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# Horizon Scanning and Policy Fellowships to embed Social Sciences and Humanities within EU energy research and innovation policy: An Energy-SHIFTS evaluation

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**Energy**  
**-SHIFTS**

ENERGY  
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INNOVATION  
FORUM  
TARGETING THE  
SET-PLAN

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March 2021

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## Executive summary

Within this report, we evaluate the work undertaken within Energy-SHIFTS (Energy Social Sciences and Humanities Innovation Forum Targeting the SET-Plan) to embed perspectives from the Social Sciences and Humanities (SSH) into European energy research and policy.

Over 2019 - 2020, we undertook two streams of work to achieve this. The first was horizon scanning to identify priority research questions for more funding in the forthcoming Horizon Europe programme. The second, a series of Policy Fellowships to bring together energy-SSH researchers and European policyworkers.

Horizon scanning is a Foresight method through which a multidisciplinary group of subject experts undertakes a systematic evaluation of emerging trends, issues and priorities. Within Energy-SHIFTS, we used horizon scanning to identify priority research questions and knowledge gaps within four topic areas: Renewables; Smart consumption; Energy efficiency; and, Transport and mobility. These correspond to the core topic areas within the EU's Energy Union priorities, and thus in turn drive the contents and foci of the Strategic Energy Technology Plan's (SET-Plan) actions. The SET-Plan sets the agenda for research and development on EU energy through Framework Programme investment (e.g. Horizon Europe). By identifying the key energy-SSH research questions which the scholarly community themselves believe should be priorities for funding, Energy-SHIFTS contributes to the embedding of energy-SSH within this evolving policy agenda.

Through the Policy Fellowships, the project addressed the gap between policyworkers engaged in energy transitions and SSH researchers. The Fellowship was designed and implemented as an experimental knowledge exchange programme for better energy policy. The main objective of the Policy Fellowships was to directly feed-in cutting-edge SSH insights to low-carbon energy policy, as well as build capacity in research-policy dialogue and give key research and policy actors greater insight into each others' work.

Within our Policy Fellowships, policyworkers from different European countries and policy organisation types (e.g. Ministry, Municipality, NGO) were each matched with a number of researchers from different SSH disciplines. Our Policy Fellows - assisted by project team members - articulated key questions related to frontline energy policy challenges they were working on within short briefing documents. On the basis of this, three to six researchers with relevant expertise were recruited for one-on-one meetings with each policyworker.

Our evaluation of the horizon scanning and Policy Fellowship activities draws on a framework developed at the start of Energy-SHIFTS to enable both *formative* assessment (designed to be undertaken on an ongoing basis to facilitate reflection and thus ensure the success of the activities) and *summative* assessment (designed to verify the actual effects and impacts). Our assessment uses participants' own reflections, collected on an ongoing basis through fieldnotes, supplementary interviews with horizon scan participants, and an evaluation survey at the end of the project. These data informed our assessment of four related aspects of the Energy-SHIFTS work:

- the *Starting Conditions* prevalent at the beginning of the project and how these contributed to the success of the activities;
- the *Process* by which the Horizon Scans and Policy Fellowships were carried out;
- the *Direct Effects* of the activities; and,
- the *Impacts* in terms of long-lasting change

Within two substantive sections in this report, we outline how activities and processes undertaken for Horizon Scanning and the Policy Fellowships met with the criteria we set for each of these aspects. At the end of the report, we include appendices reproducing all of the instruments we used to collect data for the evaluation.



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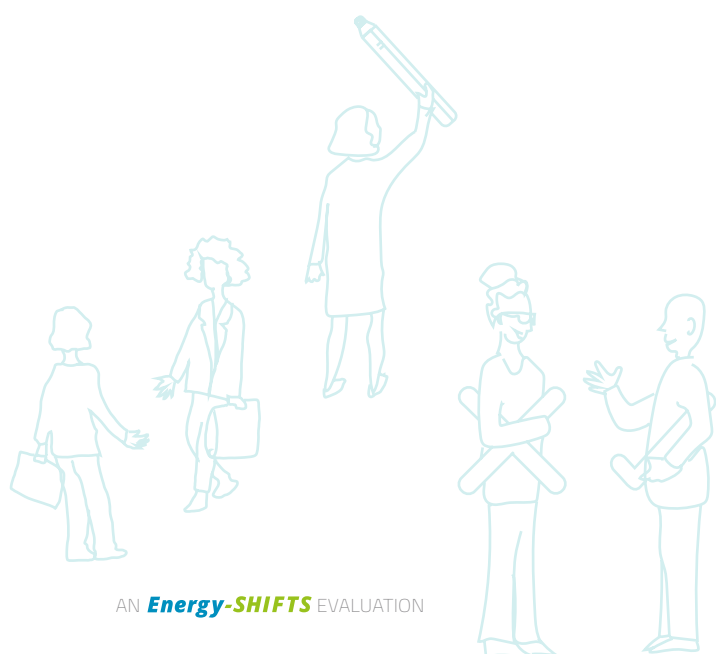
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# 1. Introduction

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The European Commission (EC) is committed to mainstreaming Social Sciences and Humanities (SSH) within Horizon Europe. This means that across Horizon Europe work programmes, SSH will be regarded as a key cross-cutting priority that should feature in every project (Kania et al., 2019), and that the EC will continue to fund SSH research and innovation projects.

Energy-SHIFTS (Energy Social Sciences and Humanities Innovation Forum Targeting the SET-Plan) speaks directly to these commitments, and specifically aims to inform the work of the EC's Directorate General for Research and Innovation (DG RTD) on key research priorities drawn from across the breadth of the European community of energy-SSH scholars. This addresses a longstanding imbalance in the evidence-base that supports European energy policy, namely a predominant focus on techno-economic perspectives (Foulds and Christensen, 2016; Foulds and Robison, 2018). This focus is reflected in funding calls, which then in turn shape the evidence and knowledge-base upon which energy policy rests. To address this imbalance, Energy-SHIFTS specifically undertook two streams of work to funnel the wide range of energy-SSH voices to policy officers responsible for shaping Horizon Europe's energy-SSH funding. The first was a set of four Horizon Scans executed by four Working Groups (WG), each based on the EU's Energy Union priorities, namely: Renewables (WG1), Smart Consumption (WG2), Energy Efficiency (WG3), and Transport and Mobility (WG4). The second major activity was a series of Policy Fellowships in which 21 policyworkers from different European countries were matched with 86 researchers from different SSH disciplines.

Through these two streams of work, Energy-SHIFTS showcases the contribution that diverse energy-SSH perspectives can make to energy policy, and specifically to policies designed to effect transitions to sustainability.

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## 1.1. Horizon Scanning and Policy Fellowships to link energy-SSH research with policy

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Each of the topic areas for the Energy-SHIFTS Horizon Scans is a focal area for continued EC research and innovation funding. Since continued funding in these areas is a given, it is essential that the diverse spectrum of energy-SSH voices and perspectives feeds in to the shaping and framing of research agendas, allowing cutting-edge and impactful energy-SSH questions to be considered and to contribute, in turn, to European Union (EU) energy policy. The Horizon Scans conducted by each of the four WGs sought to systematically identify the most important of these energy-SSH questions.

Within our Policy Fellowships, policyworkers from different European countries and policy organisation types (e.g. Ministry, Municipality, NGO) were each matched with a number of researchers from different SSH disciplines. Our Policy Fellows - assisted by project team members - articulated key questions related to frontline energy policy challenges they were working on within short briefing documents. On the basis of this, three to six researchers with relevant expertise were recruited for one-on-one meetings with each policyworker. The main objective of the Fellowship programme was therefore to directly feed-in cutting-edge SSH insights to low-carbon energy policy, as well as build capacity in research-policy dialogue and give key research and policy actors greater insight into each other's work.

Within this report, we evaluate the work undertaken within the Horizon Scanning and Policy Fellowships, framing our appraisal against a theorised causal chain of supportive starting conditions and processes leading to desired should be: desired effects and (potentially) longer-term impacts.



## 1.2. The Energy-SHIFTS approach to evaluation

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It is the ambition of Energy-SHIFTS to create foundations for longer-term mechanisms that will enable evidence-based energy-SSH insights to reach the ‘policy front line’ in the EU, and specifically to inform the terrain of evidence and knowledge that will emerge from Horizon Europe. Through each of our core activities, Horizon Scanning and Policy Fellowships, we aimed to create certain *direct outcomes* for participants and stakeholders, as well as longer-term and wider-ranging *future impacts* centered around the better visibility and use of energy-SSH within EU energy policy. Our evaluation investigates the conditions under which these outcomes and impacts were achieved, as a result of a set of supportive starting conditions and systematic processes carried out through the duration of Energy-SHIFTS. In addition to reflecting on these starting conditions and processes, we also consider whether the desired outcomes and impacts took place. Finally, we reflect briefly on ways in which our processes and methods could be adjusted in future exercises. Taken

together, our evaluation approach was both theory-based (Weiss, 1997; Funnell and Rogers, 2011) and reflexive (van Mierlo et al., 2010).

At the start of the programme, project team members collectively articulated an assumed causal chain of activities leading to (desired) impacts and outcomes. This causal chain was built on the basis of four categories that were inspired by a theory-based approach (Funnell and Rogers, 2011), but were tailored to the specificities of Energy-SHIFTS Horizon Scanning and Policy Fellowships.

- i. *starting conditions*, which were to be secured before the Horizon Scans and Policy Fellowships actually started;
- ii. *process*, including features of activities needed to ensure the effects;
- iii. *direct effects (also called results)* for participants;
- iv. *impacts*, encompassing longer lasting effects for many stakeholders.

Figures 1 and 2, below, summarise this causal chain, and for each of the four categories, set out the key aspects considered by us within our evaluation framework.



Figure 1. The imagined causal chain for evaluating outcomes from Horizon Scanning (Foulds et al. 2019, p. 27)



Figure 2. The imagined causal chain for evaluating outcomes from Policy Fellowships





Secondly, the occurrence of the elements of causal chains was verified. Thus, the guiding evaluation questions were:

- What effects of the core activities were achieved and how?
- Were the starting conditions ensured?
- Was the process conducted according to the expectations?
- Were the direct effects achieved?
- What unexpected effects were caused by the activities?
- What other (than included in theory) factors influenced the success of the activities?
- How likely it is to attain planned impacts?

Evaluation activities took place over the duration of the Energy-SHIFTS project, as well as immediately after the completion of the Horizon Scans and Policy Fellowships. In order to deliver a well-rounded and evidence-based set of conclusions and recommendations, diverse data sources were used. For both Horizon Scanning and Policy Fellowships, we use both qualitative and (to a more limited extent,) quantitative data collected over the course of the activities. Project participants' own reflections were the most important data source; these were complemented by evaluation surveys and ongoing monitoring data. Precise data sources used to evaluate the Horizon Scans and the Policy Fellowships are contained within the following sections.

Within the rest of this report, we set out in detail our evaluation of the Horizon Scanning (Section 2) and Policy Fellowship (Section 3) activities. Before turning to this it is worth highlighting a few points about the data sources that inform both of these sections. The first consideration is that this evaluation was undertaken very shortly after the completion of both of these

activities - and in some cases, data was collected alongside the activities themselves (e.g. fieldnotes). This means that some theorised effects and impacts are yet to occur. We anticipate that these will play out over the timescale of months to years after the completion of Energy-SHIFTS (e.g. the citation of individual Horizon Scans within EU policy documents, or a tangible shift in perspectives amongst policyworkers evidenced by the framing of funding calls). Evaluations such as ours cannot necessarily capture these, but we hope that our reflections on the starting conditions and process, as well as our participants' reflections on what potential impacts might be useful to others doing similar exercises.

A second, related consideration is that somewhat inevitably, our data sources reflect the shifting dynamics of participants' engagement with Energy-SHIFTS activities over an extended period. For example, a few project team members had periods of leave over the period 2019-2020, and were thus not involved in some of the tasks (and as a result, did not complete fieldnotes about these). Others were more or less intensively involved at different periods. For example, Horizon Scanning Early Stage Researchers (ESRs) and Critical Policy Friends were not involved in the creation of the Methods Guidelines, and in some groups, the ESRs became heavily involved only a few months into the process. This dynamic ebb and flow in engagement is reflected in our data set, wherein some participants maintained reflections throughout the process and for others, only certain 'moments' were reflected on.

Yet, as the following sections show, we have been able to assess both our Horizon Scans and Policy Fellowships against most of our evaluation criteria, and in rich detail. This allows us to present a fairly comprehensive picture of our activities, and reflections on how these processes may be improved in future exercises.



## 2. Horizon Scanning

### 2.1. Using Horizon Scanning to identify research priorities

Horizon scanning is a set of methods used to systematically evaluate emerging issues, challenges, trends and innovations (Hines et al., 2019), with the aim of informing decision making, strategy development or policy making. The specific methods used may include Delphi surveys, expert interviews, literature reviews, scenario building or trend / driver analysis (Doos et al., 2019). Horizon scanning is well-established in Europe, where it is recognised that decision makers need to take a more proactive (rather than reactive) approach to emerging risks, unforeseen or unintended consequences or the relatively unpredictable dynamics of complex problems. An early example was the use of horizon scanning to inform the European Science and Technology policy in the 1990s (Brandes, 2009).

From the mid-2000s, horizon scanning has increasingly been used to identify emerging research priorities, and particularly those that have policy relevance. While precise methods may vary, the typical approach is to convene a multi- or interdisciplinary group of experts who collectively canvas the wider field, solicit candidate research questions and refine these into a well-honed list converging on the most pressing research gaps or knowledge priorities in the field. The process is, ideally, highly deliberative and iterative, with scholars undertaking rounds of discussion and negotiation to come to a working consensus on the important, novel and pressing research questions in their field. A number of prominent initiatives have focussed on sustainability-related challenges. These include horizon scans within ecology and conservation (Sutherland et al., 2019), sustainable agriculture (Pretty et al., 2010; Bharucha et al., 2020), the influence of pharmaceuticals and personal care products on the environment (Boxall et al., 2012), and water (Brown et al., 2010).

Exercises of this type have three main audiences: (1) scholars within the field, who can then prioritise work on recognised research gaps; (2) policy makers and other decision makers who may benefit from the crafting of a research agenda that meets policy needs, and who may also use these exercises to address blind spots and gaps in knowledge that are important for

avoiding otherwise unforeseen outcomes (Sutherland et al., 2011) and (3) research funders, who may wish to focus on themes that stakeholders themselves have identified as important.

### 2.2. The use of Horizon Scanning within Energy-SHIFTS

The Energy-SHIFTS approach to horizon scanning draws heavily on the Delphi approach used by Sutherland et al. (2019) to identify priority research questions, but with some important modifications. A full elaboration on the methods and underlying rationale for these is available within our published Methods Guidelines (Foulds et al., 2019). Within this section, we briefly highlight some of the key principles that have helped shape our approach to horizon scanning within the context of an interdisciplinary SSH environment, and in light of our explicit goal of informing research and innovation policy within four distinct topic areas (rather than a single scan of overarching SSH questions pertaining to energy in general).

Three linked considerations helped to shape our approach: a recognition of the relative neglect of SSH perspectives within energy research and policy; the need to take proper account of diversity and heterogeneity within the community of European energy-SSH scholars, and the need to balance methodological clarity with ongoing adaptiveness and flexibility.

To begin with, our approach was informed by the need to fill a gap caused by the relative neglect of SSH perspectives within mainstream energy research and policy within the EU. This drove us to shape a scanning process that would explicitly foreground the visions and perspectives of as epistemically diverse a group of SSH scholars as possible, but also to include two additional sources of data to complement the core raw data of the horizon scans. The first of these a set of expert interviews to explicitly document the evolution of SSH research within each Working Group topic and outlining the key debates and contestations. The second source of complementary data was a short qualitative 'justification' meant to accompany each research question proposed by research scholars. These justifications allowed each respondent to situate their questions in



the context of existing literature or scholarly debates in the field.

A second key adaptation to the conventional question-selection protocol was the publication of a detailed set of Methods Guidelines (Foulds et al., 2019), which set out in detail both the *approach* we would be taking to horizon scanning, as well as a detailed protocol outlining each step of the exercise, beginning from the recruitment of participating scholars to the creation of the final lists of top 100 questions. These Guidelines were prepared so that all participants, and particularly those facilitating each Working Group, would have a clear, detailed overview of the entirety of the tasks involved *before* commencing the substantive work of horizon scanning. In following this approach, we responded to calls to document Horizon Scanning methods as clearly and transparently as possible (Kark et al., 2016), while also allowing space for the inevitably dynamic nature of collaborative deliberation. To our knowledge, this approach, of setting out detailed written Guidelines such as the ones we prepared, available to all at the start of the task, has been unique to Energy-SHIFTS.

Finally, an important consideration centered on the need to take into account the great diversity of voices and perspectives within the energy-SSH community.

Existing scholarship has emphasised the importance of soliciting a range of voices, to avoid biasing the final list of questions towards any particular epistemic communities (Fear et al., 2006; Hazard et al., 2018). In addition, we were also sensitive to the need for emphasising a broadly inclusive approach through which to explicitly balance Working Groups in terms of gender, geographies and professional status in terms of seniority. This explicit emphasis on recruiting a diverse range of scholars, with specific targets linked to inclusivity, was a key adaptation made by us in this exercise, and to our knowledge is a unique approach to the recruitment of the horizon scanning group.

## 2.2.1. Horizon Scanning procedure and steps

The Energy-SHIFTS Horizon Scans were executed by large, interdisciplinary teams collaborating remotely. To facilitate this, we were mindful of the need to designate clear roles and responsibilities. Table 1 delineates the main roles involved. Within the rest of this section we refer to these collectively as the ‘project team’, unless we are referring to specific roles.

Table 1. Energy-SHIFTS horizon scanning project team members and tasks

<b>ENERGY-SHIFTS COORDINATORS</b>	(Foulds and Robison) Overall project coordinators for Energy-SHIFTS, intensively involved in all aspects of preparatory groundwork, deliberating on the methods to be used, and participating directly in the Scanning activities.
<b>METHODS LEAD</b>	(Bharucha) Responsible for framing the methods protocol used in Energy-SHIFTS on the basis of previous experience with horizon scanning, providing ongoing support on methods throughout the project and contributing to evaluating the work undertaken.
<b>WORKING GROUP (WG) MEMBERS</b>	Interdisciplinary group of scholars recruited for each WG according to a predefined set of diversity criteria, responsible for sending the horizon scanning survey out to their networks, and collectively deliberating to arrive at a final list of Top 100 questions.
<b>STEERING COMMITTEE:</b>	A core team of scholars leading each WG, facilitating and coordinating, leading on the cleaning of raw data, designing and running project meetings and keeping tasks running to schedule.
<i>CHAIRS</i>	Lead for each WG, responsible for delivering the final horizon scan.
<i>CO-CHAIRS</i>	Working alongside the Chair to deliver the horizon scan.
<i>EARLY-STAGE RESEARCHERS</i>	Supporting the Chair and Co-Chair to conduct the horizon scan, including helping with the recruitment of WG members, editing of raw data and coordinating deliberations.
<i>CRITICAL POLICY FRIENDS</i>	‘Sitting in’ on each horizon scan to enable strategic links between each WG and ongoing policy debates and developments.



A detailed overview of the precise procedure and steps followed within our four Energy-SHIFTS Horizon Scans, along with the underlying rationale for each, is

contained within our Methods Guidelines (Foulds et al., 2019). As a general outline we proceeded through the following broad (and loosely overlapping) steps (Table 2).

*Table 2. Broad steps undertaken within Energy-SHIFTS Horizon Scans*

<b>PREPARATORY GROUNDWORK</b>	Developing a broad methodological framework based on previous horizon scanning exercises.
<b>TERMS OF REFERENCE PRODUCED FOR EACH WORKING GROUP</b>	Producing a short outline of the thematic boundaries for each topic area, the tasks and roles involved, in order to provide a summary overview to WG members as appropriate. The four terms of reference documents thus produced are: Loorbach et al. (2019; Renewables), Robison et al. (2019; Smart Consumption), Foulds et al. (2019; Energy Efficiency) and Ryghaug et al. (2019; Transport and Mobility).
<b>METHODS GUIDELINES</b>	Producing a detailed overview of our methodological approach, an outline of each task involved and the roles of key members of the project team.
<b>RECRUITING WORKING GROUP MEMBERS</b>	Recruiting around 30 scholars for each of the four WGs, based on pre-set selection criteria to ensure diversity and representativeness (see Foulds et al., 2019, p. 17-18).
<b>CONDUCTING EXPERT INTERVIEWS</b>	Conducting up to 10 interviews with selected WG members in order to gain a perspective on how SSH perspectives on each topic area had evolved in recent years, and coming to an understanding of the current 'state of the art', in order to complement and contextualise the main findings of the Horizon Scan.
<b>LAUNCHING AND RUNNING THE HORIZON SCANNING SURVEY</b>	Using an online survey (see Foulds et al., 2019, Appendix 1) to solicit candidate research questions on each topic area, canvassing WG members' pan-European networks. Each survey respondent was invited to nominate 3-5 research questions that should be prioritized in future European research funding, and to back up each suggestion with upto 200 words of justification and (if available) supporting evidence.
<b>EDITING AND CATEGORISING QUESTIONS</b>	Receiving and editing raw data in the form of survey responses and accompanying justifications, cleaning the dataset, and particularly removing entries that did not correspond to our criteria for good research questions.
<b>VOTING</b>	Voting on the list of questions by the full WG, using a scale of 1 ('definitely exclude') to 5 ('definitely include'). Questions receiving a score of 4 or 5 from at least a quarter of respondents were retained.
<b>GROUP DELIBERATION VIA WEBINARS</b>	Steering Committees facilitating online webinars with the WGs, in order to collectively deliberate on the questions, bringing to bear their expertise and experience. Two webinars were held per WG, each designed and facilitated by the respective Steering Committees.
<b>PRESENTING THE FINAL HORIZON SCAN</b>	Each WG producing a final report containing the Top 100 questions, categorised into key themes. The reports thus produced are: von Wirth et al. 2020 (Renewables); Robison et al. 2020 (Smart Consumption); Foulds et al. 2020 (Energy Efficiency) and Ryghaug et al. 2020 (Transport and Mobility).
<b>ANNOTATED BIBLIOGRAPHIES</b>	Producing one Annotated Bibliography per WG, compiling approximately 25 key pieces of literature showcasing SSH insights on each WG topic. These suggested readings were predominantly sourced from the expert interviews and the justifications text in the horizon scanning survey.



## 2.3. Data sources informing our evaluation of Horizon Scanning

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Our evaluation of the Energy-SHIFTS horizon scan draws on quantitative results from a short survey targeted at all Working Group members, and qualitative, more in-depth reflections from fieldnotes and interviews with Steering Committee members (see Table 3 for an overview of all data sources informing each aspect of our evaluation).

### 2.3.1. Fieldnotes and interviews

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All Steering Committee members maintained fieldnotes through the process. The aim of these was to get an overall sense of how participants navigated the process, how it evolved organically (within the boundaries set by the Methods Guidelines), and the main challenges and drivers shaping outcomes. Fieldnotes were meant to be completed at 10 pre-determined 'moments' representing important methodological milestones. For each 'moment', we prepared a set of prompts to guide reflection. Each Steering Committee member was given access to a separate Google document listing the field note moments and accompanying prompts (Appendix 2). The Energy-SHIFTS coordination team and the Methods Lead shared access to this document so that the completion of fieldnotes could be tracked over time.

