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When policy entrepreneurs drift between levels: The creation of the International Renewable Energy Agency

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Abstract

This article examines the crucial role of subnational actors in the diffusion of policy change at the international level, illustrated by the creation of the International Renewable Energy Agency (IRENA). First, the concept of interlevel mobility, which combines the two-level game theory and policy entrepreneurship literature, is introduced. Second, the paper explores how subnational actors navigate between the national, international, and transnational levels, exerting influence and placing their preferences on the political agenda. This research contributes to a more robust theoretical understanding of policy entrepreneurship, provides new insights into the origins of IRENA, and offers valuable guidance for policymakers seeking to foster change, by linking policy change at the international level with subnational actors.

1 | INTRODUCTION

The tragic Russian invasion of Ukraine has once again drawn attention to the importance of global energy governance. Over the past decades, skyrocketing energy prices and supply shortages have resulted in political and economic turmoil and exemplified the downsides of economic dependence. The responses to these crises have varied. For example, during the oil shortage in the 1970s, strategic reserves were accumulated, and coordinated political action was facilitated by the formation of the International Energy Agency (IEA). When energy prices increased again in the early 2000s, Germany pushed for the creation of the International Renewable Energy Agency (IRENA). Behind this proposal, however, was a subnational actor, the SPD politician Hermann Scheer. For many years, he had been advocating the creation of an international agency to promote renewable energy. Scheer's ideas laid the foundation for the organisation's creation and exemplified the importance of policy entrepreneurship in international politics.

Overall, existing research on policy entrepreneurship emphasises that both subnational actors and organisations have a significant impact on shaping public policy. The pioneering work by John Kingdon (1984 [2014]) outlines that individuals with specialised knowledge and assets—referred to as policy entrepreneurs—could play an integral role during the agenda-setting stage by highlighting overlooked issues and presenting potential solutions to policymakers. Numerous scholars have explored the concept of policy entrepreneurship and its effects on public policies. For example, Mintrom and Norman (2009) distinguish between 'political' entrepreneurism, which works within existing political structures to promote reform, and 'social' entrepreneurism, which involves mobilising resources and stakeholders outside politics in pursuit of policymaking goals. Other scholars have investigated the role of networks and alliances (Faling et al., 2018), while some have studied individual characteristics (Mintrom, 2019). However, research-linking policy change at the international level with subnational actors is less developed. To close this research gap, this study explores the role of these actors in IRENA's creation process. By doing so, this paper asks *how are subnational actors able to initiate policy change at the*

international level? I argue that subnational actors, who transform into policy entrepreneurs, navigate between levels to push their interests. Therefore, I introduce the concept of interlevel mobility—which is based on two-level game theory and international policy entrepreneurship—to frame a three-level subnational interaction system between actors. Mobility across levels is defined as the ability of subnational actors to (1) move freely within all levels, (2) place their agenda on different levels of analysis and (3) exert influence over other actors. There are two prerequisites for effective interlevel mobility. *First*, subnational actors should be firmly embedded within different levels. For instance, an actor could be a member of parliament or head of a non-governmental organisation (NGO). *Second*, the agenda pursued should include ideas and policy elements that meet the approval of actors at the national and international levels. An example would be that a national government made an international commitment in a certain policy area and subnational actors developed a problem–solution approach to fulfil this commitment.

This paper's contribution to the literature is threefold. First, this article expands our theoretical understanding of policy entrepreneurship by outlining how subnational actors drive public policy change at the international level. Second, the empirical case draws our attention to the important role of individuals in the origins of IRENA. Third, this paper provides fruitful insights for policymakers who are eager to foster change.

The remainder of this paper is organised as follows. The next section examines the different levels of analysis and provides a short literature overview. The third section introduces the research design. This is followed by the conceptualisation of interlevel mobility. In the fifth section, the concept is used to explain the creation process of IRENA. The final section summarises the main findings.

2 | LEVELS OF ANALYSIS

One approach to the study of international relations focuses on different levels of analysis. Identifying key players—individuals, interest groups, states or international institutions—is an essential part of the first step in any analysis, as it constitutes a guide through the investigation process. By identifying these players, scholars are able to systematically investigate various interactions within and across the subnational, national, international and transnational levels. As a result, nearly every topic in international relations—from trade policy to European integration—has been addressed. This section provides an overview of the different levels of analysis.

Defined by an anarchic structure, the international level entails a focus on the wider context and reflects

Policy Implications

- This paper contributes to our understanding of how subnational actors matter in international relations as well as how different levels of analysis interrelate.
- The concept of interlevel mobility constitutes a first step towards unveiling the ways in which subnational actors can lead to institutional innovation.
- The presented case study focused on the birth of IRENA illustrates how characteristic attributes—ambition, social acuity, credibility, sociability, and tenacity—and effective secondary strategies enable actors to a flow through different levels.

the interactions among states. Waltz (1959) laid the groundwork for a three-dimensional approach by identifying human nature (first image), the nature of the state (second image) and the nature of the international system (third image) as causes of war. His main argument has been that the relevant level of analysis is the international level, as its structure determines the behaviour of states as singular actors. This structural approach has been criticised by Singer (1961), who argued that the streamlining of organisational complexity has had significant analytical consequences, as the national level can provide many more details. By reverting to the second image, Gourevitch (1978) connected international and domestic politics by showing that power distribution and economic activity can actually have an impact on a state's foreign policy. Nye and Keohane (1971) found that the focus on states as dominant actors on the international stage has been inadequate. As a result, they broke open the state-centric paradigm by arguing that transnational actors—for example NGOs—can also influence the outcomes of international politics.

