2 LEARNING STRATEGY

3 ROLES

4 FACILITATION

1 OBJECTIVES

5 LONG-TERM CHANGE

Energy-SHIFTS

ENERGY
SOCIAL SCIENCES &
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Designing and facilitating impactful research-policy exchange

Insights from the Energy-SHIFTS Policy Fellowships

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January 2021

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Executive summary

Keywords: *(social) science-policy exchange, knowledge development, engagement, research impact, transitions, Social Sciences and Humanities.*

This is a guide for facilitators and funders of research-policy exchange programmes. It translates the lessons learned from the 2020 Energy-SHIFTS Policy Fellowships to five principal questions, which aim to support the next iteration of research-policy interactions for societal change.

The EU-funded Energy-SHIFTS project (*Energy Social sciences & Humanities Innovation Forum Targeting the* SET-*Plan*), which ran from 2019 to 2021, has worked to increase the profile of Social Sciences and Humanities (SSH) in energy policy discussions. Through the Energy-SHIFTS Policy Fellowships, the project set out to bridge the gap between policy-workers at the forefront of energy transitions and SSH researchers. This pilot programme was an experiment aimed at fostering discussions conducive to empower energy policyworkers through the merits of SSH knowledge and insights.

This report focuses on the Energy-SHIFTS Policy Fellowships to reflect on their design and implementation. It serves as a toolkit, which can enable others to design a similar scheme. For the purpose of separating overall insights which can be applied more generally from the details of our own approach, this report is divided into two parts:

Part I. presents five principal questions that we believe are key to ask yourself when starting (knowledge) exchange between research and policy to foster just transitions, such as those in energy. We illustrate each of the five questions with real-life dilemmas from the Policy Fellowship participants, look at what the science says, and recommend ways forward for facilitators of research-policy interactions when designing their future initiatives. The five questions are:

1. *What are the objectives and boundaries of your programme?*
2. *What learning strategy do you select for your policyworkers and researchers?*
3. *What roles can researchers take on when engaging with policyworkers?*
4. *What is your role and responsibility as facilitator?*
5. *How will your programme contribute to strengthening research-policy exchange in the longer term?*

Part II. outlines a step-by-step prescriptive guide for those who aim to replicate the Energy-SHIFTS scheme more closely.

Contents

List of figures

List of Tables

Introduction

"*What kind of industry is academic research? We're mass producers of PDF files, says [my colleague] in a seminar on the societal impact of the humanities and social sciences*".[1] The Professor who tweeted this comment in December 2020, makes an interesting provocation. Unprecedented societal challenges such as the climate crisis and environmental destruction call for a mobilisation of new and existing knowledge to transform our societies (in desired directions). But this mobilisation is often still far from reality. Knowledge about 'social' themes such as human behaviour, politics, and societal history, is all to often considered as an 'add on'. Yet, the direction of our societal transitions - understood as "*he process of change from one system state to another via a period of nonlinear disruptive change*[2]", depend completely on its use and insights. Meeting the challenge of *governing* transitions requires "*continuous learning and adapting*"[3], in which social knowledge takes centre stage.

The stakes could not be higher: Europe needs to decrease its carbon emissions by 55% in 2030, while safeguarding justice and fairness[4]. Indeed, the skills, methods and insights from Social Science and Humanities (SSH), meaning disciplines ranging from Anthropology, Psychology, Theology, Ethics, History and beyond[5], are essential to make sense of how this societal transition develops, accelerates, or can be shaped through policy decisions. While SSH researchers may have increased the *awareness* of the need for sustainability transitions, their role in *shaping* actual transformations is still largely marginal[6]. But

quality exchange between research and policy does not happen spontaneously[7]. We call for bridging the divide between policyworkers, who argue that researchers do not deliver relevant and 'usable knowledge', and researchers, who consider policyworkers to be asking the wrong questions[8].

Despite these barriers, policyworkers and researchers admit to seeing great potential in more collaboration: policyworkers want to deepen their insights and expand their horizon, while tapping into policyworkers' experiential knowledge opens up new avenues for researchers[9]. The benefits of these interactions can be both concrete or more long-term: from policyworkers finding new ways to collaborate with citizens, to changing language, or research foci[10]. Nevertheless, such exchange and collaboration requires effort, trial-and-error, and a deliberate strategy: new experiments are needed.

For this reason, the EU-funded Horizon2020 project **Energy-SHIFTS** (*Energy Social sciences & Humanities Innovation Forum Targeting the SET-Plan*), organised a research-policy exchange programme, focussing on energy transitions. The **Policy Fellowship** was set up as an experiment for designing and implementing a knowledge exchange programme for better energy policy[11]. The Fellowship matched 21 policyworkers from across Europe to 3-6 SSH researchers each. Issues surrounding democracy, equity, economy, behavioural change, reskilling, or energy poverty are a fraction

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1   Hoselius, P., 2020. [Twitter] 8 December. Available at: < https://twitter.com/PerHogselius/status/1335947320635105281> [Accessed 22 January 2021]

2   p. 605 Loorbach, D., Frantzeskaki, N., Avelino, F., 2017. Sustainability Transitions research: Transforming Science and Practice for Societal Change Annual Review of Environment and Resources 42 (1) 599 - 626

3   p. 613, idem

4   European Commission, 2020, 2030 climate & energy framework. [online] Available at: <https://ec.europa.eu/clima/policies/strategies/2030_en> [Accessed 20 January 2021]

5   For a full overview see: https://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/ssh_en.htm

6   Hoppe, R., 2005. Rethinking the science-policy nexus: From knowledge utilization and science technology studies to types of boundary arrangements. Poiesis und Prax. 3, 199–215. https://doi.org/10.1007/s10202-005-0074-0

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7   Van Kerkhoff, L., Lebel, L., 2006. Linking knowledge and action for sustainable development. Annu. Rev. Environ. Resour. 31, 445–477. https://doi.org/10.1146/annurev.energy.31.102405.170850

8   Hoppe, R., 2005. Rethinking the science-policy nexus: From knowledge utilization and science technology studies to types of boundary arrangements. Poiesis und Prax. 3, 199–215. https://doi.org/10.1007/s10202-005-0074-0

9   De Geus, T., Bode, N., Robison, R., Rohse, M., Foulds, C., Wagner, A., Krupnik, S., Świątkiewicz-Mośny, M., Rudek, T., Kuittinen, H. Lisi, V., Søraa, R., Lunevich, I., Wittmayer, J. 2020. Shifting perspectives: insights from the Energy Policy Fellowships. Cambridge: EnergySHIFTS

10   Idem

11   The term policyworker was used to be inclusive to anyone working on policy, whether that is at a governmental body, an NGO or corporate foundation. For a discussion on the term policy work see p. 12 of Colebatch, H.K., Hoppe, R. and Noordegraaf, M., 2010. Working for policy. [e-book] Amsterdam: Amsterdam University Press.

of the issues that were covered[12]. The results of the Fellowship are described in the reports '<u>Live energy policy challenges: questions for the Social Sciences & Humanities</u>'[13] (February 2020), and '<u>Shifting perspectives: insights from the Energy Policy Fellowships</u>'[14] (October 2020).

This guide is for those who want to link SSH researchers to policyworkers to enable fair and just societal change. We hope to inspire a new generation of (potential) organisers and funders to build on our experience and develop research and policy exchange further (e.g. national and local governments, universities, nonprofits, or European alliances). While we emphasise that SSH research in itself does not exist to serve policy, we observe unused potential to improve both policy and research for just societal transitions, through better collaboration. Because sustainability transitions are processes of experimenting and learning, knowledge sharing is paramount.

This guide contains two parts: in Part I, we outline five principal questions resulting from our experiences with the Fellowships. We believe it is fundamental for anyone designing a research-policy exchange programme to address these questions. The five key questions are chronologically ordered in relation to implementing a research-policy exchange:

1. What are the objectives and boundaries of your programme?

2. What learning strategy do you select for your policyworkers and researchers?

3. How will you support researchers in translating their knowledge for a policy audience?

4. What is your role and responsibility as facilitator?

5. How will your programme contribute to strengthening research-policy exchange in the longer term?

While the researchers and policyworkers participating in the Fellowship valued having direct interactions with one another, our experiences have led to new ideas and recommendations. In each section we draw from our own experience and reviewed literature, and wrap up recommendations for facilitators to make future research-policy exchanges even more valuable. In the discussion, we address how these questions together support the grand challenge of learning in transitions. In Part II, we run through the exact steps that were followed while implementing the Energy-SHIFTS Policy Fellowship programme, with template resources.

This report is based on data collected during the design and implementation of the Energy-SHIFTS Policy Fellowship programme. This includes a survey among all participants (15 of 21 policyworkers and 78 of 86 researchers), notes from webinars, email and social media correspondence, and field notes from the organisers for each step of the Fellowship programme. This data was coded inductively, resulting in several overarching themes. From these themes, the organising team selected issues that were both most recurring, and which provided an opportunity for strategic improvement by future research-policy exchange facilitators. With the dual aim of making sense of our empirical observations in a broader context and inspiring and informing (potential) organisers and funders when designing and implementing their own knowledge exchange programmes, we selected several key academic articles for each theme to position each of the themes.

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12   de Geus, T., Lunevich, I., Ibrahim, I., Bode, N. and Robison, R., 2020. Live energy policy challenges: questions for the Social Sciences & Humanities. Cambridge: Energy-SHIFTS.

13   Idem

14   de Geus, T., Bode, N., Robison, R., Rohse, M., Foulds, C., Wagner, A., Krupnik, S., Świątkiewicz-Mośny, M., Rudek, T., Kuittinen, H. Lisi, V., Søraa, R., Lunevich, I., Wittmayer, J. 2020. Shifting perspectives: insights from the Energy Policy Fellowships. Cambridge: Energy-SHIFTS

Part I. Five principal questions for impactful research-policy exchange

1. What are the objectives and boundaries of your programme?

Key dilemma: Do we select the best scoring candidate or the one which could potentially benefit the most from the scheme?

Grzegorz[15] was involved as an organiser for selecting participants. In his field notes he writes about the dilemmas he encountered: "Reviewers thought that some candidates, especially those from non-Western European countries, had good potential for being a Fellow, with great potential impact. While they were lacking some capabilities, they could benefit a lot from the Fellowship. The dilemma was: do we select the best scoring candidate or the one which could potentially benefit the most from the scheme? Also, 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?"

Figure 1.

Defining your objective

With Energy-SHIFTS, we started with recruiting policyworkers who were involved with new questions in the field of energy transitions, and who were committed to realising a just and renewable energy system. As illustrated by Gregorz in his field notes (see Box 1), during the selection procedure of the Fellowships it appeared

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15   All names in this report have been changed to protect the privacy of the participants.

that some applicants had potential for participating in the programme and having an impact, but they could not compete with other applicants who already had a previous background in SSH. Namely, the degree to which policyworkers were able to express their policy challenge related to SSH, depended on their previous knowledge and experience. Applicants who already had a background in SSH were able to communicate about their policy challenge clearly and analytically. However, many other policyworkers are likely to still be either unfamiliar with SSH or unaware of *how* SSH might specifically support their work[16].

The more clear and specific your objective and target audience are formulated, the stronger the potential impact of the programme can be, as it allows you select the most suitable candidates and tailor what might be the most impactful mode of interaction or 'learning strategy' (see Section 2). The individual learning objective for each participant, i.e. their specific searching process, can be co-produced during the actual programme.

