



**NORFACE  
NETWORK**



Project no.: 730211

# **Transformations to Sustainability (T2S)**

## **Programme Text**

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This document will be updated as soon as new information is available.

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# 1. Introduction

## 1.1 Background to the call

This Programme Text refers to the thematic approach of the T2S programme and outlines the scope of the project to be funded. In addition, the Call for Proposals text with its accompanying documents gives comprehensive information on the application procedure and technical details of this international call.

This Transformations to Sustainability (T2S) Call will be implemented as a Belmont Forum Collaborative Research Action (CRA) in cooperation with the NORFACE (New Opportunities for Research Funding Agency Cooperation in Europe) network and the International Social Science Council (ISSC) with the support of the Swedish International Development Cooperation Agency (Sida).

The Belmont Forum was established in 2009 as an informal forum of funding agencies across the world which support global environmental change research. It aims to accelerate delivery of the environmental research needed to remove critical barriers to sustainability by aligning and mobilising international resources. It pursues the goals set in the [Belmont Challenge](#) by adding value to existing national investments and supporting international partnerships in interdisciplinary and transdisciplinary scientific endeavours. NORFACE is a co-ordinated common action of seventeen national research funding agencies. It started in 2004 and has developed a close partnership and network of European national agencies responsible for funding research in the social sciences. The NORFACE partners together provide the capacity for significant levels of co-operation and exchange. The ISSC is an independent, non-governmental, membership-based organization created in 1952 and representing the social, economic and behavioural sciences at a global level. The mission of the ISSC is to increase the production and use of social science knowledge to help solve global problems. It launched the original Transformations to Sustainability Programme in January 2014 with funding from Sida.

In order to pursue the goals set in the Belmont Challenge and help deliver international collaboration, the Belmont Forum has developed an instrument called Collaborative Research Actions (CRAs). CRAs address the Belmont Challenge priorities (i.e. societally relevant global environmental change challenges); lever Belmont Forum members' existing investments through international added value; and bring together new partnerships of natural scientists, social scientists and users. The ISSC presented its *Transformations to Sustainability* Programme to the Belmont Forum in 2014. Many members expressed interest in being involved in the programme, including the European Commission, which proposed using its ERA-NET Cofund mechanism to support the development of a CRA on this topic. This new T2S programme represents one of three new CRAs approved in 2016: *Societal Transformations to Sustainability*.

The T2S programme also responds to the 2025 Vision elaborated through a wide consultation process by Future Earth<sup>1</sup>, which aims to become the reference platform or hub bringing together all relevant stakeholders and existing research programmes on global environmental change and sustainability around three themes: Dynamic

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<sup>1</sup> For more information, please visit [www.futureearth.org](http://www.futureearth.org)  
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Planet, Global Sustainable Development and Transformations towards Sustainability. The T2S programme will feed into the plans and activities of Future Earth.

## **1.2 Thematic scope and objective of the call**

Climate change, environmental degradation and resource pressures have created unprecedented situations for societies worldwide. The slow progress on many pressing challenges of global environmental change and global development has led to increasing emphasis, both in research and policy, on the need to go beyond the study and encouragement of incremental change. Conventional knowledge and capacity building to tackle the challenges associated with sustainability have had some positive impacts but are ultimately not fully adequate. Consequently, there is growing attention to the need for more fundamental transformations in the way societies interact with each other and with the natural environment as the basis of sustainability.

Societal transformations are not new phenomena. Industrialised countries have, for example, undergone major, fossil-based societal transformations in past centuries closely linked to transitions in energy supply and use. Societies have been able thus far to adapt to resource scarcity and environmental degradation with partial, patchy and unequal success. The question is to what extent these transformations are influenced by social, political and cultural practices and whether and how they can be successfully instigated, governed or accomplished, by whom, to what end and with what consequences for different groups.

