

Socially Just and Politically Robust Decarbonisation: A Knowledge Base and Toolkit for Policymakers

Final Report

Enabling Societal Transformation in the Face of Climate Change (SOLSTICE)

1. Identification of the project

Project full title: Socially Just and Politically Robust Decarbonisation: A Knowledge Base and Toolkit for Policymakers

Project acronym: JUSTDECARB

Starting date: 01 December 2020

End date: 30 November 2023¹

Project duration (months): 36

Reporting period of this report: 01 December 2020 – 30 November 2023

Project website: <https://cicero.oslo.no/en/projects/justdecarb-copy>

Lead Project Investigator (name, title and affiliation): Håkon Sælen, senior researcher, CICERO Center for International Climate Research.

Project partners:

- CICERO Center for International Climate Research, Oslo, Norway (Håkon Sælen, Gunnell Sandanger, Marianne Aasen)
- Norwegian University of Life Sciences, Norway (Guri Bang, Kirsti Stuvøy, Hana Vetrakova)
- London School of Economics and Political Science, London, United Kingdom (Misato Sato, Aurélien Saussay, Samuel Fankhauser)
- University College London, London, United Kingdom (Fergus Green)
- University of Graz, Graz, Austria (Lukas Meyer, Larissa Jane H. Houston, Santiago Truccone-Borgogno, Oliver Rüppel, Harald Stelzer, Eva Schulev-Steindl, Rob Macquarie)
- Institute of State and Law, Czech Academy of Sciences, Prague, Czech Republic (Hana Mullerova, Monika Feigerlová, Rita Simon, Eva Balounová, Adam Novák)

2. Objectives of the Project (max. 1 page)

Please summarize the key objectives of the project, indicating if they are still valid.

(1) Develop a toolkit for policymakers describing the steps and methods necessary for steering socially just and politically robust low-carbon transitions.

(2) Explore two research themes, to build the knowledge base necessary for producing the toolkit

¹ The Norwegian University of Life Sciences was granted extension until June 2024, and the University of Graz was granted extension until September 2024.

2a. Understanding the “winners” and “losers” from low-carbon transitions

We explore which actors are vulnerable to adverse impacts from decarbonisation and in what ways, and how they could benefit from opportunities created by the transition. This will involve multi-disciplinary analysis of (i) basic conceptual and normative questions associated with classifying and assessing transitional losses and gains (philosophy: wide reflective equilibrium); (ii) the jobs and skills vulnerable to such transitions and needed in low-carbon sectors (economics: micro-econometric analysis); and (iii) the political resistance from actors affected by the transition, and the potential for alternative transition strategies to alleviate such resistance (political science: case studies and statistical analysis of survey data).

2b. Designing socially just and politically robust decarbonisation policies and processes

Drawing on the interdisciplinary research described above, we explore the institutional design needed to steer socially just and politically robust transitions. We will develop further insights—from political theory and law—needed for such crucial institutional design tasks.

Specifically, we assess what democratic theory and environmental law can tell us about just and effective processes for the design and implementation of climate policy (e.g. which actors should be included in which processes, and how their inclusion could shape both individual perceptions and aggregate outcomes of low-carbon transitions), and we will develop multiple criteria to evaluate substantive climate policies.

The work has been organized into the following work packages:

WP1: The ethics of winners and losers

WP2: Skills & Labour Markets in Transition

WP3: Opposition & Polarisation and their Effect on Robustness of Transition Policies

WP4: Frameworks for Evaluating Just and Robust Processes

WP5: Evaluating substantive policy dimensions of low-carbon transitions

WP6: Policy Toolkit

The key objectives remain valid.

3. Scientific activities and intermediate results (*max. 1 page*)

Please provide information on the most important scientific activities and technical results since the start of the project, including any collaborations with other projects. Clearly indicate who performed the work.

Activity 1.1: Work on a paper that aims to illuminate the meaning and normative significance of *loss* as a distinct concept. Questions of justice in societal transitions must grapple with wide range of losses. Yet, loss has been under-theorised in political philosophy, while there has been much writing on *harm*. Green and Meyer defend distinctive conceptions of harm and loss, as well as principles of private and public reasoning based on these conceptions, which they argue can do useful work in private morality and private law, and political philosophy and public law, respectively. They then apply these conceptions and principles to the case of climate change “loss and damage” and low-carbon transitions.

Result 1.1: Green, F. and Meyer, L., “Harmless Loss: Its Moral, Political and Legal Significance” (accepted with minor revisions at *Ethical Perspectives*; expected to be published in Q4 2024).

Activity 1.2: Work on a book about the normative entitlements of losers from legal and policy transitions. The book considers the conditions under which transitional losers have a claim to transitional assistance from the state (and whether the winners and/or third parties are liable to bear the burdens of providing such assistance). It critically evaluates various candidate principles on the way to specifying and defending superior principles.

Result 1.2: Green, F., *Justice in Transition: What We Owe the Losers from Legal Change* (draft complete; manuscript workshop held; currently redrafting with a view to submission of the full manuscript to Oxford University Press, where the politics editor, having reviewed a full book proposal, has committed to send the full manuscript for peer review; finalisation delayed due to author’s long COVID; estimated submission January 2025).

Activity 1.3: Work in progress on a paper focusing on legitimate expectations that need to be considered in the transition to a low-carbon or carbon-free society. After explaining under what conditions and circumstances expectations are legitimate, this paper shows that those expectations whose frustration undermines the ability to plan, infringes basic moral rights, or are extremely costly for its bearer, might justify a deviation in the baseline of justice in favour of the expectation holder.

Result 1.3: Meyer, L., *Assessing Policies of Transformation to a Low-Carbon Society*. (In preparation for submission).

Activity 1.3.: Work in progress on a paper discussing how legitimate expectations should be treated during transitional processes towards a net zero emission society. It examines whether the state is permitted to frustrate those expectations, that, although legitimate at time T1, are at time T2 no longer legitimate due to changed circumstances. Further, it discusses the conditions under which those who may see their expectations frustrated during transitional processes should receive measures of compensation.

Result 1.3: Meyer, L. and Truccone S. “Legitimate Expectations and Compensation in Changing Circumstances” under review in *The Journal of Ethics*.

Activity 2.1: Sato and Saussay have worked on developing a methodology to identify green skills and green jobs using natural language processing and jobs ads data, to create a better evidence base on the skill requirements of the zero-carbon economy and the existing skill gaps between green and non-green jobs. Involved collaborations with ESRC funded projects CCCEP (Centre for Climate Change Economics and Policy) and PRINZ (Productive and Inclusive Net Zero).