What the science says

Finding your change strategy

Fazey et al (2013) define knowledge sharing programmes as "*processes that generate share and/or use knowledge through various methods appropriate to the context, purpose and participants involved*"[17].

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16   de Geus, T., Lunevich, I., Ibrahim, I., Bode, N. and Robison, R., 2020. Live energy policy challenges: questions for the Social Sciences & Humanities. Cambridge: Energy-SHIFTS.

17   Fazey, I., Evely, A., Reed, M., Stringer, L., Kruijsen, J. White, P., Newsham, A., Jin, L. Cortazzi, M. Phillipson J., Blackstrock, K., Entwistle, N., Sheate, W., Armstrong, F., Blackmore, C. Fazey, J., Ingram, J. Gregson, J. Lowe, P. Morton, S. Trevitt, C., 2013. Knowledge exchange: a review and research agenda for environmental management. *Environmental Conservation*, 40(1), p. 20. doi:10.1017/S037689291200029X

Importantly, this highlights how the learning strategy for your programme needs to match your purpose. As mentioned in the introduction, learning in sustainability transitions is normative: It implies that the goal of facilitators is to enable policyworkers and researchers to accelerate just transitions. Therefore, you need to consider what, and who, is capable of inciting action as you select who will be able to join a programme[18]. This can warrant many different strategies. Do you want to collaborate with front runners, or rather people who are not yet engaged in change? Do you want to focus on institutional change or rather policy implementation, or the design of experiments? For example, your aim can be to focus on supporting experimental policy in which you break ground for front runners and radical science, to create a space for more critical knowledge exchange. Another example might be to impact those who have an interest in keeping the current state of affairs (e.g. the fossil fuel industry), to help them pivot towards renewables. To test your assumptions about how and why you want to affect change, and who needs to be involved for that, you can use a 'theory of change'-model[19]. This model allows you to understand how your actions result from the objectives you set.

The selection process

During the selection process, both deliberate and unconscious boundaries may become clear. This means that facilitators need to decide what entry level knowledge is required from participants, and to provide support if needed, in order not to disadvantage candidates with no previous experience. For future programmes, we recommend deciding whether the aim is to include those with no prior SSH knowledge, or whether to work with participants who already have a basic understanding of SSH. Another boundary that became clear, was the degree to which applicants were able to express themselves in English. The language in which a programme is organised might prove to be a threshold for people from certain geographies or sectors to participate.

Finding motivated and committed candidates on both the policy and research side is a key deciding factor in the success of any knowledge exchange programme. In Energy-SHIFTS, some high-level policyworkers who

participated were not able to dedicate as much time to the programme as other less senior participants, which means a trade-off between maximum policy influence and while also having time to invest in the interactions and being interested and committed. To determine who are suitable candidates for your programme, you might want to consider analysing what boundaries of influence, time, and commitment meet the objective of the programme.

Suggested actions:

✔ Define a specific theory of change and objective: how does you programme affect change exactly, and who will be able to do that? Consider where your programme can make the most impact for a sustainable transition.

✔ Choose your target group deliberately and specifically. It is a delicate process: you have power to give someone a seat at the table. Relate your target group to your objectives, and consider the following issues:

• Do you want to support applicants in discovering the potential for SSH exchange? As seen in Energy-SHIFTS, some participants may not be able to convey the SSH implications themselves when applying. Depending on who your target group is, you can consider supporting applicants early on when phrasing their questions, for instance through a workshop.

• What trade-off do you want to make in relation to influence, time and commitment? In terms of balancing transformational policy impact and availability, one option is focussing on middle management. Policyworkers at this level might still be able to free up time and be interested to develop their horizon, and will be able to have maximum impact once they move into senior management. Alternatively, you might opt to differentiate between programmes for different groups, as can be seen with the Centre for Science and Policy (CSaP) programme, who differ between a regular Fellowship and a senior Fellowship[20].

✔ Tailor the implementation of your programme to the needs of your target group. For instance, participants working at the European level will need different brokerage than local programme managers. Think of language for instance: Is it possible and necessary to offer the programme in people's

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18 Van Mierlo, B., Beers, P., 2020. Understanding and governing learning in sustainability transitions: A review. *Environmental Innovation and Societal Transitions*, 34, pp. 255-269 https://doi.org/10.1016/j.eist.2018.08.002.

19 Nesta, 2014. Development Impact and You: Practical Tools to Trigger and Support Social Innovation. [online] Available at <https://diytoolkit.org/media/DIY-Toolkit-Full-Download-A4-Size.pdf> Accessed 22 January 2021.

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20 See: http://www.csap.cam.ac.uk/policy-Fellowships/

native language? This is likely to lower the threshold for people to participate. A more local approach also has the benefit of more easily arranging face-to-face meetings and events.

✔ Match your resources with the number of participants you admit. Our impression is that a smaller group, centered around a clearly demarcated theme and goal, leads to deeper and more critical exchanges. Alternatively, you might also

'try-out' your process with a small number of participants, before you open up the application process.

✔ Anticipate how the insights from interactions may be concretely applied where possible. In the Policy Fellowship programme, specific opportunities, such as documents or events were identified early on in the process, as possible outcomes that may be enriched by the interactions with the researchers.

2. What learning strategy do you select for your policyworkers and researchers?

Key dilemma: Is research instrumental to policy, or an independent island?

Marie entered the Fellowship programme with a clear objective: to find scientific evidence. She wanted to support the numerous anecdotes she collected over the past ten years on how activities on sustainability might decrease resistance towards social acceptance of wind parks. Such evidence would support her policy advocacy work at the EU Commission. While she found the Fellowship to be a valuable experience, she did not manage to find what she was looking for: "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. I really wanted to find answers to my specific questions and to have more evidence with which I could convince decision makers of the importance of justice in transitions. (…) . I also found the jargon and academic language used in research by the Fellows very far away from how we apply it in the policy field."

Figure 2.

Fellows: what to expect from interactions with SSH?

Marie's experience raises questions about the motivations of Fellows for interacting with SSH researchers. Indeed, many applicants were seeking input on concrete challenges from their daily work, e.g. in terms of advocacy, policy implementation or monitoring techniques.[21] Importantly, this was also how the Fellowship was advertised and how the purpose of the programme was communicated. Aiming to learn from SSH to receive answers to clear cut questions can be understood as an 'instrumental approach': meaning that you have a 'shopping list' of knowledge requests. As one Associate stated, "*My Policy Fellow clearly expected researchers to a) back his cause and b) provide instrumental insights (only asking 'how to achieve X' questions*". Another Associate recalled: "*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 researchers can offer. Researchers do not necessarily know the solution, but can rather share various insights and reflections that can help policy makers make a decision themselves.*"

Such an instrumental approach might appeal to policyworkers as it provides a 'quick' answer to their questions. Similarly, researchers might also see benefits of having direct 'social impact'. Arguably, in the case of the Fellowships, there was somewhat of a disconnect between this ambition and the actual outcomes of the programme. The outcomes of the programme indicate that the most valued lesson by Fellows was to have their policy challenge considered from a research angle and systemic point of view, for instance, by interviewing others or learning about geographical or historical specificities[22]. The interactions helped them

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21   See conclusion. de Geus, T., Lunevich, I., Ibrahim, I., Bode, N. and Robison, R., 2020. Live energy policy challenges: questions for the Social Sciences & Humanities. Cambridge: Energy-SHIFTS.

22   de Geus, T., Bode, N., Robison, R., Rohse, M., Foulds, C., Wagner, A., Krupnik, S., Świątkiewicz-Mośny, M., Rudek,

to become a researcher themselves and think about their own question from this angle. Indeed, while in their application, policyworkers appeared to empha-size individualistic solutions[23], later insights rather point towards systemic approaches[24]. For instance, a question on social acceptance derived from personal conflicts, was embedded in social justice issues and the need for knowledge about how to consciously interact with and value knowledge of citizens, SMEs, and energy companies[25]. To align policyworkers' expectations with your objectives, it is key to design a learning strategy.

What the science says

Understanding tensions between research and policy

Rather than asking whether such an instrumental approach is something that is either inherently 'bad' or 'good', key literature on the topic of research-policy exchange places instrumentalisation on a spectrum: there are many different learning goals and strategies that you can choose. The learning strategy depends on how certain key tensions between research and policy are settled, the scale that seems appropriate, as well as how individuals are prepared to approach the inter-action. In analysing knowledge and action exchange, scholars such as Hoppe (2005)[26], Van Mierlo and Beers (2020)[27] and Van Kerkhoff and Lebel (2006)[28] introduce several classifications of how interactions between

'experts' or 'scientists' (in our case researchers) and 'practitioners' or 'politicians' (in our case policyworkers) can take place, and how we can understand tensions between them.

Hoppe (2005) starts by questioning how science and policy are considered to relate to each other. He observes that several few powerful cliches hold strong. The political story tends to consider that "*politics is safely 'on top' and experts are still 'on tap'*"[29]. This means that those in the political sphere ask research ques-tions to science. On the side of scientists, the idea that "*power-less but inventive scholars only 'speak truth to power'*"[30] is prevalent. Hoppe warns for a more cynical interpretation which can also be found, where scien-tists who provide advice follow their own agenda, or the interests from those who fund them. Similarly, politicians would not be interested in actual insights, but rather only seek to "*support and legitimize their pre-formed political decisions*"[31]. It has also been argued that these attitudes result from a 'cultural gap' between research and policy work. After all, policy realities are risk averse, whereas research is looking to challenge and experiment. Also, the pacing is different: quick policy cycles might be irreconcilable with the time needed for analyses. In terms of why research-policy exchange has been largely unsuccessful, Van Kerkhoff and Lebel (2006) debunk two pervasive and previously dominant conceptions, namely the idea that scien-tific knowledge automatically 'trickles down' to those who can benefit from it, and the suggestion that when scientific knowledge is translated to wider audiences, practitioners immediately integrate it into their daily business.

Types of knowledge exchange

Determined to unveil a more complex reality, Hoppe draws insights from interdisciplinary fields[32] that systematically study the relationships between poli-tics and science. To understand the divides between politics and science, Hoppe introduces the notion of boundary work, meaning a practice that defines different spheres (demarcation), while prescribing ways of interaction between participants from those

T., Kuittinen, H. Lisi, V., Søraa, R., Lunevich, I., Wittmayer, J. 2020. Shifting perspectives: insights from the Energy Policy Fellowships. Cambridge: EnergySHIFTS.

23 See conclusion. de Geus, T., Lunevich, I., Ibrahim, I., Bode, N. and Robison, R., 2020. Live energy policy challenges: questions for the Social Sciences & Humanities. Cambridge: Energy-SHIFTS.

24 See conclusion. de Geus, T., Bode, N., Robison, R., Rohse, M., Foulds, C., Wagner, A., Krupnik, S., Świątkiewicz-Mośny, M., Rudek, T., Kuittinen, H. Lisi, V., Søraa, R., Lunevich, I., Wittmayer, J. 2020. Shifting perspectives: insights from the Energy Policy Fellowships. Cambridge: EnergySHIFTS

25 de Geus, T., Lunevich, I., Ibrahim, I., Bode, N. and Robison, R., 2020. Live energy policy challenges: questions for the Social Sciences & Humanities. Cambridge: Energy-SHIFTS

26 Hoppe, R., 2005. Rethinking the science-policy nexus: From knowledge utilization and science technology studies to types of boundary arrangements. Poiesis und Prax. 3, 199–215. https://doi.org/10.1007/s10202-005-0074-0

27 Van Mierlo, B., Beers, P., 2020. Understanding and governing learning in sustainability transitions: A review. *Environmental Innovation and Societal Transitions*, 34, pp. 255-269 https://doi.org/10.1016/j.eist.2018.08.002.