Adherence to the field note schedule was variable across the Working Groups. In part, this simply reflects the natural ebb and flow of participation from Steering Committee members over the year-long process, including periods off work for some and transitions out of the exercise for others. For others, engagement in the actual project tasks was too time consuming (particularly within Groups dealing with unexpected challenges). Finally, it became clear that the prompts were being used as a form of *structured survey* rather than as a loose guide to reflection. This was causing some Steering Committee members to view the exercise as too intensive, reducing engagement. The resulting body of fieldnotes is thus more variable than we expected, containing a mix of long passages of open-ended reflection in some places, and short, one-word responses to specific prompts in others.

In order to compensate for some of these gaps and to seek further detail, the Methods Lead also undertook a series of short, informal interviews with Steering

Committee members. Interviews did not follow a pre-set schedule of questions, instead allowing respondents to trace what they did at each stage of the horizon scan, overall reflection on key drivers of the final outcome, and what worked well and what did not. Interviews were conducted via Zoom call, and recorded with permission. Each lasted between 30 to 40 minutes.

Fieldnotes and interview transcripts were entered into an NVivo database, and the data were coded deductively, on the basis of the structure provided by our evaluation framework (Figure 1 within Section 1). Quotes are used to illustrate key findings; these are presented anonymously, marked simply with a date on which the data was collected. We have avoided attributing quotes to particular Working Groups or to the position of the respondent (Chair, Co-Chair, etc.) in order to maintain anonymity. It should thus be noted that overlapping dates in citations do not necessarily indicate the same respondent.

### 2.3.2. Evaluation surveys

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The aim of the survey was to collect data needed to answer the evaluation questions presented within Section 1. The survey was targeted at all Working Group members. The survey was kept relatively short, given that respondents were asked to participate after a relatively intensive period of collaboration on the Horizon Scanning.

The short survey form is available in Appendix 3. Most of the questions are directly related to elements of the imagined casual chain. Additional questions were included allowing for comparing answers across gender and position within the exercise (e.g. Steering Committee member or Working Group member). While most of the questions were closed, at the end of the form there was one open-ended question about additional comments. While quoting directly from these responses, we provide a randomly assigned number to denote each respondent.

The survey was prepared as an online form in JISC software and ran between 3 December 2020 and 12 January 2021. The link to the survey was sent three times to WG members. 60 sets of responses were received (giving a response rate of 48%, given 125 potential respondents across all Working Groups).

Survey data was analysed in two ways:

- univariate – the frequency of responses for each question was investigated.
- bivariate – the frequency of responses was compared across Working Groups, gender and membership of a Steering Committee.



Within this section, we mainly report on the former category of results. This is because sample sizes were small and most often there were no important differences across these features.

Table 3. Evaluation questions and data sources for Horizon Scanning (adapted from Foulds et al., 2019, p.29)

EVALUATION QUESTIONS	ELEMENTS OF THE IMAGINED CAUSAL CHAIN	DATA SOURCES		
		FIELDNOTES (MOMENTS) AND INTERVIEWS	SURVEYS	MONITORING DATA
Were starting conditions ensured?	1. relevant skills of project team members needed for horizon scanning	Finalising Terms of Reference; Recruiting ESRs; Finalising the methodological guidelines; Interviews	✓	
	2. relevant energy-SSH expertise of WG members and sufficient spread of expertise and perspectives representing different epistemic communities, as well as different levels of experience	WG member recruitment; Interviews	✓	✓
	3. participants' full understanding of their roles (thanks to the proper guidelines & information)	Finalising Terms of References; Finalising the methodological guidelines; Interviews	✓	
Was the process conducted according to expectations?	1. adequate facilitation to ensure new possibilities and deliberation at each stage	Horizon Scan and Webinar	✓	
	2. enough space for divergence, constructive disagreements		✓	
	3. learning experience for all participants		✓	
	4. full range of voices is included in developing the final list of questions		✓	
	5. process is satisfying for participants and organisers are responsive to any concerns		✓	
	6. process is efficient enough to provide direct effects and impacts in a given time		✓	(timing and quality of deliverables)
Were the direct effects achieved?	1. holistic overview of the field provided in a way taking into account current policy thinking	Horizon Scan deliverable submission	✓	
	2. WG members learn about new and under-represented voices within the field		✓	
	3. deepening relations between WG members (better understanding of each other's work, more cooperation in the future)		✓	
How likely it is to attain planned impacts?	1. results are used in administrative documents at EU and member states levels (e.g. Horizon Europe call texts)			✓ (number of citations)
	2. change in policymaking at EU or member states levels i.e. agenda setting, policy language (e.g. Horizon Europe, DG RTD, SET-Plan)			
	3. change within academic research agendas			✓ (number of citations)
	4. usefulness and applicability of Horizon Scanning is demonstrated; the approach is used in future studies of energy-SSH			✓ (number of citations)



## 2.4. Findings

### 2.4.1. Starting conditions

The first section of our evaluation concerns elements in place to set up horizon scanning, recruit Working Group members, clarify expectations, roles and tasks and come to a collective agreement about the scope of the Horizon Scans. Our evaluation framework broadly distinguishes three key Starting Conditions that were considered to be important to the overall ‘success’ of the later stages of the exercise. These were:

5. Having a project team with the relevant skills required for setting up and executing horizon scanning

6. A broad mix of relevant energy-SSH expertise within the Working Groups, with representation of different epistemic communities as well as different levels of experience
7. Participants full understanding of their roles (drawing mainly from the Methods Guidelines and other information available, for example through meetings), and the steps to be undertaken

Survey respondents, encompassing all Working Group and Steering Committee members who responded to the survey, broadly agreed that these starting conditions were met (Figure 3). A few individuals were either ‘Undecided’ or ‘Disagreed’; these were spread across different Working Groups, indicating that within no single Working Group were starting conditions considered markedly more or less favourably than others.

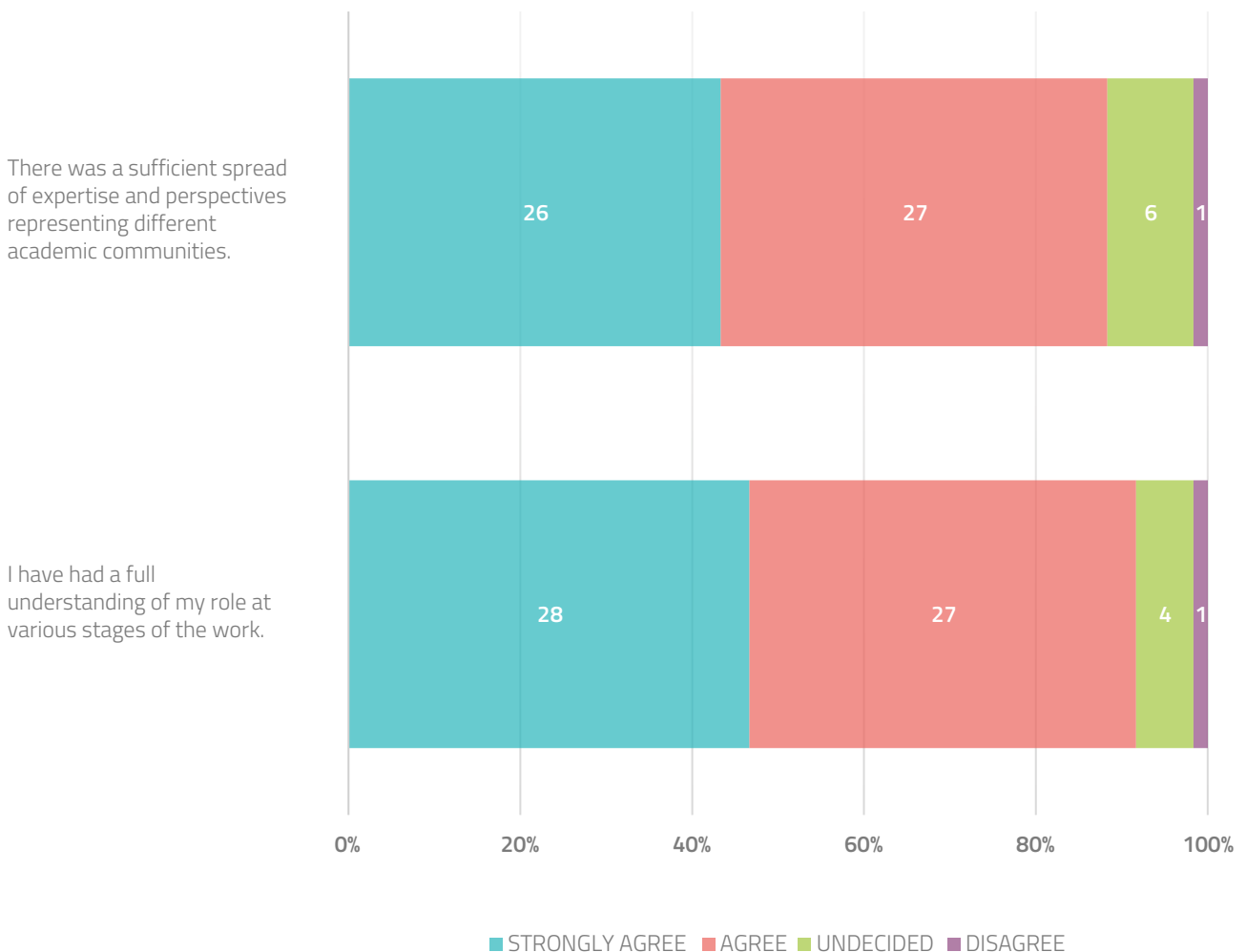


Figure 3. Survey responses on starting conditions for the Horizon Scan



The only survey respondent who stated that starting conditions were not met cited lack of clarity on tasks, and a concern about the emphasis on geographical spread of Working Group members:

*“It was difficult to know what each task really consists of and will require before you actually conducted it [...] I think that the emphasis on the geographical spread limited the spread of perspectives”* (Comment in evaluation survey by a Steering Committee member, 1-30)

We now turn to the Steering Committee’s reflections on the Starting Conditions, drawing mainly from the first few ‘moments’ of the field note exercises, covering the process of finalising the Terms of Reference and Methodological Guidelines, conducting interviews and recruiting ESRs.

#### **a. Project team with relevant skills for Horizon Scanning**

Prior experience with horizon scanning rested mainly with the Methods Lead, who has been involved with two similar question identification exercises over the past few years (Bharucha et al., 2020). The Methods Lead worked closely with the Energy-SHIFTS coordinators to design the broad contours of the scan at the proposal writing stage, and was then intensively involved in drafting the Methods Guidelines. Ongoing support was provided throughout the process through participation in periodic meetings, and through ad hoc engagement when challenges arose. To our knowledge, none of the consortium had previously personally led or participated in the kind of exercise such as we have conducted here. Indeed, several Steering Committee members welcomed the opportunity to learn about a new method, and stated so in their fieldnotes.

While the method itself was new to the Steering Committees, we considered that each member was very well-placed to undertake the facilitation and coordination required, by virtue of long-standing expertise within energy-SSH and excellent research networks across the EU. In other words, Steering Committee members (and particularly Chairs and co-Chairs) were

selected more for their *position* within the field and ability to coordinate the scanning exercise rather than their prior experience with Horizon Scanning per se.

#### **b. Mix of relevant SSH expertise within the Working Groups**

Within this section, we address our effort to ensure adequate representation of different geographical regions, disciplinary affiliations, genders and participant’s status in their fields. We thus interpret the mix of relevant SSH expertise more broadly than is suggested by the wording of the original evaluation framework, which explicitly refers to a mix of relevant ‘SSH expertise’. Instead, we focus on both, disciplinary expertise as well as the ways in which this criterion was balanced with other considerations, particularly regional representation and the balance of frontrunners to field leaders.

This balance was important for several reasons. First, and most broadly, Energy-SHIFTS aimed to nurture an inclusive community of European energy-SSH scholars. Second, we aimed to produce a “completely open and ground-up exploration of research needs” (Foulds et al., 2019, p.36), that adequately represented different competencies, disciplinary perspectives and context-specific priorities. This was considered key to the effectiveness of the methodology, as any horizon scan that skewed towards certain perspectives, backgrounds or priorities could not be said to adequately address the diversity and complexity of European energy-SSH. Key to avoiding this skew in the research questions was the selection of Working Group members. Our Methods Guidelines acknowledge that it is at this stage that “certain perspectives will be locked-in” (Foulds et al., 2019, p.17). We therefore established a set of selection criteria to ensure a systematic and consistent approach to recruitment across the four Working Groups. Broadly, these selection criteria (and associated Key Performance Indicators) were as presented within Table 4, where we also include the numbers achieved for each criterion under different WGs.





Table 4. Spread of Energy-SHIFTS Working Group members (excluding Steering Committees) for Horizon Scanning, by region, gender, disciplinary affiliation and status in the field

	KPI FOR EACH WORKING GROUP	KPI INDICATOR	WG1	WG2	WG3	WG4
BALANCE OF GENDERS	Minimum 40% female or non-binary gender participants	Percentage of females (%)	53.33%	61.54%	51.85%	41.67%
BALANCE OF REGIONAL REPRESENTATION (COVERING NORTHERN, SOUTHERN, EASTERN AND WESTERN REGIONS)	Target of 25% from each region with a minimum of 20%	Number of different countries represented	21	19	21	17
		Members from N/S/E/W  Across all WG members: N= 31%, S=22%, E = 19%, W = 28%	8/8/6/8	8/4/7/7	9/7/3/8	8/5/4/7
DIVERSITY OF SOCIAL SCIENCES AND HUMANITIES DISCIPLINES	Minimum of 10 different SSH disciplines	Different SSH disciplines represented	17	30	29	15
REPRESENTATION OF 'FIELD LEADERS' AND 'FRONTRUNNERS'	Minimum of 27% for each within each Working Group	Frontrunners/Field leaders	9/21 (30% vs 70%)	11/15 (42% vs 58%)	9/18 (33% vs 67%)	6/18 (25% vs 75%)

Steering Committee members agreed that all the Working Groups were sufficiently diverse, and most considered this diversity to be a positive feature of the Energy-SHIFTS approach.

*"I think this project is fantastic in actively trying to reach out to a very broad group of 'non-usual' suspects, and perhaps this methodology for seeking input could somehow be more standardised within EU Research & Innovation policy, to move away from existing tight informal networks"* (Steering Committee Interview, 16 November 2020)

*"The absolute richness and value of having these criteria was the great diversity that we have now. It has led to a great diversity and to definitely have enough representation of normally overlooked voices and positions. And actually some of the people that many of us have never heard of before, in the end in some of the workshops were really active and engaged and brought in a couple of comments and reflections. It was a really good mix"* (Steering Committee Interview, 10 December 2020)

However, the quest for diversity also presented some challenges. A recurring theme was the relative tradeoff between geographic and disciplinary diversity. Some members felt that on balance, prioritising geographic diversity came at the expense of the participation of some highly-regarded scholars. Yet, others argued

that balancing disciplinary and geographic criteria was essential, as Eastern and Southern voices have so far been underrepresented within European energy-SSH:

*"My favourite thing about this project, my single favourite thing, is the emphasis on geographic and gender diversity. And to be honest for me in this particular instance, particularly geographic diversity because you know central and eastern European scholars are so hugely underrepresented in these fields"* (Steering Committee Interview, 16 November 2020)

For these participants, balanced representation was important to the overall validity of the exercise:

*"In terms of WG member recruitment, I think the Guidelines are absolutely brilliant, covering a range of diversity challenges... I feel like a lot of the policy conversation misses out on the Eastern European context. Not only do Eastern European cities have different path-dependencies... but the current trends are different... I thus think it is very valuable to have some specialised expertise regarding this... since otherwise we risk missing the 'big picture' of an European energy transition"* (Fieldnote entry, 24 February 2020)

Yet, the criteria also proved challenging to meet, as Steering Committee members came up against the limits of their own networks to identify researchers



in other regions, or across disciplines. Some Steering Committee members found it particularly difficult to find researchers from Southern and Eastern Europe, provoking reflection on the biases inherent in their own research networks: “We become aware that our own researcher networks were rather biased towards North-Western Europe” (Fieldnote reflection, 14 February 2020). A further challenge was trying to navigate variable amounts of information online: “Challenges were definitely primarily about geography. Some countries also tend to have less information available online about university staff so you feel more ‘in the dark’ when inviting someone” (Steering Committee Interview, 11 December 2020). Related to this, scholars in different regions had variable amounts of experience with the Energy-SHIFTS topic areas, making it difficult to identify people with relevant expertise:

*“I think maybe the disciplinary breadth was somehow diminished by trying to have the European geographical diversity. Because for example in England you have a lot of breadth within the field... but the moment you try to include members from the Southern and Eastern European scholarship they are much more narrow in their approach. So when I think about it in the composition... you lose some of the disciplinary diversity”* (Steering Committee Interview, 9 November 2020)

A final challenge was finding frontrunners in some fields; these were “obviously much more difficult to find, because you do not immediately find their publications as highly cited when they were recently published for example” (Steering Committee Interview, 10 December 2020).

In the final balance, while most Steering Committee members were happy with the disciplinary and geographic diversity achieved, some groups were constrained by not being able to find many options to balance the different criteria:

*“I think the WG was strong enough but I could also openly say that some people were in this WG because we simply didn’t know and didn’t find any other person from that South or East European country. It was basically the only person we could somehow find through snowballing”* (Steering Committee Interview, 10 December 2020)

### c. Participants full understanding of their roles

The Energy-SHIFTS Horizon Scans required a great deal of facilitation. In total, some 125 scholars participated across four Working Groups. Steering Committee

members coordinated this cross-European consortium entirely remotely. This was made more challenging by the fact that for most Steering Committee members, Horizon Scanning was a new technique. As such, the project used the following means to ensure that Steering Committees understood their role early on:

- dedicated planning and discussions early on at consortium meetings, including collating partner queries and concerns;
- publication of a clear set of Methods Guidelines as early as possible during the process;
- periodic Progress Meetings; and
- ongoing support from the Energy-SHIFTS Coordinators and Methods Lead (mainly via email and ad hoc intervention on an as needed basis).

Fieldnotes show an evolving understanding of the intensity of the work required, and particularly of how much direct intervention would be required (e.g. hands-on involvement in cleaning raw data, editing survey questions and recruiting WG members). Indeed, only one respondent reflected early in the process on the amount of coordination involved:

*“I am a bit worried about the practicalities; it is a time-consuming process to email so many people (set up mailing lists and the very boring administrative tasks associated with this). I am also a bit worried that my email will be filled up with questions from participants. I am worried about how to actually set up the group call and how to facilitate that. This is the part I am really not looking forward to, having a conference call with 30 people. I am not particularly fond of chairing meetings in the first place, and would rather like to have someone do this for me. I am also a bit sceptical towards: people falling out of the group, not getting responses for the group; that people will become very dissatisfied with the results...”* (Fieldnote entry, 2 February 2020)

For others, it was only well into the process that it became clear how much coordination was involved:

*“It’s been a much more labour intensive process than I thought it would be. Which is... good in a sense... You go a bit naively in these things...”* (Steering Committee Interview, 4 November 2020)

One important point of reflection is the extent to which Committee members were able to set realistic expectations from the Methods Guidelines. Unfortunately, this did not appear to be the case, for several reasons. First, the Guidelines did not explicitly focus on the minutiae of the tasks involved, but simply laid out a methodological protocol for horizon scanning and a broad outline of what each of the Steering



Committee roles would be. Second, as some Steering Committee members pointed out, the Guidelines were released around eight months after the start of Energy-SHIFTS (December 2019).

*“I think, first and foremost they [Methods Guidelines] were written up too late. It did not feel very comfortable being so many months into the project without having a good sense of how Horizon scans should be conducted”* (Fieldnote entry, no date)

It is worth noting however, that this timing was due to the timing of the relevant Energy-SHIFTS work package, and the partner resources available to spend across the timings of the project. In our view, this points to us having to make some practical tradeoffs in the overall management of the project; future exercises may wish to include some preliminary preparatory work towards the Guidelines within an introductory Work Package.

A related set of reflections concerned the extent to which Steering Committee members were able to internalise the content of the Methods Guidelines, and the extent to which they were being actively used to clarify tasks.

*“... unfortunately I know that the guidelines are not being read (e.g. I’m getting regular queries that are easily answered if they were familiar with the guidelines!)... I’m just conscious of [colleagues] looking at the step that they are currently in, and then forgetting about the long-term game... otherwise they will do things now that will make things more difficult for later steps”* (Fieldnote entry, 12 February 2020)

A final set of reflections on this theme centered on people’s reflections on others’ roles, and how they could work together as a team. Some respondents were uncertain about the role of the Critical Policy Friends:

*“It is quite uncommon and unprecedented for a “policy friend” to be part of the elaboration of the research questions and the design of the whole process. The main question to address was therefore what is the most helpful contribution that a policy-oriented actor can make... not all work packages leads have the same understanding of what critical policy friends are and what their contribution should be”* (Fieldnote entry, 20 April 2020)

Early Stage Researchers (ESRs) were initially recruited in order to both observe as well as participate in the Horizon Scan, so that they could ‘learn by doing’. Many Steering Committee members opened their field note reflections with some hesitation regarding the role of the ESRs, unsure as to how they would contribute. For some Steering Committee members, the role of

the ESRs *“remained unclear for at least 2-3 months and accordingly we didn’t really involve them in that early phase”* (Steering Committee Interview, 10 December 2020). However, as the Scan progressed, the value of the ESRs became increasingly evident, and in some cases, the ESRs proved to be pivotal for facilitation, given that some Steering Committee members had extended periods of leave from work. In these cases, while prior expectations of the roles of the ESRs had been relatively muted, it quickly became clear that the role was critically important.

To summarise, our data point to a number of areas where the Starting Conditions were broadly helpful in setting up in setting up the horizon scanning for success. These mainly included the publication of detailed Methods Guidelines, an early and explicit emphasis on diversity and clear targets for recruitment of diverse WGs. At the same time, the reflections of Steering Committee members in particular provide some insights into early challenges. These included challenges with recruiting diverse WGs, an evolving understanding of the intensity of facilitation required, and a lack of full prior clarity on how some roles would add value or make a contribution.

## 2.4.2. Process

The procedural elements of horizon scanning which we considered for this evaluation included:

- a. the quality of facilitation
- b. space for divergence and constructive criticism
- c. the opportunity for learning
- d. the inclusion of the full range of voices from within each Working Group
- e. levels of satisfaction that participants had with the process, and
- f. the extent to which the process was efficient enough to provide for direct effects and intended impacts

The first four of these elements were addressed by both our evaluation survey as well as by the qualitative reflections of Steering Committee members. The last two were not directly addressed by our qualitative data, and so on these, we draw exclusively from the evaluation survey.

Almost all survey participants agreed that activities in the exercise were carried out in an acceptable way in terms of these procedural elements (Figure 4).