Results 2.1: Saussay, A., Sato, M., Vona, F., and O’Kane, L. (2022). Who’s fit for the low-carbon transition? emerging skills and wage gaps in job ad data. Grantham Research Institute on Climate Change and the Environment Working Paper. No. 381. (Under review at journal)

Activity 2.2: Sato and Saussay examine the empirical evidence on the link between low carbon technologies and firms’ green hiring and the demand for skills. To do so, they develop a new approach to linking patents to skills. This involved collaborations with Productive and Inclusive Net Zero (PRINZ) and BA grant.

Results 2.2: Working paper “From green innovation to green jobs” by Saussay, Sato and Francesco Vona, which will be released in 2024.

Activity 3.1: Analysis of opposition to climate policy and polarization of attitudes among the Norwegian public. Is opposition to climate policy best explained in terms of material interests or socio-cultural factors? We find *inter alia* that i) Norwegians sort into two distinct camps: those who are positive or relatively neutral toward all policies versus those who strongly oppose restrictive policies while being a bit more divided on renewable energy support ii) sociocultural factors have stronger explanatory power for climate policy views than material interests have; and ii) views on immigration are among the strongest predictors of attitudes to climate policy. The analysis draws on data collected in a survey financed under the project *ACT: From targets to action - public responses to climate policy instruments*, as per the project plan to draw on existing survey data and not finance new surveys. On the issue of road tolls, there has also been collaboration with the project *PLATON - a PLATform for Open and Nationally accessible climate policy knowledge*.

Result 3.1.1: Aasen, M., Sælen, H., 2022. Right-wing populism and climate policies: Explaining opposition to road tolls in Norway. *Transportation Research Part D: Transport and Environment* 105, 103222.

Result 3.1.2: Sælen, H., Aasen, M., 2023. Exploring public opposition and support across different climate policies: poles apart? *Ecological Economics* 209, 107838.

Activity 3.2 and 3.3: Investigate factors that led to the politicisation of fossil fuel supply in relation to climate change in the UK, Norway, and Czechia. We study a prominent sub-type of climate movement activism that we call conflictual climate campaigns. For Norway and UK, we compare two such campaigns targeting the petroleum industry—one in the UK and one in Norway. For Czechia, we study just transition perspectives related to coal phase-out in carbon locked-in cities. Using mixed methods—including elite interviews, and quantitative and qualitative analysis of both print media and parliamentary debates—we trace the effects of these campaigns on three outcome variables concerning domestic petroleum/coal production policy: the political agenda, mainstream party policy positions, and government policies.

Result 3.2: Green, F., Bang, G., and Wyckoff, P. “Can the Climate Movement Shape Mainstream-Party Policy? Comparing campaigns for oil and gas restrictions in the UK and Norway” (In preparation for submission; drafts presented at Hertie School, ECPR Joint Sessions, UCL and American Political Science Association annual conference).

Result 3.3: Stuvøy, K. and Vetrakova, H. “Just transition concerns in the coal phase-out in Czech Republic”. (In preparation for submission)

Activity 4.1: The output of this activity sought to provide comprehensive and meticulous research into the diverse frameworks that exist for evaluating just and robust processes for decarbonization within the human rights framework as a foundational legal discipline upon which other disciplines should be built. The primary focus is to gain a profound understanding of the mechanisms that ensure fairness and robustness in the decarbonization process within environmental law. To achieve this, it is essential to delve into environmental law scholarship. This involves an exhaustive review of legal texts, case studies, judicial precedents, and academic work in the field of environmental law, broadly speaking. The purpose of this scholarly review is to understand the legal and ethical considerations that underpin the decarbonization process. The research identifies the rights, responsibilities, and principles that should guide decarbonization efforts with regards to public participation as a key tool for stakeholder buy in throughout the just transition. Furthermore, it explores how legal and ethical frameworks can be leveraged to ensure that decarbonization is conducted in a manner that is both just and robust. In doing so, the task aims to provide a solid foundation for future initiatives in decarbonization.

Result 4.1: Ruppel, Oliver C. and Larissa Jane H. Houston, “The Human Right to Public Participation in Environmental Decision-making: Some Legal Reflections,” *Environmental Law and Policy* 53, no. 2-3 (2023): 125-138. <https://content.iospress.com/articles/environmental-policy-and-law/epl239001>.

Activity 4.2: Work in progress on a paper on citizens’ assemblies focused on climate change, i.e. *Climate Assemblies* (CAs). These have been touted as a means to increase public support for climate policy and increase the perceived democratic legitimacy of the policy-making process. This paper proposes a theory-driven causal model that delineates the mechanisms through which CAs could have such effects among the wider public, and tests our model against the growing empirical literature on CAs and similar processes. We discuss how these findings shed light on a possible escape route from what we call the *Democracy-Decarbonisation Dilemma*.

Result 4.2: M. Zadra and F. Green, “The Democracy–Decarbonization Dilemma: Can Climate Assemblies Provide an Escape Route?” (in preparation for submission to journal; draft paper presented at the Final Conference, University of Melbourne, and ECPR general conference).

Activity 4.3: Preparation of Impact-oriented fact sheet that will focus on public participatory processes and be based upon the results of the law-related research questions of WP4. Aimed at NGOs and interested citizens that want to engage in climate action, it will provide guidance on the specifics and particularities of environmental law procedures related to decarbonization and serve as a knowledge base for legal engagement in climate action.

Result 4.3: L.J.H. Houston and O.C. Ruppel, “Public participation in environmental decision making,” *ClimLaw Perspectives* 1, (2024).

Activity 4.4: Journal article submission for T4.2. Submission of a journal article bringing together interdisciplinary insights on processes and procedures for just and robust decarbonisation. The article synthesises major findings from the literature reviews, applying these to decarbonisation processes, and will set out a framework and criteria for evaluating such processes and procedures.

Result 4.4: Truccone S. and Houston L. “Deliberative Democracy: A Tool for Legitimizing Just Decarbonisation and Climate Policies” (In preparation for submission).

Activity 4.5: The synthesised, interdisciplinary findings of WP4 will be presented in a summarised policy brief/fact sheet for relevant decision makers in policy and practice. Possible publication platforms could be the fact sheet series of the Climate Change Center Austria (CCCA) for Austria and similar formats for other involved countries.

Result 4.5: L.J.H. Houston and O.C. Ruppel, “Just Transition: Equitable Policy Pathways to Carbon Neutrality in the Energy Sector,” *ClimLaw Perspectives* 2, (2024).

