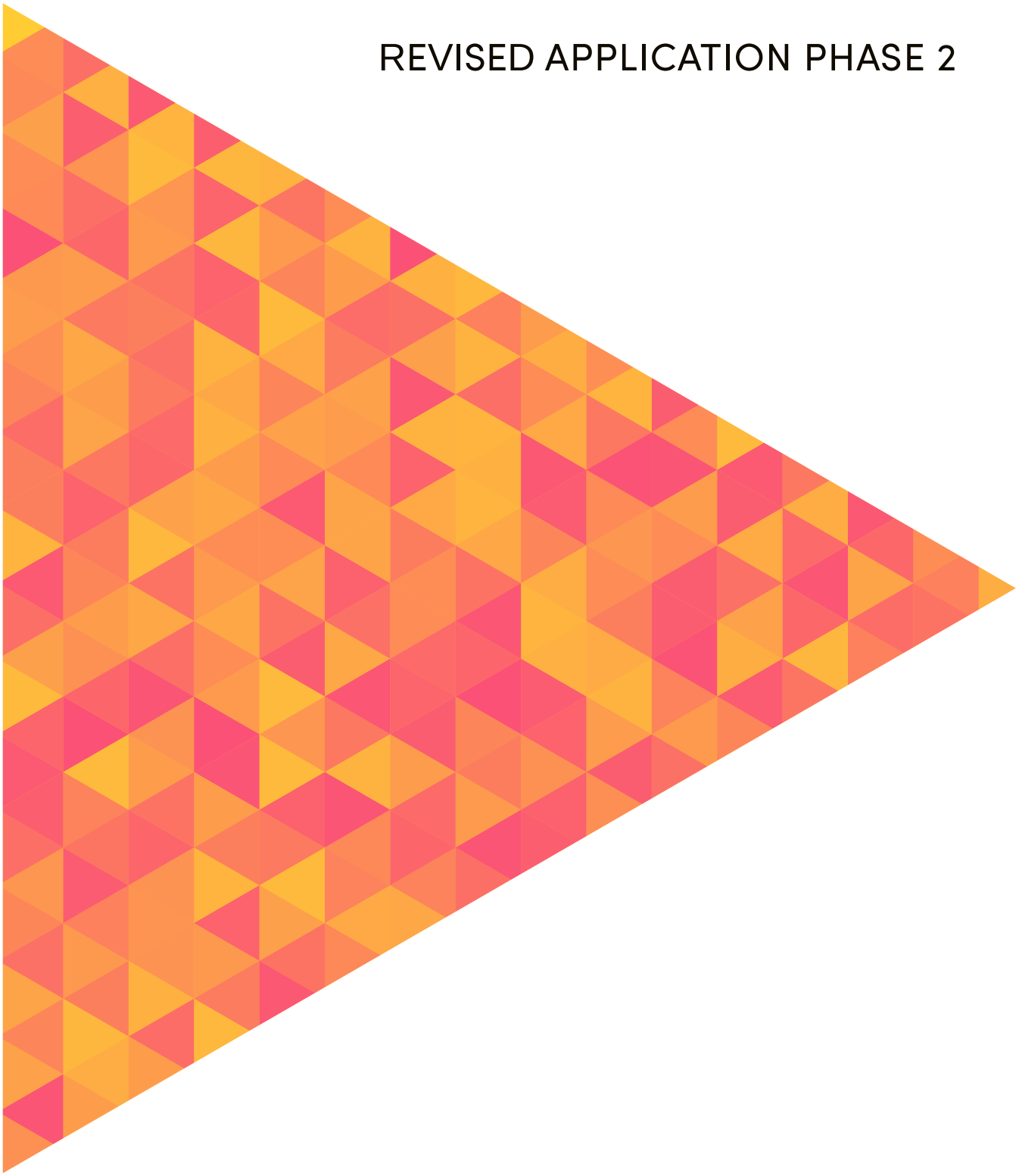
FAIRTRANS

Fair Transformations to a Fossil Free Future

REVISED APPLICATION PHASE 2



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Fair Transformations to a Fossil Free Future

FAIRTRANS

Phase 2

Revised Proposal to Mistra and Formas

Summary

The proposed continuation of Fairtrans will produce transdisciplinary scientific knowledge, nationally and internationally, on how to achieve fair societal transformations in line with the Paris Agreement. To realise this mission, we will develop the Fairtrans approach to science and co-creation in areas particularly fruitful in Phase 1. This approach is a unique trait of Fairtrans.

Our findings reveal that a solid majority of Swedes support ambitious climate action. At the same time, transformative measures are impeded because they are perceived as unfair or because the concerns of specific groups have been overlooked. As a result, policies may not elicit sufficient levels of support in society. This underscores the importance of addressing perceived distributional and procedural fairness in climate policy and adopting a scientific approach attuned to political challenges and opportunities.

Several of our civil society organisations (CSOs) partners launched climate positions during Phase1. While this indicates a promising transformative potential, there is limited scientific understanding of the capacities of CSOs to realise this into tangible policy impact. WP1 will therefore study the transformative capacities of major CSOs, defined as the skills, capabilities and resources needed to achieve systemic transformation. Research in Phase 1 found that the Swedish industrial transition relies on breakthrough technical systems which remain to be scaled up, illustrating a need for stringent climate policy and investments in renewable energy, while complementing technological investments with non-technical changes in behaviour and values. Centred around the concept of sufficiency, WP2 will model and deepen the analysis of how to combine technological investments with resource sufficiency from a consumption perspective.

Findings from Phase 1 also indicate the need for a more targeted analysis of climate policy instruments, their effects, and how they are perceived. WP3 will focus on exploring the design, impact and political feasibility of such policies, through public surveys, modelling and by examining the policy landscape shaping instrument development and implementation. It will expand the research in Phase 1 with a stronger international, EU-focused dimension, thereby facilitating cross-country comparisons. WP4 will increase precision by combining methodological approaches that will study place-specific policies related to land use, urban transformation, and spatial planning. It will also explore the correlations between mobility habits and policy acceptance, bringing behavioural perspectives into climate governance research.

The Fairtrans approach to co-creation has focused on workshops and executive training of trade union leaders. In WP5, we will continue engaging our Swedish partners in workshops and dialogues, while some of the workshops will be EU-oriented and co-organised with EU-based CSOs, e.g. European Environmental Bureau (EEB) and the European Trade Union Confederation (ETUC). The executive programme will continue, now tailor-made for industry and employer organisations. We will internationalise our scientific findings by establishing a Science Advisory Group (SAG) and by seeking collaboration with the Earth System Governance Project. Consequently, the strategic communication will evolve and expand to an international level during Phase 2, with policy makers and CSOs in Sweden and the EU as our primary target groups.

The long-term impacts of Phase 2 include the establishment of an arena of excellence for 1) collaborative policy development informed by the experiences and commitment of key societal actors, and 2) production of transdisciplinary research with impact on national and international scholarly networks and policy makers. The focus in Phase 2 will support Fairtrans in becoming an agenda-setting arena.

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1. Visions, objectives and expected impacts

Programme vision and overall objectives

The vision of Fairtrans is that policymaking in Sweden and the EU ensures a fair climate transformation in line with the Paris agreement.

The objectives of Fairtrans are to: i) provide transdisciplinary scientific knowledge on a fair climate transformation, ii) engage a broad range of actors to co-produce and inform transformative policies, and iii) establish lasting research and partner collaborations dedicated to a fair climate transformation.

Programme impact and significance

Significance of the programme in relation to the climate crisis and fairness

The outcome of the UNFCCC COP29 meeting in Baku has been broadly regarded as disappointing. The decisions made are far from clear on the need to accelerate climate mitigation and increase climate financing to achieve the goals of the Paris Agreement. The main underlying reason for the disagreement is longstanding. It centres on the challenging issue of distributing costs and benefits of climate mitigation and financing, which in essence is a question of fairness. Considering that high-income groups typically emit high levels of greenhouse gases, while low-income groups rather are more affected by climate impacts and have fewer resources for coping with climate policies, fairness is a fundamental consideration in climate transformation on all levels, from the UN system, to the European Green Deal, national carbon pricing and local planning.

In Fairtrans, we interrogate the tensions around different fairness dilemmas arising from climate transformation. This involves considering climate goals as well as socioeconomic parameters, for example the Sustainable Development Goals for both Climate Action and Decent Work, by balancing effective climate policies with fairness considerations. We endeavour to deepen the understanding of the relevance of fairness in the climate transformation by combining high-quality science with learning from and collaborating with Civil Society Organisations (CSOs) and other societal actors. We argue that this co-creative Fairtrans approach is pivotal for both generating transdisciplinary scientific knowledge on a fair climate transformation and informing transformative policies.

Phase 1 of Fairtrans investigates this tension through, e.g., estimations of carbon budgets, examinations of investments and land use for multiple objectives, studies on societal planning, and analysis of acceptance for climate policy instruments. Phase 2 will delve deeper into these issues in an increasingly internationalised programme, focusing on a more targeted set of topics. It will centre on the need for stricter policies that considers both procedural and distributive fairness perspectives, in turn fostering support and legitimacy for the climate transformation. We argue that it is possible to strike a transformative balance between combating the climate crisis and ensuring that no one is left behind. In fact, without such a comprehensive approach to climate policy and

fairness, the risk for policy backlash and rollback is significant.

Impact of the programme in terms of research and actors

The Fairtrans approach builds on co-producing transdisciplinary knowledge at the interface of science and society. During Phase 1, we have assembled a unique coalition of CSOs - ranging from trade unions to environmental, rural and indigenous peoples' organisations - and a group of dedicated scientists, to engage in dialogues on societal transformation. By convening actors with diverse knowledge bases, varied experiences, and different perspectives, we have achieved outputs in terms of publications and activities that are not only more innovative, but also more relevant and robust than they might otherwise have been. Additionally, the insights and conclusions from the Climate Assembly in Phase 1, are already shaping our work moving forward. In Phase 2 we propose to continue working in the same mode, fostering goal-oriented, pluralistic, and interactive collaboration (Norström et al. 2020), situating the programme between structural and enabling approaches of transformation theory, as classified by Scoones et al. (2020).

Dedicated to scientific rigour, we suggest continuing to collaborate with a range of national and international research institutions, CSOs and other actors, within and beyond the programme. The same five academic partners as in Phase 1 will continue leading the program: Stockholm University (SU), Uppsala University (UU), the University of Gävle (HiG), Lund University (LU) and IVL Swedish Environmental Research Institute (IVL). We will publish and communicate findings on actionable knowledge for a fair climate transformation. Building on existing data and collecting new data, we will focus our research on four key areas: Inclusive Transformative Capacity; Sufficiency and Fairness in the Climate Political Landscape; Stringent and Fair Climate Policy; and Shifting Acceptance and Behaviour with Place-Specific Policy Intervention.

Regarding partners, we will concentrate on a smaller group of key collaborators in Sweden, while simultaneously engaging CSOs at the EU level, applying a similar approach. Rather than striving to assemble all partners around common policy positions, we will gather selected groups of partners and stakeholders around more specific policy topics, enabling the development of more concrete and actionable positions. Thereby we will foster powerful and lasting alliances.

Extending the impact beyond Phase 2

As we move into Phase 2 we will take initiatives and measures aimed at extending the impact of the Fairtrans approach to research and co-creation beyond 2029. We see it as crucial that researchers and partners in Fairtrans continue collaborating on fair climate transformation through joint initiatives that build on the work in Phases 1 and 2, both within Sweden and increasingly at the international level.

A key foundation for achieving this ambition is the continued engagement of participating research institutions. During Phase2, collaboration among researchers in Fairtrans will become further integrated, laying a stable ground for long-term alliances. Similarly, we will deepen the collaboration with a set of Fairtrans partners. We will promote enduring partnerships through a strategy built on four main components.

The first is research funding. Stockholm Resilience Centre (SRC) at SU, the Climate Change Leadership Unit (CCL) at UU and the Sustainability Science Group at HIG already provide substantial co-funding to Fairtrans and we anticipate increased support in Phase 2. To ensure this, we will arrange an annual research fundraising workshop within Fairtrans, where we will coordinate applications aimed at securing funding post Phase 2. Among the targeted calls, we intend to apply to Riksbankens Jubileumsfond for a Centre of Excellence in Fair Climate Transformation Research. Similar applications will be produced in response to expected calls for Excellence Clusters and Excellence Centers, as

outlined in the recent governmental bill on research (Swedish Government 2024a). Moreover, we will explore opportunities under the EU Central Baltic Programme for relevant Fairtrans-related projects.

Second, we will support early-career researchers. In addition to the Fairtrans PhD students funded and co-funded in Phase 1, we will enrol additional PhD students with partial or full co-funding in Phase 2. We aim to support this group beyond graduation, either within Fairtrans or in closely related tasks. Additional funding will be sought as needed, and all early-career researchers will be invited to the annual fundraising workshop, with the aim to e.g. write Formas' "Career Grant" applications. We will also arrange dedicated meetings for early-career researchers linked to the internal Fairtrans research seminars twice a year, launch a new mentor program, and offer a Fairtrans PhD-course similar to the one in Phase 1, in 2026. Funding will also be set aside for Master's students who wish to rewrite their theses into scientific articles, as was done in Phase 1, which helps to identify future PhD students.

Third, we will further internationalise our research in Phase 2. We propose to establish an international Science Advisory Group (SAG), to guide us in strengthening our international research collaboration. We employ SAG to connect with and mentor early-career researchers and help us build strategies for expanding our networks. We have also begun exploring opportunities to affiliate Fairtrans with the Earth System Governance Project (ESGP), the largest global network of transdisciplinary environmental governance scholars. The CCL Unit at UU, now leading the ESGP's International Project Office with UU-funding, provides a natural link in that respect. We have started to investigate the possibility of forming a Global Fairtrans Task Force within ESGP, and the options to take part in organising the 2027 ESGP Global Conference, tentatively scheduled to be arranged at UU.

Fourth, we will work to ensure continuity of the Fairtrans approach to research and co-creation after 2029. Toward the end of Phase 2, we aim to establish a platform of Alliance for Fair Climate Transformations, hosted by a rotating group of Fairtrans partners. This platform should be open for new partners as well, not least from industry and employer organisations, and ideally remain active until adopted climate targets have been achieved. In the first instance though, we aim to secure collaboration until 2035. While the prospects for succeeding with this is difficult to assess, the strong partner engagement in co-producing the Fairtrans Manifesto, as well as the significant investments by major partners expressed in their Letter of Intent for Phase 2, suggest a solid foundation for success. To support this ambition, we plan to apply for various grants from Formas (such as the present "From research to impact" call) and Vinnova. We will also seek funding together with Fairtrans' partners for development of educational tools, such as the Climate Ambassador 2.0 (Uppdrag Klimatambassadör) (e.g. from Formas Communication Grant).

Programme overriding tasks

Lead: Executive Group and Programme Office

- Conduct an annual research fundraising workshop (2026-2029).

- Initiate collaboration on grant applications for a Centre of Excellence or Excellence Cluster on Fair Climate Transformation Research.

- Establish mechanisms to strengthen the role of early-career researchers.

- Hold 4 meetings with the SAG.

- Explore the potential to collaborate with the Earth System Governance Project, aiming to

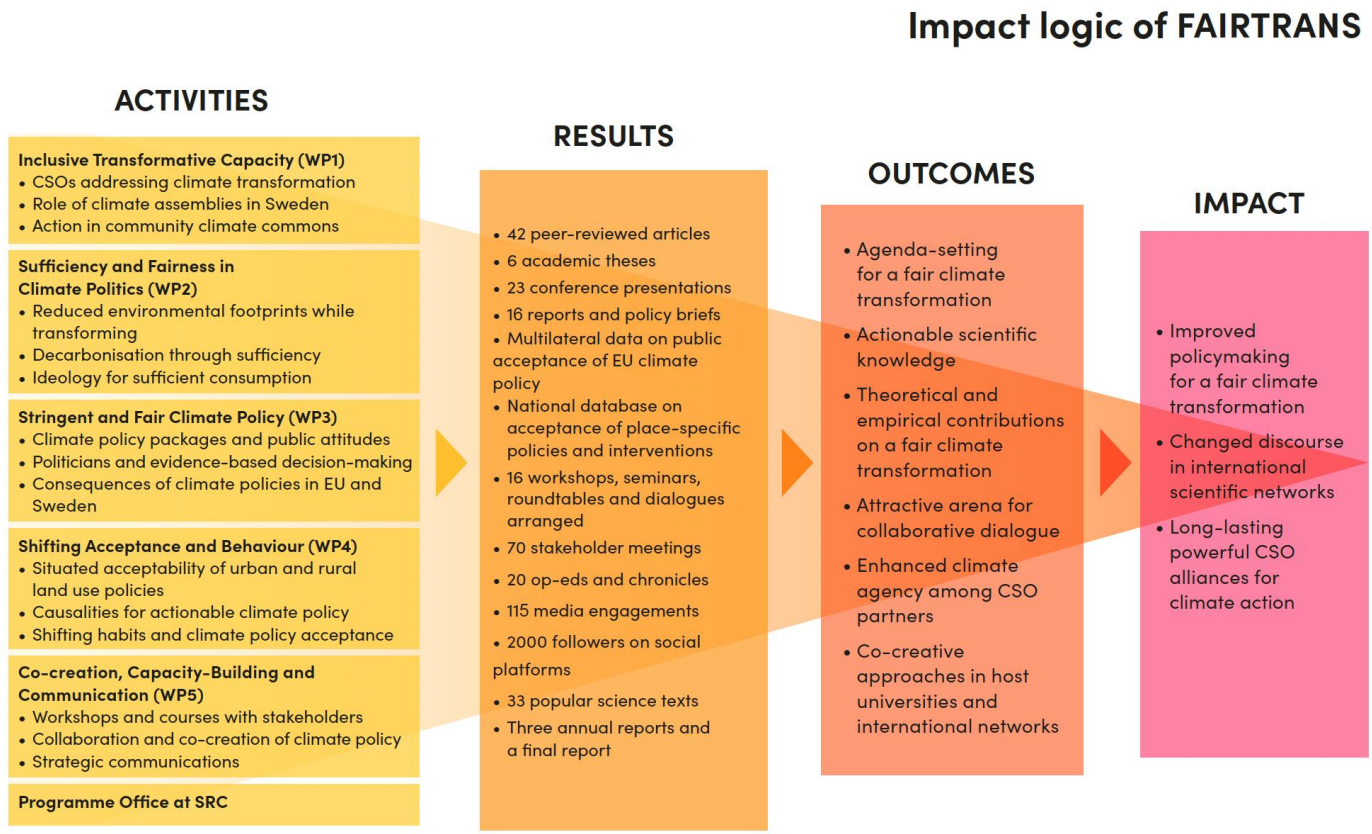
initiate a Task Force and co-arrange a global conference.

- Seek to establish a Swedish Alliance for Fair Climate Transformations, composed of present and future Fairtrans partners.

- Explore the possibility of educational collaborations with relevant partners and stakeholders. E.g. apply for funding of further development of the platform Uppdrag Klimatambassadör, a collaboration between SRC (owner of the platform) and selected trade union organisations, to reach a wider audience in Sweden.