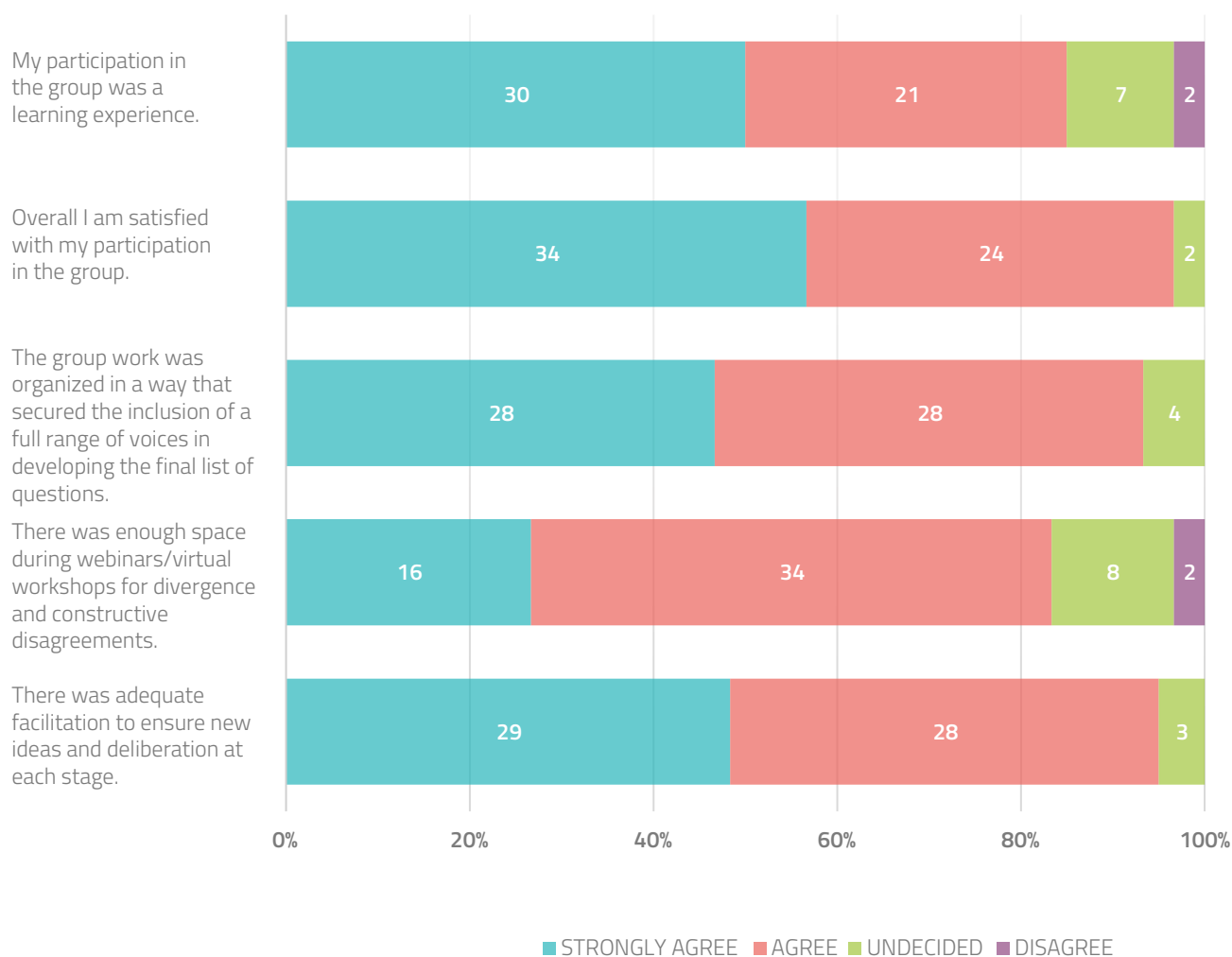


Figure 4. Survey responses related to the Horizon Scanning process

### a. Facilitation

A number of different participants were responsible for facilitation of the Energy-SHIFTS Horizon Scans, namely: the main Energy-SHIFTS coordinators, the Methods Lead and the four Steering Committees. The broad aim of facilitation was to coordinate the Horizon Scans under the direction set out in the Methods Guidelines, with ongoing deliberation at Steering Committee level designed to keep the process flexible and adaptive to emerging conditions. An important enabler of this deliberation were structured, periodic meetings of the Steering Committee Chairs, to report on progress at key milestones and to make ongoing methodological adjustments.

Key themes emerging from the data on facilitation were the generally positive appraisal of the quality of facilitation provided, balanced with reflections on how time and energy intensive this was for Steering Committee members. A third theme related to the enablers of good facilitation, particularly through the framework set out by the Methods Guidelines and

cross-Group learning and deliberation enabled by ongoing meetings.

Survey respondents were positive about the quality of project facilitation:

*“Thanks for great facilitation!”* (comment in evaluation survey by a member of the WG, 2-00)

*“I am delighted to contribute to this project. The meetings were efficient, to the point and fruitful. An inclusive space was provided for participants. Thank you Energy-Shifts Project.”* (comment in evaluation survey by a member of the WG, 3-38)

*“I think such a format has inherent limitations, but that the coordinators did a nice job of maximising what is possible within structural limits”* (comment in evaluation survey by a member of the WG, 3-41)

Fieldnotes and interviews with Steering Committee members provided a detailed ‘window’ into the nature and quality of project facilitation, and in particular the ways in which the facilitators used intensive



deliberation and discussion to adapt the methods, meet challenges and learn from each other.

Chairs and ESRs had a particularly intensive role to play in ongoing facilitation, stepping in directly at various points to set up the Working Groups and directly edit data. For example, in one of the Groups where recruitment of WG members was lagging behind, it was recounted how:

*“... our WG was lagging behind the others WGs for a long time, until I discussed with [others], who suggested a more active approach to recruitment. This talk made me feel ok about introducing my own biases, and just recruiting as many as I could, while [others] also helped out...”* (Steering Committee Interviewee, 4 November 2020)

In another instance, an interviewee described how much intensive, hands-on work was involved with editing the raw data:

*“The raw data are very diverse, both in scope and quality. I edited the largest chunks of questions, I think, around 90 questions, with [another SG member] doing the same amount, [another SG member] did 40, one ESR did 40 and the other did 20... Some questions were poorly written, they had to be edited a lot by use of justifications in order to bring out the essence of the questions... We had 2 or 3 meetings where we discussed the process of cleaning the questions as well as our experiences, challenges that had arisen, and how we dealt with them... All deleted questions and questions we felt unsure about were reviewed by at least one of the other WG members. Questions that we had written ourselves, or that we were not sure as to how to edit, were marked in blue and revised by another WG member”* (Steering Committee Interviewee, 9 November 2020)

As this quote illustrates, Steering Committee members had periods of intensive engagement with the raw data, and had to facilitate the process internally within each Committee in order to carefully balance the requirements set out in the Guidelines with the specificities of their qualitative data. During these meetings, the Committee members were able to identify new possibilities and make creative adaptations:

*“We had an idea of the process and we are also changing it during the process...”* (Steering Committee Interviewee, 17 November 2020)

At key moments of the Scan, it was also clear that cross-Group deliberation played a vital role. Periodic progress calls with the WG Chairs allowed four different groups to collectively co-design the next phases of work. For example, at the start of the process, one of

the Energy-SHIFTS coordinators recounted receiving a number of questions about the types of Working Group members that could be recruited. At a later point in the process, one Steering Committee member suggested narrowing down the timeframe given to WG members to respond to the survey. This acted as a ‘game-changer’ for one of the other Committee members, who realised that *“approaching it in this way enabled us to practically save time and also expect a little bit more from our WG members”* (Fieldnote entry, 12 February 2020). When the survey was ‘live’, one of the Committee members recounted how:

*“I actually hadn’t thought of the possibility of soliciting questions actively myself before... I think in retrospect other WGs have done this quite differently, and ... I realised how others had actively cultivated their group and pushed and also solicited from other people. So then I realised ok, this is something I have to do”* (Steering Committee Interviewee, 4 November 2020)

Another prominent example of the group calls being a site of significant deliberation was a joint Chairs call to discuss the process by which Steering Committees would edit the raw data. This involved a lively debate on the best way to balance the ‘guidelines for good research questions’ set out in the Methods Guidelines against the practicalities of editing large, multidisciplinary qualitative datasets within the limited time available. This discussion significantly helped to operationalise the more abstract Methods Guidelines and apply them to the concrete detail of the raw data, and helped to ensure some sort of uniform and systematic approach across the different WGs.

Finally, Committee members had a significant role to play in coordination of the wider activities of their WGs. This was sometimes a cause for concern:

*“I am a bit worried about the practicalities. It is a time-consuming process to email so many people... I am also a bit worried about how to actually set up the group call and how to facilitate that. This is the part I’m really not looking forward to, having a conference call with 30 people. I am not particularly fond of chairing meetings in the first place and would rather like to have someone do this for me!”* (Steering Committee fieldnote entry, 2 February 2020)

It was also pointed out that all facilitation throughout the process occurred online, which possibly impacted the amount of deliberation that could be expected:

*“We met only virtually and I am pretty sure it impacted the process, especially in terms of reducing*



*space for reflection, and deeper discussion*” (Steering Committee Interviewee, 17 November 2020)

A final key theme related to facilitation relates to the role of the Methods Guidelines, and the balance they provided between structuring the Horizon Scans, and allowing facilitators to deliberate and identify new possibilities as the process unfolded. The broad consensus across the data was that the Methods Guidelines provided a good balance of guidance on each stage of the process, with adequate flexibility for creative adaptation:

*“I am really impressed by how detailed and good the guidelines are. I think it’s really good to be able to share these guidelines with Working Group members as well as ESRs”* (Fieldnote entry, 7 February 2020)

While the level of specificity and detail in the Guidelines was positively commended, it was also pointed out that the document was very lengthy, and some field note entries reflect concerns that people may not read them in full. Indeed, one of the main exercise coordinators reflected that:

*“I had hoped that everyone would read these guidelines quickly and thoroughly. I’ve been mentioning it in every email and I send them to everyone involved in these WGs. But unfortunately I know that the Guidelines are not being read... I’m just conscious of WG Chairs looking at the step they are currently in, and then forgetting about the long-term game... They [may] do things that will make things more difficult for later steps”* (Fieldnote entry, 12 February 2020)

## **b. Space for divergence and constructive disagreement**

Our Evaluation Survey focussed on space for disagreement during the webinars and virtual workshops, at which point Working Group members were deliberating on which questions to add, combine, or delete in order to arrive at a final list.

Key themes emerging from the data on this aspect included limitations on the amount and depth of deliberation possible, partly because of the structure of the Horizon Scanning method itself, and partly because most deliberation occurred online. A second theme centered on the *kinds* of constructive disagreement that occurred (mainly with the Steering Committees), giving a sense that while the space for deliberation and divergence was relatively ‘bounded’ by the practicalities of the method, the groups nevertheless did manage to touch on some quite fundamental tensions within their deliberations.

Regarding the influence of online facilitation, one survey respondent said:

*“The online discussions etc. were all great and brilliantly facilitated but they were also quite short. I appreciate that the organisers didn’t want to ask too much of participants, but I felt that more time would have allowed more divergence and constructive disagreement both to emerge and to be worked through (at least a little)”* (comment in evaluation survey by a member of the WG, 4-64)

Another highlighted the influence of the method itself:

*“As much as time on the webinars etc, the ‘100 questions’ format also militates against disagreement a little as it allows you to develop something of a shopping list where approaches/items that might contradict or work against each other can both be included without anyone really noticing because there hasn’t necessarily been time to discuss these”* (comment in evaluation survey by a member of the WG, 4-64)

Another survey respondent highlighted the potential value of deeper reflection on theoretical and epistemological boundaries:

*“The key issue... is between those approaches that seek to use the social sciences in order to advance [this topic area] (i.e. to identify ‘barriers’, design/communicate techs in order to increase public ‘acceptance’ and speed up ‘adoption’ etc etc) and those that are much more skeptical and critical about the whole project... in the first place and wish to ask more foundational questions about its implications (rather than just speeding up its advance). At present, both of these perspectives are included in the 100 questions and there was never really a chance to bottom-out the divergences between them”* (comment in evaluation survey by a member of the WG, 4-64; parentheses added)

Deliberations within the Steering Committees were an important site of constructive debate at several pivotal moments. While there were no instances of conflict per se, the groups did touch on real tensions to do with thematic framing, divergence between different SSH epistemic communities, and practical points of methodological application. Intensive debate on these matters has helped to shape the overall results and their presentation, even though several consortium members mentioned fundamental limits to being able to ‘resolve’ these tensions within the scope of a single, time-limited exercise.



A key point of debate at the very start of the exercise was the extent to which the Horizon Scans should be explicitly aligned with existing EU policy trajectories, as opposed to a more open-ended exercise wherein fresh SSH perspectives could be brought to bear on the evolving policy trajectory. While some consortium members felt that a (potentially) disconnected list of research questions may not have enough impact on the policy environment, others felt that the scanning exercise, and indeed the research and innovation in general, should not simply ‘service’ instrumental policy goals. Indeed some of the WG participants too, picked up on the limits imposed by a prior framing of key topics:

*“Unfortunately the brief for SHIFTS was too narrow - with topics... predefined in a way that is unhelpful for SSH research. It therefore restricted the room for innovative or creative thinking and research. This is not a criticism of SHIFTS but of the process by which its brief was predetermined.”* (comment in evaluation survey by a member of the WG, 2-65)

Another fundamental tension had to do with labeling and boundary-setting between different SSH communities. Within one Steering Committee, recruitment of Working Group members involved discussions on whether candidates were “SSH enough, and hence whether they should be invited, or we should continue looking for other candidates” (Fieldnote entry, 2 March 2020). In the end, “the way these disputes were resolved was by expressing the rationale behind the selection or not of the candidate... when we could not reach consensus, we would go back to all these and argue for and against. If still, in the ‘second’ round, consensus was not achieved we would then look for other candidates” (Fieldnote entry, 2 March 2020).

Steering Committee members highlighted the constructive nature of deliberations, even when there were disagreements or points of contention, stating for example:

*“We discussed the differences openly and some of tension we relaxed immediately... Often, the problems were solved through modifications of the text”* (Fieldnote entry, undated)

In several instances, members felt comfortable deferring decisions to colleagues with relevant expertise:

*“The final decision was the results of many small decisions resulting from some comment exchange and some discussions. The persons most responsible for the content made decisions but I definitely felt listened to and I am satisfied with their decisions.”* (Fieldnote entry, 7 February 2020)

*“There was quite a bit of discussion between [several colleagues] on the approach to voting (where I am less experienced). As I have more of a background in qualitative forms of enquiry... I was happy to let [them] take the lead... In talking through such decisions, I followed [their] logic..., but I did not feel confident enough to push a particular preference. I was happy to trust their judgements”* (Fieldnote entry, 12 February 2020)

### c. Learning experience for all participants:

Within Energy-SHIFTS, we were keen to use the four Horizon Scans to get all participants to learn about new SSH perspectives, as well as becoming better acquainted with our question-selection approach through ‘learning by doing’.

Survey respondents were mixed as to whether their participation in the horizon scanning process provided a learning experience:

*“I am not sure whether learning experience is meant in a personal or in a content-oriented way. I did personally learn things as we collaborated across many institutions and synthesized an enormous amount of perspectives and research questions, which was really interesting. I thereby learned where some focus areas were. However, the participation in the group did not really add to my knowledge about [the topic area] since there was no time to really go into the different literature etc. mentioned by the participants in the short time the project offered”* (comment in evaluation survey by a member of the Steering Committee, 1-43)

Others were more positive, including:

*“It was a learning and collaborative experience that I highly value”* (comment in evaluation survey by a member of the WG, 3-60)

*“Thank you very much for this opportunity. I learnt a lot and I sincerely hope that my contribution to the project helped to create a list of questions that will foster research of energy policy from SSH perspective”* (comment in evaluation survey by a member of the WG, 3-71)

*“A great experience to be part of - interesting to be part of a study with a methodological approach I am less familiar with. I’ve found out about a significant amount of literature through this group that will help my work”* (comment in evaluation survey by a member of the Steering Committee, 4-46)



Steering Committee members reflected on two key learning opportunities provided by their participation. The first was the opportunity to learn about horizon scanning as a method, and its application to energy-SSH. The second was the opportunity to learn more about current developments in the field, network with new scholars, and gain a greater appreciation for the depth and breadth of different perspectives within energy-SSH.

Several Steering Committee members went into the process expecting to learn more about Horizon Scanning and to understand how it could be used within their fields in the future:

*“I have high hope of the Horizon Scanning process and have experienced enthusiasm in the group regarding learning a new method. The ambition is to learn a new method that can also be used in other projects. It is interesting to know alternate approaches to classical social science methods, that can get a bit tedious after having employed them over and over again for many years. Thus, methodological novelty is very much welcomed”* (Steering Committee Interviewee, 9 November 2020)

*“I feel very excited about the Horizon Scan and part of it is because it just feels very useful... I feel very motivated because the usefulness feels very tangible. I also feel like I can myself learn a lot from the process, both in terms of experience using the Delphi methodology and by getting to be very hands-on with questions and thoughts about the future of the field”* (Steering Committee fieldnote entry, 7 February 2020)

Steering Committee members were positive about the role of the Methods Guidelines in facilitating the learning:

*“It was also very, very helpful, the clear methodology that [was] prepared. [It gave] clear direction, even if we contested it sometimes, if we would like to change something, at each stage we did know what we should do, what is the goal, what is the time [available], and what is the result and what is expected.... For me, as I am not experienced with this methodology, I appreciated that”* (Steering Committee Interview, 9 November 2020)

#### **d. Full range of voices included in making the final list**

In interviews and fieldnotes, Steering Committee members reflected on the ways in which the wider Working Group deliberated in order to arrive at the

final lists of 100 questions. Following each survey, Working Group members were involved in selecting the final list of questions in several stages, beginning with voting, then during two webinars, and finally, post-webinar discussions.

Steering Committee members' notes and interviews show that they were very committed to collaborative working, and to have the full range of voices feeding into the final list of questions. This stemmed in part from a recognition of the limits of individual knowledge, and the recognition that for the final list to have value, it would need to represent the truly diverse range of voices and perspectives embedded within each Working Group. Some Steering Committee members for example, on their own unfamiliarity with certain themes and research methodologies:

*“I was not as familiar with certain themes and certain elements of some of the questions. Also, I was not as familiar with certain scales [of empirical analysis]... To overcome the difficulties in understanding the questions as best as I could... I tried familiarising myself with [these new topics]”* (Fieldnote entry, 1 July 2020)

Most groups reported productive webinars, with intensive deliberation and effective progress towards a collaboratively produced 'final' list of questions:

*“I feel that the two webinars went well. The Working Group members were eager in giving as much feedback as they could. I feel this indicates a very active group of people who know their field very well. In all the breakout groups the members were agreeing with one another and building further on different arguments... From my experience, they worked harmoniously, and towards the same direction, to ensure that the list is a very good list”* (Fieldnote entry, 10 October 2020)

After webinars, Working Group members continued to feed in:

*“I think over the last couple of weeks, we have managed to keep up and push a process of emailing back and forth with a large group of people with strong viewpoints... In instances where people have made appeals and those appeals have been well-reflected in discussions in the Working Groups, then we have actually challenged people to come up with new questions, and introduced new questions...”* (Steering Committee Interview, 4 November 2020)

Interventions with the wider Working Groups meant that for each thematic group, the final list of questions benefitted from input regarding thematic clustering (with some groups deciding on tighter boundaries for





key themes, or identifying questions that could usefully be added to themes), the addition of a new theme, suggestions for new questions and reframing certain questions. Given this, Steering Committee members emphasised how diverse perspectives were well integrated into the final deliberations, helping to achieve strong final lists of questions.

*“In terms of the transdisciplinary and collaborative aspect, I think we could not have done more. We were really respectful of everything we had, and there were really enough opportunities to participate”* (Steering Committee Interview, 10 December 2020)

*“... there are a lot of really, really eager participants, and some of them have written and done so much work in terms of thinking about both, you know, ways that individual questions could be reframed, and rephrased.... The Working Group has done a lot of work and given a lot of inputs...”* (Steering Committee Interview, 9 November 2020)

### 2.4.3. Direct Effects

Herein, we focus on three distinct direct effects from the Horizon Scan, namely

1. the provision of a holistic overview of the field of energy-SSH (and specifically on the four topic areas represented by the Working Groups)
2. widening of Working Group members’ awareness of new and under-represented voices within the field, and
3. a deepening of networks between Working Group members with the potential for more work together in the future.

Our evaluation survey showed that the majority either ‘agreed’ or ‘strongly agreed’ that these direct effects were achieved by the Horizon Scanning process (Figure 5).

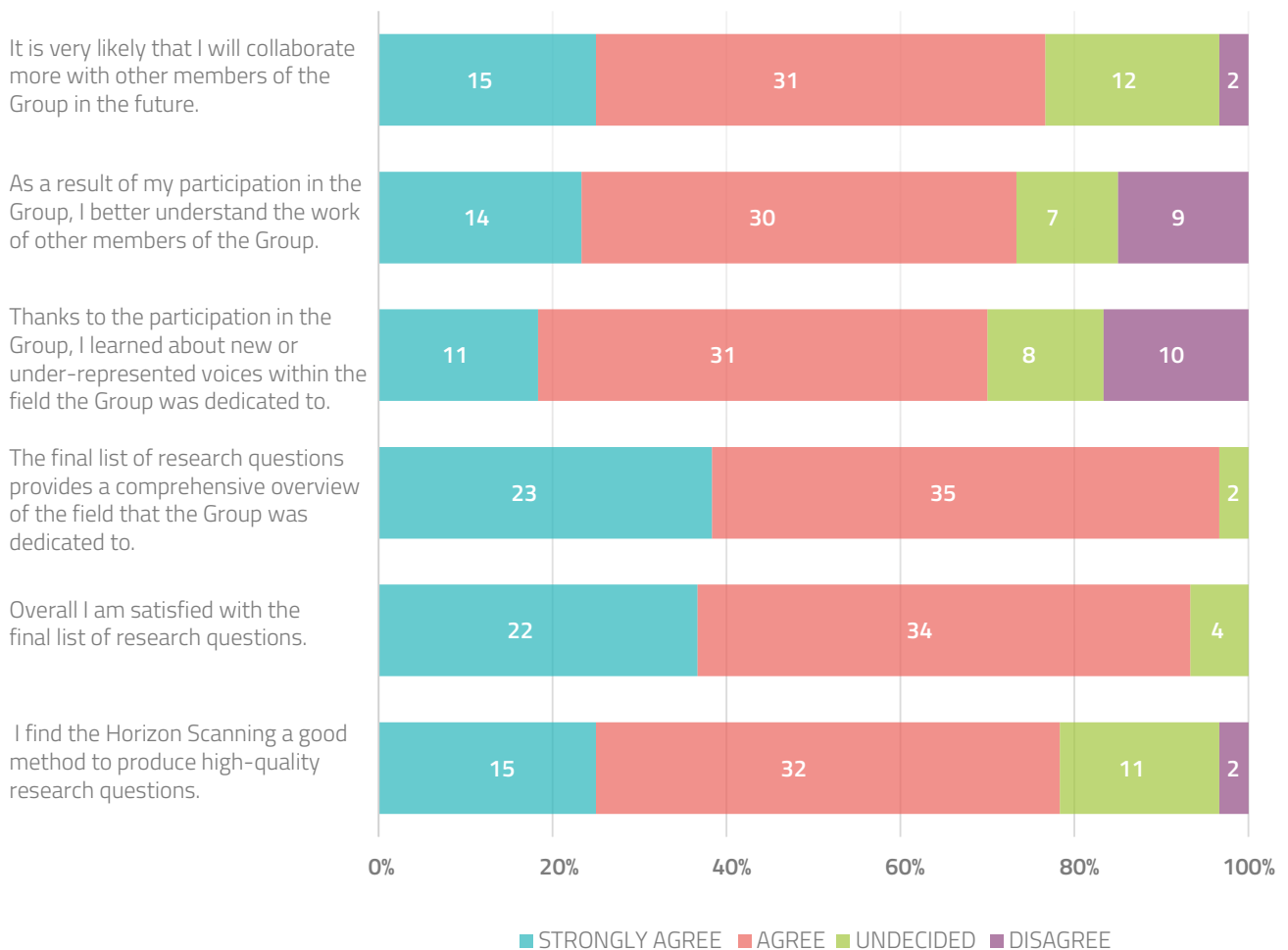


Figure 5. Survey responses on direct effects achieved from Horizon Scanning



### a. Holistic overview of the field

Within this section, we reflect on whether participants felt the Energy-SHIFTS process allowed a sufficiently broad-ranging overview of energy-SSH engagement in each of our four Working Group topic areas..