Activity 5.1: Lukas Meyer continually has worked on the map of normative criteria. This works also is reflected in the draft papers of WP1. Work on this has also influenced the development of a project proposal for the Excellence Initiative of the Austrian Science Fund (FWF) for the Cluster of Excellence (COE) Transition4Climate.

Result 5.1: Elias Moser (Post-Doc) is currently working on a paper in regard to rights as fundamental normative criteria and the weighing of rights. This is work in progress. We expect it to be finished at the beginning of Q2 of 2024, ready for submission for publication.

Activity 5.2: Elaborate on the concept of just transition as a legal concept and on its applicability at different levels (local and regional, national, international) with regard to the role of components that

the concept contains as significant criteria substantively and procedurally – especially human rights and law principles. Explore the just transition from the perspective of corporate sector responsibility.

Result 5.2.1: Müllerová, H., Balounová, E., Ruppel, O., Houston, L., Building the Concept of Just Transition in Law: Reflections on its Conceptual Framing, Structure and Content. *Environmental Policy and Law*, 2023, Vol. 53, Issue 4, p. 275–288.

Result 5.2.2: Feigerlová, M.: A Just Transition in the International Investment Agreements. *International and Comparative Law Review*, Volume 24, (2024) Issue 1 (forthcoming); Feigerlová, M.: Moving from Pledges to Commitments: Analysing Climate Transition Plans in the EU Proposal for a Corporate Sustainability Due Diligence Directive. *Carbon and Climate Law Review*. Volume 18 (2024), Issue 1, pp. 17-30.

Activity 6.1: Policy workshop with key policymakers and stakeholders from the UK and Norway to inform preparation of the Toolkit.

Result 6.1: Key themes for further research identified, including **interpretations** of just transition concepts within government departments; a need for **templates** for just transition policies and their integration with economic and social policies; new data and metrics for **quality** control; **narratives** that successfully improve perceived legitimacy of policies.

Activity 6.2: Develop the toolkit for policymakers. The toolkit will take the form of a report that steps through the considerations that we recommend policymakers take into account as they seek to steer just and robust low-carbon transitions, and the methods that they should employ, across four main stages of the policy cycle. Part of the work in this task will be to pool knowledge generated from other WPs of this project, and to draw on the methodological expertise of team members.

Result 6.2: Toolkit published (note following consultation we substituted “national policy options framework” for “toolkit”: Macquarie R, Green F, Kenward T, Müllerová H, Feigerlová M, Balounová E (2023). *Just and robust transitions to net zero: A framework to guide national policy*. University College London, Grantham Research Institute on Climate Change and the Environment, ClimLaw: Graz, Centre for Climate Law and Sustainability Studies, Center for International Climate Research.

4. Communication and dissemination activities (max. 1 page)

Please provide information on the most important communication and dissemination activities from the project. This may include (but is not limited to) engagement with the public (including media and communication), engagement with policy makers or decision makers (including the private sector), engagement with science communities, and elaboration of policy briefs.

Engagement with the public

- Result 2.1 was covered in the UK media e.g. The Guardian (23/01/2023), The Financial Times (30/05/23 and 20/06/23)
- Result 3.1.1 presented at the “Research days” (Forskningsdagene) (Sælen, 23.09.2021)
- Participation in expert panel discussion on “Renewable energy - A socially just and successful green transition” as part of the Nordic Talks series, organized by the Norwegian Embassy in Japan. Also recorded and edited into a podcast available at nordictalks.com (Sælen, 04.11.2021)
- Result 3.1.2 presented at the “CICERO day” (Sælen, 11.05.2023 & 25.04.2024) and featured in an article in Aftenposten (Norway’s top-selling newspaper) on 26.05.2023.
- Result 3.2 presented for the Energy Seminar at NMBU (Bang, 10.11.2022)

- Participation by Müllerová in a streamed moderated public debate on 6 November 2022 on the topics of law responses to climate change and just transition in the Czech Republic
- The breakfast seminar to launch the Toolkit report (27.10.2023), while aimed primarily at policymakers, was open to the wider public.

Engagement with policymakers or decision makers

- The Toolkit report is the main product aimed at policymakers and the process for producing it was the main activity for engaging policymakers. In addition, the report has been presented to several policymakers and organizations. See sections 7 and 8 for more details. Notable consultations included:
 - Norwegian Ministry for Climate and Environment
 - Norwegian Ministry for Oil and Energy
 - Norwegian Confederation of Trade Unions (LO)
 - The Future in Our Hands (NGO)
 - City of Oslo, Climate Agency
 - UK Committee on Climate Change
 - UK Government Department for Energy and Net Zero
 - UK Treasury
 - Scottish Government Energy and Climate Change Directorate
 - Scottish Government's Just Transition Policy Unit
 - Aotearoa New Zealand Government Equitable Transition Strategy team
 - Republic of Ireland Government Department of Finance
 - Masaryk University, Czechia
 - Czech Transformation Platform
 - University of Silesia, Poland
 - Deutsche Gasrusswerke GmbH
 - European Investment Bank
 - START technical assistance for EU coal regions
 - World Bank programme staff supporting transitions in coal regions
 - Just Rural Transition secretariat
 - WWF EU just transition team
 - World Benchmarking Alliance climate and just transition team
- Results 2.1 and 3.1.2 presented at the Sustainability Forum of the Norwegian Confederation of Enterprise (Saussay & Sælen, 09.02.2023), which gathers representatives from most of Norway's largest companies, and at the Sustainability Conference of Statkraft (CICERO's director Kristin Halvorsen, 25.04.2023)
- Presentation of Result 3.1.1 and 3.1.2 for the Agency for Climate at the City of Oslo (Sælen, 13.10.2022) and for the Vice Mayor for Environment and Transport of the City of Oslo (Sælen 19.06.2024).
- Result 3.1.2 was featured in a presentation for the Kongsberg Group (CICERO's communication director Christian Bjørnæs, 22.06.2023)
- Presentation of results from Toolkit report to two Members of the Norwegian Parliament (Bang, 30.10.2023)
- Results 2.1: Presentation of results to UK Department for Business, Energy and Industrial Strategy (BEIS) on UK low carbon jobs and skills (Sato, Saussay 26 Oct 2022)