The Impact Logic of Fairtrans Phase 2 is illustrated in Figure 1.

Figure 1. Impact Logic of Fairtrans.



2. Scientific value of the programme

The scientific value of the programme will be assured by focusing our scientific production on four novel and distinct yet cohesive research work-packages resulting in long lasting lines of knowledge production that speaks loud and clear on the international scholarly scene, which in turn is enabled by our fifth work-package.

We anticipate publishing 42 peer-reviewed articles, ensuring that the scientific dissemination meets the highest international standards. We moreover expect to publish 6 theses and 16 reports, and to give 23 conference presentations. By participating in key-conference series and providing several plenum speeches, we will spread our scientific output and influence scientific discourses and knowledge production. We will also aim for a high level of media engagements.

We attempt to expand our international networks of transdisciplinary science on a fair climate transformation by presenting some of our findings within the broader international arenas of transformation and transition science such as the Earth System Governance Project Network, the Sustainability Transitions Research Network (STRN) and their annual IST-conferences, as well as the Transformations Community and their biannual conference.

Fairtrans is organised to be a fertile soil for young scholars in which they can grow and begin prosperous scientific careers. In Phase 2, PhDs and early-career researchers will be mentored to support them in creating their own personal international networks, writing science publications, and applications and presenting their findings in public arenas where both the SAG and our internal science conferences will be used as means. In conjunction with the internal science conferences, we will hold sessions dedicated to supporting early-career researchers. As a more targeted support of our PhD students, we will conduct a PhD course led by senior researchers of the programme. Master students will be supported in publishing their essays as scientific articles, as a first step into a science career.

The rationale for Fairtrans Phase 2

In a review of different justice perspectives linked to the climate issue, Zimm et al. (2024) argued that more research related to justice and fairness is needed linked to the IPCC reporting. However, the concept of fairness in climate discourse is complex, multifaceted and essentially a subjective judgement (Ringius et al. 2002), with several different interpretations of the meaning of fairness and justice (Sjöberg et al. 2024), terms often used interchangeably in both climate discourse and scientific literature. We will continue to focus on ‘fair’ and ‘fairness’, denoting both fair procedures (input) and fair distribution (output) of goods and services that affect well-being, which includes psychological, physiological, economic, and social aspects (Kabanoff 1991). This choice is motivated in part by the importance of perceived fairness for climate policy attitudes (Bergquist et al. 2022) and the widespread global support for considering fairness in climate action (Ogunbode et al. 2024).

The concept of fairness permeates, in one way or another, all research that will be conducted in Phase 2 of Fairtrans while also building on the

learnings from Phase 1. Research findings from the Fairtrans survey (Barthel et al. 2023) reveal that a solid majority of Swedes express a high level of climate concern and strong support for ambitious climate policies. At the same time, our studies also underscore that climate policy actions may face opposition, partly because the public perceives climate policies as having unfair outcomes and because the interests and concerns of specific groups are overlooked in the making of climate policy (Lindvall et al. 2024b). These perceptions of unfairness can be politically exploited and mobilised, potentially leading to climate policy backlash and rollback of existing policies.

At the end of Phase 1, we will launch two additional surveys on public acceptance, including one at the EU level to deepen our understanding of the legitimacy and public acceptability of various policy packages including both climate and social policies. We plan to launch a survey on urban policy in 2026. These databases will be used by our researchers during Phase 2.

Altogether, insights from Phase 1 underscore and add weight to the claim that fairness, however interpreted, can enable but also hinder the climate transformation. This implies that striking a balance between implementing effective climate policies and accommodating the concerns of different interests, people and societal actors is critical for enabling a more inclusive and fair transformation. It also points to the importance of addressing perceived distributional and procedural unfairness that may arise in the climate transformation. The following sections describe the key findings from and research gaps identified in Phase 1 that motivates the rationale for the structure of Phase 2.

Inclusive Transformative Capacity

In Phase 1 we observed that a fair transformation requires both distributional as well as procedural justice, promoting inclusion and democratic participation, but also a new narrative calling for a change of lifestyle as a liberation rather than a sacrifice. We argue that social arenas that function as 'commons' may have potential to constitute an important bottom-up based complement to macro level policies and technology (Nässén et al., 2024). The Fairtrans approach creates arenas for large CSOs and other actors to co-create knowledge and policies and generally strengthening the capacity for climate leadership. Besides, climate assemblies enable dialogue, deliberation, and reflexive learning, while reframing issues in ways that allow solutions to be co-created and co-realized, whilst recognising that dealing with conflicting views is part of the journey (Willis 2022; Ainscough & Willis 2024).

Findings from Phase 1 indicate that such arenas may have the potential to revitalise public debate in times where fact-based deliberation is becoming rare. Zeitfogel et al. (2024) conclude that evidence framing influences whether they make transformative, 'systems challenging' recommendations. As such, transformative spaces are solution-oriented; they deliberately seek a variety of perspectives aside from those usually dominant and operate as stepping stones for systemic transformation in specific contexts (Pereira et al. 2019).

However, it remains to be seen just how transformative our co-creation arenas have been for shaping a fair, yet large-scale climate transformation. There are many examples of co-produced spaces for enabling transformative capacity and agency, but they have not been developed at a national level with the aim of enabling a fair fossil free society. Hence a gap that we will address in Phase 2 is to address the national scale by studying our own co-creation workshops, climate assemblies and educational programmes and compare those with international examples. The knowledge gaps within these respective areas are further described in WP1.

Sufficiency and Fairness in the Climate Political Landscape

A major finding from Phase 1, as well as other research, is the conclusion that changes in consumption patterns need to be part of the deeper transformation to sustainable resource use. Investments in low carbon technology is also a necessary component of the climate transformation. However, dominant policy frameworks focus more on "adding" these fossil-free investments than "subtracting" fossil-intensive investments and consumption. For example, in Phase 1 we found that sufficiency as a strategy remains at the periphery of Swedish energy policy (Lindgren et al. 2023). We have also shown that the Swedish industrial transition to become fossil-free relies on breakthrough technologies while requiring rapid and extensive expansion of electricity supply (wind power) and usage of carbon capture and storage (CCS) infrastructure (Alfredsson et al. 2024).

In sum, this research makes visible the need for non-technical solutions including changes in underlying values, worldviews and ideologies (IPCC 2023; Thollander et al. 2025). Phase 2 builds on this research to analyse in depth how investments in low carbon technology can be combined with resource saving solutions, from both a production and a consumption perspective. We will address research gaps using input-output analysis and system dynamics modelling. We also address another research gap, on public acceptance for sufficiency policies, by testing different consumption packages using deliberation by way of a focus group methodology. The knowledge gaps within these respective areas are further described in WP2.

Stringent and Fair Climate Policy

Findings from Phase 1 include policy packing design as an effective governance strategy with promising potential for higher level of perceived legitimacy, simultaneously as there are ample scientific knowledge gaps related to their real-world impact. Much of the research in Phase 1, primarily in WP5, has focused on climate governance with an emphasis on climate policy instruments and their various effects on emissions and implications in society. The research undertaken has explored the phenomenon of climate denial (Karlsson 2023) and how it impacts research (Mendy et al. 2025) and can be counteracted (Brandstedt et al. submitted; Mendy et al. 2024). It has also explored the design of instruments (Knaggård & Hildingsson 2025) and the public acceptability of climate policy (Emilsson et al. 2024; Lindgren et al. 2024; Lindvall et al. 2024a; Lindvall et al. 2024b), civil society's and trade unions' view on a fair climate transformation (Ergon et al. 2025) and the impact of policy (Karlsson et al. 2023; Ergon et al. in review), all within the frames of the green state (Kronsell & Hildingsson 2022) and democratic governance (Lindvall & Karlsson 2024).

These studies explore the conditions for and reveal both opportunities and challenges related to the adoption and implementation of climate policy instruments in Sweden and beyond, leading to the tentative conclusion that more stringent and fair policies can indeed be formulated, but that opposition nevertheless remains, and that the issues therefore warrant further inquiry. This points towards a need to analyse more stringent policy instruments, their consequences and how they are perceived, with a particular focus on designing politically feasible policies that result in fair outcomes. To advance this work, the climate policy research in Phase 2 will, firstly, focus more closely on issues related to policy design, including acceptability, as well as on the policy landscape shaping instrument formulation and development, including appraisal processes and green state systems. Secondly, we will complement the research conducted so far with a stronger international, EU-focused, dimension, enabling cross-country comparisons, with respect to both policy design and attitudes. The knowledge gaps within these respective areas are further described in WP3.

Shifting acceptance and behaviour with place specific policy intervention

Studies published in Phase 1 have confirmed the significance of perceived fairness for public acceptance of specific climate and energy policies, as well as in fostering social engagement in the climate and energy transformation (Lindvall et al. 2024a). These findings suggest that public support can be enhanced, and opposition mitigated, by addressing the distributional impacts of policies, such as carbon tax revenue recycling, or by redistributing the financial benefits of wind power (Lindvall et al. 2024b; Bergquist et al. 2022). Other findings from Phase 1 indicate that the indirect climate mitigation effects in utilising spatial planning are considerable by shaping pro-environmental habits at the societal level. Notably, a novel finding is the role of habitual behaviours in shaping acceptance of carbon taxes (Linder et al. 2024).

Despite these insights, several uncertainties persist, complicating efforts for policymakers to address acceptance barriers and avoid policy backlash. First, it remains unclear whether personal values, such as environmental concern, ideology, and trust, play a more influential role than fairness perceptions in determining place specific public acceptance. Further research is also needed to clarify causal interactions between behaviours and policy acceptance, as well as to determine how climate policy support might be strengthened. Moreover, research on climate policy acceptance has primarily focused on national policies, like carbon taxes, while place-specific policies, such as land-use, building regulations or spatial planning, have received comparatively less attention. Methodologically, the field faces challenges regarding the relevance of respondents' assessments of hypothetical policy measures with which they have little or no direct experience, as well as in establishing the causal effects of different climate policy designs on policy acceptance (Bergquist 2024). WP4 aims to address these gaps by employing a combination of research methods and examining real-life experiences with place-based policies and experimental interventions. In doing so, we aim to expand scientific understanding of social attitudes, norms, and habits in the context of the climate and energy transition while advancing new methodological approaches. The knowledge gaps within these respective areas are further described in WP4.

Co-creation, Capacity-Building and Communication

Co-creation with CSOs is a feature permeating Fairtrans, contributing to a flow of knowledge, experiences and insights between the scientists and the CSOs in the programme. We have thus created a dynamic arena of interactions that did not exist before, where researchers, trade unions, environmental organisations and others collaborate and co-produce knowledge and positions linked to a fair climate transformation.

This has also constituted a basis for joint communication activities such as an op-ed in Swedish business paper Dagens Industri signed by the chairs of our CSO partners together with senior researchers of Fairtrans, with suggestions for fair climate policy. A joint manifesto on the same theme is at the time of writing under preparation.

While much has been achieved during Phase 1, we have identified the need to further collaborate and build capacity. The forums established in terms of workshops, roundtables and courses are regarded as highly valuable by the partners, as stated in recent dialogue meetings, and as evident in CSO partners' reports and positions. We will therefore work onwards along the same main lines, but reaching further, both within our current network and expanding it beyond the present partners to include national industry and employer organisations, thereby increasing the network's joint agency, as well as key collaboration actors on the EU level. The former will be promoted by e.g. additional executive courses, the latter by further

developing the already initiated collaboration on the EU level. Consequently, the strategic communication will also evolve and expand to an international level during Phase 2. This work is further described in WP5.

In sum, the sections above motivate the rationale for the structure of Phase 2, with a more in-depth elaboration provided in each respective work package, as described in Section 4.

While most topics research in Phase 1 have been kept and developed as described, we have also decided to discontinue some of the themes, to allow for a more concentrated focus in Phase 2. First, the research in Phase 1 on carbon budgets (Hahn et al. 2024; Alfredsson et al. 2023) has established a solid foundation for the rationale of Phase 2 and is therefore concluded, as planned. The research on forestry, bioenergy and agriculture has been completed in Phase 1 and will also be discontinued. We have finally decided to discontinue the research on digitalisation.

3. Relevance and benefits of the programme to society

The climate crisis challenges societies all over the world, from people's livelihood in the Global South to industrial economies in the Global North. The costs of this development risk going far beyond what conventional calculations can describe (Alfredsson & Karlsson 2020). At the same time, the commitments to combat climate change are strong, in the international community (UNFCCC 2015), the European Union (EU 2019) and in Sweden (Swedish Parliament 2017). Despite much progress, the gaps between targets and realities are still large, on the global level (UNEP 2024), as well as in the EU (ESABCC 2024) and Sweden (KPR 2025). In addition, it is possible to observe increasing societal discontent with the impact of climate policies and climate policy backlash and rollback in several countries (Lindgren et al. 2023a; Patterson 2023).

While there are numerous plausible explanations to the goal achievement gap (Karlsson & Gilek 2020), perceived unfairness is, for example, a major barrier to public support for carbon pricing instruments (Bergquist 2024). The importance of fairness and public support for climate policy and transformation is also emphasised by political leaders. The European Commission President Ursula von der Leyen committed in her State of the Union speech in 2023 to "...always strive for a fair and just transition! That means a fair outcome for future generations – to live on [a] healthy planet. And a fair journey for all those impacted – with decent jobs and a solemn promise to leave no one behind" (EC 2023). Consequently, von der Leyen has underlined the need for fairness in the Mission Letters to the new commissioners, including "ensuring high ambition, technological neutrality and a social and fair transition for all" (EU 2024a). In Sweden, the government has underlined "the need for fair transformation", and that it is "important that the climate transformation takes place with the acceptance of the citizens" (Swedish Government 2023). It recently commissioned a Governmental Inquiry to investigate which policies are suitable for phasing out fossil fuels in an "acceptable manner" (Swedish Government 2024b).

Evidently, while there are rich transformation opportunities in society (Fossil Free Sweden 2024; ESABCC 2024; IPCC 2022), societal concerns and perceived unfairness constitute bottlenecks that need to be coped with. The studies in Fairtrans Phase 2 focus on exactly this challenge - how to combine more bold climate action with fairness for all. We thereby respond to the conclusion from the Swedish Climate Policy Council that the government lacks "both analysis and strategy" for how to achieve greater climate policy acceptance and to the Council's advice to the government to "broaden collaboration in the design and implementation of climate policy to boost acceptance and engagement" by "in addition to the business community, include municipalities, regions and civil society organisations".

By delivering science-based insights along these lines, Fairtrans' research will be of great value to society, supporting the fulfilment of Swedish as well as EU climate and social targets. By extension, this will also be of economic value in a more narrow sense, since lack of public support for climate policy risks jeopardising broader transformation strategies, for example regarding renewable energy system investments or green industrialisation. Forthcoming Fairtrans findings

will therefore be of importance also for Sweden and the EU as industrial competitive economies.

To help realise this ambition, Fairtrans is - from the start - set up with the ambition to co-create knowledge and insights. Onwards, our collaboration with CSOs will continue to be of great value for improving the understanding of transformation-related challenges and strategies. We foresee our partner CSOs continuing to identify problems and point out solutions that researchers can address in studies, resulting in feedback and iterative processes that feed into both CSOs strategy development and research outcomes in terms of, e.g., science-based policy advice. Considering our aim to broaden our co-creation network to engage industry and employer organisations in Phase 2, the planning, implementation and interpretation of research activities and findings will also benefit from business perspectives on a fair climate transformation, in turn enabling feedback to corporate collaborators and their further work in the field.

Actionable scientific knowledge that we attempt to produce in work packages 1-4 will not only be used in co-creation of policy processes with our partner organisations, but will also provide insights into the transformative capacities of CSOs. By developing scientific understanding of our partners' and collaborative actors' obstacles, possibilities and potential of shaping transformation pathways, and disseminating and discussing these insights in workshops and dialogues, we hope to strengthen the ability of CSOs to take a more active transformative leadership.

In Phase 1, our co-production of knowledge and policies established a common ground between partners, evident in, for example, three recent climate policy activities by our trade union partners and in their commitment in discussing a common manifesto to be published in 2025.

In Phase 2, our Fairtrans approach aims to continue to co-create value for our partner CSOs. A concrete example of this concerns the continuation and expansion of the Executive Programme which was highly valued by our partners. In Phase 1, a vision emerged among participants and teachers that Fairtrans may function as an arena for alumni from unions as well as the business sector to support ambitions among such actions in establishing a new social contract for a fair fossil free future. Given the importance of labour market participants to the Swedish political system, this puts Fairtrans in a unique position to support new collaborations of knowledge-based deliberation and influence the development of climate policies in Swedish society more broadly.

During Phase 1 we have developed structures for communication to disseminate research results, including interviews in national radio and TV, debate articles in newspapers, policy reports, blog posts, public seminars, etc. Our aim is to maintain this high level of external communication in Phase 2, for example by appointing a Policy Manager who leads WP3 and plays a key role in connecting policy development with communication in e.g. WP5. Our supportive mechanisms to attain implementation developed in Phase 1 will hence be as effective in Phase 2, as described in detail in WP5.

Moreover, Fairtrans will be of great value for the host organisations beyond the participating researchers, evidenced by the co-funding provided by SRC to the second program period of Fairtrans. SRC has hosted the program from the start and states that Fairtrans has enriched the centre's research and education, as well as its capacity for creating actionable knowledge and dialogues.

Line Gordon, Director of SRC, writes that Fairtrans has inspired the current reorganisation of new research themes at the centre, which has helped build a stronger and more comprehensive competence in sustainability research,

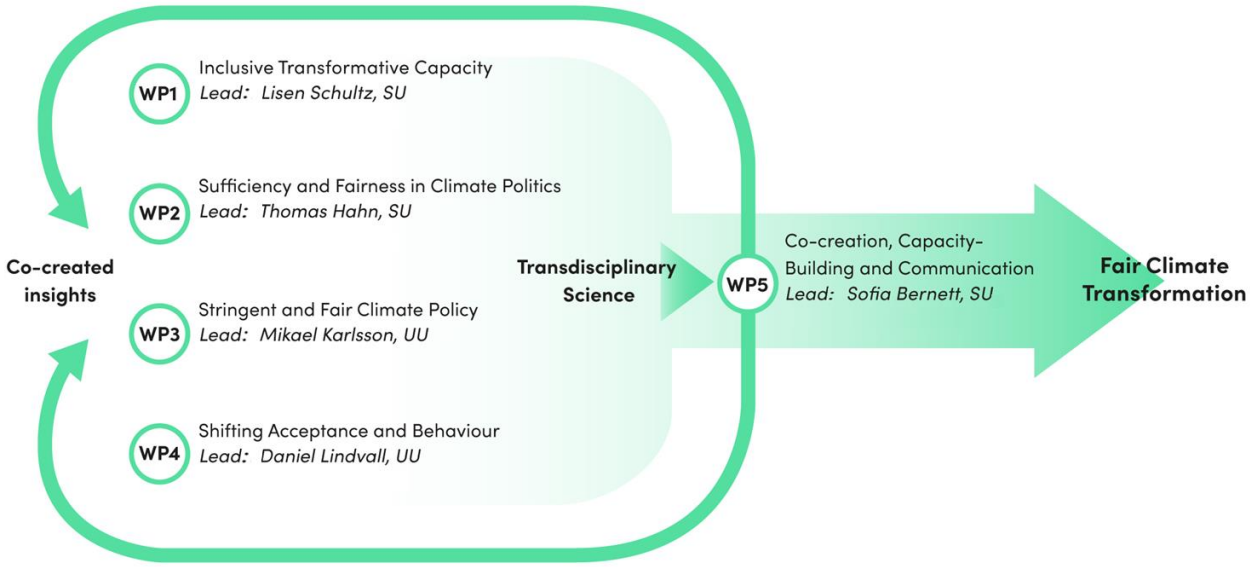
underlining synergies between the long-term strategy of SRC and the objectives of Fairtrans (see Annex 1). Similarly, the strategic research development at HiG, focusing on not least urban sustainability, synergises with Fairtrans in Phase 2 (see Annex 1). CCL at UU describes Fairtrans' research as having influenced ongoing research, and providing a vital platform for the Zennström Visiting Professors in Climate Change Leadership (see Annex 1). The three universities will therefore continue to provide various forms of financial support, as described in the budget section.