To begin with, horizon scanning was complemented by interviews addressing the evolution of SSH engagements with the four topic areas. These interviews were considered useful to the Steering Committee members (in particular) as a form of in-depth orientation to the evolution of the field. Early discussions between the Methods Lead and the Energy-SHIFTS Coordinators touched on the potential of these interviews to act as a useful birds-eye view of how each topic area had evolved, thereby potentially enabling Steering Committee members to make informed choices about the novelty and salience of the more forward-looking questions posed within the ‘main’ Horizon Scan.

Steering Committee members who reflected on the process of conducting the interviews broadly agreed that they helped to provide a good overview of the evolution of SSH engagement with each of the four topic areas. They also helped to generate insights that were potentially useful in later stages of the Horizon Scanning, providing useful context but also providing deeper insights, on dominant versus marginalised perspectives for example:

*“We have a much better picture now about the emergence of SSH research on [this topic]. We learnt that there are still dominating disciplines / subfields (sociology, economics, political science) while other disciplines are clearly marginalized (yet needed!), in particular: history, anthropology, feminist perspectives, power asymmetries...”*  
(Fieldnote entry, 14 February 2020)

Expert interviews revealed how the underlying narratives of different SSH perspectives had changed over time (and across different geographical regions), how these changes were justified by interviewees, why they may have occurred, and key ‘controversies’ within the field. In other words, the interviews went beyond the relatively instrumental goal of mapping the evolution of scholarly debates. They also provided an insight into how different sub-fields interact (or fail to do so):

*“The interviews were a helpful reminder how fragmented research is. All the interviews helpfully provided a small piece of the overall puzzle, but I did not participate in an interview where the evolution of the whole discipline in relation to energy*

*efficiency was discussed. Reconstructing a fuller picture thus requires some sense of creativity and interpretation”* (Fieldnote entry, 20 April 2020)

*“The strength of the interviews in my opinion is how they clearly give situated perspectives of the field. Each interview is not repeating the same trends, but rather pointing to different aspects of how the field developed. In this sense it is the combination of a variety of fields and perspectives that gives strength to the interviews accounts”*  
(Fieldnote entry, 17 February 2020)

### b. Widening of participants’ awareness of new and under-represented voices within the field

Most survey respondents agreed or strongly agreed with the survey statement, ‘Thanks to my participation in the Group, I learned about new or under-represented voices in the field the Group was dedicated to.’

In what follows, we mainly address Steering Committee members’ reflections on this aspect, given that of all participants, they were most heavily involved in actively scoping the field in order to recruit Working Group members, conduct interviews, and solicit responses to the Horizon Scanning survey.

As set out earlier, several Steering Committee members reflected on the challenges involved in meeting the diversity criteria we set out in our Methods Guidelines. A particular challenge was finding scholars for each topic area from Southern and Eastern regions. Several Steering Committee members reflected on how this search had made them aware of the skews towards Northern and Western Europe within their own networks. For these members, searching for and interacting with colleagues from Southern and Eastern regions provided exposure to previously unknown colleagues, and also revealed important geographical differences in scholarly perspectives and approaches to each topic area.

*“We did our best to avoid overrepresentation of scholars from West and North. Scholars from South and East interested and active in the field of energy-SSH are less visible in academia... And, their perspective on the energy problems are significantly different and their contribution into the Working Group is valuable.”* (Fieldnote entry, 11 May 2020)



### c. deepening of networks between Working Group members with the potential for more work together in the future

At the time of writing, we have few firm indications of the potential for further collaboration that may emerge as a result of participation in the Energy-SHIFTS Horizon Scan. In field note reflections and interviews several Steering Committee members were generally positive about the new introductions made with scholars whose work they had not encountered before. One Steering Committee member reflected that:

*“It’s been quite fun when we got the questions in and to go through all these questions and have all this input and be in touch with all these people, it feels like a privilege in a way. So a lot of positive feelings in a way about the process”* (Steering Committee Interviewee, 9 November 2020)

However, a recurring theme was also the limitations on being able to develop networks:

*“About collaboration in the future - I hope so, but it wasn’t really room to get to know each other”* (comment in evaluation survey by a member of the WG, 4-85)

## 2.4.4. Impact

Our overview of the impacts of the Energy-SHIFTS Horizon Scans focuses on a number of interrelated indicators that demonstrate the use, over time, of the Top 100 questions identified. These include reference of the results in administrative documents at EU or member state levels (e.g. Horizon Europe call texts), changes in policy-making (e.g. via agenda-setting or use of policy language), change within academic research agendas and the use of the method in future studies within energy-SSH, on the basis that the usefulness of the method is demonstrated.

Many of these impacts represent long-term changes that will reveal themselves over a period of months and years after the project. At the time of writing, we thus do not have definitive evidence of long-term impacts that may be found through citations in administrative or policy documents, change in specific policy language, or citation of the method or results in further academic work. We thus provide a broad set of reflections on the *potential* for long-term impacts as contained within the reflections of Steering Committee members within fieldnotes and interviews.

An important qualifying theme in these reflections was the extent to which the horizon scan should be

evaluated against its influence within existing policy or administrative processes at all. This became evident even before the start of the Scanning exercise, wherein some Steering Committee members preferred to set out a framework for questions in line with current policy agendas, whereas for others:

*“I and others felt that being too rigid in where policy is taking us (according to the EU long-term strategy, for instance) would undermine the whole purpose of the exercise: to bring new and fresh SSH ideas to the table”* (Fieldnote entry, 12 February 2020)

Once questions began to be received and discussed, other Steering Committee members also began reflecting on this theme:

*“The main tension I experienced is the tension between being focused on delivering clear recommendations that support policy and being critical towards this policy itself (questioning their basic assumption for instance)... I think that we... didn’t explore fully new horizons of research...I have the impression that scientists are the arm of policy-makers, our scientific orientation shifts towards application rather than opens new fields of rationality. I appreciate the responsibility of our WG members, and may be (given) this high level of pragmatism and responsibility (we) decided on not being very brave in suggesting questions (including myself)”* (Fieldnote entry, 4 February 2020)

Yet, there was also broad agreement at the end of the project that the Horizon Scans did deliver a good balance of immediately applicable questions, and those which suggested the need for transformative critique of existing policy structures:

*“We have a lot of questions that target exactly that kind of framing going more into how to change the underlying mechanisms and the things that are hard to change in a way,... that relate to structures and funding and institutions and how we think about the growth. The EU setting is framing [the topic] towards making the same system a little bit better, making the same system more efficient, but the real challenge is to really change the whole system and to target the underlying conditions that are producing this system”* (Steering Committee Interview, 9 November 2020)

The same tension was highlighted regarding the potential of the horizon scan to influence new research agendas. On the one hand, there was broad agreement across the Steering Committee members that the list of questions coming from each Working Group represented a systematic synthesis of important research



priorities put together by a diverse (and thus broadly representative) group of European SSH scholars. However, at the same time, some Steering Committee members felt that the questions could have been even more radical and transformative.

*“I would have expected [the questions] to be even more radical, even more substantial in terms of pushing edges, pushing towards the future. Some of them seem to be short- to mid-term perspectives. Some of them are even already part of projects... you could basically start working on them tomorrow. Most of them... But for a new 7 year horizon programme, that’s really spot on.”* (Steering Committee Interview, 10 December 2020)

At the same time, other Steering Committee members pointed out that the inclusion of immediately applicable, policy-relevant questions, and clear pathways to policy engagement was a firm advantage that sets Energy-SHIFTS apart:

*“It seems very trendy for a range of actors to undertake exercises such as technology roadmapping, scenario analysis etc, but it is unclear how these get translated into concrete policy impact. Thus it’s fantastic to be part of a project where the Horizon Scanning has such a clear avenue for impact”* (Fieldnote entry, 24 February 2020)

Finally, at a more practical level, there were practical concerns raised about the potential of the questions for eliciting specific changes in policy. At the most basic level, one concern focussed on the content and presentation of the final list of questions. One Steering Committee interviewee pointed out the danger of a list of 100 academic research questions having limited resonance with policy makers. On the other hand, one Steering Committee member also expressed the concern that policy processes themselves had been inadequately conceptualised:

*“The focus was very much at the national level with little to no understanding of the importance of the EU-level... There was little understanding of this, which led to a rather narrow view of practices... There was overall little understanding of the role of public policies and how decision-makers are taking decisions and what influences them.”* (Fieldnote entry, 20 April 2020)

## 2.4.5. Concluding reflections

Within this section, we have presented an overview of the horizon scanning process used within Energy-SHIFTS, and appraised this against the evaluation framework developed at the beginning of the project. This appraisal drew mainly from the evaluation survey targeted at all participants, and the qualitative fieldnotes and interview data collected from the Steering Committee members who facilitated the four Horizon Scans. Together, these data provide a participants perspective on the conduct and outcomes of the Horizon Scans. In other words, they do not enable a strictly independent evaluation against purely objective criteria, but instead provide considered reflections from participants themselves about the starting conditions, process and actual and potential impacts of the Scans. Within this section, we summarise these findings, and elaborate on some of their implications for future Horizon Scans conducted within the broad field of energy-SSH.

To begin with, we would contend that based on participants’ reflections, the desired ‘Starting Conditions’ that we considered important for success were largely met. Our project team had, admittedly, limited personal experience of horizon scanning, and specifically the question selection method we used within Energy-SHIFTS. However, support was provided to fill this gap, in the form of ongoing engagement from the Methods Lead, and a set of Methods Guidelines that set out our planned protocol in detail. More importantly, our selected project team had a great deal of experience and expertise in each of the four Horizon Scan topic areas, and wide networks from which to recruit Working Group members and survey respondents. These networks were, however, stretched somewhat in trying to balance our ambitious diversity criteria, even as most Steering Committee members agreed that they were essential to the robustness and representativeness of the final list of questions. Respondents’ final set of reflections on the Starting Conditions revolved around their understanding of the roles they would need to play within the process. Data here shows that for some respondents at least, it was only after beginning the Scan in earnest that they realised how intensive the process of facilitation would be. Some detail on participants’ roles was provided within our Methods Guidelines – however, these were released a few months after the commencement of the Scans, rather than at the very beginning of the Energy-SHIFTS project. An additional consideration may be that within some Working Groups, facilitator’s roles themselves changed beyond what was originally



envisaged within our Guidelines. This occurred for example when some participants had periods of leave or when unexpected challenges arose that required more intensive facilitation than originally imagined.

Two implications stand out for improving practice in future exercises. The first is that the Methods Guidelines played a key role in 'setting up' the process of horizon scanning, particularly within a group who had not used the method before. We would recommend that future groups replicate this exercise, drafting a set of Methods Guidelines that clearly and transparently set out the planned process in a step by step manner, making adaptations to accepted practice as required by the unique conditions of their own study. Such a practice would also help to meet the call for more rigorous and transparent documentation of Horizon Scanning methods, which can often be under-elaborated in the relatively short space provided by conventional academic publications. We would also recommend that *all* facilitators may need to play a more active role in the drafting of these Guidelines' at the very start of future projects, as far as is practical within the constraints imposed by programme funding and workflows. The aim of this would be two-fold. First, this would enable a clear understanding of the precise tasks and activities involved. Second, it would ensure that participants are able to anticipate potential challenges that may require periods of more intensive facilitation, or be able to anticipate challenges that may stretch their roles.

Participants' reflections on the process of horizon scanning focussed on the facilitation provided, space for constructive criticism, the opportunity for learning and the inclusivity of the deliberations. Two further elements of our evaluation framework could not be addressed by our available qualitative data – the level of satisfaction with the process (though survey respondents provided favourable feedback on this), and its efficiency. Qualitative data within this segment of the evaluation provided a great deal of rich reflection on the quality of the intellectual work and collective deliberation that went into each Horizon Scan. A few key points stand out, that are relevant to future exercises.

First, a great deal of intensive facilitation is involved in creating a good outcome. Horizon scans typically involve sustained engagement from a small 'core team' of facilitators, or in some cases, are facilitated by single individuals. In the case of Energy-SHIFTS, having a Steering Committee with well-defined roles helped to balance the labour involved, but Chairs and Co-Chairs still had a great deal of engagement with the raw data, and there was a clear need to facilitate group deliberations quite intensively.

Related to this are reflections on the very involved nature of the horizon scanning deliberations.

Participants had the opportunity to debate key points, and most respondents agreed that the deliberations were inclusive – drawing effectively on the range of expertise available within each group. We contend that this is key to a successful scanning exercise. Given the amount of raw data and the diversity of perspectives involved, it may be tempting to impose some structure by running each round of question selection as a quantitative voting process. Within Energy-SHIFTS, some Working Groups kept space open for candidate questions, and feedback from Working Groups, right up to the very end. This allowed the groups to take full advantage of the expertise of the Working Groups, and for perspectives to mature and evolve. As several Steering Committee members conceded, these relatively open-ended deliberations resulted in the drafting of sets of questions that really went beyond the perspectives of any single participant. In other words, they reflected a consensus emerging out of a well-negotiated, considered set of group deliberations.

Finally, we asked respondents to reflect on the direct effects and potential impacts of the Horizon Scans. Based on the data provided, we may be cautiously optimistic about some of these direct effects, and particularly the awareness created of new or under-represented voices in the field, and the representativeness of the final list of horizon scanning questions. We would contend that key to this were two methodological innovations, designed to provide supplementary data in addition to candidate research questions. These included our expert interviews outlining the evolution of SSH perspectives in each of the different topic areas, and the justifications we asked all respondents to make, backing up their suggestion of candidate research questions. These allowed Steering Committee members (in particular) to really situate their judgements while editing questions and facilitating the final rounds of question selection. Our data on the longer-term impacts of the Horizon Scans is more tentative, in large part because some of the theorised impacts may play out over months and years, rather than becoming evident immediately. A recurring theme on impacts from the Steering Committee however, was the tension between serving existing policy agendas (indeed, a central aim of Energy-SHIFTS) and coming up with research perspectives that enable deep critique and transformative change. Most Steering Committee members acknowledged that the final Horizon Scans balanced these two objectives. For future exercises, it may help to create distinct sets of outputs that are targeted at different audiences, in order to highlight policy relevant questions and – more importantly – to introduce and frame these appropriately for policy audiences.



## 3. Policy Fellowships

### 3.1. Overview of the Energy-SHIFTS approach to Policy Fellowships

The political discourse around energy transition solutions, and linked national funding efforts, have traditionally been dominated by Science, Technology, Engineering and Mathematics (STEM) perspectives. It has however also been observed that whilst key technologies for enabling significant energy transitions already exist it is societies which are less ready for major shifts in their energy systems, and that more work is thus needed to incorporate societal understandings into energy policy design. Whilst economic incentives and, increasingly, active engagement of citizens in the transition process are becoming more discussed within energy policy design, other areas of Social Sciences and Humanities (SSH) understanding such as energy justice or behavioural change are less well known within policy fields.

To actively bridge between diverse energy-SSH research and the policy frontline, Energy-SHIFTS designed a Policy Fellowship Programme to bring together those working in policy and research for direct dialogue, creating a platform to facilitate knowledge exchange. This activity belongs to a tradition of approaches working at the science and society interface which postulate that through establishing such connections both (social) science and policy decision making are improved. The aim of the Programme was to help policymakers gain insight into SSH perspectives of direct relevance to their current tasks, establishing and demonstrating SSH's potential for policy impact, as well as supporting SSH researchers in gaining better understandings of political processes that shape decision making.

The Policy Fellowship Programme matched 21 policyworkers (known as Policy Fellows) from different types of institutions with 86 energy-SSH researchers (known as Policy Associates) from different SSH disciplines; thus each Fellow was matched with 3-6 Associates. The process took place from December 2019 to June 2020 and consisted of six stages: (1) recruitment of Fellows, aiming for diversity of background; (2)

identifying Fellows' specific needs and policy problems that could benefit from SSH perspectives; (3) matching to appropriate Associates with relevant research expertise, aiming for diversity of background; (4) one-on-one Fellow-Associate virtual meetings to deepen the understanding of the policy problem and SSH solutions; (5) online workshops in which groups of Fellows and Associates reflected on the insights they had gained; and, (6) preparing summary reports and guidelines (de Geus et al., 2020; de Geus et al. 2021).

Fellowships were managed by Energy-SHIFTS partners in five groups. DRIFT<sup>1</sup> (the Work Package leader) managed six Fellowships, ARU (the Energy-SHIFTS coordinator) managed five Fellowships which included one team of three Fellows working together, JU and Tecnalía/EERA managed three Fellowships each, NTNU managed two Fellowships. This led to a total of 21 Fellows, across 19 Fellowships.

### 3.2. Data sources informing our evaluation of the Policy Fellowships

Findings presented in this report are based on data collected during the design and implementation of the Energy-SHIFTS Policy Fellowship programme. These data include fieldnotes from the members of the project team for each step of the Fellowship programme, a survey among all participants (Fellows and Associates), as well as notes from a project consortium meeting at the end of the Fellowship Programme, and monitoring data – each of these are discussed below. Data was then coded on the basis of the imagined causal chain used as a framework for our evaluation (see Figure 2 within Section 1 of this report).

.....  
 1 Partners: DRIFT = Dutch Research Institute For Transitions, ARU = Anglia Ruskin University, JU = Jagiellonian University, EERA = European Energy Research Alliance, working with Linked Third Party Tecnalía, NTNU = Norwegian University of Science and Technology.



### 3.2.1. Partner fieldnotes

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For each of three phases of the Policy Fellowship Programme – A. Recruitment and selection of Policy Fellows, B. Recruitment and selection of Policy Associates, C. Liaising with Fellows and Associates – those Energy-SHIFTS partners (namely DRIFT, ARU, JU, Tecnalia/EERA, NTNU, as well as two Early Stage Researchers [ESRs] supporting the programme) involved in facilitating each phase were asked to fill out specific fieldnotes (see templates in Appendix 4). Project team members within each partner were asked about: what went well in this phase, what could be improved, things that happened that they didn't expect, as well as any additional comments. The template of the fieldnotes also included the imagined causal chain of the Policy Fellowship Programme (Figure 2) as a reminder of the assumed key elements for the success of the exercise. This resulted in 25 sets of fieldnotes, some authored by one individual and some co-authored by two or more individuals. For the purposes of this evaluation we grouped these by Energy-SHIFTS team (i.e. DRIFT, ARU, Tecnalia/EERA, JU, NTNU, ESRs).

### 3.2.2. Fellow and Associate 'debrief' surveys

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Two online surveys, primarily using open, qualitative questions, were designed to gain insight into how the process went for the different parties involved.

The debrief survey for the Policy Fellows (Appendix 5) firstly explored the main insights Fellows took away from each of the meetings with their matched Associates, particularly in terms of new perspectives related to their selected policy problem. Here the aim was to assess to what extent these policyworkers were able to gain new knowledge from the experience. A second section asked for reflections on the potential policy impacts of these meetings, and a third for key takeaway recommendations they would give to colleagues facing similar policy challenges. We note that the answers to these questions also fed into the Energy-SHIFTS team's work of writing up the set of Fellowship reports (de Geus et al., 2020). The final section of survey, echoed in the Associates' debrief survey, asked whether the programme met expectations and if they felt well enough supported, whether the process felt open and enabled participants to constructively challenge each other, and if they had recommendations for future initiatives involving policyworker-researcher interactions. The

Fellows' debrief survey was first sent to them after they had met with all of their assigned Associates.

The debrief survey for Associates (Appendix 6) followed a similar design to that for the Fellows, firstly asking for some reflections on the meeting they were involved in and in particular what they had learnt about on-the-ground energy policy challenges from that interaction, before covering the same questions as the final section in the Fellows' survey. The Associates' debrief survey was sent after their meeting with the Policy Fellow.

The surveys were re-sent on several occasions to Fellows and Associates to encourage responses, with 16 of 21 Fellows and 81 of 86 Associates ultimately completing them.

### 3.2.3. Consortium meeting notes and monitoring data

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Two final additional sources were used to evaluate the Fellowship Programme and identify possible improvements. The first was a dedicated session at an Energy-SHIFTS project consortium meeting on 2 July 2020, which was designed as an opportunity for all consortium members (including those not centrally involved in the implementation) to hear about and reflect on the process. This resulted in three sets of notes from group discussions. The second was monitoring data used to assess the diversity of participation across the programme, in particular in terms of policyworker involvement. Fellows' genders, countries, institution types and topics of interest were thus taken into account.

### 3.2.4. Evaluation questions and data sources

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Table 5 presents the six evaluation questions, relates them to the elements of our imagined causal chain (Figure 2 within Section 1 of this report), and indicates which data sources were analysed to answer them. In order to deliver a well-rounded and evidence-based set of conclusions and recommendations, diverse data sources were used in a transparent way. Thus all quotes from the data indicate which data source they are from (*F* = **F**ieldnotes, *PS* = **P**olicyworker **S**urvey [*F*ellows], *RS* = **R**esearcher **S**urvey [*A*ssociates], *C* = **C**onsortium meeting) as well as a number assigned to the quote's author (or authors' team in the case of the fieldnotes), with the same number appearing for the same author(s) if they are quoted multiple times. Fieldnote quotes also indicate which phase they correspond to (A, B or C).



