

## **Earth system governance and science diplomacy: commonalities of emerging shapers of institutions**

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### **Abstract**

*Earth System Governance (ESG) is a broadly formulated network of research agencies and governance bodies which aims to integrate science with policy and governance as a means of managing environmental change. Taking into consideration the broader context of ongoing attempts to define optimal solutions for major contemporary challenges, a comparison of ESG and science diplomacy focuses on four commonalities. The purpose of this comparison is to explore mutual learning opportunities because both strands of enquiry aim at addressing the global challenges in a comprehensive manner through tailored relations between science or research and policy or diplomacy. ESG and science diplomacy share an interest in exploring the top-down and bottom-up dynamics of multi-level governance, circulation of ideas, terms, including the expansion of their meanings, experimentation outside the existing institutional structures, as well as anticipation of future developments. A primary focus on Europe articulates areas where ESG and science diplomacy may find thematic intersections for mutual learning.*

**Keywords:** earth system governance, paradiplomacy, public diplomacy, science diplomacy, science-policy interface

## **1 Introduction**

Earth System Governance (ESG) aims to broadly integrate science with policy and governance across borders and at all levels of social activity as a means of managing environmental change at the local and the global levels based on ideals of sustainable development. ESG recognizes that science, policy and governance must work together globally in order to for change to happen. With its origins in the collaboration of major global change research programmes from around 2000 and in high-level policy statements and annual conferences since 2007, the ESG project has developed research networks based on five sets of research lenses including architecture and agency, democracy and power, justice and allocation, anticipation and imagination, adaptiveness and reflexivity. (ESG Project, 2018). However ESG is not the only “broad church” (Hayes et al., 2021, p. 15) in the global village. The purpose of this article is to highlight the main commonalities that ESG shares with science diplomacy and identify unique traits that set them apart from each other.

This attempt to trace similarities and differences is aimed at exploring two major frameworks that aspire to deliver new answers to the persisting global challenges. The proponents of both frameworks have defined their comprehensive ambition. ESG aims

to be “accessible to everyone while drawing on perspectives and insights from people across the globe” (Biermann, 2019, pp. 1-2). The Madrid Declaration on Science Diplomacy puts emphasis on the global challenges (Galluccio, 2021a, p. 83; Turchetti & Lalli, 2020, p. 3). The value of such a general comparison between ESG and science diplomacy is the observation that the multiplicity of world views translates into advocacy and pursuit of diverse, far from fully complementary goals for change and pursuits of change-making (Burch et al., 2019, p. 3). Acknowledgement of this serendipity is a useful starting point for a detailed elaboration of reasons why ESG should keep an eye on science diplomacy (and vice versa) in order to avoid duplications and to explore potential complementarities.

The global transdisciplinary network of researchers established by the launch of the 10-year integrative, interdisciplinary and transdisciplinary research programme “Future Earth” (Bai et al., 2016, p. 359; Biermann, 2014, 30, p. 62) brought to the fore sustainability science or ‘global sustainability science’ (more oriented towards intervention in a form of actions and decision-making) and ‘Earth system science’ (more oriented towards knowledge integration) (Asayama et al., 2019, pp. 22-23). It thereby represents a development over and beyond the earlier model of environmentalism as a dominant paradigm (Biermann, 2020; Musiał & Šime, 2021). In the contemporary setting, that is, ‘environmental policy’ is just one among many ways to approach the global crises of climate, biodiversity loss, land degradation, deforestation and environmental depletion (Biermann, 2020, p. 3). Bai et al have referred to “the proliferation of ever ‘narrower’ concepts (categories)” and Biermann refers to the conceptual pluralism of the current scene (Bai et al, 2016, p. 353; Biermann, 2020, p. 12) This article does not deal with the former or ongoing environmentalist turf wars (Azizi et al., 2019, p. 447), cooperative fragmentation (Biermann, 2014, p. 85), summitry (Biermann, 2013, 2014, p. 205; Death, 2011) or issues of coordination capacity (Neby & Zannakis, 2020, p. 595). This article focuses on the European setting since science advice is a more actively discussed topic in Europe than in the United States (Bozeman et al., 2019, pp. 267-268).

The main thematic threads for the literature review are drawn from the authors and topics featured during the international research symposium focusing on Sustainable Development Goals “Global Goals 2020” hosted by Utrecht University, the online international research symposium “Evidence for Action: Aligning the Climate and SDG Agendas” organised by the Sussex Sustainability Research Programme, and the 2021 Bratislava Conference on ESG hosted by Utrecht University and a group of partnering institutions.