The study of international negotiation situations paired with the role of domestic factors led Putnam (1988) to develop his two-level game theory. Despite being taken for granted today, this approach has shown how the international (level I) and domestic levels (level II) are interconnected. Level I describes the bargaining process between negotiators at the international level, whereas level II represents domestic debates in a situation in which actors aim at the ratification of a possible agreement (win-set). The two levels are connected when the different win-sets are brought together at both levels (Moravcsik, 1993: 30) through the domestic ratification process. Therefore, the objectives of international bargaining are limited by domestic factors. These factors include but are not limited to, a veto player, which is

'an individual or collective actor whose agreement is required for a policy decision' (Tsebelis, 1999: 293). Over time, the literature on two-level game theory has identified a broad range of explanatory variables (see also Conceição-Heldt, 2013), such as the role of political institutions (Keohane & Milner, 1996) or the influence of societal groups (Moravcsik, 1997), to explain the ways in which domestic politics affects the interactions between states at the international level. For example, Conceição-Heldt (2011) showed that the outcome of international trade negotiations is impacted by the domestic power distribution, the number of veto players and the influence of political parties within a country. The analysis of the transnational level has become more important in the context of globalisation and the intensification of cross-border issues, such as environmental policy and the growing influence of multinational corporations (Risse, 2013).

Another group of scholars has engaged with individual actors who promote innovations at different levels and are referred to as policy entrepreneurs (Kingdon 1984 [2014]). This approach has been used to describe policy change actions by international organisations such as the European Central Bank (De Rynck, 2014; Heldt & Mueller, 2020; Heldt & Müller, 2021), individuals (Partzsch, 2017) and NGOs (Risse, 2013). These entrepreneurs—mostly on the national level—are defined as 'actors who identify windows of opportunity whereby they can take advantage of emerging problems and contemporaneous political settings to promote particular policy ideas' (Mintrom & Luetjens, 2019: 2). Over time, scholars have discovered different approaches that provide theoretical insights into how policy entrepreneurs pursue policy change (see also Petridou & Mintrom, 2021). Punctuated equilibrium theory (Baumgartner & Jones, 2010) is one of them and argues how policy change is subject to rise and fall on the national political agenda. The authors point out that when a pursued policy change is not possible at one level, this could open up an opportunity at a different level where a policy change might be successful. However, many policy entrepreneurship studies have focused on national actors to explain institutional and policy change at the national level (Mintrom & Luetjens, 2019: 2–4). Surprisingly, our knowledge is somewhat limited in regard to the actions of subnational actors in the international arena, as most studies are merely descriptive. The study by Mintrom and Luetjens (2019) constitutes an exception, as they, to the best of my knowledge, were among the first to demonstrate the ways in which international policy entrepreneurs matter in foreign policy decisions. Their study enabled us to better grasp the nature of policy entrepreneurs by offering a twofold framework that links these entrepreneurs with five characteristics and available strategies. The first characteristic is *ambition*, which refers to the underlying motive or vision driving an actor to become involved in a

cause and explains why actors are willing 'to invest their resources—time, energy, reputation, and sometimes money' (Kingdon, 2014: 122). Second, *social acuity* enables these actors to take advantage of their networks by addressing potential concerns and choosing their arguments carefully. Third, *credibility* is important for actors, as they have to communicate their concerns effectively to gain support for their ideas. Expertise or political office can also be a decisive advantage in this regard. Fourth, the path to change is a process of *sociability* and therefore requires repeated adjustments not only to avoid driving away other people or groups but also to gain their support. Fifth, *tenacity* is a key quality, as processes can be complex, especially in an international environment, and it is, therefore, important to have the persistence to achieve one's goal. Policy entrepreneurs can choose from multiple strategies to promote their interests. Mintrom and Luetjens (2019) offered five categories of strategies based on the framing of problems and redefinition of policy solutions, the use and expansion of networks, the creation of networks, the creation of a guiding advocacy coalition, stratagems to lead by example and the scaling up of advocacy efforts and support for policy change.

These scholars' research constituted a first step in understanding how policy entrepreneurship drives public policy change at the international level. This paper adds to this research by bringing together two-level game theory and the literature on policy entrepreneurship, resulting in the concept of interlevel mobility. The next section introduces the research design of this study.