Table 5. Evaluation questions and data sources for Policy Fellowships

EVALUATION QUESTIONS	ELEMENTS OF IMAGINED CAUSAL CHAIN (AS PER FIGURE 2)	DATA SOURCES			
		FIELDNOTES (PHASES)	SURVEYS (FELLOW SURVEY, ASSOCIATE SURVEY, BOTH)	MONITORING DATA	CONSORTIUM MEETING NOTES
Were the starting conditions ensured?	1. relevant skills and time dedicated by project team members	A, B	Both		✓
	2. recruitment and selection of policyworkers, securing a diverse group of motivated Fellows whose participation may lead to desired policy changes	A	Both	✓	✓
	3. recruitment and selection of motivated Associates	B	Both	✓	✓
	4. adequate matching of Fellows and Associates	B	Both	✓	✓
	5. participants' full understanding of their roles at various phases (based on proper guidelines & information)	A	Both		✓
Was the process conducted according to expectations?	1. enough space for Fellows and Associates to relate to one another	C	Both		✓
	2. enough space for Fellows and Associates to challenge each other	C	Both		✓
	3. a learning experience for Fellows and Associates	C	Both		✓
	4. a satisfying experience for Fellows and Associates	C	Both		✓
	5. enough efficiency to demonstrate direct effects and impacts in a given time	C	Both	✓	✓
	6. process allows for reflections, and for learnings to be explicated	C	Both		✓
Were the direct effects achieved, for participants?	1. capacity building for Fellows	C	Fellows		
	2. capacity building for Associates	C	Associates		
	3. SSH research insights taken up in energy policy	C	Both		
	4. usefulness and applicability of the Fellowship Programme are demonstrated	C	Both		
	5. building relations between Fellows and Associates	C	Both		
How likely is it to attain long lasting impacts?	1. increasing the take up of policy fellowship programmes which work with energy-SSH communities	C	Both		
	2. energy-SSH researchers better understand the potential policy implications of their work	C	Both		
	3. energy-SSH researchers and energy policyworkers cooperate more	C	Both		





## 3.3. Findings

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### 3.3.1. Starting conditions

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The assessment of starting conditions related to all the preparations before actual cooperation between Fellows and Associates began. As such they included the full recruitment and selection process for both groups. The ambition was for both Policy Fellows (energy policyworkers) and Policy Associates (energy-SSH researchers) to be chosen in alignment with Fellowship Programme goals, with appropriate skills, motivation, time and information about their roles in the Programme.

For this phase of the Programme, five desired starting conditions were identified in advance. However during the evaluation process it was clear that the third and fourth of these were very interlinked, and thus they were combined (see point c below), resulting in the following set of four:

- a. Relevant skills and time dedicated by project team members
- b. Recruitment and selection of policyworkers, securing a diverse group of motivated Fellows whose participation may lead to desired policy changes
- c. Recruitment and selection of motivated Associates and adequate matching of Fellows and Associates
- d. Participants' full understanding of their roles at various phases (based on proper guidelines & information)

Each of these is now discussed in turn.

#### a. Relevant skills and time dedicated by project team members

The Energy-SHIFTS project team members dedicated more time to facilitating the Fellowship Programme activities than initially anticipated, in large part due to the need for multiple and responsive interactions with (prospective and selected) Fellows and Associates.

*"The process of selecting and recruiting the Policy Associates was much more time and resource consuming than initially considered. The email correspondence with the candidates required constant attention and agility in terms of rapid responses."* (Energy-SHIFTS project team field note entry, F1-B)

The required skills of the project team included broad knowledge and understanding of different SSH disciplines in order to facilitate successful 'matches', as well as the energy policy field. Equally important were skills related to planning, communication and coordination. Team members needed to be reflexive, flexible in their time, and divide and handle tasks efficiently. Frequent meetings between the team members (both within each partner, and across the Energy-SHIFTS team) were crucial throughout for coordination and adaptation of the Programme. Challenging situations included dealing with non-responding participants, restrictions due to COVID-19, and managing differences in expectations. The members of the project team had to find adequate ways of sustaining engagement and communication with both Fellows and Associates over a number of months.

Based on the fieldnotes and survey responses it may be concluded that individual project team members brought significant skills levels in these areas, but also that working together to manage the Fellowships within each of the 5 groups was very helpful, especially for those groups who were managing larger numbers of Fellows.

*"[In terms of what went well in phase III:] Good division of labour within the team, with space for bouncing off ideas and making decisions together. Although it could have been even more organised I think our use of various spreadsheets to record the different fields we were looking for expertise in, and our ideas for who to approach, worked well, especially as there were several of us involved in recruitment at this stage."* (Energy-SHIFTS project team field note entry, F2-B)

#### b. Recruitment and selection of policyworkers, securing a diverse group of motivated Fellows whose participation may lead to desired policy changes

This starting condition in fact encompasses two areas - motivation and diversity - which we cover in turn in this subsection. In order to describe Fellows' motivations for participation, we highlight the two ways in which they were recruited. The first method was by direct invitation by members of the Energy-SHIFTS project team. These Fellows were guaranteed a place if they chose to accept it. Generally they were known by the members of the project team and were approached due to their seniority and level of policy influence, as well as an expectation of their interest in including energy-SSH thinking in energy policy-making processes. The second method was an open call



promoted via partners on the Energy-SHIFTS website and social media. Since again the project team disseminated the call, some applicants were known to the team, however Fellows who applied were generally in slightly less senior positions and were also required to put more effort into the entry process.

While the two different recruitment methods influenced motivational drivers there is no evidence that one group was on average more highly motivated than the other. Some of the Fellows recruited via invitation turned out to be most motivated and committed. Others declared that in their senior position they were under enormous time constraints (or other challenges), often exacerbated by the Covid-19 situation, and because of that could not devote as much time as others, or as much as they themselves had anticipated initially.

*“...the direct invitations worked really well. From what I saw, the best Fellows were the ones that were directly approached. I suppose there could be many reasons for this, but I suspect it was because many of these Fellows had more time to consider the proposition put forward and reflect on how it aligned (or not) with their current work.”* (Energy-SHIFTS project team field note entry, F2-A)

Overall, most of the Fellows were perceived by project team and Associates as highly motivated, and particularly when this motivation translated into responsiveness and ability to dedicate time to the Programme it led to improved outcomes:

*“... we can easily see how the really motivated Fellows ended up saving us a lot of time in e.g. not as much chasing to get tasks done; had more interesting content for Associates to engage with; will provide us with much more to work on when reporting and writing the deliverables. And, of course, they made the process more enjoyable for everyone.”* (Energy-SHIFTS project team field note entry, F2-A)

In contrast, when Fellows were less able to dedicate time and focus to cooperation this was often interpreted as a lack of motivation, including by the linked Associates. However, this may have been an oversimplification, especially in light of the significant and unanticipated strains of the pandemic:

*“I hoped that in this project the discussion was taken more seriously. We had a 80 minute call and I hope it was helpful for [the Fellow] and [their] team. Yet, it felt like something in between many things.”* (Associates debrief survey, RS1)

We next turn to the diversity of the Fellow cohort. The selection criteria for the Fellowship Programme were more flexible than for the Horizon Scanning (as described in section 2), but nevertheless the project team put significant effort into ensuring diversity. The Fellows’ backgrounds thus varied in terms of country of residence, gender, organisation type and topics of interest (Table 6).

*Table 6. Spread of Energy-SHIFTS Fellows by gender, country, institution type and thematic category assigned to*

<b>GENDER BALANCE</b>	10 women, 11 men
<b>NUMBER OF COUNTRIES WHERE FELLOWS WERE BASED</b>	11 (Belgium, France, Germany, Israel, The Netherlands, Norway, Poland, Serbia, Spain, Turkey, UK)
<b>INSTITUTION TYPES</b>	EU (1), Ministry (9), Municipality (3), Ministerial/public institution (2), NGO/think tank (4), Association (1), Private corporation (1)
<b>THEMATIC CATEGORIES UNDER WHICH FELLOWSHIPS WERE ORGANISED (TOGETHER WITH ENERGY-SHIFTS LEAD PARTNER AND NUMBER OF FELLOWSHIPS)</b>	Just transitions (DRIFT - 6), Citizen engagement (ARU - 5), Social acceptance (JU - 3), Behavioral change (Tecnalía/EERA - 3), Human capital (NTNU - 2)

As is very often the case, ensuring diversity involved trade-offs that need to be reflected upon. The project team was faced with multiple dilemmas as highlighted well in the following quote, which relates to the process of scoring Fellowship applications received via the open call.

*“Dilemma 1: Do we select the best scoring candidate or the one which could potentially benefit the most from the scheme? Dilemma 2: Do we select the best applicants and are flexible with the diversity criteria or do we select slightly less strong applicants to meet the diversity criteria? Dilemma 3: Do we select applicants with a basic understanding of, or experience with, the SSH aspects of the energy field or very technocratic applicants to widen their scope?”* (Energy-SHIFTS project team field note entry, F3-A)

While there are no correct answers to these questions, it was important that the decisions made stayed in alignment with the project and Programme goals and were made in a consistent way. In particular it was felt that - once applications were deemed to have met a sufficient quality standard - core diversity criteria such as gender and country of residence were very important to steer the final selections.



**c. Recruitment and selection of motivated Associates and adequate matching of Fellows and Associates**

The recruitment and matching of Associates (a selection of 3-6 energy-SSH researchers per Fellow) also took more time than expected. Again, a combination of an open call and direct invitation was used, but with a particular emphasis on the latter to ensure Associates had expertise and research experience of direct relevance to the Fellows’ policy ‘problems’, which had been explored by the Energy-SHIFTS team in introductory interviews with each Fellow.

The data suggests that the Policy Associates were highly motivated and prepared to put significant time and effort into preparing for their interactions with Fellows, from high acceptance rates for the initial invitations, to the detailed written responses prepared before meetings, to high response rates for the final debrief survey. The Programme certainly demonstrated the appetite that exists amongst energy-SSH communities to engage with those in policy organisations.

*“We found the Associates very open, humble, dedicated, professional and well prepared. It was such a pleasure to express our mutual interest towards renewables, solar but also sustainable transformation as such.”* (Fellows debrief survey, PS8)

Whilst diversity was not noted as one of the primary evaluation elements in advance, in fact certain dimensions of diversity were promoted by the Fellowship Programme leads during the recruitment process. These included: ensuring at least one Early Career Researcher<sup>2</sup> and one senior academic was matched to each Fellow, seeking a spread of disciplinary experience for Associates matched with each Fellow, aiming for at least one Associate from the same region (e.g. same or neighbouring country) as the Fellow but a spread of European representation overall. This led to a variety of research backgrounds being represented.

*“We had a very good balance of gender, regions and expertise in our groups.”* (Energy-SHIFTS project team field note entry, F5-B)

See Table 7 for a summary of overall spread of Associates.

*Table 7. Spread of Energy-SHIFTS Associates by gender, country and SSH disciplines*

<b>GENDER BALANCE</b>	54 females, 32 males
<b>NUMBER OF COUNTRIES WHERE ASSOCIATES WERE BASED</b>	19 (Belgium, Czech Republic, Denmark, France, Germany, Greece, Israel, Italy, Lebanon, Luxembourg, The Netherlands, Norway, Poland, Portugal, Serbia, Spain, Sweden, Turkey, United Kingdom)
<b>SSH DISCIPLINES REPRESENTED</b>	At least 22 (Behavioural Studies, Business Communication Studies, Development Economics, Environmental Social Science, Ethics, History, Human Geography, International Relations, Law, Marketing, Philosophy, Planning, Politics, Psychology, Public Administration, Religious Studies, Science and Technology Studies, Social Anthropology, Social Policy, Sociology, Theology, Transition Studies)

The project team faced a number of challenges while matching Associates to the Fellows. As the activity was deliberately experimental, each of the five partners was enabled to take a slightly different approach e.g. some were particularly focused on achieving disciplinary diversity – potentially therefore introducing research areas the Fellows were not previously familiar with – and others were focused on choosing Associates that matched specific requests by the Fellows or areas they themselves felt more able to make good matches within.

*“... I tended towards social sciences... that is the field I am most familiar with. Have a sharper idea myself of what kind of humanities matches would’ve been interesting: how might we really be explorative and involve musicology or something? That would be super interesting and would’ve been a great opportunity but felt like too much of a risk + an effort that is impossible due to time restrictions (managing expectations on both sides, etc.)”* (Energy-SHIFTS project team field note entry, F3-B)

Members of the project team sometimes articulated concerns about the available pool of Associates they were choosing from, and expressed the desire for this to be expanded beyond contacts of project team members and their colleagues.

*“The matching depends largely on social network of knowledge broker, that limits diversity.”* (Energy-SHIFTS project team field note entry, F3-B)

.....  
 2 For the Policy Fellowship Programme, Early Career Researchers were taken to be researchers either undertaking their PhD, or within 5 years of obtaining their PhD.



Indeed, one team member, in particular when referring to the matching process with Associates who applied to the open call, suggested that perhaps a centralised approach would have offered some advantages:

*“It was a bit chaotic to match and not match with people “taken” in other groups, leading to my group [losing] one of the most active [Associates] to another group. However, it was not a major issue, but in hindsight, maybe ONE group should have done the matching?”* (Energy-SHIFTS project team field note entry, F5-B)

#### **d. Participants’ full understanding of their roles at various phases (based on proper guidelines & information)**

As the Fellowship Programme was in part experimental, as well as seeking to be responsive to feedback during its rollout, some elements of the implementation were deliberately designed or adjusted ‘on the go’. Therefore, it was clear for the project team that implementing the last starting condition - namely giving participants a full understanding of their roles throughout the Programme - may not be possible at the very start. And in fact, although the coordinators of the Programme created many templates and guidance documents during the process (e.g. for invitation emails, policy briefs, and the Fellowship reports), as well as ultimately creating a toolkit for those seeking to replicate such initiatives, the fulfilment of this starting condition was particularly challenging and the constructive feedback on this condition was the most significant.

The written input from project team members, Fellows and Associates allowed for identification of two dimensions of the challenge: (1) ensuring understanding of the final goals of the Fellowship Programme activity, and (2) ensuring understanding of the scope and depth of the cooperation aspired to - including the level of involvement of the Energy-SHIFTS project team. These are discussed in turn in the following paragraphs.

Some Fellows and Associates expressed confusion or differences of opinion at times about the goal or final outcomes of the cooperation and their contribution to it. As an example: some Fellows were looking for a ready-made solution to their policy problems (and therefore asked more instrumental questions), while Associates more often offered insights and comments challenging the Fellow’s framing of the problems. The process was designed to be relatively open and adaptable, and to enable further, more in-depth cooperation beyond the framework of the Programme if desirable on both sides. However, due to diversity of participant backgrounds

and possibly a lack of concrete communication about how future meetings might work from the team’s side, some participants’ were unclear about expectations on this.

*“It was a bit unclear to us what was expected of us after the conversations we had with the Associates. This also seemed to be the case for the Policy Associates.”* (Fellows debrief survey, PS1)

*“I notice that many of the questions are like ‘how to do this and how to do that’. Possibly, the expectations of policy advisors are different from what Associates can offer. Associates do not necessarily know the solution, but can rather share various insights and reflections that can help policy makers make a decision themselves.”* (Associates debrief survey, RS2)

The organised cooperation between Fellows and Associates consisted of small numbers of interactions, usually exchange of documents and one meeting. However, some Fellows and Associates had a clear appetite for more, which resulted in some additional meetings on participants’ own initiative, and therefore more in-depth exchanges. There was an expectation among some participants that the Programme itself facilitates these more in-depth exchanges. An important assumption of the project design was that Fellows and Associates would be able to cooperate with only limited direct (i.e. facilitated) support by project team members. In some cases there was an evident need or expectation that more support within the meetings themselves would have been appreciated. This role of knowledge brokerage on the side of project team members could be only partially fulfilled because of the set-up of the activity and resource constraints.

*“... this was only ever intended to be the START of something was reiterated throughout. This is important for us in managing our own expectations and of those with whom we were collaborating (especially the Associates). It was completely okay if some of the conversations fizzled out into nothing... in fact, this was completely expected...”* (Energy-SHIFTS project team field note entry, F2-C)

### **3.3.2. Process**

Six desirable conditions for the process of the Fellowship Programme were identified in advance. The evaluation analysis identified that the last of these (that the process allows for reflections, and for learnings to be explicated) was central to the overall description of the learning process (the third condition), and thus these



were combined. This led to a list of five conditions, namely ensuring that the process provided:

- a. Enough space for Fellows and Associates to relate to one another
- b. Enough space for Fellows and Associates to challenge each other
- c. A learning experience for Fellows and Associates (i.e. that the process allowed for reflections and for learnings to be explicated)
- d. A satisfying experience for Fellows and Associates
- e. Enough efficiency to demonstrate direct effects and impacts in a given time

Each of these dimensions is now discussed in turn.

#### **a. Enough space for Fellows and Associates to relate to one another**

It is important to highlight here the contextual conditions within which Fellows and Associates were working. Most importantly COVID-19 forced the Programme to shift all meetings online (whereas initially there would have been opportunities for Fellows and some Associates to meet in person). COVID-19 was also mentioned as a factor reducing the amount of available time to participants, as they became part of 'COVID response teams' in their organisation, were occupied with homeschooling or caring for loved ones. Some participants thus were not able to spend as much time on the Programme as they would have liked; given the busy nature of both the policy and academic worlds this may have been the experience even without a global pandemic, but it was exacerbated further. Linked to this then, some participants felt there was not enough time during the interactions to get to deeper discussions, which they would have wanted - indeed time was perhaps more of a critical element than 'space' as referred to in this subsection's title. Relatedly, when participants *did* commit time to engage in the process this was seen by the project's team as an ultimate indicator of the value they placed in the Programme. During the consortium meeting discussions, there was a question of whether Associates had seemingly more time available for these kinds of interactions than the Fellows did, which may reflect both differences in each of their abilities to protect their day-to-day agenda, and also what work activities are seen as more justifiable.

*"I had higher expectations of myself, but regretfully I was not able to live up to them due to personal circumstances that limit the time I can devote to the Programme. Otherwise, the Programme is very interesting."* (Associates debrief survey, RS3)

*"The main challenge is TIME (lack of time, being busy, over-worked) - My Fellow [...] is very busy man, he changed his position and is starting new job. It was difficult to contact him (he did not answer for my email). Then he was postponing our on-line meeting. Finally we had a call. My candidates for policy Associates are also busy. Some of them wrote that he/she would not have time to participate in the project."* (Energy-SHIFTS project team field note entry, F4-B)

*"Fellows are busy, but are associates not? Uneven (power)balance (maybe associates have more freedom in planning their own agenda?). Huge group of people contributed their time"* (Reflections consortium meeting, C1)

Because of COVID-19 only virtual meetings took place (except for one instance which took place before the national lockdowns). In their reflections, many participants indicated that face-to-face meetings would have been better for building trust and having good discussions, echoing the Coordinator and Work Package lead's thoughts when including these in the original design of the Programme. Yet others felt there would not be any significant difference, and that the online programme was very valuable as well. We should note - particularly as a project supporting low-carbon energy transitions - that running the Programme entirely online also meant the related saving of carbon emissions the associated travel would have incurred.

*"Would have been good to meet in person. Something goes missing in virtual exchanges. Allowed for more availability but meeting in person could have provided space for more effective exchange."* (Reflections consortium meeting, C2)

*"I think this is an interesting programme. Moving it into the virtual sphere as a result of Covid-19 provides us with new tools and approaches for knowledge-exchange."* (Associates debrief survey, RS4)

There was a general feeling among all participants, especially Associates, that the discussions could have reached greater depth and this was one of the most repeated topics in their overall evaluation of the process. When asked for their recommendations for future initiatives that involve policyworker-researcher interactions, Associates mentioned a number of helpful ideas which could enable more in-depth communication and interaction, presented in Figure 6 below. Of course, each of these comes at an organisational cost, and we note also that individual Associates (who met one Fellow each) had a shorter involvement in the Programme than individual Fellows (who met up to six Associates).

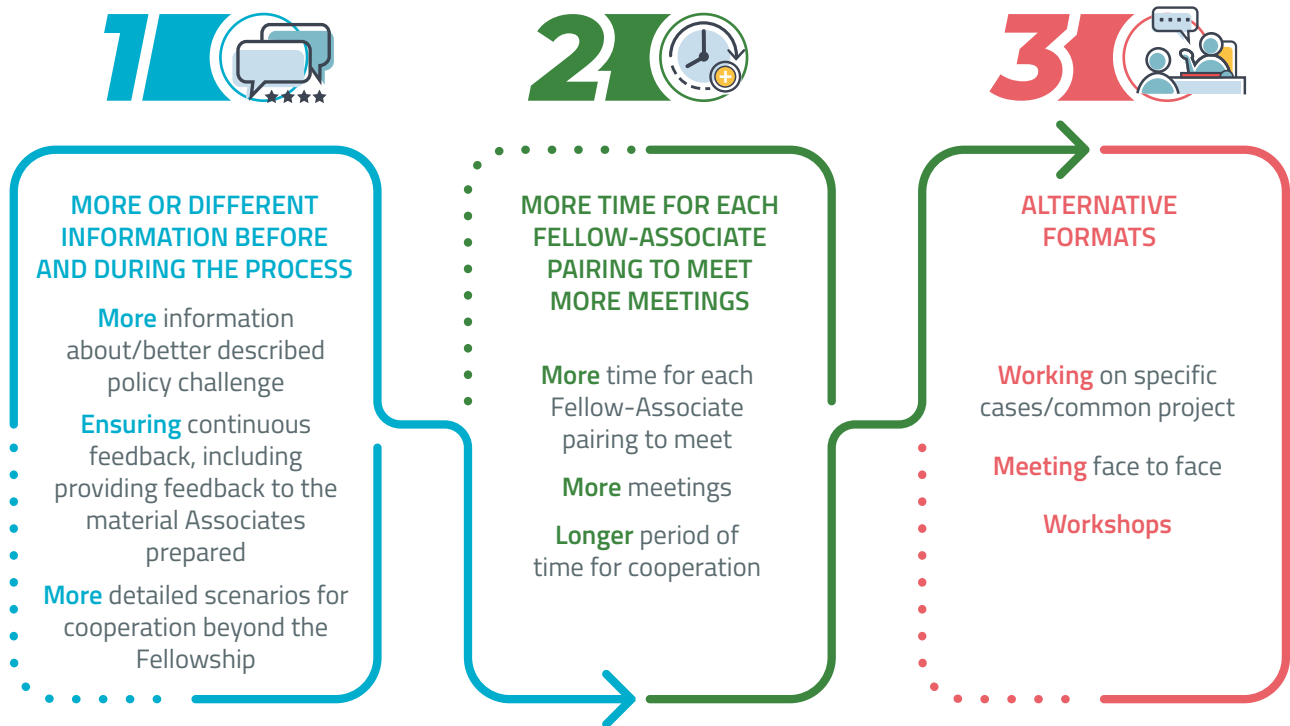


Figure 6. Associates' ideas how the Programme could enhance in-depth discussions and long-lasting relations

When there was an appetite for more interactions leading to more insights, this was possible on Fellows' and Associates' own initiative, but not facilitated by the project team. As indicated, many Fellows and Associates were challenged by time constraints and dedicating more time to the programme proved to be impossible. However, some pairs arranged to meet a second time and some participants indicated they would work on future deliverables together. Indeed, we are aware of one case where - following their meeting - an Associate successfully applied for a job at the Fellows' organisation.

*"It was interesting to hear different points of views and especially international cases were very insightful. But at the same time it was difficult to get really insight into complicated policy issues - too little time."* (Fellows debrief survey, PS3)

*"It was a great experience, albeit too short. I believe that a one page document is not sufficient to convey all of the research and assist the Fellow. Moreover, two meetings should be held with the Fellow to be able to go into more depth on how research could help."* (Associates debrief survey, RS5)

*"I did not have too many expectations, but perhaps I expected more direct exchange with the Fellows and the creation of a "real community" e.g. with a common goal? I think right now we are only at the*

*beginning and one could use the first contacts and the connections to build a community but therefore one would need concrete projects and common goals."* (Associates debrief survey, RS6)

#### b. Enough space for Fellows and Associates to challenge each other

The conversations were described as very open. At the same time participants sometimes articulated the opinion that they were not always conducive spaces for disagreements or critical challenge of each others' standpoints.

