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Political challenges of a textile transformation:

Spaces of social learning and interaction for sustainability
through collaborative governance in the textile and clothing industry

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List of abbreviations

AA	German Federal Ministry of Foreign Affairs
BMAS	German Federal Ministry of Labour and Social Affairs
BMU	German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety
BMZ	German Federal Ministry for Economic Cooperation and Development
CCC	Clean Clothes Campaign
CSR	Corporate Social Responsibility
MSI	Multi-stakeholder initiative
NGO	Non-governmental organization
PCSR	Political Corporate Social Responsibility
SNA	Social network analysis
Textile sector	Textile and clothing industry
Textiles Partnership	Partnership for Sustainable Textiles
UN	United Nations

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Abstract

In political and academic debates, there are increasing voices for a sustainable transformation that culminates in the demand for collaborative human action. Collaborative governance is a promising approach to address the difficult challenges of sustainability through global public and private partnerships between diverse actors of state, market and civil society. The textile and clothing industry (hereafter: textile sector) is an excellent example where a variety of such initiatives have evolved to address the wicked sustainability challenges. However, the question arises whether collaborative governance actually leads to transformation, also because the textile sector still faces various sustainability challenges such as the violation of workers' rights, agriculture and water pollution from toxic chemicals, and emissions from logistics that contribute significantly to climate change.

In this dissertation, I therefore question whether and how collaborative governance in the textile sector provides space for, or pathways to, sustainability transformation. In three scientific articles and this framework paper, I use a mixed-methods research approach and follow scholars of sustainability science towards transformation research. First, I conduct a systematic literature review on inter-organizational and governance partnerships before diving into a critical case study on an interactive collaborative governance initiative, the German Partnership for Sustainable Textiles (hereafter: Textiles Partnership). The multi-stakeholder initiative (MSIs) was initiated by the German government in 2015 and brings together more than 130 organizations and companies from seven stakeholder groups. It aims at improving working conditions and reducing environmental impacts in global textile and clothing supply chains. In two empirical articles, I then explore learning spaces in the partnership and the ways in which governance actors navigate the complex governance landscape. For the former, I use a quantitative and qualitative social network analysis based on annual reports and qualitative interviews with diverse actors from the partnership. Then, I use qualitative content analysis of the interviews, policy documents and conduct a focus group discussion to validate assumptions about the broader empirical governance landscape and the social interactions within. Finally, in this framework paper, I use theories of transformation to distinguish forms of change and personal, political and practical spheres of transformation, and reflect on the findings of the three articles in this cumulative dissertation.

I argue that collaborative governance in general and MSIs in particular provide spaces for actors to negotiate their diverse interests, values and worldviews, which is a valuable contribution to social learning and interaction for transformation. However, private governance structures and the diversity and unharmonized nature of initiatives in the landscape hinder the realization of the full potential of such partnerships for practical transformation. My case study shows that in such partnerships, structures emerge that impede the full engagement of all actors in constructive conflict for social learning because they create structures in which few are actively involved in making decisions. This traces back to a practical trade-off between learning and achieving governance outcomes. I argue that decisions should not be rushed, but space should be provided for the confrontation of different values and interests to arrive at informed solutions. Additionally, actors in such partnerships are completely overwhelmed by the multiplicity of different and mostly voluntary initiatives and partnerships, which bring different, non-harmonized commitments, so that actors take on varying and sometimes conflicting roles. MSIs are thus limited by the need for stronger state regulation, which in Germany is now leading to the implementation of the Due Diligence Act in June 2021. Collaborative governance initiatives are thus critical platforms where different actors are able to negotiate their values and political interests. However, they need to be embedded in governmental framework conditions and binding laws that transcend national borders, because the industry's challenges also transcend borders. Only in this way can they contribute substantively to transformation. Further research should focus on the interplay between state and private regulation through further case studies in different sectors and foster inter- and transdisciplinary research that allow for spaces for social interaction and learning between science and practice.

Zusammenfassung

In politischen und akademischen Debatten mehren sich Stimmen für eine nachhaltige Transformation, die ein gemeinschaftliches menschliches Handeln erfordert. Ein vielversprechender Ansatz zur Bewältigung solcher schwerwiegender Nachhaltigkeits Herausforderungen ist die so genannte Collaborative Governance, bei der Lösungen in globalen öffentlichen und privaten Partnerschaften zwischen verschiedenen Akteuren aus Staat, Markt und Zivilgesellschaft entwickelt werden sollen. Als Beispiel sei hier die Textil- und Bekleidungsindustrie (im Folgenden: Textilsektor) genannt, in der sich eine Vielzahl solcher Initiativen entwickelt hat. Bei näherer Betrachtung stellt sich jedoch die Frage, ob Collaborative Governance diesen Anforderungen gerecht werden kann - nicht zuletzt, weil der Textilsektor nach wie vor mit einer Vielzahl von miteinander verknüpften Nachhaltigkeitsproblemen konfrontiert ist. Hier sind beispielsweise die Verletzung von Arbeitnehmer:innenrechten, die Verschmutzung der Landwirtschaft und des Wassers durch giftige Chemikalien sowie Emissionen aus der Logistik zu nennen, die erheblich zur Klimakrise beitragen.

In dieser Dissertation gehe ich daher der Frage nach, ob und wie die Collaborative Governance im Textilsektor Wege oder Raum für eine nachhaltige Transformation bietet. In drei wissenschaftlichen Artikeln und diesem Rahmenpapier verende ich einen Forschungsansatz, der Transformationsprozesse begutachtet und nutze hierfür gemischte qualitative und quantitative Methoden. In meinem ersten Artikel führe ich eine systematische Literaturrecherche zu interorganisatorischen und Governance-Partnerschaften durch. Auf dieser Grundlage widme ich mich einer kritischen Fallstudie, aus der zwei empirische Studien entstehen: Die deutsche Partnerschaft für Nachhaltige Textilien (im Folgenden: Textilpartnerschaft), ist eine Multi-Stakeholder-Initiative (MSI), die 2015 von der deutschen Regierung initiiert wurde. Sie bringt mehr als 130 Organisationen und Unternehmen aus sieben Stakeholder-Gruppen zusammen. Ihr Ziel ist es, Arbeitsbedingungen zu verbessern und die Umweltauswirkungen in globalen Lieferketten für Textilien und Bekleidung zu reduzieren. In zwei empirischen Artikeln untersuche ich einerseits Lernräume in der Partnerschaft und andererseits die Art und Weise, wie Governance-Akteure in der komplexen Governance-Landschaft zusammenarbeiten. Für den ersten empirischen Artikel verende ich dabei die Methode der quantitativen und qualitativen sozialen Netzwerkanalyse auf der Grundlage von Jahresberichten und qualitativen Interviews mit verschiedenen Teilnehmer:innen der Partnerschaft. Im zweiten empirischen Artikel verende ich die Methoden der qualitativen Inhaltsanalyse und untersuche aus dieser Perspektive die Interviews undpolitische Dokumente. Anschließend führe ich eine Fokusgruppendifkussion durch, um Annahmen über die breitere empirische Governance-Landschaft und die sozialen Interaktionen darin zu validieren. Schließlich verende ich in dem vorliegenden Rahmenpapier Theorien der Nachhaltigkeitstransformation, um Formen des Wandels und persönliche, politische und praktische Bereiche der Transformation zu unterscheiden und reflektiere dabei die Ergebnisse der drei Artikel im Rahmen meiner kumulativen Dissertation.

Dabei argumentiere ich, dass Collaborative Governance im Allgemeinen und MSIs im Besonderen den Akteuren Räume bieten, um ihre unterschiedlichen Interessen, Werte und Weltanschauungen zu verhandeln, was einen wertvollen Beitrag zum sozialen Lernen und zur Interaktion für den Wandel darstellt. Allerdings behindern private Governance-Strukturen sowie die Vielfalt der Initiativen in der Landschaft die volle Ausschöpfung des Potenzials solcher Partnerschaften für praktische Veränderungen. Meine Fallstudie zeigt beispielsweise, dass in solchen Partnerschaften Strukturen entstehen, die das volle Engagement aller Teilnehmer:innen in dem, was ich als konstruktiven Konflikt für soziales Lernen bezeichne, behindern. Governance Strukturen involvieren dabei nur wenige Teilnehmer:innen der Partnerschaft, um Entscheidungsfindungen effizienter zu gestalten. Dies beruht auf einem praktischen Kompromiss zwischen Lernen und dem Erreichen von Governance-Ergebnissen. Ich argumentiere jedoch, dass Entscheidungen nicht überstürzt getroffen werden sollten, sondern Raum für die Konfrontation unterschiedlicher Werte und Interessen geschaffen werden muss, um in komplexen Kontexten zu fundierten Lösungen zu gelangen. Darüber hinaus sind die Teilnehmer:innen in solchen Partnerschaften mit der Vielzahl unterschiedlicher und meist freiwilliger Initiativen überfordert. Sie bringen unterschiedliche und wenig harmonisierte Verpflichtungen mit sich, so dass die Teilnehmer:innen unterschiedliche und manchmal widersprüchliche Rollen einnehmen. MSIs sind daher von der Notwendigkeit einer stärkeren staatlichen Regulierung betroffen, die in Deutschland zur Umsetzung des Sorgfaltpflichtgesetzes im Juni 2021 führte. Collaborative Governance-Initiativen sind zwar wichtige Plattformen, auf denen verschiedene Akteure ihre Werte und politischen Interessen aushandeln können. Sie müssen jedoch in staatliche Rahmenbedingungen und verbindliche Gesetze eingebettet sein, die über nationale Grenzen hinausgehen, da die Herausforderungen der Branche ebenfalls grenzüberschreitend sind. Nur so können sie substanzuell zur Transformation beitragen. Weitere Forschung sollte sich auf das Zusammenspiel von staatlicher und privater Regulierung durch weitere Fallstudien in verschiedenen Sektoren konzentrieren und inter- und transdisziplinäre Forschung fördern, die Räume für soziale Interaktion und Lernen zwischen Wissenschaft und Praxis ermöglicht.

1. Introduction

Understanding human efforts to stimulate processes of sustainability transformation is key to creating pathways for a sustainable future. The notion of ‘sustainability transformation’, is defined by Patterson *et al.* (2017) as “*fundamental [shifts] in structural, functional, relational and cognitive aspects of socio-technical-ecological systems that lead to new patterns of interactions and outcomes*” (p. 2). The concept, which dates back to Karl Polanyi’s ‘The Great Transformation’ (Polanyi, 1944), is gaining momentum in debates around sustainability. Joint action towards transformation is called for not only through the UN’s Sustainable Development Goals (United Nations, 2015), but also in many other political and scientific fields (see e.g. WGBU, 2011; Clarke *et al.*, 2015; Blythe *et al.*, 2018). It is based on findings in Earth system science that human activities are exceeding the natural planetary boundaries (Rockström *et al.*, 2009; Steffen *et al.*, 2015a; Steffen *et al.*, 2015b). Incremental change and transformational adaptation do not seem to be sufficient, while O’Brien (2012) poses questions about “*individual and collective capacities to deliberately transform systems and structures in a manner that is both ethical and sustainable*” (p. 667). Actors from different regions and sectors are joining forces and building partnerships to deliberately address unfair and unsustainable practices. However, the question remains whether these collaborative efforts truly lead to transformation, and what their drivers and barriers are.

The textile and clothing industry (hereafter: textile sector) provides an excellent example of where global partnerships for sustainability transformation are undertaken by myriad public and private initiatives that together allow for collaborative governance. Collaborative governance is defined as “*the processes and structures of public decision making and management that engage people constructively across the boundaries of public agencies, levels of government, and/or the public, private and civic spheres in order to carry out a public purpose that could not otherwise be accomplished*” (Emerson *et al.*, 2012: 2). A wide variety of legislative initiatives, such as the EU’s Green Deal Action Plan for the Circular Economy, establish a strategy for the textile sector (European Commission, 2019). Voluntary private collaborations between market, civil society and state representatives result in different structures, processes and content of governance (Lange *et al.*, 2013), which aims to shift the textile sector towards pathways for sustainability transformation. Here, collaborative spaces are created where heterogeneous actors can come together to negotiate their “*diverse knowledge and value systems*” for overcoming wicked sustainability challenges (Kristjanson *et al.*, 2014: 5). These institutions are not only focused on tangible governance outcomes, but place an emphasis on learning between actors, which is an important component of transformative change (Newig *et al.*, 2019).

The multitude of initiatives address a variety of wicked sustainability challenges in the textile sector. Wicked here denotes knowledge uncertainty, conflicting values between different actors and the dynamic complexity of global markets (Dentoni *et al.*, 2018). For example, the textile sector is highly resource and labor intensive, is associated with environmental pollution (Madhav *et al.*, 2018), and is a major contributor to climate change, producing more emissions than air and sea transport combined (Ellen MacArthur Foundation, 2017). The collapse of the Rana Plaza factory in Bangladesh, where more than 1000 people

died (see e.g. Jacobs and Singhal, 2017), and the Covid 19 pandemic, with thousands of migrant workers losing their jobs in India (Choudhari, 2020), highlight the precarious working conditions under which textiles are produced. Global markets manifest in the interdependence of and unequal distribution between producing and consuming countries, culminating in overconsumption in Western societies with Fast Fashion as the underlying paradigm defined as “*changing consumer attitudes to apparel, linked with low-cost production and sourcing of materials from overseas industrial markets*” (McNeill and Moore, 2015: 213). In this context, the question of global responsibility is increasingly being raised (Boström and Micheletti, 2016), while a myriad of international public and private, voluntary and binding governance initiatives have emerged and are calling for a textile transformation.

In this dissertation, I contribute to research on collaborative governance in the textile sector by identifying and analysing drivers and barriers of sustainability transformation. If we understand better how different actors with different interests and values interact and jointly address the wicked sustainability challenges, we can create conditions that are conducive to collaboration for change. To this end, I question whether and how collaborative governance in the textile sector provides space for, or pathways to, sustainability transformation. I apply a politics and governance lens to transformation research. This is because transformation processes are themselves deeply political, negotiating conflicting values and interests of different stakeholders in complex global markets (Patterson *et al.*, 2017). To achieve this overarching goal, I rely on three objectives that I address in the course of this framework paper:

- First, I aim to improve our descriptive and analytical understanding of collaborative governance in the textile sector and the spaces they create for processes of sustainability transformation.
- Second, I aim to identify and analyse drivers and barriers of collaborative governance for a textile transformation.
- Third, I provide recommendations for science and practice through a science and policy brief.

I investigate these objectives through two published articles in international recognised scientific journals and a third article currently under review. Together with co-authors, embedded in the graduate programme ‘Processes of Sustainability Transformation’ run by Leuphana University, and funded by the Robert Bosch Stiftung, I first conduct a systematic literature review. The review serves to gain a deeper understanding of the current academic discourse and forms of collaborative governance in the textile sector. I then conduct a single critical case study of interactive collaborative governance, The German Partnership for Sustainable Textiles (hereafter: Textiles Partnership), to explore the spaces created between the different governance actors for sustainability transformation. The multi-stakeholder initiative, launched by the German government, brings together more than 130 organizations and companies from seven stakeholder groups (state, companies, industry associations, non-governmental organizations (NGOs), unions, standards organizations, advisory members), aiming to improve working conditions and reduce environmental impact in the textile sector. I first examine learning spaces by considering the diversity of their members, their institutional structures and the quality of interactions between the actors. I focus on social learning because it is often recognised as a precondition and important component of sustainability transformation. I then

shed light on the larger empirical context of German collaborative textile governance by examining governance modes related to the Textiles Partnership and the social interactions of governance actors. Through the case study, I gain a better theoretical and practical understanding of how governance actors navigate the diversity of the governance landscape and why this increasing complexity has fuelled the debate around global laws and greater state engagement in regulation, reflected in the German Due Diligence Act implemented in June 2021. Finally, in this framework paper, I draw on the theory of sustainability transformation to reflect on the findings and tie them together. I address scholars in the academic debate and practitioners in Germany and beyond, such as representatives of the state, civil society and the market, who are involved in the transformation of industries. I will provide answers to the questions posed and recommendations for conditions that favour collaboration for change. In the next section, I outline the theoretical background. I then provide information on the empirical context in chapter three and explain the methodological design in chapter four. The results are presented in chapter five and synthesized in relation to the different objectives in chapter six. Finally, they are discussed and concluded in chapters seven and eight.

2. Theoretical background: Processes of sustainability transformation & collaborative governance

To answer my overarching research question, reference must first be made to theoretical contributions to processes of sustainability transformation, as these are crucial for understanding collective action for change in complex socio-ecological-technical systems (Patterson *et al.*, 2017). In the multi- and interdisciplinary field of sustainability research, there is a growing body of literature with different conceptualizations of transformation (see e.g. Feola, 2015; Loorbach *et al.*, 2017; Luederitz *et al.*, 2017; Patterson *et al.*, 2017; Blythe *et al.*, 2018; Sievers-Glotzbach and Tschersich, 2019; Scoones *et al.*, 2020). Patterson *et al.* (2017) distinguishes between four schools of transformation research (see appendix A for summaries of schools of transformation research). In summary, they are all based on slightly varying but normative assumptions (Blythe *et al.*, 2018) that wicked sustainability challenges must be addressed to create socially just and ecologically desirable living conditions for all people on the planet as well as for future generations (Brundtland *et al.*, 1987). They also agree upon that achieving sustainable scenarios requires a shift from pure problem analysis to research that identifies and explores pathways and solutions for desirable ecological and social change (Hölscher *et al.*, 2018). I do not seek to position myself clearly within one of the schools, but do use concepts from the literature to create knowledge about political transformation processes.

Table 1. Transformation theory used in this dissertation.

1. Three types of change (Waddell, 2007, 2019)	2. Three spheres of transformation (O'Brien and Sygna, 2013)
Incremental: thinking inside the box	Personal: behaviors & technical responses
Reform: thinking outside the box	Political: systems & structures
Transformation: questioning the box	Practical: beliefs, values, worldviews & paradigms

Table 1 shows the two concepts I use in this dissertation in relation to transformation. First, I want to examine what fundamental restructuring actually means. Steve Waddell, senior fellow at the SDG Transformation Forum, refers to three types of change that come from the theory of single-loop, double-loop and triple-loop learning by Argyris and Schön (1997) that contribute to grasp the dynamics of learning. A distinction is made between incremental change, reform and transformative change (Waddell, 2007). The former refers to simply applying the same logic to other places and working “*inside the box*”. Reform refers to working “*outside the box*” and recognising that the current status quo requires policy change or organizational restructuring. Finally, transformational change challenges “*the box*” by redefining goals and introducing fundamental changes in operational logic (see Waddell (2019) for more details). This concept will be helpful in considering the types of change brought about by the work of the partnerships. Second, I use O’Brien and Sygna’s (2013) interlocking and interacting spheres of transformation to identify where these forms of change operate: the practical, the political and the personal spheres of transformation. The practical sphere in the inner circle can be called the outcome sphere, where policy decisions become visible and change can be measured. The political sphere refers to the “*economic, political, legal, social and cultural systems*” of a society (O’Brien and Sygna, 2013: 6), which are the basic preconditions for practical change. Here, political negotiation processes and power relations become visible, which are crucial for transformation. Finally, the personal sphere constitutes the individual and collective convictions, values and worldviews that can lead to different understandings of the world and thus to different logics of action. The three spheres are interwoven and can bring about mutual processes of change. In my study, O’Brien and Sygna’s theory is helpful to better understand where changes can be observed through the work of the partnerships.

Further, this thesis is embedded in contexts and theories of both governance and political corporate social responsibility (PCSR). There is no single definition of governance (see e.g. Bevir, 2009), but a general understanding that it refers to collective action in formal or informal systems between public and/or private actors to achieve common goals and “*create the conditions for ordered rule*” (Stoker, 1998: 17; Lange *et al.*, 2013). Historically, governance emerged through the development of non-state actors, who pushed into processes and structures of state regulation because international trade agreements and intergovernmental organizations revealed regulatory gaps in increasingly liberal and globalized economies towards the end of the 20th century (Driessen *et al.*, 2012). Corporates were seen as major contributors to sustainability challenges in complex global value chains. These have been defined as “*the full range of activities which are required to bring a product or service from conception, through the intermediary phases of production (involving a combination of physical transformation and the input of various producer services), delivery to final consumers, and final disposal after use*” (Kaplinsky, 2004: 80). Civil society actors got involved and were no longer willing to accept the social and environmental problems of global production. More industry-based practices such as corporate social responsibility (CSR) and corporate sustainability practices emerged (see e.g. Schaltegger *et al.*, 2019). CSR is defined as “*the dramatic progress made by companies in recent decades in balancing shareholder goals with the need to reduce externalities*

that impact other stakeholders” (Gill, 2008: 454). Stakeholders in this context are “those groups and individuals who can affect or be affected by the activities that a company pursues in the course of creating value” (Freeman, 1984: 25), e.g. customers, suppliers, shareholders, and NGOs, the media and professional associations (Schaltegger *et al.*, 2003). A growing need for adequate representation of all stakeholders fostered private governance arrangements (Lange *et al.*, 2013). This also led to the establishment of new institutions such as transnational sustainability governance, which aims to allow for deliberative decision-making between state and non-state actors (Dingwerth and Pattberg, 2009). Today, the field consists of a variety – not to say a jigsaw puzzle – of different types of collaborative governance (Ansell and Gash, 2007) in the context of political CSR (PCSR) (Scherer and Palazzo, 2007).