3 | RESEARCH DESIGN

The research design of this study is an 'analytic narrative' (Bates, 1998) to provide a holistic understanding of the role of subnational actors in the establishment of the IRENA. This approach is not only narrative, in the sense that it extensively reconstructs how an event took place by zooming into the national level. This case study is also analytical since it applies a theoretical framework to study the origins of the IRENA. The data gathered in this study consisted mainly of primary sources, including speeches by various government officials from different political parties, interviews with Herrmann Scheer, (leaked) government documents, United Nations conference documents, electoral programmes, information from non-governmental organisations and publicly accessible websites. The materials offer useful documentation of the events at the domestic and international levels, allowing a straightforward reconstruction of the origins of the IRENA. This large body of primary sources enables me to reach solid conclusions to better understand how subnational actors matter in the establishment of intergovernmental organisations (see also Conceição-Heldt, 2011: 11).

Hence, this study can add to a more nuanced understanding of policy entrepreneurship by individuals.

The case selection was based on three factors. First, IRENA is a young organisation and represents a unique development process, and its creation is well-documented and accessible to researchers. Second, because it took a long time for the organisation to be founded from the time, it was first thought of, the case is representative of the many different paths subnational actors can take and of the influence exerted by other actors, veto players and domestic politics. Finally, there has been extensive research on the origins of IRENA in the context of global energy governance (Van de Graaf, 2013), its effectiveness and its ability to reshape the global energy landscape (Urpelainen & Van de Graaf, 2015; Van de Graaf, 2012), and the internationalisation of Germany's 'Energiewende' (Roehrkasten & Westphal, 2013). Yet the role of subnational actors in the establishment of IRENA has, to the best of my knowledge, not been addressed.

4 | CONCEPTUALISATION OF INTERLEVEL MOBILITY

The concept of interlevel mobility applies to subnational actors, who appear as policy entrepreneurs because they have the ability to pursue their policy agenda by navigating between different levels. These actors are located on the subnational level and can become members of parliament (national level), approach an international organisation (international level) or promote a policy agenda with the help of an NGO (transnational level). To be more specific, interlevel mobility is the ability of subnational actors to (1) move freely between the subnational, national, international and transnational levels; (2) exert influence over actors at other levels and (3) use their embeddedness to promote their own agenda. The framework of interlevel mobility can be divided into four different phases, as shown below. Phase one explores the motivation behind the policy change envisaged by subnational actors. Phase two shows how subnational actors become policy entrepreneurs when they attempt to place their ideas on the agenda promoted by national or international actors. If successful during the second phase, policy entrepreneurs can enter the third phase to monitor international negotiations. The final phase enables policy entrepreneurs to adapt their strategy, if necessary.

4.1 | Phase one: The subnational actor's motivation

To describe this phase, I apply the framework developed by Mintrom and Luetjens (2019), which defines the first three *characteristics* of a policy entrepreneur,

as these are important to understand the motivation of a subnational actor. First, subnational actors must identify a relevant problem that they can describe. By proposing a possible solution, they then develop their own agenda (*ambition*) to achieve a policy change. This problem-solution approach motivates subnational actors and highlights what drives them to invest time and resources. A radical approach should be avoided (*social acuity*) by subnational actors to increase the chances of promoting their personal agenda, as this agenda is likely to face opposition or rejection from other actors. The proposed policy change should ideally be associated with the subnational actor (*credibility*). Analytical parallels also exist with the multiple streams framework (Johansson & Raunio, 2022: 175; Kingdon, 2014), which has been used to analyse policymaking and agenda-setting processes. The first stream—the problem stream—draws attention to an issue. The second stream—the solution stream—offers a solution to this issue. The third stream—the politics stream—describes the political decision-making process (Johansson & Raunio, 2022: 175). The combination of the first two streams prepares the agenda setting in phase two. As the next phase will show, subnational actors are able to transform themselves into policy entrepreneurs when they approach other actors from different levels.

4.2 | Phase two: Finding powerful agenda-setting allies

After subnational actors are able to combine *ambition*, *social acuity* and *credibility*, the last two characteristics become important. For the implementation of solutions, actors must identify policymakers at the national, international and transnational levels who will support them and place their request on the political agenda. As Johansson and Raunio (2022: 176) explained, the venue (where something takes place and who is involved) of a debate matters. Indeed, changing a policy can only occur when that policy is considered to be a problem. Therefore, subnational actors become policy entrepreneurs to communicate their ideas by gaining access to actors operating at other levels. For example, they could be invited to a conference organised by an international organisation or to a parliamentary session (*sociability*). Hence, the five types of *strategies* proposed by Mintrom and Luetjens (2019)—the framing of problems and redefinition of policy solutions, the use and expansion of networks, the creation of a guiding advocacy coalition, the effort to lead by example and the scaling up of advocacy efforts and support for policy change—constitute powerful tools for policy entrepreneurs to use. These strategies are adjustable depending on the level at which an actor operates. For example, if policy entrepreneurs seek

to change a government's national policy, they could become members of a potential governing party and campaign for changes to take place in an election programme in ways that match their policy agenda. At the international level, they could appeal to the director of an international organisation for the establishment of a new agency in a policy area. The idea for such agency should also include a verifiable and thoughtful approach that would allow us to solve current problems, as seeking broad changes could eventually be construed as opportunism (*tenacity*). When agenda setting is successful, policy entrepreneurs can move to phase three; in case of failure, they will need to go through phase one and phase two again.