The second section explains key words and core thinking of ESG and science diplomacy, and the third part elaborates on four items of interest shared by ESG and science diplomacy with particular attention to similarities and divergences. The fourth section discusses the findings with attention to what these two burgeoning frameworks reveal about the increasing complexity of the global quest for optimal science-policy interface and science-diplomacy solutions. The concluding part sums up the key findings.

## 2 Main key words and concepts

There are several definitions of ESG. The one that resonates most with this research project defines ESG as “the interrelated and increasingly integrated system of formal and informal rules, rulemaking systems, and actor-networks at all levels of human society (from local to global) that are set up to steer societies toward preventing, mitigating, and adapting to global and local environmental change and, in particular, earth system transformation, within the normative context of sustainable development” (Dahlmann et al., 2019, p. 168). The overarching challenge that the ESG addresses is how to protect the earth as a framework system that comprises several subsystems. ESG is preoccupied with the development of institutions best fit for “a safe transition process” and the simultaneous evolution of natural and social systems (Biermann, 2014, p. 9). Thereby, ESG focuses on the way humans impact planetary systems and how to steer these processes (Biermann, 2014, 22). Transformations are understood as “shifts that involve fundamental changes in structural, functional, relational and cognitive dimensions of linked socio-technical-ecological systems” (Burch et al., 2019, p. 3). ESG refers to the interlinks between science and politics through trans-science (Biermann, 2014, p. 63).

Science diplomacy has several definitions as well (National Research Council, 2012, p. 25; Van Langenhove, 2017, p. 8). Respecting the earlier attempts to explain the core meaning of the term, in this article science diplomacy is understood both as a practice and study of the multi-layered relationship and interdependency between science and diplomacy. The traditional nuances of science diplomacy are captured by three taxonomies, varieties or dimensions. Diplomacy for science focuses on “the facilitation of international scientific collaboration” (Van Langenhove, 2017, p. 8). Science for diplomacy refers to the use of science as “as a tool to build and improve relations” (Van Langenhove, 2017, p. 8). Science in diplomacy stands for science assisting in supporting foreign policy (Van Langenhove, 2017, p. 8). The attractiveness of science diplomacy is based on the primary interest of the foreign policy community in the influence abroad (Turchetti, 2020). “Influence may include the ability to affect how countries make decisions, how they develop, and how foreign publics view the home country. Science diplomacy is the nexus of access and influence.” (Wallin, 2010, p. 12) While Vaughan Turekian in his elaboration focused on states, the same attractiveness factor of science diplomacy applies when it is introduced in or towards other constellations, for example, multilateral frameworks, such as the Commonwealth with its roots dating back to the British Empire (MacLeod, 2010), and highly integrated entities, such as the European Union (EU) (Witjes, 2017, p. 130).

Thus while ESG is framed more towards tackling global societal challenges (Biermann, 2019), the inception of science diplomacy stems from an interest to advance conducive inter-state relations (National Research Council, 2012).

## 3 Commonalities

### 3.1 Top-down and bottom-up dynamics

ESG and science diplomacy both embrace top-down and bottom-up dynamics. In the parlance of ESG, it departs from “a ‘cockpit’ view” (Burch et al., 2019, p. 4). It is most vividly shown by two of the five dimensions of effective governance of the ESG – agency and architecture. The analytical problem of agency is not restricted solely to the state

(Biermann, 2014, p. 9). “Actors include all individuals, organizations, and networks that participate in decision making related to the earth system.” (Biermann, 2014, p. 47) Actors are distinguished from agents that operate based on a specifically granted authority (Biermann, 2014, p. 47). Architecture embraces multilevel governance spanning from local to global (Biermann, 2014, p. 10). This constellation assembles a myriad of actors that are listed in the subsequent paragraph.

Participatory architecture for ESG embraces civil society and citizens (Biermann, 2014, p. 213). ESG has sparked an analytical examination of ‘purpose ecosystems’ (Dahlmann et al., 2020). The term refers to the attempt to redefine “the purpose and nature of business and focus upon broader non-financial performance outcomes” (Dahlmann et al., 2019, p. 171). Another type of entity incorporated in the study of ESG are cities and municipal networks to explore the particularities of urban settings (Hofstad et al., 2021; Papin, 2020).