Table 2. Theoretical concepts & frameworks of collaborative governance used in this dissertation. On the vertical axis you see the three frameworks for which the respective theoretical concepts are shown in grey boxes on the horizontal axes, while the white boxes highlight the features. The framework on governance modes only lists selected categories. See the full framework in appendix B.

Governance modes	Meta-framework of structures (polity), processes (politics) and content (policy) of collaborative governance (Lange <i>et al.</i> , 2013) and modes of governance from centralized to self-governance modes (Driessen <i>et al.</i> , 2012).					
		Centralized governance	De-centralized governance	Public-Private governance	Interactive governance	Self-governance
	Polity	Top-down	Sub-national	M.* actors decide	Interactive	Bottom-up
	Politics	Central gov't	Multiple levels	Autonomy of M.	Equal roles	Self-governing
Policy	Legislation	Public covenants	Incentive based	Negotiated	Voluntary	
Learning spaces	Social learning (Bandura, 1971); (Freeth and Caniglia, 2020) & organizational learning theory (Siebenhüner, 2008), diversity theory (Cuppen, 2012); & network theory (Koppenjan and Klijn, 2004; Klijn and Koppenjan, 2012).					
	Diversity of member organizations Great heterogeneity Constructive conflict	Structures Network management Organizational structures Institutional features			Quality of interactions Open forms of interaction Collaboration as a learning process Confronting claims can co-exist Going beyond zones of comfort	
Social interaction	Transnational business governance interactions theory (Eberlein <i>et al.</i> , 2014).					
	Micro-level interactions Perception of quality of interaction, meaning social behavior and forms of exchange between state, market, and civil society representatives (competition, co-ordination, co-optation and chaos)					

* Market

I make use of three theoretical frameworks in relation to collaborative governance, which can be seen in Table 2 and come from different strands of theory. First, in understanding collaborative governance, I want to enable better understanding of the diverse partnerships between state, market and civil society. I therefore use a meta-framework of governance modes shown in Table 2, row 1. Here, the rows distinguish between formal and informal institutional structures (polity), political processes (politics) and policy content (policy) (Lange *et al.*, 2013), whereas the columns show five different modes by Driessen *et al.* (2012). This framework helps me to differentiate between more hierarchical centralized and de-centralized modes, public-private partnerships, interactive institutional modes or self-governance arrangements between industry and market actors (see appendix B for full framework).

I then design a theoretical framework, found in Table 2, row 2, for learning spaces in a single, interactive governance mode based on learning theory, diversity theory and network theory. I do not refer to or analyze cognitive processes or behavioural aspects of learning but focus on social learning between actors. In doing so, I argue that multi-stakeholder initiatives (MSI) have great potential when diverse heterogeneous actors can engage in constructive conflict (Cuppen, 2012) and move beyond comfort zones (Freeth and Caniglia, 2020). Network theory by e.g. Koppenjan and Klijn (2004) contributes to the argument that structures need to be geared towards facilitating the interaction of the wide variety of actors and promoting trust and informal meetings to improve the quality of interaction (Siddiki *et al.*, 2017). Social learning can then “*help create the kinds of systematic changes needed to meet the challenge of sustainability*” (Wals, 2007: 32).

I also harness modes of social interaction in collaborative governance to understand how governance actors navigate the complex governance landscape. Social interaction refers to the social exchange and behavior between individual actors. Economists have already highlighted social interactions in the context of private governance, such as Eberlein *et al.* (2014), who argue that they are crucial to “*understanding the implications of interactions for regulatory capacity and performance, and ultimately for social and environmental impacts*” (p. 1). I follow Eberlein *et al.* (2014) and distinguish competition, coordination, co-optation and chaos to roughly differentiate the types of interaction of individuals in the micro level. Competition stands for competitive interaction in the market, but also in the regulatory process. Coordination means conscious cooperation and co-optation suppressive action. Chaos, on the other hand, means unpredictable, undirected interactions.

The three frameworks together provide me with a theoretical understanding of the various public and private modes of partnerships at the macro level, the structures and processes of an individual governance initiative at the meso level, and the social behaviors and exchanges between individual governance actors at the micro level. Together with theories of transformation used in this framework paper, they contribute to a sound understanding of whether and how collaborative governance in general, and individual interactive governance initiatives in particular, contribute to sustainability transformation.

3. Empirical research field: The German textile sector

The textile sector is booming, with production doubling worldwide between 2000 and 2015 (Ellen MacArthur Foundation, 2017). Germany is a key hub of textile production and consumption. It is one of the largest consumer countries of textiles and clothing and sales in Central Europe. The industry generated a turnover of 11 billion euros in 2018 (bvse *et al.*). The average German citizen owns about 95 items of clothing and spends about 78 euros per month

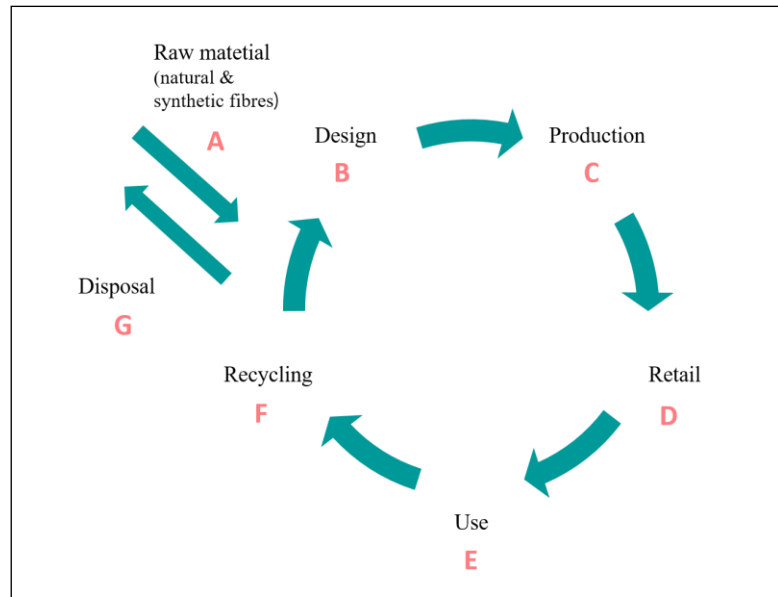


Figure 1. Own illustration of a simplified textile value chain from raw material extraction (A) to disposal (G) and the various intermediate steps.

on textiles and shoes (Grenpeace *et al.*, 2015). Germany imported 1.4 million tonnes of clothing in 2018 with China, Bangladesh and Turkey being the largest exporting countries, followed by other Central Asian countries (Federal Statistical Office, 2019). This has to be seen in the historical context of textile sector. The first sewing machines were built in Great Britain in the 18th century, which was an important step for manufacturing processes and industrialization. Today, global multinationals outsource their production processes because the textile sector is very labor intensive and many people need to be involved in the different steps of the value chain. Additionally, these industries represent an economic development opportunity for low-income countries, as can be seen in the growing textile market in African countries with the emergence of environmental certification schemes (Partzsch *et al.*, 2019).

Textile supply chains are widely ramified and complex with a multitude of processes and actors involved, posing wicked sustainability challenges. Figure 1 is a simplified representation of the different steps of the value chain, which helps us to identify the different challenges. Beginning with raw material extraction in section A, farmers are involved with seed production, cultivation, and harvest of natural fibres such as cotton or hemp. Ecological sustainability challenges such as chemical contamination (see e.g. Grappi *et al.*, 2017) or water pollution (see e.g. Madhav *et al.*, 2018), but also labor rights violations e.g. child labor (see e.g. Smestad, 2009), play a role here. Additionally, there are many synthetic fibres, with polyester accounting for 51% of textile fibres in global fibre production, posing challenges such as chemical contamination (Textile Exchange, 2019). Then, in the design process in section B most often uniform designs are preferred for fast production. The production process in section C begins with ginning, spinning, weaving or knitting, before textile production concludes with dyeing, printing and finishing. These processes mostly involve many textile workers, a high proportion of whom are women. There are countless reports of labor rights violations in these steps, ranging from gender-based violations, overtime, lack of freedom

of association or absence of grievance mechanisms (Karthik and Mishra, 2018). Environmental challenges, such as wastewater pollution from chemical inputs for dyeing, and economic challenges, such as lack of transparency and corruption are present here. After the textile products are finished by cutting, sewing and packaging, they are shipped internationally to retailers visualized in section D of the figure. The various production processes for textiles usually take place in a large number of countries, which means that textiles contribute significantly to climate change through emissions (Ellen MacArthur Foundation, 2017). Textile consumption in section E is strongly associated with the Fast Fashion concept. It describes designs that are moving from the catwalk into the mainstream of fashion trends (McNeill and Moore, 2015). This results in overconsumption and a major problem of waste management in the last section F of the figure. In the value chain, end-of-life textiles are either recycled or disposed, with most textiles consisting of several fibres that can no longer be separated, making sustainable recycling problematic. This leads to challenges to waste management in section G. The global ethical dilemmas spawning from this process can be defined as wicked problems (see e.g. Dentoni *et al.*, 2018).

In Germany's clothing and textile politics, the collapse of the Rana Plaza building in 2013 signified an important turning point. Since then, the government has taken several policy measures, with one of the most defining being the German Textiles Partnership, launched in 2015. The partnership is an established multi-stakeholder initiative consisting of seven stakeholder groups. After 6 years of existence, and as a flagship project of the German government, in 2021 it consists of over 130 member organizations and aims to support economic actors on a voluntary basis to address their sectoral risks and contribute to a sustainability transformation through joint projects and learning (Textiles Partnership, 2017). So far, however, the organizations who participate in the partnership amount to less than 50% of the total turnover of the German textile sector, so total buy-in from the industry is not established as of yet (Textiles Partnership, 2018). The partnership has formed numerous collaborations and strategic alliances with other public and private initiatives, and is an example of individual commitment and multi-stakeholder governance. For example, it has committed to the UN Due Diligence Guidance, that contributes to how countries and companies perceive and fulfil their human rights obligations (United Nations, 2011). The partnership forms part of a broader textile strategy of the German government in response to the UN Guiding Principles with the publication and monitoring of the National Action Plan on Business and Human Rights from 2018 to 2020; the Green Button, a government-led textile label for social and environmental standards (BMZ, 2019b); and the Due Diligence Act adopted in 2021. It has also developed formal and informal linkages with many other privately organized initiatives that address specific sectoral risks, such as Action Collaboration Transformation, which aims to improve wages in producing countries through industry-level collective bargaining and joint action of retailers and trade unions (Textiles Partnership, 2019). Overall, the Textile Partnership is an important case study because it has been in existence for 6 years, has more than 130 member organizations, and is embedded in a vibrant governance landscape that is constantly being developed by the government and the various stakeholders.

4. Research methodology & design

4.1. Meta-theoretical considerations

I consider this thesis to be embedded in the basic nature of sustainability science, which refers to “*understanding the fundamental character of interactions between nature and society*” and considers “*society’s capacity to guide those interactions along more sustainable trajectories*” (Kates *et al.*, 2001: 641). It is normative in the sense that it asks: ‘what is a good life for all within a balance of natural planetary and social limits, and how do we as humans can move in that direction?’ (Raworth, 2012). I also position myself in the social sciences, applying a policy and governance lens (Patterson *et al.*, 2017). In doing so, I argue that governance is inherently political and involved in any deliberate attempt to shape transformations towards sustainability.

I took an approach to transformation research that is analytical-descriptive rather than purely solution-oriented (Feola, 2015). My research examined current collaborative governance initiatives as interventions that create space for processes of sustainability transformation between the heterogeneous actors. The research intended to create knowledge that informs society and acts as a boundary object between science and society (Trompette and Vinck, 2009). For this, I used a normal science paradigm (Strunz, 2012), to generate knowledge about the underlying dynamics. Miller (2013) refers to this as a “*knowledge-first approach*” (p.286), where a problem-oriented, grounded understanding of the dynamics between nature and society develops scientific knowledge based on testing rigorous theories that can then inform science and practice to drive action. This contrasts with purely solution-oriented research (Miller *et al.*, 2014; Feola, 2015) or transformative research (Schneidewind *et al.*, 2016), in which researchers take a more proactive role through action research (Somekh, 1995), and induce and trigger change processes through transdisciplinary ‘post-normal’ epistemologies and methods (Wiek and Lang, 2016).

4.2. Materials & methods

I used a mixed-methods approach combining quantitative and qualitative data collection and analysis methods. In summary, data collection involved the consideration of a combination of academic literature and policy documents, as well as conducting 22 qualitative semi-structured interviews and a focus group discussion with members of the Textiles Partnership, my single case study. I decided on a critical case study approach which has “*strategic importance in relation to the general problem*” (Flyvbjerg, 2006: 229). For data analysis, I used R-programming (R Core Team, 2019), word cluster analysis following Abson *et al.* (2014), network analysis, package iGraph (Csardi and Nepusz, 2006), but also qualitative content analysis of the different document types making use of the MAXQDA software (VERBI Software, 2019).

The first step of my methodology was a systematic literature review (see appendix C for full overview of the three articles, column 1) using word cluster analysis of 304 selected articles to get an overview of the diverse and heterogeneous literature and their terminologies, research approaches as well as structures,

processes and contents of governance partnerships in the textile sector. For this, I used the meta-framework of governance modes by Lange *et al.* (2013) (see figure 2, rows of the table), and Driessen *et al.* (2012) (see figure 2, columns of the table), described above which is the central theoretical framework of my dissertation (see figure 2, indicated through the red box). I then selected a specific MSI for my concrete in-depth case study. This MSI can be assigned to the third cluster of the word cluster analysis (3. Private labor governance and workers' rights; see figure 2, indicated through the green box). I first decided on an institutional interactive governance approach between state, market and civil society because they provide space to deliberatively and jointly address sustainability challenges and develop policy solutions. Second, the MSI represented the empirically significant governance case in Germany at the beginning of this research endeavor. In exploring the partnership in my second step, I examined learning spaces using quantitative network data from policy reports, and conducted qualitative semi-structured interviews with diverse actors from all stakeholder groups of the partnership, one of which was a written response. I combined quantitative social network analysis and qualitative content analysis to evaluate how the different actors interact and whether the MSI serves as a platform for dialogue and learning (see appendix C., column 2). Third, I used the content of policy documents and interviews to improve my deductive theoretical understanding of the partnership in relation to the overall governance field (see figure 2, indicated through the blue box and arrows), which I validated through a focus group discussion with five participants from the same cohort. Again, diversity of participants was ensured. This allowed me to ascertain how the governance actors of the Textiles Partnership navigate the complex governance landscape (see appendix C., column 3).

4.3. Methodological reflections & limitations

Reflecting on the process, I am glad that I used the 'knowledge-first' approach to develop in-depth knowledge about MSIs and their role in transformation processes. This allowed me to acquire a solid theoretical understanding and methods that enable a profound knowledge of transformation processes. However, in future research projects I could also imagine working in a more solution-oriented way, which proved to be difficult in this case. One obstacle I have found is that mainstream institutions like the Textiles Partnership, which aim for practical change and go to great lengths to engage practice partners, have little time to push for collaboration with academia if transdisciplinary work is not one of the goals. Today, scientific advisors are included in the partnership, but they are not proactive. Therefore, it was difficult for me to propose and implement transdisciplinary research. With niche initiatives such as local textile entrepreneurs the barrier to participatory research can be lower, but also challenging, as transdisciplinary work always requires mutual agreement and capacity. However, co-creation of knowledge in such mainstream organizations is particularly important to promote change at multiple levels. Therefore, a focus on formative accompanying research in such institutions, guided by learning experts, can yield important insights.

The mixed methods approach on which my work is based allowed me to use quantitative data on the one hand, but also to go into depth through qualitative analysis. For example, the qualitative interviews played

an important role in understanding and interpreting nuances of the collaboration and how the actors work together. Unlike what would have been the case in a purely quantitative approach, it was possible to analyse individual actors on interaction and learning at greater depth. This method is subject to bias because it does not cover the totality of actors and naturally favours interview partners who are willing to participate in the research because they may be heavily involved in the object of study. Other voices may have not been heard because they may not be involved, or refused to be interviewed because they do not feel they have a contribution to make. This was particularly the case in my second study, where potential interview partners decided not to participate because they were not involved enough in the processes and contents of the partnership, which in turn was confirmed by the quantitative data of the network analysis. Furthermore, my dissertation is limited in that it only refers to a single interactive governance case study and does not compare other or different modes of governance. However, this does not mean that the findings are not transferable to other partnerships. Moreover, the outcome of learning, let alone the tangible output of governance, has been studied, which again are exciting research projects that can be applied to different cases to better understand sustainability transformation and to falsify or add to my empirical findings in collaborative governance.

5. Findings

5.1. Overview

The three articles synthesized in this framework paper shed light on the political challenges of a textile transformation. Figure 2 visualizes the theoretical concepts and contributions to the objectives of this framework and appendix C shows the three articles and their key findings, scientific contributions and implications. With regard to the first objective of creating a better understanding of collaborative governance in the textile sector, the first and third articles contribute knowledge of the literature and empirical evidence on the diverse governance landscape and the various collaborative governance initiatives. Both articles helped to identify the different modes in the literature and in the empirical landscape. This revealed different forms of collaborations, again showing diversity in their structures, processes and content, and thus offering implications for transformation. In addition, the second article gave insights into a specific governance partnership and how people work together. The in-depth case study provided me with a deep understanding of the structures, processes and contents of a case-specific collaborative governance mode to analyse learning spaces. This enabled me to identify barriers and drivers of MSIs for social learning, which is a partial aspect of objective two. It was complemented by the third study, which embedded the interactive mode of the Textiles Partnership in the empirical governance landscape to identify further drivers and barriers of collaborative governance for transformation. Finally, this framework paper serves to situate and reflect on the findings in the broader context of sustainability transformation, and together with transformation theory, the answers to the research question can be used to develop recommendations for practice and research to achieve objective three.

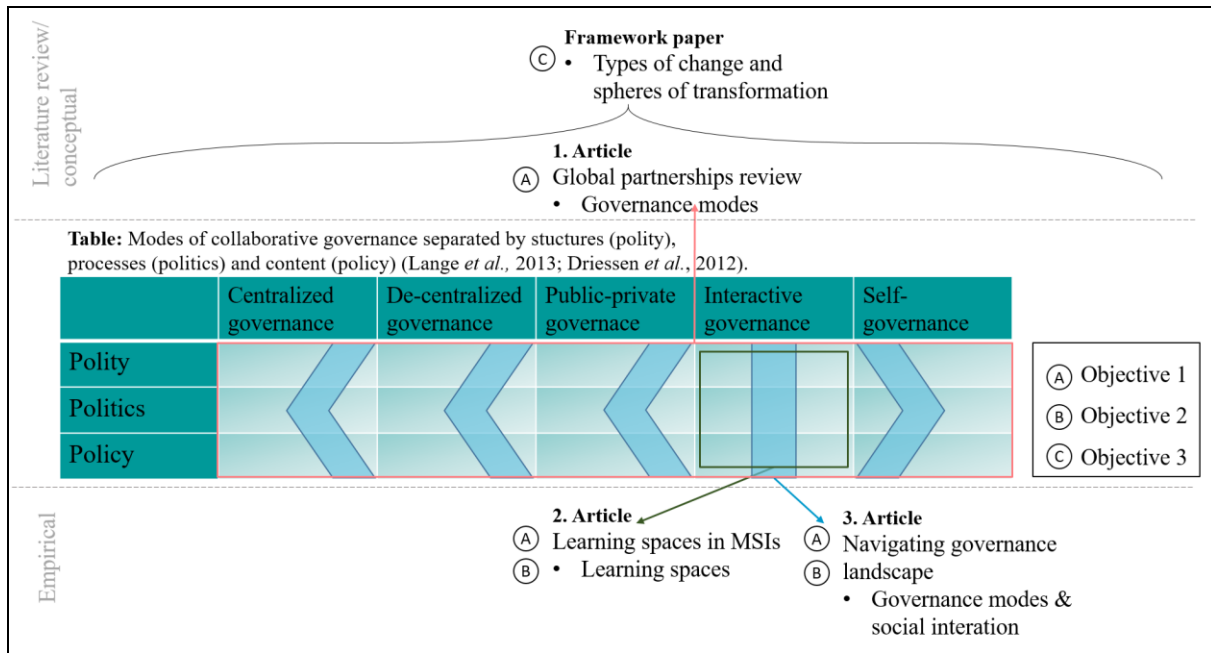


Figure 2. Own illustration of three articles and the framework paper embedded in the theoretical concepts used and research objectives for this framework paper in red, green and, blue boxes. The letters represent the respective focus, but all contribute to the overall goals.

