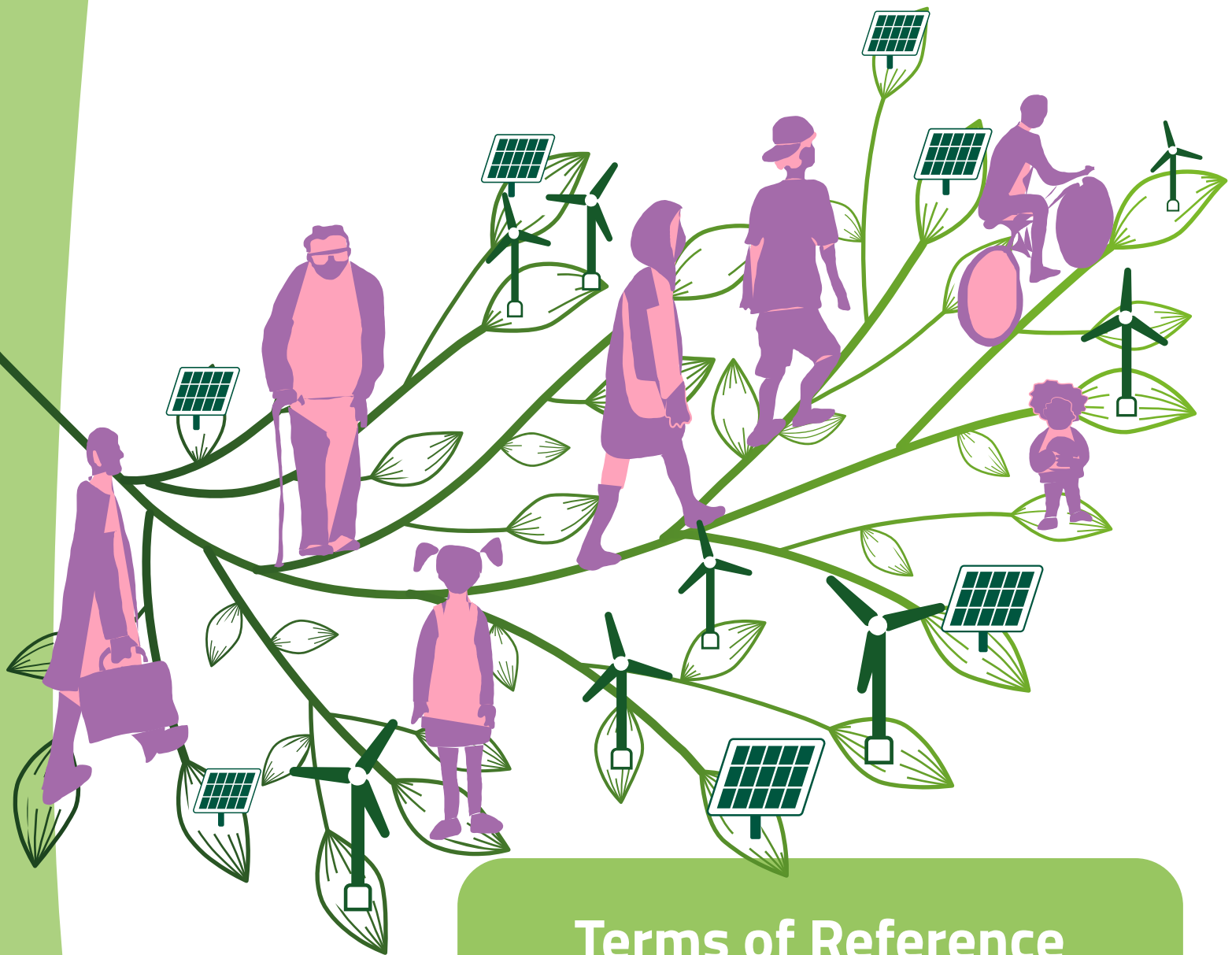




This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 826025.