4. Work Packages

In Phase 2 we emphasise the importance of aligning policy action and initiatives with societal and public expectations, recognizing that long-lasting and impactful progress depends on fostering public support and collaboration across different parts of society.

Through this approach, we seek to advance a transformation that not only supports the achievement of climate targets but also strengthens its legitimacy in society. To achieve maximum impact, we have organised the programme in five work packages (WPs): 1. Inclusive Transformative Capacity, 2. Sufficiency and Fairness in the Climate Political Landscape, 3. Stringent and Fair Climate Policy, 4. Shifting Acceptance and Behaviour with Place Specific Policy Intervention, and 5. Co-creation, Capacity Building and Communication (see Figure 2).

Figure 2. WP structure. Actionable transdisciplinary science produced in WP1-4 feeds into co-creation, capacity building and communication in WP5, where insights generate feedback to ever more policy relevant scientific production.



WP1. Inclusive Transformative Capacity

Lead: Lisen Schultz (SU).

Background and relevance

This WP will focus on inclusive transformative capacity of CSOs and organised citizens in relation to policy processes and political discourses at the national level. Transformative efforts aimed at addressing unsustainability and inequity frequently face resistance, which can manifest as transformation backlash (Patterson 2023, Lindgren et al. 2023a), including politically polarised responses, violent conflict, and democratic regression (Olsson et al. in review). Inclusive public participation, active citizens, and deliberative democracy that promote new initiatives and communicative action appear to be important elements for addressing such backlash with transformative justice (Olsson & Moore 2024). In Phase 1, we grounded our exploration of fair climate transformation in the concepts of procedural and distributive fairness. On this basis, we explored aspects such as who has the capacity to voice their concerns and shape the climate discourse, and how the costs and benefits of various policies are distributed among different groups in society. For example, we explored the concept of 'community climate commons' that mobilise local communities to engage in and help drive civic action for climate transformation (Nässen et al. 2024),

Furthermore, we found that municipalities' reasons to put in veto against wind power establishments relate to concerns over procedural and distributive justice (Lindvall 2023). In Phase 1, we also did a systematic literature review of how resistance in the form of climate denial (including response denial) can be counteracted, and found diverging evidence on the role of education, emotions and longitudinal effects of interventions (Mendy et al. 2024).

During Phase 1, several of the trade unions developed climate action plans and TCO initiated a process towards a "handshake for the climate" between the negotiating parties of the Swedish labour market, inviting policy-makers, academia and employer organisations to coordinate for a fair climate transformation. While this indicates transformative potential, there is limited scientific understanding about the capacities that our CSO partners have (and need) to realise this potential in the context of transformation backlash and climate policy rollback. Also deliberative democracy arenas, such as the first Swedish citizens assembly on climate that we organised, are argued to be transformative in many ways (Willis et al. 2022). It remains to be scientifically shown to what extent the deliberation in the climate assembly, the co-creation workshops towards a common climate manifest and the climate training programmes have changed norms, values and beliefs, and if co-creation arenas with CSOs have increased their transformative capacities.

In Phase 2, we will deepen our exploration of transformative capacities, defined as the skills, capabilities and resources needed to achieve systemic transformation, including the capacity to voice concerns and shape the societal discourse about the unmaking and making dimensions of transformative change (Feola et al. 2021, Moore and Milkoreit 2020). In this context, transformations entail restructuring,

reconnecting, and reshaping key relationships and feedback that influence the distribution and flow of authority, power, and resources, alongside shifts in underlying norms, values, and beliefs (Moore and Milkoreit 2020).

This WP will monitor and analyse the effects of citizen deliberation, training and co-creation with CSOs, related to the knowledge gaps described above. WP1 will collect new data during Phase 2, but also draw on the rich data collection performed during Phase 1 using the national survey, the three surveys on the climate assembly, interview studies, and participatory observational data. WP1 will study co-creation activities listed in WP5, while research findings in WP1 will be used for further co-creation of knowledge and policy in WP5. Results produced in WP1 will also be shared during our internal science meetings.

Aims and research questions

The aim of this WP is to scientifically study the extent to which our own co-creation arenas increase fair transformative capacities in participating organisations and if that in turn impacts discourse and policy at the national level.

The general questions for this WP are:

RQ1: What are the root causes of climate policy backlash, and what is the role of inclusive transformative capacities in addressing them?

RQ2: How do unions and employer organisations facilitate the climate transformation in Sweden, and to what extent can they build capacity for a fair transformation?

RQ3: Does the emerging citizens' assembly practice in Sweden, including the first Swedish national climate assembly, influence a) the public discourse and b) the perceptions and strategies of climate policy actors?

RQ4: How did the experience of deliberation in the national climate assembly affect environmental values and climate concern over time among participants?

RQ5: What role does local collective civic action in community climate commons play for an effective and fair climate transformation?

Tasks, methods and outputs

Task 1.1 The role of CSOs in navigating a fair climate transformation while dealing with resistance and backlash

Lead: Lisen Schultz (SU). Participants: Per Olsson (SU), one new PhD student.

The aim of this task is to analyse the effects of including CSOs and other partner organisations in transformation processes to a fair and fossil free future. Specifically, we will analyse the capacities of CSOs and their potential coalitions to shape fair and large-scale climate transformation pathways in Sweden.

Transformative efforts aimed at addressing unsustainability and inequity frequently face backlash. Our first step will be to review the root causes of such backlash and analyse their relevance to the Swedish context. Secondly, we will analyse and identify the capacities—skills, methods, tools, and approaches—needed to address these root causes. Thirdly, we will explore transformative capacities among unions and employer organisations. One focus of our study will be to explore whether collaborative frameworks, like Sweden's employment transition agreement, affect perceived inclusivity and mitigate resistance, particularly during the institutionalisation of new environmental policies and practices.

This research draws on insights from mid-range theories from research fields such as transition, resilience, and transformation studies to explore and contribute to emerging theories about how to navigate large-scale, rapid, and deep societal transformations in turbulent times (Herrfahrdt-Pähle et al. 2020). Knowledge produced in this

task will be informed by results produced in task 4.4.

Methods: This task utilises a qualitative and inductive approach and a mixed-methodology, including semi-structured interviews with key informants in our partner CSOs and beyond. Literature reviews and synthesis methods will also be used. Interviews will be recorded and transcribed and text analyses will be performed in search of patterns guided by mid-range theories on transformation. Patterns will be triangulated with participatory observation and document analysis, compared with international cases, and discussed with findings in the literature.

Output: 5 peer-reviewed articles, 1 PhD thesis, 2 conference presentations

Task 1.2 The potential role of climate assemblies (CAs) in shaping a fair climate transformation

Lead: Tim Daw (SU). Participants: Stephan Barthel (HiG), Thomas Hahn (SU), Roger Hildingsson (LU).

This aim of this task is to contextualise and understand the potential role of climate assemblies (CAs) in fair transformations to a fossil free future. Drawing on emerging empirical evidence of the Swedish Citizens' Climate Assembly 2024, we aim to assess the effects of CAs on participants, stakeholders, policies and media.

Deliberative democracy innovations such as citizens assemblies are proposed as a transformative ingredient to democracy that may have the capacity to address short-termism, power of vested interests and lack of public engagement, which inhibit strong climate policies (Willis et al 2022; Marquat et al in review; Daw et al in review). However, there is limited empirical evidence to evaluate these claims, and the impacts of CAs are poorly understood and highly context-dependent (Boswell et al 2022). Key emerging questions in the literature (Smith 2024) include; What effect does framing and information provision have on the deliberations and findings of CAs (Zeitfogel et al. 2024)? What spillover effects do CAs have in public discourse (van der Does and Jacquet 2023)? And how do climate policy actors understand, respond to and use CA recommendations (Koskimaa & Rapeli 2020)?

Unlike Finland, Denmark and the UK, Sweden has limited experience with citizens' assemblies. The Fairtrans CA was the most ambitious citizens' assembly ever conducted in Sweden, and the first on climate policy (medborgarradomklimatet.se/). It engaged over 50 randomly selected citizens, experimented with new interactive learning processes, generated 66 policy suggestions and an overall statement, and attracted extensive interest from media, stakeholders and politicians. The CA also demonstrated citizens' assemblies to a range of Swedish government and non-government actors, triggering debate and supporting a growing interest in and application of CAs.

This task will use the research opportunities created by the CA in Fairtrans Phase 1 to explain the role of information provision and framing within the CA and their impacts on the outcomes. Additional data will assess the impact of the CA on climate policy discourses, and the expanding role and impact of CAs in Swedish climate politics.

Methods: During Phase 1, we captured empirical data on the climate assembly by using both qualitative and quantitative methods. Participants responded to questionnaires before and after the assembly, and in January 2025 the last questionnaire will be sent to respondents in order to capture longitudinal survey data. Semi-structured interviews were conducted and the deliberation process was observed by participatory researchers. A first analysis was initiated in Phase 1, yet as the material is vast, additional studies will be undertaken in Phase 2. We will also study the impact of the CA by

interviews with policymakers, and employ a media analysis. We will also map other emerging climate assemblies in Sweden that emerged after ours.

Output: 2 peer-reviewed articles, 1 report, 2 conference presentations, 1 database

Task 1.3 Community Climate Commons for inclusive transformative capacity

Lead: Stefan Sjöberg (HiG). Participants: Roger Hildingsson (LU), Nessica Nässén (HiG), Stephan Barthel (HiG).

The aim of this task is to deepen the understanding of what role local agency and collective action in community climate commons (CCC) play in shifting perceptions related to unfairness and exclusion while promoting inclusive transformative capacity in the electrification of the energy system. During Phase 1, Nilsson et al. (2024) found four pillars constituting social sustainability: equity, well-being, participation and influence, and social capital. Hence, procedural justice will be of importance for achieving a climate transformation perceived to be legitimate since it concerns active participation and deliberative democratic influence in the decision-making process. Lindvall (2023a) found that an inclusive decision-making process and local compensation can help to shape acceptance of wind power establishments. Also, Colding et al. (2022) started to elaborate and conceptualise Community Climate Commons (CCC). Nässén et al. (2024) identified various forms of CCCs and developed the concept further and concluded that CCCs can be defined as community-based commons that form the basis for mobilisation and collective action against ongoing climate change. Energy communities might be conceptualised as a form of CCCs with specific focus on renewable energy technologies collectively owned and managed as community commons. As of now there are circa 9000 energy communities involving 2 million residents in the EU, while such initiatives in Sweden still are relatively rare. Motives to foster energy communities include advancing energy efficiency at household level and help fight energy poverty, and also to offer an inclusive option for all consumers to have a direct stake in producing, consuming or sharing energy (EU 2019/944), and since 2024 energy communities play part of the EU directive on energy efficiency (EU 2023a, points 117, 118). The knowledge gaps addressed here are, 1) how empirical cases of different forms of CCCs work to promote an inclusive transformative capacity, and 2) how CCCs with extra focus on energy communities shape discourse and perceived legitimacy in the transition towards electrification of the energy system. Results produced will be related to knowledge production in task 4.1.

Methods: Mixed methods and inductive approaches will be used mainly based on previous research on common property systems (Colding & Barthel et al. 2013), community climate commons (Nässén et al., 2024), ecosocial community work (Chang et al., 2022) and ecosocial integration (Khan et al. 2020; Khan & Hildingsson 2024; Khan et al. 2024). Empirical data will be collected by way of literature reviews, semi-structured interviews, focus group interviews, surveys and network analysis. Methodologies for analysis include qualitative deductive content analysis and statistical modelling.

Output: 3 peer-reviewed articles, 1, PhD thesis, 1 report, 3 conference presentations

WP2. Sufficiency and Fairness in the Climate Political Landscape

Lead: Thomas Hahn (SU).

Background and relevance

The literature on sufficiency provides a framework for understanding the meaning of "enough" (Darby 2007). It encompasses both social thresholds (meeting human needs and promoting well-being based on principles of fairness) and environmental limits (linked to e.g. transgressing planetary boundaries) (Burke 2020; Barkin 2007). In the sixth assessment report by the IPCC (2022, p.31), sufficiency policies were defined as "a set of measures and daily practices that avoid demand for energy, materials, land and water while delivering human well-being for all within planetary boundaries". Effective sufficiency policies resulting in reduced ecological footprints, hence potentially promote the implementation of the new EU Nature Restoration Regulation (EU 2024b), e.g. by reducing the demand for wood products needed for the green transition. While the idea of limits to consumption has a long-standing tradition within sustainability research (Durning 1992), implementing such limits is increasingly needed today as climate benefits enabled by new technology often are consumed by economy-wide rebound effects (Haberl et al. 2020).

Sufficiency is related to post-growth and system-wide transitions (McGreevy et al. 2022), focusing on limiting material consumption and controlling rebound effects of conventional efficiency measures (Lage 2022). Research revolving around the feasibility of sufficiency policy is still scarce though, and there is a research gap on not least public and political acceptability (Savin & van den Bergh 2024). We will address this research by employing a focus group deliberating on feasibility of climate policy using a stratified sampling method usually employed to capture a diversity of residents in a population (Daw et al. in review).

Our research in Phase 1 has shown that technological advancements are not enough to stay within the remaining carbon budget, and that additional efforts on resource efficiency and sufficiency are needed (Lorek et al. 2023; Alfredsson et al. 2023; Malmaeus et al. 2025). We have also shown empirically that Sweden, despite EU's regulation on reduced energy use (EU 2023), lacks a target for sufficiency and that more energy per capita is not necessarily regarded as unproblematic as long as it is renewable (Lindgren et al. 2023b). In Phase 2, WP2 will expand on this research, by focusing on the sufficiency concept and exploring whether a turn towards sufficiency in policy-making could enable a fair and rapid transformation to a green and sustainable economy. This will be achieved primarily by way of modelling and scenario-building including sufficiency policies to analyse effects on e.g. emissions and wellbeing and discuss these in roundtables with stakeholders, including Fairtrans' CSOs. Results will be discussed with scholars in WP1, 2 and 4 and in co-creation activities linked to WP 5.

Aims and research questions

WP2 aims to explore the significance of reduced material consumption to enable a rapid decarbonisation. "Lowering total consumption and waste" has been identified by IPBES (2019, Key Message D3) as a key leverage point for transformations towards sustainability. Yet, none of the five shared socioeconomic pathways of the IPCC and none of the 222 scenarios in its special

report on 1.5 degrees projects a declining GDP (Keyßer & Lenzen 2021). This has not changed with IPCC AR6 (Kikstra et al. 2024). Previous research has shown strong rebound effects of past policies and price relations and a strong coupling between resource use and GDP (Wiedmann et al. 2020). Hence, there is a clear research gap for climate policy models and scenarios based on reduced material consumption.

The research questions for this WP are:

RQ1: How do the material footprints differ between selected scenarios for climate transformation? (2.1)

RQ2: Could sufficiency policies, such as reduced working time, universal basic income and energy efficiency measures, reduce resource use and increase equity? (2.2)

RQ3: Which types of sufficiency policies and policy packages addressing carbon dioxide emissions and resource-intensive consumption are seen as socially acceptable when people have time to think and deliberate together? (2.3)

Tasks, methods and outputs

Task 2.1: Resource use and the climate transformation

Lead: Eva Alfredsson (UU). Participant: Mikael Malmaeus (IVL).

The aim of this task is to map the material (including carbon) footprints of different transition pathways.

Reaching the targets set in the Paris Agreement will require not only emission reductions, but net-negative emissions globally at the latest from 2050. In addition, natural ecosystems need to be preserved and restored in order to absorb carbon dioxide from the atmosphere. At the same time, biomass, but also rare earth minerals, are critical for decarbonization of production and consumption. For many of these materials, both global reserves and production capacity are limited, especially in the short time span when the transition needs to take place. Plans for decarbonisation thus rely on unrealistic claims for limited materials. Swedish examples of excessive claims include high levels of biomass in some industry climate transition plans (Alfredsson & Malmaeus 2019) and claims of limited global stocks of lithium for batteries and electrification (Malmaeus et al., 2025).

Calculating material footprints from a consumption perspective is an emerging discipline within sustainability research (Hickel et al 2022, Wiedmann, 2020). In Phase 1, we estimated the allocation of critical metals between nations for a green transition based on existing EU strategies (Malmaeus et al., 2025). The results show that as a share of current production capacity, the demand for 13 out of 14 metals is higher than an assumed per capita allocation.

In this analysis we will analyse the material (including carbon) footprints of different transition pathways from a production and consumption perspective.

Method: Step one is a literature review of the relationship between resource use and GHG-emissions, distinguishing between different types of resources. We then use available data to map critical global limits for different categories of materials and resource use such as biomass, metals and non-metallic minerals, including specific materials such as base metals, rare earth elements and other materials. We will also investigate national and regional limits for locally available resources such as land, biomass and bulk materials. We use national accounts and input-output tables to construct sector-wise descriptions of material use, allowing for scenarios and alternative pathways to be developed in task 2.3. We will set up matrices of resource use in different economic sectors allowing for modifications of output levels and

technology (i.e. resource intensity, circularity etc.). These results will be utilised as input in task 2.2 and 2.3.

Output: 2 peer-reviewed articles, 2 conference presentations

Task 2.2: Decarbonization Through Sufficiency: Modelling Sweden's Transformation Towards Sustainable Well-being

Lead: David Collste (SU). Participant: Thomas Hahn (SU).

The aim of this task is to model policies related to sufficiency. Many social indicators and basic needs, such as those for the first seven Sustainable Development Goals (no poverty, zero hunger, good health, quality education, gender equality, clean water, and energy access), show diminishing returns as GDP per capita rises. These goals are generally met at around GDP $15,000 per capita (in 2011 Purchasing Power Parity) under current conditions (Collste et al. 2021). Modelling that includes a broader set of alternative futures compared to what Integrated Assessment Models (IAMs) allow for, e.g., incorporating reduced consumption, has been highlighted as a research gap (Braunreiter et al. 2021). While gains in energy efficiency are absolutely crucial, without policies for sufficiency and the controlling of economy-wide rebound effects, more than half of the expected energy savings from improved energy efficiency may be eroded (Brockway et al. 2021). A specific research gap is how reforms in labour markets, e.g. working time reductions and universal basic income, can increase the political feasibility of sufficiency (Keyßer and Lenzen 2021). In Phase 1, we have simulated effects of policy packages on human wellbeing, decarbonisation and GDP in Sweden (Zwetsloot et al., in review). Here, we develop the model to analyse labour reforms further and more specifically to analyse how sufficiency scenarios can enhance equity.