5.2. Summary of key findings

In the systematic literature review, my co-author and I found that although research on these networks and partnerships has increased, it has remained heterogeneous (see appendix C, column one). We identified four discourses, that we call (1) Economic and Industrial Development, (2) Ecology and Environment, (3) Private Labor Governance and Worker’s Rights, and (4) Critical Ethnographies. Terminologies of partnerships range within these clusters. The respective modes of governance between polity, politics, and policy are found; from more centralized modes of governance to the autonomy of civil society. Research gaps have been identified, including whether hierarchical processes are more effective than deliberative processes in global value chains, which we address in this framework paper.

Our evaluation of learning spaces in the second column of appendix C shows that the Textiles Partnership consists of a diverse group of member organizations, provides jointly produced knowledge aggregates and engages members in short-term open and fair dialogues under the umbrella of dialogue and learning. However, to promote governance outcomes, they have created deliberative democratic structures that are conducive to inter-group learning for selected experts but close down space for intra-group learning and thus the large number of members. The political context in which MSIs are embedded, the different but interdependent objectives and the resulting structural conditions thus lead to little interaction and foster subgroup thinking between stakeholders. For learning to be fruitful, special emphasis must be placed on integrating the diversity into social interactions. They must not only promote the sharing of knowledge, but also create situations in which members get to know each other, build trust and resolve constructive conflicts by expanding their comfort zones in appropriate learning environments.

In our third study, (see appendix C, column three) we find that the potential for this collaborative governance initiative to create a sustainability transformation of the German textile sector is limited by a need

for stronger state regulation. The number of governance initiatives has multiplied and actors often have to take on multiple, sometimes contradictory or uncomfortable roles. At the same time, private collaborative governance increasingly relies on the participation and interaction of governance actors who shape the collaboration. Actors face capacity limits due to their entanglement in the complexity. Thus, there is a growing call away from voluntary arrangements towards public regulation and legislation, as both the effectiveness and efficiency of private governance initiatives are currently being questioned. We argue that thereby, private partnerships can only complement legal frameworks by bringing in participatory expert knowledge from non-state actors.

5.3. *Scientific contributions*

I have made various theoretical, methodological and analytical contributions in the course of this thesis. First of all, I was able to cluster the diverse literature on collaborative governance in the textile sector so that academics and practitioners can identify and differentiate the contrasting discourses. I also created two analytical frameworks in article 2 and 3 to examine learning spaces in MSIs and to study social interaction in a complex governance landscape with varying modes of governance. The first of these analytical frameworks advances learning theory by promoting a theoretical understanding of “*how different governance models perform in fostering learning*” (Gerlak *et al.*, 2018; Rodela and Gerger Swartling, 2019: 83). The mixed-methods approach reveals the underlying structures of learning on the one hand, and processes and content, on the other, through deeper analysis of how the actors interact. Building on this, I have advanced the academic debate on individual interactions in such partnerships as key and connecting points through my third study. A focus on social behavior and interactions of individuals in such complex governance landscapes are crucial for understanding of how collaborative governance initiatives behave in practice (Eberlein *et al.*, 2014). Finally, this framework paper enables me to provide refined recommendations for academia and practice on the drivers and barriers to transformation through collaborative governance in general and MSIs in particular.

6. Synthesis

6.1. *Spaces for processes of sustainability transformation through collaborative governance in the textile sector: Literature and empirical findings*

At the macro level, collaborative governance for sustainability in the textile sector encompasses a variety of initiatives with different structures, processes and contents. This is highlighted by my study through empirical evidence and an analysis of the research field. The latter i.e., the fragmented field of academic research on inter-organizational and governance partnerships shows that four different discourses exist. These distinguish between social, ecological and economic dimensions of sustainability challenges, which is problematic because wicked sustainability challenges are usually interwoven (Dentoni *et al.*, 2018). Researchers study different governance forms with different methodological approaches and terminologies. This makes sense from the perspective of different disciplines, but it prevents a holistic understanding of the partnerships for transformation. Empirically, this diversity is reflected in the fact that my single

interactive governance initiative, the Textile Partnership, is linked to 31 other initiatives through formal and informal partnerships, each with different structures, processes and contents. All modes were found to exist, from more centralized forms of governance to public-private partnerships, multi-stakeholder initiatives or informal partnerships between civil society and industry. The empirical governance landscape thus mirrors the research landscape. This is consistent with the argument that more and more non-state actors are participating in formerly state-centred activities (Kemp *et al.*, 2005) and that private governance attempts to form new institutions (Ansell and Gash, 2007).

With the diversity of governance initiatives comes the challenge that there are different opinions about what the goals are and how they should be achieved. What unites the many initiatives is the common understanding that a shift towards sustainability is crucial. However, the diversity also highlights the lack of an overarching strategy for transformation, because it varies depending on for whom space is created, which space is created, and how. There are attempts at harmonization, which are gradually being adopted that the Textiles Partnership follows, such as the UN Due Diligence Guidance for Business and Human Rights (Ruggie, 2007). However, there is a great diversity of such binding and non-binding agreements, which in turn creates difficulties of compliance. A broad governance landscape, then, united by a general goal of change towards sustainability, and a research field that appeals to diverse audiences because of its different terminologies and multidisciplinary approaches. What constitutes this goal of transformation and how it is achieved, however, can neither be determined empirically nor from the research field in a systemic way. Sustainability science can make a contribution here by supporting interdisciplinary discourse and holistic systems thinking.

Zooming in on the meso level, the Textiles Partnership, as a deliberate approach offers great opportunities for social interaction and learning, but hinders the inclusion of the great diversity of actors due to private governance conditions and the prioritization of governance outcomes. After the Rana Plaza incident, the German government promoted an interactive mode of governance, in contrast to top-down legislation. MSIs thereby developed in the context of global challenges in various fields (Jerbi, 2012). Today, more than 130 diverse organizations and companies are members and can discuss, negotiate and find solutions within the context of PCSR (Scherer and Palazzo, 2007). However, a structural change made in 2018 now favors exchanges in small groups such as the expert groups, partnership initiatives, and the steering committee, where actors beyond stakeholder boundaries can build trust and collaborate over a long period of time to foster governance decisions (Siddiki *et al.*, 2017). Few spaces thereby activate all participants in the process, resulting in many not being heavily involved, as shown in the network analysis.

The structural change from previous topic specific working groups to expert groups, was in favor of practical implications such as the mandatory roadmaps. Roadmaps are reports that serve to make the progress and processes towards sustainability of the participating organizations and companies measurable. They contain concrete risk assessments and corresponding recommendations along the value chain for action to bring about change on the ground. Thus, they are essentially the technical answers to the many sustainability challenges of the industry. These were voluntary in the first years of the partnership and became

binding through intensive political debates in the steering committee. Industry players in particular initially resisted the requirement. Grimm's (2019) study on the Textiles Partnership examines why industry actors changed their perception of binding roadmaps arguing that frames changed from "impossible" to "possible" by first financial and later social incentives. Reform change could thus be achieved through structures that favor governance outcomes and individuals involved who engage in intense policy debates. At the micro level, finally, social interactions also shifted from NGOs, which used to focus mainly on campaigning and co-optation, to collaboration with industry and government actors. Today, for example, NGOs are working to prepare content and create spaces that give unions and NGOs from producer countries a voice in the partnership and connect them with industry stakeholders. At the same time, parts of the business community see themselves as sustainability advocates (Oka, 2018). The example of the Tamil Nadu Partnership Initiative shows that collaboration across stakeholder boundaries also offers the opportunity to overcome the previous discrepancies. However, these partnership initiatives are slow to get off the ground and have so far produced only isolated changes in practice.

6.2. Drivers and barriers for transformation in practical, political and personal spheres

In my study, drivers of reform change are political negotiations and constructive conflict across stakeholder boundaries. After the Rana Plaza incident, the German political sphere created fertile ground for the development of the MSI as a collaborative space for implementing practical changes to the sector. This approach contrasts with state-centred top-down legislation (Driessen *et al.*, 2012). Throughout the existence of the partnership, one can perceive reform changes in the practical sphere. A good example is the annual roadmaps. After the Textiles Partnership institutionalization in 2015, the submission of annual roadmaps has been a particular point of discussion and a reason why companies and associations were critical of participating in the partnership at first. Following a structural change of the Textiles Partnership in 2018, however, the roadmaps have become mandatory, which is due to intensive negotiation processes and the recurring question for impact, as well as changing perceptions of industry actors through financial and social incentives (Grimm, 2019). These practical effects of the reforms were thus provided by the political sphere "*which represents the systems and structures that define the constraints and possibilities under which practical transformations take place*" (O'Brien and Sygna, 2013: 6).

A driver for transformational change is trust-building through social interaction and learning. Social learning can be seen as a "*transitional and transformative process that can help create the kinds of systemic changes needed to meet the challenges of sustainability*" (Wals, 2007: 32). But what it actually means is difficult to grasp (Gerlak *et al.*, 2018). In my understanding, it is the clash and friction of opinions, worldviews and interests that need space and time to get out of comfort zones and experience informal moments together. In my study, this space was created for a few actors who today interact and relate in different ways in the practical sphere. This process and transformative path may have been paved by the collaborative processes on the personal sphere. Here, modes of constructive conflict developed a form of cooperation and appreciation between the former competitors. Those involved in the sub-groups have the opportunity to discuss their political worldviews, values and understandings, through facilitated spaces

and in open and fair dialogue (Raymond *et al.*, 2010; Kochskämper *et al.*, 2016) and can work together with other stakeholders and build trust (Siddiki *et al.*, 2017). In formal and informal social learning spaces they explore and challenge the underlying beliefs, mindsets and paradigms of the stakeholders involved (Cuppen, 2012) and leverage their values for fundamental change (Rosenberg, 2021). Compared to reform change, interpersonal relationships have developed that come close to transformative change. Of course, the line between changes is not distinct, but here values and norms can be aligned to find sustainable solutions. Thus, intensive inter-stakeholder deliberation fosters processes of transformation from the political to the personal sphere into the practical sphere.

Barriers to this personal transformation are, however, structures and processes in the political sphere of private governance that hinder the involvement of the wide variety of actors and thus fail to harness the full potential of social learning spaces. At first glance, the partnership offers the possibility for constructive conflict for the totality of members. However, it is evident that deliberative democratic decision-making structures hinder the full involvement. While inter-group learning can take place in the steering committee and the expert groups, intra-group learning is only intended through short-term network events and trainings. Structures close down social learning spaces and reinforce actor-specific opinion building. Thereby, time pressure and the need to reach consensus hinder learning opportunities. This can also be seen in other fields, such as forest policy in Estonia, where structures that hinder learning have led to failures of governance (Vihma and Toikka, 2021). Heikkilä and Gerlak (2019) argue that forms of experimentation that do not end in a sanction lead to learning. One may also speak of a practical trade-off between social learning and governance outcomes in collaborative governance. However, it is not one or the other. I argue that time is needed between stakeholders to avoid jumping to quick decisions. Cuppen (2012) refers to constructive conflict which “[...] *does not mean that a stakeholder dialogue cannot lead to consensus. Rather, it means that participants are not forced to reach consensus, as this may hinder the creation of useful knowledge for policy makers and stakeholders and lead to the adoption of invalid assumptions and/or inferior (policy) decisions*” (p. 26). Initiatives need to balance governance outcomes while ensuring that a wide diversity of ideas is included and different opinions can co-exist, rather than encouraging the formation of exclusive sub-groups to facilitate rapid decision-making. This is a challenge because there are often a large number of participants, which increases opportunities for free riders and the challenge of bringing competing perspectives and worldviews together. Therefore, learning experts with extensive experience in facilitating social interaction must be involved.

Further barriers to transformation are private governance conditions and a lack of harmonization. In the political sphere, my study has shown that empirical cases of (as well as research on) collaborative governance initiatives are increasing and diverse. They are the result of a neoliberal ideology that has prevailed in recent decades, in which private approaches have been preferred to public legislation. However, this creates challenges for their members. Participating individuals and organizations, with their sometimes conflicting roles, are overwhelmed by the multitude initiatives. All actors report capacity constraints

and, for example, some companies find fault with the different reporting requirements. The lack of harmonization for a structural and collective pursuit of transformational change thus creates problems at the practical level. The initiatives do not act according to a targeted plan, but in selective formal and informal partnerships. Thus, the multitude of products on the market are far from sustainably produced and the individual initiatives are more like niches, and their effectiveness is often questioned. Today, there is a growing consensus among actors that there is a need for stronger state regulation in global markets, so that civil society and industry actors repeatedly argue that deliberate private governance mechanisms can only play a complementary role to state regulation.

Thus, a key driver for transformational change is harmonization of the different approaches through state regulation, taking into account the different perceptions of non-stakeholders in a complementary fashion. The study shows that collaborative governance is limited by the need for strong state regulation. New efforts for strong, cross-border legal regulation need to be established at national and international levels to meet the challenges of sustainability in global markets. However, it is important to continuously involve non-state actors, so that sufficient space for exchange and constructive conflict must continue to be created. The intensive work in the partnership creates legitimacy and contributes to transformational change in the political sphere, exemplified by the Due Diligence Act, which has been implemented in Germany in June 2021, and is the first of its kind to accompany, rather than replace, private regulation.

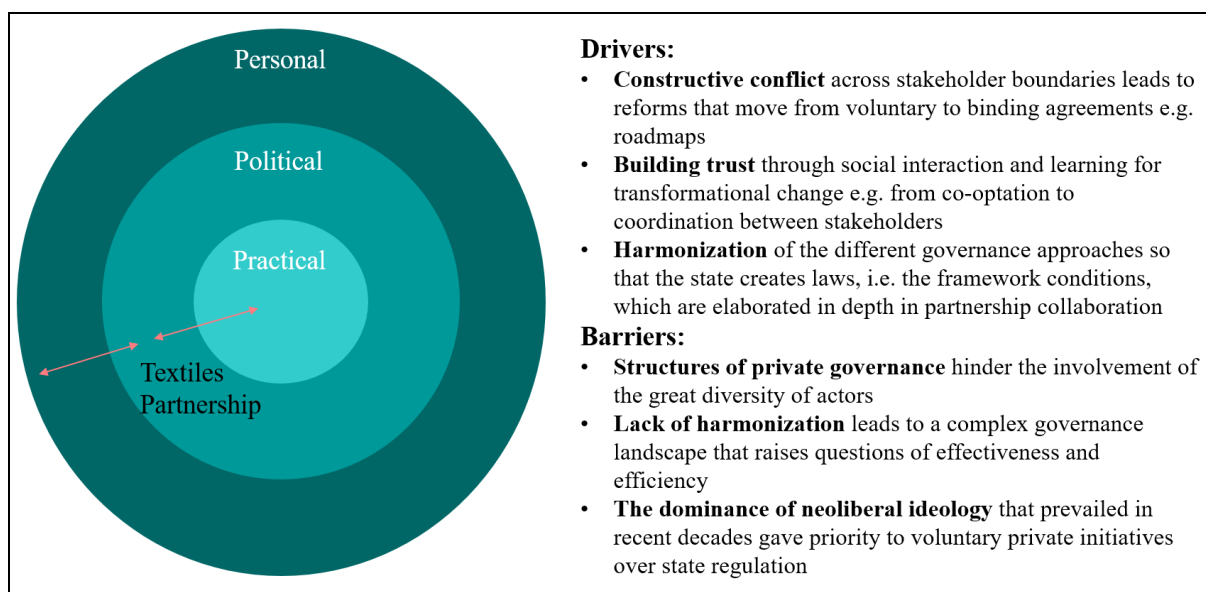


Figure 3. Own illustration of the drivers and barriers of collaborative governance using the example of the German Textiles Partnership. On the left side of the figure, the three spheres of transformation of O'Brien and Sygna (2013) are visualized with the Textiles Partnership positioned in the political sphere, which has an impact on the practical and personal sphere, represented by arrows. On the right side, the main drivers and barriers to transformation are highlighted.

7. Discussion

The global discourse around sustainability transformation is present in the textile sector and is reflected in a growing number of diverse collaborative governance initiatives. Although there were previous efforts, the Rana Plaza incident represented an important moment in time. Based on the tragedy in Bangladesh, in

which more than 1,000 people died, a general sense of responsibility arose in Germany, and an understanding that action had to be taken to improve living conditions and reduce environmental pollution in the textile sector. The German government initiated the Textiles Partnership, i.e. a non-binding multi-stakeholder initiative in response to the tragedy. Today, there is a growing and diverse landscape of collaborative governance initiatives that I have been able to empirically demonstrate in the course of this thesis. Initiatives are diverse and range from state-centred approaches, to public-private partnerships and interactive institutions, to self-governance arrangements between civil society and industry (Driessen *et al.*, 2012; Lange *et al.*, 2013). Diverse efforts indicate that there is a general understanding that the current status-quo is unsustainable and that Germany, as one of the major importing countries with a high consumption of textiles, has a responsibility to improve conditions. However, we see rather slow trends of change in the sector. So, despite all collaborative efforts, one may ask why a holistic transformation of the sector is still a distant prospect.

The existing state of research is heterogeneous and fragmented, where sustainability science can make a valuable contribution. Through our literature review, we were able to highlight the fact that sustainability aspects are usually considered separately in research on governance partnerships. Thus, economists, ecologists and geographers, social scientists and ethnographers differ not only in their research approaches, but also in how they judge the different sustainability challenges and solutions. This is problematic because wicked sustainability issues are usually interconnected (Dentoni *et al.*, 2018). Although the diversity of concepts, theories and methodologies is essential in relation to the wickedness, it creates barriers to understanding and reveals a lack of holistic and complex systems thinking in this research area. Therefore, I argue that sustainability science can provide a holistic research approach. Through its multi- and interdisciplinary character, it unravels processes of sustainability transformation and can create recommendations for science and practice (e.g. Kates *et al.*, 2001).

Collaborative governance is legitimised by the participation of all stakeholders, but does it not merely refer to a failure of the state? An important task of the state is to ensure the well-being of people. In recent literature on collaborative governance however, there is little empirical evidence of innovative solutions through governance for the general public (van Gestel and Grotenbreg, 2021), notwithstanding a lack of discourse on state regulation and its role in governance. In global supply chains, intergovernmental trade agreements were initially relied upon, but in recent years have been replaced by private, partnership-based, non-binding rule-making organizations (Ansell and Gash, 2007; Dingwerth and Pattberg, 2009). It could be argued that in recent years states have relied on the argument that they can no longer regulate the complexity of markets without the involvement of civil society and economic actors (Bair and Palpacuer, 2015). They have failed to live up to their role and have left the burden to non-state actors. Others, such as Swyngedouw (2005), argue in contrast that this shift and retreat of the state is related to the predominance of the private sector. They argue that states are not just shirking their responsibilities out of negligence, but that this is related to the dominance of neoliberal ideology in recent decades. The private sector undertakes such activities to seemingly ‘get a grip’ on problems and avoid the burden of state regulation.

The question arises whether some actors make these problems worse, or try to avoid addressing the real problems by framing them falsely e.g. by greenwashing. This is in line with more recent research looking into local welfare initiatives and its relationship with social innovation for public services that also have a Janus face, so stay within the predominant power relations or orders of social life (Häikiö *et al.*, 2017). At the same time, there are also more radical initiatives that seek social change, which in turn requires a further empirical distinction. In our case, it appears that with intense cooperation and the realization that private governance does not lead to the desired results, the voices for state regulation are increasing among all stakeholder groups, as well as the political discourse. In our case, state regulation in Germany is on the rise, and is requested not only by civil society but also by major market players and conservative industry associations. They argue that international laws for sustainability can create a level playing field. Thus, states are now slowly responding to the general feeling that national and international legislation across national borders is critical because it has the potential to create uniform standards and regulations.

My study suggests that this path of a common understanding for legislation may have been paved in Germany by the intensive collaboration of heterogeneous actors in the Textiles Partnership. This is in line with the argument that deliberative processes can create “*a process of meaning-making that reorientates people’s fundamental norms and outlooks*” (Hammond, 2020: 173). So, on the debate of public vs. private governance, I argue that it is not a question of either/or, but rather an interplay of the modes from a meta-governance perspective because they can stimulate each other. This is in line with what Lange *et al.* (2019) argue, investigating the Swiss energy policy field. They find no evidence that non-hierarchical forms are more conducive to transformation, but support the fact that they must be considered together for change to occur. The intensive deliberate work of the partnership has clearly changed the interaction between NGOs and business representatives from a culture of campaigning to cooperation and joint interaction. This points to the fact that “[c]hanges to beliefs, values and worldviews can influence the types of actions and strategies considered possible in the practical sphere” (O’Brien and Sygna, 2013: 6). Rosenberg (2021) illustrates the role of values in sustainability transformation using coffee farmers in Burundi as an example, noting that values are inextricably linked to our practices. In my study, previous adversaries now work together through intensive interaction and social learning spaces where trust in informal events has also been built (Siddiki *et al.*, 2017). Thus, the study shows the added value of such initiatives, which need to be further promoted despite the looming legislation. It is however important to note that their contribution exists in terms of informing state legislation and creating a shared understanding of a need for textile transformation.