Terms of Reference

Energy-SHIFTS

Working Group 1 – Renewables



**Energy-
-SHIFTS**

ENERGY
SOCIAL SCIENCES &
HUMANITIES
INNOVATION
FORUM
TARGETING THE
SET-PLAN

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November 2019

Terms of Reference

Energy-SHIFTS Working Group 1 – Renewables

November 2019

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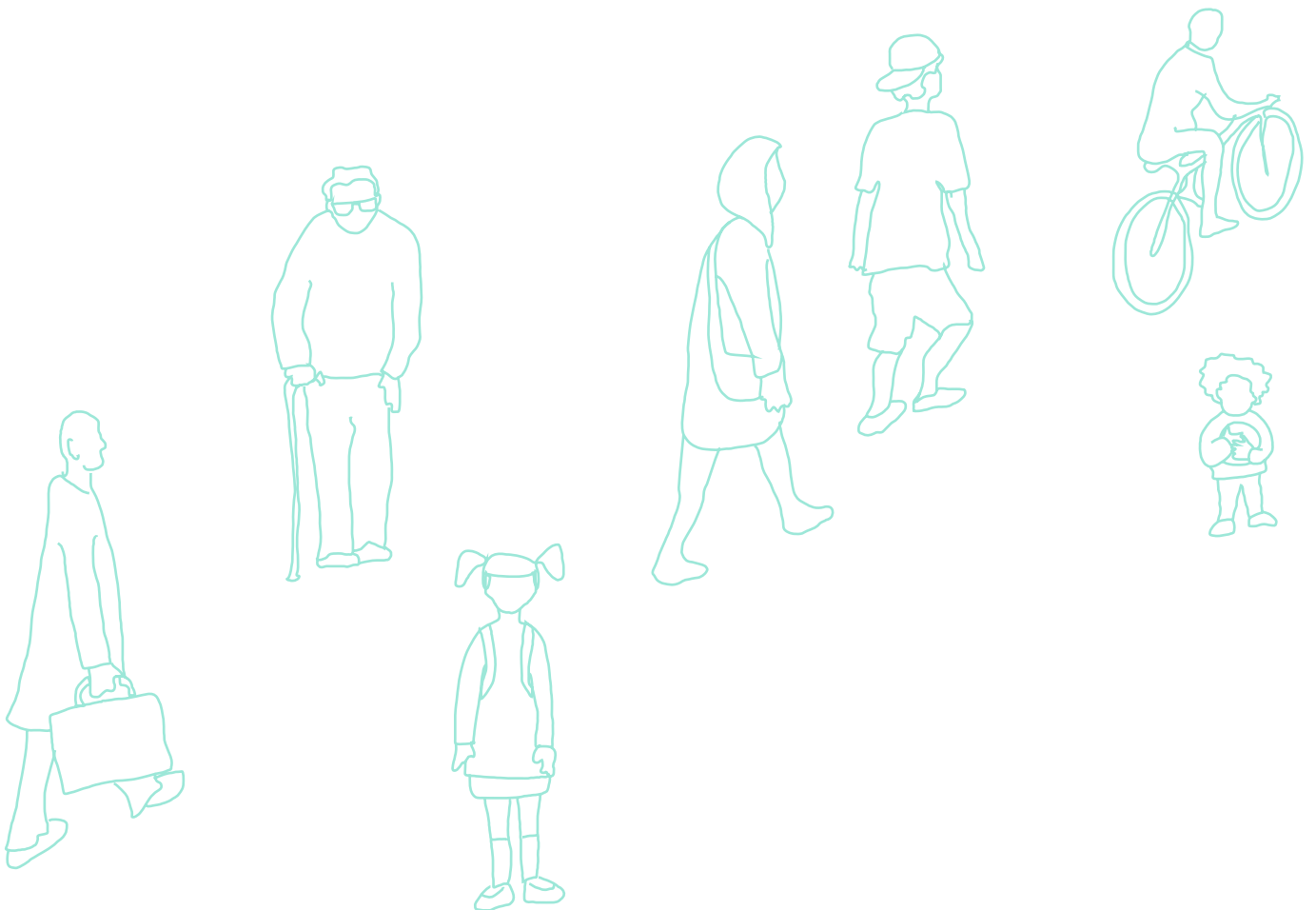
Suggested citation

Loorbach, D., de Geus, T., Wagner, A., Foulds, C. and Bharucha, Z.P., 2019. *Terms of Reference: Energy-SHIFTS Working Group 1 – Renewables*. Cambridge: Energy-SHIFTS.



