could be required to address distributional effects, underlying challenges of epistemic justice and how to address justice failures through procedural justice. Deeper understandings of justice that see

marginalisation and structural inequality as interlinked (e.g. low-income groups, ethnicity, gender) and take into account temporal dimensions (generational justice) should be systematically integrated to ensure justice is not conflated and misused.

- **Future research calls should address emerging and multiple challenges.** Geopolitical turbulence, pandemics, mis- and disinformation are examples of current crises that amplify the complexity of climate action. Future research must integrate a multilevel outlook and understanding of these interlinked and simultaneous challenges from global to local level into transformation strategies to provide research that identifies trade-offs and synergies of climate action.

- **Translation of risk into decision-relevant knowledge for climate finance.** Funders should support research that clarifies combined climate and nature risks and translates these insights into integrated and decision-relevant knowledge for investors, companies and public authorities. Current risk tools are too simple to guide meaningful investment, and SSH expertise is essential for capturing the social and ecological context in which financial decisions are made and align investment decisions with societal transformation needs. Co-benefits of climate action and negative long-term effects of inaction on financial returns needs to be highlighted in research.

- **Ensure broad geographical coverage and enable comparative research across contexts.** Research projects and publications are concentrated on some European countries and focus on single country case-studies dominate. Research funders should enable research projects that broaden the geographical scope. Further, funding calls should incentivise research designs that engage with methods and frameworks that are relevant for knowledge exchange to multiple contexts to contribute to theory and practice (through policy relevance or application). The emerging EU-AU Partnership on Climate serves as an example of a platform that may address limitations in geographical coverage.

4.2 Building cooperative structures and knowledge integration

- **Enabling interdisciplinary social science-led research.** Delivering transformative change requires integrating diverse perspectives, knowledges and disciplines, especially those from the social sciences and humanities (SSH). Further, research calls should enable diversity in research teams, experimentation with new topics and methods to foster innovation and original research that is more inclusive, just and system transformative. This has e.g. been implemented in the funding calls of JPI Climate's SOLSTICE program.

- **Integration of stakeholder engagement and transdisciplinary collaboration in research.** Societal transformation requires integrated solutions, which is contingent on co-creation of knowledge across disciplines and communities to foster shared and holistic understanding, effective translation of research into practice, and open pathways for uptake of innovative

solutions. This includes collaboration among researchers, policymakers, public authorities, the private sector, citizens, and marginalized groups to draw on multiple knowledge systems. Such transdisciplinarity and stakeholder engagement demand competence and resources, including dedicated time and research staff. Research funders should support this by incorporating stakeholder needs in funding calls and providing clear requirements and guidance for applicants to integrate co-creation from the research idea and throughout projects. This requires strategies for addressing long-term engagement challenges (stakeholder fatigue, change of priorities, time-limits). Funding calls should also specify expected outcomes of co-creation activities to allow for monitoring of how these targets are achieved.

- **Building a strong science-policy-society nexus.** Advancing societal transformation for climate action requires strong integration across scientific, policy, and societal spheres that enhance informed policy and society decision-making. Research funders should enable and support sustained and open dialogue between researchers, policymakers, and local practitioners. In addition to our other recommendations for stakeholder engagement, research funders should facilitate alignment between funded projects and platforms for co-creation, knowledge exchange and science-policy dialogue such as the ECCA conference, the Carbon Neutrality Forum, the Equinox Process[2] and other similar processes or events.

- **Build on and strengthen existing frameworks and policies.** To enable societal transformation there is a need for continued research that underpins societal ambitions such as 'resilience by design' and preparedness. This includes critically reviewing, building on and enhancing current knowledge frameworks concerning climate and nature risks and potential actions (e.g., IPCC and IPBES, the EU's forthcoming Integrated Framework for European Climate Resilience and Risk Management, etc.). New knowledge generated by research should specifically engage with framework dimensions that are less understood or overlooked. Here, SSH have an important role to play to advance informed decision making that integrates complex societal dynamics and addresses societal trade-offs.