Methods: We use system dynamics modelling to quantitatively assess the potential of post-growth and sufficiency-oriented policies in Sweden. The iSDG model is a well-established system dynamics-based tool (e.g., Allen et al. 2019, Chen et al. 2024; Collste et al. 2017; Pedercini et al. 2019) designed to simulate the long-term impacts of policy changes on both social and environmental outcomes. By integrating a broad range of impact factors such as energy use, GDP, inequality, unemployment and development of environmental variables, the model allows for systemic assessments of how sufficiency strategies may affect Sweden's ability to meet its sustainability and well-being targets.

First, we will continue the work on adapting the iSDG model to the Swedish context to enable a more granular and detailed analysis of the policies presented in Zwetsloot et al. (in review). The model will then be used to simulate various policy interventions, including reduced working time in different economic sectors, universal basic income, LULUCF and energy efficiency measures, to assess their impact on key impact indicators such as carbon dioxide emissions, resource use, GDP, equity and unemployment. Special attention will be given to rebound effects, policy synergies, and trade-offs, aiming to identify effective combinations of policies for achieving both environmental sustainability and social wellbeing. Based on our results, the same policies will be applied to the three models used in Phase 2: the simple macroeconomic model (SMM), the system dynamics iSDG-Sweden model, and the E3ME post-Keynesian macroeconometric model. The comparative approach will analyse how the models' different causal hypotheses give rise to different outcomes on the studied variables. This will help us gain insights into the appropriateness of using different models depending on contextual factors.

Output: 3 peer-reviewed articles, 2 reports, 4 conferences

Task 2.3 Deliberating consumption corridors – focus group deliberative workshops

Lead: Thomas Hahn (SU). Participants: Eva Alfredsson (UU). Mikael Malmaeus (IVL), Tim Daw (SU), Stephan Barthel (UG).

The aim of this task is to explore the social acceptability of resource-efficient consumption within sustainable consumption corridors.

Post-growth arguments emphasise the importance of decoupling human wellbeing from material consumption and GDP. In theory, people can meet their needs while lowering consumption if existing systems of consumption and mobility are reconfigured. But whether people accept such shifts is an empirical question. While some surveys suggest the general public is willing to prioritise sustainability over economic growth (Jönsson 2019), others suggest that the public views growth and environmental sustainability as compatible (Drews & van den Berg 2016). All in all, there is limited evidence as to whether people would accept sufficiency policies and the extent to which such attitudes can be altered (Savin & van den Bergh 2024).

A problem with survey data on a complex topic as sufficiency policies is the lack of opportunities for respondents to learn or deliberate. Given the lack of mainstream public discussion of sufficiency, it is unlikely that survey respondents have access to – or opportunities to – integrate relevant data. Survey responses are therefore less meaningful in order to understand how people might evaluate different arguments for or against sufficiency, or how a greater understanding of resource constraints might influence their support for such arguments. Large scale citizens' assemblies throughout Europe provide some support for the idea that learning and deliberation enhances support for sufficiency policies. For example, European climate assemblies proposed sufficiency policies much more frequently than government mitigation plans (Lage et al. 2022). Given that much of the literature on public attitudes towards climate policies is survey-based, there is a need to engage more closely with citizens to get a more granular understanding of how they perceive policies and why they do so (Heyen & Wicki 2024; Kallbekken et al. 2023).

Informed by Tasks 2.1 and 2.2, we explore different combinations of consumption bundles, which are all aligned with climate goals. The options will be discussed within the focus group in order to understand arguments for and against alternative consumption packages that might have traction in the public debate. The results of this task will be used in co-creation activities with partners of Fairtrans (see WP 5)

Methods: Deliberative focus groups (e.g. Rothwell et al 2016) expand existing focus group methods to include learning and facilitated deliberation phases. A stratified selection of residents in two municipalities (high/low income), each reflecting diverse sociodemographic factors and political sympathy, will interactively learn the results of modelling in tasks 2.1 and 2.2. They will deliberate about consumption packages in facilitated small groups over two physical meetings. The deliberations will be recorded and content analysed along with final group conclusions to elucidate salient arguments for and against sufficiency policies as well as emergent points of consensus or conflict. Surveys before and after the meetings will be used to analyse changes in attitudes. This kind of targeted analysis of specific climate policy challenges has been suggested as a next step for citizen deliberation to contribute to climate policy (Ainscough & Willis 2024).

Output: 1 peer-reviewed article, 1 report

WP3. Stringent and Fair Climate Policy

Lead: Mikael Karlsson (UU)

Background and relevance

Considering climate targets and the fairness principle of common but differentiated responsibility and respective capabilities explored in Phase 1 (Hahn et al. 2024), there is an urgent need to implement more stringent climate policies in many countries as well as in the European Union. However, the extent to which re-election seeking politicians are willing to increase the ambitions of existing climate policies or introduce stricter and potentially coercive instruments remains uncertain. In fact, developing more stringent policies could trigger opposition and increase the likelihood of policy backlash and rollback, as well as implicatory climate denial, as explored by Fairtrans researchers (Lindgren et al. 2023a; Mendy et al. 2024). At the same time, policy packaging and compensatory measures have been shown in Fairtrans Phase 1 to counteract critical attitudes to conventional instruments, for example by fostering certain forms of distributive justice (Lindvall et al. 2024a).

Building on this, Phase 2 will focus on the design, impact, acceptability and feasibility of more stringent instruments, including those targeting carbon-intensive consumption. We will expand on the already initiated international policy studies (Lindgren et al. 2024), foremost by investigating EU level policy and, comparatively, policies on EU Member State level, seeking to learn from successful cases. The intention is also to examine real, rather than hypothetical, climate policies, including instruments under the European Green Deal and succeeding strategies, such as the Clean Industrial Deal and other policies for industrial transition. A particular emphasis will be placed on fairness, including distributional consequences and measures that may mitigate adverse socioeconomic effects, such as policy sequencing, packaging and framing, and compensatory policy designs. In parallel, we will analyse the consequences of alternative stringent policy packages through modelling, an approach initiated in Phase 1 (Ergon et al. 2025).

Beyond design, public attitudes and impact, we will study politicians' perceptions of public opinion, their role in shaping it, and their views on more stringent policies, e.g. instruments promoting more radical shifts in consumption patterns like command-and-control tools mandating behavioural change of individuals and businesses. During Phase 1, we showed in the case of energy sufficiency, that such measures were largely absent from political debate and decision-making in Sweden (Lindgren et al. 2023b). Here, we will seek to explain how different aspects may lead to climate policy progression or backlash.

Linked to this, we will explore what role policy appraisal design has for developing proposals and adopting decisions, since appraisal outcome is a critical factor for the understanding of policies (Karlsson 2021). As shown in the first period, evidence-based policy co-benefits are, for example, seldom assessed (Karlsson et al. 2023), despite their potential to enhance acceptability and counteract climate denial (Karlsson et al. 2020). On this point, we expand on previous research both horizontally and vertically through comparisons between EU Member States and between the national and the EU level, with a focus on policy packages.

WP3 will be characterised by strong involvement of the Fairtrans partner organisations, particularly in tasks targeting policies and public attitudes across various EU countries (e.g. tasks 3.1 and 3.4). The partner organisations will, for example, be invited to provide proposals of forerunner or backlash policies – as well as related research questions – relevant for both Sweden and other EU countries, that are critical to explore and discuss on a scientific basis. The partners will also take part in roundtable meetings on interpretation on research outcomes and development of policy proposals.

WP3 will moreover work in close collaboration with researchers in other WPs, foremost those carrying out the tasks 1.1 (on climate backlash), 2.2 (on sufficiency policy), 4.2 (on urban climate policy acceptance) and 4.4 (on backlash).

Aims and research questions

The aim of WP3 is to improve the understanding of climate policies that are both stringent in relation to climate targets and fair in terms of impact on the public and stakeholders, altogether promoting political feasibility. The studies focus on the EU level, including Sweden and other EU Member States.

The research questions are:

RQ1. How can stringent and fair climate policies be designed and combined in policy packages to reach present and future EU climate policy targets while ensuring public acceptability?

RQ2. How can policy appraisal tools be designed to promote a comprehensive political understanding of the impacts of climate policy packages?

RQ3. How can the inclusion of Swedish and EU climate policies in green economy strategies facilitate a fair climate transformation?

RQ4. What are the quantified emissions and socioeconomic impacts of real-world stringent climate policy packages?

Tasks, methods and outputs

Task 3.1: Climate policy packages and public attitudes in the EU

Lead: Oskar Lindgren (UU). Participants: Mikael Karlsson (UU), Roger Hildingsson (LU), Daniel Lindvall (UU).

The aim of this task is to explore how the combination and calibration of climate policy instruments and social and redistributive policies affects public attitudes across EU countries, compared to standalone climate policies. The task will also analyse the extent to which different policy frames influence attitudes.

Scientific knowledge about public attitudes towards climate policies is becoming increasingly important to consider. As climate policy backlash and rollback have materialized recently in many EU countries, increased academic attention has been devoted to understanding the general public's view of climate policies and how policy design can be leveraged to increase public buy-in. This task builds on the findings from the various surveys conducted in Phase 1, which will constitute a part of a thesis in Fairtrans, expanding the scope to include other EU countries and policy instruments. The findings from the Phase 1 survey indicate that the distribution of costs from carbon taxes influence attitudes (also observed elsewhere). The new survey, which is already under development, will gather population-representative data from a number of EU countries (tentatively Austria, Denmark, France, Germany, Italy, Lithuania, Poland, and Sweden), facing similar but also different challenges and opportunities to ensure public support for their domestic climate policies.

By including various EU countries, we will be able to assess inter-country heterogeneity and comparatively examine sources of differences and similarities between the countries. Compared to much of the existing literature, which focuses on hypothetical policies, the

survey will depart from established real-world climate policy and elicit public attitudes towards targets and laws associated with the European Green Deal - such as e.g. the Renewable Energy Directive (EU 2023b), the Energy Efficiency Directive (EU 2023a) and the Social Climate Fund - as well as subsequent policies, e.g. the Clean Industrial Deal. This allows us not only to assess public views on climate policies, fairness in burden-sharing and mechanisms underlying these attitudes, but also to contribute with concrete policy recommendations for domestic and EU policymakers. Furthermore, our experimental approach allows us to explore if certain packages of policies (combining climate policies with redistributive policies) or framing of policy packages (e.g. competitiveness vs equity) influence public attitudes. We will also seek to unravel how people's perception of the fairness and effectiveness of these policy packages influence their policy attitude. More specifically, we will seek to understand how burden-sharing between EU countries (e.g. through the Social Climate Fund) is perceived and how such perceptions link to what people consider fair.

Methods: The survey will include both observational and experimental parts. The experimental parts include a combined framing and conjoint experiment as a means to explore how policy design affects individuals' attitudes towards climate policy instrument packages and a vignette experiment to explore attitudes towards the Social Climate Fund. In the combined framing and conjoint experiment, respondents will be presented randomly varied policy frames reflecting different arguments in favour of more stringent climate policy ambition (e.g. equity, climate mitigation and EU competitiveness). Following the framing experiment, the conjoint experiment will present different policy packages to the respondents, varying on a number of attributes (e.g. combination of policies, stringency and scope). Respondents will be asked to choose between two different randomly assigned policy packages including different instruments varying on a number of levels. The instruments will be chosen based on a review of enacted and planned policies, expert interviews and dialogue with Fairtrans' EU level partners. The experimental part of the survey is followed by questions regarding the fairness and effectiveness of these policy packages, as well as commonly used questions capturing political ideology, political trust and sociodemographic factors. In the vignette experiment, respondents will be presented vignettes varying along different uses of funds from the Social Climate Fund (e.g. how much countries receive and in which sectors investments are made). The vignettes will use information from the Social Climate Plans which are due to be submitted by the end of June 2025. Altogether, this design allows us to reduce many of the issues with stated preference approaches, e.g. social desirability bias and motivated reasoning (Hainmueller et al. 2015), and enable us to uncover important facets of the EU green transition, generating insights with high levels of external validity and practical policy relevance.

Output: 4 peer-reviewed articles, 1 PhD thesis, 1 report; 2 conference presentations

Task 3.2: Evidence-based policy appraisal and policy packages

Lead: Mikael Karlsson (UU). Participants: Roger Hildingsson (LU), Oskar Lindgren (UU).

The aim of this task is to study the evidence-base for climate policies, how various public policy appraisal regulations, approaches and methods in Sweden and the EU may influence the outcomes of policy making processes, and how these can be adapted to meet the quest for fair policy packages.

In light of the inadequacy of existing climate policies and the fact that no instrument alone is sufficient for deep and rapid fair climate mitigation, the need for evidence-based policy packages is increasingly emphasised

(Stechemesser et al. 2024). In reality, however, instruments are often added one by one to a climate policy landscape best described as a patchwork, developed over time in response to technical analyses, electoral concerns of governments and diverse interests of various actors. Public policy appraisals of such new instruments tend to emphasise a narrow set of evaluation criteria, such as cost-efficiency, at the cost of other relevant aspects like equity and public acceptance. In addition, the failure to consider non-monetised values of climate policies like co-benefits means that appraisals may underestimate the true impact of climate policies (Karlsson et al. 2020; Karlsson et al. 2023).

Reviews of scientific studies in the area of climate policy point out that scholars are prone to making the same mistakes (Schoenefeld 2023). Evaluations are often restrictive in focus or criteria and study idealised policies in which instruments are optimally designed into coherent mixes without accounting for the political and social realities that shape policy formulation and implementation in practice (Schoenefeld 2023). In other words, the policy literature often lacks a real-world perspective on policy packages and how these are developed, leading to a confusion between empiricism and conceptualization. In effect, this leaves policymakers without much guidance to implement effective and fair coherent climate policy packages.

This task examines how climate policy appraisals are conducted in both practice and research to understand how they can be adapted to better promote effective and fair climate policy packages. This research expands the research on climate policy in Phase 1 by incorporating empirical evidence about real appraisal of policies and policy packages, contributing with both theory development and policy advice. In doing so, it helps to inform both qualitative evaluation and quantitative modelling of policy packages, and provides insights about how current practices can be adjusted and calibrated to meet both national and EU targets.

Methods: Mixed method approach, combining document content analysis, interviews and expert consultation.

Output: 2 peer-reviewed articles, 1 report, 1 conference presentation

Task 3.3: Politicians' views of stringent climate policies

Lead: Mikael Karlsson (UU). Participants: Oskar Lindgren (UU), Roger Hildingsson (LU).

The aim of this task is to study how Swedish politicians see their role in influencing public acceptance of stringent climate policies and to what extent they consider more stringent climate policies politically feasible and desirable.

The task explores how politicians perceive the potential for radical shifts in consumption patterns, which policies they believe could be publicly acceptable and which arguments politicians see for and against e.g. bans, consumption taxes or rationing. There is an urgent need to implement more stringent or increasing the ambition of current climate policies. However, the extent to which re-election seeking politicians are willing to adopt stringent and potentially unpopular climate policies remains uncertain and understudied. Furthermore, the literature on public opinion about climate policies has identified various strategies that politicians could employ to increase acceptance among the public, including compensatory mechanisms and policy sequencing, packaging and framing. But research on whether politicians view these acceptability-enhancing strategies as legitimate and helpful remains scant.

This task will explore these questions through interviews with national Swedish parliamentarians, broadening the survey-focused

climate policy acceptance literature by eliciting politicians' perception of public opinion and their role in shaping it. Additionally, the task will make use of the Political Panel at the Laboratory of Opinion Research at the SOM institute to elicit how politicians at different levels (local, regional and national) (1) see the need for consumption reductions and lifestyle changes, and (2) which policies they consider legitimate in targeting consumption-based emissions. Such insights are critical to better understand the relation between politicians and the public, and more generally to understand the role of politicians in climate politics.

Methods: Interviews with present and previous Swedish parliamentarians; surveys with politicians in the SOM Politician Panel.

Outcomes: 2 peer-reviewed articles

Task 3.4: Climate Policy Progression and Backlash in the European Union

Lead: Roger Hildingsson (LU). Participants: Mikael Karlsson (UU), Laila Mendy (UU), Sofia Bernett (SU).

The aim of this task is to investigate the design and appropriateness, as well as the societal reception, of a selection of key policies under the European Green Deal (EGD) and the new EU Clean Industrial Deal, in relation to adopted climate policy targets.

In 2019 the EGD was launched as a flagship strategy for greening the EU economy and meeting its climate policy objectives and commitments in accordance with the Paris Agreement. The EGD has been a key priority for the first von der Leyen Commission, which for its second period has declared a clear ambition to continue its implementation, and to develop further policies with a similar intention, notably the Clean Industrial Deal. This endeavour also includes the social dimension of a just and inclusive transformation, expressed in the ambition to leave no one and no region behind, operationalized in the Just Transition Mechanism and the Social Climate Fund that will be implemented in the coming years.

While the EGD package is well-documented so far, its future implementation, as well as the implementation of the Clean Industrial Deal, through specific policies remain to be followed, mapped and analysed, especially in the context of climate denial and antagonism (Mendy et al. 2024; Mendy & Karlsson 2025) political backlash and policy dismantling (Bauer and Knill 2012; Lenschow et al. 2020; Lindgren et al. 2023a; Patterson 2023) after the 2024 EU Elections, such as manifested in e.g. the Omnibus package (European Commission 2025). The mapping and analysis of implementation of these policies, which will be done in collaboration with Fairtrans partners, will feed into a Climate Policy Progression and Backlash Tracker (see WP5, task 5.4).

While the mapping will provide an overview and detailed insights about the broad landscape of climate policies, this task will also include case studies of selected policies. A first case study will focus on how the implementation of the Social Climate Fund contributes to a fair transformation in a Swedish context. In a second case study we will focus on the recently adopted Clean Industrial Deal and how it contributes to or blocks a fair climate transformation. This study will also integrate considerations of the impacts of the Omnibus package on the implementation of the EGD and Clean Industrial Deal. Linked to the tasks, one PhD thesis (already in progress) will be produced.

Methods: Policy document analysis, literature review and elite interviews with centrally placed actors.

Outcomes: 3 peer-reviewed articles; 1 PhD thesis, input to the Climate Policy Progression and Backlash Tracker.

Task 3.5: A fair and green industrial transition

Lead: Roger Hildingsson (LU). Participant: Mikael Karlsson (UU).

The aim of this task is to investigate views among various actors on the green industrial transition and related policies in Sweden, for facilitating such a transition in a fair, inclusive and robust way.