4.3 | Phase three: Monitoring the negotiation process

The third phase refers to the monitoring of the negotiation process and is akin to the politics stream. This stream describes situations in which political activities such as decision-making occur (Johansson & Raunio, 2022: 175). The three streams—problem, solution and politics—are combined by policy entrepreneurs through the creation of a window of opportunity. In the case of international negotiations, the committed allies emerging from phase two present the proposed policy change to the member states or stakeholders involved. In the subsequent negotiations, the bargaining process starts, and various preferences and power constellations emerge, resulting in an international and national winset. This situation is where the hazard from veto players is the greatest, as their consent is usually needed. In this two-level game, policy entrepreneurs have the opportunity to intervene should the further course of the decision-making process be jeopardised. For instance, they could continue their work of persuasion, make concessions or mobilise actors operating at other levels to make veto players more responsive. Examples of such a process include a parliament passing a resolution calling on the government to adjust its win-set or a press statement delivered by an influential NGO to use public

exposure to put pressure on the government. This phase is completed by the ratification process. Depending on the outcome of the ratification process, policy entrepreneurs have two options. First, when the proposed policy change is dismissed, they must start again with phase one or consider approaching an actor operating at another level in phase two. Second, when phase three is successful, they can move to the last phase.

4.4 | Phase four: Asking for more?

In this last phase, policy entrepreneurs may try to go beyond their goals and demand even more. After the ratification process, there is a discussion about the details of issues such as the appointment of executive officers. These detailed issues are not part of the problem-solution stream and instead belong to the politics stream. This discussion opens personal windows of opportunity for policy entrepreneurs. By using their characteristics (*ambition*, *social acuity*, *credibility*, *sociability* and *tenacity*), these entrepreneurs can lobby for the fulfilment of their personal aspirations, for example the obtention of executive positions. The next section illustrates how inter-level mobility has worked in practice in the specific case of IRENA.

5 | THE CREATION OF THE INTERNATIONAL RENEWABLE ENERGY AGENCY

This section is divided into two parts. The first illustrates how policy entrepreneurs played a central role on the international level when it came to the creation of ISEA (phase one). It also describes who supported and rejected the proposal (phase two). The second part explores the role of policy entrepreneurs at the domestic level in the establishment of IRENA (phase one) by influencing two different coalition governments (phase two), describes the path to successful ratification (phase three), and the bargaining process at the international level (phase four).

ISEA as Part of the UN System
Timeline

Month/year	Steps in creating ISEA (selected)
08/1988	Founding of the European Association for Renewable Energies (EUROSOLAR)
01/1990	Memorandum for the Establishment of an International Solar Energy Agency (ISEA)
04/1990	Presentation of the Memorandum at UN Headquarters and creation of the task force 'United Nations Solar Energy Group on Environment and Development'
05/1990	Support from the 'Interparliamentary Conference on the Global Environment', organised by the U.S. Senate
11/1990	Support from the Austrian foreign minister during a speech at the UN General Assembly
11/1991	Preparatory Committee of the 'UN Conference for Environment and Development' (Rio-Conference) rejects ISEA proposal

Source: adapted from EUROSOLAR and WCRE, 2009: 3–4.

5.1 | Phase one: Scheer's motivation in the creation of ISEA

In 1981, the UN Conference on New and Renewable Sources of Energy discussed the potential of non-fossil energy sources and the first steps towards the creation of an international organisation in this area. However, the conference did not result in any tangible decisions, as member states disagreed on the need to create a new organisation (EUROSOLAR and WCRE, 2009: 27).

The discussions at the domestic level, however, continued. In particular, in Germany with a strong ecological movement, national politicians cared about alternative sources of energy. The most prominent was the social democrat Hermann Scheer—a member of the German Bundestag (1980–2010) and his party federal executive board (1993–2009). He was one of the strongest advocates for the expansion of renewable energy. Scheer used several characteristics and strategies in parallel at different levels to outline his problem-solution stream. His *ambition* and interest in renewable energies were based on the 'paradox of the existing gigantic potential of renewable energy on the one hand and its complete underestimation on the global, regional and national scale on the other' (EUROSOLAR and WCRE, 2009: 117). Furthermore, he warned about the dangers of energy production from fossil and nuclear energy sources (problem stream). To underpin his *credibility*, Scheer created in 1988 the non-profit European Association for Renewable Energies (EUROSOLAR), which aimed to replace nuclear and fossil energy sources with renewables (solution stream). As president of this transnational organisation, Scheer published a Memorandum for the Establishment of an ISEA within the UN in 1990. He demonstrated *social acuity* by directing his proposal to the UN Conference on Environment and Development that took place 2 years later.

In this first phase, Scheer managed to efficiently use his *ambition*, *social acuity* and *credibility* to establish a traceable problem-solution stream. The next phase shows how he transformed from a subnational actor to a policy entrepreneur by seeking out strong supporters for his vision.