- **Collaborative activities for capitalising on existing knowledge.** Research funders can maximise societal impact and integrated knowledge through facilitating research projects' integration with knowledge hubs and repositories, and long-term engagement with local stakeholders**.** Research funders can support long-term transdisciplinary collaboration and scaling of research results through funding of multi-phase or series of projects that involves the whole ecosystem of transdisciplinary stakeholders.

[2] The Equinox Process is a JPI Climate initiative to accelerate the development and transfer of climate knowledge to policy for urgent action.

4.3 Supporting communication, impact and learning

- **Develop and strengthen innovative communication to enhance climate action support.** Funding calls should incentivise research projects to develop and strengthen the communication of climate transitions in ways that connect people's everyday lives and needs, particularly in an era of increasing distrust towards traditional and social media. Emphasising co-benefits of climate action, such as improved health, biodiversity protection and social equity, may help link climate goals with broader societal challenges. Funding calls should incentive research that strive towards deep understanding of what forms climate perceptions and engage in innovative and contextualised ways (e.g. local languages and audience segmentation) to enhance outreach of communication. This includes knowledge translation to the public and policy and cooperation with e.g. arts and communication actors. Testing out new formats and channels and engaging in continuous feedback loops should be encouraged. Research funders can also support formation of knowledge hubs and observatories (e.g. evolution of climate transition attitudes) to gain better knowledge of how communication can be targeted to different contexts.

- **Integration of strategies for potential impacts and learning.** Research calls and funded research projects should have clear strategies for scaling research results and societal impact (preferably beyond local contexts). This relates to transdisciplinarity to ensure integration of different knowledge systems and feedback loops and development a framework to guide the upscaling of societal outputs. This requires resources for systematic monitoring and evaluation to enable an overview and better understand the potential outcomes and impacts (beyond publications and citation metrics). Research funders should foster capacity-building and internal reflexive learning within and between projects funded under the same call to break disciplinary and geographical silos and advance science outreach and equipping the new generations of researchers with required skills and knowledge. Further, research funders may allocate resources funding programs/calls to better understand potential outcomes and impacts on societal transformation that are beyond the scope of single projects.

- **Promoting Open Science for climate action**. Rigorous standards of transparency and openness are essential for strengthening the quality of climate research. An Open Science approach enables faster climate action by improving knowledge exchange, collaboration, and accountability. Research funders should require and facilitate that data, methods, and research outputs are openly accessible to support previous points of recommendations for more robust scientific progress and quality of climate research.

4.4 Practical recommendations concerning calls and structural support

- **The above-mentioned recommendations require several practical measures for implementation**. These include: sufficient call deadlines for setting up relevant research

consortiums and engage with stakeholders in developing research design; broad outreach of call dissemination to attract broad and relevant research fields; adequate budgets that accommodate for transdisciplinary collaboration (preferably where non-academic partners can be full partners) and research designs that engage with methods and frameworks relevant for cross-geographical and contextual knowledge; supportive administrative requirements and frameworks (e.g. uniform requirements for different national partners in international partnerships); clear eligibility criteria and proposal submission guidance.

5 Documents for further reading/references

Bley et. al (forthcoming) An action plan on the future role of science in the implementation of EU policies and legislation and recommendations for the design of corresponding scientific and institutional structures. MAGICA project Deliverable 2.2

Canzi G., Depuydt M., Galluccio G., Manderscheid P., Mattacchione E., Singh K., Trozzo C. (2026). Report on ECCA 2025. MAGICA project deliverable D4.2

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Standal, K., Legris M. and A. Revez (2025) Filling Research Gaps for Enabling Societal Transformations in the face of Climate Change. Background note on Thematic Areas for Research Call SOLSTICE 2.

Wagner et al. (in review) Strategic Research and Innovation Agenda for Climate Sciences (2026-2035) – Inspiring the European Research Area to Provide Effective Responses to Climate Change. MAGICA project Deliverable 3.2.

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