In Phase 1, we experienced the critical importance of green industrial developments, especially in the Northern part of Sweden, for decreasing emissions and generating support for climate transformation among various actors. Notably, this was indicated by the recent study on potential conditions for a green Swedish model (Ergon et al. 2025). In the context of the impending recession, some development projects suffer from set-backs, as indicated by the financial turmoil around battery producers and postponed investments for low carbon steel production. Still, most actors are convinced by the long-term need for industrial decarbonisation and that associated investments will be favourable for the economy, including local and regional job creation, and strategically important for both Swedish industry and the European economy.

However, large-scale industrial transformations are associated with challenges and risks that need to be handled by means of green industrial policy and flanking policies in Sweden and the EU. In the scientific literature on green industrial policy (Rodrik 2014; Mazzucato 2016; Hildingsson et al 2019) and sustainability transitions (Kitzing et al. 2020), risks related to financial markets, technological developments and regulatory barriers are well-described (Johansson et al. 2021; Löfgren & Rootzén 2021), while the political risks associated with the transition are less known, such as in relation to infrastructural challenges, the uneven distribution of costs and benefits among social groups, and the urban-rural divides, resulting from the diffused localisation of natural resources and large-scale industrial sites.

In this task we will, first, map policies for promoting and facilitating green industrial transition, such as the Swedish Industrial Leap policy, the industrial climate roadmaps orchestrated by Fossil Free Sweden (Nasiritousi & Grimm 2022) and the EU Clean Industrial Deal (in synergy with Task 3.4). This will, second, be supplemented by an interview study with key stakeholders in related industries, municipalities, CSOs and policy actors about their views on green industrial policy and strategies for handling the challenges and risks associated with fair industrial decarbonisation, considering changing circumstances and shifts in economic, industrial and social conditions. In synergy with WP5, the results of these studies will be subject to roundtable dialogues with key stakeholders (Task 5.1).

Methods: Policy analysis, literature review and interviews with centrally placed actors and key stakeholders, roundtable dialogues with key stakeholders.

Outcomes: 2 peer-reviewed articles, 1 report

Task 3.6: Modelling distributional consequences of climate policies

Lead: Roger Hildingsson (LU). Participants: Mikael Karlsson (UU), Jens Ergon (UU).

The aim of this task is to explore and quantify in modelling the emissions and socioeconomic impacts of stringent climate policy packages intended to promote environmental and socioeconomic synergies. The point of departure is policies developed and studied in other tasks in WP3.

There is robust empirical evidence linking income inequality to environmental inequality (Chancel 2020). High-income groups are responsible for a

disproportionately high share of greenhouse gas emissions and energy and resource use (Chancel 2022; Oswald et al. 2020). Environmental policies may in turn impose particular burdens on low-income groups and rural populations (Feindt et al. 2021), and growing inequality and weakened welfare systems may aggravate such problems. In societies with high-income gaps, climate policy measures, such as raised carbon taxes, are thus more likely to be seen as unjust, since they may place burdens for environmental problems on low-income groups. To strengthen the support for more stringent policy measures, it is thus critical to improve the perceived fairness and social profile of climate policy. This is particularly important considering how socio-economic impacts and distributional consequences have traditionally been neglected or downplayed when designing climate policies. Conversely, climate effects are rarely considered in general welfare or distributional policies, such as taxation, social security, and labour market policies. In the context of climate backlash, rollbacks of existing climate policies are sometimes justified on such grounds, however with weak support in any documented evidence. In FT1, we developed competence in and applied E3ME modelling to study the environmental and socioeconomic impacts of climate policies. In one of the studies, we demonstrated the climate and socioeconomic effects of a decreased energy tax on fuel, and that there are ways to improve these effects significantly by alternative use of similar public spending (Ergon et al. in review). A second and third E3ME-modelling study is carried out at the time of writing, and will constitute part of a forthcoming thesis in Fairtrans. In Phase 2, we will further develop, in dialogue with Fairtrans EU-based partners, the E3ME-modelling to assess the distributional consequences of both continued climate policy rollbacks and stringent climate policies that strengthen the environmental and social profile of climate policy.

Method: Modelling studies, focusing on emissions and distributional consequences of policies and policy packages explored and designed in WP3.

Output: 3 peer-reviewed articles, 1 PhD thesis, 1 report, 1 conference presentations

WP4. Shifting acceptance and behaviour with place specific policy intervention

Lead: Daniel Lindvall (UU)

Background and relevance

While many climate policy measures explored in WP3 aim to regulate or influence activities broadly—such as carbon taxes—others are place-specific, including land-use regulations for energy infrastructure or urban planning. Although such interventions can be initiated by national governments, they are often implemented at the regional or municipal level. It is reasonable to assume that fairness perceptions apply to place-specific interventions just as much as to broader climate policies.

The conditions to address procedural fairness (input legitimacy) are arguably more favourable at the local level, as citizens and stakeholders can directly engage and participate in the decision-making and transformative actions (Ziervogel et al. 2016). Local authorities are well positioned to design and implement policies that influence behaviours, norms, and attitudes relevant to climate transitions.

Nonetheless, opposition and perceptions of unfairness may emerge when local interests are disregarded or when the economic benefits of investments fail to reach the affected communities (Batel 2020). Findings from Phase 1 confirm that fairness perceptions are important for both community acceptance of wind power and for municipal decision-making processes (Lindvall 2023b; Lindvall et al. 2024b). Our research also highlights the relevance of personal values—particularly environmental concern, political ideology, and trust (Lindvall et al. 2024a). A novel finding was the influence of habits on carbon tax acceptance (Linder et al. 2024). People with a socially institutionalised habit of driving a car have a greater propensity to reject carbon taxes, which suggests that policies that aim to change habits, but urban policies that encourage people not to drive, could indirectly reduce the association between negative attitudes and car driving habits.

There is a need to deepen our understanding of how place-based interventions can be designed to increase public acceptance and promote behavioural and normative change. This also requires overcoming a number of methodological challenges. While survey-based studies of public acceptability can yield policy-relevant insights, they often focus on hypothetical scenarios with which respondents have little or no lived experience. It remains uncertain whether such assessments accurately reflect reactions to real-life policy implementation.

Moreover, the research conducted during Phase 1 did not make any firm conclusions on causal effects and did not address how policy designs interact in their effects on policy acceptance. For example, bundling policy designs may have synergistic effects that make policies much more appealing to the public. Conversely, specific elements of one policy may undermine the effectiveness or appeal of another (Zhao et al. 2024). Understanding these interactions is of both theoretical and practical importance, especially when implementing climate policies amid rising political resistance.

Finally, there are limitations when it comes to research on behaviour and habits, which may influence public acceptance, as people may have difficulties when it comes to defining the strength of habits. WP4 aspires to expand the scientific

knowledge of social attitudes, norms, and behaviour, studying real-life experience, targeting groups affected by specific policies and interventions, and employing exploratory research methods and designs.

Aims and research questions

This work package will build on the research conducted during Fairtrans Phase 1, and aims to develop an understanding of how place-specific policies and interventions can be developed to shift acceptance and behaviour. The place-specific dimension limits the work package to policies and interventions that are local or regional, such as the usage of land and built environments or planning of an urban or regional space. The work package is also to combine methodological approaches, and thereby not only generate novel insights about policy attitudes and implications but to expand the research horizon in general. Results produced in WP 4 will be used as a base for discussions and co-creation of policy in WP 5.

The general research questions explored are:

RQ1: What social and psychological mechanisms influence attitudes to place-specific policies and interventions, and how can such policies and interventions be designed to enhance public support and mitigate opposition.

RQ2: How do mobility habits shape public attitudes to different transformative policies, and can a habit sensitive urban policy influence policy acceptance?

Tasks, methods and outputs

Task 4.1. Living nearby energy infrastructure – an experience-based study

Lead: Daniel Lindvall UU. Participants: Stephan Barthel (HiG).

The aim of this task is to study acceptance attitudes of the individuals living nearby energy infrastructure, primarily wind power. Wind power has become a contentious issue in Sweden, especially at the local level, manifested in a high level of municipal rejections. Despite individual research contributions (Lindvall et al. 2024b), the reasons behind local opposition to wind power licensing are not entirely clear. While it has been suggested that various forms of compensatory measures could help to overcome acceptance barriers, less is known how people who live near wind power plants actually perceive them.

Methods: The study will be conducted through a targeted survey, utilizing geoposition data on the location of wind farms provided by the Swedish Energy Authority, and postal addresses of respondents. This way we will be able to explore the attitudes of individuals living in close proximity to wind turbines. To date, only a limited number of such studies have been undertaken (e.g. Hoen et al. 2019; le Maitre et al. 2024), yet their findings are highly valuable and policy-relevant, as they reflect actual experiences rather than hypothetical scenarios. The survey will thereby specifically target residents living near wind turbines and will primarily consist of a traditional structured questionnaire. To complement this, a few open-ended questions will be included. By inviting respondents to elaborate in their own words, we aim to gain a deeper and broader understanding of the factors influencing community acceptance—capturing attitudes and experiences that may be unknown in advance or difficult to identify through closed-ended survey questions alone, such as the influence of specific incidents, local actors, or prevailing sentiments.

The results will generate unique empirical data and enable us to analyse a range of contextual factors (e.g., turbine size, number, distance from dwellings, and ownership), fairness-related aspects (e.g., use of participatory planning processes, compensation schemes, or community benefits), value-based dimensions (e.g., political trust, ideological orientation), and local

circumstances (e.g., presence of local organizations or political campaigns).

Output: 3 peer-reviewed articles, 1 report, 1 conference presentation

Task 4.2. Urban climate policy acceptance

Lead: Daniel Lindvall (UU). Participants: Stephan Barthel (HiG), Noah Linder (RAS), Patrik Sörqvist (HiG), one new PhD student (HiG).

The aim of this task is to examine public attitudes toward urban climate policies in Swedish municipalities. Transforming urban spaces is essential for achieving climate targets and advancing sustainable development. For example, spatial urban planning that incorporates nature-based solutions—while accounting for behavioural dynamics—can help safeguard ecosystem quality and promote high-density, compact urban development. Such strategies are key to realizing carbon-neutral cities (Pan et al. 2023; Creutzig et al. 2025). As with national or EU-level regulations, local and place-specific climate interventions depend on public acceptance to be politically viable (Furcei et al. 2022). However, while climate policy acceptance research has primarily focused on national-level measures—such as carbon taxation—less attention has been paid to place-specific land use policies.

A local perspective may offer unique insights, as respondents are more likely to have direct experience with the interventions. Moreover, local policies tend to interact with specific community needs and interests, potentially anchoring support around a different set of parameters than those relevant at the national level. It remains unclear whether, and to what extent, factors known to influence policy acceptance at the national level—particularly perceptions of fairness (Bergquist et al. 2022)—also shape public attitudes toward local policies, where transformative actions are often more tangible in everyday life.

Method: The local perspective would make it more likely for respondents to have direct experience of the interventions. Local policy interventions and urban planning initiatives may interact with local mobility habits, specific local needs or interests, and support could thus be anchored around a different set of parameters than what is relevant at the national level. We will conduct surveys to assess public attitudes toward urban policy interventions, specifically in the areas of transportation, urban form and nature-based solutions. The surveys will be carried out in two midsize frontrunner cities with which the participating universities have established collaborations: Uppsala and Gävle. Both cities are part of the climate policy network Viable Cities and have committed to achieving climate neutrality by 2030. The survey will include questions about specific urban policy interventions, as well as questions about some general policies. Moreover, a conjoint experiment will be embedded in the survey to capture key factors influencing public acceptance, both practical aspects regarding the intervention, cost distribution, and procedural aspects related to policy implementation. The survey will also include targeted questions on behavioural patterns and environmental psychology, which will contribute to Task 4.4. The survey will be designed on the basis of research findings in Phase 1 and relevant literature, but also through a co-creative process with the collaborating municipalities, Viable Cities, and Fairtrans partner organisations.

This study will build on insights from the Phase 1 survey, particularly regarding the role of fairness and behavioural factors, while also aligning with research conducted in WP3. The study design allows for the inclusion of additional cities. Through collaboration with the Viable Cities network—comprising 48 Swedish municipalities and municipalities in the EU working toward climate neutrality by 2030—we aim to secure co-funding from both the network and individual municipalities to expand this survey-based task to

include more case cities. This would enable a comparative analysis across multiple urban contexts. The results of the survey will be discussed in workshops with the municipalities, Viable Cities, and Fairtrans partner organisations, and their input will contribute to both the interpretation and spreading of results.

Outcome: 4 peer-reviewed articles, 1 PhD thesis, 1 report, 3 conference presentations

Task 4.3. Living environments, mobility habits, behaviour change and policy acceptance

Lead: Noah Linder (RAS). Participants: Patrik Sörqvist (HiG), Daniel Lindvall, (UU), Stephan Barthel (HiG).

The aim of this task is to investigate if urban mobility habits shape public attitudes to different transformative policies, and to discuss if habit sensitive climate policies influence policy acceptance.

Initial research indicated that habitual behaviours significantly influence support for climate policies, with an effect size comparable to well-established predictors such as environmental concern and political ideology. However, the underlying mechanisms driving this relationship remain insufficiently understood. To address this research gap, the proposed study seeks to disentangle the influence of habits from potential confounding variables. It will also further explore the role of habits as either barriers to or enablers of policy acceptance.

Second, living environments shape or restrict mobility behaviours through infrastructural conditions (Wang et al. 2016; Fosgerau et al. 2023), which is not reflected in an urban/rural division. In combination with the previous findings, this suggests a potential link between accessibility and policy acceptance, mediated by established mobility habits. To investigate this relationship more closely, we will use the survey presented above.

Methods: The survey will be used to delve deeper into how different types of habits influence various forms of policy acceptance, and if this effect is moderated by relevant psychological factors such as self-identity (Verplanken and Sui 2019) and personal norms (Harland et al. 1999). We will include expanded indices for measuring habits and psychological constructs, building on the instruments used in the Phase 1 survey, yet this time also focusing on pro-environmental habits (e.g. biking). These will be used to capture interactions between habit strength and acceptance of several urban policy interventions, particularly those related to transportation and urban densification.

Output: 1 peer-reviewed article, 1 conference presentation

Task 4.4. Backlash by design: In-depth analysis of the interactions among climate mitigation policies

Lead: Patrik Sörqvist (HiG). Participants: Daniel Lindvall (UU), Stephan Barthel (HiG), one PhD student.

The aim of this task is to depart from cognitive psychology theories and methods when analysing casual (as opposed to correlational) effects of climate policy design on acceptance. To better understand the causal effects of policy acceptance, we will explore how combinations of the perceived vices and virtues of environmental policies interact (e.g. reducing emissions vs increasing costs). We know from related research that people weigh drawbacks differently, and that some drawbacks are more acceptable while others may cause a negative attitude to environmental policies (Bergquist 2024). In this work task, we will investigate how people weigh the vices and virtues of local environmental policies, and to increase understanding of how barriers to policy acceptance can be dealt with. Specifically, we will seek to investigate how barriers to policy support (caused by vices) can

be dealt with by appropriate combinations of vices and virtues.

Method: A series of behavioural experiments will be conducted with the overarching purpose of studying the causal effects of policy design on policy acceptance and revealing how various policy designs and their associated vices and virtues interact. Participants will be asked to rate their willingness to support various policies. The characteristics, virtues and vices of the policies will be systematically manipulated to experimentally test how these manipulations change support. The experiments will run on-line and in laboratory settings using computers for stimulus presentation and response collection. All experiments will be programmed using PsychoPy and the on-line versions will run on Pavlovia and be distributed to participants through Prolific Academic and similar crowdsourcing tools. Empirical results based on this quantitative approach will be discussed in relation to other policy acceptance studies in this WP and in WP3, as well as with qualitative findings on consumption corridors in task 2.3, and on climate backlash in task 1.1.

Output: 2 peer-reviewed articles, 1 conference presentation

WP5. Co-creation, Capacity-Building and Communication

Lead: Sofia Bernett (SU)

Background

Co-creation has characterised Fairtrans since the first application was prepared. Partners have influenced research focus, given feedback on findings, and participated in communication. In Phase 1, a series of larger workshops have formed the backbone of co-creation and have helped capacity-building among partners. Each workshop has been preceded by a popular background report, open for partners to influence and use. Roundtables, seminars and other meetings have fostered dialogue among partners, often arranged by partners as part of their policy development and communication.

In preparing this application, partners were invited to three dialogue meetings (autumn 2024), to give feedback on Phase 1 and present ideas for Phase 2. The completed co-creative processes were confirmed as valuable and partners committed to continued collaboration. The proposals raised have largely been incorporated across WPs. One example in WP5 concerns adopting a differentiated approach, with fewer large workshops and more smaller gatherings for partners with shared interest. Along that line we specify organisations in Partners and Collaborating Actors in section 5. The former group consists of CSO partners with a large number of members, and authorities of key importance. The latter group includes some previous CSO partners and additional organisations, including trade unions and business organisations. In line with ongoing work, we include Brussels-based CSOs in Collaborating Actors.

Fairtrans has also built capacity among partners through education. In the dialogue meetings, such efforts were described as a further long term need by partners and other CSOs. In Phase 1, a tailor-made executive programme for trade union leaders was arranged in three rounds, educating 48 representatives from 30 organisations, including LO, TCO and Saco. A key theme was the ability of the union movement to take active leadership for fair transformation. The course has created an alumni network with potential for further engagement, as members share the experiences of interacting with scientists, discussing union challenges and opportunities, and developing action plans in four layers: as individual professionals, within their organisations, as a joint movement, and in relation to society. In Phase 2, an equivalent executive programme will be arranged for industry and employer organisations.

On communication, Fairtrans has in a high number of cases disseminated research findings and key programme initiatives to large audiences in Sweden and beyond. Researchers have published numerous debate articles and chronicles in mass media as well as in specialised press, and have contributed in interviews and debate panels on numerous occasions. Furthermore, Fairtrans researchers have participated frequently in public events, such as public lectures and seminars for selected audiences. “Fairtrans” has been mentioned 167 times in printed media since 2021. In social media, Fairtrans has developed a strong presence on LinkedIn as the platform of choice, currently with some 1000 followers of Fairtrans’ page. The initiative generating the most media coverage of

the programme so far, has been the citizens' assembly on climate (Medborgarråd om klimatet) with a range of newspaper articles and mentions in broadcasting media and some 1550 followers on social platforms. The assembly and its outcomes have been presented and discussed at many public events. Communications efforts around the assembly are continuously generating interest from Fairtrans partners, stakeholders and the public, including members of the Swedish Parliament.

Aims

The overall aim of WP5 is to establish Fairtrans as a key agenda-setter and authority on what a rapid fair climate transformation entails, particularly as a resource for understanding how the transformation can be accelerated in ways that gain broad acceptance, in Sweden and the EU. The specific goals of the three integrated dimensions of WP5 are specified below.

The goal of co-creation is to increase the joint transformative capacity of Fairtrans' researchers, partners and collaborating actors, through combining each organisation's knowledge and ability, and by creating dialogue arenas and forming alliances for fair climate transformation in Sweden and the EU.

For capacity building, the goal is to raise knowledge levels and strengthen climate leadership within our partner CSOs and collaboration actors by conducting educational activities such as an executive course to leaders of industry associations and employer organisations, and training "climate ambassadors" among union members.

