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Balancing Institutions for Implementing the Sustainable Development Goals Through ‘Network Within Hierarchy’

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Abstract: Policy integration as the central theme of the Sustainable Development Goals (SDGs) agenda calls for more networks for linking actors and policies. The national coordinators of SDGs implementation have maintained a steering hierarchy that creatively engages the network of ministries to develop and implement the National Strategy on Sustainable Development. The integration literature presents a gap in understanding the internal fights of the bureaucrats behind the glossy policy documents. The study relied on 53 in-depth interviews and public documents from Finland, Germany and the Czech Republic to reveal how bureaucrats design institutions to *balance* the network, hierarchy and market features by maximising the strengths of each mode. The analysis aimed to reveal how ‘Networks Within Hierarchy’ facilitates policy integration. It was found that the network deliberated slowly, rationally and personally. The supporting hierarchy provided direction, steered processes and finalised decisions, and the competitive market supplied choices of policy idea, killed bad ideas, and retained specialisation. When the network entered into endless debate, the coordinators forced a consensus through the hierarchy. Bureaucrats competed with each other in proposing better arguments for their ideas, lifting the quality of the deliberation and the consensus.

Keywords: policy integration; policy coordination; network; sustainable development; collaboration; institutional design

1. Introduction

Policy integration is the defining leverage of the 2030 Sustainable Development Goals (SDG) agenda [1]. Procedurally, it requires national governments to set up institutions for bringing ministries into a network to deliberate and agree on a common framework or a National Strategy on Sustainable Development [2]. Substantively, ministries need to make explicit linkages across policy goals and targets, acknowledging the network of policy interests [3]. The institution that embodies the network of ministries and policy interests is predominantly hierarchical, allowing the powerful coordinator to control how ministries deliberate and link with each other. Furthermore, the hierarchy activates the network [4] to promote free exchange in the marketplace of ideas.

As the strong proponent of networks, the SDGs Agenda describes policy integration in three ways. First, institutions that are vertically integrated will strengthen interactions across global, national and subnational levels [5]. Second, institutions can be horizontally integrated by making inter-linkages between the goals and targets of SDGs [6]. Third, both vertical and horizontal integration will bring about interactions of actors across the government, civil society and private sectors [7]. The centrepiece of this study is to capture how the national level inter-ministerial network operates within a coordinating hierarchy for achieving greater policy integration as part of the implementation of SDGs. It tackles horizontal integration across ministries rather than vertical integration across governance

levels. It also focuses on the networks within the bureaucracy and not across governmental and non-governmental actors.

The broader call to follow up on SDG implementation has to attend to concepts of policy integration. It is suggested that the scholarship lacks evaluation on policy integration outcomes while a collection of process evaluation is already available [8]. This study assesses the processes by understanding the internal fights of the bureaucrats, not as an outsider analysing the glossy public documents but as an observer of behind-the-scene development of the National Strategy on Sustainable Development. More specifically, it investigates how small networks support collaboration and competition within the larger hierarchical administration, addressed as Network Within Hierarchy (NWH). Most importantly, it will shed light on the art of balancing the network, hierarchy and market features of the sustainability institutions.

2. Understanding Network Within Hierarchy

How much do we know about Network Within Hierarchy, especially for policy integration activities? Firstly, we can turn to national evaluations of the sustainability institutions. Peer evaluations assumed that bureaucracies did not have networking capabilities as high as the civil society [9] They were likely to neglect the direct evaluation of the network processes and instead focus on tangible policy outputs [10]. The most comprehensive analysis of country-level evaluations reported that policy integration activities so far have not resulted in transformational changes but merely supported capacity building [11] without making any reference to network capabilities, let alone NWH. Culminating from a decade of lessons on integration practices, the OECD framework on policy coherence has made the establishment of an inter-ministerial structure a building block but failed to acknowledge how the structure functions as an NWH [12].

Shifting from individual empirical work to systematic review of the literature on policy integration, the understanding of NWH is not any clearer. Generally, these reviews make a long list of factors that influence policy integration processes including poor subsystem involvement [13], insufficient information and legitimacy [14], low political commitment and ineffective policy instrument [15], centralised leadership and institutional incentives [8], and public awareness and organisational provision [16]. These factors are too generic to the policy practitioners and unsurprising to public administration scholars [15]. They are not particularly useful because research on any other kind of policy processes could have made a similar list. It is therefore important to identify the defining factor unique to policy integration. Given that policy integration involves connections, the network seems to be one of the most appropriate concepts. More importantly, institutional designers need to balance the free exchange in networks against the steady control of hierarchy. Network Within Hierarchy may not be entirely novel in the public administration literature [17], but it provides a fresh perspective to policy integration. A deeper understanding of NWH may then improve the specificity of what contributes to policy integration, addressing the issue of conceptual stretching of *integration* [16].