- Results 2.1 and 2.3 fed into a written response on UK green skills to UK Skidmore net zero review (Sato Oct 2022)
- Results 2.1 and 2.3 fed into a written response to UK Office for National Statistics online consultation "Defining and Measuring Green Jobs" (Sato 05/10/2022)
- Results 2.1 and 2.3: Presentation of results to UK Department for Energy Security and Net Zero (Sato, Saussay 9 March 2023)
- Results 2.1 and 2.3 were presented at the International Green Skills Conference at Imperial College London, 28/09/2023
- Keynote presentation (titled "How can just and inclusive transformations be brought about?) and participation in panel discussion at the 2021-2022 Human Development Report Consultations organized by the UNDP and the Norwegian Agency for Development Cooperation (Sælen, 11.11.2021)
- Presentation of the project and preliminary results from WP3 for the Norwegian delegation to the UNFCCC (Sælen, 01.11.2021)
- Presentation titled "Leveraging public attitudes to support low-carbon transitions" for the UNDP Human Development Report Office (Sælen, 11.01.2022)
- Presentation of Result 3.2 for the Norwegian Agency for Development Cooperation (Sælen, 06.04.2022)
- Presentation of Result 3.1.1 for the Agency for Climate at the City of Oslo (Sælen, 13.10.2022)
- Advisory input for the Fossil Fuel Non-Proliferation Treaty Steering Group, seminar in London (Green, Bang, 29-30.09.2022)
- Presentation of research at United Nations High Level Dialogue on Energy, pertaining to just transitions principles and the utilization of energy communities for the transition. Presentation: "Come Together: Energy Communities as a solution for energy poverty within Austria" (Houston, 23.06.2021):
- Stakeholder Workshop - Energiewende: Gerechte Wege zur Klimaneutralität? (Houston and Ruppel, January 2023)
- Presentations at International Vienna Energy and Climate Forum: Public participation to promote feasibility and fairness in climate mitigation strategies (02.11.2023); Elements of Justice within the just transition (03.11.2023) (Houston)
- Participation in panel discussion on climate policy for Czech stakeholders, organized by the International Sustainable Finance Centre (Sælen, 22.09.2021)
- Organization of a workshop "Just transition in the Czech Republic" (in Czech) to connect the knowledge of theory and practice addressing academia, public administration, affected regions, business and NGOs (Müllerová, Feigerlová, Simon, Novák, 24.06.2022)
- Presentation by Müllerová at the workshop "Just transition in the Czech Republic": The concept of Just Transition and its understanding in the Czech Republic (in Czech)
- Presentation by Feigerlová at the workshop "Just transition in the Czech Republic": Planned termination of fossil facilities from the legal point of view (in Czech)
- Presentation by Simon at the the workshop "Just transition in the Czech Republic": Just Transition form the perspective of vulnerable communities: energy poverty in the Czech Republic (in Czech)

Engagement with science communities

- The JUSTDECARB Final Conference was held in Oslo on 26.10.2023 (and streamed online) with around 30 participants. Selected project results were presented by Green, Truccone-Borgogno, Feigerlová, Simon, Sato, Saussay, Bang, Stuvøy, Houston and Zadra. The event included external discussants and was chaired by Sælen.

- Project launch workshop: How to make the transition to a decarbonised Europe socially just and politically acceptable? This online event on 13.04.2021 attracted nearly 100 registered participants. JUSTDECARB chairs and presenters: Meyer, Green, Sato, Saussay, Bang, Sælen, Schulev-Steindl, Müllerová, Houston. External presenters/commentators: Thomas Pölzer, Pranay Sanklecha, Anna Valero, Elisabeth Ivarsflaten, Stefan Cetkovic, Kacper Szulecki, Hedvika Kodousková, Wolfgang Urbantschitsch).
- Involvement in the COST action COST Action- SHiFT (Social Sciences and Humanities for Transformation and Climate Resilience) by Lukas Meyer (nominated for management committee for Austria).
- A hybrid conference on concepts and ethics of SSH and climate change held at the University of Graz in April 2023.
- Presentation at the Voest Alpine Synergy Platform “Sustainability”: ‘To whom does the sky belong?’ (Meyer, 20.10.2021)²
- Presentation at the AG Ethik der österreichischen Palliativgesellschaft und Institut des Humanités en Médecine, Centre Hospitalier Universitaire Vaudois, Universität Lausanne, Schweiz, on climate change as an ethical challenge (Meyer, 17.09.2021)¹
- Presentation on ‘Legitimate expectations. Assessing policies of transformation to low-carbon society’ online University of Chile (02.06.2021) and at the University of Graz (26.05.2021) (Meyer)
- ‘Climate Justice and Historical Emissions’; Lecture Series at the American University of Paris - George and Irina Schaeffer Center for the Study of Genocide, Human Rights and Conflict Prevention (Meyer 29.10.2021)
- Co-organization of the online workshop: What we owe the future: Needs, capabilities and intergenerational justice (Meyer 22.06.2022 - 24.06.2022)
- Key-notes presentations on Individual (political) responsibility for climate change at conferences and workshops in Rijeka 02.07.2022, Oxford 04.08.2022, Zürich 14.10.2022, Pisa 28.10.2022 (Meyer)
- Presentation of paper on “Justice in Transition” to UCL political theory workshop (Green 03.05.2022)
- Presentation by Green of paper on “Harmless Loss: Its Moral, Political and Legal Significance”, LSE Workshop on Irreplaceable Loss (hybrid-online), 12/5/23
- Presentation by Green of paper on “Harmless Loss: Its Moral, Political and Legal Significance”, University of Graz, colloquium in moral and political philosophy (hybrid-online), 9/5/23
- Book manuscript workshop re activity 3.2 organised by Green at UCL, June 2023.
- Result 2.1 has been presented at several seminars and conferences including: the "Knowledge, skills, behaviours: An international workshop on the systematic analysis of job vacancy data", University of Brighton. 13/10/2022; Grantham Research Institute Workshop (Sato, London, Dec 2020); CIRED Environmental Economics seminar (Saussay, Paris, Feb 2021); Sciences Po (French Economic Observatory, OFCE) (Saussay, Paris Feb 2021); Grantham Research Institute Empirical Seminar (Saussay, London, Oct 2021); University College Dublin Economics seminar (Saussay, Dublin, 2021); 8th IZA Workshop: Environment, Health and Labor Markets (Saussay, Online June 2021); 37th European Economic Association (EEA) Congress (Saussay, Milan, Aug 2022); Centre for Climate Change Economics and Policy final conference (Sato, 15 November 2023).
- 12th World Human Rights Cities Forum - Special Session [Human Rights Paper Session II] (Houston): 12 October 2022 09:00-12:00 CET. Organised by Chonnam National University Center for Regional Development, UNESCO, and Gwangju International Center. Discussant and Moderator - "Climate

² Engagement also with stakeholders and professionals

Change, Green Transition in Sápmi and the Human Rights of the Indigenous Sámi People". http://www.whrcf.org/theme/basic/whrcf_eng/whrcf2022.php.