What we can learn from this work is that collaborative governance in the textile sector is multi-faceted and creates opportunities for stakeholder interaction, but underlying power relations need to be addressed. Sievers-Glotzbach and Tschersich (2019) refer to Scoones (2016) who argues that “[a]cting within prevalent frame conditions without explicitly addressing politics can reinforce dominant trajectories, such as societal privileges or power relations” (p. 2). Such partnerships pave the way for interpersonal transformations through social learning among heterogeneous actors. However, it is questionable whether all

stakeholders with their interests want to and are able to participate. The literature points to concepts of power and agency (Kok *et al.*, 2021), that need to be addressed in future work because they are crucial in better understanding the transformational dynamics in collaboration. One important question is whether actors' values or interests influence the form of participation (or lack thereof) and the outcomes of the partnership. There are strong obvious and hidden power imbalances between actors. There are actors who have a say and influence the partnership with their interests, actors who are not allowed to participate in the decision-making structures and actors who are not even allowed to sit at the table, although they are strongly affected. Why, for example, are textile producers from economically weaker states not formally involved in such processes, but only, as in our study, in slowly emerging private partnership initiatives? It's a question of strategic inclusion (Ansell *et al.*, 2020), and justice and responsibility whether they can share and expand their knowledge with the different stakeholders to find solutions by contributing their expertise and experience. Thus, for social learning spaces to become fruitful, the question of power and intragenerational justice must also be asked in research and a reflective engagement with learning spaces by learning experts is needed.

Our findings are consistent with work from key theoretical debates on structure vs. agency (see e.g. Elliott (2012)). In reflecting on the concept of collaborative governance, the question arises as to whether it is the structures of the initiatives that constrain the individual actors or whether, conversely, it is the actors who enforce these structures through their deliberate action. The debate is still ongoing and there is criticism that radical practical approaches are not sufficiently placed in the context of deeper changes of broader system structures (Scoones, 2016). Usefully, Sievers-Glotzbach and Tschersich (2019) identified this gap in the context of sustainability transformation, which may lead to interesting insights related to this study in future endeavors. While contributing to this debate with my study, leverage points for sustainability transformation (Abson *et al.*, 2017; Fischer and Riechers, 2019) may be another lens that could be useful for future research, to provide theoretical depth in the context of collaborative governance. This concept is based on systems thinking and Elinor Ostrom's (1990) understanding of levers for change and helps to understand how to interfere with systems. It can be related to O'Brien and Sygna's (2013) three spheres of transformation, but adds analytical depth by dividing different system components and levers for change. Here, Leventon *et al.* (2021) pose nine guiding questions for sustainability science and practice, to position research in this debate. This can be useful for expanding knowledge about the textile sector and how the textile system is embedded in broader economic and cultural nested systems that hinder transformation (Davelaar, 2021). Further, it is necessary to examine how private governance interventions interact with pending government regulations such as the Due Diligence Act in Germany. Scoones (2016) suggests for example that politics of transformation is the relation between “*technology-led, market-led, state-led, and citizen-led initiatives*” (p. 304). In this study, the focus was placed on the textile sector, but the question of whether collaborative governance provides space for sustainability transformation might be asked across sectors.

8. Conclusion & next steps

In this dissertation, I examine collaborative governance in the context of the German textile sector to gain insights into whether it creates spaces for processes of sustainability transformation. I use a mixed-methods approach to transformation research from a politics and governance sustainability science perspective. In particular, I first use a systematic literature review to show that the concept of collaborative governance is considered in the academic literature through four different discourses that separate not only economic, ecological and social sustainability aspects, but also the modes of governance under investigation. I then conduct a single critical governance case, the German Partnership for Sustainable Textiles, and highlight the diversity of the sustainability governance landscape with different structures, processes and contents to pursue transformation. Furthermore, I gain insights into the case and show through a network analysis what barriers and opportunities such a partnership offers for social learning spaces between heterogeneous actors, because learning is often recognised as a precondition for practical transformation.

In conclusion, I argue that interactive collaborative governance partnerships have an impact on transformation processes, but that they are limited by a need for stronger state regulation. A short summary of policy recommendation can be found in Box 2 where I highlight the main arguments for actors to transform textile markets. Governance partnerships must create social learning spaces for personal and political negotiation between different actors in which motivated individuals can interact and engage. Social learning is thereby a prerequisite for political and practical transformation and prevents hasty decisions. A focus must be laid on the design of learning spaces by involving learning experts. However, such partnerships must not only create spaces for learning but also produce governance outcomes. This trade-off needs to be addressed by creating structures for governance decisions involving a wide range of stakeholders. At the same time, the diversity of the governance landscape in the political sphere, which mainly relies on voluntary private governance, is an obstacle to transformation in the practical sphere. It appears that the Textiles Partnership has only contributed to a limited extent to change on the ground to binding roadmaps and partnership initiatives; rather, it has contributed to transformation in the personal sphere through intensive cooperation and political debate, and thus influenced the personal mindsets and worldviews to shift relationships and modes of interaction. It has thereby had an impact at the political sphere, which can be seen in the fact that a general discourse on state regulation in global markets has emerged and is supported by all stakeholder groups, resulting in the implementation of a Due Diligence Act in June 2021. I argue that such partnerships can only bring about change in combination and harmonization with government regulation and in the interaction of the spheres. Otherwise, these partnerships create change in the personal sphere for those who want to get involved, but not for many others who pursue other political market interests. Thus, coordination of interaction between individuals must be sought at international and European level, because the textile sector is transcending national borders and therefore actors from producer countries need to be involved in the formal structures of collaborative governance. However, I argue that it is precisely these spaces that are crucial for transformation because

they enable communication between diverse actors with different worldviews that shift collaboration and mindsets.

Further research is needed to explore collaborative governance approaches in the context of state regulatory mechanisms and their mutual support. Exploring the interplay between public and private initiatives can provide insights into the barriers and synergies that may arise. Further case studies of the sector in different collaborative governance modes, countries, but also beyond the textile sector, can provide valuable insights into politics for sustainable transformation. We therefore recommend that future work follow the further development of collaborative governance mechanisms such as the Textile Partnership to critically examine their role (and associated impacts) in shaping public policy and regulations for sustainability. This is where inter- and transdisciplinary methods can add value through holistic systems thinking and participatory research approaches to ensure a better understanding of social interactions. In this way, sustainability science can use transformative research to help create knowledge and action for collaborative change. Finally, processual and cognitive learning should also be explored through long-term studies to assess the impact of MSI participation on members, and its impact on the sustainability transformation of sectors. Here, an analytical framework to distinguish between different forms of learning in MSIs could be helpful. Furthermore, the interplay of social learning and political negotiation should be examined for its impact at the level of policy and practice for transformation.

Box 1. Short summary of a policy brief based on the example from the textile sector.

Policy brief: Short summary

MSIs are important in bringing together diverse stakeholders to negotiate conflicting interests, values, and worldviews and to pave the way for government regulation.

1. MSIs must promote learning spaces by integrating diversity into social interaction. They need to enforce situations where members get to know each other, build trust and resolve constructive conflict by expanding their comfort zones in appropriate learning environments.

2. MSIs need to focus on the design and promotion of learning spaces, which requires the involvement and learning of experts with extensive experience in the complex field of learning.

3. MSIs are limited by a need for stronger enabling state regulation. Only then can they complement the legal framework with participatory expert knowledge from non-state actors through targeted forms of collaboration with committed governance actors.

5. Harmonization of different governance initiatives that fall under the umbrella of international frameworks is necessary to bring about change at multiple levels.

4. Coordination of interactions must be sought at international and European level, as the textile industry is a transnational sector and therefore actors from producer countries must be involved in the formal structures of collaborative governance.

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Appendices

Appendix A.

Box 2. Four schools of transformation research distinguished by Patterson *et al.* (2017).

Social-ecological transformations: refers to 'transformability', i.e. "*the capacity to create a fundamentally new system when ecological, economic, or social (including political) conditions make the existing system untenable*" (Walker *et al.*, 2004).

Sustainability transitions: refer to the concept of transition management (see e.g. van den Bergh *et al.*, 2011), and the multi-level perspective (see e.g. Geels, 2011), i.e. processes and dynamics that reflect the extent to which niche initiatives transition into the mainstream, generating change at multiple levels (see e.g. Geels and Schot, 2007; Loorbach *et al.*, 2017).

Transformative adaptation: emerges at the "*interface between local problems of vulnerability, and the broader global conditions and dynamics that produce these problems*" (Patterson *et al.*, 2017: 7).

Sustainability pathways: stems from the STEPS Centre in the UK, which focuses more on politicization and the inclusion of marginalised actors as well as contested values (Stirling, 2014; Scoones *et al.*, 2015).

Appendix B.

Table 3. Key features by Driessen *et al.* (2012) adapted by author.

Key features (modes) Driessen <i>et al.</i>	Centralized Governance	Decentralized Governance	Public-Private Governance	Interactive Governance	Self-governance	
Polity	Model of representation	Pluralist (popular (supra) national election and lobbying)	Pluralist (popular local election and lobbying)	Corporatist (formalized public-private governing arrangements)	Partnership (participatory public-private governing arrangements)	Partnership (participatory private-private governing arrangements)
	Rules of interaction	Formal rules (rule of law; fixed and clear procedures)	Formal rules (rule of law; fixed and clear procedures)	Formal and informal exchange rules	Institutions in its broadest form (formal and informal rules)	Informal rules (norms; culture); self-crafted (non-imposed) formal rules
	Mechanisms of social interaction	Top down; command and control	Sub-national governments decide autonomously about collaborations within top-down determined boundaries	Private actors decide autonomously about collaborations determined boundaries	Interactive; social learning, deliberations, and negotiations	Bottom up; social learning, deliberations and negotiations
Politics	Initiating actor	Central gov't agencies (or supranational bodies)	Gov't at its various levels of aggregation (subsidiarity)	Central gov't agencies; private sector is granted a pre-conditioned role also	Multiple actors: gov't, private, civil society	Private and/or civil society
	Stakeholder position	Stakeholder autonomy determined by principal agency	High likelihood of stakeholder involvement	Autonomy of market stakeholder within predetermined boundaries	Equal roles for all network partners	Self governing entities determine the involvement of other stakeholders
	Policy level Power base	(Supra)national state Coercion; authority; legitimacy (democratic representation at the national level)	Lower levels of gov't Coercion; authority; legitimacy (democratic representation at the lower levels)	Local to international level Competitiveness (prices); contracts and legal recourse; legitimacy (agreement on relations and procedures)	Multiple levels Legitimacy (agreement on roles, positions, procedures and process); trust; knowledge	Local to international level Autonomy; leadership; group size; social capital; legitimacy (agreement on relations and procedures)
Policy	Goals and targets	Uniform goals and targets	Uniform and level specific goals and targets	Uniform goals; targets actor specific	Tailor-made and integrated goals and targets	Tailor-made goals and targets
	Instruments	Legislation, permits, norms and standards	Public covenants and performance	Incentive based instruments such as taxes and grants; performance contracts	Negotiated agreements; trading mechanisms; covenants; entitlements	Voluntary instruments; private contracts; entitlements; labelling and reporting
	Policy integration	Sectorial (policy sectors and levels separated)	Sectorial (policy sectors separated)	Sectorial (branches and industries separated)	Integrated (policy sectors and policy levels integrated)	Sectorial to integrated (depends on problem framing by communities of interest)
	Policy-science interface	Primacy of generic expert knowledge	Primacy of generic expert knowledge; room for issue and time-and-place specific knowledge	Dominance of issue and time-and-place specific knowledge; expert and lay (producers and consumers)	Transdisciplinarity; expert and lay knowledge in networks; emphasis on integrated and time-and-place specific knowledge	Dominance of issue and time-and-place specific knowledge; expert and lay (citizens)

Appendix C.

Table 4. Overview of research articles.

Article abbreviation	1. Global partnerships review	2. Learning spaces in MSIs	3. Navigating governance landscape
Article title	Global partnerships for a textile transformation? A systematic literature review on inter- and transnational collaborative governance of the textile and clothing industry	Learning spaces in multi-stakeholder initiatives: The German Partnership for Sustainability Textiles as a platform for dialogue and learning?	Collaborative textile governance: navigating diversity of the sustainability governance landscape through social interaction
Authors	F. Beyers, H. Heinrichs	F. Beyers, J. Leventon	F. Beyers, J. Leventon, H. Heinrichs
Status in Journal	Published in Journal of Cleaner Production	Published in Journal of Earth System Governance	Under review in Journal of Environmental Policy & Governance
Research question	What are the prevailing characteristics and discourses, terminologies and modes of governance in the literature on inter-organizational networks and governance partnerships?	Does the German Partnership for Sustainable Textiles provide a platform for dialogue and learning?	How do actors navigate the diversity of the governance landscape from the perspective of the German Textiles Partnership?
Methodological approach	Quantitative and qualitative systematic literature review	Quantitative & qualitative social network analysis	Qualitative case study
Data acquisition & sources	Boolean search string & inclusion/exclusion criteria: 304 academic articles	Annual reports, Qualitative expert interviews: 22 interviews & annual reports of the Textiles Partnership	Policy documents, 22 interviews, focus group discussion
Data analysis	Word cluster analysis, qualitative content analysis	Quantitative network analysis, qualitative content analysis	Qualitative content analysis
Key findings	Research has increased Four discourses have been identified: 1. Economic & Industrial Development 2. Ecology & Environment 3. Private Labor Governance and Worker’s Rights 4. Critical Ethnographies Terminologies, research approaches, modes of governance & sustainability focus differ along these discourses	Diverse group of member organizations Political CSR and focus on governance outcomes hinder the full learning potential through interactive governance structures The focus must be on designing and facilitating learning spaces for all stakeholders involved, which requires the involvement of facilitation and learning experts with extensive experience in the complex field of learning.	A large number (31) of governance initiatives relate to the Textiles Partnership through formal or informal collaborations Shifting exchanges from co-optation to coordination between civil society and market actors All individuals face capacity limits due to private governance domination Growing call for state regulation
Scientific contribution	Valuable classification of scientific articles to position, analyse, and compare research	Scientific framework to investigate learning spaces in MSIs	Scientific framework to explore social interaction in governance landscape
Implications for this dissertation	Distinguishing modes of governance Identifying research on interactive governance modes for further research	In-depth investigation of structures, processes and contents of MSI for social learning as a prerequisite for transformation	Personal transformation through collaboration The role of the state in regulating global value chains (private vs. public governance)

Included research articles

This cumulative dissertation comprises the following three research articles, which form the results section. The articles are the versions published in the journals, with the exception of the last article, which is currently under review and is inserted as a Word document in the latest version¹.

Beyers, F., & Heinrichs, H. (2020). Global partnerships for a textile transformation? A systematic literature review on inter-and transnational collaborative governance of the textile and clothing industry. *Journal of Cleaner Production*, 261, 121131. <https://doi.org/10.1016/j.jclepro.2020.121131>

Beyers, F., & Leventon, J. (2021). Learning spaces in multi-stakeholder initiatives: The German Partnership for Sustainable Textiles as a platform for dialogue and learning? *Earth System Governance*, 9, 100113. <https://doi.org/10.1016/j.esg.2021.100113>

Beyers, F., Heinrichs, H., Leventon, J. (forthcoming). Collaborative textile governance: navigating diversity of the sustainability governance landscape through social interaction. *Journal of Environmental Policy & Governance*. Under review.

¹ First Published: 07. June 2022

Beyers, F., Leventon, J., & Heinrichs, H. (2022). Collaborative governance or state regulation? Endless efforts but little capacity for sustainability transformation of the German textile sector. *Environmental Policy and Governance*. <https://doi.org/10.1002/eet.1996>

Article 1: Global Partnerships Review

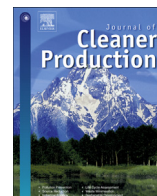
Title: Global partnerships for a textile transformation? A systematic literature review on inter- and transnational collaborative governance of the textile and clothing industry

Abstract: Since the 1992 Earth Summit in Rio de Janeiro, partnerships between actors from different sectors and countries have been joining forces to tackle major sustainability challenges. Within the textile and clothing industry, inter-organizational networks and governance partnerships have worked to address labor rights violations and environmentally harmful modes of production. Although research on these networks and partnerships has been increasing, it has remained heterogeneous. It derives from many different disciplines and research communities, leaving behind an opaque field of literature. This article provides a critical overview and a comprehensive understanding of research on inter-organizational networks and governance partnerships of the textile and clothing industry through a systematic literature review. It analyzes 301 academic peer-reviewed articles published between 1992-2018. It uses quantitative full-text bibliometric word analysis, followed by coding around the meta-framework of modes of governance, which provides an integrative framework for this field of study. Firstly, this analysis revealed four discourses referred to as Economic and Industrial Development, Ecology and Environment, Private Labor Governance and Workers' Rights, and Critical Ethnographies. Secondly, these four discourses were found to differ in their thematic sustainability challenges as well as in their variety of governance modes and partnerships. Research on economic sustainability tends to focus on modes of central and public-private governance; research on environmental challenges focus more on private governance of supply networks; and research on social sustainability tends to focus on more participatory, interactive and self-governing modes between multiple actors. The analysis provides a unique classification of scientific articles through modes of governance, which is helpful in positioning research in the debate, analyzing and comparing research approaches and thus highlighting current research gaps and opportunities for future research. The results indicate that both inter- and transdisciplinary collaboration is needed to address the identified dialectical and practical challenges, including increased involvement of research as a key factor in knowledge creation for governance and sustainability transformation within the textile and clothing industry.

Keywords: Collaboration, Modes of Governance, Sustainability, Multi-Stakeholder Initiatives, Sustainable Development Goals

Authors: Beyers, F., Heinrichs, H.

Journal: Journal of Cleaner Production



Review

Global partnerships for a textile transformation? A systematic literature review on inter- and transnational collaborative governance of the textile and clothing industry

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ABSTRACT

Since the 1992 Earth Summit in Rio de Janeiro, partnerships between actors from different sectors and countries have been joining forces to tackle major sustainability challenges. Within the textile and clothing industry, inter-organizational networks and governance partnerships have worked to address labor rights violations and environmentally harmful modes of production. Although research on these networks and partnerships has been increasing, it has remained heterogeneous. It derives from many different disciplines and research communities, leaving behind an opaque field of literature. This article provides a critical overview and a comprehensive understanding of research on inter-organizational networks and governance partnerships of the textile and clothing industry through a systematic literature review. It analyzes 301 academic peer-reviewed articles published between 1992 and 2018. It uses quantitative full-text bibliometric word analysis, followed by coding around the meta-framework of modes of governance, which provides an integrative framework for this field of study. Firstly, this analysis revealed four discourses referred to as Economic and Industrial Development, Ecology and Environment, Private Labor Governance and Workers' Rights, and Critical Ethnographies. Secondly, these four discourses were found to differ in their thematic sustainability challenges as well as in their variety of governance modes and partnerships. Research on economic sustainability tends to focus on modes of central and public-private governance; research on environmental challenges focus more on private governance of supply networks and; research on social sustainability tends to focus on more participatory, interactive and self-governing modes between multiple actors. The analysis provides a unique classification of scientific articles through modes of governance, which is helpful in positioning research in the debate, analyzing and comparing approaches and thus highlighting current gaps and opportunities for future research. The results indicate that both inter- and transdisciplinary collaboration is needed to address the identified dialectical and practical challenges, including increased involvement of research as a key actor in knowledge creation for governance and sustainability transformation within the textile and clothing industry.

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1. Introduction

In the global textile and clothing industry, various actors have long entered into partnerships to create business opportunities. Since the end of the 20th century however, actors from different regions and sectors of the world have been working together to address unfair and unsustainable production and consumption practices. Inter-organizational networks and partnerships evolved around the concept of collaborative governance (Ansell and Gash, 2007). Here, multiple public and private actors jointly engage in governance arrangements to make decisions and share power in deliberative processes (Innes and Booher, 2009). These arrangements have evolved around sectors that make up a large part of the world economy and present challenges for the environment and humanity on a global scale. The textile sector, for example, is responsible for a significant proportion of greenhouse gas emissions - 2.1 billion tons of CO₂ equivalents by 2015 (Ellen MacArthur Foundation, 2017). Global garment production is also intensifying energy and water consumption and polluting soils and rivers with toxic dyes and chemicals (Pal and Gander, 2018). In addition, working conditions in producer countries remain poor and sometimes inhumane, leading to international concerns in increasingly complex global value chains (Barraud de Lagerie, 2016).

Large numbers of inter-organizational networks and governance partnerships have emerged to overcome numerous sustainability challenges. They consist of different constellations of governmental and private actors, and interact on different political levels with varying processes, structures, and contents. Modes of collaborative governance range from bilateral trade agreements between states to public-private partnerships. Such partnerships contribute to Goal 17 of the United Nations Sustainable Development Goals - "Partnerships for the Goals" - that aims to mobilize diverse actors with different backgrounds in order to pool expertise and knowledge and tackle complex interconnected problems through collaborative action (Gusmão Caiado et al., 2018).