28 Van Kerkhoff, L., Lebel, L., 2006. Linking knowl-edge and action for sustainable development. Annu. Rev. Environ. Resour. 31, 445–477. https://doi.org/10.1146/annurev.energy.31.102405.170850

29 Hoppe, R., 2005. Rethinking the science-policy nexus: from knowledge utilization and science technology studies to types of boundary arrangements. *Poiesis & praxis*, 3(3), p. 201.

30 Idem

31 Idem

32 Notably the knowledge utilization (KU) strand of research in policy studies (KU-PS) and the field of science, technology and society (STS).

spheres (coordination)[33], which we further elaborate on in Section 4.

Meanwhile, Van Kerkhoff & Label introduce four perspectives, which they call 'Participation', 'Integration', 'Negotiation', and 'Learning'. They rank each type of learning strategy in terms of how much engagement and power sharing is expected to occur on both research and policy side (see Figure 3).

Arguably, the initial design of the Fellowship might be understood as a participation approach, where practitioners consulted experts for advice. However, the outcomes of the Fellowship would support the assertion that a learning approach might be preferable by both parties in terms of design and commitment of the 'experts'. This also relates to the concept of 'organisational learning', which posits how the most impactful learning occurs not by finding direct answers to policy questions, but by learning how to systemically research the causes and consequences of an issue[34]. Such an approach might be more focused on a long-term collaboration where practitioners and researchers are both equally invested in the outcomes[35]. It implies that the boundaries of who the 'asking' party is are blurred: rather than research participating in policy or the other way around, collaboration is construed around mutuality.

This opens up opportunities for programmes to be designed more as a capacity building scheme, to invite policyworkers to become researchers of their own case study, and to collaborate with (academic) researchers to complement and discuss their research approach and findings while working on a common goal. Indeed, as mentioned, in transition studies, the skills to learn from experimenting with appropriate policy and mobilising relevant knowledges is considered vital in the searching and learning process that are sustainability transitions[36]. Each different strategy will come with particular drawbacks and risks: this may include defensive attitudes in organisations when attempting to experiment for change, or a lack of concrete or quantifiable impacts[37].

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33   Hoppe, R., 2005. Rethinking the science-policy nexus: from knowledge utilization and science technology studies to types of boundary arrangements. *Poiesis & praxis*, 3(3), p. 207.

34   Van Mierlo, B., Beers, P., 2020. Understanding and governing learning in sustainability transitions: A review. *Environmental Innovation and Societal Transitions*, 34, pp. 255-269 https://doi.org/10.1016/j.eist.2018.08.002.

35   Van Kerkhoff, L., Lebel, L., 2006. Linking knowledge and action for sustainable development. Annu. Rev. Environ. Resour. 31, pp. 445–477. https://doi.org/10.1146/annurev.energy.31.102405.170850

36   Loorbach, D., Frantzeskaki, N., Avelino, F., 2017. Sustainability Transitions research: Transforming Science and Practice for Societal Change Annual Review of Environment and Resources, 42 (1) , pp. 599 - 626.

37   Van Mierlo, B., Beers, P., 2020. Understanding and governing learning in sustainability transitions: A review.

Figure 3. Knowledge, power, engagement and action. Adapted from Van Kerkhoff and Lebel (2006, p. 468).

Environmental Innovation and Societal Transitions, 34, pp. 255-269 https://doi.org/10.1016/j.eist.2018.08.002.

Suggested actions:

✔ Consider how you understand the concept of knowledge in your programme. What kinds do you identify, and how do they operate in interaction? Can they be exchanged or co-produced?

✔ Assess what learning strategies have been previously researched, e.g. by Van Kerkhoff and Lebel (2006), and determine what angle fits your objective. Our experience with the Fellowship suggests that there is demand for knowledge programmes that shift the objective towards a mutual learning experience, rather than mere participation of policyworkers in research-based knowledge.

✔ Decide what kind of preparation and commitment you will require from the side of policyworkers, as well as researchers. Particularly, in terms of time as a resource and willingness to possibly change their way of working. This will also have implications for managing expectations and selecting candidates: participants would have to commit to the programme as a professional learning experience and reserve ample time to invest in this (also see Section 1).

3. What roles can researchers take on when engaging with policy workers?

Key dilemma: "Am I the right person or is someone else better suited?"

Senna felt like she had little knowledge on the specific topics she and her Fellow were to talk about. As a result, she prepared many documents and sent them to her Policy Fellow in advance. While they had an interesting conversation, which gave her an opportunity to work on a 'local case', it left her doubting whether her preparation time was well spent.

Similarly, William mentioned that although they had an open conversation with their Fellow, they felt uncomfortable, since the topic of focus was not their focal research area. Therefore, they were not sure if the conversation was of added value to the Fellow, other than learning about comparable situations from a different geographical context. Other researchers also shared their discomfort about whether they were the 'right person' to be involved in the programme. This discomfort not only related to the topic of interest to the Fellow, but also to the kind of answers Fellows were looking for, i.e. specific answers regarding specific topics (also see Section 2).

Figure 4.

Barriers for SSH researchers when talking to policyworkers

Translating academic knowledge to a specific policy case is not an easy task. It involves translating conceptual work to practical experiences, and finding a common language to communicate ideas. From the Fellowships we observe that many SSH researchers find this a challenging task, when coming from an academic culture which generally values critical and reflexive thinking. They might start with questioning the questions raised by policyworkers, or providing a different angle or perspective. The Fellowship programme only provided for such conversations in a limited way, as the minimal set up was a one hour conversation with each researcher.

Not all SSH researchers involved in the Fellowships were working on the energy system or sector as an empirical context, but their knowledge was considered relevant in relation to the dynamics and changes in this sector. This did imply an extra effort in making the translation. Some SSH researchers made a lot of effort to indulge themselves in a new field and make this connection, while others did not seem to have much time or interest in this, and simply summarised their (latest) work. Furthermore, we observed that language (concepts and terminology) could pose a barrier in conversations stretching the research and policy nexus, as well as between different SSH disciplines.

In short, many SSH researchers encountered a double challenge: turning instrumental questions into conceptual explorations, and applying their knowledge to a specific context - contextually, institutionally and culturally - which they often had not engaged with before. Reframing questions and adapting to contexts becomes easier with experience. We witnessed differences in researcher's experience with policy advice (e.g. through their submitted policy briefs). Researchers with more experience were more confident in sharing their viewpoints than SSH researchers that were newer to interacting with the world outside of academia. Facilitators of research-policy exchange should consider this during the design of the programme, and support SSH researchers in capacity building where needed (also see Section 4).

What the science says

Roles researchers can have

These observations lead us to a better understanding of what roles researchers want and can take in such knowledge exchange processes. When such processes are situated in contexts with high scientific uncertainty or lack value consensus, Pielke (2017) suggests scientists can choose to be an 'issue advocate' or 'honest broker of policy alternatives'[38]. The defining characteristic of the issue advocate is "*a desire to reduce the scope of available choice, often to a single preferred outcome among many possible outcomes.*" He adds: "*Issue advocacy is fundamental to a healthy democracy and is a noble calling.*"[39] The honest broker has a desire "*to clarify, or sometimes to expand, the scope of options available for action*"[40]. Here the word 'honest' should not distract too much: rather, the broker aims to empower the decision maker by clarifying the scope of what action is possible. Researchers choose their role depending on whether the goal is to reduce the scope of choice available to decision-makers (issue advocate) or expand or clarify (honest broker)[41]. Arguably, the researchers in the Fellowships in many cases adopted the role of the honest broker, as they showed "*a desire to clarify, or sometimes to expand, the scope of options available for action*"[42]. Pielke argues that it is important to have an open discussion about roles and contexts, in order for scientists to develop an understanding of politics, which he describes as a "*polluted science communication environment*"[43].

Relatedly, Wittmayer and Schäpke (2014) argue how researchers in sustainability transitions can either take a descriptive-analytical, or process-oriented approach[44]. The latter refers to how researchers deal with creating and maintaining space for societal learning, and thus actively engage in political environments. They then continue to distinguish a number of roles and activities for researchers engaged in process-oriented sustainability research. They identify five roles: 1) change agent; 2) knowledge broker; 3) reflective scientist; 4) self-reflexive scientist; and 5) process facilitator. For researchers in knowledge exchange processes, these ideal-types can help to understand how they position themselves in the process.

Researcher roles can be considered in terms of concrete interactions, but also on a longer time scale of research-policy exchange. Oliver and Cairney (2019)[45] provide a synthesis of concrete how-to-advice for academics who want to take on such a long-term perspective on influencing policy. They summarise eight main recommendations, which they identify to have been more or less consistent over the last 80 years[46], knowing: "(1 *Do high quality research*; (2 *Make your research relevant and readable*; (3 *Understand policy processes*; (4 *Be accessible to policymakers: engage routinely, flexible, and humbly*; (5 *Decide if you want to be an issue advocate or honest broker*; (6 *Build relationships (and ground rules) with policymakers*; (7 *Be 'entrepreneurial' or find someone who is*; and (8 *Reflect continuously: should you engage, do you want to, and is it working?*"[47].

Relating to these recommendations, we identify several opportunities to influence policy-making, which were offered by the Fellowships. First, researchers were offered an opportunity to gain more experience and practice interacting with policyworkers, and finding out what roles suit them and their research. Second, researchers had an opportunity to make their research more relevant, e.g. by applying it to a different context, a different topic, or a different organisational language and culture. Third, researchers acted humbly in the way they sometimes overprepared, and asked themselves whether they were 'the right person'. Fourth, researchers were stimulated to reflect on their roles (e.g. issue advocate, honest broker, or other) by providing, and invoking a certain reaction or outcome. Fifth and finally, researchers built relationships - temporary or long-lasting - with policyworkers and their organisations.

38 Pielke Jr, R.A., 2007. *The honest broker: making sense of science in policy and politics.* Cambridge University Press.

39 Pielke Jr, R. A., 2015. Five Modes of Science Engagement. Available at: http://rogerpielkejr.blogspot.com/2015/01/five-modes-of-science-engagement.html [Accessed 22-1-2021].

40 Idem

41 Pielke Jr, R.A., 2007. *The honest broker: making sense of science in policy and politics.* Cambridge University Press.

42 Pielke Jr, R. A., 2015. Five Modes of Science Engagement. Available at: http://rogerpielkejr.blogspot.com/2015/01/five-modes-of-science-engagement.html [Accessed 22-1-2021].

43 Pielke Jr, R. A., 2015. Five Modes of Science Engagement. Available at: http://rogerpielkejr.blogspot.com/2015/01/five-modes-of-science-engagement.html [Accessed 22-1-2021].

44 Wittmayer, J.M. and Schäpke, N., 2014. Action, research and participation: roles of researchers in sustainability transitions. *Sustainability science*, 9(4), pp.483-496.

45 Oliver, K. and Cairney, P., 2019. The dos and don'ts of influencing policy: a systematic review of advice to academics. *Palgrave Communications*, 5(1), pp.1-11.

46 Oliver and Cairney conducted a systematic literature review of written evidence published over the past 80 years. Idem, p. 2.

47 Oliver, K. and Cairney, P., 2019. The dos and don'ts of influencing policy: a systematic review of advice to academics. *Palgrave Communications*, 5(1), p.1.