The incorporation of various entities is mirrored in the acknowledgement of a diversity of science diplomacy actors hosted both at the institutions with more top-down steering functions (intergovernmental example of Arnaldi et al., 2021), as well as bottom-up advocacy (Aaserud, 2020; Raev & Minkman, 2020, p. 8; Šime, 2021c, p. 2). However science diplomacy stands in stark contrast to the diplomacy of indigenous peoples or traditional knowledge (also referred to in French by such terms as *diplomatie cosmopolitique*, *diplomatie vitale*) (Foyer & Kervran, 2020).<sup>1</sup> Unlike these noteworthy anthropological attempts to grasp the diversity of knowledge generation, science diplomacy is associated with modernity. The historic roots of science diplomacy are associated with the inception and evolution of modern science (Jorge-Pastrana et al., 2018, p. 23).

“Scholarship that assumes diplomacy has moved beyond a dominant focus on bilateral and multilateral diplomatic relations between national governments is no longer rare.” (Gregory, 2021, p. 111) In addition to initiatives affiliated with national diplomacy, European diplomacy and diplomatic corps (Hellenes, 2021; Kļaviņš, 2021; Lloveras, 2021; Wittje, 2020), ‘hybrid multilateralism’ or ‘hybrid arrangement’ gains prominence with subnational (regional and city) authorities increasingly stepping up on the international stage to address a great variety of issues (Chiu, 2019; Leffel, 2018). Subnational diplomacy or paradiplomacy are terms most often used to refer to these strategies and actions of regions and cities (Bobilev et al., 2020; Häntsche, 2020b, 2020a; Hutzler, 2019; Joenniemi & Sergunin, 2014, 2017, p. 454; Mocca, 2020; Oddone, 2021; Sergunin & Joenniemi, 2017b; Trobbiani, 2016). Paradiplomacy shares with the ESG the interest in transnational municipal networks (Hubbert, 2020, p. 24; Papin, 2020), as well as interest in addressing climate change (Kamiński, 2021, p. 11). However, a distinction should be made between local science diplomacy hubs, their proponents and paradiplomacy. Interest in advancing the recognition of paradiplomacy as a notable strand of public diplomacy (Erlandsen, 2021, p. 115)<sup>2</sup> should not be conflated with the growing resonance of science diplomacy. This general observation corresponds to the EU context as well (Baumler, 2019).

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<sup>1</sup> Noting the 73rd edition “Homo Diplomaticus” of the journal “Terrain”, the diplomacy of traditional knowledge is just one variation from the vast spectrum of recent anthropological enquiry into diverse forms of relational aspects across several parts of society and populations to trace some tacit expressions of diplomacy that stands outside of the science diplomacy realm.

<sup>2</sup> Public diplomacy benefits from a growing scholarly interest and publishing platforms in various parts of the world (listed in Ayhan, 2021).

Barcelona, Paris and Vienna are among some of the most visible European science diplomacy cities (Šime, 2020). Scholars encourage the EU to take subnational entities on board in its science diplomacy approach (Kamiński et al., 2021, p.198). Even if recent findings suggest that the universities and research centres function as prominent enablers of paradiplomatic encounters (Kamiński & Ciesielska-Klikowska, 2021; Kamiński & Gzik, 2021; Skorupska, 2021a, 2021c, 2021b; Skorupska & Szczudlik, 2021; Szczudlik, 2021), not all science diplomacy hubs in Europe should be associated with paradiplomatic aspirations. Paradiplomacy is linked to an ambition of a region or city to enhance its presence and ties internationally not exclusively through academic encounters and research institutions. Due to the scarcity of literature on this particular link between science diplomacy and paradiplomacy, this is a promising area for future scholarly enquiry on how both diplomacies are intertwined or on certain occasions a region or city opts to pursue strategies aligned with only one of these novel forms of diplomacies.

Furthermore, cities attract attention among science diplomacy circles as increasingly prominent spaces due to the rapid globalisation and scarcity of cutting edge foreign assistance for addressing diverse issues that come along with this trend (Perry et al., 2021). This is an altogether separate angle of scholarly enquiry that displays a propensity towards the study of urban settings among the ESG's circles (Hofstad et al., 2021). It is more focused on the specificities of the urban setting rather than the city as a proponent of research intense or research supported relations with other parts of the world.