Regarding communication, we aim to refine an already successful communications strategy and build on our momentum on a national level, while internationalising our efforts. An internationalisation is entailed by the impact aims of the programme as a whole, such as shaping international scientific frontiers and networks, establishing international networks for co-creation, and contributing to shaping both national and EU climate policy arenas. Hence, communication aims will include international as well as national media coverage of scientific results as well as of our policy shaping and co-creation activities.

Finally, by integrating the three strands of work, WP5 will foster synergies between co-creation, capacity-building and communication, of value also for boosting the output and dissemination of research findings in WP 1-4.

Tasks, methods and outputs

Task 5.1. Co-creation workshops with parties and stakeholders

Lead: Sofia Bernett. Participant: Mikael Karlsson.

Lead: Sofia Bernett. Participant: Mikael Karlsson and other Fairtrans researchers in WP1-4.

The aim of this task is to co-create science-based policy suggestions with the potential of being accepted by the general public.

Fairtrans' workshops have been highlighted by our parties as some of the most appreciated activities of the programme. This was confirmed in a series of dialogue meetings with the parties during autumn 2024, reflecting on Phase 1 while glancing at the next phase. This task aims to further develop an already successful concept where knowledge levels are raised, common ground identified and networks created and nurtured.

Methods: Building on requests from CSOs, we will continue to conduct larger co-creation workshops with all programme parties on climate policy issues related to the research conducted within the programme. The precise number of annual workshops will be planned in relation to the development of the research activities in WP1-4. In addition, we will arrange workshops or roundtables in smaller constellations of parties

and stakeholders on specific issues that could benefit from being discussed by representatives of organisations with a special interest and expertise in the issue at hand.

Aligning with the increasing impact by EU climate policy on Swedish policy, our workshops in the second programme period will have a greater focus on how the development of national climate policy relates to the continued rollout of the European Green Deal, foremost linked to climate-related policy.

Output: 4 larger workshops with programme partners, 4 workshops or roundtables with selected partners and stakeholders. The larger workshops will result in the production of 2 policy briefs.

Task 5.2 Executive training for climate leadership

Lead: Lisen Schultz. Participant: Sofia Bernett.

The aim of this task is to create a shared knowledge base for dialogues on a fair climate transformation between the parties of the Swedish labour market. After training almost 50 union leaders in climate leadership through our Executive programme for a just transition, the next step is to offer a similar (but tailor-made) programme to leaders of trade associations and employer organisations. The Swedish model, where parties of the labour market come together to navigate large shifts in a coordinated manner, has been identified as a key potential in the climate transition, but it has not yet been fully realised. A shared knowledge base is an important enabler of such dialogues, and we will develop and deliver a programme that can offer just that.

While focusing on a new target group for the training, we will maintain and nurture the alumni network of union leaders. By hosting a reunion meeting at SRC, facilitated by Lisen Schultz, we will offer an opportunity for reflections, sharing progress and challenges, as well as revisiting the latest science.

Method: The programme will draw on the pedagogy of previous programmes as well as the science developed in Fairtrans, and it will be tailored to the needs of this new target group. Potential participants include CEOs and Chair persons of organisations like Industriarbets-givarna, Teknikföretagen, Energiföretagen, IKEM, EFA, Livsmedelsföretagen, Svensk Handel, Transportföretagen, Byggföretagen, Installatörsföretagen and Sveriges Kommuner och Regioner (SKR).

The programme will be structured in three sessions with different themes: 1) The challenge, 2) Roads ahead, 3) Learnings & next steps.

The reunion meeting with union leaders is planned for October 2025.

Output: 1 course conducted, 1 reunion meeting held

Task 5.3. Civil Society and the Climate Policy Progression and Backlash Tracker

Lead: Mikael Karlsson. Participants: Sofia Bernett, Roger Hildingsson.

The aim of this task is to strengthen the collaborative capacity and outreach of national and EU-based CSOs and their interactions with Fairtrans researchers, with a focus on the development of the European Climate Policy.

The European Green Deal (EGD) has been portrayed as “Europe’s man on the moon moment”, aiming for a just societal transition. Similarly, the recent Clean Industrial Deal (CID) is described to benefit both the climate and the economy. At the same time, however, climate policy on both EU level and in some EU countries face backlash, in some cases resulting in policy rollback. Both EU and Swedish CSOs are clearly interested in following and influencing the

development of the EGD and CID from a fair climate point of view.

This task will improve the collaboration between national and EU-based trade unions and environmental organisations, and their co-production of knowledge and policy positions with researchers. While the scope of the task is distinctly smaller than the co-creative tasks in Phase 1, the work still draws on lessons learned in the first period. Hence, we will base the work on studies with EU-relevance carried out in, foremost, WP3, stimulating partner input to studies and subsequent co-production of policy conclusions.

Methods: Throughout the task, a set of internal roundtable dialogues will be arranged, to which CSOs in Sweden (e.g. LO, TCO, Saco, SSNC and HGF) and the EU (e.g. ETUC and EEB) as well as Fairtrans researchers and EU policymakers will be invited. These aim to identify and elaborate on key EU climate policies that will be studied and followed over time from both a scientific and a partner policy-perspective. Relevant tasks in WP3, notably 3.1 and 3.4, will be presented for the CSO partners early on in Phase 2 to allow their input, for example on questions and policies to include in surveys and other studies.

A climate policy progression and backlash tracker, suitable for both analysis and public communication, will be co-created by the participants and continuously updated. Once relevant scientific results are produced, they provide input to co-production of policy positions and briefs, to be communicated in external workshops and a final seminar, arranged together by the participating organisations. As part of capacity-building, study journeys to Brussels are also under planning.

Output: 3 roundtable dialogues, 2 workshops and 2 policy briefs, 1 public seminar and 1 final report.

Task 5.4. Media Outreach, Social Media and Website Communication

Lead: Sofia Bernett. Participants: Mikael Karlsson, one Communications Specialist and researchers in the programme.

The aim of this task is to disseminate research findings in WP1-4 and other programme activities with news value to the broader public, in which not least policy makers in Sweden and the EU constitute a key target group. The objective is to increase awareness, engagement, and support for a fair climate transformation by effectively communicating insights, progress, and impacts through various communication channels, including media outreach, social media platforms, and the programme website.

Turning to Phase 2, in which the research will explore fewer areas more in-depth, the communication within the programme will also be more focused than in Phase 1. From a strategic point of view, the two main perspectives of Fairtrans, climate transformation and fairness, will permeate communication activities. A signum will be how the transformation can be done rapidly, by help of specific strategies and more stringent policy instruments, in a way that is politically feasible and publicly acceptable. Researched and co-created climate policy proposals offer one avenue, as outlined in e.g. WP 3 and WP4, ideas regarding capacity building (see e.g. WP1) another.

By communicating such findings, Faitrans shoulders a climate leadership that inspires, motivates and helps others to initiate or speed up climate action. The increased research attention given to the EU level in Phase 2 moreover requires an internationalisation of Fairtrans' communications strategy. Hence, communication efforts will seek to strengthen the research targeting the EU level, international co-creation activities, and the ESGP network.

Primary target groups are:

- Policy makers in Sweden and the EU
- CSO partners and collaboration actors within the Fairtrans network

Secondary target groups are:

- Decision makers within national authorities, municipalities, regions and the parliament
- The national public

Method

1. Media Outreach to secure coverage in national and international media

   - Op-eds: Encourage researchers to author opinion pieces in reputable media on scientific findings and, when relevant, policy implications.
   - Press Releases: Develop press releases for programme milestones such as report launches and research findings with potential news value.
   - Media Briefings: Organise briefings with journalists on selected reports, providing exclusive insights and Q&A sessions with key researchers of the programme.

2. Social Media engagement with target audiences

   - Platform strategy: With LinkedIn as the programme's main current social media platform of choice (not including the citizens' assembly), develop an updated strategy to broaden our online presence on multiple platforms for specific audience targeting.
   - Content production: Create varied and tailor-made content to engage audiences, such as summarised report findings and short videos with researchers.

3. Website development and maintenance to position fairtrans.nu as a comprehensive hub for all programme related information

   - Updated information: Continuously providing an updated programme website with summaries and links to scientific articles, reports and co-created policy recommendations.
   - Accessibility for English speakers: While Swedish being the first language of the website, ensure that an overview of key findings and milestones is offered in English for accessibility to a wider audience.

Output: 20 op-eds and 115 media features mentioning Fairtrans activities or researchers, 2000 followers of Fairtrans on social platforms and a continuously updated and user-friendly programme website.

Deliverables and outputs in summary

In this section we summarise deliverables and outputs from each work package, and from the programme as a whole (see table 1). Some of the figures are directly based on the various tasks, others (such as blogs and participation in events) are estimates based on the production so far in Fairtrans Phase 1.

Table 1. Summarised deliverables.

Scientific output			**Popular science output**	
Peer-reviewed articles (journals, book chapters)	PhD theses + reports (produced by Fairtrans)	Presentations at scientific conferences (abstracts or full papers; invited keynotes; chairing sessions)	Reports and policy briefs (produced by Fairtrans)	Other popular science texts, e.g. blogs (in own channels)
42	6+4	23	12	33

Media Engagements		**Social Media**	**Events**	
Op-eds, chronicles, blogs (in external channels)	Newspaper articles, features in magazines, TV, radio, podcasts, etc	Followers of Fairtrans on social platforms	Workshops, seminars, roundtables, dialogues arranged by Fairtrans	Participation in events and meetings with stakeholders
20	115	2000	16	70

Table 2. Time plan

Time plan for Fairtrans Phase 2	Phase 2 starts in September 2025 and ends August 2029. The plan is based on the months of the programme, not calendar years.											
Programme overall activities	**Year 1**				**Year2**			**Year 3**			**Year 4**	
Meetings (project, NV/HaV, reference group, expert panels, other)	**1-4**	**5-8**	**9-12**	**13-16**	**17-20**	**21-24**	**25-28**	**29-32**	**33-36**	**37-40**	**41-44**	**45-48**
ExG meetings (1/week)												
WP meetings with ExG (1/month)												
Board meetings (4/year)												
Board and WP leader conference												
Deliverables												
Annual Reports												
Internal science conference including early career sessions												
SAG meeting on internationalisation of research												
Final Report												
Final Symposium: Fairtrans and beyond												
Work Packages												
WP1 Inclusive Transformative Capacity												
Task 1.1												
Task 1.2												
Task 1.3												
WP2 Sufficiency and Fairness in the Climate Political Landscape												
Task 2.1												
Task 2.2												
Task 2.3												
WP3 Stringent and Fair Climate Policy												
Task 3.1												
Task 3.2												
Task 3.3												
Task 3.4												
Task 3.5												
Task 3.6												
WP4 Shifting acceptance and behaviour with place specific policy intervention												
Task 4.1												
Task 4.2												
Task 4.3												
Task 4.4												
WP5 Co-creation, Capacity-Building and Communication												
Task 5.1												
Task 5.2												
Task 5.3												
Task 5.4												

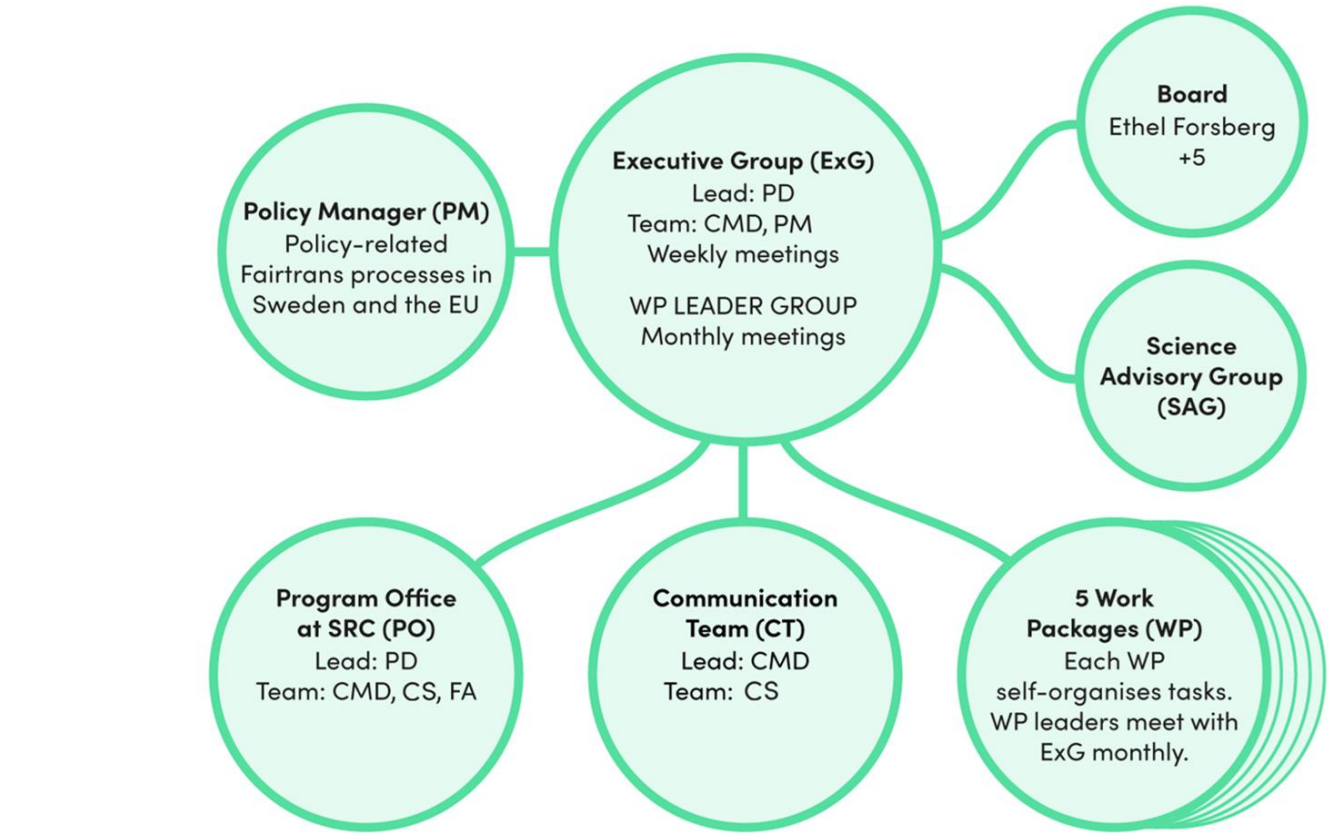
5. Organisation of the programme

SU is the host of the programme, and the programme office (PO) is located at the SRC. The Programme Director (PD) is Professor Stephan Barthel. Fairtrans is gender balanced and structured by way of four science focused work-packages (WP 1-4), and one work package with focus on communication and co-creation of knowledge and policy (WP 5). In each WP (1-5) a minimum of two universities collaborate.

Programme Office

The Programme Office (PO) is responsible for programme organisation and management, as well as the budget of the programme (see Table 2). The PO includes the PD, the Communications Manager and Deputy Head of Programme Sofia Bernett (CMD), a Communications Specialist (CS) (to be recruited) and the Financial Administrator (FA) Beatriz Berbegal. The PD is responsible for the budget, deliverables and for the strategic research direction of the programme. In Phase 2, the PD will be located at SRC, which will concentrate the PO to SRC and create even better conditions for efficient cooperation within the function. The PD holds executive power and is held accountable towards the board, Mistra and Formas. The PD steers the research through monthly WP-leader meetings and a programme internal scientific conference twice yearly. Back-to-back with these conferences the PO organises early-career meeting sessions to support the young researchers of the programme. The FA and the CMD report directly to the PD. The CMD is the head of strategic communications and programme coordination, the latter including communicating with, and preparing decision support to, the PD and the chair of the board. The CMD also takes part in strategic directions of co-creation processes and is responsible for the communications strategy, arranging workshops and dialogues with partner organisations, collaboration actors and stakeholders, as well as organising annual reports and the final report. The CS supports the CMD in executing the communications strategy and is operationally responsible for PR and media, social media, website management, content production and graphic design. Administrative tasks are shared between the CMD and the CS (see Figure 3).

Figure 3. Organisation chart Fairtrans Phase 2



Vocabulary
PD Programme Director
CMD Communications Manager and Deputy Head of Program
CS Communications Specialist
FA Financial Administrator
PM Policy Manager

Board (B)

The chair of the board is Ethel Forsberg. The board decides on the strategic budget reserve, the annual report and the annual programme plan with a connected budget. It also reviews the program overriding tasks once per year. The other board members are Kristian Skånberg, Helen Rosengren, and Pernilla Bergmark and the adjunct members are Johan Edman (MISTRA) and Anna Kaijser (Formas). The board's mission is to ensure that Fairtrans is run in line with the agreement between MISTRA, Formas and SU as well as the bilateral sub-agreements signed between participating universities and organisations respectively. The mission is also to help connect Fairtrans' scholars and deliverables with relevant networks in society. The board meets with the PD, CMD, and FA three times per year online and once physically (four in total).

The work of the board is based on dialogue, cooperation and trust between the board and programme management. A week before each board meeting, the agenda and supporting documents are sent out by the programme management. Prior to that, the agenda and supporting documents are agreed on between the chair of the board and the programme management. The chair ensures that minutes from the meetings include decisions made with reference to documentation that contains strategic considerations when relevant. The documents are attached to the minutes. The minutes are approved by the chair and the registrar and are reviewed at the next board meeting. We anticipate that our active board will continue with fruitful strategic dialogues with the programme management throughout Phase 2. In Phase 2, we will add a new type of meeting with the board, ExG and the WP leaders. With the purpose of involving the board more in the programme and encouraging dialogue between board members and senior researchers of Fairtrans, we will schedule two such meetings: one to kick off Phase 2 and one halfway through.

Science Advisory Group (SAG)

The SAG consists of prominent scholars with extensive personal networks and influence on the international arenas of environmental governance, sustainability transformations, climate policy and sustainability science. We will organise four SAG meetings in total, whereof three take place in Stockholm, and one online. The aim of employing the SAG is to facilitate internationalisation of scientific production. Their main task is to strategize with senior scientists on how to enhance internationalisation of the science produced in the programme. The SAG will also be invited to mentor early-career researchers in the programme on how to e.g. engage in international networks. All early-career researchers, including PhD and master's students, will be invited to such mentor sessions once yearly. Prof. Frank, Bierman, Prof.Francis Westley, Prof. Joern Fischer, and Prof. Elin Lerum Boasson have accepted to be members of SAG.

The Executive group (ExG)

The ExG meets on a weekly basis and consists of the PD, the CMD and the policy manager (PM). The ExG steers the overall programme development, discusses strategies and meetings, and prepares decisions. All WP-leaders take part in monthly consulting meetings with the ExG about strategic programme issues. Fairtrans seeks consensus but if unattainable, the PD holds the executive power and consults the board for controversial issues.

Policy Manager (PM)

The PM is Mikael Karlsson. The PM leads policy- and co-creation-related processes in Sweden and the EU, which includes identification of policy proposals among partner organisations that are relevant to explore in scientific studies, and carrying out dialogue processes with partners on policy development, e.g. through workshops and seminars. The PM prepares strategic policy proposals to be confirmed in the ExG. The PM prepares strategic policy proposals to be discussed with WP leaders, and works closely

with the CMD, in particular on strategic communication, which means involvement in several of the work tasks in WP5. The PM is moreover a part of the ExG and hence of the overall leadership and development of the programme. This means that the PM strengthens the co-creative dimension of Fairtrans. In Phase 2, the PM's role will expand to lead the already initiated internationalisation of partner engagement on the EU level.