Suggested actions:

✔ Take responsibility when it comes to supporting SSH researchers in capacity building. Researchers might need support in turning instrumental questions into reflexive answers, and applying their knowledge to a different topic or context. This could partly be done by expectation management. If in line with the objective of the programme, facilitators can also support in translating questions from instrumental to broader learning questions (e.g. already in the process of recruiting policyworkers and constructing the policy briefing).

✔ Consider organising workshops to prepare researchers. These can be used to reflect on which role one can take in different situations, and what aspects (e.g. of communication) should be taken into account to make interactions most meaningful and impactful. For the Fellowships, an intake interview only took place with Policy Fellows, while this could also be conducted with SSH researchers.

✔ If the research-policy exchange involves only a single interaction, do not solely focus on output (e.g. direct policy impact), but consider it an opportunity for learning about exchanging ideas with a different audience, and learning about challenges faced by policyworkers.

✔ Provide a clear format/guideline for communication between researcher and policyworker. For instance, when working with written responses to the Fellow's questions by the researchers, this format ideally provides space for opening up the scope of the question.

✔ Especially at the start, and when there is limited time to build trust between policyworker and researcher, do your part in 'speeding up' this trust building process and acting as a legitimate partner. Further recommendations on how to do this are made in the next chapter.

4. What is your role and responsibility as facilitator?

Key dilemma: "You can always do more facilitation"

In an online meeting with all the organising partners of the Fellowships, the group reflected on their roles as facilitators in the programme. "The amount of work and skill involved!", Simone said, "there is so much work in helping people to communicate with each other. Writing the policy brief was a great exercise with the Fellow to get down what they are looking for. But then, the responses of Associates [SSH researchers] were so different, ranging from clear cut answers to questions, to rambling essays about their latest publications." Verónica agreed. They joined one of the conversations, as one of his Fellows had little time to prepare the meeting. They observed how both parties talked about the same topic, but seemed to be having different conversations. Simone added: "How can we act to make these processes better?"

Figure 5.

Challenges faced by facilitators

In this section we reflect on the role of facilitators in programmes hosting interactions between researchers and policyworkers. Central questions are: Who are these facilitators and what is their role? What should they take into account in order to create optimal spaces for mutual learning? Our experiences in the Fellowship show that facilitating direct research-policy exchanges are a difficult and time consuming job. During the Fellowships, our major contribution as facilitator included initiation, match making, translation, communication, and coordination. In no doubt, our role as *initiator* was seen to be very valuable: it is still not common for researchers and policyworkers to interact with each other directly. Another major role was logistical support as discussed in Part II of this publication, as well as coordination and offering participants a structure and deadlines. The policy brief (i.e. the summary of the Fellows' case, policy problem and question) was found to be helpful by participants to structure the conversations. Apart from the desire to spend more time in conversation, participants also reported to prefer 'more' or 'different' brokerage and facilitation. This included:

- Time restrictions and remote online meetings (due to COVID-19) limited the opportunities for participants to build trusting relationships.

- Researchers did not feel equally part of the exchange. Some reported to feel misunderstood in their abilities as SSH researchers, as they felt unable to provide the 'right' perspective or provide answers to instrumental questions (see also Section 2).

- Researchers mentioned that they missed a common goal, something they and their Fellow could work towards together.

- Some participants and facilitators reported discussions to be awkward, unstructured, too shallow, or having lack of constructive discussion. In some cases, this was considered to be caused by having different expectations.

- There was a significant difference in the way Fellows were involved, depending on their problem or case, and whether they had a high-level position, or were more directly in touch with practice. Besides, policyworkers with more strategic level positions were more constrained in time commitment. Because their cases were often more abstract, discussions sometimes remained shallow as there was little time to go in depth or relate to practical implications.

Using the role of facilitator to address these points could increase the quality of research-policy exchanges. In the next sections we draw on academic literature to mirror these experiences with academic analyses.

What the science says

Scholars from different fields write about efforts to connect the worlds of science with practice. For this section, we reviewed some key articles on shifting roles for researchers in impacting policy. While there is a significant amount of literature on this topic, we focus here on what is relevant for facilitating direct (person to person) interaction between policyworkers and researchers.

Facilitators as boundary workers

'Boundary work' comprises instances in which boundaries, demarcations, or other divisions between fields of knowledge are created, advocated, attacked or reinforced[48]. Involved parties in boundary work have high stakes in delineation, because, as some scholars have argued[49], it may be essential for the cultural authority of science to be distinct from other activities. In disagreement, Hoppe argues that the "*task of demarcating science and non-science is reassigned from analysts to people in society, and…focuses on episodes of 'boundary work' [which] occurs as people contend for, legitimate, or challenge the authority of science - and the credibility, prestige, power, and material resources that attend such a privileged position*"[50]. Thus, cognitive authority is the result of successful boundary work. Scientists have to guard their cognitive authority in their role as advisors in the boundary transactions with policyworkers and politicians.

We argue that many of these insights are also relevant to facilitators as distinct actors, or, boundary workers. There is a specific role reserved for 'the boundary worker' who - in line with Hoppe's writings - (1 creates

a protective space for policyworker and scientist to interact, (2 prescribes and demarcates proper ways of behaving, (3 defines proper ways of interaction, and (4 coordinates to make these interactions possible and conceivable.[51]

Considering this designated role of a facilitator, the goal of a Fellowship is not to make researchers into policyworkers, or policyworkers into researchers. Rather, the goal is to enable both parties to think like, and understand the other party to make better use of each other's qualities. The overarching goal is to make research relevant for society, while enabling policy to be constructed based on science. In this sense, a boundary worker is someone who facilitates a valuable exchange between scientists and policyworkers.

Being conscious of power relations

Karnieli-Miller et al. (2009) address the issue of power relations in qualitative research (i.e. most SSH disciplines)[52]. They write about the inherent power relations between researcher and participants in research, which, particularly if one is not conscious of them, can pose complex challenges. Inevitably, in the attempt to democratise a research process, and the tendency to question traditional roles and boundaries, ethical and methodological challenges are raised. Karnieli-Miller et al. offer a conceptual frame to address questions of power distribution at different stages in a qualitative research process.

During a research-policy exchange, such as those of the Fellowships, a similar process takes place. It proposes to reduce – or at least reconsider – power differences, and encourages disclosure and authenticity between researchers and policyworkers. When facilitating exchanges, or when acting as a knowledge broker, it is important to be aware of power relations in these interactions, and design the process in a way that enables a fair and equal interaction. Facilitators, in their role as boundary workers, have a certain power: How do you position and frame the role of researchers and policyworkers (in our case 'Associates' and 'Fellows')? The policyworker with a (democratic) political agenda, and the researcher as the one with objective knowledge? As an example, during the Fellowship, policyworkers were given the opportunity to phrase (instrumental) questions in advance, nudging researchers to answer those specifically. Meanwhile, this arguably limited the possibility to rephrase the question. An advantage

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48 The concept of boundary work was introduced by sociologist Thomas F. Gierin (1983). "boundary work and the demarcation of science from non-science: strains and interests in professional ideologies of scientists". *American Sociological Review*. 48 (6) pp. 781–795.

49 For instance academics like Popper, Mertons and Kuhns, as highlighted in Hoppe, R. (2005). Rethinking the science-policy nexus: from knowledge utilization and science technology studies to types of boundary arrangements. *Poiesis & praxis*, 3(3), p. 205.

50 Hoppe, R., 2005. Rethinking the science-policy nexus: from knowledge utilization and science technology studies to types of boundary arrangements. *Poiesis & praxis*, 3(3), p. 201.

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51 Idem, p. 207

52 Karnieli-Miller, O., Strier, R., & Pessach, L., 2009. Power relations in qualitative research. *Qualitative health research*, 19(2), pp. 279-289.

Table 1. The activities and roles in sustainability science. Adapted from Wittmayer and Schäpke (2014, p. 488).

KEY ISSUE	ACTIVITIES OF RESEARCHERS	PROPOSED ROLES FOR RESEARCHERS
Ownership	Analyse dynamics and actors	Reflective scientist
	Initiate process	**Process facilitator**
	Select participants	
	Facilitate process	
	Motivate participants	**Change agent**
	Empower participants to lead/own the process	
Sustainability	**Initiate and participate in a learning journey based on sustainability values**	**Change agent**
	Support in making sustainability meaningful in the given context	**Knowledge broker**
	Provide space for critical reflection	
	Provide knowledge on the basis of analysis	Reflective scientist
	Engage in a (self-) reflexive practice with regard to own normative orientation	Self-reflexive scientist
Power	**Select participants**	**Process facilitator**
	Facilitate learning process	
	Encourage expression of all viewpoints	
	Mediate different perspectives	**Knowledge broker**
	Analyse outcomes	Reflective scientist
	Network with stakeholders outside the group	**Change agent**
	Engage in self-reflexive practice with regard to internal and external power dynamics	Self-reflexive scientist
Action	**Facilitate process and experiments**	**Process facilitator**
	Participate in process and experiments	**Change agent**
	Support in policy formulation	
	Observe, reflect and analyse actions	Reflective scientist

was that this approach was pragmatic, and possibly attracted more technocratic-minded policyworkers who had more to learn from SSH researchers. A disadvantage was that by setting the expectation that this question could be answered some policyworkers were disappointed in not receiving straightforward answers to their questions (see Section 2), while researchers felt like there was little space and time to challenge opinions. When designing the programme, it is crucial to reflect on how to frame the process in a way that is both pragmatic (i.e. achievable), while allowing for different target groups and learning processes that you outlined as your objective (see Section 1).

The normative facilitator

Wittmayer and Schäpke (2014)[53] take a transition studies lense to describe how research-policy interactions take place in a 'transition space', in which participants create a social reality together. The goal of these spaces is to learn on a societal level: creating better science and policy at the benefit of society. From the perspective of transition management (i.e. steering transformational change), the facilitator has their own agenda and convictions, and as such, is normative in designing a transition space. A few elements are key, such as constructing and departing from a shared idea of a desirable future, creating space for learning

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53   Wittmayer, J.M. and Schäpke, N., 2014. Action, research and participation: roles of researchers in sustainability transitions. *Sustainability science*, 9(4), pp.483-496.

and constructive conflict, and giving stage to game changers[54] and marginalised actors.

Similar to what Hoppe suggests, within transition spaces the boundaries between activities of a researcher or a policy maker become blurred: "*Spaces for societal learning allow for reflexivity* [a reflective mindset, red.] *and the questioning (and possible integration) of assumptions, knowledge, goals and values*"[55]. As such, participants co-construct a social reality together: a common and desirable future, as well as (their) roles, are negotiated within this space. A shared vision or end goal helps participants to work together more effectively and creates a foundation of trust.

Too much openness and uncertainty can be a risk, so in order to create and maintain a space in which all of this is possible, four key issues need to be addressed: ownership, sustainability, power and action[56]. This could mean that researchers or in our case facilitators, engage in different activities from more conventional activities but also new roles are identified such as process facilitator, change agent and knowledge broker. For each key issue they perform important activities to benefit the learning process. In table 1 we highlight what roles and activities could be taken up by the facilitator.

Transition scholar Jhagroe argues for a more activist approach[57]. In response to the more pragmatic approach, in which a process facilitators' role is to include all perspectives equally, and a change agent's role is to emancipate participants by building trust, he pleads to take a more radical transition approach. Jhagroe argues that the process facilitator should foreground marginalised perspectives, while the change agent should emancipate participants by politicizing issues. Again, the facilitator would then be normative by deciding who will participate in the exchange and who will not, consciously giving voice to those that are often marginalised, for instance because of their gender, race, age, nationality, or because of having a radically different opinion.