*"Each side was very open to discuss the policy issues, most of the calls included challenging element."* (Fellows debrief survey, PS3)

*"I felt we were quite open, although I don't feel we challenged each other very much. It was a quite informal, friendly conversation, in which we tried to think along about the challenges Fellow is facing and how to address them."* (Associates debrief survey, RS7)

*"I would say we were both open and curious to learn more about "the other side". But not a lot of critical exchange has taken place. Also, I do not think that this is the right format for such a critical exchange."* (Associates debrief survey, RS8)



“Not enough space for disagreements: Because of time constraints there was not enough space and relations were not strong enough to fully challenge each other in the conversation. However, this is only my opinion. Fellow and Associates indicated in the questionnaire that there was enough space to challenge each other.” (Energy-SHIFTS project team field note entry, F4-C)

We can reflect that during a first meeting, when each side is getting to know the other, may not be the best time for such critical exchanges - indeed whilst the design was deliberate to expose Fellows to a diversity of academic insights in a short space of time, we can conclude that to truly challenge requires a longer term relationship to be built, of which of course the Programme was intended to be a first step.

**c. A learning experience for Fellows and Associates (i.e. that the process allowed for reflections and for learnings to be explicated)**

Participants (both Fellows and Associates) stated almost universally that the Programme was indeed an interesting learning experience for them, and in particular offered learnings which were not accessible via other activities in their day-to-day work.

“Yes, it was interesting to hear about a policy challenge first-hand and compare it with similar

situations in [my country]. This provided me insights that you wouldn’t be able to get just from reading scientific journal articles on the topic.” (Associates debrief survey, RS16)

The outcomes from these learning experiences are described in more detail in 3.3.3a.

**d. A satisfying experience for Fellows and Associates**

Both Associates and Fellows were asked directly whether their involvement in the Fellowship Programme lived up to their expectations. We assigned their written answers to one of several categories: ‘no’, ‘almost’, ‘yes’ and ‘it was better than expected’. If the answer was unclear it was labelled as ‘unclear (cannot be categorized)’. Example answers for each of these categories are presented in Table 8. An important caveat applies which is that we assumed here that correspondence of expectations and reality could be taken as a proxy for satisfaction with their experience, as seemed to be indicated by their qualitative answers where they often mentioned their satisfaction with the whole process and provided data on the factors influencing it. Keeping this caveat in mind (as well as the limitations of translating qualitative response into quantitative indicators) some conclusions may be drawn from the spread of answers which can be seen in Figure 7.

Table 8. Categories of answer relating to whether Programme participants’ experience lived up to expectations and exemplary quotes

	FELLOWS	ASSOCIATES
No	“I went into the Fellowship hoping that I would connect with researchers who are studying energy and be able to apply their research directly to my campaigning work. This was sadly not the case.” (Fellows debrief survey, PS11)	“No, not really [...] I hoped that the fellows are really interested and would like to engage more actively. However, as stated above, the project is good and depends on the engagement of both sides” (Associates debrief survey, RS11)
UNCLEAR (CANNOT BE CATEGORIZED)	N/A	“I didn’t have any expectations really, and went into it with an open mind.” (Associates debrief survey, RS15)
ALMOST	“It was a bit less structured than expected. Then again this gave us the space to freely speak with the Associates without reservations or many expectations. Because we only spoke with the Associates for an hour, the conversations didn’t always go into depth as much as the written preparation did.” (Fellows debrief survey, PS1)	“I think I would have liked a more frequent interaction with the fellow. I think that only one virtual meeting was not enough. I tried to maintain the communication via email, but I am not convinced this worked well.” (Associates debrief survey, RS5)
Yes	“It was very valuable. It would be nice to talk to the same Associates one or two years later to see if the learned lessons have been put into practice” (Fellows debrief survey, PS6)	“yes, it was very interesting” (Associates debrief survey, RS12)
BETTER THAN EXPECTED	“Higher ‘return’ than expected, in terms of clarification of reasoning and integrated approach” (Fellows debrief survey, PS7)	“it exceeded my expectations, talking with the policy worker was very interesting” (Associates debrief survey, RS13)



We can see from Figure 7 that 67 (out of 97) of the responding participants were categorised as indicating that their involvement lived up to their expectations, or went beyond them; a further 17 indicated that the Programme almost met expectations.

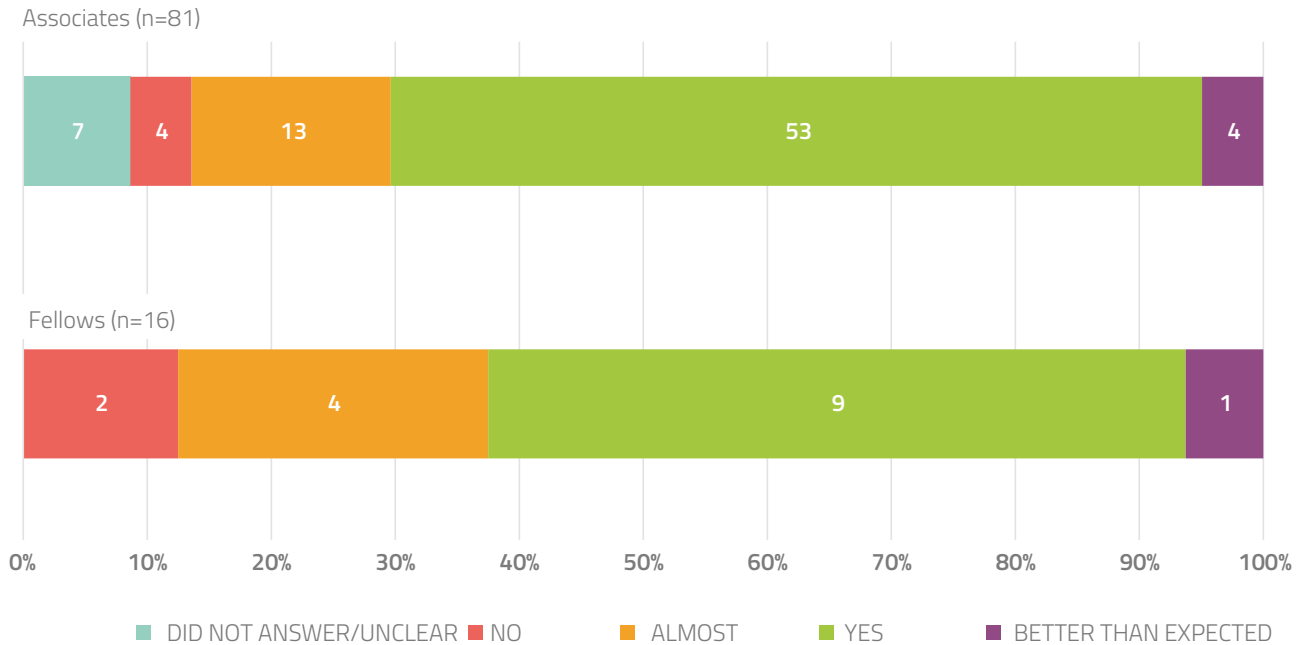


Figure 7. Did the experience live up to participants' expectations? (Qualitative answers categorized by authors into five categories)

Within the qualitative responses, the most important reasons for evaluating the experience as living up to expectations seemed to be the learning outcomes; this is encouraging since these were of course a core goal of the Programme.

*"I have widened my perspective in tackling energy questions"* (Fellows debrief survey, PS12)

Two Fellows stated that the experience did not live up to their expectations. The details they provided on this included that there was not as much structure as they expected in the meetings, and a lack of specific solutions being provided to their policy problems. It is important to highlight that Associates not providing specific solutions should not be treated as the problem per se; this was only an issue if Fellows had an expectation of this from the Programme which Associates were either not able or not comfortable in meeting. We note that we maintained contact with Fellows following submission of their debrief surveys, including during the Fellowship report preparation phase, and thus Fellows did receive further, structured, written-up outcomes as well as additional opportunities to connect via other parts of the project. Nevertheless, these two helpful evaluation responses are further examples of how

increased facilitation time – which could have included more time to support the matching of Associate input to Fellows' requests – would have been valued.

Digging deeper into the response of the four Associates who answered that the Programme had not lived up to expectations reveals in some cases these related to their perceptions of their own contributions to the Programme (amongst other things). As detailed above, some Associates did not provide Fellows with specific solutions to their problems but exchanged ideas about their topic. Even if those interactions were successful from the point of view of the Programme (as most were), Associates themselves articulated uncertainty about the actual value of their contribution. Some felt they were not the right match for their Fellows. Additional reasons for negative responses were already discussed and included processes not being deep enough/too few interactions and cooperation not being facilitated in as structured a way as that participant wanted or expected.

In addition, results showed that – even when satisfied with the experience – some participants were keen for a more structured plan in particular for what would come at the end of their cooperation in the Programme. Some wanted to know more in advance about the





specific outputs, and how to continue interactions. Some Associates indicated that they would have liked to receive more feedback on their written input (perhaps reflecting the ‘norm’ in academic spheres of seeking review comments on work). While these results once again show the importance of providing enough information and structure, they also indicate the last phase as a special moment in the whole process. The Programme was designed partly as a (rare) open space for discussion without the need for pre-defined output products. However the gathered material seems to suggest that some participants have a strong preference for detailed aims of the interaction articulated from the beginning. The surveys were completed prior to the final design and publication of the set of 19 Fellowship reports which provided detailed summaries of each Fellows’ journey, insights gained from their set of meetings, and the impacts achieved (de Geus, 2020). As with the first run of any programme, participants therefore did not have in advance detailed examples of what to expect in these final reports.

*“It might help to explain a bit more what the next steps and the actual outcomes of these interactions are.”* (Associates debrief survey, RS14)

We finally turn to the vital role of the Energy-SHIFTS team in the process who - as has already been noted - spent longer than anticipated facilitating these interactions. While most of the participants were satisfied with the way the process was organised, there was an expectation from others of even greater support. Some of the project team members also expressed the same desire, if there were enough resources, to improve support even more for example by:

- *Facilitation of discussions*, especially during the Fellow-Associate meetings (which the team did not attend);
- *Coaching the Fellows* to help them better articulate their questions and goals;
- *Knowledge brokering* i.e. translating the needs of the Fellow to the Associates and then results of Associates research back to the Fellow; alternatively training participants on how to communicate/discuss effectively.

During this Fellowship Programme, more support from the project team would have been unrealistic in terms of capacity. However, suggestions to improve support by the project team members could be taken into account while designing future, similar initiatives.

*“It is clear that many of the calls did not go as well as they could have gone, mainly because some craved structure and purpose in the moment(s) of the*

*meeting.”* (Energy-SHIFTS project team field note entry, F2-C)

*“My policy worker was not very precise in formulating [their] questions.”* (Energy-SHIFTS project team field note entry, F4-B)

*“One of the challenges was to understand clearly the Fellow aims within this project and how I can use my knowledge to give [them] useful advice.”* (Associates debrief survey, RS5)

*“A note that I put a lot of work into developing the ‘policy brief’ document for some Fellows, as I saw this as potentially saving time when it came to the final report/write up. This might have worked (and perhaps will still help) if done consistently across Fellows and also with a clear plan for the final report. But it is true that for some Fellows this involved quite some development, and even educated guesses, of the policy problem from their original application, and I also note that even by the end of the Programme the particular Fellow I’m thinking of still didn’t really seem to have a very clear ‘problem.’”* (Energy-SHIFTS project team field note entry, F2-C)

*“The project team member was very supportive on every stage of the Program.”* (Fellows debrief survey, PS3)

The reasons once again show that the objectives of the process and the roles of all sides may be defined in a diverse ways; mismatch between expectations can lead to dissatisfaction.

#### **e. Enough efficiency to demonstrate direct effects and impacts in a given time**

By one measure the Programme was efficient overall, in that all targets and deadlines (for example relating to participation numbers, and the three public-facing deliverables from the Programme) were met. At the same time there were two areas for reflection that emerged from the gathered evaluation material which could offer opportunities to increase efficiency. These were (1) increasing the number of participants (particularly on the policy side) taking part in the meetings, and (2) decreasing the time gap between certain phases of the Programme.

While the meetings were initially designed to be one-on-one (bilateral), in some cases there were more participants. In particular, some Fellows invited their colleagues along to provide opportunities for better communication but also dissemination of results from



the meetings. This type of interaction would have naturally happened if the face-to-face meetings had taken place, whereby some Associates would have travelled to the Fellows' places of work, so it was interesting this ended up being replicated even if on a somewhat more ad-hoc basis. Some participants also suggested decreasing the time gap between the initial interview between the project team and each Policy Fellow, and the first meeting of the Fellows with their matched Associates. This would have entailed a shorter matching process which would likely have relied on less tailored matches, but would have offered advantages in terms of keeping up momentum of the Fellows' experiences.

*“What could improve was the large amount of time between the interview and the moment where Fellows and Associates were matched in our group. In some cases, the problems had changed a bit or were updated with new information.”* (Energy-SHIFTS project team field note entry, F3-B)

*“I think a good strategy was to invite two experts and two representatives of the government to the one meeting. The group was big enough to have dynamic discussion and small enough to ensure space for everyone to engage.”* (Associates debrief survey, RS16)

*“I also feel that it makes sense to put policy associates in touch with their policy fellow immediately after an associate confirms his/her will to participate in the programme, instead of confirming all 5-6 associates for each fellow and only then putting them in touch.”* (Energy-SHIFTS project team field note entry, F6-B)

### 3.3.3. Results

The direct and immediate results of the Programme identified in advance were grouped during the evaluation into two areas, related to:

- a. capacity building for Fellows and Associates, with learning outcomes including SSH research insights being taken up in energy policy, and building relations between Fellows and Associates
- b. demonstrating the usefulness and applicability of Fellowship Programme

These two areas are now discussed in turn.

#### a. Capacity building (learning outcomes for Fellows and Associates, and building relations between the two groups)

The evaluation evidence assessed capacity building for Fellows and Associates in two main ways.

Firstly, there was evidence of learning outcomes related to three broad categories: 1. Observing other ways of thinking and acting; 2. Challenging one's own assumptions; and 3. Gaining new energy-SSH related knowledge and ways of thinking.

Different outcomes were more or less prominent for different participants. Associates often stated that observing Fellows' ways of thinking and acting was a particularly important learning outcome for them. Fellows sought and gained new energy-SSH related knowledge and ways of thinking. Both sides had an opportunity to challenge their assumptions, although we can note from previous analysis (section 3.3.2b) that the meetings themselves were not always felt as appropriate spaces for critical challenge, and therefore this may have occurred more when participants reflected on the process (e.g. during survey completion, and for the Fellows during the process of writing up the reports). These learning outcomes are illustrated by example quotes in Table 9 below.



Table 9. Examples of learning outcomes derived from Policy Fellowship activities

LEARNING OUTCOME	EXAMPLE QUOTE
Observing other ways of thinking and acting	<i>"It is always interesting to see how policymakers actually make policies and how much of this is based on catchy narratives (ideally based on personal experience or something someone told them). SSH scientists seem to assume that we have so compelling findings that they will convince policymakers if we just present them, but reality is more that policymakers have already rather established assumptions which they (as any other human) rather try to confirm than challenge. So what is picked up on depends a lot on if it matches the existing narrative or not. I think SSH needs to be better to tell stories."</i> (Associates debrief survey, RS9)
Challenging assumptions	<i>"The [Fellow was] much better informed about social scientific research on this topic than I had expected, and therefore was much more open to the arguments I was making about thinking about public engagement in a slightly different way. I expected much more push-back and that I would have to do much more to justify and explain my points, but actually it felt like talking to a fellow academic social scientist"</i> (Associates debrief survey, RS10)
Knowledge about the topic	<i>"dismissing the NIMBY approach, introducing other theories and concepts like 'place attachment', 'equity', 'fairness' and 'trust' - making it all more complex."</i> (Fellows debrief survey, PS10)  <i>"I did not find answers to the questions that I have. Although I found the whole experience interesting"</i> (Fellows debrief survey, PS11)

Secondly, capacity building took place via the real relations developed between Fellows and Associates that may be used in future communication and cooperation. Many participants expressed interest in further interaction, and common projects and articles were mentioned. However, it is fair to conclude that relations between Fellows and Associates were built only in some cases. As discussed in section 3.3.2a there was an unmet expectation that the Programme would offer a bit more in this respect.

*"I spoke with [Associate] about some follow up but I am not sure if we will find time for this..."* (Fellows debrief survey, PS11)

*"Again, if we had more resources, people kept asking e.g. 'well, what is next?'. There genuinely seemed to be interest, at least from enough of the Associates and Fellows to provide a continuation for something. So a Programme of meetings may have been better in hindsight, e.g. first meeting to get to know one another and agree some detailed discussion points for a second meeting (in between which preparations can be made)." (Energy-SHIFTS project team field note entry, F2-C)*

**b. Usefulness and applicability of Fellowship Programme are demonstrated**

There are many ways in which the preliminary evidence demonstrates the positive effects of the Programme, and indeed this evaluation report - whilst

not shying away from what could be done better - is part of that effort to transparently communicate the appetite for and applicability of policy-researcher programmes, particularly which seek to work with SSH communities. Thanks to the experiences gained by the project team in facilitating this Fellowship Programme, our aim is to make it easier to understand and demonstrate the usefulness of this and similar Programmes and how they may be implemented most successfully.

*"The overall impression based on the webinars was that there was a clear demand for this type of interaction, and that the Fellows and Associates would have been interested to continue the collaboration."* (Energy-SHIFTS project team field note entry, F1-C)

*"I found this an excellent initiative, that turned out even more interesting than I initially had hoped/expected."* (Fellows debrief survey, PS7)

We highlight here the accompanying toolkit (de Geus et al., 2021) which was written to support others in running such initiatives in future. In that report, we brought together lessons from the Policy Fellowship under five starting questions, and advised designers, funders and facilitators of future programmes that aim for researchers-policyworkers interactions to take these into consideration:

1. What are the objectives and boundaries of the Programme?
2. What learning strategy is selected for policy-workers and researchers?



3. What roles can researchers take on when engaging with policyworkers?
4. What is the role and responsibility of a facilitator?
5. How will the Programme contribute to strengthening research-policy exchange in the longer term?

The questions are further elaborated and illustrated in the toolkit aimed at guiding others in designing and implementing a programme that best fits their goals.

### 3.3.4. Impacts

Finally we turn to impacts beyond the life of the Energy-SHIFTS Programme itself. The important expected longer term impacts of the Fellowship Programme imagined before the programme were expanded to include that:

- a. SSH research insights are able to be better taken up in energy policy across Europe
- b. Energy-SSH researchers better understand the potential policy implications of their work
- c. Energy-SSH researchers and energy policyworkers cooperate more, in particular increasing the take up of policy fellowship programmes working with energy-SSH communities

The evidence gathered to date primarily relates to the potential for achieving the first of these impacts,

since the Programme deliberately sought to identify from the start what these specific impacts could be for each of our Fellows' work, with some evidence gathered on the second. The final third impact above needs months or years to show wider effects. Therefore, at the time of this report we make only some preliminary reflections about this.

#### a. SSH research insights are able to be better taken up in energy policy across Europe

The implementation of research insights was documented in the case of each Fellows in de Geus et al. (2020). While they took diverse forms the implementations may be broadly assigned to three categories:

- Better understanding and communication with stakeholders, e.g. engaging stakeholders in policy processes;
- Use of SSH approaches to improve methodologies and processes, e.g. including SSH results and factors in policy models;
- Contribution to systemic change, e.g. changing the relations between stakeholders and their environment in a long-lasting way.

The categories are illustrated by examples in Table 10.

Table 10. Examples of different categories of implementation of research insights (quotes sourced from de Geus et al., 2020)

CATEGORY OF IMPLEMENTATION	EXAMPLE IMPACT
USE OF SSH FOR BETTER METHODOLOGIES AND PROCESSES	"During Autumn 2020, and building on her learnings through the Fellowship, Gersende will engage in discussion with the Research Officer in charge of modelling flexibility for the foresight exercise to develop a new approach to including societal issues relating to flexibility within the modelling process. Pragmatically, they will need to work together to assess which societal issues can be quantified (and therefore included directly in the modelling) and which cannot be quantified but could still be used in the writing of scenarios." (p21)
BETTER UNDERSTANDING AND COMMUNICATION WITH STAKEHOLDERS	"This municipal vision on the heating transition is being developed using data from a broad range of stakeholders. It outlines and presents optimal scenarios for replacing natural gas, primarily from a technological perspective. Marieke's insights on the importance of locally-rooted narratives, such as regarding the cultural importance of greenhouses, will now feed directly into this document." (p88)
CONTRIBUTION TO SYSTEMIC CHANGE	"Insights may feed into the CEDEC Working Group on Consumers, and in particular the Working Group is currently developing a position paper on how to improve the functioning of the energy retail markets for all types of consumers and especially for the most vulnerable ones." (p76)

Notably, in several Fellowships the implementation of research insights could be assigned to more than one of these three categories.



### b. Energy-SSH researchers better understand the potential policy implications of their work

Observing other ways of thinking and acting was an important learning outcome for many Associates (discussed in section 3.3.3a). It may be argued that this effect will lead to better understanding of the potential policy implications of their work among researchers.

*“As a PhD student without professional experience in the field of policymaking, it is easy to assume that sharing scientific journal articles that address the policy challenge could lead to a quick short-term solution to the problem, but in reality of course this is not the case and research is something that could inform policy in the long-term, in a slower but perhaps more effective way.”* (Associates debrief survey, RS16)

### c. Energy-SSH researchers and energy policyworkers cooperate more, in particular increasing the take up of policy fellowship programmes working with energy-SSH communities

With the usefulness and applicability of the Fellowship Programme having been preliminarily demonstrated, there is potential for the further take up of evidence-based policy fellowship programmes as was indicated by participants on all sides.

*“I think the policy associate-fellow combination is a (potentially) fruitful set-up that merits further application.”* (Associates debrief survey, RS17)

*“There should be a lot more opportunities to interact such as these. Maybe they could be directly linked to upcoming funding opportunities.”* (Associates debrief survey, RS4)

## 3.4. Concluding reflections

This section compares the development and implementation of the Policy Fellowship Programme to the imagined causal chain, which was articulated before the start of the Programme. Based on the collected data from various sources, the fulfilment of elements of the causal chain can be verified, and the chain itself may be refined for future implementations.

In general the **starting conditions** were met. Project team members had relevant skills and dedicated more time than planned to the activities. Motivated and diverse participants were selected to the Programme and significant efforts went into ensuring successful

matches. At the same time it proved to be difficult to manage expectations at all times, and in particular to assure participants' full understanding of the process and their roles given that the Programme itself was designed to have a degree of flexibility and responsiveness. Indeed since the design and implementation of the Programme was experimental, it allowed for identifying useful dilemmas which should be considered when initiating similar programmes in the future.

Despite clearly stated objectives (for example in adverts related to the Fellowships) individuals may still feel unclear about what the tangible outcomes will or should be, and this was especially the case with a large coordinating team, and a programme being run for the first time. Since a mismatch between expectations of different sides may lead to dissatisfaction of participants, we make the following suggestions for refining the starting condition relating to giving participants 'full understanding of their roles at various phases'. Firstly, we suggest sharing initial plans for what the outcomes of each Fellowship are planned to be (e.g. the final reports), whilst being upfront if these are subject to change. Secondly, we note that the definition of roles and outcomes is much easier after an initial run of a programme, e.g. for annual programmes etc, and the need to explain this if it is the first time a programme runs. The importance of making strategic decisions at the start where possible was discussed in section 3.3.3b, and prompting others to consider these decisions is central to the toolkit (de Geus et al., 2021).