It is increasingly recognised that solutions to today's urgent challenges of global environmental change and sustainability will require not only scientific and technological advances but also deep and enduring social and cultural change. It cannot be assumed that technological innovation will advance and be implemented at a pace sufficient to meet the sustainability challenges confronting a globalised society in the 21st century. Equally, the accumulation of scientific data on the impact of humans on climate and other environmental conditions has not translated directly into societal action to mitigate the negative impact.

Societal transformations refer to profound and enduring systemic changes that typically involve social, cultural, technological, political, economic and environmental processes. Sustainability research needs to be based on a far better understanding of how such societal transformation comes about and how – if at all – it can be initiated, fostered or steered towards ends that are at the same time ecologically sound, economically viable and socially just. This will require the active contribution of the social sciences and humanities disciplines, in terms of bringing relevant existing knowledge to the table, framing the new research questions and designing and executing the research.

The objective of this Transformations to Sustainability Call is to support research projects that enhance our understanding of how societies can transform their relationship with the natural environment to achieve a sustainable future. It will investigate processes through which such transformations take place, globally, regionally and locally, by looking at how they unfolded in the past, what drives such processes and with what outcomes. Both current circumstances and historical cases with clear relevance to contemporary social dynamics will be considered relevant.

The concept of sustainability has been rigorously problematized since the Brundtland report of 1987. It is a multifaceted concept that disparate actors, with sometimes

conflicting interests across world regions, make use of for various, but quite specific, purposes. This is reflected in, for example, the UN negotiations leading up to the Sustainable Development Goals (SDGs) as well as in the support mechanism of the United Nations Framework Convention on Climate Change (UNFCCC), which recognises the diversity of what are considered to be nationally appropriate actions in the context of sustainable development.

The set of SDGs approved by the UN in September 2015 is undoubtedly an important reference point for this Call. These 17 interlinked goals aspire to catalyse societal transformations towards sustainability at a global scale. However, a research programme with a global ambition that wishes to support research with potential relevance for all countries needs to recognise the diversity of interpretations of sustainability and the politics as well as the cultural norms and values that surround its use between and within countries. This research programme therefore recognises the inherent tensions in how sustainability may be interpreted and implemented in different regions and will leave it to applicants to address these tensions in their research design. This programme will not impose a particular normative definition of sustainability, viewing it chiefly as an empirical question and one subject to diverse values and interests within and between societies and groups. This also calls for involvement of researchers with contextual knowledge from the region or country of study.

Against the background of the minor role social sciences and humanities have played in sustainability research up to now, this programme will foster the specific contribution of social sciences and humanities to answering the diverse challenges of sustainability. Research Projects should have a societal perspective and therefore social sciences and/or humanities should have a leading role in the research approach. As social dynamics are embedded in the natural and technical context, contributions from other sciences such as natural, physical, engineering, agricultural and health/medical sciences should be included if relevant for the research theme. The programme will have an open, inter- and transdisciplinary approach to research, encouraging comparative analysis that goes beyond simple country descriptions, including analysis of micro-macro-level interaction and inter-linkages between thematic fields.

The programme also aims to tap into and develop existing knowledge by facilitating new collaborations between countries which are not frequently involved in large-scale international collaborative research efforts, notably low- and middle-income countries.

It is now also increasingly recognised that complex social phenomena, behaviours and dynamics often cannot be understood, nor solutions to societal challenges found, without the engagement of all relevant academic disciplines and societal partners in the identification of issues, the framing of research questions and the execution of the research, not to mention in the interpretation, dissemination and uptake of findings. The deep and meaningful involvement of all relevant partners, academic and non-academic, in the co-design, co-production and co-dissemination of research, in a joint effort to address common and complex problems, is also called transdisciplinary research. Although stemming from a longer tradition, transdisciplinarity is a relatively new approach in research in the area of sustainability and global environmental change. This programme encourages transdisciplinary research when and where it is appropriate to the aims of a given research project.

All projects are encouraged to use and further develop cutting-edge research methodologies. Where appropriate, innovations in interdisciplinary approaches, more effectively integrating relevant academic disciplines, depending on the concrete problem focus, including, as appropriate, the social, human, natural, engineering, agricultural and health/medical sciences should be applied.