When we consider policy-research interactions as a means to advance sustainability transitions, it is a given that they will engage in a shared learning process, in which they relate to each other[58]. The value of the

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54   Meaning people that have opinions or initiatives in line with that desirable future, which are radically different from the status quo (i.e. 'the system', or business as usual).
55   Wittmayer, J.M. and Schäpke, N., 2014. Action, research and participation: roles of researchers in sustainability transitions. Sustainability science, 9(4), pp.483-496.
56   Idem.
57   Bartels, K. P., & Wittmayer, J. M. (Eds.), 2018. Action research in policy analysis: critical and relational approaches to sustainability transitions. Routledge.
58   Bartels, K. P., & Wittmayer, J. M. (Eds.), 2018. *Action research in policy analysis: critical and relational approaches to*

facilitator is in navigating critical relational dynamics, and creating space for valuable constructive conflict. It is key to set a scene in which participants form a foundation of trust, from which they can be critical towards one another. Once you choose a certain approach, you enable building relationships. By framing participants, one creates legitimacy for both parties. Especially under time constraints, it is important to help establish this common ground, and a common goal. Once you have something shared or co-created, it is easier to share criticism, because you trust the other's intentions. Making these intentions explicit at the start of a process is key.

Suggested actions:

✔   Designing a research-policy interaction is more than just creating a room to talk. If your aim is to create policy for a better future, you have to create a space for mutual and societal learning.

✔   To establish equal partnership, it is important that policyworkers and researchers can build trust, and acknowledge that they have the same goal while having a different viewpoint or background. Especially when time is tight, facilitators could prioritise this as a point of departure. The facilitator will inevitably affect the process, so it is important to be conscious of this and manage the process in the best possible way. What skills are required to do so, depends on the level of interference, time constraints, topic, the objectives, etc. Some responsibilities might best be arranged by a community or event manager, while for actual knowledge brokerage a scientist with expertise should be involved.

✔   Acknowledge that what you are doing is normative. Like researchers and policyworkers, you as a facilitator have your own agenda. In our opinion, it is best to be explicit about this and give attention to setting the scene with a shared vision, and (democratic) principles for the process.

✔   Look at the schemes discussed above and choose your role: are you merely a match-maker or more of a boundary worker? This shapes the way in which you design the programme. We would argue that your value is in having one leg in both worlds. You can blur the boundaries between policy and science just enough to create space for constructive conflict.

✔   Frame conflict as essential for learning, and as beneficial for sustainability transitions. There is a need to set common expectations from the start,

sustainability transitions. Routledge.

including constructively challenging (or friendly disagreeing with) each other. Several researchers in our programme suggested that a common project – something with concrete output – will motivate participants to do boundary spanning. We also noticed that in cases where the topic was local, participants appeared more engaged, possibly because the outcomes felt more tangible.

✔ If in line with your objective, set the scene for equal partnership. Reflect on your roles and those of participants, and the power relations they entail. This holds consequences for, and is influenced by, how you address and frame different actors.

✔ Many scholarly articles on the topic of 'boundary work' promote to educate researchers to be 'action researchers' and to facilitate 'pedagogy of the oppressed', i.e. enabling people, say policy makers, with knowledge and tools to do their own research.

- A way to do this when considering great diversity in your participant group, is to start off the programme with a seminar in which you address all of the above. Participants might also appreciate to start-off the programme in a larger group, creating a greater sense of community and energy.

- Optionally you can offer extra workshops that are tailor-made for researchers (e.g. on how to have more impact in policy? See Section 3) as well as policyworkers (e.g. on what are the basics of SSH? How to talk with science? See Section 2).

Additionally, you might also consider organising problem-focused conferences or seminars, or periodic reports summarising the most important research outcomes in a particular field. Such an intervention could help participants to keep a wider perspective, while each policy dilemma still ought to be considered in its actual context.

5. How will your programme contribute to strengthening research-policy exchange in the longer term?

Key dilemma: Is this a volunteer gig or do we pay participants?

Energy-SHIFTS organiser Natalia reached out to a researcher to become a Policy Associate through their social media channel. After sharing information about what participation would entail, the researcher responded that such a 'valorisation opportunity would require a substantial, pro bono, time investment from their side. The researcher stated that the request for contributing unpaid labour, albeit for a cause with social impact, could actually be considered as undervaluing SSH research by not being willing to pay for people's expertise. It was suggested that a budget for participation would promote more high-quality exchanges with more useful outcomes. In the end, the researcher decided not to participate in the programme.

Figure 6.

Considering continuity, quality and barriers

While the Fellowship was deliberately set up as an experiment, there is arguably a pitfall of organising one-off programmes rather than systematically building on previous knowledge and experience to foster long-term exchange. When these initiatives are always considered 'experiments', rather than established practices, interactions might forever remain in the margins.

The Fellowship programme consciously was designed as a relatively 'light' commitment to make it possible for participants with limited time to enter. However, many policyworkers and researchers involved in the Fellowships indicated a desire to continue the collaboration and make it more intensive. Besides, not being able to remunerate participation limits the way and degree in which researchers and policyworkers could be involved, as commented by the researcher in Figure 6. The researcher also argued that not paying researchers for their time might even undermine the ambition to increase the way in which SSH is valued in energy transition challenges.

Among the researchers participating in the programme, some noted that it was hard to have a real in-depth discussion with policymakers in just one hour, or that on both sides the "*willingness to change views was relatively limited*". The wish was mentioned for a more intensive and structural exchange was therefore voiced by some policyworkers. Similarly, a wish for both more time to establish trust, as well as more 'upstream' collaboration, to be involved in what kind of knowledge is produced, and to be part of research from the start, to design and implement research together. As one Fellow mentioned during a workshop, "*We need to be able to influence the research agenda. In my ten years in this field, I've never been approached by a researcher to tell them what needs to be researched*". This suggests that there might be a potential for setting up a more

long-term and elaborate scheme of research-policy collaborations.

To discuss a more structural collaboration between research and policy, a deeper investigation into underlying structural barriers is necessary. Here we argue that there are three important underlying issues that need to be taken into account in this respect: fostering trust for reflexivity, the institutional environment, and co-producing meaning.

What the science says

Fostering trust for reflexivity

First, the importance of fostering trust in learning processes is a crucial part of establishing a long-term commitment. It was addressed by multiple participants that one-off interactions are too short to build relationships and trust between researchers and policyworkers, which was also confirmed by literature (see Section (see Section 3). Van Mierlo and Beers (2020) emphasise that if the aim of a learning programme is to influence transformative action, cognitive 'discursive interaction' (i.e. 'exchanging knowledge, information and meanings') is not sufficient. Instead this requires a commitment to 'reflexive learning', in which participants cyclically translate insights to adapt their actions, and harvest insights from actions to start the process again[59]. This is in line with one of the main outcomes of the Policy Fellowship programme, which is that policyworkers made a turn from wanting an answer to their question, to appreciating the interaction for the capacities it taught them (see Section 2)[60]. Van Mierlo and Beers argue that such 'reflexive learning' requires trust from both sides, namely: "*Material commitment to action as well as the experiences that may stem from that action, not only in the sense of new knowledge but also in the sense of emerging trust*". If the objective of the programme is to 'learn how to learn', this has implications for the design of the programme. Arguably, longer commitment and building of rapport is conducive to fostering trust between individuals[61].

Institutional environment

Second, setting up more continuous structures would require a shift in how (university) research relates to societal impact. The current institutional design of universities predominantly incentivizes scholars to focus on publishing English-language publications in academic journals, and being cited (the so-called 'impact factor' or 'h-index') in order to be valued for their work, rather than directly interacting with the potential 'users' of this knowledge[62]. While some research funding initiatives are starting to include 'valorisation' of knowledge, applied academic knowledge in which researchers and practitioners produce knowledge together often does not have the same status as published journal articles.

This poses a crucial question on the kind of knowledge which is valued in academia, and in society more general. Experiential knowledge, meaning the subjective experience of people on the ground (e.g. policyworkers), is not always considered as a valuable source of information, while some disciplines such as action research have demonstrated the value[63]. Furthermore, training in written or verbal communication with specific target audiences often is not part of academic training, and research time scales often do not always allow for an extra translational leap to interact with broader audiences.

Co-producing meaning

Third, Chilvers and Kearnes (2020) argue how much research-policy interaction is based around a 'residual realist' perception. That means that the terms used around science and democracy are strongly implied and uncontested: who 'the public' is (or arguably in our case 'researchers' and 'policyworkers'), is considered "singular, external, and pregiven" [64]. This is a problem because it substitutes seeing the complexities of reality by simplified imaginary[65]. In turn, this prevents a proper translation of participatory formats to match the particular dynamics and characteristics of the individuals and/or groups involved.

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59 Van Mierlo, B., Beers, P., 2020. Understanding and governing learning in sustainability transitions: A review. *Environmental Innovation and Societal Transitions*, 34, p. 266 https://doi.org/10.1016/j.eist.2018.08.002.

60 See conclusion. de Geus, T., Bode, N., Robison, R., Rohse, M., Foulds, C., Wagner, A., Krupnik, S., Świątkiewicz-Mośny, M., Rudek, T., Kuittinen, H. Lisi, V., Søraa, R., Lunevich, I., Wittmayer, J. 2020. Shifting perspectives: insights from the Energy Policy Fellowships. Cambridge: Energy-SHIFTS

61 Van Mierlo, B., Beers, P., 2020. Understanding and governing learning in sustainability transitions: A review. *Environmental Innovation and Societal Transitions*, 34, pp. 255-269 https://doi.org/10.1016/j.eist.2018.08.002.

62 Bartels, K.P.R., Greenwood, D.J., Wittmayer, J.M., 2020. How action research can make deliberative policy analysis more transformative. Policy Stud. 41, pp. 392–410. https://doi.org/10.1080/01442872.2020.1724927

63 Idem

64 Brown (2009) in Chilvers, J. Kearnes, M., 2020. Remaking Participation in Science and Democracy. *Science, Technology & Human Values.* 45(3), p. 351. https://doi.org/10.1177%2F0162243919850885

65 Idem, p. 352

Co-producing meaning, or determining together with participants what is understood by certain key terms, can help to embed research-policy processes in a larger discussion and process of improving meaningful participation. Chilvers and Kearnes propose several strategies to do this. The first one is reflexive participatory practices, in which participants experiment *together*, and continuously openly reflect and adapt the models and ideas at the root of the project[66]. Other strategies include ecologizing participation, in which a participation initiative is actively positioned in wider controversies and issues, and responsible democratic innovations, in which the future social and ethical implications are investigated[67]. Finally, understanding participation as part of socio-technical systems and "*relations between citizens science and the state*"[68] can help to open up the broader concept of 'participation' as an object itself.

Suggested actions:

✔ Consider whether you can embed your initiative in a long-term programme, and how you can create long term commitment. This may include financially compensating researchers for their time or designing the programme in such a way that it is valuable for all participants, in terms of intrinsically advancing their research, project proposal, etc.

✔ Prioritise fostering trust between participants if you aim to affect policy impact with your research-policy exchange programme. Offering a longer-term commitment and multiple interactions are advisable in this respect. Helping to co-create a foundation at the start will help to build trust and rapport and facilitate critical and constructive exchange.

✔ Take institutional barriers into account when designing your programme, and articulate in what ways they might hamper research-policy collaboration.