The only brief reference to the network in the vast literature on policy integration is the concept of *horizontal governance* through bottom-up coordination. It brought out issues around conflict and competition due to power struggles and clashes of interests [8]. More fundamentally, policy integration involves public organisations working together to reduce redundancy [18]. The focus on efficiency here has downplayed how necessary tedious exchange of ideas is within the network when 'working together'. Another issue is some explanatory factors may suggest the importance of network, but they are framed broadly as 'organisational provisions', 'consultation procedures' and 'overlapped objectives' [16]. They do not help clarify whether network arrangement is necessary for policy integration. A more explicit description of network can be found in measuring policy integration as the involvement of core and periphery actors within the networked subsystem [13]. Policy integration is a collective action among these actors to tackle 'multifactorial' and 'cross-sectoral' issues at multiple levels of government [14]. Despite these descriptions, the literature still does not spell out what exactly

does a network do that the hierarchy cannot provide, let alone the idea of balancing the dominant features of the hierarchical bureaucracy with the integration functions of networks.

2.1. Hierarchy Needs Network for Deliberation

The hierarchy may have limited resources for coordination and information processing. It relies on the network to decentralise policy integration. Functionally, the network of ministries can regulate themselves [19], build cooperative relationships [20], and process highly technical information [21]. Most importantly, the ministries are free from the coordinating hierarchy to deliberate over sustainability ideas that concern multiple ministries, propelling the network towards a 'rough consensus' [22]. The coordinating hierarchy relies on the network of ministries to come forth with their expertise and commitment in SDG implementation.

2.2. Network Needs Hierarchy for Consistency

However, the network of ministerial actors as described above does not emerge out of nowhere; it has to be activated by the coordinating hierarchy [4]. In a highly hierarchical model, coordinators of sustainability policies (e.g., Department of Environment or Cabinet Office) may choose to direct individual ministries to collaborate through routine procedures (e.g., inter-ministerial forum) or policy instruments (e.g., impact assessment). Appointed by the centre of government, the Department of Environment, which punches above its weight in the hierarchy of ministries, gains legitimacy to impose the coordinating hierarchy for sustainability portfolio on all ministries. Hierarchy desires stability and consistency, and it yields more certain coordination outcomes compared to networks and coalitions [23]. The network of ministries needs the coordinating hierarchy to gain the discipline for consistently producing a National Strategy on Sustainable Development, bringing ministerial actors together to deliberate over the targeted issues, and reporting on the progress of policy integration in individual ministries and the whole government annually [11]. Overall, the literature above has presented administrative structures with clear procedures for developing policy outputs in cycles. However, it has not highlighted how the hierarchical structure makes this possible for the inter-ministerial networks.

2.3. Network Needs Market for Competition

The previous section has argued that the institution for policy integration is an *NWH*; the networks of ministerial actors *deliberate* under the *control* of the coordinating hierarchy. The deliberative network supports not just cooperation but also competition. Bureaucrats may exchange, deliberate and compete, making the network a marketplace of ideas. The healthy rivalry between bureaucrats may weed out less useful ideas for advancing the sustainability discourse. The competitive deliberation can incorporate diverse perspectives under a broadly agreed framework [24], such as the SDGs Agenda. However, competition can be a double-edged sword. When more than one organisation (or ministry) are sharing the same policy portfolio [25], bureaucrats may compete against each other on governance functions, resources and ideas [26]. The competition can be directed towards turf protection and 'a race to the bottom' for collective commitments [27], which prevents inter-ministerial integration [28].

2.4. Hierarchy, Network and Market Altogether

It is established that the hierarchy, network or market alone cannot achieve policy integration. The challenge for an institutional designer is finding out what mixture of the three modes provides an optimal process for inter-ministerial integration. It is anticipated that hierarchical bureaucracy may be good at aggregating technical information but struggle with creating innovative ideas [4]. More specifically, the creativity does not lie in the centre but the network. The network deliberates over old and new ideas under a culture that respects competition of ideas. This study unveils how the network of ministries develops the National Strategy of Sustainable Development under the guidance of the coordinating hierarchy. The network deliberates and competes over ideas related to soliciting agreement on sustainability principles, setting goals and targets, implementing inter-ministerial

mechanisms, framing rationales for pro-sustainability decisions, and monitoring progress against the SDGs as outlined in the Strategies [29–31]. All of these activities require a sound judgment of institutional designers to maximise the strengths of network, hierarchy and market behaviours among sustainability actors.

2.5. Common Institutional Features Across Three Countries

Table 1 introduces broad institutional features common to all three countries despite many differences in the detailed setup of the institutions for policy integration that respond to the call for implementing SDGs. The focus of this study is on the policy integration *processes* through the *Network Within Hierarchy*. It is made up of the inter-ministerial network and the coordinating hierarchy, which are common across the three countries under investigation, namely Finland, Germany and the Czech Republic. In the context of this study, the commonality in sustainability institutions overshadows the differences in governance arrangements (i.e., unitary or federalist).

Table 1. Three institutional features of SDGs implementers across countries.