Five WP Groups (WPGs)
WPGs are responsible for the scientific production and co-creation work. Scientific production and co-creation in WPGs is decentralised and self-organised to secure academic freedom and to achieve maximum creativity. One appointed leader runs each WP. Responsibilities of the WP leaders (WPs 1-4) include to lead and internationalise scientific production and co-creation, to search for synergies between WPs and between partaking universities, and to feed in new scientific knowledge into co-creation and educational activities performed in WP5. All WP-leaders take part in monthly ExG meetings. Regular internal WPG meetings are proposed. In between WPG meetings, each research task has regular meetings in producing scientific products.

Communication Team (CT)
The Communications Manager is Sofia Bernett. She delegates responsibilities and tasks to the Communications Specialist. Both are employed at the communications department of SRC, a highly professional unit with an excellent track record of communicating science to stakeholders and the public. Moreover, Mikael Karlsson (UU) will advise on communication, being an opinion-former with extensive experience on environmental communication.

6. Partners, actors, staff

In this section we list and describe our partners and our staff, with their competences.

Academic partners

The Fairtrans consortium consists of five organisations.

Stockholm University
Stockholm University (SU) is one of the 200 highest-ranked universities in the world and one of the top 50 universities in Europe according to several well-established university ranking tables. Being an independent centre, SRC was launched in 2007, based on a large Mistra grant. It has since developed into a world-leading centre for research in sustainability science, with a particular focus on biosphere stewardship and resilience in the Anthropocene. It has institutionalised links with The Royal Swedish Academy of Sciences and has its own International Scientific Advisory Council as well as an International Advisory Board. SRC's research is based on transdisciplinary biosphere-based sustainability science with innovative methodologies and extensive collaboration across disciplines and with society at large.

University of Gävle
The University of Gävle (HiG) has 750 employees and 16.000 students in 60 educational programmes and 300 courses. In addition to subject-specific research and postgraduate education, HiG concentrates its research on four strategic and interdisciplinary research areas 1) Urban Sustainability, 2) Intelligent industry, 3) Innovative learning and 4) health-promoting work. The postgraduate business research schools Reesbe (energy system) and Future-Proof Cities (sustainable urban development) have greatly contributed to in-depth business collaboration through the joint industrial postgraduate projects in collaboration with the business and civil society sectors.

Uppsala University
Uppsala University (UU) is Sweden's oldest university and is ranked among the top 90 universities in the world, with more than 7000 researchers and teachers and over 50,000 students. The researchers in Fairtrans work at the Climate Change Leadership (CCL) research unit at the Department of Earth Sciences, in which the PhD students are enrolled on the transdisciplinary research programme Natural Resources and Sustainable Development. CCL is also hosting the Zennström International Visiting Professor in Climate Change Leadership, who takes part in Fairtrans. In 2025, the Zennström Professors Professor Frank Bierman and Professor Aarti Gupta will thus participate in-kind in Fairtrans. CCL is also actively involved in the five-year LANDPATHS and the five-year NAVIGATE environmental governance research programmes, financed by the Swedish EPA, enabling rich collaboration on climate governance with other researchers and universities in Sweden. Since beginning of 2025, the CCL Unit also leads the International Project Office of the global Earth System Governance Project.

IVL Swedish Environmental Research Institute
IVL Swedish Environmental Research Institute (IVL) was founded in 1966 and has 330 employees with a broad environmental profile, combining applied research and development with close collaboration between industry and

the public sphere. IVL leads and participates in several Mistra programmes including Mistra Carbon Exit.

Lund University
Lund University (LU) is ranked among the world's top 100 universities, with more than 8000 researchers and teachers and over 45,000 students. The Environmental Politics Research Group at the participating Department of Political Science engages around 20 researchers focusing their research on environmental politics and sustainability governance, climate policy and decarbonisation politics.

Partners from Civil Society Organisations

Fairtrans Phase 2 will strategically focus on ten key partner organisations, seven CSOs and three government bodies. They have all contributed substantially to the collaboration in Phase 1. Besides these ten partners, Fairtrans Phase 2 will invite and collaborate with a number of "Collaborating Actors" on a less formal basis. The CSO partners consist of democratic organisations with large membership and work of central importance for Phase 2. They have committed to continue contributing in Fairtrans in Phase 2.

Landsorganisationen (LO) has just over 1,430,000 members organised in 13 trade union organisations (2020), of which Kommunal (municipal employees), IF Metall (industry workers) and Handelsanställdas förbund (employees in stores and shops) have most members. Main contact: Johan Hall.

Tjänstemännens Centralorganisation (TCO) organises the salaried employees, with about 1,400,000 members in 13 unions, the largest being Union (private employees), Vision (public employees) and the Swedish Teachers' Association. Main contact: Charlotta Helge.

Svenska Akademikers Centralorganisation (Saco) organises just over 700,000 graduate-educated professionals, in 21 unions, the largest ones being the Swedish Union of Engineers, Akavia (lawyers, economists, etc) and SSR (social workers). Main contact: Peter Olding.

Ledarna is a trade union exclusively for managers. They organise more than 100 000 members across all industries and all levels. Main contact: Andreas Miller.

Naturskyddsföreningen (Swedish Society for Nature Conservation, SSNC), Sweden's largest and oldest environmental organisation, has over 200,000 members organised in 300 regional and local groups. SSNC plays an active role in the EU and coordinates a network of CSOs in around 30 countries in the global south. Main contact: Kristina Östman.

Hela Sverige Ska Leva (Rural Sweden) is a national non-profit organisation whose membership consists of thousands of local development groups. Members are community groups and village councils as well as some local heritage associations and even sports clubs who are dedicated to local development. These groups are organised in 24 regional departments and involve about one million people. Main contact: Peter Eklund.

Hyresgästföreningen (HGF). The tenants' association is a member-runned organisation, representing tenants, having over 500,000 members. Main contact: Emmy Lennevald-Calli.

Partners representing national authorities

Naturvårdsverket (Swedish Environmental Protection Agency) plays a central role in the climate strategy decided by the government and the Swedish parliament, e.g. by evaluating and proposing measures to reduce greenhouse gas emissions. Main contact: Johan Stensson.

Sametinget (the Sami Parliament) is both a publicly-elected parliament and a State agency. The Sami are recognized as an indigenous people in Sweden. About 6,000 Swedish citizens vote for

The Sami parliament, which works for increased self-determination of the Sami people. Main contact: Agneta Sandström.

Fossilfritt Sverige (Fossil Free Sweden) is a government initiative collaborating with industries to become leaders in the transition to a fossil-free society. Main contact: Svante Axelsson.

Collaborating Actors

Besides partners, Fairtrans Phase 2 will enrol Collaborating Actors on a less formal basis. Some of these have participated as partners during Phase 1 but are not popular movements organisations (PMOs) with a large number of members, which is the criteria for Phase 2, or are members of a trade union confederation which is already a CSO partner – LO, TCO, Saco. Collaborating Actors will be invited to workshops, dialogues and capacity building activities tailored to their specific interests.

Swedish Trade Union Organisations represented by programme partners LO, TCO and Saco will be invited to participate in co-creation activities in their own capacities. Organisations that have participated in such activities during Phase 1, and have expressed interest in continuing to do so in Phase 2, include Vision, Unionen, IF Metall, Kommunal, Handelsanställdas förbund, Naturvetarna, DIK, SRAT and Sveriges Arkitekter.

The European Environmental Bureau (EEB) is the largest network of environmental citizens' organisations in Europe. It currently consists of over 185 member organisations in 41 countries, including a growing number of networks, and representing some 30 million individual members and supporters. EEB works on the entire EU environmental acquis and not least on the various policies following the European Green Deal.

The European Trade Union Confederation (ETUC) was set up in 1973 and now comprises 94 national trade union confederations in 42 countries, plus 10 European trade union federations. ETUC speaks with a single voice on behalf of European workers to have a stronger say in EU decision-making.

Industry and employer organisations representing key lines of business in Swedish economy, such as Teknikföretagen (Technology Industries of Sweden), Energiföretagen (Swedenergy), Transportföretagen (The Swedish Confederation of Transport Enterprises), Installatörsföretagen (The Swedish Installation Federation), Byggföretagen (The Swedish Construction Federation), Mobility Sweden and SKR (Swedish Association of Local Authorities and Regions).

Cykelfrämjandet is the Swedish national cycling advocacy organisation. With about 6000 members, they work to improve conditions for all cyclists in Sweden, and to convince more people to choose bicycles for everyday transportation needs, exercise, leisure activities and tourism. Main contact: Johline Lindholm.

Staff

Programme and WP-leaders (see further in CVs in Annex 2)

Stephan Barthel (HiG), Professor in Sustainability Science (Suggested Program Director). Stephan Barthel is a highly cited scholar in "web of science" (2019, 2020). He holds a PhD in natural resource management from SRC. He is the director of a challenge driven research programme on urban sustainability at HiG with the mission to stimulate the integration of socio-technical transition research with that of social-ecological systems research.

Sofia Bernett (SU) is Fairtrans' Communications Manager and Deputy Head of Program (CMD). She has extensive leadership experience in both business and civil society, as well as documented skills in strategic communication. During the first Phase, she led the strategic communications around Sweden's first national citizens' assembly

on climate (Medborgarråd om klimatet). Former roles include Head of Marketing at Lernia and Project Manager within the Climate Programme at independent think tank Global Utmaning. Her experience includes leading workshops and high-level dialogues on climate with researchers, politicians, trade unions and NGOs, facilitating the first Swedish climate network for trade unions as well as developing educational material and training "climate ambassadors" for a just transition.

Mikael Karlsson (UU), WP leader and Policy Manager, is Associate Professor in Environmental Science and Associate Professor in Climate Change Leadership at UU. His research focuses on environmental governance and science-policy-public interactions, particularly in relation to climate policy. He has served for over 25 years in expert and research bodies in Sweden and the EU, and has been a board member of the Swedish Forest Agency and the European Commission's High Level Group on Energy Intensive Industries. He was President of the Swedish Society for Nature Conservation (2002-14), and of the European Environmental Bureau (2005-17), Sweden's and Europe's largest environmental organisations. Recently, he assumed leadership of the International Project Office of the global Earth System Governance Project.

Thomas Hahn (SU), is WP leader and Associate Professor in environmental social science, is the country representative for the European Society for Ecological Economics. He has had extensive collaboration with CSOs during his career, e.g. chair for Swedish Economists for Sustainability. He has been Coordinating Lead Author for both The Millennium Ecosystem Assessment and IPBES. His research spans from institutional and ecological economics to multilevel governance and stakeholder collaborations for transforming ecosystem management. He served 2007-2019 in the board of Sveaskog, the largest forest company in Sweden.

Daniel Lindvall (UU) is WP leader and PhD in Sociology and a researcher at CCL at UU. He conducts research on climate and energy policies, with a specific focus on fairness, democracy, and public acceptance. He has a background working at the Swedish Government Offices, being the principal inquiry secretary for four governmental inquiries, and also working for the European Union and other international governmental organisations.

Lisen Schultz (SU) is WP leader and Associate Professor in sustainability science and deputy director of the SRC. Her research focuses on adaptive governance, transformative agency and ecosystem management. In 2018, she launched an Executive programme in resilience thinking for CEOs and chairpersons of influential companies, and so far, more than 90 of the most prominent business leaders have joined the programme. In 2023, it was followed by an Executive programme for a just transition, designed for union leaders as part of Fairtrans. Nearly 50 presidents and secretaries joined, of unions representing 3.4 million members.

Other senior researchers and staff

Eva Alfredsson (UU) is PhD in human geography at the CCL Unit at UU. Her research is focused on how to transition to a green inclusive economy. Eva is also working as a policy analyst at the Swedish Agency for Growth Policy Analysis, where she focuses on e.g. green transition of industry. Eva has been an expert in several parliamentary inquiries.

Tim Daw (SU) is Associate Professor in Sustainability Science at SRC with a track record leading and facilitating transdisciplinary research including scientifically informed deliberations over trade-offs. Since 2020 he has focussed on the potential of deliberative democracy in environmental governance. In 2024 he led and studied the Fairtrans Climate Assembly as well as two deliberative mini-publics on managing multifunctionality in local Swedish landscapes.

Roger Hildingsson (LU) is PhD in Political Science and researcher in environmental politics and climate governance at LU. His current research focuses on climate governance, decarbonisation politics and the transition to post-fossil futures, empirically focusing on a multitude of sites at which environmental governance is shaped and takes place ranging from the EU and the state level to local sites of urban climate governance.

Mikael Malmaeus (IVL) is Associate Professor in Environmental Analysis. He has wide research interests including sustainable macroeconomy, green labour markets, sustainable consumption and future scenarios. He has been involved in several major research projects with relevance to green transitions and is currently leading a Formas project entitled Negotiating pathways to achieve the Paris Agreement (2024-2027).

Per Olsson (SU) is Associate Professor in Sustainability Science at SRC. He is a world leading speaker and highly cited researcher in social-ecological transformation. He is one of the founding persons of the Transformations Community and their biannual conference, and gives lectures on the Executive programme for a just transition, designed for union leaders as part of Fairtrans.

Stefan Sjöberg (HiG) is an Associate Professor in Social Work and Reader in Sociology at HiG. His research focuses on community work in vulnerable neighbourhoods and on urban commons for socially sustainable development. He has been pivotal for developing thinking around community climate commons. He is the main supervisor of Nessica Nässén (PhD) that contributes in-kind to the further development of this line of thinking.

Patrik Sörqvist (HiG) is Professor in Environmental Psychology. He holds key expertise for the programme in quantitative and experimental methods and theories in cognitive psychology of use when designing survey questions and statistical modelling of empirical data in databases. He is one of the most important professors at the HiG.

Early-career researchers

David Collste (SU) is a young scholar and a PhD in Sustainability Science and Economics and researcher at SRC. He uses systems thinking and system dynamics modelling to study feedback between human development, the economy and planetary boundaries. He teaches systems thinking and ecological economics and has previously worked at the Swedish Government Offices.

Jens Ergon (UU) is a PhD student in Fairtrans (dissertation scheduled for December 2025; ; main supervisor is Mikael Karlsson), working at the CCL Unit at UU. He conducts research on climate transformation, societal actors and climate policy impact. After graduation, he will continue working in WP3.

Noah Linder (**Royal Academy of Sciences, RAS**) is a young scholar and PhD in environmental psychology and researcher at RAS, with focus on pro-environmental behaviour. He holds key expertise on the role of habits in sustainability science.

Oskar Lindgren (UU) is a fully co-funded PhD student in Fairtrans, working at the CCL Unit at UU (dissertation scheduled for October 2025; main supervisor is Mikael Karlsson). He conducts research on climate policy, with a specific focus on public opinion of climate policies, fairness and sufficiency policy. After graduation, he will continue working in WP3.

Emma Löfgren (UU) is a new and fully co-funded PhD student, working at the CCL Unit at UU, with a link to Uppsala municipality. She will from June 2025 participate part-time in WP3 and WP4. Her entire PhD thesis will not be a Fairtrans product though.

Laila Mendy (UU) is a fully co-funded PhD student in Fairtrans, working at the CCL Unit at

UU (thesis finalisation planned for spring in 2026; main supervisor is Mikael Karlsson). She conducts research on climate denial, trust and deliberation related to climate backlash.

Nessica Nässén (HiG) is a PhD student in Social Work at the University of Gävle. Her PhD project focuses on Community Climate Commons and she will participate in WP1. Financed by HiG in-kind (main supervisor is Stefan Sjöberg).

Additional contributing researchers

Besides the researchers listed above, **Sverker C Jagers**, Professor in Political Science, Gothenburg University, and **Niklas Harring**, Associate Professor in Political Science, Gothenburg University, will contribute in-kind, foremost in survey-linked tasks in WP3 and 4.

Moreover, incoming **Zennström Visiting Professors in Climate Change Leadership** at UU, are planned to contribute, in particular in WP3.

7. Budget

We are applying for a grant of 40 MSEK from Mistra and Formas for Phase 2 with a total programme cost of circa 51,6 MSEK. The remaining amount will be co-funded by SU, UU and HiG through co-funding 20% of the PD's salary, 66% of the cost of the two new PhD-students and full or partial co-funding for the participation of the five current PhD students in Fairtrans. In addition, UU plans to in-kind finance the participation of the Zennström Visiting Professors in Climate Change Leadership. The co-funding is detailed in the budget table below and increases the size of the programme in Phase 2 as a whole.

Notably, the Fairtrans partners contribute significant in-kind support to the programme, not included in the budget table. A modest estimate of the value of in-kind contributions from the 16 workshops alone amounts to approximately 2 MSEK, based on 1000 SEK per hour of work. This figure excludes time spent on workshop preparation and subsequent result implementation, as well as substantial amounts of time spent on other programme activities.

The budget allocations are based on the programme objectives to combine high-quality scientific production with excellence in co-creation of actionable knowledge and policy. The budget is shared between the tasks in WPs and program overriding cost. The latter includes costs for the Programme Office as well as for workshops, meetings, communication and other activities benefiting the programme as a whole. The share of the PO of the total budget is similar to the one in Phase 1. The major part of the budget is allocated to senior researchers and senior staff, to secure the scientific and co-creation results in the Impact logic (Figure 1).

We allocate a similar share compared with Phase 1 to co-creation activities. However, since we are expanding co-creation to the EU level in WP5, we propose an increased travel budget compared to Phase 1, not least since our default mode of travel, journeys by train, is often comparatively expensive when going to Brussels.

Travel costs include all travel and accommodation planned for in activities listed in WP 5. It also includes all travel and accommodation for the PO staff and the SRC researchers of the programme. Since internationalisation in research and co-creation is more ambitious compared to Phase 1, the research budget mirrors our proposed activities. Additional travel costs are budgeted at respective universities. Board and SAG costs include board fees, travel and accommodation for members of the board and SAG. Dialogues, workshops, meetings include costs for venues, conference fees, food and drinks, organisation, facilitation and material costs associated with such activities.

Table 3. Total budget.