✔ Make an effort to contextualize research-policy collaborations and co-produce what is understood by participation together with those involved (i.e. researchers and policyworkers). This might have an effect on who you select for your initiative (see Section 1). A possible approach might be to have multiple moments of interaction, as well as working on output (e.g. a policy proposal, a presentation) as a team. Moreover, consider creating recurring moments of reflection, in which participants (collectively) reflect on their insights and challenged assumptions, for instance during a workshop at the start, middle and end of your programme.

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66   Idem, p. 358.
67   Idem, p. 350.
68   Idem, p. 363.

6. Discussion: Learning and experimenting in uncertain transitions

This guide aims to support facilitators and funders of learning processes involving research and policy, in the context of complex and uncertain transitions. We have suggested ways forward based on critical insights from the Energy-SHIFTS Fellowship programme (as described in Part II). Below we discuss three issues that surface when discussing the five principal issues of determining objectives and boundaries, a learning strategy for policyworkers and researchers, roles of researchers, responsibilities of the facilitator, and long-term impact of your initiative. We urge the next generation of research-policy programmes to do three things: (1 Safeguard intellectual autonomy of Social Science and Humanities, (2 Differentiate between impact levels, and (3 Open up to more experimental collaborations.

Safeguard intellectual autonomy of Social Science and Humanities

The starting point for this guide was the proposition that in order for society to transform in response to increasing pressures, SSH needs to collaborate with policy. However, not all research and ideas in SSH will be considered 'useful' by policy, and they do not have to be. After all, policy is the result of a political process in which a gargantuan number of values, deals and agendas clash, while research presupposes freedom to question and explore values and paradigms. Liberty for conducting research regardless of policy preferences must be defended.

Similarly, not every SSH researcher can or should be expected to directly engage with policy. Some researchers might explore territories or imaginaries that do no (yet) have policy entry points. Researchers might also resort to alternatives such as working with teams, in which researchers can complement each other depending on their respective strengths.

Differentiate between impact levels for research-policy exchange

Research and policy continuously enable and inhibit one another: they interrelate and co-evolve. Sometimes directly and instantly: for example, when a policyworker asks questions which provoke new reflections and ideas for research. Or, sometimes, more indirectly and incrementally, as words and ideas find their ways to the policy stage. As such, there are many gate-ways at which research-policy interactions can take place. Differentiating between programmes that operate or affect different levels of impact for research-policy exchange allows to deepen discussions about power-sharing and collaboration.

The Fellowship programme focussed on transferring knowledge from research findings to long-term impact of your initiative who might use those insights. Another possible impact level concerns creating and funding research agendas and strategies. Whose needs and observations drive these budgets is a key level at which to discuss and experiment research-policy exchange. At another level, the actual implementation of *how* research is conducted, i.e. how it is delivered, who it affects, what collaborations are set up in its implementation can be assessed. Throughout the five principal questions, it appears that traditional classifications of policyworkers as knowledge 'users' and researchers as knowledge 'producers' are obsolete. When initiating learning between researchers and policyworkers for transformational change, the roles of researchers and policyworkers are undergoing transformation. Action research is an example of a methodology which appreciates the knowledge contributed by non-researchers, as it allows for co-creation of research between researchers and practitioners. Differentiating between programmes that operate or affect different levels of impact for research-policy exchange allows to deepen discussions about power-sharing and collaboration.

Opening up towards more experimental collaborations

The insights from the Fellowships are an invitation for more experimentation: both in terms of the objectives of the programme, the learning strategy chosen, and the roles of the participants and facilitators. In terms of the participants, the Fellowship programme had also sparked the interest of a number of natural scientists who applied to the programme, which could suggest interest from this group to join in an exchange with SSH. Besides, broadening the disciplines to those who might not yet be working on the policy topic of the programme, for instance as involving the performance arts or literature studies might create even more interesting and creative insights. This would of course involve more work on the side of the facilitators.

Importantly, current societal developments with regards to the value of knowledge call to be engaged with. As groups who reject scientific consensus or support conspiracy theories can be seen gaining foothold around the globe, such as flat-earth theorists or QAnon[69], it will have to be explored how this affects research-policy relationships. Meanwhile, within academia, there is a call to increase the transparency of how facts and science are preceded by a range of normative choices and classifications[70]. What might such transparency mean for research-policy interactions? These societal phenomena need to be taken into account when designing new programmes, and responded to accordingly.

Taken together, to safeguard intellectual autonomy of Social Science and Humanities, differentiate between impact levels, and open up to more experimental collaborations will require curiosity, continuity and funding in the years ahead. The Energy-SHIFTS Fellowships changed the realities of 21 Policy Fellows, and hopefully through this guide will inspire many more to find new colleagues and collaborators for the searching and learning processes of societal transitions.

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69 See for instance Levin, S., 2020. QAnon supporter Marjorie Taylor Greene wins seat in US House [online] Available at <https://www.theguardian.com/us-news/2020/nov/03/qanon-marjorie-taylor-greene-wins-congress> [Accessed 4 January 2021]

70 De Knecht, S., 2020. Interview Trudy DeHue "Het verdriet van de wetenschap is dat ze slechts wordt bewonderd om wat ze niet kan zijn". Available at <https://www.scienceguide.nl/2020/01/het-verdriet-van-de-wetenschap-is-dat-ze-slechts-wordt-bewonderd-om-wat-ze-niet-kan-zijn/>. [Accessed at 14 January 2021]

Part II. Step-by-step guide to the Energy-SHIFTS Policy Fellowships

7. Background of the programme

The Fellowship Programme was implemented in the first half of 2020, building on the experience in programmes such as the Policy Fellowship of the Centre for Science and Policy at the University of Cambridge (CSaP) launched in 2011[71], and the European Parliamentary Technology Assessment (EPTA)[72]. The Fellowships were designed to deliberately focus on the issue of energy transitions and Social Sciences and Humanities (SSH) knowledge. The Energy-SHIFTS Policy Fellowship offered a cohort of 21 motivated policyworkers from across Europe and Horizon 2020 associated countries[73] the opportunity to connect with SSH researchers (Policy Associates).

The following section describes the steps that were followed during the process, as featured in Figure 7. Since the Fellowship was organised by a consortium of partners who were each responsible for following the steps described below, there were some minor differences in the approach, and indeed we encouraged this diversity of facilitation style to capitalise on individual strengths of consortium members. Using the different steps as building blocks of the Fellowships, interested parties can refer to this report for logistical guidance, templates and implementation recommendations.
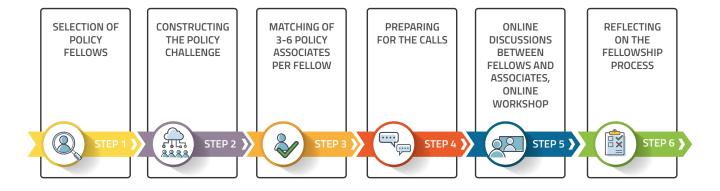
SELECTION OF POLICY FELLOWS	CONSTRUCTING THE POLICY CHALLENGE	MATCHING OF 3-6 POLICY ASSOCIATES PER FELLOW	PREPARING FOR THE CALLS	ONLINE DISCUSSIONS BETWEEN FELLOWS AND ASSOCIATES, ONLINE WORKSHOP	REFLECTING ON THE FELLOWSHIP PROCESS
STEP 1	STEP 2	STEP 3	STEP 4	STEP 5	STEP 6

Figure 7. The Policy Fellowship process.

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71   See: http://www.csap.cam.ac.uk/
72   See: https://eptanetwork.org/
73   These include Iceland, Norway, Albania, Bosnia and Herzegovina, North Macedonia, Montenegro, Serbia, Turkey, Israel, Moldova, Switzerland, Faroe Islands, Ukraine, Tunisia, Georgia and Armenia. For more details see: https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/3cpart/h2020-hi-list-ac_en.pdf

8. Step-by-step descriptions

8.1. Step 1 - Selection of the Policy Fellows

The Fellowship programme started with a strategy for implementation, and determining the objectives and target audience. The aim was to unlock academic knowledge to foster stronger and more effective policy for sustainable and just energy transitions. Due to the COVID-19 pandemic, the Fellowship was altered from including live meetings to strictly hosting online meetings. The main objective of the Fellowship programme was to feed-in cutting-edge SSH insights to low-carbon energy policy. Sub-objectives included to:

- Deeply engage policyworkers with energy-SSH insights, to increase understanding of social dimensions of the energy transition;
- Give SSH academics the opportunity to gain insights into 'hot' policy issues and play a role in policy-making;
- Build future capacity for research-policy dialogue through bringing together policyworkers and SSH academics[74].

As can be read in Part I. of this report, the participants determine the ultimate scope of any dialogue programme, and it was therefore key to formulate clear selection criteria to arrive at a strong and diverse cohort of 20 motivated Fellows. Eventually, 21 Fellows were selected, as three strong applicants were colleagues in the same department, who were willing to collaborate.

Eligibility and target audience

To be eligible for the Fellowships, applicants had to be affiliated with an organisation associated with energy policy-making, based in Europe or H2020 eligible countries. For the Policy Fellowships, we defined policyworkers as our target group, meaning: anyone working at any policy level in Europe or

associated countries and who are thereby, in some way, (in)directly influencing EU energy policymaking. Policyworkers therefore included e.g. elected MEPs, Member State representatives, European Commission staff, lobbying groups, NGOs, policy think tanks, etc., all of whom together form a 'community of practice' that helps to develop energy policies. The reason for this broad definition was to acknowledge the plethora of actors that contribute to the making of policy in the energy transition.

Campaign and application form

A campaign was organised for the recruitment of Fellows, which included electronic leaflets, an online call for applications featuring a social media campaign, and promotion of the Fellowships at relevant events. The Energy-SHIFTS project consortium reached out directly to contacts from their networks, and personalised email invitations to apply were sent through network partners and programme ambassadors. The benefits of the Policy Fellowship programme were advertised as follows:

- *"Access to in-depth expertise of direct relevance to current energy challenges you are working on;*
- *A tailored programme of meetings with relevant experts, offering the opportunity to build a unique personal network of relevant contacts in the Social Sciences and Humanities.*
- *The ability to better evaluate or demonstrate the social impact of energy policy work:*
- *Connection to a prestigious peer-group of Fellows with shared interests in improved policy-making in the field of energy policy;*
- *Access to Energy-SHIFTS events, masterclasses, conferences and citizen debates."*

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74   Taken from the Energy-SHIFTS grant agreement.

Applicants submitted their CV and filled out an online application form, which was also used to collect data for research (importantly complying with GDPR regulations). The application form, which is included in the Appendix, included information about:

- Reasons the applicant was applying to the Fellowship Programme, including an indication of how the knowledge they would gain from taking part may be applied to influence energy policy;
- The energy-related themes and questions the applicant wanted to explore through the Fellowship programme;
- Early indications of their timetable, including upcoming events that were relevant to their question, and availability for meeting researchers (to anticipate later planning);
- A short biography to feature on the website if the applicant were selected.

Scoring against assessment criteria

The selection process consisted of several individual steps. After desk rejections of applicants who did not meet the eligibility criteria, the applications were narrowed down to a shortlist through double assessments of applications and CVs. Assessors filled out a scoring sheet on the identified criteria and qualitative judgement on whether the applicant met the basic requirements to participate in the Fellowship scheme or not. Then, the applicants were ranked according to their scores. Assessors scored the applications on a scale from 1 (weak) to 5 (strong), according to the criteria below, which were defined in relation to the overall objective of the programme:

- **Innovation:** Extent to which the policy question is part of the forefront of policy-making and pushes alternative/non-mainstream policy applications of SSH.
- **Scale:** Extent to which the applicant is in a position to apply the expertise gained in the Fellowships to public interest and create public value.
- **Connection:** Extent to which the question proposed by the applicant is a question that falls within the expertise of Energy-SHIFTS' networks.
- **Longevity:** Extent to which the applicant has relevant experience, capabilities, enough time to take advantage of this opportunity, and aims to stay connected to academia.