The scientific literature on inter-organizational networks and governance partnerships addressing the textile and clothing industry is heterogeneous and derives from various scientific fields. It ranges from political science and the study of international relations and law to sociology, development studies and literature on CSR¹ or business ethics (Bernstein and Hannah, 2008). Different

terminologies, discourses and methodologies are used to explore modes of governance, leaving behind an opaque field of literature. This creates a challenge for scientists to learn from different schools of thought, to apply theory and practice, and to get an integrated perspective for sustainability.

This article provides a critical analysis and a comprehensive synthesis of research on inter-organizational networks and governance partnerships for sustainability in the textile and clothing industry. It conducts a systematic literature review to distinguish prevailing characteristics and discourses, terminologies and modes of governance and with the latter presents an integrative framework for this field of study. The aim is to promote the scientific understanding of collaborative governance by providing a sound overview of the state of the art, and to make fragmented research more comprehensible to identify challenges for future research.

The article is structured as follows. After providing theoretical background information on collaborative governance and their modes in the context of global industries, the methods section then outlines the process of systematic literature review, particularly in regard to data collection and analysis. Prevailing characteristics and discourses, terminologies and modes of governance are then analyzed through multivariate statistical analysis and coding with response categories before being critically discussed. Finally, it provides an overview of common research and knowledge gaps as well as recommendations for jointly addressing future challenges.

2. Collaborative governance

2.1. Defining collaborative governance

There is no single definition of governance in academic literature, let alone collaborative governance, but rather a multitude of different understandings shown by Bevir (2009), who exemplifies 50 different approaches to governance. This section gives a brief overview of the debate with a particular focus on collaborative governance for sustainability of global industries.

In research on governance and politics of transformations towards sustainability, Patterson et al. (2017) argue that governance refers to "structures, processes, rules and traditions that determine how [differing groups of] people in societies make decisions and share power, exercise responsibility and ensure accountability". Adequate representation of interests is particularly important here, since sustainability challenges are of relevance to society as a whole

¹ CSR – Corporate social responsibility.

(Lange et al., 2013). Unlike state-centered public decision-making, governance associations and partnerships evolved through the engagement of non-state actors in government action since the late 1980s (Kemp et al., 2005). These actors included representatives of civil society and business, who engaged in politics and thereby fostered the development of new institutions (Ansell and Gash, 2007). This process blurred the politics of the former nation states, although collaborative governance partnerships still pursued strategies similar to those of governments to “create the conditions for ordered rule and collective action” (Stoker, 1998). However, some scholars have argued that state actors have lost their reputation as single political authorities (Rose and Miller, 1992). In new formations of governance partnerships, state actors are only one type of actor and must negotiate and cooperate with other non-government and private actors.

In this study, the definition of governance “as a process of – more or less institutionalized – interaction between public and/or private entities ultimately aiming at the realization of collective goals” by Lange et al. (2013) helps to make three arguments. First, the focus on collective work is key, representing any informal and formal institutionalized interaction that is composed of two or more parties. Second, it allows for incorporating the great diversity of governance systems inherent in academic literature. Finally, the realization of collective goals can be aligned with a path towards sustainability in light of the Sustainable Development Goals and Agenda 2030 for the textile and clothing industry.

2.2. Governance of global industries

In global industries, state actors sought to regulate the textile industry through international trade agreements and intergovernmental organizations. At the end of the 20th century, labor disputes among large transnational companies prompted societal awareness and the need for new governance arrangements (Mandle, 2000). In increasingly globalized economies and liberal trade markets, private industry actors started to engage in the process of governance through corporate governance practices (Gill, 2008). The industry developed CSR measures as well as sustainable supply chain management practices (Rajeev et al., 2017). In addition, non-state market-driven private governance systems evolved, mainly initiated by representatives of civil society, that sought to bring domestic enterprises to comply with certain environmental and social standards throughout their supply chain (Cashore, 2002).

Additionally, more collaborative initiatives evolved in the field of global governance, such as transnational sustainability governance, which is represented by transnational rule-making organizations that establish “norms, rules and standards” in a joint manner (Dingwerth and Pattberg, 2009). They comprise of actors from civil society, industry and the state who agree to cooperate by institutionalizing private governance partnerships or multi-stakeholder initiatives. They bring together a multitude of relevant stakeholders to foster dialogue for collective decision-making (Jerbi, 2012).

2.3. Modes of governance

The meta-framework of modes of governance by Lange et al. (2013) can help to give further analytical depth to understand empirical varieties of collaborative governance for sustainability. Here, the diversity of governance is transferred into a meta-framework along three dimensions; polity, politics, and policy. The framework is presented in Table 1 and distinguishes between

structures (polity), processes (politics), and content (policies) of governance. It is argued, that these categories and their adapted key features “define the universe within which research on governance may be located” (Treib et al., 2007). Lange et al. (2013) compare governance conceptualizations by three authors and explore overlaps and differences. They find that different authors use different conceptualizations and that the meta-framework can help to distinguish those. They argue, that only Driessen et al. (2012) cover all three dimensions by several key features, which are now introduced and described.

Polity represents institutional characteristics of governance. This refers to the structures in which governance mechanisms can be located. It defines the principles in which politics and policy can take place (Treib et al., 2007). From a sustainability perspective, Lange et al. (2013) argue that here, “questions of a suitable form of democracy” are raised. A distinction is made between highly institutional forms on the one hand and non-institutional forms on the other (Treib et al., 2007). In-between, there are also intermediate states. Key features are models of representation, rules of interaction and mechanisms of social interaction (Driessen et al., 2012). Models of representation refers to pluralist, corporative or partnership-based models in which individual-models differ from more collaborative-models. Rules of interaction distinguish between formal and informal modes of governance. In the mechanisms of social interaction, a distinction is made between top-down and bottom-up approaches, such as command and control over social learning, deliberation and negotiation (Driessen et al., 2012).

Politics as a second dimension refers to processes, power, and interactions of actors within governance. Here, actor’s position and contribution, policy level and power in governance are to be considered as key features (Driessen et al., 2012). The appropriate representation of interests is of great interest for sustainability (Lange et al., 2013). In more institutional governance modes, state actors are the leading authority, while in less-institutional modes non-state actors such as civil society representatives operate through processes of self-governance (Treib et al., 2007). In between are public-private or interactive governance processes. It is important to note which actor initiated the governance arrangement and how stakeholders are positioned in the process. Furthermore, consideration should be given to how power is exercised at various policy levels.

The third dimension, policy, refers to contents and instruments of governance with policy formulation, appropriate wording, implementation strategies as well as measurability at the center of the debate. Goals and targets, instruments, policy integration and the appropriate use of knowledge in the policy-science interface is highlighted as being appropriate key features by Driessen et al. (2012). They differentiate between uniform and tailor-made goals and targets as well as legislation in comparison to more private voluntary instruments. Treib et al. (2007) similarly, focusses on laws, the absence and presence of sanctions, and material versus procedural regulation strategies. For sustainability, issues of a suitable policy integration and the appropriate use of knowledge for the contents of governance are essential (Lange et al., 2013). Some argue that inter- and transdisciplinary research practices can promote solution-oriented processes of knowledge generation. This is exemplified by Touboulic and Walker (2016) making use of action research in sustainable supply chain management. They show that this kind of research is suitable for a practice-oriented field in which challenges are often messy and cross-disciplinary. In addition, Pohl (2008) argues that transdisciplinary research can be a useful approach for the joint creation of governance content when varying policy cultures interfere with each other. In the

Table 1
Meta-framework of modes of governance by Lange et al. (2013) and key features by Driessen et al. (2012) adapted by authors.

Forms of realizing collective goals via collective action	Modes of governance		
Interdependent dimensions constituting collective action	Polity (institutions and norms)	Politics (actors and resources)	Policy (objectives and instruments)
Key features	Model of representation	Initiating actor	Goals and targets
	Rules of interaction	Stakeholder position	Instruments
	Mechanisms of social interaction	Policy level	Policy integration
		Power base	Policy-science interface

triad of governance actors between industry, the state and civil society, however, scientists are scarcely recognized.

The three dimensions and adaptive key features help to distinguish five modes of governance: Centralized governance, Decentralized governance, Public-Private governance, Interactive governance, and Self-governance on a continuum between two extremes (Driessen et al., 2012). On the one end, more hierarchical governance modes of state intervention represent centralized and decentralized modes of governance (Driessen et al., 2012). On the other end are modes of self-governance mainly involving civil society actors (Hysing, 2009). In between lie more or less institutionalized and participatory modes such as public-private governance and interactive governance between private actors (Driessen et al., 2012). The established framework can be seen in Table 1 and more specifically in Appendix B.

Collaborative governance in global industries is complex and diverse involving a variety of different actors through varying structures, processes and contents. In order to analyze the multitude of academic literature on collaborative governance in the textile and clothing industry, the following section provides the data collection and analysis methods.

3. Methods

3.1. Data collection

Academic, peer reviewed literature on inter-organizations networks and governance partnerships was identified in June 2018 using a complex Boolean search string in the Scopus database (see Appendix A). The search string consisted of three concepts and related synonyms: (1) Textile and clothing industry and other related terminologies representing the sectors, (2) Partnerships and other forms of collaboration, and (3) Governance terminologies. In addition, a fourth category of (4) fixed terms was added to ensure comprehensive identification of relevant scientific articles. These fixed terms were added through an iterative and reflective process of reading abstracts and titles and collecting specific terms that reappeared. All four categories and their terminologies are summarized in Table 2 below.

The initial search string resulted in 1394 scientific articles. This number was reduced by reviewing titles and abstracts and making use of five specific inclusion criteria listed in Table 3. Additionally, some articles were excluded due to lack of accessibility, leaving a total of 301 articles appropriate for the review.

3.2. Data analysis

The articles were clustered through a quantitative, bibliometric full-text analysis according to Abson et al. (2014). The general assumption was that the coexistence of different conceptual vocabularies in articles could be used to separate literature and to identify differing research streams. Therefore, statistical analysis in R (R Core Team, 2019) helped to create a word matrix from all

words of the articles. These were then reduced by an application that excludes words that bring no relevant and conceptual value ("SMART" from the function "stopwords"; library "tm"). Indicator words were then extracted to show specific differences between clusters. For this, the indicator species analysis was applied, traditionally developed to describe and analyze habitats by characteristic species through multivariate statistics (Dufrène and Legendre, 1997). Fig. 1 shows the following detrended correspondence analysis with an agglomerative coefficient of 0,05 to highlight the indicator words (12–20 "indval" with 1000 iterations; library "labdsv"), with the four specific clusters and the distribution over two axes. For the classification of clusters, an analysis of the co-abundance of words was applied. Here similar vocabularies are combined in the same cluster. We followed Abson et al. (2014) by using "Ward's method for an agglomerative hierarchical cluster analysis based on Euclidean distances" (function "ward.D2"; library "hclust"). Items are combined to create cluster by making use of "minimum variance" criterion. It lowers the variance within a group and increases it between groups, creating an even distribution per cluster.

The full text analysis through coding was then carried out based on the cluster affiliation in accordance with the three research interests and response categories for research characteristics and discourses, terminologies and modes of governance. First, a combination of the research backgrounds of the authors, the respective journals, the methods and the specific research contents are rough indicators that contribute to the analysis of characteristics and inherent discourses. For this analysis, all 301 articles were examined and categorized. The prevailing governance terminologies of partnerships were then examined by analyzing empirical research articles only. Finally, the meta-framework of modes of governance by Lange et al. (2013) and the corresponding key features by Driessen et al. (2012) (see Table 1, Appendix B) were used to understand and describe the four different discourses and their respective governance modes between politics, polity and policy. In addition, the analysis identified and discussed challenges for future research between and within the individual clusters.

4. Governance of the textile and clothing industry

4.1. Identified clusters

The literature consisted of 301 academic articles that were separated into four distinct clusters according to the detrended correspondence word analysis. The clusters were separated based on distinct and related vocabulary. Fig. 1 shows the four different clusters separated by words and color. The visualized terms represent the most significant words per cluster for the separation. These are representative of the distinction but not mutually exclusive.

Fig. 2 shows all 301 publications per year distinguished by cluster. In general, the number of publications increases over the years. In particular, publications of the *Ecology and Environment*

Table 2
Categories and terminologies in the search string for data collection.

(1) Terminology for industry	(2) Terminology for collaboration	(3) Terminology for governance	(4) Fixed terms
textile	multi-stake*	govern*	"transnational govern**"
garment	multistake*	polit*	"transnational *regulat**"
cloth*	partnership*	polic*	"private govern**"
apparel	network*	*regulat* compliance	"private *regulat**"
wool	collab*	standard*	"industrial relation**"
yarn	"supply chain**"	label*	"intergovern**"
cotton	"value chain**"	"code of conduct"	"global govern**"

Table 3
Inclusion criteria for title and abstract screening.

Criteria	Specification
1. Criteria	Social science, peer-reviewed article, English, Scopus database
2. Criteria	The Earth Summit of Rio de Janeiro - "United Nations Content on Environment and Development (UNCED)" in 1992 was chosen as the starting point to consider the article relevant. It represents the agreement of all UN member states on Agenda 21. Historical articles that do not represent current political and economic structures have not been considered.
3. Criteria	The article must place a special emphasis on the textile, clothing, apparel, garments or footwear sector/industry.
4. Criteria	The article has to discuss the variations of the collaborative approaches to govern, regulate and co-create the above mentioned industries ("Collaboration" includes all collective work, agreements or partnerships).
5. Criteria	Collaborative action should focus on issues related to Agenda 2030 and the Sustainable Development Goals.

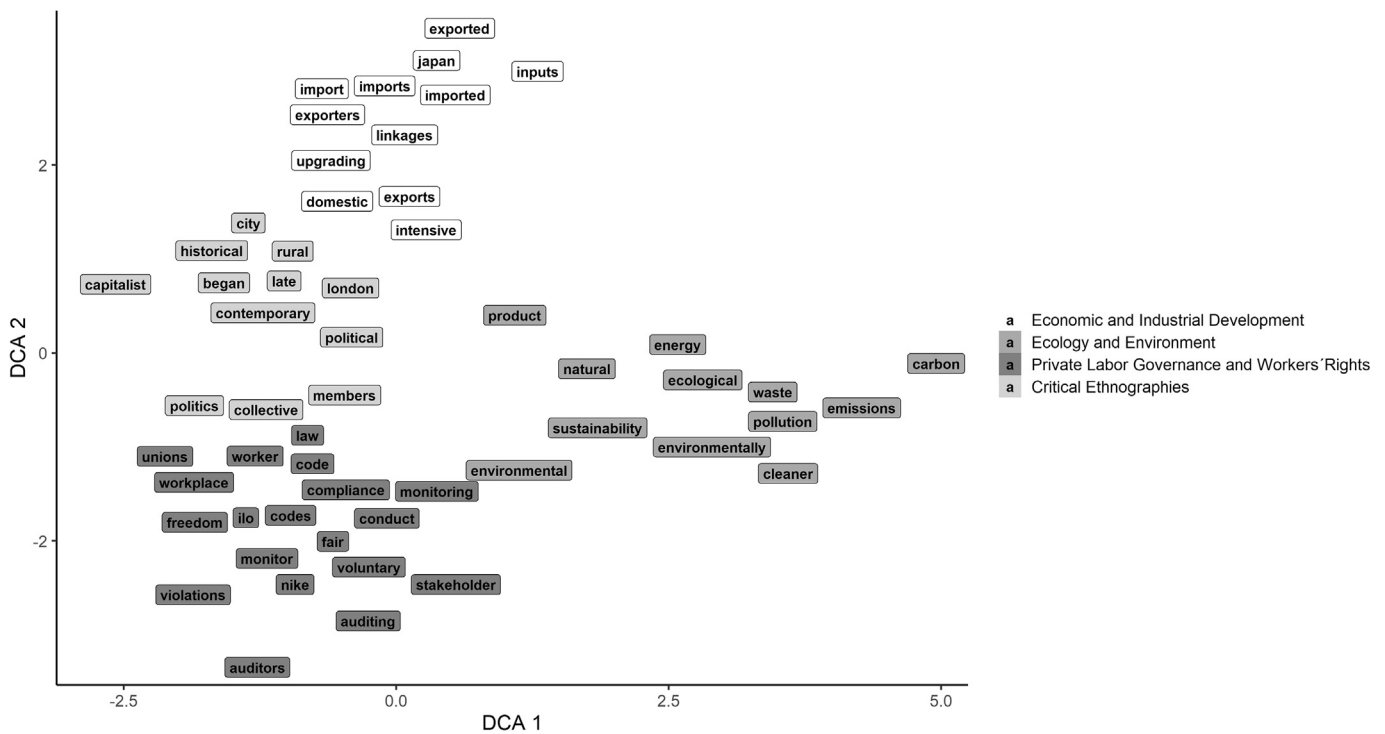


Fig. 1. Detrended correspondence analysis (DCA) of 301 scientific articles showing four clusters and their respective significant conceptual keywords along two axes.

cluster and the *Private Labor Governance and Workers' Rights* cluster have been the most frequently published articles in recent years. The number of publications in the *Labor Governance* cluster increase mainly from 2015, while the number of publications in the *Environmental* cluster increase from 2012. Publications of the *Economic and Industrial Development* cluster has had a constant publication rate and the publications of the *Critical Ethnographies* cluster increase from 2010 and have had continuous publications since then. Almost 40 papers were published in 2017, highlighting the current relevance of this research area. Furthermore, this

research only considered publications up until mid-2018, which already showed more than half of the publications of 2017.

The articles were further subdivided into research types: review articles, empirical work and conceptual research approaches. Table 4 shows the total number of articles per cluster and their breakdown. Cluster *Ecology and Environment* (100) and *Private Labor Governance and Workers' Rights* (95) account for almost 64,7% of all published articles, while the cluster *Economic and Industrial Development* (45) and *Critical Ethnographies* (61) each have a smaller share. 246 publications were classified as empirical articles, accounting for 81.7% of

the total. Again, the *Environmental* cluster (84) and *Labor Governance* (75), followed by *Critical Ethnographies* (50) and *Economic & Industrial Development* (37), have the largest empirical shares. Review articles were rarely found in all four clusters, while cluster on *Labor Governance* seems to contain the most conceptual articles (17), followed by the *Environmental* cluster (13).

4.2. Research characteristics and discourses of the clusters

This section describes the research characteristics and inherent discourses of the four clusters. The backgrounds of authors, journals, methods and research contents were analyzed. The first part of Table 6 gives an overview of the four clusters with their respective categories.

The first cluster is called *Economic and Industrial Development*. Papers in this cluster consider concepts such as development aid and economic globalization. With regard to sustainability, the social, ecological and economic upgrading of trade and supply companies in the textile and clothing industry is examined. The main authors are either economists, development scientists, geographers or sociologists, while the economic background is clearest when business and management scholars are also considered. The cluster consists of 37 empirical, seven conceptual and one review article, which appear to be published in journals on economy and society, labor economics, regional development and environmental planning. Empirical research in the cluster has a strong economic focus and includes discourses on international industrial development through production networks embedded in global trade. The variety of articles uses quantitative rather than qualitative methods. Data collection and analysis consists of research on and mapping of the value chain using regression statistics, evaluation of policy papers and trade data. Some researchers use surveys and interviews with leading companies and key political actors. Conceptual articles add to research on industry clusters, value chain research and commodity chain analysis. The single review article analyzes the relationship between globalization and poverty in global value chains.

The second cluster is called *Ecology and Environment*. It contains 84 empirical, 13 conceptual and three review articles out of a total of 100, the most of all the clusters. Here ecological and environmental

topics are predominant. Themes of ecological sustainability and in particular the environmental impact of global production and consumption are examined, with discourses revolving around the concept of supply chain management and in particular green supply chain management for cleaner production. Supply chain processes and their networks are the predominant analytical unit in empirical articles. Scientists use quantitative rather than qualitative methods by analyzing ecological supply chain practices, supplier evaluation and election as well as product life cycles. The *Ecology and Environmental* cluster has a strong focus towards technical and engineering solutions for finding better practices to eradicate negative environmental effects. Research on state actors and regulatory and legal frameworks is less common. Review articles provide insights into the areas of sustainable retailing and global sourcing. Conceptual articles deal with greening policies, greener production processes, integrated supply chain management and strategies for a circular economy in the textile industry. The research backgrounds of authors can be assigned to the fields of business and management as well as engineering, technology and sustainability as can be seen in Table 6. The most relevant journals deal with similar interdisciplinary topics on cleaner production, production economics and sustainability.