Projects are encouraged to combine theoretical and empirical analysis, when relevant, to solve the research questions. The projects are also encouraged to have comparative dimensions, with a clear rationale for the choice of countries/regions involved and to provide analyses that go beyond simple country descriptions. The comparative dimension of the research and the composition of the consortia should take into account the global nature of the sustainability challenges facing us and the disproportionate impact of climate change, environmental degradation and – insofar as it is relevant for the research questions – resources pressures on low- and middle-income countries. Applicants should explicitly address how they will handle the diversity of interpretations and enactments of sustainability within and across countries and present a scientific and/or societal justification for how they will relate to the concept of sustainability. Depending on the research question, the use of relevant cross-country data sources is advisable. Where data does not exist to answer key questions, the programme may support the collection any kind of new data.

## **2. Specific Research Themes**

In order to address these concerns and challenges from a social science and humanities perspective, this call will make a distinction between three specific research themes, responding to international research demands. The call invites proposals within as well as across these themes:

1. Governance of societal transformations to sustainability
2. Economy and finance of societal transformations to sustainability
3. Well-being, quality of life, identity, and social and cultural values in relation to societal transformations to sustainability.

The themes for the programme have been prepared by an international, multi-disciplinary Theme Expert Group. Applications will be expected to address at least one of these topics.

### **2.1 Governance of societal transformations to sustainability**

To what extent societal transformations across the globe can be governed, and how, remains a rather poorly explored research area. For this Call, research that sheds light on what constitutes the governance of societal transformations with a view to achieving sustainability, particularly with regard to global commons such as the climate, would be of particular interest. Research under this strand could include analyses of the role of the state and non-state actors, partnerships, and democracy, with an emphasis on new concepts and approaches to transnational governance and how the temporal horizons of politics and economic processes (e.g. investment decisions) relate to sustainability.

The theme includes what political and institutional factors, including legal aspects, stimulate or hinder different forms of transformation processes of relevance to sustainability across countries. Furthermore, it could analyse the changes in modes of governance that would be required by different transformative processes and what that would imply for the roles of state and non-state actors in different countries

across the globe, as well as the fit and interplay in multilevel or multi-scalar governance. Past and contemporary experiences of 'successful' or 'unsuccessful' attempts to govern transformations constitute a rich, but not sufficiently harnessed, reservoir of evidence to inform our understanding of conditions for governing transformations towards sustainability in different contexts.

Research in this specific theme contributes to options for successful changes of path dependencies and the development of roadmaps for transformations in specific fields. Finally, this topic will examine whether and how justice and participation of different groups can be addressed in different governance arrangements.

## **2.2 Economy and finance of societal transformations to sustainability**

The challenge of sustainability is largely about the management of resources, which is the function of the economy. There is an abundant economics literature on changes in modes of production and consumption as well as on environmental aspects including future generations (savings, discount rates, etc.). There remains, however, a basic tension between the notion of growth as the ever-increasing production of value, and sustainability, which implies some notion of equilibrium or limits to consumption in an economy where production is coupled with the use of natural resources and emissions of greenhouse gases. This tension has not been sufficiently addressed in a manner that will enable practical action for sustainability at scale. In this context, new innovation strategies concerning the circular economy are of special interest. Beyond that further research to scrutinize the roles of policy actors, industry, NGOs and private consumers in the struggle to determine the direction and speed of transformation processes across countries globally needed especially in three areas:

- a. To understand what new forms of economic framework conditions/mechanisms/instruments/modes of production and consumption can create incentives for changes in behaviour, preferences and choices among the general public as well as private (consumers as well as entrepreneurs) and public actors.
- b. To understand distributional aspects of the impacts of different financial and economic arrangements across the globe and across and within countries.
- c. To understand alternative economic models, paradigms, narratives and practices that are in place or have been put forward from different regions and countries as well as by various scientists and stakeholders with a view to achieving societal transformations, and what would they entail for today's economic practices and societies.