Final selections based on diversity ambitions

Once the quality of the applications was assessed, a final group was selected based also on four diversity ambitions, in order to offer the opportunity to connect to research to a diverse group of Fellows:

- Gender: 50/50 female or non-male/ male, with a minimum of 40%.
- Geography: Equal N/S/E/W Europe mix (based on UN classification[75]).
- Stakeholder type: multi-stakeholder (i.e. spread over different policy levels, also including think tanks, NGO participants).
- Theme: covering a diversity of topics.

Confirming participation

Based on the scoring and discussions between the assessors, the list was narrowed down to 20 Policy Fellows (including one team of three), and a 'waiting list' of high-quality applications, in case someone was not able to participate after all. Finally, successful applicants were contacted and asked to confirm their cut-off at parti-cipation, after which the unsuccessful and waiting list applicants were contacted. The successful candidates were promoted on the website, as a way to introduce them to potential Associates and a wider audience.

8.2. Step 2 - Constructing the policy challenges

During the selection process, Fellows were clustered in groups ('thematic categories') according to the policy challenge of interest they had indicated in their application. Each category was assigned to a designated facilitator (i.e. university researchers specialised in energy and policy from the Energy-SHIFTS consortium), who would be responsible for the Fellows' experience throughout the programme. Having one key contact was considered important in order to foster trust, ensure proper match making, and having direct communication with the Fellows. The facilitators had the role of supporting knowledge exchange between Fellows and Associates, including identifying suitable Associates (the SSH researchers) and making sure everything was clear for all parties. In addition, the facilitators were responsible for coordinating all

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75   For details see: https://unstats.un.org/unsd/methodology/m49/

inputs to write a final report for each individual Fellow. A disadvantage of this approach was that the themes which were identified at the application stage included issues which very much overlapped ('citizen engagement', 'human capital', 'just transitions', 'behaviours', and 'social acceptance'). Therefore, exchange among the groups, rather than merely within, might have been beneficial for the participants.

Introductory interviews

To begin with, the facilitators were responsible for conducting 30-minute introductory interviews in order to gain a deeper understanding of the Fellow's policy question, to prepare how they might be matched to Policy Associates, and to establish rapport. During these interviews, facilitators aimed to identify the core of the Fellows' energy policy challenge. This included helping the Fellows to identify disciplines of interest, refining their questions of interest, and making their questions more concrete. Facilitators also aimed to pull out what tangible policy actions the Fellowship could feed into. While some already had a clear idea of what they wanted to know and why, others required some support. Fellows also described their current position within their organisation and with regards to energy policy, and how this linked to the energy dilemma that they had entered the Fellowship with.

During the call, the facilitators were tasked with understanding why Fellows submitted their challenge, and how their challenge concretely worked out in practice. The facilitators also reiterated the objective of the programme and explored the expectations of the Fellow in terms of what they wanted to get out of the Fellowship. Fellows were also asked about their own preferences in terms of who they would like to be matched with (for example, specific disciplines, or authors of specific papers).

Based on these interviews and the application forms, the facilitators produced a short document – a policy brief (see Appendix for format) – reflecting the policy context and policy challenge. This brief was used to make matches with Policy Associates, and also served as input for the final report on their experiences. Once the Fellows signed off on the brief, it was shared with Associates in order to provide them with ample material to prepare for the calls.

8.3. Step 3 - Matching 3-6 Policy Associates per Fellow

Based on their application and the introductory interview, each Fellow was matched with 3-6 Policy Associates.

Recruitment

Policy Associates were recruited through an open call as well as through direct invitation, by mobilising professional networks of the Energy-SHIFTS consortium. As the process was an experiment, working with researchers from the facilitators' own direct network provided the advantage that there might have been more understanding towards the trial-and-error of the experimentation process. However, relying on the networks of the facilitators also provided a bias for the types of researchers who were invited (for example, favouring certain disciplines). Therefore, facilitators were also encouraged to engage with new networks to identify Associates from, in order to open up participation to a more diverse group for each Fellow.

Whilst we also made a significant number of direct invitations, one of the ways participation was opened up was through an open call. Applicants for the Policy Associate roles were considered eligible if they were:

▪ Active in an SSH domain[76] and working on energy as part of their research;

▪ Affiliated to a research institution based in a Horizon 2020 eligible country[77];

▪ Available to meet their Fellow during the duration of the Fellowship.

As there were no guarantees that the policy questions would directly feed into research and the position was not remunerated, we looked for intrinsically motivated researchers who supported the overall objective of the Fellowships, and wanted to make their research actionable. We found that there is a lot of appetite for this, and we particularly found significant enthusiasm among Early Career Researchers. Policy Associates were required to prepare and submit written

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76   For a full overview see: https://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/ssh_en.htm

77   These include Iceland, Norway, Albania, Bosnia and Herzegovina, North Macedonia, Montenegro, Serbia, Turkey, Israel, Moldova, Switzerland, Faroe Islands, Ukraine, Tunisia, Georgia and Armenia. For more details see: https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/3cpart/h2020-hi-list-ac_en.pdf

reflections (one-page) addressing the question of the Fellow, meet their Fellow for a minimum of one call and to join an online workshop bringing together Fellows and Associates working on similar policy challenges. In return, it was advertised that Policy Associates would:

- Gain insights into the forefront of energy-related policy dilemmas;

- Impact policy, play a role in policymaking and have an opportunity to validate their knowledge. Particularly, since Energy-SHIFTS works directly with DG RTD, with deliverables and recommendations feeding into the European Commission;

- Build future capacity for research-policy dialogue;

- Expand their network by obtaining new contacts in policy, possibly visit a high-level policy event, and feature on the Energy-SHIFTS website.

Matching of Associates and Fellows

The matching of Associates to Fellows was a craft, which was carried out by the facilitators – and which they also supported each other with. The aim was to meet the needs of each Fellow, while simultaneously creating a diverse group of Associates where the Fellow would also be exposed to unexpected disciplines or new research ideas. Meanwhile, diversity in gender, geography, and seniority was also required, aiming for at least one Early Career Researcher and one locally-based (e.g. within the same country) researcher per Fellow. Thus, facilitators tended to shortlist a number of potential Policy Associates to approach about participating.

8.4. Step 4 - Preparing for the calls

Once the Fellows had signed off on their matched Policy Associates, the facilitators sent an introductory email to link the Fellow to each of their Policy Associates. The Fellows and Associates themselves were responsible to find a suitable date for connecting via Zoom, Skype, or other online conferencing tools. For coordination purposes, it was recommended to the Fellows to cc the facilitators when corresponding with their Policy Associates, so that facilitators would have a sense of what actions were being done and could intervene or support if necessary. Prior to the meeting, Associates were asked to send a one-page response to the policy brief in which they addressed the Fellow's policy challenge from their point of view, including, for

example, putting forward research insights, recommending specific studies or raising further questions.

8.5. Step 5 - Online discussions and workshops

Fellows and Associates were given basic conversation prompts for structuring their exchange, which included:

- Provide short introductions of your respective policy and research backgrounds;

- Ask the Policy Associate how they interpreted your policy challenge;

- Explain what surprised you about the Policy Associate's response to your challenge, or what points perhaps were not clear to you.

While it could have been good for facilitators to have been more involved in the actual calls, this would have been a lot more labour intensive, which was not feasible within the Fellowship programme design. Meanwhile, all facilitators did have a monthly check in together to discuss progress and any issues that they were facing.

Towards the end of the programme, the facilitators organised online workshop meetings of around 1-2 hours, on the thematic category of their group. All Fellows and Associates involved in that category were involved in briefly presenting the main outcomes of their interactions and reflecting on eye-openers and interesting findings. The programme included speed dating, group discussions based on similar interests, and a plenary discussion. The objectives of these online meetings were to:

- Introduce the Fellows and Associates from the same thematic group to each other;

- Get to know each other's policy challenge and have a collaborative exploration;

- Discuss experiences of the Fellowship programme, including the main eye-openers and insights that translated to concrete action.

8.6. Step 6 - Reporting on the Fellowships

Throughout the Fellowship, data was collected on the learnings and policy impacts, for the Fellow and for the Associate, as well as to enable reflection on our implementation of the Fellowship programme approach.
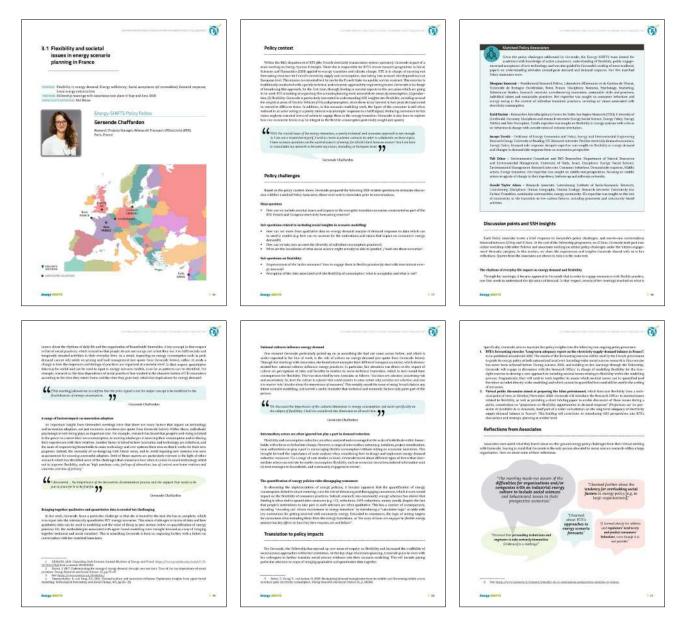
Figure 8. Example of the Policy Fellow reports.

Facilitators were asked to record their reflections in a field note template at key points, to reflect on:

1. What went well in this phase?

2. What could be improved in this phase?

3. How do you reflect on safeguarding diversity in this phase?

4. How did [*specific element of the respective phase*] go? What could improve?

5. What are your lessons learned/reflections about this phase?

6. Are there any other comments or observations you would like to share about this phase of the policy fellowship?

Fellows filled out a debrief survey after the final online workshop, and Associates also filled out a debrief survey towards the end of the Fellowship. The survey for the Fellows included questions about the content and the process of their exchanges, including:

▪ How would you describe the main insights about your policy challenge that you gained from interacting with each Associate?

▪ Could you please comment on how policy programmes, processes or documents (or indeed others) were or will be impacted by the insights you gained from the Fellowship?

▪ Reflecting on your initial policy questions, have these been refined through your interactions and if so how?

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

- In what ways did your involvement in the Policy Fellowship Programme to date live up to your expectations? Please explain why or why not.

The survey for the Associates similarly included questions about content and process:

- Please briefly summarise any discussion points or references which came up in the virtual meeting, which were not in your written responses.

- What did you learn about on-the-ground energy policy challenges from your virtual meeting?

- Did your involvement in the Policy Fellowship pro-gramme to date live up to your expectations? Why? Why not?

- How do you reflect on the degree of openness on both sides, and the degree to which you and the Fellow critically challenged one another during the virtual/face-to-face contact?