5.2 | Phase two: Scheer's international agenda setting

Phase two of the inter-level mobility framework requires subnational actors to gain support for their problem-solution stream at different levels of analysis. By doing so, Scheer transformed into a policy entrepreneur and used *sociability* to present his vision to different level actors. Support came from various prominent government and international officials. The Austrian foreign minister supported Scheer's initiative and publicly defended it at the UN General Assembly in 1990: 'A number of nongovernmental organisations, such as EUROSOLAR, are increasingly demanding that the issue of the development and more appropriate use of renewable sources of energy should find expression within a high, institutional framework within the [UN] system' (Mock, 1990: 76). In addition, Scheer used strategies such as taking advantage of his existing parliamentary networks to gain support. At the 1990 Interparliamentary Conference on the Global Environment in Washington, members of the U.S. Senate officially welcomed his proposal. The conference's chairman even called for 'the establishment of an international agency to promote the development and application of all forms of solar energy' (ICGE, 1990: 11). UN Secretary-General Pérez de Cuéllar was equally supportive. He created the working group 'UN Solar Energy Group on Environment and Development' (UNSEGED) while inviting Scheer as a guest to contribute with his expertise (EUROSOLAR and WCRE, 2009: 3).

The results of the deliberations were then included in Agenda 21, a UN development and environmental policy action programme for the 21st century, of the Rio conference. In this way, the policy entrepreneurs' problem-solution stream moved to the politics stream of the UN. At the multilateral meeting, UN member states discussed Scheer's proposal. However, many UN member states assertively rejected the proposal. In particular, Japan exported technological know-how for using renewable energy. It considered ISEA an 'economic threat' and thus opposed its creation (EUROSOLAR and WCRE, 2009: 118). Eastern European countries and members of the European Community were dissatisfied with the work of existing UN organisations and therefore also opposed the creation of a new suborganisation (United Nations, 1981: 689). Moreover, the opposition also came from international organisations operating in the energy domain—such as the International Atomic Energy Agency (IAEA) and the IEA—because they feared being displaced or replaced (EUROSOLAR and WCRE, 2009: 118).

In a subsequent interview, the policy entrepreneur acknowledged that his problem-solution stream failed in the politics stream by declaring that 'ISEA must be founded outside the UN system' (EUROSOLAR and WCRE, 2009: 120). As a consequence, Scheer decided to drift from the international to the national level. Hence, he turned to the German government and declared that 'as a member of the German parliament and council member of the Social Democratic Party, I [am] in the position to directly exert my influence' (EUROSOLAR and WCRE, 2009: 120). Although the policy entrepreneur was not successful with his ISEA attempt, his *credibility* increased significantly. His engagement brought him national and international recognition, which culminated with the Alternative Nobel Prize in 1999 (Right Livelihood Award, 1999) and the 2002 selection as 'Hero for the Green Century' (SZ, 2010).

The implications of this section for interlevel mobility demonstrate the difficulty of getting a problem-solution stream through the politics stream. Although there is

a clear and traceable solution to a problem, which is supported by various government and international officials, it can be challenging to translate that into effective policy outcomes. Furthermore, the failure to advance the solution in the politics stream highlights the role of powerful veto players. The limitations of interlevel mobility show that despite becoming a policy entrepreneur, the subnational actor's ability to exert influence in the politics stream was still limited, suggesting that policy entrepreneurs face significant barriers to inducing policy change. Hence, strategies to mitigate their impact are needed. However, the engagement brought the subnational actor international recognition, culminating in the Alternative Nobel Prize, which suggests that advocacy and public recognition can be important drivers of change, as the next section will show.

policy entrepreneur, occurred in the context of national elections.

5.4 | Phase two: National agenda setting of the policy entrepreneur

The shift to the national level had implications for the *sociability* of Scheer. He had to approach German policymakers and therefore took advantage of his embeddedness within the national political system to present his adjusted problem-solution stream. In the first step, he became involved in the formulation of the campaign programme to commit his own party to the promotion of renewable energy (SPD, 1998: 37). After his party formed a new government with the

IRENA as an Independent Intergovernmental Organisation

Timeline

Month/year	Steps in creating IRENA (selected)
01/2001	Memorandum for the Establishment of an International Renewable Energy Agency (IRENA)
06/2002	As a member of the executive committee, Scheer introduces the call for IRENA into the election programme of the SPD for the federal election
10/2022	Coalition agreement between SPD and Green Party includes the initiative for the establishment of IRENA
06/2004	German parliament hosts the *International Parliamentary Forum on Renewable Energies*, chaired by Scheer, and calls for the establishment of IRENA
06/2005	SPD programme for new elections again includes the initiative for IRENA
10/2005	IRENA included in the coalition agreement between CDU/CSU and SPD
01/2007	Diplomatic setback at the international-level prompts German government to start bilateral talks for creating IRENA
04/2008	First preparatory conference in Berlin for the creation of IRENA
10/2008	Final Preparatory Conference in Madrid
01/2009	IRENA is established in Bonn
06/2009	Choice for Abu Dhabi as IRENA's headquarters and Hélène Pelosse as the first director

Source: adapted from EUROSOLAR and WCRE, 2009: 5–8.