The third cluster is called *Private Labor Governance and Workers' Rights*. It considers social sustainability issues in global production such as child labor, working conditions, freedom of association or working hours. The concept of political economy is the recurring theme. The cluster contains articles discussing labor standards in producing countries and mechanisms of private governance systems. The focus on private governance lies within two aspects: corporate social responsibility of trading and purchasing companies as dominant actors in supply chains and transnational private governance partnerships for the regulation of global markets. Main authors have backgrounds in business and management, political science, followed by geography and sociology. The major journals of this cluster also deal with similar topics such as business ethics, politics and society as well as industrial relations. The cluster consists of 95 articles, of which 75 are empirical, 17 conceptual and three review publications. The empirical articles refer to research that is based on qualitative or mixed methods rather than purely quantitative methods. In personal interviews and surveys, the

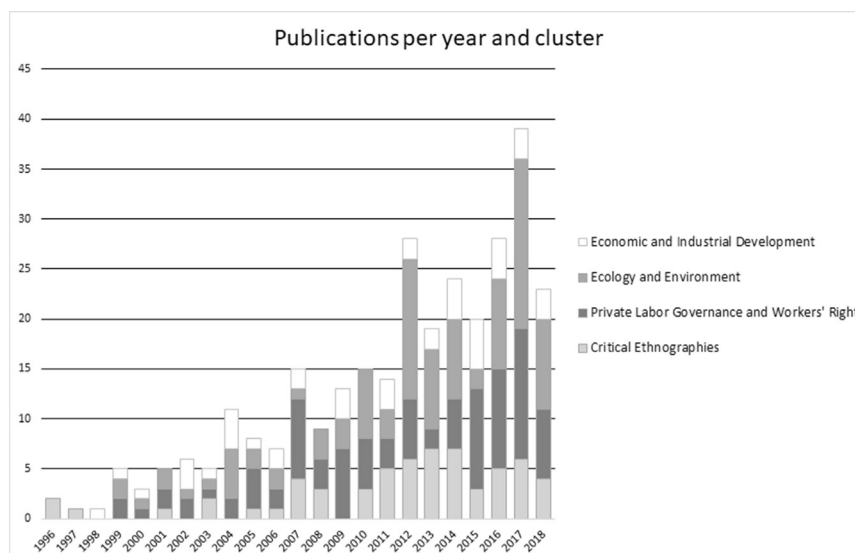


Fig. 2. Annual publications from 1996 to 2018, classified by cluster. Since literature was selected only until mid-2018, the last bar does not represent all publications of that year.

Table 4

Differentiation between review, empirical and conceptual articles for type of research per cluster.

	<i>Economic & Industrial Development</i>	<i>Ecology & Environment</i>	<i>Private Labor Governance and Workers' Rights</i>	<i>Critical Ethnographies</i>	Total
Review	1	3	3	0	7
Empirical	37	84	75	50	246
Conceptual	7	13	17	11	48
Total	45	100	95	61	301

relationships and mechanisms between suppliers and retailers for better working conditions are investigated. Participatory methods are rather rare. Authors evaluate and compare transnational private governance programs such as corporate codes of conduct with social compliance audits initiated by standard organizations or multi-stakeholder initiatives. Review articles deal with the non-governmental setting of global standards and the analysis of codes of conduct, while conceptual articles examine supply chain concepts and ethical trading initiatives.

The fourth cluster is called *Critical Ethnographies*. It shows insights from a more critical perspective with strong evidence from ethnographic fieldwork. Here, anthropologists, geographers and business and management scholars use a variety of critical theories. Researchers analyze the power relations of global production with a focus on gender justice and labor migration. Discourses are thereby along concepts of industrial relations. They also examine private labor governance, but mostly with stronger political connotation. There are 50 empirical studies and eleven conceptual articles. The empirical articles of the cluster investigate local labor activism, perform assessments on workplace practices and research on ethnic networks between trade unions, industry actors and worker representatives to improve geopolitical conditions. A central focus lies on labor disputes and migration in border-industrial zones as well as power and contestation in literature on industrial relations. Politically motivated scholars write in regional, environmental, planning and developmental journals and ground their research primarily in textile and clothing producing countries. Some researchers use more participatory research methods. Scholars frame global industries as neoliberal trade regimes and articulate their discomfort about the lack of economic governance.

It can be seen that the clusters differ in their focus on sustainability from economic and ecological to social concerns. Moreover, research methods are diverse and range from quantitative to qualitative and ethnographic approaches, while participatory research methods were hardly ever, and if so, then only found in contexts of social sustainability. The backgrounds of authors and journals range from economic and business-related topics to geography, sociology and sustainability.

4.3. Terminologies of governance partnerships

This section presents a conceptualization of governance terminologies. In particular, terminologies of governance partnerships of the textile and clothing industry are illustrated using the empirical literature of the four clusters. The basic requirements for the terminology of governance partnerships are usually twofold. They consist of a word that defines the multitude and actors involved in the process and a word that determines the specific political level at which the governance entity is located. Table 5 provides a framework for differentiating terminologies used in literature on the textile and clothing industry. The first column distinguishes the four clusters. The axes are then split horizontally and vertically. The horizontal axis shows the diversity of the

political levels from national to sub-national. The vertical axis, on the other hand, shows the multitude of actor constellations within governance partnerships. A distinction is made between “state”, “non-state” and cooperation between those. The clusters have helped to distinguish the various terminologies. However, they are not mutually exclusive, i.e. terminologies can occur in two, three or even four clusters, but they are more representative of one cluster than another.

In literature of the *Economic and Industrial Development* cluster, there are mainly three types of partnerships. These are industry-oriented partnerships, national and international state agreements, and relationships between industry and state actors. The first of the three consists of economic actors creating global networks of multiple supply and retail companies, referred to as inter-firm networks, business networks, or global as well as transnational production networks. Trade agreements between countries on the other hand, are concluded by state actors and, together with national laws and trading policies of the producing, processing and trading countries, form the legal framework for global industries. Finally, scholars also analyze the interaction of industry and state actors through a focus on business-state relations and lobbying to steer industrial development.

The cluster on *Ecology and Environment* can be associated with concerns about environmental sustainability and in particular, the environmental impacts of global textile production and consumption. Terminologies for governance partnerships revolve around the concept of supply chain management and in particular green or sustainable supply networks. Here, supply chain processes, members and networks are the predominant analytical unit. State actors and their participation in governance are mainly conceived as government involvement in supply networks, or through public-private partnerships. Thus, the greening of supply chains in this cluster is geared more to global market participants than to national governments. However, strategic partnerships within and outside the supply chain are seen as relevant to improve the current state of unsustainable supply chains.

The empirical work of the *Private Labor Governance and Workers' Rights* cluster deals with two types of corporate governance partnerships. The first type deals with CSR and compliance practices of trading and purchasing companies, while the second type deals with transnational private governance partnerships. Research on the former places a specific focus on private governance mechanisms such as supply chain compliance. The latter is concerned with various forms of private and public-private partnerships. Terminologies range from transnational advocacy networks to multi-stakeholder initiatives and transnational private governance associations. Partnerships usually consist of several private and partly public actors who initiate organizations and collaborate on governance for complex deregulated markets.

Finally, governance partnerships in the *Critical Ethnographies* cluster range from global multi-actor governance partnerships similar to those in the cluster on *Private Labor Governance* to more

Table 5
 Framework for terminologies of governance agreements and partnerships within the four clusters. In the framework, clusters were first differentiated by individual rows for a better clarity. For each cluster, terminologies can then be positioned along two axes which demonstrate their multi-actor character (the extent to which the state is involved, column) and their multi-level character (whether they are completely within a country or span countries, row).

	Multi-level	National	Sub-national
Cluster	Multi-actor		
<i>Economic & Industrial Development</i>	State	Political debates and negotiations for national legal and trade policies	Multi- & bilateral trade agreement
	Non-state		Inter-firm business network Global/transnational production network Global value chain Business-state relationship
	State – non-state		
<i>Ecology & Environment</i>	State		Green/sustainable supply network Supply network & strategic partnership Government involvement in supply network Public-private partnership
	Non-state		
	State – non-state	Inter-sectoral partnership Public-private partnership	
<i>Private Labor Governance and Workers' Rights</i>	State	Public regulation Worker-management participation committees Domestic cross-class collaboration Local labor organizing Informal activist network	Global production network Post-cross sectoral partnership Voluntary social compliance initiatives Business compliance initiative Supply chain compliance Brand-advocacy in supply chains International framework agreement Transnational advocacy network Transnational private governance association Transnational anti-sweatshop activism Union–NGO relation Cross-Border Solidarity/campaign Multi-stakeholder initiative Government regulation of int. CSR
	Non-state		
	State – non-state	Multi-stakeholder initiative	
<i>Critical Ethnographies</i>	State	Political debates and negotiations for trade & immigration policies	Multi- & bilateral trade agreement
	Non-state	Regional production network Management–union–worker relation Local labor activism Informal activist network Social support network	Global production network Ethical business network Transnational regulatory network International network of labor activism Cross-border labor formation Union-NGO relation Border community Multi-stakeholder initiative
	State – non-state	Public-private partnership	

informal agreements between civil society representatives such as trade unions and NGOs. These collaborations fight for labor rights in countries of global textile production and are determined less by state or industrial actors than by representatives of civil society. Local and transnational social movements bring together transnational NGOs and trade unions and are described as local and cross-border activism in alliances with protesting workers.

Identifying the four different cluster and focusing on their terminologies of governance partnerships has helped shape a better understanding of the governance collaborations and discourses in each of the clusters. While the *Economic and Industrial Development* cluster focusses on business networks embedded in international trade, the *Ecology and Environment* cluster uses terminologies such as green supply chain networks. Literature in the *Private Labor Governance and Workers' Rights* cluster looks more particularly into multi-stakeholder partnerships and ethical trading initiatives of retailers while the *Critical Ethnographies* cluster focusses on labor-formations between representatives of civil society. The concept of modes of governance can now add a valuable differentiation of research to understand the diversity of structures, processes and contents of governance examined in the literature.

4.4. Modes of governance in the textile and clothing industry

Modes of governance serve as a concept to gain further analytical depth for understanding empirical varieties of research on collaborative governance in the textile and clothing industry. Different discourses use different terminologies and deal with varying forms of governance structures (polity), processes (politics) and contents (policy). An analytical summary of the four clusters can be found at the end of this section in [Table 6](#).

The *Economic and Industrial Development* cluster distinguishes three governance partnerships. They focus on governmental arrangements, production networks of industrial players and international business-state relationships. It therefore encompasses centralized and decentralized modes of governance between regional and national state actors and on the other hand, public-private governance modes in which industrial actors alone or together with state actors steer governance for industrial upgrading. In the literature, however, these modes are heavily interlinked as global networks of production are legally embedded in and bound to the processes and contents of trade arrangements and policies. Politics and policies are therefore more of a central research focus than polity. Examples include liberal regional or

international trade agreements between states and the influence of business through policies such as foreign direct investment. It is argued that in the last century, liberal political decision-making was a common strategy of partnerships between high- and low-income states because the textile and clothing industry provides great economic potential for industrial upgrading (Goto and Endo, 2014). Such political processes, it is argued, have created global trade regimes through trade-centered politics and policies (Curran and Nadvi, 2015). This has led to a restructuring and relocation of production from Western countries to low-income states in Europe, Latin America and Asia with diverse and defragmented

procurement structures (Morris and Staritz, 2017). Multiple scholars like Plank and Staritz (2016) claim that this creates less promising job opportunities in low-income countries “characterized by high flexibility, uncertainty and precariousness”. Industrial upgrading has been shown to cause social devaluation for some, although for others it may mean social upgrading (Godfrey, 2015). These political processes and their economic and social implications therefore play a prominent role in this cluster, with most researchers arguing that they need to be analyzed on a case-specific and contextual basis, as the political-economic contexts are so diverse. Additionally, scholars attribute great importance to

Table 6

Overview of the analysis between the four clusters and their research characteristics and discourses, terminologies of governance entities and modes of governance along polity (institutions and norms), politics (actors and resources) and policy (objectives and instruments).

	Cluster 1 <i>Economic and Industrial Development</i>	Cluster 2 <i>Ecology and Environment</i>	Cluster 3 <i>Private Labor Governance and Workers' Rights</i>	Cluster 4 <i>Critical Ethnographies</i>
Research characteristics & discourses	Economic & industrial upgrading Economic sustainability	Green supply chain management Environmental sustainability	Private labor governance & political economy Social sustainability	Labor governance & industrial relations Social sustainability
Sustainability				
Researchers background	Economics Development Geography & sociology	Business & management Engineering & technology Sustainability	Business & management Political science Geography & sociology	Anthropology Geography Business & management
Most common journals	Cambridge Journal of Regions, Economy and Society Indian Journal of Labor Economics Environment and Planning A	Journal of Cleaner Production International Journal of Production Economics Sustainability (Switzerland)	Journal of Business Ethics Politics and Society British Journal of Industrial Relations	Journal of Contemporary Asia Environment and Planning A Development and Change
Methods	Quantitative methods	Quantitative methods	Qualitative & mixed methods	Qualitative ethnographic methods
Terminologies of governance entities	Trade agreement Production network Business-state relation	Green supply chain network Strategic partnership Public-private partnership	Private governance & CSR Multi-stakeholder initiative Transnational advocacy coalition	Private governance partnerships Cross-border labor formation
Polity	Pluralist & corporatist, formal rules, top down, command & control, sub-national governments & private actors decide autonomously	Corporatist, formal & informal exchange rules, private actors decide autonomously about collaboration	Corporatist, partnership, formal & informal exchange rules, collaborations, interactive: social learning & deliberations & negotiations, co-creation	Partnership, informal exchange rules & self-crafted formal rules, bottom-up: social learning, deliberations, co-creation
Politics	State & industry (lead firms), stakeholder autonomy, coercion, authority, legitimacy (democratic representation) & competitiveness (contracts & legal resources)	Industry (supply chain), autonomy of market within predetermined boundaries, competitiveness (contracts & legal resources)	Multiple actors (industry, civil society, state, science) equal roles for all actors, legitimacy (agreements on relations & procedures)	Civil society (private-private), science & industry, self-governing entity, autonomy (agreement on relations & procedures)
Policy	Liberal trade policies & domestic legislation, sectorial, incentive based instruments (e.g. outsourcing, foreign direct investment), generic expert knowledge & issue & time-and-place specific knowledge	Market mechanisms, incentive based instruments (e.g. sustainable supplier selection, certification & standards), issue & time-and-place specific knowledge	Market mechanisms, incentive based instruments (e.g. sustainable supplier selection, certification & standards) & negotiated agreements self-regulation, codes of conduct, standards, audits, labels & voluntary but unifying standards, transdisciplinarity, expert & lay knowledge in networks	Wildcat strike, Cross-border labor activism, negotiated agreements self-regulation voluntary instruments; issue & time-and-place specific knowledge
Research focus	Policies & politics	Policies	Politics & politics & policies	Politics & policies & polity
Mode of governance	Centralized governance & public-private governance	(Public-)Private governance	(Public-)Private governance & interactive governance	Interactive governance & self-governance

transnational buyer-firms and consider their ability for regulatory governance through compliance and market mechanisms such as supplier selection (Kadariusman and Nadvi, 2013). Here, structures such as the role of interaction between industry actors are described. However, the research focus is again on the governance contents such as instruments and policy integration.

The *Ecology and Environmental* cluster deals mainly with forms of private governance. Supply chain management and private governance in regional and international supply networks is the central focus of research. Governance can therefore be classified as public-private governance where private actors decide autonomously on cooperation and conclude economic agreements with specific goals and targets to reduce the environmental impact of global production. Supplier relations, with their monitoring, evaluation and selection through global textile brands, is of great interest to scientists (Guo et al., 2017). First-tier suppliers are a major focus of analysis. Additionally, policies of supply networks such as certifications and standards as well as other incentive-based instruments for environmental improvements in supply chains are under examination. The reduction of environmental impact, is thus a path towards an economic advantage and an improvement of competitiveness for industry actors. Again, policies but also private political structures are of academic interest. Political processes, on the other hand, have a smaller share within this research. State actors play their role, but are simply considered as relevant strategic partners in the greening of supply chains. The investigation of their engagement is rather marginal. Other content related strategies are investigated for example through Fayet and Vermeulen (2014) comparing nine different cases of, on the one hand, farmers and their adaptation to the organic and fair trade market and, on the other, buyers and their use of assurance schemes.

In the cluster on *Private Labor Governance*, varieties of governance modes exist. These range from public-private governance to more interactive governance modes. The former reflects private corporate governance initiatives through supply chain CSR practices. Similar to the *Environmental* cluster, corporations and industry-based partnerships along the supply chain are described as the governance unit of analysis. Here, buyer firms mostly represent the initiating actor of CSR strategies and research focusses more on corporate politics. Political processes and the development of private governance arrangements are central to this research as well as the implemented CSR policies. For example, the case of the global brand Nike, which is also represented as an indicator word in Fig. 1. In the 1990s, Nike was one of the most prominent cases in which a transnational trading company felt the effects of its supplier's poor working conditions through poor publicity in Western countries (Locke and Romis, 2007). As a result, business initiatives emerged as self-governance systems to ensure social and environmental protection along the supply chain. Transnational companies thus began to self-regulate the industry through supply chain management practices, supplier selection, audits, codes of conduct and labels. Moreover, cooperation between industry and civil society has led to more interactive forms of governance through standard organizations and private governance partnerships between different actors. Varying degrees of collaboration in discourses around voluntary private governance (Wahl and Bull, 2014), or transnational environmental and social sustainability governance (Dingwerth and Pattberg, 2009) evolved. These varying degrees of private or public-private partnerships, advocacy coalitions or multi-stakeholder initiatives now aim at legitimacy and the search for voluntary but unifying standards, as for example Muthu (2015) points out and in his book clearly differentiates. Co-creation and co-governance play a much more

important role here, with equal roles for all network partners. Policies are usually developed on a voluntary basis through negotiation processes. Authors evaluate and compare transnational private governance programs such as social compliance audits (Islam et al., 2018). Others deal with transnational multi-stakeholder initiatives and the extent to which workers' voices are heard by participants (Zajak, 2017). International framework agreements between unions and multinational brands as a path towards regulating labor on a transnational level are also discussed (Niforou, 2014). Therefore, all three governance dimensions are relevant for this cluster. Authors focus on the political processes that evolve through governance content while also investigating collaborative structures of multi-actor networks.

Multi-stakeholder partnerships as well as cross-border labor movements can recapitulate the modes of governance of the cluster of *Critical Ethnographies*. Here, forms of interactive- and self-governance dominate, with mainly industry and civil society actors being involved. Besides multi-actor constellations, also described in the cluster on *Private Labor Governance*, union-NGO partnerships and activism across national borders portray the governance forms in literature on citizen led labor governance. Cross-border formations are examined with the argument that labor migration takes place in border regions with inadequate employment contracts (Arnold and Pickles, 2011). Action research and ethnographic fieldwork in textile-producing countries form the politically motivated discourse due to poor working conditions in producing countries with effects of labor unrest (Xu and Schmalz, 2017). One focus lays therefore on labor disputes, power and contestation in the industrial relations literature (Arnold and Han Shih, 2010). On the other hand, increased consumption rates in Western countries due to cheap textiles and the concept of fast fashion naturally play a decisive role in this debate (Barnes and Lea-Greenwood, 2006). Therefore, politics and the processes between the different actors are the central focus of this cluster. The labor-activism partnerships range from formal to highly informal agreements, which usually exclude state actors as well as industrial players. These partnerships fight for social awareness and the dissemination of information on current employment relationships that are marked by gender and labor inequalities (Cox, 2015). Participatory private-private governance arrangements determine the involvement of other interest groups through voluntary processes and agreements on norms and non-imposed formal rules. Bottom up movements and deliberative mechanisms of social interaction through negotiations are predominant.

5. Discussion

There is a great variety of governance modes in literature on inter-organizational networks and governance partnerships of the textile and clothing industry in the last thirty years. These range from centralized governance modes, in which state actors conclude trade agreements, to private governance agreements in global supply chains, to self-governance modes, in which civil society actors rebel against unfair working conditions through cross-border alliances. These differ not only in their structures, processes and contents, but also in terminologies and discourses on sustainability and cleaner production. It is important to discuss what the different discourses and related research approaches can learn from each other to identify future perspectives for research and practice. At first sight, the respective clusters can be associated with the three-pillar model of sustainability, whose historical origins and theoretical backgrounds are shown in a literature analysis by Purvis et al. (2019). The *Economic and Industrial Development*

cluster can be linked to the economic pillar, which is much about global production networks embedded in global trade agreements between states. The cluster *Ecology and Environment* strongly focuses on the environmental pillar with discourses on green supply chain networks and improving production processes to reduce environmental impact. Both the *Private Labor Governance and Workers' Rights* cluster and the *Critical Ethnographies* cluster, on the other hand, can be linked to the social pillar of sustainability and labor conditions in the textile and clothing industry. They differ, however, in that the *Private Labor Governance* cluster has more literature on private governance by single companies or private governance partnerships. Cluster *Critical Ethnographies* shows more politically motivated research, in which mainly civil society actors are the associated representatives.