	Finland	Germany	Czech Republic
Hierarchy of coordination	The coordination secretariat is housed within the Prime Minister’s Office. Three main staff provides support to the National Commission on Sustainable Development chaired by the Prime Minister.	Five main staff from the Department of Sustainable Development at the Chancellery led the strategy development process along with the Ministry of Economic Cooperation and Development and the Ministry of Environment. The highest-level advisory committee on sustainable development is membered by state secretaries from all ministries.	The Prime Minister’s Office has established a Department of Sustainable Development staffed with 16 experts. The Department also supports the Steering Committee in charge of developing and monitoring the National Strategy.
Network of ministries	The Development Policy Committee and the National Commission co-established a working group to provide analysis of policy substances and institutional procedures. A network is also created for indicator development and target setting. These forums are designed to be inclusive of all ministries.	All ministries participate in two working groups: sustainability indicator (led by the Ministry of Environment) and urban development (involving the sub-national governments). Temporary inter-ministerial meetings were set up to ensure coherence across the chapters of the substantial Strategy, each drafted by a ministry.	Eight sub-committees and associated working groups provide new opportunities for ministerial representatives to integrate their interests.
Marketplace of ideas	Informed by the shared consensus of the Societal Commitment and priorities for SDGs, the inter-ministerial forums allow regular debates of substantive topics such as circular economy and social inequality. The Finns emphasized the need to cut the rhetoric and debate on concrete actions.	The harmonisation of chapters and setting of sustainability targets brought about significant conflicts among ministries. The German coordinator decided to include all 17 Goals in the Strategy, creating a vibrant and competitive marketplace of ideas.	The labour is divided based on substantive areas related to the social, environmental and economic dimensions, and procedural areas on policy analysis, municipality engagement, and international affairs.

The general process is as follows: the existing institution for policy integration is legitimised to implement the SDGs Agenda at the national level. A coordinating ministry or agency will be appointed to develop and facilitate inter-ministerial processes. Ministries will exchange ideas to form the basis of the National Strategy on Sustainable Development. To deliver the Strategy on time and to specification, the coordinator will use its power to steer the network of ministries through processes of setting SDG targets and securing policy commitments. When ministries deliberate on how and what integrate, they offer a whole range of ideas as products to be sold in the marketplace. Only ideas that are good enough for all ministries will make it into the Strategy.

Who are the actors behind these structures? Figure 1 illustrates three types of relationships: coordinating hierarchy, inter-ministerial networks, and hierarchy within ministries. A team of

technocrats runs the coordinating agency and works closely with the ministerial representatives. The ministries can nominate either a technocrat or an executive as the representatives for the sustainability portfolio. The ministerial representatives meet with each other in the presence of relevant technocrats from their respective ministries to advise on joint policy portfolios. The inter-ministerial networks sometimes function like a marketplace, selling and buying ideas among the technocrats and executives of the bureaucracy. The executives are state secretaries and directors of large policy units who work directly with the government ministers.

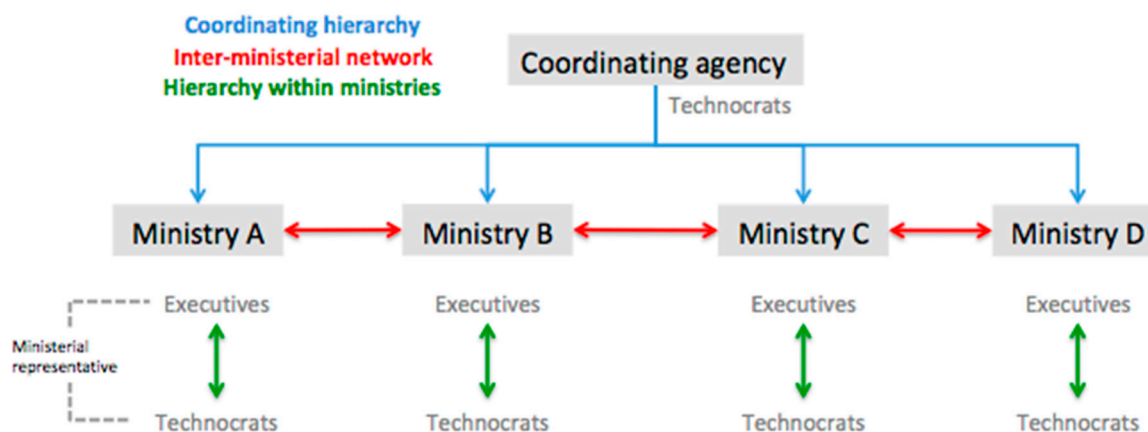


Figure 1. Relations of actors in coordinating hierarchy and inter-ministerial network.

3. Methodology and Rationale.

The common institutional features illustrated above allow the consolidation of data across the three countries. This study identifies the roles of network within the administrative hierarchies. Finland and Germany were initially selected by the author due to their nimble response to the ratification of SDGs Agenda. Several interviewees later on recommended the Czech Republic as the emerging but promising implementer of SDGs. Overall, the three countries have well-established institutions that would offer rich data, especially on the inter-ministerial integration. We have also selected three countries instead of one to strike a balance between sufficient consistency to demonstrate dominant patterns across the three countries and sufficient diversity to assess the validity of dominant patterns of implementing sustainability agenda at the national level (Mahoney and Goertz, 2004).