While the top-down and bottom-up dynamics is not a novel area of enquiry, diverse research circles generate a multitude of insights about various actors. This literature may be of help in building a more thorough understanding of diverse forms of actorness, actorship or actorhood among ESG and science diplomacy circles.

Recent studies of local environmental considerations show that cities are context-rich intellectual ecosystems (Daneri et al., 2021) where grand narratives on alternatives to the growth paradigm (Görg et al., 2020, p. 53) are articulated in detailed and practical terms. Consumer and company-level observations linked to various sustainability paths, conceptualisation and empirical analysis of individual attitudes towards nature (Balundé et al., 2020; Bauer et al., 2020; Boeve-de Pauw & Halbac-Zamfir, 2020; Činčera et al., 2020; Gericke et al., 2020; Goldman et al., 2020; Hadjichambis & Paraskeva-Hadjichambi, 2020; Kaputa et al., 2020; Paraskeva-Hadjichambi et al., 2020; Parra et al., 2020; Reis, 2020; Smederevac-Lalic et al., 2020; Šulc et al., 2020; Vesely et al., 2021), suggestions for a social behaviour transformation from efficiency to sufficiency (Biermann, 2014, p. 205), as well as local, regional, national and federal requirements for energy transitions (Breetz et al., 2018; Bugge et al., 2021; Mäkitie et al., 2020) and local infrastructure planning (Stokes, 2016) are some examples. There is a notable potential of learning opportunities from these and other streams of scholarly enquiry.

### **3.2 Circulation of terms and multiplication of their meanings**

The topicality of the circulation of knowledge in the contexts of ESG and science diplomacy can be traced back to the bottom-up dynamics discussed above. As subnational, private, non-governmental entities extend their outreach internationally, they form networks and joint initiatives. Consequently, ideas, good practices and

expertise are promoted, transferred and diffused. The earlier mentioned 'hybrid governance' or 'hybrid arrangement' enables exchange, mutual learning and borrowing of various ideas, solutions, practices that put in motion concepts and multiply their contexts, meanings and place-specific resonance.

ESG recognises the multiple directions, means of communication and contexts in which one idea can resonate and multiply in connotations (Burch et al., 2019, p. 6). The interest in the ways in which diversity shapes ESG practice (Burch et al., 2019, p. 6) points to the way place and context-specific echoes are addressed in science diplomacy discussions. ESG represents a rather complex model with four contextual conditions and five research lenses (Burch et al., 2019, p. 4). However, the mere complexity of its constellation cannot be a sufficient explanation for a lack of attempts to redefine or adjust it. A more definite answer should be provided in future research on the growth of the literature on ESG.

Interest in the circulation of science diplomacy is inspired by the discussions revolving around the (global) 'circulation of knowledge'. Following the literature that touches upon various circuits, different contexts and meanings (Bergwik, 2018; Heidenblad, 2019; Hellman, 2020; Jacobsen & Olšáková, 2020, pp. 467-468; Kunkel, 2021, p. 481; Šime, 2021a; Turchetti & Lalli, 2020) and country-specific approaches towards soft power (Winkler, 2020), neither ESG nor science diplomacy are treated as monolithic and monotonous topics of scholarly enquiry.

In comparison to the core model of ESG, science diplomacy taxonomies are simpler, thus a more convenient subject of occasionally suggested additional components. One such idea associated with the interest in knowledge diplomacy has been to add the fourth taxonomy 'diplomacy in science' to strengthen the societal impact of science (Šime, 2021c, pp. 1-2). Another suggestion of the fourth taxonomy is rendered under the rubric of 'science and diplomacy for the people'. It is aimed at promoting evidence-informed advice that would be grounded in pronounced ethical considerations and societal, public engagement in diplomatic processes (Galluccio, 2021b, p. 27; Galluccio & Beck, 2021, pp. 179-180). The taxonomy 'science and diplomacy for people' displays a strong orientation towards the incorporation and support of bottom-up dynamics in science diplomacy.

As these two examples show, the basic structure has a potential to evolve in line with the growth of the research community willing to contribute to the research agendas of ESG and science diplomacy.