5.3 | Phase one: Scheer's motivation for IRENA

The subnational actor adjusted his problem-solution stream as he navigated from the international to the national level. Scheer modified his *ambition* by pursuing the creation of IRENA as an independent intergovernmental organisation (Scheer, 2000). The presented institutional design of IRENA was based on promoting renewable energy. The goal was to complement the global energy governance landscape through universal membership. The focus of daily work was on transferring knowledge, advising governments and collecting data. Scheer demonstrated *social acuity* by calling on his own party in particular for support, where he enjoyed great *credibility* as 'Sonnenkönig' or 'Solarpapst' (SZ, 2010). The switch from phase one to phase two, which went hand in hand with the transformation into a

Greens in 1998, Scheer's proposed policy changes were included in the new government's programme (Coalition Agreement, 1998). However, IRENA was not part of it.

To further make its voice heard, Scheer moved to the transnational level by becoming president of the newly founded World Council for Renewable Energy (WCRE, 2022). By using this international network, the policy entrepreneur tried to lend weight to the establishment of IRENA. Furthermore, he proposed an International Renewable Energy Dissemination Treaty as an additional Protocol to the Nuclear Non-Proliferation Treaty (EUROSOLAR, 2013: 58). As a response, the German Minister for Development (SPD member) indicated that IRENA would provide an important impulse for international cooperation but would require the inclusion of the expertise of existing organisations (Wieczorek-Zeul, 2001).

While preparing for the 2002 federal election campaign, Scheer again used his political and transnational embeddedness to exert influence over other actors. The policy entrepreneur was able to successfully position the demand for IRENA in his party's campaign programme (SPD, 2002: 35) as well as in the final coalition agreement of the re-elected SPD/The Greens federal government (Coalition Agreement, 2002: 37). In April 2003, the two government factions submitted a motion to parliament with the aim of developing an implementation plan for the establishment of IRENA (Bundestag, 2003b). During the parliamentary debate, Scheer called as a member of parliament for an 'institutional equality of arms' between renewable, fossil and nuclear energy sources (Bundestag, 2003c: 3333). After the parliament approved the project, the government decided to organise an international conference to discuss renewable energies. The policy entrepreneur had thus reached a small milestone when the parliament as a powerful actor on the national level backed its vision. However, at the same time, veto players emerged and challenged the problem-solution stream. The Ministry of the Environment, at the time led by the Green politician Jürgen Trittin, refused to commit politically to an idea emanating from an SPD politician (Roehrkasten & Westphal, 2013: 6). Trittin questioned the need for IRENA (Roehrkasten & Westphal, 2013: 6) and commissioned a study to prove that there was little interest from major global actors in the establishment of a new international governmental organisation (Pfahl et al., 2005). Moreover, the German government did not proceed with an agenda for the creation of IRENA on the international level, as support from other countries was not clear (Scheer, 2012: 158). Trying to overcome these concerns, the policy entrepreneur took advantage of his *tenacity* by aiming to keep the topic on the political agenda. First, Scheer argued that an international organisation would make a great difference by bringing institutional authority and expertise (Photovoltaik, 2008: 16). Second, at an international parliamentarians' forum of the 'Renewables 2004' conference in Bonn, he emphasised the legislative responsibility of parliaments in promoting renewable energies (Bundestag, 2003a; Scheer, 2004). Although the tenacious commitment of the policy entrepreneur gave a new impetus to the issue, the establishment of IRENA was again postponed.

In May 2005, national electoral priorities in Germany prompted the sitting chancellor to call for a vote of confidence in parliament to have new elections in the fall. The outcome resulted in a new government consisting of CDU/CSU and SPD led by Angela Merkel. This created a new window of opportunity for the policy entrepreneur to use his political embeddedness. He had managed again to include the establishment of IRENA in the new coalition agreement (Coalition Agreement, 2005: 52). Furthermore, the new distribution of cabinet posts

seemed ideally suited to Scheer's *sociability*, as this made it easier to access powerful supporters. For example, the ministries of foreign affairs, the environment and the economy were assigned to his party.

The policy entrepreneur finally gained access to the politics stream when the German government attempted to promote an international integrated climate and energy policy with a focus on renewable energies in preparation for the dual presidency of the EU and the G8 in 2007. At the European level, German efforts were successful, as the EU decided that the share of renewable energies in the EU's total energy consumption should reach 20% by 2020 (European Council, 2007: 21). However, efforts at the international level failed, as it was not possible for the UN to recognise the importance of renewable energies because of OPEC members' reservations (Roehrkasten & Westphal, 2013: 7). This diplomatic setback at the international level prompted the German government to turn to Scheer's problem-solution stream to create IRENA.