A total of 53 interviewees participated in the study between February and July 2017, including public servants, academics and civil society leaders (see Table 2). Academics and civil society leaders were interviewed to verify and critique the accounts of the public servants on the bureaucratic processes of policy integration. Recorded and transcribed, the one-hour interviews elicited experiences of working in the inter-ministerial network steered by the coordinating hierarchy. In addition, we also collected publicly available reports and interviewee-supplied documents, which included policy strategies, evaluation reports, terms of reference for the committee, internal assessment templates, and presentation slides. Following the conventional practice for this type of research, data were coded using a coding scheme. The coding allowed identification of the 'repetitiveness' and 'rarity' of the experiences across interviewees and documents [32]. Interviewees remain anonymous in the remainder of the article, but unique identifiers are used for individual interviewees. For example, 'G17B' provides three pieces of information about the interviewees: the first letter indicates the country of origin, in this case Germany (G); the number shows that it is the 17th participant in the study; and the second letter indicates the actor type, in this case a bureaucrat (i.e., technocrat or executive) in the public service (B). Other identifiers can be found in Table 2.

Table 2. Interviewees by country and sector.

	Bureaucracy (B)	Civil Society (B)	Academia (A)	Total
Germany (G)	19	2	2	23
Finland (F)	17	2	2	21
Czech (C)	7	1	1	9
Total	43	5	5	53

The Institutional Analysis and Development (IAD) Framework (Ostrom 2011) structures the data from interviews and documents to assist with the identification of themes around the function of networks. This framework is appropriate because the inter-ministerial policy integration in this study can be seen as a form of collective action similar to that of the natural resource users in self-governing communities. Contrast is made to highlight the alternative to hierarchical coordination, involving the self-organising networks of ministerial actors [4]. The Framework informs the coding process in the following ways. First, key elements of the IAD helped understand the institutional context, which involved mapping of the actors, forums, and group characteristics. Second, we structured the data in compliance with the standard ADICO syntax as detailed in Table 1 of Watkins and Westphal (2016) [33]. It codified ‘who does what to whom under what conditions for what consequences’ as individual rules. Third, from approximately 53 h of interviews, 1135 rules were identified via the ADICO syntax. In reading the rules, we have observed repeated referencing of network and hierarchy features among interviewees across the three countries. Therefore, these rules were organised around the major themes of coordinating hierarchy, deliberative network, and competitive market. The third round of reading further categorised the roles that these governance modes played in supporting policy integration in the sustainability institution.

4. Findings on Relations Among Hierarchy, Network and Market

This section presents three kinds of interactions between governance modes: hierarchy needs network, network needs hierarchy, and network needs market. These interactions bring about deliberation, agreement and innovation, respectively. These broad goals are supported by a set of processes that have an impact on policy integration for implementing the SDGs. Table 3 outlines the key points, which are then elaborated in the later part of this section.

4.1. Hierarchy Needs Networks

The institution for policy integration relies on hierarchy to share information and make decisions. Hierarchy does not encourage deliberation beyond the ministerial boundaries. Therefore, the coordinating hierarchy needs to relax its control, allowing ministerial actors that are not at the top of the hierarchy to deliberate over sustainability ideas. In effect, the rigid hierarchy needs to be balanced with flexible networks to produce three main functions:

First, the hierarchy needs the network to build capacity for slow deliberation continuously. The long-term exchange between technocrats would be routinized to the extent that they could ‘use shared language and generate ideas’ partially inspired by the SDGs (G8B). Conversing under the same sustainability framework, technocrats would then ‘select the right strategies from their toolbox’ to ‘sell’ their ideas (F36B). This kind of inter-ministerial exchange was possible if the executives did not selfishly ‘protect their workers’ from ‘additional work’ such as sustainable development (F37B). The deliberation within multiple networks had to saturate until the ‘actors got bored with the conversation’ over time (F41B). Slow deliberation between ministries was ‘an investment into persuasion and empathy’, which prepared technocrats and executives for unfettered adoption of the agreed policy substance when the timelines for producing policy output are tight (C46B, similar C58C). The deliberation spared the coordinating hierarchy from imposing harsh deadlines and half-baked ideas on individual ministries. In preparing for the publication of their SDGs implementation plan, the Finns ran monthly meetings on specific themes or topics to exchange information, generate ideas and trial positions as a network of

ministerial representatives. Relying more on the inter-ministerial network, technocrats and executives did not ‘refer to the organisational charts’ and ‘box’ colleagues into different camps of interests (F22B). Therefore, the *Network Within Hierarchy* could deliberate slowly and freely.

Table 3. Summary of findings.

Interaction	Process	Impact
Hierarchy needs network to allow deliberation.	Network builds capacity for slow deliberation	Policy integration benefits from the institution’s ability to exchange ideas freely for generating collective understanding with minimal pressure from the hierarchy
	Network builds capacity for careful consideration of evidence	Policy integration benefits from the institution’s ability to use evidence to break the siloed knowledge base of individual ministries
	Network builds capacity for personal engagement	Policy integration benefits from the institution’s ability to connect with actors from relevant sectors through their innovative ideas
Network needs hierarchy to reach an agreement.	Hierarchy provides general directions	Policy integration benefits from the institution’s ability to outline a framework under which ministries will deliberate
	Hierarchy steers development processes	Policy integration benefits from the institution’s ability to implement policy development processes agreed among the ministries
	Hierarchy makes final decisions	Policy integration benefits from the institution’s ability to overcome disputes that are unresolved in the network
Network within hierarchy needs market to promote innovation.	Market provide choices for innovation	Policy integration benefits from the institution’s ability to generate ideas
	Market culls back bad innovation	Policy integration benefits from the institution’s ability to ensure the best ideas survive
	Market preserves specialisation for innovation	Policy integration benefits from the institution’s ability to support division of labour among the ministries in order to build integrated expertise