Based on the initial policy brief, the Fellow and Associate debrief surveys, email exchanges and the field notes, each facilitator drafted a 'Fellow report' for their Fellows. The final structure of these contained the following subsections:

- Policy context: A short description of why the Fellow submitted their policy challenge, as well as the context in which the challenge emerged.

- Policy challenges: Based on the policy context and the introductory interview, this section include the main question as well as possible sub-questions which were formulated.

- Discussion points and SSH insights: In this section, the main themes from the written and online inter-actions between the Fellows and Associates were described.

- Translation to policy impacts: This section presents how the Fellows concretely translated their SSH insights from the previous section to policy pro-cesses, discussions and reports.

- Reflections from Associates: Quotes from the Associate survey were taken to illustrate the main reflections from the Associates regarding the inter-action with the respective Fellow.

The Fellow report was sent back to the Fellow with additional clarifying questions and comments, particu-larly around the policy impacts of their interactions. After being amended and signed off on by each Fellow the full collection of 19 reports were collated and can be found in the publication 'Shifting perspectives: insights from the Energy Policy Fellowships'[78]. The observations about the Fellowship process were included in Part I of this report, and will also be featured in the project evaluation due in spring 2021.

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78 de Geus, T., Bode, N., Robison, R., Rohse, M., Foulds, C., Wagner, A., Krupnik, S., Świątkiewicz-Mośny, M., Rudek, T., Kuittinen, H. Lisi, V., Søraa, R., Lunevich, I., Wittmayer, J. 2020. Shifting perspectives: insights from the Energy Policy Fellowships. Cambridge: EnergySHIFTS. Available at: https://energy-shifts.eu/insights-policy-fellowship-programme/

9. Acknowledgements

10. Appendix: Application form Policy Fellows

Energy-SHIFTS Policy Fellowship application form

__BACKGROUND TO THE SCHEME__

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, the Energy-SHIFTS forum is working to develop Europe's interdisciplinary expertise in using and applying energy-SSH, particularly in front-line policy.

The two-year Energy-SHIFTS project began in April 2019 and is coordinated by Anglia Ruskin University (UK). A core part of its work, the Policy Fellowship scheme aims to identify current energy challenges faced by policyworkers, and help them access the latest energy-SSH research to help address those challenges.

__ELIGIBILITY & APPLICATION PROCESS__

This call is primarily intended for those working in energy policy-facing roles (interpreted very broadly) in the European Union and other Horizon 2020 associated countries (a full list is given within the application form).

The application process has two parts: (1) Submit this online application form, which covers basic information, background, motivation and your policy questions of interest and (2) send your CV to geus@drift.eur.nl

The deadline for applications is Thursday 31 October 2019 at midnight CET.

__USE OF DATA__

All responses to this call may be analysed (for e.g. key policy themes across regions) and the analysis subsequently published in Energy-SHIFTS reports or academic outputs. We will make every effort to ensure that individuals cannot be identified by only indicating organisation type and country in this analysis. Any quotes will be anonymous or use pseudonyms. This analysis will support a broader understanding of urgent policy issues in the field of energy and SSH. All Energy-SHIFTS reports will be made publicly available free-of-charge (via www.energy-shifts.eu).

__CONTACT DETAILS__

Should you have any queries about the application process (or the Energy-SHIFTS project more widely), please contact geus@drift.eur.nl (or project co-leads chris.foulds@anglia.ac.uk and rosie.robison@anglia.ac.uk). You are free to withdraw within two weeks of completion by emailing these addresses.
* Required

1. **Data Protection** *

   Check all that apply.

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

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

   ☐ 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.

Basic information	Please fill out the questions below before continuing to the section about your motivation and policy question(s) of interest.

2. **First name** *

   _____

3. **Surname** *

   _____

4. **Email address** *

   _____

5.   Gender

Mark only one oval.

◯ Female

◯ Male

◯ Non-binary

◯ Prefer not to say

6.   Job title *

_____

7.   Department or team

_____

8.   Name of organisation *

_____

9.   Type of organisation *

Mark only one oval.

◯ Local, regional or municipal authority

◯ National government

◯ European governmental institution (e.g. European Commission)

◯ Other international governmental institution

◯ Non-governmental organisation or think tank (e.g. advocacy organisation, charity)

◯ Private sector organisation or association representing private interests (e.g. trade association)

◯ Media

◯ Research or academic institution

◯ Other public or mixed organisation

◯ Other

10. Country (of your primary place of work) *

Mark only one oval.

- Albania
- Armenia
- Austria
- Belgium
- Bosnia and Herzegovina
- Bulgaria
- Cyprus
- Czech Republic
- Denmark
- Estonia
- Faroe Islands
- Finland
- France
- Georgia
- Germany

- Greece
- Hungary
- Iceland
- Ireland
- Israel
- Italy
- Latvia
- Lithuania
- Luxembourg
- Malta
- Moldova
- Montenegro
- The Netherlands
- Norway
- Poland

- Portugal
- Romania
- Serbia
- Slovakia
- Slovenia
- Spain
- Sweden
- Switzerland
- Tunisia
- Turkey
- Ukraine
- United Kingdom
- Former Yugoslav Republic of Macedonia

11. Personal webpage / LinkedIn URL

_____

Energy Union priorities

Please select the main priority that your work most relates to. If appropriate, you can also select a second priority - different from the first.

12. Priority one: *

Mark only one oval.

- Renewables (excluding transport fuels) - e.g. solar, wind, geothermal, ocean, biomass, bioenergy
- Smart consumption
- Energy efficiency
- Transport
- Carbon Capture and Storage
- Nuclear

13.   Priority two (if appropriate)

Mark only one oval.

◯ Renewables (excluding transport fuels) - e.g. solar, wind, geothermal, ocean, biomass, bioenergy

◯ Smart consumption

◯ Energy efficiency

◯ Transport

◯ Carbon Capture and Storage

◯ Nuclear

14.   Are you involved in the European Strategic Energy Technology Plan (SET-Plan)?

Mark only one oval.

◯ Yes

◯ No

Professional interests

15.   Keywords *

Please share your professional interests and in particular those related to the human aspects of energy. These can be keywords or short phrases. Minimum 3 and maximum 5 key words or short phrases. Examples: carbon taxes; citizen engagement; fuel poverty; urban design; social acceptance of energy innovation.

_____

_____

_____

_____

Energy-SHIFTS Policyworker Database

As well as running this fellowship scheme, Energy-SHIFTS is the host of an open access policyworker database (launch, autumn 2019). This searchable online tool of individuals and organisations with an interest in the social dimension of energy policy is designed to enable future collaboration opportunities, for example when project consortia are looking for partners, or event organisers for keynote speakers (a similar resource exists for energy-SSH researchers, see https://shapeenergy.eu/index.php/researcher-database/).

16.   Consent for inclusion (optional)

Mark only one oval.

◯ Please tick if you are happy for your professional details, as given on this page of the form only, to be included in the Energy-SHIFTS policyworker database. Your webprofile would be linked to (if you gave one), but your email address would NOT be displayed.

Motivation and policy question(s)

In this section we ask you to provide us with information about your motivation for joining the Energy-SHIFTS Policy Fellowship programme and the policy questions you would want to discuss.

17.   Motivation *

Why does participating in the Energy-SHIFTS Policy Fellowship Programme interest you? Please describe your aims/objectives. (Maximum 250 words)

_____

_____

_____

_____

18.   SSH *

We are interested to know if there are any social science and humanities (SSH) disciplines you would particularly like to engage more with? Note that as part of the fellowship's aims of broadening horizons we may also recommend meetings with researchers in disciplines you have not previously considered.

Check all that apply.

☐ Business
☐ Communication Studies
☐ Development
☐ Economics
☐ Education
☐ Environmental Social Science

☐ Gender
☐ History
☐ Human Geography
☐ Law
☐ Philosophy
☐ Planning

☐ Politics
☐ Psychology
☐ Science & Tech. Studies
☐ Social Anthropology
☐ Social Policy
☐ Sociology
☐ Theology

19.   Your current energy policy work *

Please give some brief background of any energy policy programme or initiative you are working on which you wish your fellowship to feed into, and any associated strategic objectives. (Maximum 250 words)

_____

_____

_____

_____

_____

20.   Key policy 'problem' for discussion *

Based on the above, please identify one or more key 'problems' or questions you would use as a starting point for discussion with SSH researchers during your meetings. Examples could be: 'The social dimensions of moving away from gas for cooking,' or 'How can local authorities promote citizen engagement in energy?'

21.   Rationale *

Please explain how discussion around the problem(s) you have identified above would feed into your programme of work and/or why they are important and/or difficult to address. You may wish to list 3-6 short subquestions as discussion points during the policy fellowship, posed in everyday language. If your application is successful you will have the opportunity to revise these questions ahead of any meetings. (250 words maximum)

22.   Brief biography *

If successful, this text will be put on the Energy-SHIFTS website as part of your profile. Please write this in the third person i.e. [Your name] is a .... (2 sentences maximum)

Availability

23.   Location

Please indicate the location(s) - i.e. city or town etc - you normally work in, to where the researcher(s) could travel to meet you.

_____

_____

_____

_____

24.   Meeting organisation

Please indicate your availability to attend meetings over the period February to May 2020 (e.g. tell us about periods of leave or busy-ness) and any regular timetabling constraints (e.g. working part-time).

_____

_____

_____

_____

25.   Key dates in 2020

Please indicate, where possible, any upcoming milestones/meetings/events in your work schedule that are relevant to the key problem(s) you identified above. These might either be helpful for the discussions you have over the course of the fellowship to feed into, or which the researchers we link you to might be able to attend. Approximate dates are fine if exact ones are not known.

_____

_____

_____

Final question: Staying in touch

We hope you will be interested in keeping up to date with the Energy-SHIFTS project. For example, over the next two years Energy-SHIFTS will be publishing a number of accessible guides relating to SSH in energy policy, as well as running masterclass events, conferences and citizen debates. We encourage all applicants to this call to therefore sign up to the Energy-SHIFTS mailing list (one email every 1-2 months).

26.

Mark only one oval.

⬭ Click here to opt into that mailing list.

Please do not forget to send your CV to geus@drift.eur.nl in addition to pressing 'SUBMIT' on this form.

Thank you for your application!

11. Appendix 2: Energy-SHIFTS policy brief template

[Topic of the Fellow's question]

Main question: [Description of initial policy challenge]

Theme: [Citizen engagement, Social acceptance, Just transitions, Behaviours, or Human Capital]

Policy Fellow: [Name, job title, affiliation.]

Policy Associates: [Names of matched Associates, including their job title and affiliation]

Theme leads: [Names of team members responsible for liaising with Fellow]

Policy challenge: [Description of initial policy challenge, including keywords]

Key opportunities for exchange in policy agenda: [Please identify and list a number of key opportunities for exchange with one of your research associates – be as specific as possible (e.g. by adding dates) – this will allow us to speed up the organisation of the meetings. Opportunities can include any interesting team meetings or official moments that are already planned, but could also be a potential lecture/seminar by an Associate for your team.]

Potential policy impact: [Please identify and list into which policy processes (e.g. monitoring, implementation of programmes, …) or documents (e.g. strategy documents, internal briefings, …) the insights gained throughout the Fellowship can feed into.

Key dates for the Fellowship: [Below you find an overall timeline of the Fellowship programme. We ask all parties to be considerate and commit to attending arranged meetings, or give a reasonable amount of notice if timings need to be changed.]

Policy Associate response: [This section includes the one-page reflections of the Associates, which are shared prior to the calls with the Fellow].

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Energy -SHIFTS

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