- Co-organisation of a thematic session on "Labour Market and the Low-Carbon Transition " at the 27th Annual Conference of the European Association of Environmental and Resource Economists 01/07/2022 (Sato and Saussay)
- EAERE Pre-conference event "The Economics of a Just and Equitable Climate Transition Pre-Conference Workshop" Invited keynote talk entitled "Skill and Wage Gaps in the Low Carbon Transition" (Sato 27/06/2022)
- Participation at expert seminar organized by the project Not Just A Green Transition led by NORDREGIO (Sælen, 25.05.2022)
- Result 3.1.2 has been presented at the Nordic Environmental Social Science Conference, Gothenburg, 07.06.2022; at the annual research seminar for the Department of Political Science and International Relations at the Oslo New University College (12.12.2022); and the research seminar *Normative and empirical building-blocks of the socio-ecological transition in advanced welfare states* at Oslo Metropolitan University, 02.03.2023 (Sælen)
- Result 3.2 has been presented at the International Conference on Fossil Fuel Supply and Climate Policy, Queens College, Oxford, UK (Bang and Green, 27.09.2022); the European Consortium for Political Research's Environmental Politics Online Seminar Series (Green and Bang, 03.11.2022); and the Australian National University, Energy Transitions Lab seminar series, RegNet (Green, 29/3/23)
- Organization of the international conference *Human Rights and Climate Change* (Müllerová, Feigerlová, Simon, Balounová, 19.11.2021)
- Conference paper at the conference *Human Rights and Climate Change: Climate Change, Aviation, and Human Rights*, Prague (Balounová, 19. 11. 2021)
- Workshop paper of Feigerlová 'Implementing coal phase-outs without exposing policymakers to legal claims by private operators' on 6.5. 2022, Internal workshop with ClimLaw Graz, Graz
- Workshop paper of Simon 'The concept of vulnerability as legal criterion for just transition policies' on 6.5. 2022, Internal workshop with ClimLaw Graz, Graz
- Conference paper of Feigerlová at the 2022 Oslo International Environmental Law Conference "The Transformative Power of Law: Addressing Global Environmental Challenges" on 3-6 October 2022: "Waiver of investment claims as a temporary solution" (Session Transforming Trade, Investment, and Finance)
- Presentation of Feigerlová at the Climate Change, Business and Human Rights Roundtable, on the topic 'Climate transition plans under a draft EU Corporate Sustainability Due Diligence', 21.3.2021, Human Rights Law Centre at the University of Nottingham, UK
- Workshop paper of Balounová "Czech Climate Litigation" on 9 June 2023, International Workshop on Comparative Climate Litigation, Turin, Italy
- Workshop paper of Feigerlová 'Petition to the Commission on Human Rights of the Philippines In re Greenpeace Southeast Asia and Others' on 9.6. 2023, International Workshop on Comparative Climate Litigation, Turin, Italy
- Conference paper by Balounová on 30. 9. – 1. 9. 2023, Leipzig, Germany, "In search of a national Climate Change Act (CCA) in light of the EGD", EELF 2023, Environmental Law in Transformation.
- Conference paper by Feigerlová on 30. 9. – 1. 9. 2023 Leipzig, Germany, 'Climate transition plans under a draft Corporate Sustainability Due Diligence Directive', EELF 2023, Environmental Law in Transformation.
- Conference paper of Müllerová at 10th European Environmental Law Forum Conference 2023 Environmental Law: Transformation – Legal Implementation And Impacts of the

European Green Deal, University of Leipzig 30. 9. – 1. 9. 2023 “‘Just transition’ as a new overarching law concept in the climate change debate?”

- Conference paper of Feigerlová at Just transition and international law conference, University of Dundee, 7. – 8. 9. 2023, ‘The Modernised Energy Charter Treaty Through the Lenses of a Just Transitions’
- Conference paper of Müllerová at Just transition and international law conference, University of Dundee, 7. – 8. 9. 2023, “Two approaches to the concept of just transition from the international law perspective”
- Conference paper of Novák at Just transition and international law conference, University of Dundee, 7. – 8. 9. 2023, “Just Transition in Post-Communist European Countries”
- Conference paper of Simon at Transforming Consumption-Production Systems Toward Just and Sustainable Futures - 5th SCORAI, 21st ERSCP, and Wageningen University Conference, University Wageningen 6-8.2023, ‘Just transformation and enhancing environmental sustainability through contract law’
- Conference paper of Simon at 18th IACL Conference, IFF Hamburg, 21.7.2023 , ‘Just transition and consumers’
- Task 5.1. & 5.2 Academic workshop in Graz (D5.4) Result 1.4: On October 23, 2023, Lukas Meyer, Harald Stelzer and Santiago Truccone organized a hybrid academic workshop “Evaluating sustainable transition policies. Normative perspectives” at the University of Graz.
- Activity 3.2 invited presentation by Green at Hertie School, Berlin, 14 February 2024
- Activity 3.2 presentation by Wyckoff (coauthor of Green & Bang but not a project team member) at European Consortium for Political Research (ECPR) Joint Sessions workshop, March 2024.
- Activity 3.2 presentation by Green at UCL climate politics cluster annual workshop, 26 June 2024.
- Activity 3.2 presentation by Green at American Political Science Association annual conference, 7 September 2024.
- Activity 4.2 presentation by Green at University of Melbourne, 22 April 2024.
- Activity 4.2 presentation by Zadra at ECPR general conference, Dublin, August 2024.

Policy briefs

The academic findings of WP 2 has been translated into more accessible products aimed at decision makers in policy and practice: Sato, M., Cass, L., Saussay, A., Vona, F., Mercer, L., and O’Kane, L. (2023). Skills and wage gaps in the low-carbon transition: comparing job vacancy data from the US and UK. Policy report, Grantham Research Institute on Climate Change and the Environment ;and also as a blog online: <https://jpi-climate.eu/news/whos-fit-for-the-low-carbon-transition-emerging-skills-and-wage-gaps-in-job-ad-data/>.

The synthesized, interdisciplinary findings of WP4 have been presented in a summarized policy brief/fact sheet for relevant decision makers in policy and practice.

1. L.J.H. Houston and O.C. Ruppel, “Public participation in environmental decision making,” *ClimLaw Perspectives* 1, (2024). DOI: 10.25364/215.2024.1.
2. L.J.H. Houston and O.C. Ruppel, “Just Transition: Equitable Policy Pathways to Carbon Neutrality in the Energy Sector,” *ClimLaw Perspectives* 2, (2024). DOI: 10.25364/215.2024.2.