### **3.3 Experiments outside of the existing institutional confines**

Another common trait between ESG and science diplomacy is that neither is integrated in existing international governance constellations. The ESG architecture is defined as the interconnected network of jointly upheld principles, institutions and practices that have an impact on all decision-making levels of a specific area of ESG (Burch et al., 2019, p. 7). This concept of architecture thus addresses not only the successfully operating components but also dysfunctional and unintended aspects (Biermann, 2014, p. 82). Irrespective of the performance of various parts of the governance architecture, the important role of experts and expert networks is acknowledged (Biermann, 2014, p. 61).

While ESG is not integrated in a principled manner in any of the existing governance frameworks, science diplomacy has become a well-known term in the diplomatic setting (Kim Montgomery, 2021; Kimberly Montgomery & Ortiz Calva, 2021). More importantly, it has found some receptive institutions, for example, the University of Bergen and national contexts like France and Spain in the European context (Elorza Moreno et al., 2017; Šime, 2021b). In 2021 the EU announced its readiness to launch the European Science Diplomacy Agenda. Altogether such a limited welcome is a promising start for further exploration, not an achievement of a global scale.

Both ESG and science diplomacy were defined and announced during the first decade of the 21st century (Biermann, 2020; The Royal Society, 2010). At this stage, both benefit from experimentalism and conceptual eclecticism that holds the potential to be integrated in certain governance frameworks during the years to come.

### **3.4 Anticipating and imagining the future**

Suggesting governance plans based on the possibility of future developments is another common area of interest among the circles of ESG and science diplomacy. In comparison to the transhumanists (Taillandier, 2021), ESG and science diplomacy adopt shorter time spans and less radical solutions to the future and fate of humanity. In the overall international trade scenario of future pathways among self-proclaimed or tacit ‘worldmakers’ (Vervoort et al., 2015), ESG and science diplomacy represent the moderate group.

Setting aside earlier grand suggestions of a World Environment Organisation and a World Environmental Assembly (Biermann, 2002, 2014, pp. 78, 99; Biermann & Pattberg, 2008, p. 285), or a United Nations Parliamentary Assembly (Biermann, 2014, p. 143), ESG’s scholars share an interest in maintaining an integrated research agenda aiming to bring “critical and interdisciplinary social science perspectives to bear on processes of anticipation and imagination, the futures they generate, and the ways in which they are integrated into” ESG processes (Burch et al., 2019, p. 12). It is acknowledged that producing ‘futurefactuals’ that would be conducive to a coordinated global adaptation (Biermann, 2014, p. 201) is an uneasy task due to the unpredictable contours, nature, and scope of upcoming challenges (Biermann, 2014, p. 177).

Similarly, science diplomacy scholarship sticks to the minutiae of programming developments of policy initiatives and the existing constellation of institutions (Hill, 2021; Jacoby, 2021; Turchetti, 2021). Immediate policy, programme and research planning estimations, contemporary history, including the outline of future plans associated with ocean science diplomacy (Franz et al., 2021; Martínez-Rius, 2020) is a good example. Furthermore, sociotechnical imaginaries crowd into the European science diplomacy discussions to learn from the past examples of anticipation, forecasting and its international resonance, as well as their geopolitical implications (Pickersgill, 2021; Šime, 2021c, p. 2; Witjes, 2017).

The current body of literature on ESG and science diplomacy displays diverging adherence to environmentalism or ecologism. “Environmentalism constitutes ameliorative changes which can be incorporated within present values of predominantly capitalist production and consumption” (Levinson et al., 2020, p. 19). Whereas ecologism “presupposes that a sustainable future means ‘radical changes in our relationship with the non-human natural world, and in our mode of social and political life” (Levinson et al., 2020, 19). Each author writing on either ESG or science

diplomacy chooses his or her more or a less radical stance that results in an overall heterogeneity of receptiveness towards ideas affiliated to environmentalism and ecologism, its present status and future prospects.

Both ESG and science diplomacy practice share a cautious and moderate increase in expert circles. The groupings convened within the framework of the Bratislava conference and the EU Science Diplomacy Alliance exemplify this. However, the growing body of literature on ESG and science diplomacy does not rely solely on the participants of these two gatherings.

All in all, the future orientation is nothing entirely unique. Taking a broader look at the parallel ‘island empires’ (Clark & Harley, 2020, p. 335), public policy analysis of developments surrounding key United Nations framework agreements display resemblances to the analytic attempts to not only grasp recent changes in the positioning among parties but also estimate potential future dynamics (Giang, et al., 2015; Stokes et al., 2016, p. 27). These might be good examples where both ESG and science diplomacy may seek some useful empirical insight and lessons learnt.