Programme costs, SEK	2025	2026	2027	2028	2029	Total funding
Direct costs						
Payroll costs	1 817 000	6 401 000	6 542 000	6 321 000	3 794 000	24 875 000
Travel costs	8 000	30 000	130 000	165 000	205 000	538 000
Board and SAG	80 000	140 000	140 000	140 000	150 000	650 000
Dialogues, WS, meetings	85 000	165 000	165 000	165 000	155 000	735 000
Other direct costs	20 000	368 000	150 000	100 000	0	638 000
Total direct costs	**2 010 000**	**7 104 000**	**7 127 000**	**6 891 000**	**4 304 000**	**27 436 000**
Contribution to indirect costs	622 000	2 210 000	2 251 000	2 177 000	1 304 000	8 564 000
Strategic programme reserve	500 000	1 000 000	1 000 000	1 000 000	500 000	4 000 000
Total costs funded by Mistra and Formas	**3 132 000**	**10 314 000**	**10 378 000**	**10 068 000**	**6 108 000**	**40 000 000**
Total co-funding	511 000	2 547 000	2 594 000	2 642 000	3 264 000	11 558 000
Total	**3 643 000**	**12 861 000**	**12 972 000**	**12 710 000**	**9 372 000**	**51 558 000**

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Stockholm Resilience Centre
Stockholm University

2024-11-28

To whom it may concern

Letter of Support

Stockholm Resilience Centre (SRC) has hosted the research programme Fairtrans since 2021 and we are deeply grateful for the outstanding contributions that Fairtrans has been able to do in the first phase. The programme has truly enriched the research, education and engagement of SRC. For example, Fairtrans has been able to leverage the long-term experience from SRC in co-production of knowledge by advancing both knowledge and policies in just climate transitions at the national scale. The close collaboration with trade unions has also complemented SRC's earlier collaborations with CEOs of large corporations and provided an exceptional capacity for actionable dialogues among science and public as well as private actors.

The programme has also influenced the current reorganisation of the research themes at SRC, in particular in relation to the new research themes of 'Conflict and Collaboration in a hyper connected world' and 'Transformative Futures'. Fairtrans has thus contributed with both novelty and synergy, which has helped SRC build a stronger and more comprehensive competence in sustainability research, communication, collaborations and policy development.

As the Director of SRC I am deeply committed to continue to leverage synergies between Fairtrans and SRC, SRC will co-fund both the program director, and a PhD student in the next phase of Fairtrans. This will ensure a more robust programme office at SRC, and strengthen the capacity to study the transformative potential of trade unions and other large civil society organisations to take leadership for climate action in times of polarisation.

Best regards,

Line Gordon
Professor in Sustainability Science
Director, Stockholm Resilience Centre, Stockholm University

UPPSALA UNIVERSITET

Uppsala 2024-12-02

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Letter of support

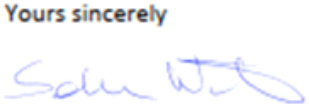
Uppsala University, through the Department of Earth Sciences and the Climate Change Leadership Unit, has actively participated in the Fairtrans research programme since its inception in 2021.

The programme has been of paramount importance to our research on climate governance and transformation. It has produced a series of influential publications and pioneered new research fronts, particularly in exploring the interplay between more stringent climate policies and their fairness implications. Fairtrans has also provided a highly supportive and dynamic environment for our PhD students, including those funded in kind by Uppsala University, fostering their academic growth and contributing to their research success.

Moreover, the programme has served as a vital platform for the Zennström Guest Professors on Climate Change Leadership, enabling them to engage deeply with the research conducted and to contribute to the development of transformative ideas and actionable knowledge in this field.

It is our firm intention to continue our active participation in the Fairtrans programme and to support its objectives as it progresses into its second phase. We are committed to building on the strong foundation laid so far and to contributing further to the programme's important work on climate transformation and justice.

Yours sincerely



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HÖGSKOLAN
I GÄVLE

Letter of Intent

The University of Gävle consider Fairtrans to be a one of the most socially and environmentally important research programs here. The social relevance and media impact of the first programme period have been on the level of excellence in our view.

Its research synergises very well with our own strategic research area called urban sustainability due to its high environmental ambitions while never losing attention to social goals. The program has also resulted in fruitful collaborations with especially scholars in the subject area of sustainability science with a background in environmental psychology. Both Urban Sustainability and Sustainability Science, have modified some of their lines of research to accommodate the Fairtrans approach, vision and mission. Together we grow stronger.

I proudly endorse the proposed continuation of Fairtrans involving a substantial co-financing from our side.

Yours Sincerely,

Prof. Gunilla Mårtensson
Deputy vice-chancellor and Dean of the Faculty of Engineering and Sustainable Development
University of Gävle

Annex 2. CVs for programme and WP leaders

CV Stephan Barthel, Professor, University of Gävle (Program Director Fairtrans)

Barthel is the program director of FAIRTRANS. He is also the director of research in FUTURE PROOF CITIES. Barthel has supervised (main supervisor) three PhD students from the start to the examination and co-supervised another three. He is currently the main supervisor for two PhD students, and co-supervisor for one.

Academic Positions and Degrees (excerpts)

2020: Professor Sustainability Science. University of Gävle
2017: Reader Geo-spatial information science. University of Gävle
2008: PhD Natural Resource Management. Stockholm University

Other Professional Assignments and Employments (excerpts)

2020: Head of strategic research area urban sustainability at University of Gävle
2020: Opponent Roope Kaaronen: 'Steps to a sustainable mind'. Helsinki University.
2019: Head of subject sustainability science, University of Gävle
2018: Principal researcher, Stockholm resilience Centre
2017: Head of Urban Studio, University of Gävle

Relevant Academic Publications (excerpts)

1. Thollander, P, ...Barthel, S. et al. (2025). Nature Communications 16, 4075
2. Lindvall, D., Sörqvist, P., Barthel., S. (2024). Energy research and Social Science 116, 103674
3. Chen, K, T, …Barthel, S., et al. (2023). Science Advances 9, eadf3760
4. Pan, H, …Barthel, S, et al. (2023). Nature Climate Change (13), 862–870
5. Colding, J., Barthel, S., et al. (2022). Social Inclusion 1, 103-114

Relevant Research Grants Awarded in Competition (excerpts)

FAIRTRANS: Mistra [DIA 2019/28] and Formas (Dnr. 2021-00416)
FUTURE PROOF CITIES: KKS (201901329)
Spatial and Experiential Analyses for Urban Social Sustainability (ZEUS): Formas (Dnr. 2016-01193)

Other Scientific Qualifications and Experiences (excerpts)

2022: Highly cited researcher (top 2% in the world) on the Stanford list
2020: Highly cited Researcher (top 1% in the world) in Web of Science
2019: Highly cited Researcher (top 1% in the world) in Web of Science
2019: Awarded by the Swedish Academy of Engineers as top 100 most influential researchers in Sweden

Personal Information

Born: 18 March, 1968.
Office Address: Kungsbäcksvägen 47, Gävle, Sweden
E-mail: Stephan.barthel@hig.se. Phone: + 46 76 360 57 05

Websites: ORCID and Google Scholar

CV Sofia Bernett, Communications Strategist, Stockholm University (Communications Manager & Deputy Head Fairtrans)

Sofia Bernett is Fairtrans' Communications Manager & Deputy Head of Programme, based at Stockholm Resilience Centre, Stockholm University. She has extensive leadership experience in both business and civil society, as well as documented skills in strategic communication. Former roles include Head of Marketing at Lernia and Project Manager within the Climate Programme at independent think tank Global Utmaning. Her experience includes leading strategic communications on the first-ever Swedish national citizens' assembly on climate, facilitating workshops and high-level dialogues on climate with researchers, politicians, trade unions and NGOs, as well as developing educational material and training "climate ambassadors" within trade unions for a just transition.

Academic Positions and Degrees (excerpts)

2024: Communications Manager & Deputy Head of Programme, FAIRTRANS, Stockholm Resilience Centre, Stockholm University
2023: Communication & Collaboration Strategist, FAIRTRANS, Stockholm Resilience Centre, SU
2005: Bachelor of Arts with a Major in English, SU, Upper secondary school teacher education, SU.

Other Professional Assignments and Employments (excerpts)

2020: Project Manager Climate Programme, Global Utmaning (think tank)
2020: Communication Specialist & Head of Operations, Våra barns klimat (non-profit organisation)
2017: Head of Marketing, Lernia (company offering workforce solutions and education services)
2015: Head of Digital Channels, Lernia
2011: Digital Media Manager, Lernia
2010: Web Manager, Apotek Hjärtat (pharmacy chain)

Personal Information

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CV Mikael Karlsson, Associate Professor Climate Change Leadership, Uppsala University (Policy Manager Fairtrans)

Mikael Karlsson leads the UU Climate Change Leadership Unit and directs the Earth System Governance Project IPO. He has worked on environmental issues across a range of areas for 35 years, in academia, civil society and businesses. Mikael's research focuses on environmental governance, particularly the science-policy-society interface. He has published over 50 peer-reviewed articles and numerous reports, books and popular texts. Mikael has participated in over 25 public inquiries, boards, and expert groups in Sweden and the EU. He was President of the Swedish Society for Nature Conservation and the European Environmental Bureau.

Academic Degrees and Positions (excerpts)

2021	Associate Professor Climate Change Leadership, Uppsala University
2015	Associate Professor Environmental Science, Royal Institute of Technology
2010	Associate Professor Environmental Science, Karlstad University
2005	PhD Environmental and Energy Systems

Other Professional Assignments and Employments (excerpts)

2015-23	Member, European Commission's High-Level Group on Energy-Intensive Industries
2016-22	Board Member, the Swedish Forest Agency
2010-21	Independent Expert, Swedish All-Party Committee on Environmental Objectives
2018-19	Member of the Swedish Government's Agenda 2030 Delegation
2012-14	Member, European Resource Efficiency Platform at the European Commission

Academic Publications (recent excerpts)

1. Mendy, Karlsson (2025) Coping with an Antagonistic Climate. Accepted for publication in Ambio.
2. Ergon, Karlsson, Hildingsson (2025) Exploring a green Swedish model... Ambio. Doi.org/10.1007/s13280-025-02144-6
3. Öhman, Karlsson (2025) Analysing Coherence in Policy for Multi-Functional Landscapes: An Exploratory Framework. Environmental Policy and Governance: Doi.org/10.1002/eet.2149.
4. Hahn … **Karlsson** et al. (2024) Estimating countries' additional carbon accountability for closing the mitigation gap based on past and future emissions. Nature Communications 15, 9707.
5. Lindgren, Elwing, **Karlsson**, Jagers (2024) Public acceptability of climate-motivated rationing. *Humanities and Social Sciences Communications* 11, 1252.
6. Lindvall, Sörqvist, Jagers, **Karlsson** et al. (2024) The Role of Fairness for Accepting Stricter Carbon Taxes in Sweden. Climate 12, 11:170.
7. Mendy, **Karlsson**, Lindvall (2024) Counteracting climate denial: A systematic review. *Public Understanding of Science* 33, 504-520.
8. Lindvall, **Karlsson** (2024) Exploring the democracy-climate nexus: a review of correlations between democracy and climate policy performance. *Climate Policy* 24:87-103

Research grants awarded in competition (excerpts, last five years)

2023-28:	NAVIGATE (climate and biodiversity strategies). EPA. 22 MSEK. Initiator, WP leader.
2023-25:	Wicked Problem Governance. Formas. 3 MSEK. Project leader.
2023-25:	Private Diplomacy and Climate Change Governance. Formas. 3 MSEK. WP leader.
2022-27:	LANDPATHS (multifunctional governance). EPA. 45 MSEK. Initiator, WP leader.

Personal and Contact Information

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Websites: Uppsala University, Research Gate and Google Scholar.

CV Thomas Hahn, Associate Professor, Stockholm University

Thomas Hahn is an ecological economist, researching on ecological and institutional economics in relation to ecosystem services, climate action, sustainability transformation, post-growth economy, and adaptive governance of social-ecological systems.

Academic Degrees

2017	Associate Professor in Environmental Social Science, SU
2001	Agr. Dr. in Economics, SLU.
1991	Master of Science in Agriculture, SLU, Dept of Economics

Academic and other Professional Assignments and Employments (excerpts)

2018-25	Course and module leader SRC MSc Programme
2007-2023	Course leader of Ecological Economics (SU)
2002-2022	Coordinating Lead Author, Millennium Ecosystem Assessment and Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)
2013-2013	Committee secretary (50% February-October 2013) at Government Offices of Sweden.
2004-2010	Director of Studies and Course organiser (SU/SRC).

Relevant Publications

1. Hahn, T., Morfeldt, J., Höglund, R., Karlsson, M., & Fetzer, I. (2024). Estimating countries' additional carbon accountability for closing the mitigation gap based on past and future emissions. Nature Communications 15, 9707.
2. Koh, N. S., Wong, G. Y., & Hahn, T. (2024). Radical incrementalism: hydropolitics and environmental discourses in Laos. Environmental Politics, 1–23.
3. Vatn, A., Pascual, U., Chaplin-Kramer, R., Termansen, M., Arias-Arévalo, P., Balvanera, P., Athayde, S., Hahn, T., Lazos, E., (2024). Incorporating diverse values of nature in decision-making—theory and practice. Philosophical Transactions of the Royal Society B, 379(1903), 20220315.
4. Pascual, U., Balvanera, P., Anderson, C. B., Chaplin-Kramer, R., Christie, M., González-Jiménez, D., … Hahn, T., ... & Zent, E. (2023). Diverse values of nature for sustainability. Nature, 620, 813–823.
5. Hahn, T., Sioen, G.B., Gasparatos, A., Elmqvist, T., Brondizio, E., Gómez-Baggethun, E., Folke, C., Setiawati, M.D., Atmaja, T., Arini, E.Y., Jarzebski, M.P., Fukushi, K., Takeuchi, K., (2023). Insurance value of biodiversity in the Anthropocene is the full resilience value. Ecological Economics, 208.

Relevant Research Grants Awarded in Competition (excerpts)

2021-25	Joint grant from Mistra (DIA 2019/28) and Formas (2021-00416): Fair Transformation to Fossil Free Future (FAIRTRANS), 40 MSEK. Programme co-director.
2020-23	Formas: Increasing legitimacy and stakeholder involvement in ecological compensation/biodiversity offsets. 3 MSEK (No. 2019-01078).
2017-20	Formas: Institutional analysis of Ecological Compensation as an instrument for ensuring No Net Loss of biodiversity and ecosystem services. 3 MSEK (No. 2016-01556).

Personal Information

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Websites: Google scholar: https://scholar.google.se/citations?user=eRggsj4AAAAJ&hl=sv

CV Daniel Lindvall, Researcher, Uppsala University

Daniel Lindvall has a PhD in Sociology, and is a researcher at the Climate Change Leadership (CCL) at the Department of Earth Sciences, Uppsala University. His research focuses on climate and energy policies and governance, especially on public attitudes and acceptance. He is also exploring democracy and justice perspectives in the climate transition, and social and political implications of climate change consequences.

Academic Positions and Degrees (excerpts)

2021- Researcher at CCL, Department of Earth Sciences, Uppsala University.
2004–10 PhD-researcher. Baltic and East European Graduate School. Södertörn University.

Other Professional Assignments and Employments (excerpts)

2010-21 Deputy Director. Government Offices of Sweden. Ministry of Justice/Culture.
2020 Principal Inquiry Secretary. The Commission on Media Literacy. SOU 2020:56.
2018–19 Principal Inquiry Secretary. The Inquiry on Democratic criteria. SOU 2019:35.
2016-18 Principal Inquiry Secretary. The Inquiry on Government support for faith communities. SOU 2018:18.
2014–16 Principal Inquiry Secretary. The Democracy Commission of 2014. SOU 2016:5.
2007–08 Political Advisor. The European Union, Police Mission to Bosnia and Herzegovina.
2005 Senior Media Development Officer. The Office of the High Representative.
2001–04 Advisor to the Ombudsman. The Human Rights Ombudsman of BiH (seconded by Swedish Ministry of Foreign Affairs).

Relevant Academic Publications (excerpts)

1. Marquardt, Pfeifer Lindvall et al. (2025) Reconciling democracy and sustainability: three political challenges and the role of democratic innovations. Sustainability: Science, Practice and Policy.
2. Lindvall et al. (2025) The polarization of energy preferences – A study on social acceptance of wind and nuclear power in Sweden, Energy Policy 198.
3. Linder, Sörqvist, Lindvall et al. (2025) It would feel weird to not drive my car! Exploring the role of habits in public policy acceptance of carbon taxations. Ambio 54, 670–679.
4. Lindvall (2024). Climate Change and the Endurance of Democracy (1st ed.). Routledge.
5. Lindvall et al. (2024). The Role of Fairness for Accepting Stricter Carbon Taxes in Sweden. Climate.
6. Lindvall et al. (2024). Overcoming the headwinds: Can policy design shape public acceptance of wind power in Sweden? Energy Research & Social Science, Volume 116.
7. Lindvall (2023). Why municipalities reject wind power: A study on municipal acceptance and rejection of wind power instalments in Sweden. Energy Policy. Volume 180.
8. Lindvall, Karlsson (2023). Exploring the Democracy-Climate Nexus: A review of correlations between democracy and climate policy performance. Climate Policy

Relevant Research Grants Awarded in Competition (excerpts)

2023-25 Wicked Problem Governance. (Formas) (co-applicant).
2023-27 Navigating the policy landscape: barriers and synergies in strategies for climate and biodiversity, (Swedish Environmental Protection Agency) (co-applicant)

Personal Information

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CV Lisen Schultz, Associate Professor Sustainability Science, Stockholm University

Lisen Schultz is the dep. director and director of education at the Stockholm Resilience Centre (SRC), Stockholm university (SU). Her research focuses on adaptive governance, transformative agency and ecosystem management. She has more than 15 years of experience with co-production of knowledge, with UNESCO biosphere reserves, municipalities, corporations and unions, and she has coordinated several international research collaborations. She has published 38 scientific articles, 10 book chapters, and one popular science book.

Academic Positions and Degrees (excerpts)

2018-21	Associate professor, University of Bergen (10%)
2016-18	Coordinating leader of research theme ”Biosphere Stewardship” at SRC, SU
2011-	Research fellow at the Stockholm Resilience Centre, SU
2002-09	PhD student at the Department of systems ecology, SU, and SRC, SU
1998	BSc in Biology and Geological Sciences, SU

Other Professional Assignments and Employments (excerpts)

2018-	Member of the Swedish National Commission for UNESCO
2018-21	Member of the Scientific advisory board for TradMod project, University of Bergen
2017	Member of the Scientific Committee for Resilience 2017 conference
2014-16	Appointed expert in the Future Strategy group for UNESCO MAB Program
2010-12	Research coordinator at the International Program Office of PECS

Relevant Academic Publications (excerpts)

1. Bodin. et al (2020) The impacts of trust, cost and risk on collaboration in environmental governance. People and Nature 2 (3), 734-749
2. Schultz, L. et al (2018) Learning to live with social-ecological complexity: An interpretive analysis of learning in 11 UNESCO Biosphere Reserves. Global environmental change 50, 75-87
3. Schultz, L. et al (2015) Adaptive governance, ecosystem management, and natural capital. PNAS 112 (24), 7369-7374
4. Westley, F. et al (2013) A theory of transformative agency in linked social-ecological systems. Ecology & Society 18, 3
5. Biggs, R. et al (2012) Toward principles for enhancing the resilience of ecosystem services. Annual review of environment and resources 37 (1), 421-448

Relevant Research Grants Awarded in Competition (excerpts)

2023 -	Formas/Biodiversa. BECOME. Biosfärområden som måttstockar för effektiv förvaltning.
2012-16:	Vetenskapsrådet. BiosACM. Samband mellan processer och resultat i SES
2011-17:	Vetenskapsrådet. GLEAN. Deltagande, lärande och naturvård – en jämförande studie av 146 biosfärområden i 55 länder,

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