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1. Introduction

- 1.1.** The Energy-SHIFTS Working Groups – of which there are four¹ – will run from Autumn 2019 to Summer 2020. These will provide a detailed list of energy-related Social Sciences and Humanities (energy-SSH) priorities for the future of EU-funded research and innovation, specifically under its forthcoming Framework Programme 9: Horizon Europe². This set of Working Group activities form part of the wider Energy-SHIFTS project³ that aims to significantly improve the profile of and opportunities for energy-SSH in EU energy research and innovation funding policymaking. Energy-SHIFTS has a direct policy advice role to the European Commission’s Directorate General for Research and Innovation (DG RTD), and this Working Group will submit its recommendations to the Ecological and Social Transitions (C5) and the Clean Energy Transition (D1) units. There is real interest within these units to better understand what the energy-SSH research interests are from the energy-SSH research communities themselves.
- 1.2.** Horizon Scanning is a widely used set of methods that are used to gain ‘foresight’ about emerging opportunities and risks, identify knowledge gaps at the frontiers of fast-evolving phenomena, and set strategic priorities for decision-makers or researchers. Horizon Scanning is well-established within Europe, and most particularly within the

UK, where policymakers have recognised the need for taking heed of ‘early warning signs’ and taking a more proactive (rather than reactive) approach to complex problems. A variety of methods exist to do this, from exploring existing literatures to surveying experts in a field. The method we use in our Energy-SHIFTS Working Groups is a slightly adapted version of the Delphi technique previously used to identify, for instance, the top 100 questions for biodiversity, conservation and global agriculture⁴. This involves canvassing subject experts and their networks for their opinions on key knowledge priorities, categorising the answers, and reaching a joint consensus on the most important questions (up to a list of 100, though shorter lists of say 10 key priorities, have also been produced).

- 1.3.** This particular document outlines the ‘Terms of Reference’ for Working Group on Renewables. Specifically, we cover the main tasks, roles, responsibilities and ultimately boundaries of the work envisaged for this Working Group, and thereby also the steps it will take in conducting a Horizon Scan. This is one of the first publications associated with our Working Groups, and we hope it emphasises our ambitions to be policy-relevant, but also to crucially allow space for SSH ideas to take the lead in e.g. constructively and critically reflecting on the assumptions embedded within associated energy policy and governance agendas.

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1 The set of four Terms of Reference follow a standard template, with identical content for all sections other than sections 2, 3.1, and 5, which are tailored.

2 For more details on the forthcoming €100bn EU Horizon Europe programme, see: https://ec.europa.eu/info/horizon-europe-next-research-and-innovation-framework-programme_en

3 www.energy-shifts.eu

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4 E.g. Pretty, J. et al., 2010. The top 100 questions of importance to the future of global agriculture, *International Journal of Agricultural Sustainability*, 8(4), 219-236.



2. Preliminary description of 'Renewables'

2.1. EU Energy Union and SET-Plan context

In the vision Clean Planet for All, the European Commission presents its aim to “achieve climate neutrality by 2050, through a fair transition”⁵. Shifting energy production from fossil to renewable energy sources is central to this ambition. In the SET-Plan, becoming number one in renewables is the EU’s primary priority, translating to (i) Action 1 – Sustain technological leadership by developing highly performant renewable technologies and their integration in the EU’s energy system; and (ii) Action 2 – Reduce the cost of key technologies.⁶

2.2. Definition of ‘Renewables’

Asantewaa Owusu and Asumada-Sarkodie (2016) provide a scholarly definition: “Renewable energy sources replenish themselves naturally without being depleted in the earth; they include bioenergy, hydropower, geothermal energy, solar energy, wind energy and ocean (tide and wave) energy”⁷. We adopt this definition, albeit with a critical lens, particularly with regards to biomass. This definition as well as the broader semantic field of ‘renewables’ will be reflected upon through the interviews.

2.3. Working Group example debates and scope

We aim to forge a ‘practice based research agenda’, recognizing the EC’s vision. The Horizon Scan serves the purpose of unveiling the most important SSH research questions for this transition. Core questions could include: What will be a desired and feasible technological mix of the production of renewable energy? What is the meaning of a fair transition to renewables? And how do these questions correspond? What needs to be adjusted, replaced, or phased out, and how? As such, a definition of the term ‘fair transitions’ may be investigated: might it for instance mean democratic processes, ownership, or equity?