## **4 Discussion**

The fact that both terms, ESG and science diplomacy, were coined and introduced to the public roughly two decades ago also brings us to the discussion the aspect of novelty and significance. Do new terms contribute to a qualitative advancement of the overall debate revolving around the contemporary challenges characterising the science-policy and science-diplomacy interface? Does a linguistic switch from one (buzz)word to another bringing something distinctively new to the analytical enquiry apart from the requirement to master its inventory of terms and key principles that they stand for? The concern is whether the time is wasted or not with these parallel attempts and the myriad of their cross-pollination encounters in a situation when various challenges are steadfastly increasing in their scope and magnitude. However, this sense of urgency is not a call for a complete centralisation to bring all scholarship under one unified roof. The future research outputs aligned with ESG and science diplomacy might provide some convincing answers to both questions.

Koontz (2019, p. 709) writes, “rather than generating less uncertainty, more scientific research adds additional, conflicting arguments to policy debates, making decisions less consensual [...]” Such complexity stems from the nuance that policy-making is a process of careful consideration that entails values, stakeholders, diversity of viewpoints that science alone cannot resolve (Koontz, 2019, p. 723). Thus, it cannot be ruled out that the burgeoning of literature on ESG and science diplomacy might contribute to greater uncertainty amidst the growing complexity. Such developments might not help to increase the clarity on how to steer more effectively the multi-dimensional science-policy and science-diplomacy interface or, what ESG writers refer to as, the constellation of multi-level governance and multi-polarity among different groups of actors (Biermann & Pattberg, 2008, p. 284).

Seen from a more longitudinal perspective, ESG and science diplomacy are joining the ever-evolving competition and changing prioritisation performed through sustainability visioning (Wiek & Iwaniec, 2014), evolving agendas of some of the leading journals (Hayes et al., 2021; Meyer, 2021), and cross-disciplinary research orientation (Mobjörk et al., 2020).



Turning from scientific to political considerations, it is pertinent to ask whether ESG and science diplomacy are of a post-political nature, aspiring to offer “technological and managerial ‘fixes’” (Antadze, 2019, 50). ESG remains more of a framework that structures activities in the research rather than the policy realm. The fact that not only certain research institutions but also countries have chosen science diplomacy as the term for international engagement suggests perhaps that there might be no escape from politicisation. At this early stage it is impossible to come to definite conclusions, but preliminary indications suggest that science diplomacy may be prone to more politicisation than ESG.

## 5 Conclusions

The elaboration of commonalities between ESG and science diplomacy demonstrates that there are multiple architectures and multiple forms of agency being discussed, crafted, tested and exercised simultaneously. ‘Island empires’ (Clark & Harley, 2020, p. 335) is one of the terms that captures this multiplicity of interrelated perspectives on how to conceptualise and potentially steer global processes. There are some major elements that are discussed both in ESG and science diplomacy literature. However, the unique traits of ESG and science diplomacy respectively suggest possibilities of mutual learning in the overall pursuit of a comprehensive approach.

On a positive note, one of the main advantages for such an analytical exercise of identifying commonalities between major frameworks that steer comprehensive discussions on the science-policy and science-diplomacy interface is the opportunity to identify what is left off the radar of one or the other scholarly debate. Having simultaneous analytical enquiry in similar topics but from different conceptual standpoints contributes to the richness of debates and considerations incorporated into the discussion. The way ESG and science diplomacy borrow from various compartments of scholarly enquiry referenced in this article is the best example of this positive trend.

The identification of four commonalities between the current research of ESG and science diplomacy proves that there is a substantial potential for future interactions. Namely, ESG and science diplomacy share an interest in exploring the top-down and bottom-up dynamics of multi-level governance, circulation of thought, terms and burgeoning of their meanings, experimentation outside the existing institutional structures, as well as anticipation of future developments. The nuanced way in which ESG and science diplomacy approach the four described commonalities proves that such a comparative reading is a beneficial exercise. It keeps both circles of researchers open to diverse perspectives and increases awareness about the existing body of literature generated by less frequented scholarly domains.

Future developments in ESG and science diplomacy should provide some more specific answers of their respective value added to the existing dense body of scholarly enquiry on how to craft sustainable solutions for viable future governance of the globe and efficient engagement of diverse actors in this endeavour.

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