The main law findings regarding human rights and principles of law as related to criteria for the evaluation of transition policies in the Czech Republic have been presented in policy

brief within the “AVex” series (a series of expert opinions issued by the Czech Academy of Sciences and addressed primarily to the Chamber of Deputies and the Senate of the Czech Parliament, but also to other public law bodies). The AVex paper of Müllerová and Novák is titled in English “Just Transition: Switch to a low-carbon economy from a legal perspective” (its original version is Czech). Other findings relevant for the Czech transition were also presented at the website of Centre for Climate Law and Sustainability Studies (CLASS) at the Czech Academy of Sciences in English [here](#) or on the blog in Czech (e.g. the text on the Czech coal phase-out in Czech of 17 December 2020 on the blog [here](#)).

The “toolkit” report (activity 6.2) was published as a policy output: Macquarie R, Green F, Kenward T, Müllerová H, Feigerlová M, Balounová E (2023). *Just and robust transitions to net zero: A framework to guide national policy*. University College London, Grantham Research Institute on Climate Change and the Environment, ClimLaw: Graz, Centre for Climate Law and Sustainability Studies, Center for International Climate Research.

5. Comparison of the project progress with the original work plan (max. 1 page)

Please compare the progress of the project with the original plans concerning the timing of work/work plan/milestones/personnel (researchers, postdoctoral researchers, PhD students, etc.). If applicable, describe difficulties encountered and solutions adopted.

Changes regarding personnel

There has been a significant change in the institutional location of Fergus Green. Under the original JUSTDECARB proposal, Fergus would have spent two years on the project, spanning project months 13–36 (months 13–24 funded by GRI; months 25–36 funded by Graz). After submitting the bid, and before the project commenced, Fergus accepted a separate position as a Research Officer in Environmental Politics at Grantham LSE. In April 2021 (approximately four months into the project), Fergus was appointed to a continuing academic position as a lecturer at University College London (UCL), commencing 1 September 2021. Fergus took up the Research Officer role at Grantham LSE on 4 May 2021 (as planned) and resigned effective 31 August 2021, commencing at UCL as planned on 1 September 2021. Fergus has continued to be heavily involved in the project at UCL, though he obviously has other responsibilities in his new role. The upshot of these various moves has been that Fergus’ role on the project has decreased relative to the original bid, and both LSE and Graz have additional funding that was originally to be allocated to employing Fergus to work on the project. This money was repurposed by LSE and Graz to fund positions to support Fergus in completing work on WPs 4 and 6. Fergus’ role on these work packages became more supervisory in nature compared with what was originally envisaged, though he remained actively involved in research in both work packages as well as supervising RAs and an independent contractor (Fergus’ work on WPs 1 and 3 remained substantively as originally planned, though was subject to some delays as noted below). In recognition of Fergus’ move to UCL and thus UCL’s contribution to the project, UCL joined the project as an unfunded partner.

Sam Fankhauser left the project when he left the LSE in April 2021. No funds were allocated to him. Sato continued to lead WP2 and delivered outputs jointly with Saussay. Sato additionally took on admin and management tasks relating to the resource allocation at the LSE following Green’s departure from the LSE. To accommodate for this, a reallocation of directly incurred staffing time has been requested from Green to Sato. Rob Macquarie joined the project in Feb 2022 as part of his existing role (externally funded) at LSE/GRI, to work with Green on WP4 and WP6, reviewing the landscape for the policy toolkit. In April 2023, Macquarie left LSE/GRI and was engaged by Graz (using

funds originally allocated for Green) as an independent contractor to deliver the Toolkit for Policymakers, on which Macquarie became co-lead author with Green.

WP4 was originally led by Eva Schulev Steindl, University of Graz. In February of 2022 there was an official change in personal as Eva took up a new post as Rector of the University of Natural Resources and Life Sciences (BOKU). She was replaced by Oliver Ruppel, University of Graz, who has held the position of WP-Lead from February 2022.

Delays

There were delays in the submission of articles for D1.1 (planned for month 16), D1.2 (planned for month 18) and D1.3 (planned for month 18). The articles (D1.1 on loss and D1.3 on Assessing Policies of Transformation to a Low-Carbon Society) have now been submitted, and the former accepted with minor revisions on 27 August 2024. For D2.2 (normative principles concerning the entitlements of losers from legal/policy change), Green has turned this into a book project, which he was aiming to submit in Q1 2024, though this has been delayed due to the impacts of long COVID on his research activity (expected submission Q1 2025). None of these delays have affected other aspects of the project.

Data collection for the case studies in WP3 has been delayed due to change of staff involved in one of the case studies and delays in data collection. The case studies were planned to be informed by existing survey data and qualitative data collection gathered through fieldwork, both of which were affected by the pandemic. European-wide surveys that were identified to be potentially relevant (European Social Survey and ISSP Environment IV) were scheduled to release data early in the project period, but data collection was severely delayed during the pandemic. Due to these delays, resources allocated for survey analysis have been used in Activity 3.1 described above, yielding Results 3.1 and 3.2 that are additional to the deliverables included in the proposal. D3.1 (two scientific articles) will be based on qualitative data (research interviews and text analysis) collected in the period Sept. 2022-December 2023, and submission is expected in autumn 2024 (Result 3.3) and spring 2024 (result 3.4). D3.2 (policy briefs) will build on D3.1 and is expected in spring 2024.

We foresee a delay in the delivery of Deliverable 4.1 as there were delays in finalising a pre-doc/post-doc candidate to research aspects of one of these articles (4.1(a)); this article has now been presented in draft form at the end of project conference in Oslo, and at multiple workshops/conferences in 20204, and is currently being revised, with a view to submission in Q4 2024. As a result, D4.4 which relies on the findings of both D4.1 articles, has also been delayed, but is being drafted (incorporating the literature review from 4.1(a), which has been completed).

Lukas Meyer continually has worked on the map of normative criteria for WP5. M5.4 Normative criteria summarized has been achieved in time in Q1 2023. This works also is reflected in the draft papers of WP1. Work on this has also influenced the development of a project proposal for the Excellence Initiative of the Austrian Science Fund (FWF) for the Cluster of Excellence (COE) Transition4Climate. Elias Moser (Post-Doc) is currently working on an article which focusses on rights as fundamental normative criteria and the weighing of rights. The provisional title being “On Balancing Future People’s Rights With Legitimate Expectation”. The finalization if the draft of the paper is expected January and the envisaged submission in Spring 2024. Based on the outline the paper it will include both, the identification of normatively relevant criteria and the ways in which they connect to distributive as well as the weighing and prioritizing of these criteria. Therefore, it combines the two planned papers for WP5 from philosophy.