5.5 | Phase three: Monitoring the international negotiation process

Due to the policy entrepreneur's affiliation with a governing party as well as his *credibility*, the German government named Scheer and three special ambassadors to gather a coalition of willing countries to coordinate joint actions for the establishment of IRENA (EUROSOLAR and WCRE, 2009). In addition, Scheer actively participated in the foundation process, which was carried out during three conferences and a workshop session. This put the policy entrepreneur in the situation of monitoring the politics stream on the international level from the beginning.

In April 2008, the first preparatory conference was held at the German Federal Foreign Office, and 60 nations participated; almost two-thirds of these were developing or emerging countries (BMUV, 2008; IRENA, 2022c). The main goal of the conference was to unite countries willing to form the organisation.

A few months later, the German parliament hosted two workshops that focused on the financing and statute of the new organisation (IRENA, 2022a). Addressing the fact that almost 15 countries that had participated in the first conference were no longer participating, Scheer defended the creation by comparing the situation to that of the founding of the IAEA, responding that 'when the [IAEA] was founded in 1957, there were fewer than 20 founding members. After three to four years, there were 100, and today there are over 140' (Photovoltaik, 2008: 16).

On the international level, Denmark and Spain emerged as keen supporters of Scheer's problem-solution stream because renewable energies played an important role in their domestic politics (Van de

Graaf, 2013: 27). Spain's strong support was also demonstrated through its hosting of the second preparatory conference, which was cochaired by Germany and Denmark, and included final discussions on the objectives and scope of IRENA (IRENA, 2022b).

Under the leadership of Germany, the three heads of government published a brochure with their founding intentions and openly incited other countries to become members (Bundesregierung, 2008). The proposed institutional design of IRENA, including its membership open to all countries, worldwide promotion of renewable energies and the creation of a 'centre of excellence' to support research and development, generally corresponded to the policy entrepreneur's vision. However, there were small divergences. For example, the official proposal (and today's actual IRENA design) did not include a regulatory component that Scheer advocated. The brochure also showed that a different approach was taken to explain the rationale for the creation of IRENA. For example, renewable energies create economic opportunities, serve to secure energy supplies, and stabilise the climate. In contrast, Scheer's proposal, which was based on his *ambition* from phase one, had used nuclear energy and fossil fuels as a justification for the creation of IRENA by showing that 'the dangers of nuclear based security as well as the proliferation of atomic weapons will result in our relying globally on renewable energy' (EUROSOLAR and WCRE, 2009: 24). Roehrkasten and Westphal (2013: 9) call this modified institutional design a 'win–win framing' and 'soft approach', which is in contrast to Scheer's idea but in line with the goal of the German government of obtaining as much international support as possible. These rather small adjustments had arisen in the international politics stream but were not a danger to the policy entrepreneur's envisaged policy change.

The founding conference in January 2009 was open to all UN members. Ultimately, all 75 participating countries signed the founding statute. At that point, however, it appeared that major international support for IRENA would fail to materialise. Influential states, such as G8 countries (the U.S., Russia, Japan, the United Kingdom and Canada) or emerging powers (China, India, Brazil and South Africa), initially decided against becoming founding members based on various reservations, for example dismissal as a political fuss or defending the IEA (see more Van de Graaf, 2012). The organisation's founding nevertheless was pushed forwards by Germany. In the months that followed, a total of five sessions of the Preparatory Commission for IRENA were held. At the end of June, shortly before the second meeting in Sharm El Sheik (Egypt), where the first director-general was to be chosen, Australia, Great Britain, Japan and the U.S. joined IRENA (U.S. Department of State, 2009). The change in the U.S. administration from President Bush to President Obama explains the shift in climate policy issues and thus the

willingness to become a member of the organisation. This, in turn, prompted numerous other states to join.

In phase three of interlevel mobility, the policy entrepreneur was successful in creating a problem-solution stream and pushing it through the national and international politics streams. By using different characteristics and strategies, he was able to find powerful allies on the different levels and to prevail against veto players to implement successful policy changes.

5.6 | Phase four: Germany as host of IRENA and a German director general?

As a final part of the politics stream, the remaining detailed issues were discussed and opened another personal window of opportunity for the policy entrepreneur. This included the issue of Germany as IRENA's headquarters, together with Scheer as its first director.

During the founding conference, Germany (Bonn), Austria (Vienna), Denmark (Copenhagen) and the United Arab Emirates (Abu Dhabi) submitted applications for hosting the organisation's headquarters (Scheer, 2012: 158). The Danish bid was withdrawn, leaving three sites from which to choose. Germany entered the race while proposing the former federal capital Bonn as the host. The government thought it had a good chance, because the country was, after all, the main initiator for the creation of the organisation, and the city of Bonn was already home to a UN campus with a major focus on environmental issues (Eisel, 2009). Scheer, whose NGO EUROSOLAR was based in Bonn, also backed the proposal. Austria proposed Vienna as the optimal location, as numerous international organisations were already located there, for example the UN Energy Committee and IAEA (Bundesrat, 2008). One of the reasons given by the United Arab Emirates to back up their application was that the headquarters for most international organisations are located in industrialised countries and that there were none in the Arab region (Roehrkasten & Westphal, 2013: 10).