Different clusters not only highlight different sustainability concerns, but also address and analyze different entities and thus focus on different modes of governance. Cluster *Economic and Industrial Development* describes centralized modes of governance on a global and international level between state actors. Additionally, global production networks of public-private governance are present. The focus lies on policy content and effects on global production networks. Additionally, politics between states and private actors form the core of the research. Less attention is given to governance structures, which are rather seen as a precondition in global economies. Cluster *Ecology and Environment* on the other hand, takes less account of civil society and state interaction, rather concentrating on partnerships within the supply chain to increase efficiency and reduce environmental impact. Again, a major focus lies on policies within the supply chain such as mechanisms and instruments to foster efficient and green production. Structures and political processes between the actors are subordinate. In cluster *Private Labor Governance*, private governance modes are crucial in representing public-private and interactive modes of governance, which are reflected by research on CSR practices of individual companies. On the other hand, research focusses on deliberative processes of global partnerships, in which the structures and contents of such global coalitions are also examined. Finally, cluster *Critical Ethnographies* represents modes of governance that can be located on the right side of the spectrum, where civil society actors engage in labor activism through bottom-up self-governance or in coalitions with industry representatives in modes of interactive governance. The research focus lies on the political processes by politically motivated researchers who critically question structures. Research often involves the examination of policies for better governance and working conditions in supply chains.

Polity refers to the structural side of governance, in which the main features of model of representation, rules of interaction and mechanisms of social interaction are to be examined. From centralized governance to self-governance, there are different modes represented in the literature. Cluster *Economic and Industrial Development* focusses on pluralist and corporatist models of representation. Pluralist models can be assigned to state actors and are located at one end of the spectrum. Governmental actors in democracies are elected as representatives. They conclude trade agreements with other state actors on the basis of democratic social interests with non-governmental groups using their resources to influence decisions. In global politics, however, there are different political forms and trade agreements need to be negotiated. Thomsen (2007) for example, highlights Vietnam's historical trade policy, pointing out that access to supply chains is highly dependent on political-economic relations. Here corporatist models of representation through negotiation are predominant. However, research on structures is scarce in the literature of the cluster, and

lessons can be learned in particular from the clusters on *Labor Governance* and *Critical Ethnographies*. Especially in the latter, researchers focus on the structures of new forms of more participatory private-private agreements with more informal rules of interaction. Here, trade unions, laborers and NGOs form alliances through self-crafted and non-imposed rules of formal interaction and can exert pressure for better labor legislation. This is illustrated by Cox (2015), who describes the "emergence of unofficial representation mechanisms" that lead to wildcat strikes and an improvement in conditions in Vietnamese factories. These arrangements base their social interaction on collaborative learning strategies and consultative discussions. They promote cross-border labor activism, as for example in Bangalore, where labor protest developed into a transnational social movement (Kumar, 2014). Research is here dominated by ethnographic approaches, which questions governance structures and makes use of participatory methods. In between, cluster *Ecology and Environment* represents models of corporatist representation in the form of public-private arrangements. Industry actors negotiate defined limits of cooperation in both formal and informal rules e.g. through supplier assessments (Winter and Lasch, 2016). Here, research focuses primarily on retailers and manufacturers and their relationships with first-stage suppliers (Guo et al., 2017). This represents a research gap to gain valuable insights across the entire supply chain. The cluster on *Private Labor Governance* also includes corporatist models of representation, such as brand advocacy as a new phenomenon, where "brands pressure country government to take pro-worker actions" (Oka, 2018). Additionally, more interactive modes of governance in partnerships between actors with varying degrees of commitment represent participatory public-private governing arrangements. Their mechanisms of interaction are more deliberative and shaped by exchange and negotiation. Here, inter- and transdisciplinary research practices that employ participatory approaches can change the structural conditions for governance (Wittmayer and Schöpke, 2014).

Politics refers to the processes of governance in which the initiating actor, the position of the stakeholders, the policy level and the power base are essential characteristics. As mentioned above, research of both clusters *Economic and Industrial Development* and *Critical Ethnographies* define the two ends of the scale. The clusters also illustrate stakeholder representation on a continuum between state intervention and social autonomy (Hysing, 2009). Of course, there are also other partnerships portrayed. While cluster *Economic and Industrial Development* emphasizes their research on partnerships between and within states and businesses, the *Ecology and Environment* cluster focusses on processes within the supply chains. Cluster *Private Labor Governance and Workers' Rights* then deals with industry-industry but also with state-industry-civil society partnerships representing the broadest form of institution (Driessen et al., 2012). As this cluster lays a high relevance on collaborative institutions and processes within, research can be related to organizational studies. The initiatives are to reach well-founded decisions through dialogues of differing and conflicting interests. Wiek and Lang (2016) argue that an integration of scientific expertise in more participatory research practices can promote knowledge-creation in such processes. However, action research or more participatory approaches such as transdisciplinary research are less present in the cluster and in the literature on partnerships in general. Decision-making processes between several actors with different interests can be seen as time consuming and more difficult when compared to more hierarchical structures in global supply chains, where e.g. retailers choose their suppliers and push certain measures through contracts. This could

be the reason why research in the *Labor Governance* cluster places a special emphasis on these deliberative processes. An interesting research endeavour could investigate whether hierarchical processes in global value chains are more effective than deliberative processes. Finally, the cluster *Critical Ethnographies* emphasizes research on the role of politics of civil society actors within industrial conflicts and understands its own role as normative and proactive. They examine trade unions and NGOs that initiate governance processes and represent the interests of workers such as farmers, tailors, knitters and other laborers at the end of the supply chain, but also advocate broader civil society interests such as environmentally friendly production processes and sustainable development.

Policy refers to contents of governance, with goals and targets, instruments, policy integration and the interface between policy and science representing the main features. In the literature, it is evident that all four research clusters have put great emphasis on governance content. However, policy modes and research vary according to the discourses and governance entities examined. In the discourse on private corporate governance in cluster *Ecology and Environment* and *Private Labor Governance*, most of the policies examined can be related to interactive governance, while some can also be classified as public-private forms or self-governance. These range from negotiated agreements in global supply chains, trade mechanisms and voluntary instruments to private contracts such as labelling and reporting. Research methods on policies however differ. While the *Environmental* cluster uses more quantitative methods, e.g. life cycle analysis to measure social issues in supply chains (Benoit-Norris et al., 2012), the *Labor Governance* cluster uses more qualitative and mixed methods. This is an opportunity to learn and adapt by incorporating other assessment tools. Cluster *Economic and Industrial Development* refers to entities that deal with incentive based instruments such as taxes and subsidies in global trade arrangements between states. In cluster *Private Labor Governance and Workers' Rights*, the focus is on negotiating the content of governance. A large number of stakeholders are working together to find consultative solutions, and here too, transdisciplinary research could play a decisive role in the joint knowledge creation of policies (Pohl, 2008). All actors represent their own interest, and as mentioned above, this can lead to complicated and long-lasting processes. Companies devote themselves to such multi-stakeholder processes, but also have to find internal solutions for the agreed requirements. NGOs, on the other hand, often weigh their participation in such governance agreements against the influence of their work on civil society. However, this discourse tends to play into the sphere of politics and it can be argued that when analyzing modes of governance, the interrelation of the three dimensions would have to be taken into account. Van Leeuwen and van Tatenhoven (2010) argue, that all three dimensions are highly interrelated and must be considered as such. However, it is helpful to differentiate the three types to deepen the analysis of the literature.

The systematic literature review and word cluster analysis have contributed to uncovering different terminologies and modes of governance in academic literature on global partnerships for textile governance. The analysis also shows the respective research on these modes in the clusters to learn from each other and identify opportunities for future research. In particular, individual research backgrounds can learn from each other on a methodological basis, with a concrete recommendation to include more participatory approaches as well as to include scientists into the discourse of governance. In addition, sustainability challenges should be addressed through a more systemic perspective as they are strongly interrelated.

6. Conclusion

The textile and clothing industry is still associated with unsustainable production and consumption processes along the supply chain. The Rana Plaza catastrophe among others, exemplifies the pressing need for finding sustainable solutions in complex global trade. A wide variety of inter-organizational networks and governance partnerships have evolved, which are of great importance for research in various disciplines. As such, this article answered the research question: what are prevailing research characteristics, discourses and modes of governance in academic literature on inter-organizational networks and governance partnerships in the textile and clothing industry? It distinguished a vast range of scientific research papers using a word cluster analysis and coding with respective response categories. The methods helped to separate the articles into four clusters. Cluster *Economic and Industrial Development* represents the economic cluster that describes research on global production networks embedded in global trade agreements. Cluster *Ecology and Environment* deals with green supply chain management networks and thus with research that addresses the ecological challenges of global textile production. Clusters *Private Labor Governance and Workers' Rights* and *Critical Ethnographies* both deal with research that address social challenges of the textile supply chain. While the former depicts both the governance of individual retail companies through CSR practices and multi-stakeholder governance partnerships, the latter represents politically motivated research in producing countries through critical ethnographic fieldwork. Terminologies of partnerships and modes of governance range within these clusters from business-networks to more participatory governance modes such as multi-stakeholder initiatives or transnational advocacy networks that again must be distinguished from more cross-border self-governance alliances. The respective modes of governance between polity, politics, and policy are also examined and all modes are found to exist; from more centralized modes of governance to the autonomy of civil society.

The review highlighted the diversity amongst published articles by finding that environmental, social and economic sustainability challenges and their governance approaches through global partnerships are often considered separately in scientific literature. This is problematic because sustainability aspects are usually interlinked. Although the diversity of terminologies, theories and methods is indispensable in relation to the complexity of the industry, it creates barriers to understanding and reveals a lack of holistic and complex systems thinking in this field of research. Therefore, this analysis provides a valuable classification of scientific articles through multivariate statistics and governance modes, which is helpful to position research in the debate, analyze and compare research approaches and thus highlights current research gaps. These include the lack of questioning of structural aspects in the *Economic and Industrial Development* cluster, the problem of holistic data collection in ever complex global value chains in the *Ecology and Environment* cluster, and the question whether hierarchical processes in global value chains are more effective than deliberative processes. Furthermore, future research could focus on whether a more integrative model for modes of governance is required, since all three criteria are strongly interlinked. Additionally, it is relevant to investigate how changes in the industrial environment have influenced governance modes over time, as this has not been considered in this analysis. In addition, the study revealed that it may not only be necessary to learn from each other but to create partnerships between scientists of all disciplines to overcome the identified dialectical and practical challenges.

Interdisciplinary processes can help to gain a more holistic understanding of sustainability challenges and thus identify approaches for solution-oriented research. However, not only academic and governance partnerships are necessary to solve the major challenges. Transdisciplinary research can play a significant role here, where science alongside state, industry, and civil society actors may collaboratively aim towards global deliberation and knowledge co-creation for a common understanding in the search for partnership-based solutions.

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Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

CRedit authorship contribution statement

Felix Beyers: Conceptualization, Methodology, Formal analysis, Investigation, Data curation, Writing – original draft, Visualization.
Harald Heinrichs: Writing – review & editing, Supervision.

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Appendix C. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jclepro.2020.121131>.

Appendix A

Complete search string used in the Scopus database on June 05, 2018.

TITLE-ABS-KEY (textile* OR garment OR cloth* OR apparel OR wool OR yarn OR cotton) AND TITLE-ABS-KEY ((multi-stake* OR multistake* OR partnership* OR network* OR collab* OR “supply chain*” OR “value chain*”) AND (govern* OR polit* OR polic* OR *regulat* OR compliance OR standard* OR label* OR “code of conduct*)) OR TITLE-ABS-KEY (“transnational govern*” OR “transnational *regulat*” OR “intergovern*” OR “global govern*” OR “private govern*” OR “private *regulat*” OR “industrial relation*”) AND (LIMIT-TO (DOCTYPE, “ar ”) OR LIMIT-TO (DOCTYPE, “ re ”)) AND (EXCLUDE (SUBJAREA, “MEDI ”) OR EXCLUDE (SUBJAREA, “CHEM ”) OR EXCLUDE (SUBJAREA, “ BIOC ”) OR EXCLUDE (SUBJAREA, “ CENG ”) OR EXCLUDE (SUBJAREA, “ COMP ”) OR EXCLUDE (SUBJAREA, “ IMMU ”) OR EXCLUDE (SUBJAREA, “ DENT ”) OR EXCLUDE (SUBJAREA, “ PHAR ”) OR EXCLUDE (SUBJAREA, “ MATH ”) OR EXCLUDE (SUBJAREA, “ PHYS ”) OR EXCLUDE (SUBJAREA, “ NEUR ”)) AND (LIMIT-TO (LANGUAGE, “English ”))

Appendix B

Key features by [Driessen et al. \(2012\)](#).

Key features (modes) Driessen et al.		Centralized Governance	Decentralized Governance	Public-Private Governance	Interactive Governance	Self-governance
Polity	Model of representation	Pluralist (popular (supra) national election and lobbying)	Pluralist (popular local election and lobbying)	Corporatist (formalized public-private governing arrangements)	Partnership (participatory public-private governing arrangements)	Partnership (participatory private-private governing arrangements)
	Rules of interaction	Formal rules (rule of law; fixed and clear procedures)	Formal rules (rule of law; fixed and clear procedures)	Formal and informal exchange rules	Institutions in its broadest form (formal and informal rules)	Informal rules (norms; culture); self-crafted (non-imposed) formal rules
	Mechanisms of social interaction	Top down; command and control	Sub-national governments decide autonomously about collaborations within top-down determined boundaries	Private actors decide autonomously about collaborations determined boundaries	Interactive; social learning, deliberations, and negotiations	Bottom up; social learning, deliberations and negotiations
Politics	Initiating actor	Central gov’t agencies (or supranational bodies)	Gov’t at its various levels of aggregation (subsidiarity)	Central gov’t agencies; private sector is granted a preconditioned role also	Multiple actors: gov’t, private, civil society	Private and/or civil society
	Stakeholder position	Stakeholder autonomy	High likelihood of stakeholder involvement	Autonomy of market stakeholder within	Equal roles for all network partners	Self governing entities determine

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(continued)

Key features (modes) Driessen et al.	Centralized Governance	Decentralized Governance	Public-Private Governance	Interactive Governance	Self-governance
Policy level	determined by principal agency (Supra)national state	Lower levels of gov't	predetermined boundaries	Multiple levels	the involvement of other stakeholders
Power base	Coercion; authority; legitimacy (democratic representation at the national level)	Coercion; authority; legitimacy (democratic representation at the lower levels)	Local to international level	Legitimacy (agreement on roles, positions, procedures and process); trust; knowledge	Local to international level
Goals and targets	Uniform goals and targets	Uniform and level specific goals and targets	Competitiveness (prices); contracts and legal recourse; legitimacy (agreement on relations and procedures)	Tailor-made and integrated goals and targets	Autonomy; leadership; group size; social capital; legitimacy (agreement on relations and procedures)
Instruments	Legislation, permits, norms and standards	Public covenants and performance	Uniform goals; targets actor specific	Negotiated agreements; trading mechanisms; covenants; entitlements	Tailor-made goals and targets
Policy integration	Sectorial (policy sectors and levels separated)	Sectorial (policy sectors separated)	Incentive based instruments such as taxes and grants; performance contracts	Integrated (policy sectors and policy levels integrated)	Voluntary instruments; entitlements; labelling and reporting
Policy-science interface	Primacy of generic expert knowledge	Primacy of generic expert knowledge; room for issue and time-and-place specific knowledge	Sectorial (branches and industries separated)	Transdisciplinarity; expert and lay knowledge in networks; emphasis on integrated and time-and-place specific knowledge	Sectorial to integrated (depends on problem framing by communities of interest)
			Dominance of issue and time-and-place specific knowledge; expert and lay (producers and consumers)		Dominance of issue and time-and-place specific knowledge; expert and lay (citizens)

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Article 2: Learning spaces in MSIs

Title: Learning spaces in multi-stakeholder initiatives: The German Partnership for Sustainable Textiles as a platform for dialogue and learning?

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Keywords: Collaborative governance, multi-stakeholder governance, social network analysis, deliberative democracy, corporate social responsibility, sustainability transformations

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Learning spaces in multi-stakeholder initiatives: The German Partnership for Sustainable Textiles as a platform for dialogue and learning?

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ABSTRACT

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1. Introduction

Multi-stakeholder initiatives (MSIs) have increasingly evolved to address wicked sustainability challenges (Dentoni et al., 2018). They are defined as “private governance mechanisms involving corporations, civil society organizations, and sometimes other actors, such as governments, academia or unions, to cope with social and environmental challenges across industries and on a global scale” (Mena and Palazzo, 2012, p. 528). MSIs act according to a principle of joint action (Mayer and Gereffi, 2010), and follow the understanding that challenges must be tackled by combining different competences, types of knowledge and world views (Høvring et al., 2018). They also recognise that conflicts of values arise in cooperation (Dentoni et al., 2018; Ives et al., 2020). Therefore, organizational structures of deliberative democracy have increasingly developed (Battilana et al., 2018), to overcome these conflicts in the context of political corporate social responsibility (PCSR) (Scherer and Palazzo, 2007).

Scholars argue that learning in collaborative governance is an important component for transformational change, alongside governance outcomes (Newig et al., 2019). In practice too, MSIs not only foster governance decisions, but also place an emphasis on learning

between actors. For example, the German Partnership for Sustainable Textiles (Textiles Partnership) places learning for sustainability as a core objective of its activities. So-called multi-objective organizations thus pursue several goals and different challenges simultaneously (Mitchell et al., 2016). One of these objectives is social learning through heterogeneous groups (Ruggie, 2002), which can be seen as a “transitional and transformative process that can help create the kinds of systematic changes needed to meet the challenge of sustainability” (Wals, 2007, p. 32). Learning, however, is a challenging element, because what it is and how it unfolds is difficult to grasp. Due to its frequent occurrence in the environmental policy literature, Gerlak et al. (2018) conducted a literature review and found that there are either missing or a multitude of definitions, resulting in a lack of theoretical and methodological rigor. Learning is generally accepted to mean an “increase in knowledge” (see e.g. Bennett and Howlett, 1992, p. 288), though this is difficult to objectively measure. However, what kinds of knowledge are gained (e.g. substantive or procedural), and what even constitutes knowledge, are much more contested. In practice, this can lead to vague conceptualisations and flawed methodological approaches based on the assumption that learning simply takes place alongside the joint decision-making process once several actors come together.

In this paper, we aim to explore the spaces in MSIs created and

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Nomenclature

BMAS	German Federal Ministry of Labour and Social
BMU	German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety
BMZ	German Federal Minister for Economic Cooperation and Development
CCC	Clean Clothes Campaign
MSI	Multi-stakeholder initiatives
PCSR	Political corporate social responsibility
SNA	Social network analysis
Textiles Partnership	Partnership for Sustainable Textiles

designed for learning between actors, because the integration of “*diverse knowledge and value systems*” for addressing wicked sustainability challenges for transformation is crucial (Kristjanson et al., 2014, p. 5). We define spaces for learning as the settings (physical or virtual; simultaneous or asynchronous) for diverse actors to come together and experience social learning through interaction (Bandura, 1971, 1986), and allow for constructive conflict (Cuppen, 2012). This is based on the assumption that learning is triggered when individuals are confronted with ideas to which they are not normally exposed (Jehn et al., 1999; Hisschemöller, 2005). Great diversity provides such space for participants to interact and to stretch comfort zones for learning, but only if these zones are not expanded too far beyond comfort (Freeth and Cangià, 2020). It is therefore crucial to create the conditions for the different actors to participate in learning and thus in understanding that there are competing opinions, rather than simply striving towards common understandings for decision-making (Schultz et al., 2018). A space for exchange and reflection must be provided so that learning can take place at both levels - the individual level for acquiring knowledge and skills, but also the organizational level through socialization and the creation of identities (Brandt and Elkjaer, 2012). Learning spaces thus go beyond forums specifically designed for training or exchanging objective knowledge, to include situations and arrangements in which actors get to know each other and exchange views on processes and working relationships.

To meet our research aim, we explore the spaces for learning provided by the German Textiles Partnership. It serves as a great example, because it has existed for five years and represents a well-structured multi-objective organization. We examine the research question of whether it provides a platform for dialogue and learning, because this reflects one of its three objectives.¹ However, we do not only focus on the designed spaces under this objective, but also examine the MSI as a whole with all its formal and informal processes and structures, as our understanding of learning spaces goes beyond forums specifically designed for the exchange of objective knowledge. Therefore, we divide the question into three parts: 1) the diversity among engaged actors, 2) the structures of the partnership, 3) and the quality of interactions among participants for learning. We thus ask: who is involved (objective 1), who interacts with whom (objective 2), and how do they interact (objective 3)? The following theory section provides our conceptual framework, unpacking our three objectives and providing our analytical framework combining elements of diversity theory, network theory and learning theory. The methods section outlines our qualitative and quantitative social network analysis (SNA) approach to answering these objectives. We then present the results according to each of the objectives. In our discussion, we draw on these results to argue that there is a

¹ The Textiles Partnership has three objectives: individual responsibility, joint commitment and mutual support. Further explanations can be found in section 3.1 Case study - The German Partnership for Sustainable Textiles.

particular need to facilitate and design space for learning in MSIs that allows for interaction across the full diversity of participants. In this way, different worldviews and opinions should be engaged with, enhancing understandings towards sustainability.