6. Social Sciences and Humanities (max. 0.5 page)

Please briefly describe how the inclusion of SSH is contributing to social change in the context of your project. How does this compare to what you expected prior to the project?

The project takes a three-staged approach to this issue.

First, the project generates cutting-edge single-discipline research from different disciplines of social science and humanities (economics, political science, philosophy, and law), each of which is crucial to just and robust decarbonisation.

In the second, interdisciplinary, stage, political scientists and philosophers teamed up with legal scholars to develop policy-relevant insights. Activity 4.1 integrated insights from political science on deliberative democracy into environmental law. Separately, in activity 4.2, political theorists worked with political scientists to review and synthesise the theoretical and empirical literature on deliberative democratic processes for designing public policy in general and climate policy in particular. Insights from these two collaborations were further synthesized in the development of activity 4.4. Philosophers and legal scholars assessed the relevance of public participation as a means to achieve more procedurally just policies within the context of climate change. Particularly, we evaluated how mini-publics in the form of climate assemblies make policies legitimate in that they incorporate the substantive and procedural dimensions of justice.

In activity 5.1, philosophers showed that the notion of legitimate expectations plays a relevant role in the transformation to a net-zero emissions society. They also distinguished between different kinds of legitimate expectations and different circumstances in which compensation for their frustration may be owed. They also argued that the duty to compensate the expectation holder, if it exists, is owed to the state's responsibility for its generation.

Finally, we drew on the research done in all parts of the project as well as targeted consultations with policy-makers and civil society stakeholders to develop the National Policy Framework (Toolkit). This provides decision-makers with relevant information to improve their decarbonisation strategies and advances a socially just and politically robust zero-carbon transition in Europe.

7. Pathways to impact (max. 1 page)

How would you assess progress made so far towards the eventual take up and use of your project's outcomes? How will the outcomes on which you have made progress contribute to expected impact pathways?

As outlined above, the main expected path to impact is the National Policy Options Framework (Toolkit). The final product is a 72-page report titled *Just and robust transitions to net zero – A framework to guide national policy* published both in print and [for download](#). It was launched at a breakfast seminar in Oslo on 27th October, in conjunction with the Final Conference. The seminar included presentations of selected research results (Bang, Sato, Green), presentation of the report (Macquarie), and a panel discussion with stakeholders representing the Norwegian Labour Party, the Norwegian Confederation of Enterprise, the peak labour organization (LO), and the 2050 Climate Commission.

The report collects resources on national policy and law applicable to specific sectors and to the whole economy, synthesising examples of best practice highlighted by leading research. Its guidance is aimed at governments but also non-governmental organisations, labour unions, firms, international organisations and financial institutions. While the report's focus is on Europe, the tools and guidance are generally applicable and should be of wider interest. The framework reflects the wide variety of roles for people and groups in the transition and covers many aspects of a just transition that do not

fit neatly into sectoral or spatial frames, such as fiscal policy, citizens' participation in policy processes, and national climate laws and institutions.

The report is designed to be a modular reference resource, with advice grouped into chapters reflecting five phases of the policy cycle. Each chapter provides concepts and definitions of essential terms used to guide thinking about activities in each phase; guidance for policymakers to consider when applying these concepts; approaches they can take, with a comparison of features, strengths and weaknesses and signposting to further resources; and case studies demonstrating the use of these approaches in various countries and contexts across Europe, with suggested lessons for others to follow. All of the chapters contain actions that should be undertaken by multiple government ministries, emphasising that a whole-of-government approach is needed for a just transition, with each ministry taking responsibility for aspects linked to its remit. We hope it will help policymakers across government departments to become more effective at promoting a just transition.

After the seminar, two members of the Norwegian Parliament requested a follow-up meeting, held on 30th October. The authors were also invited to present to the Working Group on Repurposing Public Support to Food and Agriculture, held on 15.01.2024, and to the International Labor Organization, held on 24.01.2024. Dissemination of the report continues, and it has been embedded by LSE GRI as a key reference within other just transition activities focused on [sustainable finance](#) and [global policies](#). It is also advertised on the European Politics and Policy blog. Furthermore, the consultation and research process itself (see 8. below) has also been a channel for impact: the team have been able to connect policymakers and stakeholders working on similar problem areas to exchange knowledge and experiences, including the climate and just transition teams in Scotland and New Zealand.

Other possible paths to impact are the presentations of academic results to policymakers and decision makers and the policy briefs, all listed in section 4. Finally, the project results have been communicated through the partners' web pages and social media channels, reaching a wide readership that also includes policymakers. For example, a 2023 report on green transition of the labour market ([in Norwegian](#)) commissioned by the Norwegian government reports some results from Result 3.1.2, citing a news article on CICERO's web pages.

8. Collaboration with non-academic stakeholders (max. 1 page)

Did the involvement of non-academic stakeholders change or improve your plans to address the societal impact of climate change? If applicable, please note any obstacles or challenges you encountered in this regard.

With the primary aim of informing the construction of the Toolkit, we conducted consultations with stakeholders using mixed approaches, including workshops, surveys, research interviews, and more targeted bilateral conversations, allowing flexibility to focus on topics of greatest interest to specific audiences. Furthermore, stakeholders have been able to suggest contacts and directions for further consultation, in a dynamic process that enabled learning and refinement of core research questions and to close knowledge gaps.

The consultations revealed strong interest in a practical policy guide that addresses national policy rather than regional planning. For example: participants in the UK-Norway workshop voiced their interest in a report synthesising evidence and identifying lessons learned from across the spectrum of just transition research and practice. Contacts in the secretariat for Just Rural Transition highlighted the importance of including agriculture and land use in guidance to counter a bias in existing just transition guidance towards the energy sector. Experts working with the Coal Regions in Transition

Initiative at EU level suggested that the most useful contribution would be an ‘options framework’ (see above), rather than a ‘toolkit’, emphasising that just transition needs to be integrated more effectively at the level of national government strategies and that this requires addressing political economy factors which vary across countries. Our final report builds on these insights.