To the surprise of many participants, Abu Dhabi was chosen as the headquarters' location. Representatives of the United Arab Emirates (UAE) declared the election to be a priority in their government's foreign policy. In the run-up, the representative of the country visited mainly members from developing countries to ask for their support and made enormous financial pledges they would deliver in the event of a victory. While Germany promised start-up funding of $11 million, the UAE committed more than $136 million, in addition to funding to cover all logistics costs (Van de Graaf, 2012). The UAE also promised to build Masdar City, a new city in the desert of Abu Dhabi that would be powered entirely by renewable energy, to dispel reservations about the fact that they were an oil-producing

country and to express support for renewable energies (Roehrkasten & Westphal, 2013: 10). Alongside this impressive range of additional offers, the country also had powerful supporters. French President Sarkozy promised, after a state visit to the UAE, that he would advocate for the UAE across Francophone West Africa to win Abu Dhabi some votes. U.S. diplomats across the world were urged to lobby for Abu Dhabi, as the UAE made it clear to the U.S. that they would only maintain their support in Afghanistan and Iraq, among other places, if they were assured of the support of the U.S. for Abu Dhabi. The UAE indicated that if Abu Dhabi were successful, they would remember Americans' assistance favourably (Carrington, 2010). In contrast, the German government campaign seemed rather unambitious and was limited to focusing on reforming the UN Security Council to obtain a permanent seat (Roehrkasten & Westphal, 2013: 10). Subsequently, to avoid imminent defeat after the vote, Germany and Austria withdrew their respective applications. The official reasoning was that there should be no conflicting votes since the creation process should occur in the spirit of cooperation. Therefore, UN member states agreed on a package deal: Abu Dhabi was chosen as the headquarters of the agency; Bonn became home to the Innovation and Technology Centre; and Vienna was chosen to host a liaison office for cooperation (BMUV, 2009).

Germany did not support Scheer's intended candidacy as first director-general, arguing that a double candidacy would jeopardise Bonn's chances as headquarters. As a result, the candidates for the position of first director-general came from France, Denmark, Spain and Greece (Renewable Energy Magazine, 2009). In the election, the proposed candidate by France, Hélène Pelosse, ultimately prevailed (Agence Europe, 2009).

Scheer's idea for the establishment of an international organisation in the field of renewable energy finally became a reality in 2009. However, the policy entrepreneur's personal aspirations to run for the position of first director-general as well as his desire to make Bonn the headquarters of the organisation were overturned in the politics stream.

The findings of this section suggest two major implications for the interlevel mobility concept. First, the adjustment of the problem-solution stream to suit the shift from the international to the national level is crucial to demonstrate sociability and awareness of the complex political landscape. Second, political and transnational embeddedness are critical to policy entrepreneurship. The access to different policymakers and taking advantage of networks can be leveraged for the policy entrepreneur. By leveraging these relationships, policy entrepreneurs can navigate the complex terrain and promote their policy ideas more effectively. However, the findings also illustrate some limitations to interlevel mobility. The UAE's successful bid for IRENA headquarters was based on

its ability to make financial pledges and garner support from other powerful nations. This suggests that policy entrepreneurs need to be aware of other national interests and power dynamics, especially when it comes to personal aspirations. Moreover, the fact that Germany did not support the policy entrepreneur's candidacy as first director-general despite his instrumental role in IRENA's creation illustrates the challenges that policy entrepreneurs may face in gaining formal leadership positions. Even if policy entrepreneurs have the vision, expertise and network to lead an organisation, they may still face powerful opposition from other actors who prioritise different criteria or interests.

6 | CONCLUSION

This article has focused on how subnational actors mattered in the creation process of IRENA. Their ability to move freely through the national, international and transnational levels enables them to exert influence over other actors while putting their preferences on the political agenda. By combining two-level game theory and the policy entrepreneurship literature, this study captures this drift through the different levels by introducing the concept of interlevel mobility. The findings of this paper are twofold.

From a theoretical perspective, interlevel mobility advances existing theoretical approaches towards unveiling the ways in which policy entrepreneurs can initiate policy change at the international level. The concept illuminates how these actors leverage their embeddedness and characteristics to drift between different levels.

Regarding policy implications, the study reveals a potential blueprint for policymakers on what it takes to achieve successful policy change and how to implement it. Certain characteristics as well as long-term planning and persistence are important in achieving policy change. The case also highlights the role of veto players in obstructing policy change. Policymakers should mitigate their impact by identifying potential veto players early on and finding common ground with them.

Notably, the study is not without limitations. A generalisation of the presented results, including the construction of a dependable model, requires more than a single case study. Thus, it is necessary to adapt and expand interlevel mobility. However, the concept offers a promising avenue for advancing international policy entrepreneurship and contributes to a more comprehensive understanding of how subnational actors initiate policy change at the international level.

DATA AVAILABILITY STATEMENT
Data sharing is not applicable to this article as no new data were created or analyzed in this study.

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