2.4. Boundaries with the other three Working Groups

WG1 will refrain from discussing energy efficiency of energy sources (e.g. rest heat) as this is already covered by WG3. With regards to overlap with WG4 on transport and mobility, WG4 will cover the issue of renewables in transport (e.g. solar-powered planes, wind-powered shipping, etc.), and WG1 will dive into biofuels (e.g. biogas, bioethanol).

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5 European Commission (2018) *Vision for a long-term EU strategy for reducing greenhouse gas emissions - Factsheet* [online] Available at: https://ec.europa.eu/clima/sites/clima/files/docs/pages/vision_1_emissions_en.pdf (Accessed: 20 September 2019).

6 European Commission (2015) *SET-Plan ACTIONS Implementation process and expected outcomes* [online] Available at: https://setis.ec.europa.eu/system/files/set_plan_expected_outcomes_and_process.pdf (Accessed: 19 September 2019).

7 Asantewaa Owusu, P. and Asumadu-Sarkodie, S., 2016. A review of renewable energy sources, sustainability issues and climate change mitigation, *Cogent Engineering*, 3(1), DOI: 10.1080/23311916.2016.1167990.



3. Organisational structure and responsibilities

3.1. Working Group 1's activities will be organised and led by a Steering Committee, which will be made up of the following individuals:

- Chair: Derk Loorbach, The Dutch Research Institute For Transitions, Erasmus University Rotterdam (loorbach@drift.eur.nl).
- Co-chair: Aleksandra Wagner, Institute of Sociology, Jagiellonian University (aleksandra.wagner@uj.edu.pl).
- Critical Policy Friend: Ronan Palmer, E3G Third Generation Environmentalism (ronan.palmer@e3g.org).
- Early-Stage Researchers: Olga Coretcaia, Copernicus Institute of Sustainable Development, Utrecht University (olga.coretcaia@gmail.com); and Robert Wade, Department of Planning, Queen's University Belfast (R.Wade@qub.ac.uk).

3.2. The role of the Critical Policy Friend is to inform the Working Group of relevant ongoing policy debates. In particular, they will:

- Provide advice on initial setup and problem framing of the Working Group, as part of feeding into the Horizon Scan's original point of departure.
- Provide written comments on strategic important milestones (e.g. categorisations of the questions) and key outputs (e.g. final list of research questions) to ensure relevance for current policy debates and to suggest alternative framings if required.
- Sit in on 1-3 of the Working Group member interviews, to contextualise their understanding of SSH histories associated with Renewables.
- Reflect on the Working Group processes, debates and outcomes, as part of completing fieldnotes at selected moments.

3.3. The Working Group will include two Early-Stage Researchers (ESRs). These ESRs will not be participating in the Horizon Scan itself, but will be

an invaluable part of the Steering Committee co-ordinating the Working Group activities. Exact contributions and activities will be decided upon discussion with the Chair and Co-Chair. As a minimum, they will likely support on identifying further potential Working Group members, in addition to providing their own reflective field notes.

3.4. The Working Group itself will be made up of 25-30 Social Sciences and Humanities researchers, from different disciplines and countries, working on various aspects of energy. All these Working Group members are expected to participate in the following ways:

- Respond to Horizon Scan questions, which focus on (1) identifying top energy-SSH research needs for Horizon Europe, and (2) providing supporting justifications. This is the mandatory, core requirement as a Working Group member. Members would also be encouraged to canvas their wider networks for input (e.g. their university's research groups, their professional associations, or even through relevant meetings they attend, etc.).
- Provide reflections that aid the Steering Committee in categorising the questions received and narrowing down the final list of questions to 100, through an iterative process of around three rounds.
- Sign off on the final list of e.g. 100 questions, including the opportunity to attend a virtual meeting to discuss these final questions with other Working Group members
- Whilst individual Horizon Scan responses will by default be anonymously presented, the Working Group members will automatically be entitled to be co-authors of the Energy-SHIFTS recommendations report (submitted to the EC DG RTD's energy strategy unit), as well as the subsequent journal paper. There is no expectation to be actively involved in the writing of the final report, but there will be the opportunity to feed in beyond mere



participation in the Horizon Scan (should there be appetite).