Second, the hierarchy needs the network for slow deliberation, which allows more careful consideration of the evidence. The network of ministries engaged technocrats who were ‘closer to the facts’ and therefore ‘easier to come to an agreement’ (G10B) without ‘escalating up the hierarchy’ to seek greater authority for making a decision (G16B). Keeping the negotiation at the technocrat level prevented ‘overloading’ the executive level who might ‘kill good ideas’ too early in the deliberation (G16B). Without exposing early ideas to the executives, the technocrats provided technical advice on specific sustainability topics that interested the executives and politicians (F24B). As the ideas matured and agreed at the technocrat level, the executives would simply ‘adopt them without much deliberation’ because they trusted the evidence-informed advice from the technocrats (G56B). The evidence that informed the technocratic deliberation was generated differently across the three countries. The German regime relied more on the ministries to bring forth the research evidence, whereas the Czech regime had the central coordinator analysing and packaging pro-sustainability evidence to convince the ministries (C42B). The Finns, on the other hand, centralised their research funding to commission sustainability studies with extensive input from the network of ministries (F25A). The *NWH* seemed to give enough space for generating and using evidence-informed technical advice on commitments for the National Strategy on Sustainable Development.

Third, the hierarchy needs the network to generate personal relationships that support slow and evidence-informed deliberation. The long-term exchange of ideas could make technocrats more

aware of positions of other ministries, and the range of positions their ministries can assume. In securing support for sustainability ideas, technocrats could ‘anticipate’ and ‘prioritise’ what was more acceptable to the executive level without concrete ‘top-down instructions’ (G4A). However, no one could determine what should be done precisely; ‘it is a democracy’ (F35B). ‘There is no single point’ that an actor, whether a technocrat or an executive, could be sure that their ideas would be ‘pushed through’ (C46B). Technocrats influenced and ‘smoothed things out’ through ‘personal relationships’ that were built over a long time in their network rather than through their formal positions within the hierarchy (C45C, similar C46B, C48C, F34B). They were able to access executives who had greater political capitals to influence decision-making. Exceptional networkers among the technocrats ‘knew almost everyone and could always ask what the others think about something’ (F34B). It was *who* they knew that mattered rather than what ranking they were in the hierarchy because the personal relationships helped them ‘worked through the system’ more effectively (F28B). These personal relationships were often built over time prior to the ratification of the SDGs.

In summary, the network of ministerial technocrats deliberated over sustainability ideas *slowly*, *rationaly* and *personally*. The ideas were mainly related to policy integration as processes for implementing SDGs, such as the mandate of sustainability reporting among Finnish ministries (F31B), the German ‘sustainability coordinator’ (i.e., ministerial representatives) as ‘contact person’ known to the whole government (G13B), and the concept of ‘inter-ministerial networks within hierarchy’ in Czech Republic (C42B).

4.2. Network Needs Hierarchy

Networks of ministries can offer institutional features that the coordinating hierarchy alone cannot. However, the emergence and maintenance of networks within the hierarchy do not occur spontaneously; it requires intervention from the coordinating hierarchy (Peters 2013). In this section, we will detail how hierarchy supports network to function properly.

In responding to the commitment towards implementing SDGs, a national government sets up an integration regime to formalise the role of a coordinating agency. The coordinator designs processes to control how and what information and ideas are exchanged between ministerial technocrats. They have the convening power to facilitate deliberation between ministries and assign tasks to ministries with set conditions and parameters. The implication is that this will shift the regime from purely self-organised connections for responding to crisis situations, into more orderly, stable and predictable institutions. The coordinating agency can rely on the hierarchy, not the network, to *consistently* produce policy ideas. A competent coordinator has four characteristics that networks alone cannot offer:

First, the network needs the hierarchy to provide general directions. The coordinators were in a better position than the individual ministries to articulate the ‘whole-of-government’ perspectives (C42B). Without the coordinating hierarchy, the network of ministries was limited by endless deliberation among their representing technocrats. If the executive level in the hierarchy did not prioritise SDGs implementation, the most networked bureaucracy would not see significant progress in developing integrated measures (G52B). ‘I could sit in the Ministry and work for years and years and, without the push from the top for system change’, the other ministries would not attend to environmental issues, which have not been one of their priorities (G55B). The hierarchy, when properly resourced, could set the broader sustainability framework under which the network of ministerial actors performed technical analysis (G56B, similar F32B). Crucially, for this to happen, the executives in the hierarchy had to agree to the general directions of the framework, and subsequently legitimise and resource SDGs implementation that might not contribute directly to the target activities of the units (F22B).