The recruitment and matching of Associates turned out to be time consuming. Moreover, some members of the project team articulated concerns about the available pool of Associates they were choosing from being too limited to immediate contacts of project team members and their colleagues. It may be concluded that more cooperation among partners in finding prospective Associates could have taken place, but would have added additional time delays. Future implementations of the programme, especially if planned as a long-lasting initiative, could involve creation and use of a bigger database of Associates or making systematic use of existing ones. However, no database will be exhaustive, and ultimately it is important to listen carefully to Fellows' individual and current needs which cannot be known before their recruitment. This part of the process re-emphasises the skill involved in the facilitation role of such programmes, and the value of building relationships with research communities over time (as the Energy-SHIFTS project has sought to do) in order more successfully achieve this type of matching.

Overall, and despite the impact of COVID-19, the **process** of the Fellowship was conducted as expected. The process enabled learning, was satisfying to the



participants and proved to be efficient enough to meet targets and intended outputs. The gathered evidence suggests that while the participants were open in their communication there was not always space for challenging each other, in part due to the design of having (only) one main meeting between each Fellow-Associate pair. It may be argued that because of time constraints of participants and communicating only online because of the COVID-19, creation of space to challenge each other proved to be difficult to attain for all participants.

Therefore, facilitators and funders of future research-policy exchange programmes could choose between two general scenarios. In the first, scenario A, the general design of the Fellowship is similar to the Energy-SHIFTS implementation which allows each Fellow to meet the maximum number of Associates (researchers) in a given timeframe, but it should be acknowledged that participants may only challenge their own and others' viewpoints in a limited way. In this case, the condition to be aspired to could be phrased as "participants are open in their interactions". In this scenario the effects of the Programme will be similar to the ones described.

In the second scenario B, the facilitators and funders may want to set more ambitious objectives for which challenging each other during interaction is a necessary condition. In this case, all participants should commit more time to the Programme, interactions should be more time-consuming and the rapport between Fellows and Associates should be built over more than one meeting. As a result, there will be enough space for challenging each other. Both scenarios could also be implemented at the same time, where all participants will take part in scenario A and only some of them in scenario B. Indeed, this was the original intention of the Programme, through some Associates visiting the Fellows in person, for face-to-face interactions over 1-2 days.

The reflections of the participants also show the importance of an adequate (and an adequately signalled) end of the process. Apart from summarising

the activity, this may include ideas and maybe even nudges for future cooperation.

The **results** of the Fellowship were found to be satisfactory. Specifically, capacity building took place for both Fellows and Associates and the significant amount of gathered evidence from the Programme demonstrated the usefulness and applicability of such initiatives. The particular results for each of the 19 Fellowships, especially related to learning outcomes and implementation of insights into real energy policy programmes are given in detail in de Geus et al. (2020).

The results of the Fellowship Programme were arguably very good given the circumstances, and the resources committed. However, feedback from some participants suggests there was appetite for more interaction and a greater collaborative effort between participants on project outcomes. This would have involved a different type of commitment from participants, but could certainly be considered by future programmes.

Crucially, research insights were translated to policy via the programme. At the time of writing this report (February 2021) it is too early to evaluate the extent to which the other expected (longer term) **impacts** of the Fellowship will be achieved. The attainment of the effects will depend on many other factors, effectiveness of dissemination being one of them. However, the gathered evidence allows us to conclude that the Fellowship Programme could significantly contribute to the take-up of policy fellowship programmes working with energy-SSH communities, as well as broader employment of SSH by Fellows' and their organisations.

These conclusions are summarised in Figure 8, in which the imagined causal chains before and after the Fellowship Programme are compared. The achievement of elements of the draft chain is marked with different font colours where brown indicates that the state was fully achieved, and green partially achieved. Black is used in case of elements for which it is too early to conclude i.e. the longer-term impacts.



**ELEMENT OF CAUSAL CHAIN**

The imagined causal chain before implementation (with the fulfilment of conditions marked with different font colours, brown = achieved, green = partially achieved, black = too early to tell)

The imagined causal chain after implementation (with the new or changed elements underlined)

**STARTING CONDITIONS**

1. relevant skills and time dedicated by project team members
2. recruitment and selection of policyworkers, securing a diverse group of motivated Fellows whose participation may lead to desired policy changes
3. recruitment and selection of motivated Associates
4. adequate matching of Fellows and Associates
5. participants' full understanding of their roles at various phases (based on proper guidelines & information)

1. relevant skills and time dedicated by project team members
2. recruitment and selection of policyworkers, securing a diverse group of motivated Fellows whose participation may lead to desired policy changes
3. recruitment and selection of motivated and diverse Associates and adequate matching of Fellows and Associates
4. clear description of participants' roles in relation to programme objectives, and intended outcomes (explaining these may be subject to change for pilot programmes)

**PROCESS**

1. enough space for Fellows and Associates to relate to one another
2. enough space for Fellows and Associates to challenge each other
3. a learning experience for Fellows and Associates
4. a satisfying experience for Fellows and Associates
5. enough efficiency to demonstrate direct effects and impacts in a given time
6. process allows for reflections, and for learnings to be explicated

**SCENARIO A – ONE MEETING BETWEEN EACH FELLOW-ASSOCIATE PAIR**

1. enough time for Fellows and Associates to relate to one another
2. Fellows and Associates are open in their interactions
3. learning experience for Fellows and Associates (i.e. that the process allows for reflections and for learnings to be explicated)
4. a satisfying experience for Fellows and Associates (e.g. well structured, well supported, expectations about outputs are met)
5. enough efficiency to demonstrate direct effects and impacts in a given time
6. clarity over what should be achieved by the end of the process, including outlining options for future cooperation

**SCENARIO B – TWO OR MORE MEETINGS BETWEEN EACH FELLOW-ASSOCIATE PAIR**

1. enough focussed time for Fellows and Associates to build rapport with one another
2. enough space for Fellows and Associates to challenge each other
3. learning experience for Fellows and Associates (i.e. that the process allows for reflections and for learnings to be explicated)
4. a satisfying experience for Fellows and Associates (e.g. well structured, well supported, expectations about outputs are met)
5. enough efficiency to demonstrate direct effects and impacts in a given time
6. clarity over what should be achieved by the end of the process, including outlining options for future cooperation

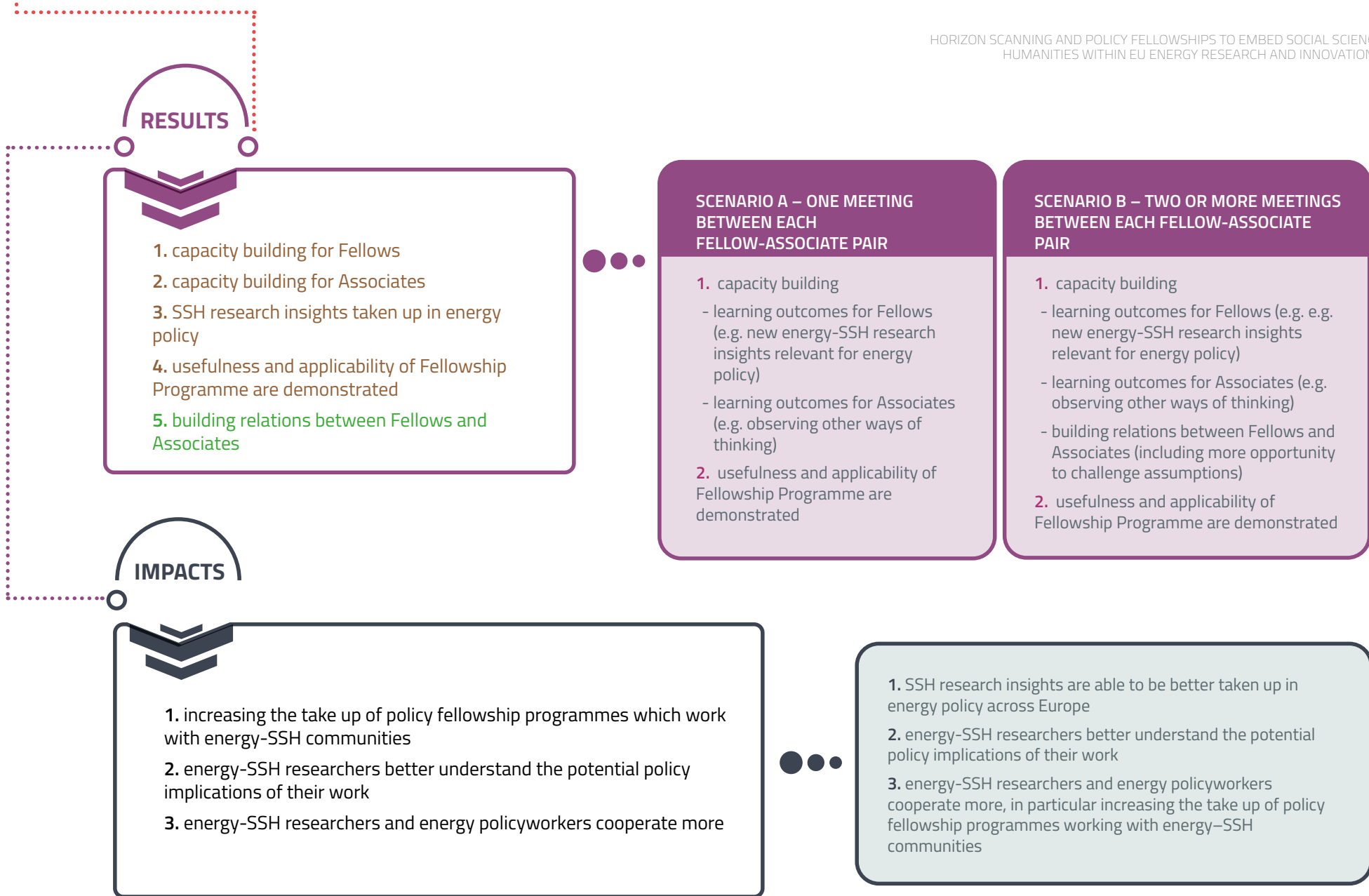


Figure 8. The imagined causal chain of the Fellowship Programme before and after the implementation





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# 6. Appendices

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## 6.1. Appendix 1: Horizon Scanning Survey

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This Appendix is an example of the Horizon Scanning survey used by our four Working Groups. Specifically, this text is taken from Working Group 3's final text template for its Horizon Scanning survey on energy efficiency.

[Page 1]

### Background information

**The survey will close at 2359 (UK time) on [date].**

The **Energy Social Sciences & Humanities Innovation Forum Targeting the SET-Plan (Energy-SHIFTS)** project is a €1m investment through the EU Horizon 2020 programme running over 2019-2021. Specifically, it represents the European Forum for energy-related Social Sciences and Humanities (energy-SSH). Energy-SSH has played less of a role to date in shaping (European) energy policy than Science, Technology, Engineering and Mathematics (STEM) disciplines and, as such, Energy-SHIFTS is working to develop Europe's interdisciplinary expertise in using and applying energy-SSH, particularly at the strategic European level.

An indicative list of disciplines we consider to be SSH include, but are not limited to: Business Studies; Communication Studies; Development; Economics; Education; Environmental Social Science; Gender Studies; History; Human Geography; Law; Philosophy; Planning; Politics; Psychology; Science and Technology Studies; Social Anthropology; Social Policy; Sociology; and Theology.

The two-year Energy-SHIFTS project began in April 2019 and is coordinated by Anglia Ruskin University (UK). As a core part of its work, four Energy-SHIFTS Working Groups aim to identify future priorities for energy-SSH research, with particular reference to the Horizon Europe programme of funding.

Thank you for sparing the time to contribute to our Horizon Scanning survey on Energy Efficiency. We very much appreciate your time and expertise. This survey is predominantly based around one set of core questions, which ask for 3-5 SSH research questions on energy efficiency that you believe require more EU funding, with justifications also required for each of your research questions (in the form of relevant literature where appropriate). It is possible to save your answers and come back to the survey at a later date, if that is helpful. Individual responses will be anonymised and circulated to all members of the Working Group. The Working Group members will be working together over March-June 2020 to edit, categorise and rank the research questions that you suggest in this survey, before then reporting these to the European Commission's Directorate-General for Research and Innovation (DG RTD).

To be eligible to complete this survey, one must be: (1) a researcher with SSH expertise; (2) working at an organisation that is based in a country eligible for Horizon 2020 funding; and (3) part of the Energy-SHIFTS Energy Efficiency Working Group or be invited to respond by a Group member.

Should you have any queries about this survey (or the Energy-SHIFTS Horizon Scanning more widely), please contact [chris.foulds@anglia.ac.uk](mailto:chris.foulds@anglia.ac.uk). You are also free to withdraw within two weeks of completion of this survey by emailing this address.



## Opening questions regarding consent and eligibility

Are you a member of the Energy-SHIFTS Energy Efficiency Working Group? (You do not need to be a Working Group member to complete this survey, as long as a member has directly invited you to complete it) *\*Required*

Yes

No

Please confirm you have not previously completed a Horizon Scanning survey for this Energy Efficiency Working Group. We are only able to accept one survey response per person, per Working Group. *\*Required*

I confirm

Please confirm you are at least 18 years old. *\*Required*

I confirm

Please confirm you understand information submitted to this survey will be anonymised and circulated (confidentially) to Energy-SHIFTS Working Group members, and that the final outputs will be made publicly available online. *\*Required*

I confirm

Data Protection: Please confirm you understand that data may be shared with Energy-SHIFTS partners, some of whom are based outside the EU, but all of whom are contractually bound to abide by EU data protection law. Personal data will be held for a maximum of 2 years after the end of the project (i.e. up to 31 March 2023), after which time it will be destroyed. For more information about how we process your personal data for this project, please see our project [Privacy Policy](#) and ARU's general [Privacy Notice](#) for research activity. *\*Required*

I confirm

We hope you may be interested in staying in touch with the project. For example, over the next 18 months, Energy-SHIFTS will be publishing a number of accessible guides relating to SSH in energy policy, as well as running masterclass events, conferences, citizen debates, etc. We would like to invite you to sign up to the Energy-SHIFTS mailing list (one email every 1-2 months). The mailing list will also be the easiest way to stay informed of all the Energy-SHIFTS Working Groups' outputs. *\*Required*

Yes, please do sign me up to the mailing list

No thank you, I do not want to join the mailing list



[page 2]

## Professional details

First name *Required*

Family name *Required*

Email address *Required*

Gender (please select) *Required*

- Male  
 Female  
 Other  
 Rather not say

Job title *Required*

Organisation name (Please state the company/university name as a minimum. The department / research group name within that, if applicable, can also be stated) *Required*

Country, where your organisation is based (If your organisation is not based in an EU Member State or an Horizon 2020 Associated country, then you are unfortunately not eligible to participate) *Required*  
[drop-down options for all EU Member States and Horizon 2020 Associated countries]

Nationality *Required*

[drop-down options for all nationalities in the world]

Have you completed a PhD? *Required*

- Yes  
 No

Which disciplines would you say you represent? If more than one, please rank in order of 'most fit' to 'least fit': *Required*



[page 3]

## Prioritising future SSH research questions on Energy Efficiency

Horizon Europe is charged with delivering the research and innovation to drive the European low-carbon energy transition, as set out in the EU's [Clean Energy for All Europeans package](#) and the [Long-term Strategy – A clean planet for all](#).

In this survey, we are specifically interested in all SSH perspectives on Energy Efficiency. We are intentionally considering Energy Efficiency in a broad sense (as per our initial [Terms of Reference](#) thinking, p.5-6), covering all themes that feed in and out of e.g. industry and household energy efficiency. Transport-related energy efficiency is not within the scope of this survey.

Whilst acknowledging that blurred boundaries clearly exist, we do also note that: we are not seeking SSH questions that solely deal with 'energy efficient behaviour', but rather SSH questions that may surround anything and everything to do with the energy efficiency technologies themselves.

All SSH questions are welcomed, whatever their e.g. units of analyses, problem definitions, theoretical perspectives, scales, ontologies, epistemologies, etc.

## Recommending SSH research questions for funding in EU Horizon Europe

We now ask you to provide us with a minimum of 3 (maximum of 5) most important energy-SSH research questions in the field of Energy Efficiency, which you believe should be prioritised in future European research funding.

Please note that we are looking for **single open-ended questions** (not 'yes' or 'no', and not statements) that address substantial gaps in energy-SSH knowledge. Questions should also be 'answerable' by a research team through a realistic research design. Finally, your question need not be about a specific intervention (i.e. programme or initiative introduced to achieve energy-related goals), but if it is then we recommend you consider including (i) the problem that the intervention is addressing, (ii) the intervention itself, and (iii) a possible outcome(s), however broad, that you would expect to investigate.

We also ask that you please provide your **rationale and supporting evidence** (up to 2000 characters) for each of your questions, ideally with references to the literature (if applicable). Herein, we are interested in your thoughts on why you believe each question to be critical. Ultimately, why is there a (possibly urgent) research need?

### Recommended SSH research question 1 relating to energy efficiency *\*Required*

Your answer should be no more than 500 characters long.

#### Justification for recommended research question 1 *\*Required*

Your answer should be no more than 2000 characters long.

### Recommended SSH research question 2 relating to energy efficiency *\*Required*

Your answer should be no more than 500 characters long.

#### Justification for recommended research question 2 *\*Required*

Your answer should be no more than 2000 characters long.



### Recommended SSH research question 3 relating to energy efficiency *\*Required*

Your answer should be no more than 500 characters long.

#### Justification for recommended research question 3 *\*Required*

Your answer should be no more than 2000 characters long.

### Recommended SSH research question 4 relating to energy efficiency

Your answer should be no more than 500 characters long.

#### Justification for recommended research question 4

Your answer should be no more than 2000 characters long.

### Recommended SSH research question 5 relating to energy efficiency

Your answer should be no more than 500 characters long.

#### Justification for recommended research question 5

Your answer should be no more than 2000 characters long.

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## Thank you for taking the time to complete this Horizon Scanning survey

You may download your responses here [hyperlink].

We plan to submit our recommendations to the European Commission by the end of July 2020, with them publicly available on [www.energy-shifts.eu](http://www.energy-shifts.eu) in early August 2020.

Should you be interested in making yourself more visible to those seeking collaborations and insights from energy-SSH researchers, then perhaps consider signing up to the [SHAPE ENERGY energy-SSH researcher database](#). You may also be interested to see the recently launched [Energy-SHIFTS energy-SSH policyworker database](#), which covers policy organisations/individuals with appetites for energy-SSH insights.



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





## 6.2. Appendix 2: Template of fieldnote diaries for Horizon Scan Steering Committee members

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### Participant information: Supporting notes for fieldnotes contributors

- These fieldnotes will be collected by:
  - Working Group Chairs
  - Working Group Co-chairs
  - ESRs
  - Critical Policy Friends
- The purpose of these fieldnotes is to record and gather the experiences of those involved in the Horizon Scanning, as part of reflecting upon how those very experiences may shape outcomes and outputs, as well as evaluating what worked well and what could have been improved.
- We have included a template to guide the process of reflecting and recording notes at 10 key moments. This should be treated as an indicative guide; the fieldnotes can cover additional moments that may be deemed important or noteworthy. This is at your discretion, and will vary across individuals and Working Groups. At various stages of the Horizon Scanning, the fieldnotes contributors will inevitably have different roles and be more/less involved in different ways at different times, and thus the prompts provided are just that: prompts for fieldnotes contributors to react to. We very much appreciate that some prompts will be more/less relevant depending on who is responding, and when.
- For each of the 10 moments: please draft around 1 page of A4 in your designated Google Document (excluding the prompts' text), reflecting on your thoughts and experiences during this stage of the Horizon Scanning process. You may draft a longer set of reflections if you wish, but please limit yourself to no more than 3 pages single spaced (excluding the prompts' text).
- Please do remember:
  - To date your individual fieldnotes by the date on which you start fieldnotes for a particular 'moment'. If you return to the fieldnotes and add text at a later date, you may insert the date of this later text 'in-line'. If you return to the fieldnotes to edit your text, you may add an in-line annotation to state that the original text was edited on x date. There is no need to retain the old text; the fieldnotes are there to craft as you see fit.
  - The 'moments' we have selected broadly overlap with the step-by-step process of the Energy-SHIFTS Horizon Scanning, as outlined in our Methodological Guidelines (see main text of this document). However, depending on how different Working Groups conduct their analytical deliberations, it is possible that some steps may merge or take place in a different order. We ask that you use your own discretion and best judgement in making your reflections at each moment, if you note an evolving mismatch between the Horizon Scanning steps and the 'moments' we have selected below.
  - There are no wrong answers; any and all views, experiences and observations are useful to know.
    - Everyone's fieldnotes will be very different. Subjectivity is inevitable and actually something that we embrace in interpreting and analysing the fieldnotes.
  - We are looking for reflection rather than description; i.e. we are interested in your observations, thoughts, reactions and perspectives, rather than a summary of what 'went on' at each stage.
  - You may have a lot to say in response to some of the prompts, and much less on others, and that is fine.
  - Please provide your opinion freely; criticism of the process is welcome, as is reflection on conflicts, difficult conversations, failures in deliberation or facilitation within the group, etc. Indeed, these will provide a very rich and valuable source of data, and reflecting on these adds to (rather than detracts from) the rigour of the process.
  - Everything you say will be anonymised when it is reported on beyond the bounds of the project (e.g. for EC reports, academic papers, etc.). The small number of Energy-SHIFTS researchers (likely summing 2-4) who will read/analyse these fieldnotes will treat all that they read confidentially.
  - We have used prompts intentionally to focus one's efforts in writing these fieldnotes. Essentially,



if you have something outside of these prompts that you believe we need to know, then please do include this, but otherwise please do prioritise responding to the prompts provided.

- You are welcome to edit your own writing. If you have ‘further thoughts’ about a stage that has passed, you are welcome to simply add this to the relevant portion of your Google Document. We will only collect fieldnotes once the entire process is complete, so please feel free to record your ideas and impressions as they occur to you.
- We are planning to write a journal article on the basis of these fieldnotes. Whilst we are extremely grateful for you contributing these fieldnotes, that alone will not be enough to make you a co-author of that article. Nevertheless, all fieldnotes contributors will be given the opportunity to do additional tasks (associated with the article’s development) that will justify co-authorship status. Should fieldnotes contributors not be able to deliver on those additional tasks (and there is no formal pressure to do so), then they will still be explicitly thanked in the Acknowledgements.
- ARU must receive a signed Consent Form before one can begin doing the fieldnotes. These will be collated by emma.milroy@anglia.ac.uk.
- You are free to decide not to take part, or to withdraw your data (until two weeks after the final submission of your fieldnotes contribution); in both cases, please contact Chris Foulds or Zareen Bharucha (details below). The Energy-SHIFTS project is led out of the Global Sustainability Institute, Anglia Ruskin University, UK, and activities have received ethical approval from the Institute’s ethics review committee [GSIDREP/1617/001/R].
- For questions about these fieldnotes, your participation and/or your data, please contact chris.foulds@anglia.ac.uk and zareen.bharucha@anglia.ac.uk.