- 10 members will be interviewed by the Chair and Co-chair. The aim of this interview is to get expert perspectives on the development of SSH research relevant to the Working Group topic, including important and emerging debates or 'splits', as well as the interviewee's perspectives on how particular perspectives (if any) have been 'mainstreamed' into policy, why, and to what effect. The interviews will also provide an

opportunity to identify the new Working Group members, in filling the remaining final positions. This is optional and not a requirement for all Working Group members.

- Possibility of attending the SET-Plan 2020 Conference and/or the end-of-project Energy-SHIFTS 2021 Conference, to exchange ideas with the Energy-SHIFTS consortium as well as others involved in all four Energy-SHIFTS Working Groups. This is optional and not a requirement for all Working Group members.



4. Recruitment of Working Group members

4.1. To be eligible for Working Group membership, one must:

- Be invited to participate by a member of the Steering Committee, with sign-off from both the chair and co-chair necessary.
- Self-identify as a researcher, whether based in e.g. industry or academia.
- Currently work in SSH, even if their original training (e.g. PhD) was in Science, Technology, Engineering and Mathematics (STEM) disciplines.
- Currently work in a research role based in a country that is eligible for Horizon 2020 funded, i.e. EU member state or Horizon 2020 'Associated Country'⁸.
- Have significant insights in renewables, evidenced through a clear track record in e.g. publications.

4.2. Whilst we will primarily be recruiting Working Group members through targeted invitations, we also welcome informal approaches to the Steering Committee. We note that our priorities for recruitment of Working Groups members include:

- Gender balance, with at least 40% (target of 50%) non-male.
- Geographical balance in terms of the organisation's location, particularly regarding spread across the North, South, East, and West regions of Europe⁹. Within this, a diversity of countries is also essential.
- SSH disciplinary diversity, with at least 10 SSH disciplines included, as well as some selected previous experiences of working in STEM disciplines.
- Gatekeeper roles, whereby they e.g. manage research groups, run journals, have active roles in professional networks, etc.
- Frontrunners, who are e.g. challenging the status quo within the research field and ultimately advancing SSH perspectives – through, for instance, meaningfully pushing the boundaries of developing and applying novel theoretical perspectives.

⁸ https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/3cpart/h2020-hi-list-ac_en.pdf

⁹ As per the UN's Geographic Regions classifications for Europe's regions <https://unstats.un.org/unsd/methodology/m49/>.



5. Names of initial of Working Group members

- Sanne Akerboom, Utrecht Centre for Water Oceans and Sustainability Law, University of Utrecht, The Netherlands.
- Justyna Chodkowska-Miszczyk, Department of Urban Studies and Regional Development, Nicolaus Copernicus University, Poland.
- Jochen Markard, Department of Management, Technology, and Economics, ETH Zurich, Switzerland.
- Susanne Mühlemeier, Verband Schweizerischer Elektrizitätsunternehmen, Switzerland.
- Mans Nilsson, Stockholm Environment Institute, Sweden.
- Gill Seyfang, 3S Research Group, University of East Anglia, UK.
- Benjamin Sovacool, Science Policy Research Unit, University of Sussex, UK.
- Audrone Telesiene, Institute of Public Policy and Administration, Kaunas University of Technology, Lithuania.



6. Indicative timeline for Working Group activities

DATE	ACTIVITY
Sep 2019	Working Group ESRs selected.
Nov 2019	Working Group 'Terms of Reference' published.
Dec 2019	Methodological guidelines for horizon scanning approach published.
Jan 2020	Interviews (10 per Working Group) undertaken.
Jan-Feb 2020	Final recruitment of 25-30 Horizon Scan participants (i.e. Working Group members) per Working Group.
Feb-May 2020	Horizon scanning process to take place with Working Group members.
Jun 2020	Write-up and final analysis of Horizon Scans.
Jul 2020	Submit report of energy-SSH research needs for FP9 (Horizon Europe) to the European Commission's Directorate General for Research and Innovation (DG RTD).
Sep 2020	Publish accompanying Annotated Bibliography (one per Working Group).
Autumn 2020	SET-Plan annual conference, with possibility of side-event to formally announce the Working Group recommendations to the EU SET-Plan policy communities.



7. Acknowledgements

These Working Group activities are funded through the Energy-SHIFTS project, which has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no. 826025.



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