## **2.3 Well-being, quality of life, identity, and social and cultural values in relation to societal transformations to sustainability**

There is a need to develop a more nuanced and complex understanding of how societies and societal institutions meet environmental change to safeguard social, political and economic sustainability and how individuals, groups and organisations conceptualise sustainability, societal transformations and their potential impact on their lives and well-being. This topic invites analysis of how societal and social actors make sense of societal transformations and which assumptions underlie social representations of transformations and sustainability. It will explore how institutions, processes and behaviours related to sustainability, both positively or negatively, are linked to individual and group identity, norms and beliefs. It will examine how they are ascribed social and cultural value, and how these relationships can be transformed. The concept of sufficiency, complementary to efficiency and consistency, could be further developed in this context. Quality-of-life aspects of societal transformations have to date received scarce research attention, thus this

topic encompasses how social science and humanities research on life quality can contribute to strategies for transformations to sustainability. The promise of positive environmental consequences has often proved ineffective with regard to encouraging profound behavioural change or providing legitimacy for ambitious policies. Research today points to the need to achieve benefits in addition to avoiding the high stakes of environmental pollution, degradation or climate change. This topic thus addresses whether and how human emancipation and enhanced life quality can be a driver of transformation, with environmental protection as an ancillary benefit.

### **3. Cross-cutting issues**

Proposals on the above described specific research themes may also treat one or both of the following cross-cutting issues.

#### **3.1 Conceptual aspects of processes of transformation**

Historically, few of the great societal changes that are now regarded as transformations were 'steered' or 'driven' from above. They emerged in a more piecemeal way from the bottom up, through multiple dispersed actions and changes by various people and groups. Only with hindsight did they add up to something big and transformational. A key question is therefore whether and how transformations to sustainability can in fact be instigated and accelerated? What features characterise truly transformative change, historically, at present and with regard to the future? What are the processes through which societal transformations take place and how do these manifest themselves across time and space? What are the roles of agency and structure for deliberate, as opposed to emergent, change? What factors lead individuals, groups and organisations to resist transformations to sustainability?

Further, this programme encourages analysis of the role of so-called 'tipping points' in social systems facing rapid changes in behaviour, priorities and governance legitimacy, as well as examples of linear versus disruptive change and the consequences, or potential consequences, for societal transformations to sustainability world-wide. It includes connections between sustainability challenges and underlying societal trends, for example ageing, migration, automation and economic recession.

Last but not least, the need for societal change should be scrutinized. There is consensus in science and practice that progress towards sustainability will involve some kind of societal change. But change may not be a solution for all sustainability problems. Transformations to sustainability may involve trade-offs: some lose while others win. Societies may, for instance, also need stability in their key institutional settings. Processes of societal transformation should thus be critically analysed and assessed.

#### **3.2 Methodological innovation**

This programme places particular emphasis on innovation in methods to engage stakeholders in the co-design, co-production and co-dissemination of research (transdisciplinary research), as well as on ways to mitigate the risks that can be associated with this. In current research and policy debates, it is frequently argued that transformation requires a radical change in how we produce research and knowledge to integrate understanding with action and to link research to change on the ground. Transdisciplinary research on societal transformations to sustainability needs to explore novel approaches not only to involve stakeholders but also to



empower them when relevant. This co-construction of knowledge with societal stakeholders (in, for example, government, civil society, social movements and enterprise) is, however, rather poorly understood and conducted so far. This programme stresses the importance of analysing methodological opportunities and the challenges of the participatory turn, specifically in the involvement of stakeholders throughout the design of research projects. Projects within this programme are encouraged to consider this co-production reflexively, to explore how co-construction, co-design and co-production of knowledge for transformation are conceptualised, and how they proceed in practice. What insights from diverse social science traditions – e.g. Science and Technology Studies, Science and Communication Studies or Development Studies – can help? How does the politics of knowledge play out in co-construction? Social sciences and humanities can provide a critical contribution through research on inclusion/inclusive practices in transformations to sustainability.