Second, the network needs the hierarchy to steer development processes based on the widely agreed directions around SDGs implementation. The network of ministerial technocrats ‘let a thousand flowers bloom’ and produced ‘diversity’ in approaches and preferences (F36B). The actors felt that they could freely provide technical ideas as they saw appropriate. To overcome unmanageable diversity, the coordinating hierarchy set rules for and followed up on inter-ministerial participation. Made

compulsory, the ministries were given a series of tasks including the nomination of one indicator per SDG (G8B), and drafting of chapters for the Strategy relevant to their policy portfolios. When ministries had not come forth with their chapters and indicators, the coordinators would draft the chapters on which they were forced to comment. This kind of forced participation has kept all ministries on board throughout the SDGs implementation (G57B). Some ministerial technocrats preferred even more concentrated power given to the coordinator to not only steer but also ‘own the agenda’ which might push the sustainability commitments of individual ministries much further (G13B). ‘The dream’ for ministerial technocrats would be that the ‘obligation’ for implementing SDGs became so clear that the top level could ‘demand their functionaries and guide the political decision-making’; the technocrats could then ‘follow-up rather than continuously deliberate.’ (F33B) So far, the hierarchy has successfully coordinated the development processes to produce ‘a coherent text and similar perspectives’ without over-burdening the individual ministries (C42B). However, the coordinator could push the ministries too hard and too fast, creating dissatisfaction within the network of ministerial representatives. ‘The more the coordinator intervenes, the weaker is the power’ (G12C). The ministerial technocrats preferred more friendly communication for longer so that ‘everyone could live with the decisions much better’ during and after SDGs implementation (G10B).

Third, the network needs the hierarchy to make final decisions. A network without hierarchy or authority will struggle with making up its mind. The networks can deliberate and advise, but it cannot make the final decisions for SDGs implementation. ‘The job of public servants (i.e., technocrats and executives) was to provide advice; advice is advice, and politicians decide’ (F24B). In cases of gridlocks within the network, ‘technocrats would agree to disagree, and escalate the most controversial and irresolvable matters to the executives’ (G2B). The technocrats would continue to escalate until someone with the right level of authority in the hierarchy could make decisions about the inter-ministerial conflicts. Bearing in mind that politicians decided on the government budget, they could ‘override anything’ that did not fit into the major narrative—economic growth at all costs (F33B, similar G12C).

The network of ministries deliberated within the general directions and the steering framework of the coordinating hierarchy. On difficult matters, the hierarchy needed to be decisive in ending the deliberation within the network. However, in deciding for the SDGs implementation, the hierarchy could still be overloaded by the multitude of ideas within a network of ministerial technocrats.

4.3. Network within a Hierarchy Needs Market

In the deliberation process, resourced and proactive ministerial technocrats supply ideas on policy integration. They compete against each other to appeal to the other ministries that demand solutions for policy integration. The competition occurs in the marketplace of ideas, which offers a diverse range of ideas and culls back less useful ideas. To maintain relevance and legitimacy, the main technocrats will innovate under the pressure of competing protagonists and antagonists of the policy integration narrative. This innovation process for SDGs implementation can be described in three ways:

First, network needs market to provide choices for innovation. In times of austerity, ministerial actors would compete for scarce resources to ‘keep their ideas alive’ (G8B, similar F33B). In SDGs implementation, there were two types of ministries. The more passive ministries showed their commitment by setting more ambitious targets not only in their traditional policy portfolio but also in joint portfolios (G11B). More proactive ministries (such as the Ministry of Environment and the Ministry of Foreign Affairs) were dominant suppliers of ideas who would meet the demand from passive ministries. Collectively, they fulfil the basic mandate of SDGs implementation (G12C). The competition of ideas between the ministries was so political that insiders were reluctant to share the details with outsiders involved in the broader SDGs implementation (G12C). The ministerial technocrats cared about the ideas so much that ‘choice of words could either completely block or facilitate the inter-ministerial negotiation’ (G14B). Typically, at the start of the strategy development process, ministerial technocrats were brought together for a ‘free and open discussion’ whereby they could ‘sell’ their ideas in the marketplace (F25A). Ministerial technocrats had to ‘prioritise which

battlefield to enter', knowing that the 'healthy tensions' between ministries should not 'prevent progress' (F35B). However, to prevent overly competitive and unfruitful relations, the coordinating hierarchy has asked the network of ministerial representatives to adopt existing measures without engaging with the marketplace of ideas (F24B). Consequently, the network of ministries, that prized cooperation over competition, produced policy documents that did not 'buy into' many of the ideas in the marketplace (F30B). However, the real competition of ideas would happen at the subsequent election whereby ministerial technocrats and executives would draft and submit proposals to fight for the attention and resources of the politicians (F41B, G4A). This suggests that the marketplace of ideas for SDGs implementation within the bureaucracy was not sufficiently vibrant to offer more institutional and policy choices.