In addition, consultations helped to identify case studies to feature in the report (such as the Climate Change Committee in the UK, the food policy citizens’ assembly run by Biovision and other organisations in Switzerland, and the Monitoring Committee in the Czech Republic) and several external stakeholders offered their support to prepare detailed, accurate content to highlight their work. This collaboration entailed a sequence of information interviews, background desk research, and iterative review of draft content. The project team also engaged stakeholders more widely to raise awareness of our work and to share information on needs and potential use cases for further research. Especially in the UK and Norway, issues relating to just decarbonization have become increasingly central to policy-making and political debate over the project period. Stakeholders have therefore reacted positively to invitations for engagement from us. In addition, they have invited us to events they have hosted. Results from the project have also been presented to most of the largest private companies in Norway (see section 4).

In the Czech Republic, the concept of Just Transition has only been emerging in the recent years as a new concept in public debates. The project has helped to spread the concept at least in the circles of stakeholders we addressed. We engaged several types of non-academic stakeholders in our workshop on Just Transition in the Czech Republic in June 2022 and had representatives of the ministries, regions, businesses and NGOs among speakers and listeners.

In Graz, we organized a stakeholder workshop in January 2023 on the topics of climate neutrality and its impact on politics, law and the economy. As a platform for stakeholder discussions, this workshop facilitated conversations and debates on key issues and considerations for equitable decarbonisation in the national context of Austria as well as in the regional context of Styria, particularly for the energy transition within the region. This workshop supported the social dissemination of research results from the project and is intended to support actors who want to get involved in climate-relevant processes by providing a knowledge base on the transformation to a low-carbon society. It dealt with the political, economic and legal prerequisites for participation in climate-relevant decision-making processes and procedures at various levels.

9. Availability of new results (max. 1 page)

Did any third-party results become available since the start of the project, which proved relevant for the implementation of the project?

Some research initiatives and civil society organisations have published similar products to our policy toolkit report. Key examples include the Wuppertal Institute’s report, ‘Just Transition Toolbox for Coal Regions’, and Trade & Industrial Policy Strategies’ (TIPS) working paper, ‘Policy Toolbox for Just Transitions’. These are significant contributions to the literature which connect conceptual work on the just transition to key learnings from early practice and case studies. During the course of the research for our Toolkit during 2023, the Climate Investment Funds published a ‘Just Transition Planning Toolbox’, a website that covers a wide range of just transition principles, provides narrative advice, and collects a number of further references.

Our research builds on the work by these organisations and adopts a different focus. It prioritises national governments, by contrast with the Wuppertal and Climate Investment Funds products, which chiefly address regional decision-makers and a wider range of social partners and stakeholders. It has

more granular steps for how to apply tools than the TIPS working paper. It goes beyond energy to cover multiple sectors, including agriculture and land use, but also highlights policies that cut across sectors and relate to the net zero transition as a whole (such as fiscal policy, private sector regulation, and national deliberative processes). However, it also drills down into areas that are not treated in much detail in other products: for instance, technical and social approaches for analysis into which groups are vulnerable, and how actions by different national government ministries overlap and interact.

10. Outlook (max. 1 page)

Please describe your outlook on the future development of the project's research topic. This can include links with other projects or programmes, but also the sustainability of the network built during the project (including any potential actions you may be considering to keep connections active). You may also include any suggestions for JPI Climate in this regard and in the valorisation of research results from the project.

A cooperation agreement between CLASS and ClimLaw: Graz is now being prepared to facilitate future collaboration between the two research centres, which have common research topics. The two institutions have submitted a proposal to the call Crisis – Perspectives from the Humanities (funded by CHANSE and HERA). The project aims to develop an account of how states can live up to the challenge of making democratically legitimate decisions about transformation strategies under uncertainty in ways that supports actors in forming valid and just expectations and serves the ideal of the rule of law.

The LSE (Sato & Saussay) and CICERO (Sælen) are partners in a new project application on green transition in labour markets, currently under review by the Research Council of Norway.

UCL (Fergus Green) and LSE/GRI (Marion Dumas – not part of JUSTDECARB) are continuing to collaborate on research regarding just and robust low-carbon transitions in Europe, via the project “AdJUST: Advancing the understanding of challenges, policy options and measures to achieve a JUST EU energy transition” (an 11-institution ERC Horizon grant project, with UK contributions funded by UKRI). Green (and his UCL colleague Jared Finnegan) and Dumas are collaborating on projects on: mapping alternative conceptualisations of a just transition; understanding how European labour unions and firms are responding to the European Green Deal and low-carbon transition more generally; understanding the capacities of public bodies to steer a just transition, and theorising about how they should develop such capacities; understanding the role of “policy paradigms” in shaping and constraining the motivation of public bodies to steer a just transition; and understanding the factors that substantive and procedural factors that drive citizens to support redistributive climate policy packages. This project attests to the strength of the UCL-LSE/GRI collaborative relationship and the value of ongoing links between the UK and continental Europe across both AdJUST and JUSTDECARB.

A key area of future research relating to our WP3 will be on the politics of just transitions. There is currently a significant research focus on backlash to climate policies. There are some papers now focusing on the potential for redistributive policy packages and deliberative processes to mitigate such backlash (e.g., Bolet, Green and Gonzalez-Eguino, in the [American Political Science Review](#)). This is likely to be, and should be, a growing area of future research. As governments experiment more with innovative democratic processes and redistributive policy packages to ensure a just transition, the opportunities to study the political effectiveness of such processes will grow.

Research in this project has documented a strong correlation between right-wing populist attitudes and opposition to climate policy. An ongoing research project led by Sælen and including Bang is

seeking to explain this relationship and find ways to address opposition from such individuals ([Right-wing populism and the political feasibility of climate policy](#)).

Another area of important future research, identified as a gap in one of the studies undertaken for activity 4.1, is in understanding the effect of deliberative democratic processes such as climate assemblies on the wider citizenry's support for climate policy and perceptions of the legitimacy of the process of policy design.

With regard to the philosophical work undertaken in WP1 and legal work undertaken in WP5, an interesting area of future research would consider legal interpretations of concepts such as property and "legitimate expectations" in the context of claims by corporations and individuals against the state for the adverse impacts of climate policies. One key area of activity here is international investment arbitration and the future of investment treaties, where tribunals have interpreted such concepts in ways highly objectionable from the philosophical perspectives developed by Green in his book project. Green is engaged in an ongoing OECD work programme on this topic.

The JUSTDECARB project benefitted from the JPI Solstice call, which was innovative in terms of encouraging climate research collaboration between social science and humanities. The JUSTDECARB project network has proven to be productive in terms of contributing a range of peer-reviewed journal articles to the humanities-social science literature, as well as outreach activities to policymakers and the general public. To secure future progress in the field, further calls from funders that encourage humanities-social science collaboration is needed.