The programme thus seeks to promote methodological innovation through the development of new tools and methods that can facilitate learning across diverse worlds, regional traditions and academic disciplines as well as between academic and non-academic knowledge traditions, to address potential shortcomings of and enrich present methods.

## **4. Current research to build upon and complement**

The T2S programme will build upon and aim to complement (inter)national research programmes. Proposals should consider the achievements of other European and (inter)national initiatives recently completed, underway, or at an advanced stage of planning, especially:

On the European and international level:

- Collaborative Research Actions (CRAs) already launched by the Belmont Forum
- NORFACE research programmes
- The ISSC's Transformations to Sustainability programme.
- Horizon 2020 EU Framework Programme for Research and Innovation and the Seventh EU Framework Programme (Environment and the Social Sciences & Humanities Programmes)
- Joint Programming Initiative Connecting Climate Knowledge for Europe (JPI Climate) and JPI on Urban Europe (JPI Urban Europe)

On the national level (examples):

- The Science, Engineering, and Education for Sustainability (SEES) program, the Coupled Natural and Human Systems (CNH) program, and the recently launched Innovations at the Nexus of Food-Energy-Water (INFEWS) program of the US National Science Foundation
- Research programmes of the Taiwanese National Council for Sustainable Development of Taiwan
- Research programmes of Research Institute of Science and Technology for Society (RISTEX: <http://ristex.jst.go.jp/en/index.html>)
- The "Research for Sustainable Development" Programme (FONA) of the German Federal Ministry of Education and Research with its special funding focus on social-ecological research

- The UK Global Challenges Research Fund (GCRF). This is a 5-year £1.5billion interdisciplinary funding stream designed to support cutting-edge research which addresses the problems faced by developing countries.
- The UK Ecosystem Services for Poverty Alleviation (ESPA)
- The UK Social, Technological and Environmental Pathways to Sustainability (STEPS) Centre
- The Arctic Academy Programme ([www.aka.fi/arktiko](http://www.aka.fi/arktiko)) and the programme for Sustainable Governance of Aquatic Resources ([www.aka.fi/akva](http://www.aka.fi/akva))
- The Swiss National Research Programme "Sustainable Economy: resource-friendly, future-oriented, innovative" (NRP 73) (<http://www.nfp73.ch/en>)

## 5. Expected impact

This call for proposals brings together the need for working on societal transformations to sustainability challenges in an interdisciplinary and transdisciplinary way. To study the challenges targeted in this call, inter-and transdisciplinary approaches are needed to address where appropriate the interconnections and interdependencies between the natural and human systems. The generated synergies and linkages will open new avenues of inquiry, produce new robust interdisciplinary knowledge, and generate new models and opportunities. Through this call, the Belmont Forum and the NORFACE Network will contribute to restructuring the broad field of sustainability research by placing social science, as well as the humanities, at the heart of interdisciplinary research in a step change in scale and scope for research programming on this topic. Consortia may consist of partners active across several positions within the research and development system (i.e. innovation, applied research, fundamental research) and across disciplines (e.g. natural sciences, social sciences and humanities, and engineering). In addition, applications are strongly encouraged to build effective research partnerships with regions of the world where knowledge and expertise relevant to sustainability challenges has thus far been under exploited.

All partnerships, including international ones, should be based on mutual respect and understanding for different cultural, ethnic, social and economic beliefs and practices. Partnerships may build on existing relationships or involve new collaborative relationships. The configuration of partnerships and collaborations should be driven by the research and impact objectives underpinning the application.

Researchers funded under this programme are expected to identify the potential impacts of their research on relevant policies and practices, and to actively consider how these impacts can be maximised and developed, in ways which are realistic and appropriate to the particular context, through consideration of who could or will benefit, from and/or make use of the research, and how. Researchers should actively engage relevant users of research and stakeholders at appropriate stages throughout the projects, and outline the planning and management of associated knowledge exchange activities (including, for example, timing, personnel, skills, budget, deliverables and feasibility).