Second, network needs market to cull back bad ideas as more choices can be paralysing. Therefore, ministerial technocrats not only have to manage the flow of ideas but also differentiate the good from the bad. In implementing SDGs, ministries would develop their capacity to assess the quality of the ideas, and form their independent views about what the marketplace of ideas offer (G16B). However, the assessment criterion for good sustainability ideas of the bureaucrats could be as vague as inter-generational justice, which meant 'current decision does not place further burden on future generations' (G12C). To overcome the ambiguity of sustainability work in general, the technocrats tried to be 'objective and use external experts' to assess the ideas (F24B). More concrete assessment involved 'loud discussion' among the technocrats over the indicators, which might have filtered out 'bad ideas' (F30B), produced 'realistic plans' (F32B) and 'defended sustainable development principles' (C45C). The use of indicators has shifted the discourse of the marketplace from de-growth to sustainable growth and bio-economy (F31B, F32B). The marketplace of ideas dived into more in-depth discussions for 'telling a good story' (F35B, F40B) rather than obsessing about the technicality of the SDGs indicators (C44B). Culling back the bad ideas and promoting the good ideas, the sustainability discourse has evolved from eco-centric to socially inclusive, which was 'unthinkable' a decade ago (G8B); this renewed understanding formed the basis of the actions for SDGs implementation.

Third, network needs a controlled market to preserve specialisation for innovation. Chancellor Merkel did not 'show her invisible hands' and called on the competing ministries to use their specialised capacities to solve the problems themselves, especially around the long-standing tension between the Ministry of Agriculture and the Ministry of Environment (G7C). The marketplace of sustainability ideas was never completely open and free because the coordinating technocrats would 'carefully choose actors' that could enter and supply or demand ideas (G12C). The marketplace within the coordinating hierarchy was constrained by the legislations that prescribed how ministries would divide their labour and specialisation (C43B). The existing policy frameworks also reinforced such boundaries (F35B). 'It has been relatively clear who is responsible for what.' (G8B). Technocrats 'would not dare to talk about issues that are not within their competencies'; instead, they learned how issues are debated within the ministry' (G15A). The legislation, framework and norm promoted more ministerial autonomy, which increases specialisation. In the words of the key architect of the institutions for SDGs implementation, 'silo is bad but specialisation is not' (G57B).

5. Discussion on a Balanced Bureaucracy

The evaluation of SDG implementation has to see the policy integration process beyond hierarchical coordination [4] and administrative structures [11]. This article focuses on how the bureaucracy deliberated as a network, was steered by the hierarchy, and was innovated through the market. Institutional designers confront dilemmas that require balancing of these three modes. Balancing attempts to find the optimal arrangement for the best outcome. It maximises the strengths of a particular mode before the dominance of this mode works against the outcome. It also minimises the weaknesses of one mode by introducing strengths of another mode. The governance literature offers the concept of hybridity to illustrate the smarter design for mixing the three modes [34], involving policy actors within and *beyond* the state [35]. This study, however, applies hybridity on sustainability

governance *within* the state, explaining how bureaucratic actors can demonstrate hierarchical, network and market behaviours in policy making.

5.1. Controlled Deliberation

Networks offer deliberative capacity, balancing out the single-mindedness of the hierarchy. It has been established that deliberation takes time and that it requires multiple forms of communication, including the rational discussion of research evidence and the personal connection with the values behind the issues [36]. Decades of deliberative democracy research have not infiltrated the policy integration literature. One exception lies in the normative proposition on integration involving intensive bargaining in the network of ministerial actors [4]. The hierarchy offers clear directions and decisions, balancing out the endless freedom of the network. First, the network of ministries, if unguided, may participate in endless deliberation that might not amount to any meaningful policy change. Overcoming the indecisiveness of the network, top-down guidance from the hierarchy can produce a swift response with lower transaction cost and higher accountability [37]. Second, the coordinating hierarchy is pivotal in catalysing a new network. However, every time the commands are fired, political capital of the coordinating hierarchy is spent [4], stirring up resistance among the network of ministries. The bureaucratic actors and evaluators need to reflect on balancing two types of risks: endless deliberation of the inter-ministerial network and coercive guidance of the coordinating hierarchy.

Additional to the structural issues of the *NWH* is personal relationships. The exchange of ideas or deliberation has been a staple concept in theories of policy process [38] and discursive institutionalism [39]. Different from discussion, deliberation has a strong emotional dimension [40] such as open-mindedness. Not only is the content of the deliberation emotional, the process of deliberation is highly relational too. Many government-commissioned and academic evaluations of sustainability governance have neglected the significance of personal relationships [11,41]. While this study does not delve into the nuances of personal relationships, it has made clear that relationships help push ideas through the inter-ministerial processes for SDGs implementation. Arguably, relationships formed in networks are more informal and personal, and therefore may help circumvent the rigid rules of the hierarchy that determine how bureaucrats should relate to each other. Trust and reciprocity in the personal relationship are important variables that can be included in future research on inter-ministerial integration [42–44]. To assess the deliberative qualities of the bureaucracy, evaluators of SDGs implementation may ask questions such as:

- How has the deliberative culture changed within the inter-ministerial network?
- What sources of evidence were used to persuade actors from another sector or ministry?
- What kind of personal relationship is helpful with generating inter-ministerial consensus?