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

**i. ESR recruitment [ESR representatives should skip moment i., and thus begin their fieldnotes at moment ii.]:**

1. What are your overall reflections on how the ESRs were recruited?
2. What are your expectations on how the ESRs will contribute to this process? Why are they valuable? How good a fit are the recruited ESRs for these expectations?

3. How did the group work together to make decisions to finalise the recruitment? If there were any disagreements, tensions, clashes or conflicts, can you tell us about these, reflecting on why they may have occurred, how they played out, and what helped the group achieve resolution at the end? (If the group continued to disagree but matters moved forward anyway, what was the ‘deciding factor’ that made people ‘agree to disagree’?) How did differences within the group - such as in prior experience, sectoral or disciplinary affiliation, gender, seniority, or something else - play out in the discussions?
4. Were there any instances of ‘major breakthroughs’ in the discussion, such as where something you (or a colleague) had a significant impact recruitment decisions?
5. Were there any observations or comments that you feel are important to note, related to this stage of recruiting ESRs?
6. What could be done at this stage to encourage (or not) the future use of Horizon Scanning methods?

**Date of fieldnotes write up:**

**Fieldnotes reflections (around 1 page in response to the above prompts; no more than 3 pages):**

**ii. Terms of Reference (ToR) finalisation:**

1. What are the expectations - from yourself and the wider group - about the whole of the forthcoming Horizon Scanning process? What are your thoughts, hopes and ambitions, or any concerns you have about how the process will work and what it will achieve?
2. What was your experience with ‘defining’ the Horizon Scan boundaries for your Working Group?
3. How did the group work together to make decisions to finalise the ToR? If there were any disagreements, tensions, clashes or conflicts, can you tell us about these, reflecting on why they may have occurred, how they played out, and what helped the group achieve resolution at the end? (If the group continued to disagree but matters moved forward anyway, what was the ‘deciding factor’ that made people ‘agree to disagree’?) How did differences within the group - such as in prior experience, sectoral or disciplinary affiliation, gender, seniority, or something else - play out in the discussions?
4. Were there any instances of ‘major breakthroughs’ in the discussion, such as where something you (or a colleague) had a significant impact on the direction of the discussion?



5. Were there any observations or comments that you feel are important to note, related to this stage of finalising the terms of reference process?
6. What could be done at this stage to encourage (or not) the future use of Horizon Scanning methods?
7. Can you give us some feedback on your experience of doing these reflections? Were they easy or difficult? Too time-consuming? Have we missed out on something that you feel people should reflect on? Was it easy to do these fieldnotes as a relative observer of the process (e.g. if you are a Critical Policy Friend)?

**Date of fieldnotes write up:**

**Fieldnotes reflections (around 1 page in response to the above prompts; no more than 3 pages):**

**iii. Finalising the methodological guidelines:**

1. What are your overall reflections on how the methodological guidelines were crafted and finalised? What are your expectations of how they will be received once they are rolled out?
2. Which parts of the mandatory requirements feel more / less comfortable, and why? Are any parts of the guidelines confusing?
3. How did the group work together to make decisions to finalise the methodological guidelines? If there were any disagreements, tensions, clashes or conflicts, can you tell us about these, reflecting on why they may have occurred, how they played out, and what helped the group achieve resolution at the end? (If the group continued to disagree but matters moved forward anyway, what was the 'deciding factor' that made people 'agree to disagree?') How did differences within the group – such as in prior experience, sectoral or disciplinary affiliation, gender, seniority, or something else – play out in the discussions?
4. Were there any instances of 'major breakthroughs' in the discussion, such as where something you (or a colleague) had a significant impact on finalising and rolling out the methodological guidelines? Were there any observations or comments that you feel are important to note, related to this stage of finalising and rolling out the guidelines?
5. What could be done at this stage to encourage (or not) the future use of Horizon Scanning methods?

**Date of fieldnotes write up:**

**Fieldnotes reflections (around 1 page in response to the above prompts; no more than 3 pages):**

**iv. Working Group (WG) member interviews:**

1. What do you think about how the interviews were conducted?
2. How do you think the interviews were useful (or not) in revealing how the field has evolved?
3. Were there any group discussions about the process or content of the interviews (either the questions or the data)? How did these discussions go? Were there any disagreements, tensions, clashes or conflicts? Can you tell us about these, reflecting on why they may have occurred, how they played out, and what helped the group achieve resolution at the end? (If the group continued to disagree but matters moved forward anyway, what was the 'deciding factor' that made people 'agree to disagree?') How did differences within the group – such as in prior experience, sectoral or disciplinary affiliation, gender, seniority, or something else – play out in the discussions?
4. Were there any instances of 'major breakthroughs' in the discussion, such as where something you (or a colleague) had a significant impact at this stage?
5. Were there any observations or comments that you feel are important to note, related to this stage?
6. What could be done at this stage to encourage (or not) the future use of Horizon Scanning methods?

**Date of fieldnotes write up:**

**Fieldnotes reflections (around 1 page in response to the above prompts; no more than 3 pages):**

**v. Working Group (WG) member recruitment:**

1. WG Chairs and Co-chairs only: What are your expectations and feelings about facilitating the process with the recruited group?
2. What are your overall reflections on how the WG members were recruited? Were there any challenges with meeting the selection criteria? How representative do you think the final set of WG members are in terms of the variety of perspectives, topics and viewpoints within this particular WG topic?
3. What are your expectations on how the WG members will contribute? What do you think will influence different members' contributions?
4. How did the group work together to make decisions to finalise the recruitment? If there were any disagreements, tensions, clashes or conflicts, can you tell us about these, reflecting on why they may have occurred, how they played out, and what helped the group achieve resolution at the end? (If the group continued to disagree but matters moved forward



anyway, what was the ‘deciding factor’ that made people ‘agree to disagree’?) How did differences within the group – such as in prior experience, sectoral or disciplinary affiliation, gender, seniority, or something else – play out in the discussions?

5. Were there any instances of ‘major breakthroughs’ in the discussion, such as where something you (or a colleague) had a significant impact on recruitment decisions?
6. Were there any observations or comments that you feel are important to note, related to this stage of finalising the terms of reference process?
7. What could be done at this stage to encourage (or not) the future use of Horizon Scanning methods?

**Date of fieldnotes write up:**

**Fieldnotes reflections (around 1 page in response to the above prompts; no more than 3 pages):**

**vi. Horizon Scanning: soliciting research questions from the wider community:**

1. What are your expectations for the amount and kind of research questions which we will receive in response to our ‘call for questions’?
2. If you helped to spread the survey, what were your experiences of contacting the wider community?
3. Was there any discussion within the group at this stage regarding how questions should be solicited, or which networks to target (or something else)? If so, how did these discussions go? Were there any disagreements, tensions, clashes or conflicts? Can you tell us about these, reflecting on why they may have occurred, how they played out, and what helped the group achieve resolution at the end? (If the group continued to disagree but matters moved forward anyway, what was the ‘deciding factor’ that made people ‘agree to disagree’?) How did differences within the group – such as in prior experience, sectoral or disciplinary affiliation, gender, seniority, or something else – play out in the discussions?
4. Were there any instances of ‘major breakthroughs’ in the discussion, such as where something you (or a colleague) had a significant impact on how questions will be solicited from the wider community?
5. Were there any observations or comments that you feel are important to note, related to this stage?
6. What could be done at this stage to encourage (or not) the future use of Horizon Scanning methods?

**Date of fieldnotes write up:**

**Fieldnotes reflections (around 1 page in response to the above prompts; no more than 3 pages):**

**vii. Horizon Scanning: All questions received, collated, edited and categorised:**

1. Now that a list of questions has been received: looking back, what do you think of the process so far? Has it yielded a good list of questions, in terms of number, breadth, and quality? Do you think there has been a skew towards certain topics or perspectives?
2. What were your initial thoughts on the list of questions that was received?
3. WG Chairs and Co-chairs only: What did you think of the initial list of questions received (the ‘raw data’)? What was the process of editing these like?
4. WG Chairs and Co-chairs only: How did you decide on the initial list of categories? Can you reflect on your thinking and the discussions you had about this between yourselves? Was the process easy / difficult and why?
5. Can you comment on your reactions to the ‘cleaned’ list of questions and doing the first round of voting? Was this voting process easy / difficult and why?
6. Were there any instances of ‘major breakthroughs’ in the discussion, such as where something you (or a colleague) had a significant impact on the creation of the various categories and the classification of the questions?
7. Were there any observations or comments that you feel are important to note, related to this stage?
8. At the end of the first round of voting, can you reflect on your reactions on the votes?
9. What could be done at this stage to encourage (or not) the future use of Horizon Scanning methods?

**Date of fieldnotes write up:**

**Fieldnotes reflections (around 1 page in response to the above prompts; no more than 3 pages):**

**viii. Horizon Scan: Selecting the final 100 questions:**

1. Now that there is a list of questions that are ‘definitely in’: what are your thoughts on these? How do you feel about the questions that are ‘up for discussion’? What do you think has influenced the group’s voting behaviour during the first round?
2. Can you elaborate a bit on the overall process by which the final questions are being decided on? How is this being coordinated? Are group members coming together, or discussing only remotely (or some combination of the above)? Is the process being done ‘iteratively’ – with distinct phases or conversations or as one ongoing conversation between WG members? Do you think WG members are comfortable with how the selection is proceeding?



3. How were questions deleted, combined or refined to arrive at the final list? Were there any disagreements, tensions, clashes or conflicts? Can you tell us about these, reflecting on why they may have occurred, how they played out, and what helped the group achieve resolution at the end? (If the group continued to disagree but matters moved forward anyway, what was the 'deciding factor' that made people 'agree to disagree'?) How did differences within the group – such as in prior experience, sectoral affiliation, gender, seniority, or something else – play out in the discussions?
4. Can you comment on the process by which the final categories were decided on and questions classified? Were there any disagreements, tensions, clashes or conflicts? Can you tell us about these, reflecting on why they may have occurred, how they played out, and what helped the group achieve resolution at the end? (If the group continued to disagree but matters moved forward anyway, what was the 'deciding factor' that made people 'agree to disagree'?) How did differences within the group – such as in prior experience, sectoral or disciplinary affiliation, gender, seniority, or something else – play out in the discussions?
5. Were there any instances of 'major breakthroughs' in the discussion, such as where something you (or a colleague) had a significant impact on the selection of the questions?
6. Were there any observations or comments that you feel are important to note, related to this stage?
7. What could be done at this stage to encourage (or not) the future use of Horizon Scanning methods?

**Date of fieldnotes write up:**

**Fieldnotes reflections (around 1 page in response to the above prompts; no more than 3 pages):**

**ix. Webinar to Working Group (WG) members:**

1. How the webinar unfolded, and the overall discussion between WG members.
2. How did different WG members react to the final group of questions presented? Were there any disagreements, tensions, clashes or conflicts? Can you tell us about these, reflecting on why they may have occurred, how they played out, and what helped the group achieve resolution at the end? (If the group continued to disagree but matters moved forward anyway, what was the 'deciding factor' that made people 'agree to disagree'?) How did differences within the group – such as in prior experience, sectoral or disciplinary affiliation, gender, seniority, or something else – play out in the discussions?

3. Were there any instances of 'major breakthroughs' in the discussion, such as where something you (or a colleague) had a significant impact during the WG discussions?
4. Were there any observations or comments that you feel are important to note, related to this stage?
5. What could be done at this stage to encourage (or not) the future use of Horizon Scanning methods?

**Date of fieldnotes write up:**

**Fieldnotes reflections (around 1 page in response to the above prompts; no more than 3 pages):**

**x. Horizon Scan deliverable submission:**

1. Your thoughts and reflections on the entire process, looking back. Do any particular events, conversations or stages stand out as particularly interesting to you or particularly significant? What were these and why are they significant?
2. How did the process as a whole match with your expectations?
3. If you helped to craft the final deliverable, what was this experience like?
4. Did any previously resolved conflicts or tensions re-emerge at this stage? Any new ones? How were these dealt with?
5. Overall, what was your experience of how the group held together and deliberated throughout the process? Were there any particularly 'persuasive' members or any that consistently 'held back'? How were these differences managed by the various WG members?
6. Were there any observations or comments that you feel are important to note, related to this stage?
7. What do you think the Horizon Scanning process will offer to EC policymakers?
8. What could be done at this stage to encourage (or not) the future use of Horizon Scanning methods?

**Date of fieldnotes write up:**

**Fieldnotes reflections (around 1 page in response to the above prompts; no more than 3 pages):**



## 6.3. Appendix 3: Energy-SHIFTS Evaluation Survey

*Energy Social Sciences & Humanities Innovation Forum Targeting the SET-Plan (Energy-SHIFTS)* is a €1m investment through the EU Horizon 2020 programme running from 2019–2021. Specifically, it represents the European Forum for energy-related Social Sciences and Humanities (energy-SSH). Energy-SSH has played less of a role to date in shaping (European) energy policy than Science, Technology, Engineering and Mathematics (STEM) disciplines and, as such, Energy-SHIFTS has been working to develop Europe’s interdisciplinary expertise in using and applying energy-SSH, particularly at the strategic European level. The two-year Energy-SHIFTS project began in April 2019 and is coordinated by Anglia Ruskin University (UK).

This Evaluation Survey is being sent to all members of the Working Groups. As one of the goals of the project is to evaluate the process and effects of Working Groups, it is really important for us that you reflect on the questions and answer them honestly. We want to learn how the members of your Working Group cooperated and how effective this was in reaching the final Horizon Scan. Your input will be used to summarise the Working Groups and – if possible – improve the experience for the future participants of similar exercises.

This survey is intentionally designed to be easy to do and should take only up to 10 mins. Responses may be quoted (anonymously) in project outputs including a public, free-of-charge evaluation report in the middle of 2021 (available via [www.energy-shifts.eu](http://www.energy-shifts.eu)). Since you are a named participant/contributor to the Energy-SHIFTS project, there is a small chance quotes may be identifiable, although we anticipate well over a hundred responses, making this unlikely.

Should you have any queries about this survey (or the Energy-SHIFTS project more widely), please contact [seweryn.krupnik@uj.edu.pl](mailto:seweryn.krupnik@uj.edu.pl).

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

### Professional details

Gender (please tick):

<input type="checkbox"/>	Male
<input type="checkbox"/>	Female
<input type="checkbox"/>	Other

The experience of Working Group

Which Working Group were you a member of?:

<input type="checkbox"/>	Renewables
<input type="checkbox"/>	Smart Consumption
<input type="checkbox"/>	Energy Efficiency
<input type="checkbox"/>	Transport and Mobility

Were you a member of a Steering Committee (i.e. chair, ESR or critical policy friend) in the Working Group?

<input type="checkbox"/>	Yes
<input type="checkbox"/>	No



Now we would like to ask you about your experience as a member of Working Group (further group). Please indicate whether you agree or disagree with the following statements:

Please indicate whether you agree or disagree with the following statements

1. I have had a full understanding of my role at various stages of the work				
strongly disagree	disagree	undecided	agree	strongly agree
2. There was sufficient spread of perspectives representing different academic communities				
strongly disagree	disagree	undecided	agree	strongly agree
3. There was an adequate facilitation to ensure new ideas and deliberation at each stage				
strongly disagree	disagree	undecided	agree	strongly agree
4. There was enough space during webinars for divergence and constructive disagreements				
strongly disagree	disagree	undecided	agree	strongly agree
5. The group work was organized in a way that secured the inclusion of full range of voices in developing the final list of questions				
strongly disagree	disagree	undecided	agree	strongly agree
6. Overall I am satisfied with my participation in the group				
strongly disagree	disagree	undecided	agree	strongly agree
7. My participation in the group was a learning experience				
strongly disagree	disagree	undecided	agree	strongly agree
8. I find the Horizon Scanning a good method to produce high quality research questions				
strongly disagree	disagree	undecided	agree	strongly agree
9. Overall I am satisfied with the final list of research questions				
strongly disagree	disagree	undecided	agree	strongly agree
10. The final list of research questions provides a comprehensive overview of the field that the Group was dedicated to				
strongly disagree	disagree	undecided	agree	strongly agree



For each statement person does not agree with:

a) You indicated that you do not agree with the statement. Please, elaborate on how this element of Horizon Scanning could be improved.

Now we would like to ask you about potential additional effects of your participation in the Working Group (further group). Please indicate whether you agree or disagree with the following statements:

11. Thanks to the participation in the Group, I learned about new or under-represented voices within the field the Group was dedicated to				
<i>strongly disagree</i>	<i>disagree</i>	<i>undecided</i>	<i>agree</i>	<i>strongly agree</i>
12. As a result of my participation in the Group, I better understand the work of other members of the Group				
<i>strongly disagree</i>	<i>disagree</i>	<i>undecided</i>	<i>agree</i>	<i>strongly agree</i>
13. It is very likely that I will collaborate more with other members of the Group in the future				
<i>strongly disagree</i>	<i>disagree</i>	<i>undecided</i>	<i>agree</i>	<i>strongly agree</i>

14. Additional comments

Please use this space to tell us anything else that you think we should take note of.





## 6.4. Appendix 4: Template of fieldnotes the Policy Fellowship programme

---

Name:

Organisation:

Date:

Phase of the policy fellowship: I

Before you start the survey, we would like to remind you of the assumed key elements for the success of the Fellowship Programme, these could help your reflection on the survey questions.

1. What went well in this phase?
2. What could be improved in this phase?
3. What are things that happened that you did not expect?
4. Please reflect on safeguarding diversity in this phase:
5. Are there any other comments or observations you'd like to share about this phase of the policy fellowship?

Date:

Phase of the policy fellowship: II

Before you start the survey, we would like to remind you of the assumed key elements for the success of the Fellowship programme, these could help your reflection on the survey questions.

1. What went well in this phase?
2. What could be improved in this phase?
3. Please reflect on safeguarding diversity in this phase:
4. How did the introduction interviews with your Fellows go? Is this a valuable element? What could improve? Any surprises?
5. What are your lessons learned/reflections about selecting and recruiting policy associates?
6. Are there any other comments or observations you'd like to share about this phase of the policy fellowship?

Date:

Phase of the policy fellowship: III

Before you start the survey, we would like to remind you of the assumed key elements for the success of the Fellowship programme, these could help your reflection on the survey questions.

1. What went well in this phase?
2. What could be improved in this phase?
3. What are your lessons learned/reflections regarding organisation and implementation of the webinar/thematic virtual session?
4. What are your lessons learned/reflections on the debrief surveys?
5. Have there been any surprises?
6. Are there any other comments or observations you'd like to share about this phase of the policy fellowship?
7. Reflecting back, what are the main potentials and/or promises of the overall Fellowship?



## 6.5. Appendix 5: Debrief survey for Policy Fellows

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[Title:] Debrief Survey Fellows

### 1. Your name

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Filling out the survey will take you 20-30 minutes. Your answers will be greatly appreciated and will feed into the rest of the Energy-SHIFTS project. This includes:

- a report with insights and reflections on urgent policy issues in energy due in October 2020,
- a toolkit for organising such Fellowship programmes due in December 2020,
- an evaluation report due in December 2020
- as well as other outputs such as policy briefs or scientific open access publications.

Overall, your effort will contribute to our mission to bridging policy and research..

[Funding banner]

Data protection:

Please tick to confirm you understand information submitted to this call may be quoted anonymously (or using pseudonyms) in publicly available online reports.

Data protection:

Please tick to confirm you are at least 18 years old.

Data protection:

Please tick to confirm you understand that data may be shared with Energy-SHIFTS partners, some of whom are based outside the EU, but all of whom are contractually bound to abide by EU data protection law. Personal data will be held for a maximum of 2 years after the end of the project (i.e. up to 31 March 2023), after which time it will be destroyed. For more information about how we process your personal data for this project, please see our project Privacy Policy (<https://energy-shifts.eu/privacy-policy/>) and ARU's general Privacy Notice (<https://aru.ac.uk/privacy-and-cookies/research-participants>) for research activity.

### Section 1 – insights from the Fellowship meetings

1. You have been interacting with several Associates – both in writing (their written input) as well as in person (virtual meetings, visits in some cases). For each of the Associates, please answer the following question: What were the main insights about your policy challenge that you gained from interacting with him/her? We are particularly interested in any new perspectives which you had not considered before. *Format allows them to input name, and then main insight*

### Section 2 – reflections on the expected or potential policy impact

1. Here – [link]- is a reminder of the *policy programmes/impact* which were identified at the start of your Fellowship. Please comment on how these policy programmes, processes or documents (or indeed others) were or will be impacted by the insights you gained from the Fellowship?



2. Here - [link] - is a reminder of the *policy questions* which were presented to your Associates before your meetings. Reflecting on your initial policy questions, have these been refined through your interactions and if so how?

### Section 3 - recommendations on similar policy challenges

1. Based on the insights from the Fellowship, what are the three main recommendations you would share with colleagues facing a similar policy challenge?

### Section 4 – the Policy Fellowship programme

1. Did your involvement in the Policy Fellowship Programme to date live up to your expectations? Why? Why not?
2. How do you reflect on the degree of openness on both sides and the degree to which you critically challenged one another during the call/visit?
3. Do you feel adequately supported by the Energy-SHIFTS partner up until the meeting? Why? Why not?
4. Do you have any recommendations for future initiatives that involve policy worker-researcher interaction?
5. Have you plans or intentions to follow up with (any of) the Policy Associates? Briefly outline.
6. Do you plan to join the group webinar?

## 6.6. Appendix 6: Debrief survey for Policy Associates

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[Title:] Debrief Survey Associates

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- as well as other outputs such as policy briefs or scientific open access publications.

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### Section 1 – professional details

1. Did you participate in our open call for Policy Associates? [YES directs them to question 10 or NO > question 2]
2. First Name
3. Surname
4. E-Mail Address
5. Gender
6. Job title
7. Department and Research institution
8. Country
9. Discipline [our pre-defined list as drop down]
10. Area of expertise in 5 keywords
11. Are you happy to be included in the [SHAPE Energy researcher database](#)? [yes/no/already registered]
12. Which Fellow did you meet with? [dropdown list]
13. Form of contact: virtual meeting, face-to-face visit, both [-> directs them to either section 2 or 3 or both]

### Section 2 – virtual meeting with Fellow

1. Date of virtual meeting
2. Length of virtual meeting
3. Were there any other attendees at the meeting? If so, please share details.
4. Did you provide written responses to the Fellows' policy questions? [prior to call / after call / not provided yet]
5. Please briefly summarise any additional discussion points or references which came up in the call, which were not in your written responses. Bullet points are fine.
6. What did you learn about on-the-ground energy policy challenges from your virtual meeting? *Note your response to this may be directly quoted in an Energy-SHIFTS report on the Fellowships.*
7. Please reflect on any assumptions that your virtual meeting with the Fellow might have challenged.

### Section 3 – the Policy Fellowship programme

1. Did your involvement in the Policy Fellowship Programme to date live up to your expectations? Why? Why not?
2. How do you reflect on the degree of openness on both sides and the degree to which you critically challenged one another during the call/visit?
3. Do you have any recommendations for future initiatives that involve policyworker-researcher interaction?
4. Have you plans or intentions to follow up with your Fellow? Briefly outline.
5. Do you plan to join the group webinar? [yes/no]



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