5.2. Competitive Deliberation

The network needs the market for establishing the supply and demand for ideas on policy integration. The ministerial technocrats assess choices of ideas, and cull back bad ideas from the supplying ministries. As presented in the findings, the institutional arrangements that promote competition of ideas could influence policy integration more than the individual ideas of particular policy entrepreneurs [45]. More specifically, ideas are proposed by individual policy entrepreneurs but deliberated and tested by a collective of technically competent bureaucrats in the marketplace. Therefore, to illustrate competition for opening up policy windows, this study has focussed on the institutions rather than individual entrepreneurs or their ideas.

Despite the competition, the marketplace portrayed in this study has only offered conservative ideas and incremental changes. Ideas that are less complicated and less threatening to the institutions and the individual minds are more acceptable for competition [46]. These are ideas that require lower cognitive processing of the actors. Essentially, radical ideas are rarely ‘fit for competition’ in the

bureaucratic marketplace. This may partially explain why sustainability governance is filled with changes that are not transformational in the eyes of the sustainability actors [11]; they are found to be avoiding conflicts that are too political and concrete because the competition is challenging for keeping the inter-ministerial network functional [47]. The inability to confront conflicts and adapt quickly is, however, not a phenomenon limited to the bureaucracy; in fact, large private organisations that are subjected to the brutal forces of the market of goods and services face the same challenge [48]. Despite the slowness, bureaucracy should still be viewed as a vibrant marketplace of ideas, inching forward with innovations. To assess the competitive qualities of the bureaucracy, evaluators of SDGs implementation may ask questions such as:

- How competitive is the marketplace of ideas within the sustainability institution?
- What are the mechanisms for selecting ideas for experimentation?
- Which actors have been left out of the marketplace due to unnecessary entry barriers?

5.3. *Balanced Bureaucracy*

This article attempts to demonstrate as scholars, we no longer can argue from one extreme: more centralised or decentralised, and more innovation or stability. Balancing is the act that institutional designers need to master. The trade-offs between institutional qualities, the controlling hierarchy, the deliberative network and the competitive market, is a constant struggle. A balanced design will accentuate the complementary features between hierarchy and network; the former provides technocratic efficiency to ensure objectives are met while the latter provides governance flexibility that accounts for challenges of multiple scenarios [49]. Therefore, evaluators can consider adopting the framework of hybrid governance as the default analysis in studies of complex policy making [50].

5.4. *Limited Bureaucracy*

How much value does the network of ministries add to policy integration? Even if the balanced bureaucracy is achieved, there is no guarantee that policies will be integrated during SDGs implementation. After all, the DNA of bureaucracy is deeply hierarchical. The *Network Within Hierarchy*—argued in this study as the central feature for policy integration—may deliberate and compete over ideas, producing plans for policy integration of the highest quality possible with the given capacity. It is still up to the top level of the hierarchy (i.e., politicians and executive public servants) to make decisions that matter. As illustrated in the evaluation of environmental appraisal tools in the United Kingdom, the rational process of appraisal has largely been ignored by the messy policy making machine [51].

Furthermore, this study is limited by the current ability of the scholarship to convert highly descriptive features of the institution for policy integration into measurable variables in terms of NWH. Without consistent ways of describing networks, the scholarship cannot properly examine the relationship between a set of institutional features and the policy integration outcomes through cross-country comparison [52]. Building on clearer concepts of policy integration processes [8,13], evaluators can attend more closely to the deliberative and competitive nature of the NWH when developing indicators for SDGs implementation.

6. Conclusions and Relevance

Implementing SDGs by focussing on policy integration means institutionalising collective action among ministries. The institutions create processes for inter-ministerial networks under the dominant stewardship of the coordinating hierarchy. The existing literature has identified a long list of factors for facilitating policy integration such as leadership, shared goals and resourced capacity. These factors are overly generic and therefore can be equally applicable to institutional challenges other than policy integration. Moving beyond generic factors, this study has identified and articulated the concept of Network Within Hierarchy, which is novel and unique to the policy integration literature. More

specifically, network and hierarchy are seen to mutually influence each other in ways that require balancing to optimise the integration processes. We triangulated interviews of 53 institutional insiders and public documents to identify themes on the inter-ministerial network, the coordinating hierarchy and the marketplace of ideas.

This study has captured the deliberation and competition of ideas among ministries. The inter-ministerial network deliberated slowly to find consensus, rationally to incorporate evidence, and personally to persuade support. The network emerged from the consistent support from the coordinating hierarchy. The hierarchy controlled the network by providing directions, steering processes, and making decisions. The NWH had a special quality on the competitiveness between bureaucrats who are suppliers of ideas. The marketplace bought and sold ideas by welcoming diverse perspectives, killing bad options, and preserving natural specialisation. It may be necessary for policy integration to have all these conditions in place to function well, which admittedly is a high bar to aim and a complex phenomenon to evaluate. Future research can attend to the quality of personal relationships and refine the descriptions mentioned above into variables for comparative research.

Peer, self, or independent evaluations on SDGs implementation may take NWH seriously as the defining concept for policy integration. The balance between (1) free deliberation and fierce competition of the network and (2) steady control of the hierarchy should underpin many evaluation questions on the optimal institutional design. Policy integration is neither a panacea [28] nor a dead-end [11], but a middle road towards strengthening the institutional capacity for generating, refining and disseminating sustainability ideas through networks.

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