2. Theory – three dimensions of space for learning in MSIs

We present a framework for learning spaces in MSIs based on learning theory, diversity theory and network theory. In doing so, the framework helps us to analyse the provided and designed spaces that facilitate opportunities for learning. We do not refer to or analyse cognitive processes or behavioural aspects of learning, let alone examine knowledge products, but base our understandings of spaces conducive to learning on work in the field of governance and learning. We thereby adopt a social learning lens, which gives special consideration to social interactions (Bandura, 1971), and “*refers to the sharing and integration of knowledge through enhanced communication between actors [and] to inter-relational learning and the consolidation of social networks oriented toward action through the development of collective activities and relational practices*” (Ducrot, 2009, p. 240). We also go beyond relational learning and consider organizational learning as crucial for MSIs, which understands learning processes as “*a change in an organization’s practices and strategies caused by a change in the knowledge of an international organization on a collective level*” (Siebenhüner, 2008, p. 96).

The first dimension of learning spaces in MSIs is that of diversity of actors. It implies the bringing together of different opinions, knowledge bases and perceptions of the different actors in the political context of CSR. This diversity of opinions, Cuppen (2012) argues, can be crucial for learning if constructive conflicts are encouraged. Conflictual dialogues create the opportunity to broaden, expand and bridge knowledge when allowing different understandings to coexist and to be weighed against each other (Schultz et al., 2018). This is supported by the empirically confirmed assumption that a great heterogeneity of the actors involved promotes a better overall understanding of the problem, since different perspectives are given the opportunity to stimulate the debate rather than in homogeneous groups where similar perceptions are present (Hoffman and Maier, 1961). MSIs therefore offer great potential for creating such space for exchange because they provide a platform where “*different types of knowledge, expertise and values*” can come together (Cuppen, 2012, p. 24).

In understanding diversity within the MSI, we must therefore first provide insights into the different actors and their respective groups. We investigate which groups are given and whether this composition is consistent. Indicators such as variety, i.e. the consistency of group formation in relation to the actors involved, and balance, i.e. how many members in the respective groups of actors (Stirling, 1998) are crucial here. Furthermore, we examine and separate the superordinate groups state, market and civil society, which are often distinguished in the literature on collaborative governance (e.g. Lange et al., 2013). Thus, we consider diversity through the indicators of the sector of an involved actor (such as civil society or private sector) and its size. We note that these are not exact proxies for diversity of worldviews (Cuppen et al., 2010); we thus consider additional detail through the focus and background of each actor. This contributes to a better understanding of the mix of representatives and the existing knowledge base in the partnership.

Alongside diversity, the second dimension of learning spaces is that of structures to facilitate interaction between actors. Social network theory helps here by making explicit who is related to whom and what that means in terms of organizational structures. Koppenjan and Klijn (2004, pp. 69–70) describe governance networks as “*more or less stable patterns of social relations between mutual dependent actors, which form around policy program and/or cluster of means and which are formed, maintained and changed through series of games*”. The authors point towards four prerequisites, of governance networks i.e. actors, interactions, institutional features, and network management (Klijn and

Koppenjan, 2012). In summary, network governance theory assumes that differing, but interdependent actors commit their various perceptions, or understandings to the respective governance objective. Only through social interaction in established institutions, defined goals can be jointly addressed. The interaction of these actors is, however, subject to a certain complexity, and therefore requires rules and guidance through strategies of network management.

In understanding the structures, we thus examine the design of institutional features and the characters of the MSI network management. We look at the extent to which different actors are involved in these formal processes. We thereby focus on the constellations and evaluate them quantitatively through social network characteristics for learning (e.g. Newig et al., 2010). We investigate the degree of network cohesiveness i.e. the density of interactions and centralisation i.e. key actors in a network to determine the network structures (Bodin, 2017). This allows us to make statements about how active the network in general is by comparing the existing number of relationships with the maximum possible number of relationships. Furthermore, we can identify more active compared to less active members, assuming that more relationships in a network mean more opportunities for exchange and learning. We also look at the degree of network fragmentation to show whether the network has split into different subgroups. This is where the analysis of the different subgroups and their interaction, i.e. the inter- and intra-group specific structures, becomes relevant. The existence of subgroups could thus be a challenge for learning, since knowledge is distributed within the subnetworks, so that different homogeneous perceptions emerge and coexist (Bodin and Crona, 2009). Their embeddedness in the whole network therefore needs to be assessed.

Thirdly, the quality of interaction between actors is important and to ask how the different actors interact. We make a clear distinction here between the process design of learning spaces and the perceptions and descriptions of the actual processes to deduce whether spaces for learning are provided. We thereby cannot determine whether learning processes actually took place, but we can compare the designs and descriptions of the quality of interactions with the literature to argue whether these spaces were supportive to learning. Open forms of interaction for example enable individuals to contribute and exchange their own knowledge, arguments and perceptions embedded in social contexts (Reed et al., 2010). They should be designed with and through appropriate moderation and facilitation that enable fair and constructive dialogues (Raymond et al., 2010). Interactions need to address goals such as consensus building, conflict resolution or negotiation, but have a particular focus on confronting claims so that different opinions can co-exist to increase the overall understanding of the problem (Cuppen, 2012). Newig et al. (2019) refer here to 'learning in terms of deliberation'. Simultaneously, learning spaces should provide opportunities to allow for long-lasting interactions (Schusler et al., 2003), which implies that resources and capacities are necessary components to promote learning of participants (Wood, 2015). In this way, learning processes can lead to knowledge products or knowledge aggregates, which in turn reinforce collective learning processes (Heikkilä and Gerlak, 2013). This can create opportunities for different opinions and views to be weighed against each other (Cuppen, 2012), in a good atmosphere, as plurality creates difficulties in cooperation (Dentoni et al., 2018). Relationships can go beyond formal bonds between actors and build trust, which is seen as an important factor that can foster learning in diverse groups (Siddiki et al., 2017). It must be understood that collaboration is a learning process in itself and that going beyond zones of comfort is conducive to social learning (Knight, 2000; Freeth and Caniglia, 2020).

3. Methodology

3.1. Case study – the partnership for Sustainable Textiles

We used a case study design to investigate space for learning in MSIs.

The Textiles Partnership is a well-established MSI consisting of seven groups of actors with the overall goal of “improving conditions in global textile production - from raw material extraction to disposal” (Textiles Partnership, 2017, p. 7). The Federal Minister for Economic Cooperation and Development (BMZ), Dr. Müller, pushed for the foundation of the partnership to create a common platform for finding solutions between several interest groups, after the collapse of the Rana Plaza factory in Bangladesh. After 5 years of existence in 2020, it has approximately 130 member organizations of which the economic players account for about 50% of the German textile and clothing industry (Textiles Partnership, 2018). To achieve its ambitious goal, the partnership has formulated three pillars according to which the institution operates: individual responsibility, joint commitment and mutual support. Through individual responsibility, global governance is to be promoted through the corporate responsibility of all participating member organizations and companies. To this end, annual roadmaps of all member organizations with specific goals must be presented to make steps towards sustainability visible. Secondly, the partnership aims to influence production processes in the textile-producing countries through joint commitment. Under this pillar, actors come together to initiate projects that are designed to bring about local change in countries of production. The ultimate goal of the partnership focuses on mutual support and exchange to serve as a platform for dialogue and learning. This is where the partnership wants to exchange information and stimulate discussion around transforming the textile and clothing industry.

3.2. Materials and methods

We used two sources of data for our research: 1) reports and documents freely available on the website of the Textiles Partnership (Table 1); and 2) 22 qualitative semi-structured interviews (one submitted as a written response) (see Table 2). The data was collected between October 2019 and March 2020. Interviews were recorded and transcribed, with explicit permission from respondents.

Respondents for the interviews were selected according to a stratified purposive sampling strategy to identify interview partners as it helps to target “individuals within subgroups of interest” (Patton and Palys as cited in Bryman, 2016). Such groups and possible respondents were identified initially through the documents in Table 1 and the official website. We aimed to reach out to all stakeholder groups to obtain a holistic picture. We therefore made use of a snowball sampling strategy to include information from the interviewees who to address. Our interviewees thus represent the actors that are most cited in official literature, and that are most referred to by other actors as being able to offer a good overview of the workings of the Partnership. We therefore consider them to be key informants from within each subgroup. Table 2 shows the interviewee list of the different stakeholders and their respective groups.

In the semi-structured interviews, we sought to understand the respondents' perceptions of the space for dialogue and learning in the partnership, including their links to other actors, the purposes of interactions, and their experiences therein. To draft the semi-structured interview guide, we used the method of participatory actor mapping, which helped to focus on the three objectives: diversity, structures and quality of interactions (e.g. Schiffer and Hauck, 2010). We thereby aimed to understand the objectives of the members to participate (e.g. why do you represent your organization in the MSI?), their engagement

Table 1

Online sources downloaded for analysis: <https://www.textilbuendnis.com/downloads/>.

Nr.	Document	Publication Date	Reference
3	Annual Report 2017	November 2017	Textiles Partnership, 2017
4	Annual Report 2018	November 2018	Textiles Partnership, 2018
5	Annual Report 2019	November 2019	Textiles Partnership, 2019

Table 2
Interviewee list separated by the different groups of actors.

Stakeholder	Organization
State	2 Interviews
Company	5 Interviews
Association	2 Interviews
NGO	6 Interviews
Union	1 Interview
Standards organization	2 Interviews, 1 written response
Advisory member	3 Interviews

in the partnership (e.g. how do you get involved and in what role?) and their interaction with others (with whom do you interact and how?). The semi-structured interview guide can be found in [appendix A](#), which was slightly adapted for each stakeholder group to ask questions relevant to that group.

We analysed both data sets (online documents and interview transcripts) together, initially by encoding them all within the software MAXQDA (VERBI Software, 2019). To analyse the diversity of actors (objective 1) we looked at the different groups of actors and their respective organizations. We clustered actors from civil society based on their sustainability focus, market based on company size, and the state with regard to the institutions involved. We then looked at the social network characteristics created by the interactions between actors (objective 2). We converted data from the annual reports of 2018 and 2019, which showed the participation of members in expert groups, partnership initiatives or in the steering committee, into numerical data. We created a two-mode matrix by assigning a one to the participating actors and a zero to those who were not involved in any of the three categories. We chose this period because there had been a significant restructuring of the partnership before, and we wanted to reflect the network as it exists now. Then we performed quantitative analyses with the R program, package iGraph (Csardi and Nepusz, 2006; R Core Team, 2019). This analysis helped us to show cohesion and centralisation of the network (Bodin, 2017). We were able to combine this analysis with objective one (diversity) to also explore which types of actors emerged in which parts of the network, and therefore if some clusters contained more or less diversity.

Further, we performed content analysis on documents and transcripts, to understand the reported purposes of interactions. This allowed us initially to complete objective 2, by providing context and explanation as to why the network was structured as it was. It further fed into objective three, on the quality (or how) of interactions. However, we also went further and carried out a narrative analysis where we inductively coded the data and integrated these codes into our framework for the learning space in MSIs presented in this paper, where we deductively generated common codes and categories. The coding scheme is shown in [appendix B](#). Doing so allowed us to understand different perceptions of the interactions, rather than just their 'official' purpose, and thus deepened our understanding of the quality of interactions (Yousefi Nooraie et al., 2020).

4. Results

4.1. Members of the partnership

The partnership consists of very diverse member organizations, which are assigned to seven different actor groups that are further divided into three categories: state, market, and civil society (see [Fig. 1](#)). The market stakeholder consist of 81 companies and 14 associations, representing the largest group of members with 72.51%. In addition,

there are NGOs (19), standards organizations² (7), trade unions (2) and advisory members (7), which are grouped here and represent civil society. Together, they make up for 26.71% of all members. Finally, the State is represented by several ministries and the secretariat as executive body, but is presented on the website as a single actor. The three groups are described in more depth below.

As the largest stakeholder group, market actors are extremely heterogeneous, bringing together a wide variety of market participants, whose perceptions and ambitions vary. Trade associations, initiatives and companies from different market segments are grouped. The number of employees, as shown in [Fig. 1](#) in yellow variants can distinguish the latter. There are large market retailers but also German medium-sized companies, sustainability front-runners and small entrepreneurs. Furthermore, 14 initiatives and associations unite a broad spectrum of different actors. These include long-established, rather conservative trade associations and more progressive sustainability initiatives. The heterogeneity creates a challenge to find common opinions, that is also confirmed by a company representative: “*The market is there perhaps the one that has the greatest challenges, because it is the strongest in terms of numbers and is represented by micro-enterprises and huge corporations, which are also very heterogeneous in their perception [...]*” (Transcript 04, Company 02).

Civil society is also diverse, but has fewer participants and contributes more expertise on social sustainability concerns than on environmental and economic aspects. [Fig. 1](#) shows the four interest groups and highlights their sustainability focus in green variants. The social dimension is covered more broadly. This may be related to the collapse of the Rana Plaza factory, the reason why the partnership was founded. Among others, a group of NGO-member organizations of the Clean Clothes Campaign (CCC) joined the partnership. This worldwide campaign “*is dedicated to improving working conditions and empowering workers in the global garment and sportswear industry*” (Clean Clothes Campaign, 2020). Their members make up an active part representing all three NGOs on the steering committee. Additionally, trade unions have their expertise in labour law, included in the social dimension. Six standards organizations cover both ecological and social aspects. The advisory members finally, can be divided into consulting firms and research institutions but they are hardly ever active. Here, the representation of expertise is of crucial importance for the deliberations, which is also emphasised by an NGO representative using an example: “*This is, let’s say, also a shortcoming that is evident, among other things, in the whole chemicals issue. There are not so many civil society actors who can make a competent contribution and who are even prepared to deal with this issue*” (Transcript 12, NGO 3).

Various ministries and the secretariat represent the state. Three ministry representatives from the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU), the Federal Ministry of Labour and Social Affairs (BMAS), and the BMZ are represented on the steering committee. In addition, GIZ GmbH, as the implementing organization of the BMZ, manages the partnership’s secretariat and is well involved in all processes. They involve about 10 employees and manage the internal and external communication, the operationalization of the partnership and facilitate the topic-related activities and processes, which is acknowledged by the participants: “[...] *the secretariat does the main work, because they prepare all rough drafts of decision papers, they bring in all relevant aspects. They make information available and distribute it, collect it again and so on. Therefore, they are quite essential. Otherwise it would not be possible*” (Transcript 07, Company 05).

² Standards organizations develop, produce, and revise technical private international standards to meet the needs of a group of affected users also named private regulatory organizations by Fransen and Conzelmann (2015).

Member Organizations of the Partnership for Sustainable Textiles 2020

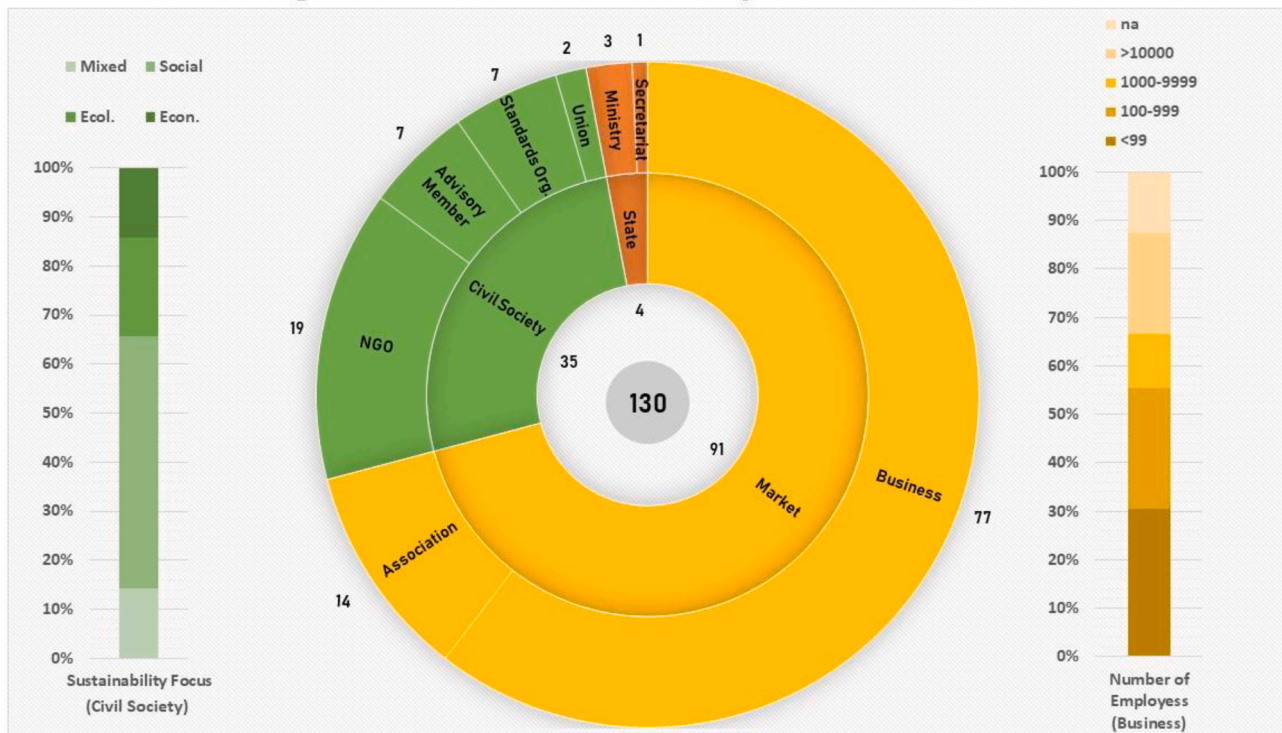


Fig. 1. Constellation of actors with number of member organizations, in the inner circle first by state, market and civil society, then by stakeholder groups. Additional differentiation of civil society actors and their sustainability focus along the three pillars of economy, ecology and social issues as well as a mixed category in green variants. Further differentiation of economic actors based on the number of employees in yellow variants. (For interpretation of the references to colour in this figure legend, the reader is referred to the Web version of this article.)

4.2. Network characteristics and structures

The SNA highlights that only a few actors are strongly connected and many members can be considered inactive or only marginally involved. In Fig. 2 (dimension A), we visualise the cohesiveness of the whole network through data showing whether representatives were involved in the formal structures of the partnership e.g. through participation in the steering committee, the expert groups or partnership initiatives (hereafter referred to as subgroups of the partnership), and thus linking to other participating representatives. It can be recognized that 69 member organizations have no links to other actors, thus did not participate in any of the subgroups. Diversity is visualized by different colours, referring to Fig. 1, which shows that more market actors are inactive relative to NGO representatives, let alone state actors who are not inactive at all. The histogram accompanying Fig. 2 (dimension A) highlights that most members have fewer than 10 connections, i.e. they have participated in either one or no subgroup, that each consist of between 6 and 12 participants. Simultaneously, there are few actors with more than 60 connections. With an edge density of 9 percent of all possible ties, the partnership thus has a low level of links between members. Fig. 2 (dimension B) shows the degree centrality of the network, where only connected actors are considered and more connected actors are represented as larger and more central than actors connected to fewer participants. The colour variety shows four state representatives contrasted by green civil society actors, with the yellow market actors being the most strongly represented. In general, there are only a few actors located in the centre, which in turn indicates that among the active members participating in subgroups, only few are widely connected. This is confirmed by the second node degree histogram, which shows that among the connected actors, most have between 20 and 30 connections, i.e. are involved in two or three subgroups. However, a few actors are disproportionately involved. They have up to

70 connections and are thus more connected and active than average. Exemplary cases are GIZ and KIK, representing the partnership secretariat and a company, interacting with each other in nine different subgroups, thus representing the maximum interconnectedness of individual actors within the partnership.

Formal decision-making structures create and reinforce a lack of connectivity between the wide diversity of members across the network by prioritising spaces for targeted interactions between a few in subgroups. Decisions are driven by interactions between the steering committee and expert groups. Both subgroup types are composed of diverse constellations of actors, as members are elected to the steering committee by the respective stakeholder groups for political reasons or appointed to the expert groups based on their technical expertise. This also reflects the colour diversity of the network analysis. The steering committee, for example, consists of twelve participants elected for two years during the annual general assembly (Fig. 3 – dimension A), namely three government representatives from ministries, four market actors consisting of two company and two association representatives, and five civil society representatives from three NGOs, one trade union and one standards organization. They are responsible for the implementation of expert groups and decide on the general structures of the MSI as one company representative states: “[...] in part, they also have the goal of constantly reassessing the organizational structure: are we set up correctly, are our dialogue processes right, are the criteria for achieving the goals still right, i.e. very substantively, but also very formally?” (Transcript 03, Company 01). Expert groups are implemented on a topic-specific and project-related basis and exist only as long as they fulfil their defined purpose (Fig. 3 – dimension B). To this end, they are to prepare draft documents and submit them via the secretariat to the steering committee, which in turn decides by consensus in four to five annual meetings. If no agreement is reached here, the draft is sent back to the expert group to further elaborate the proposal so that a decision can be

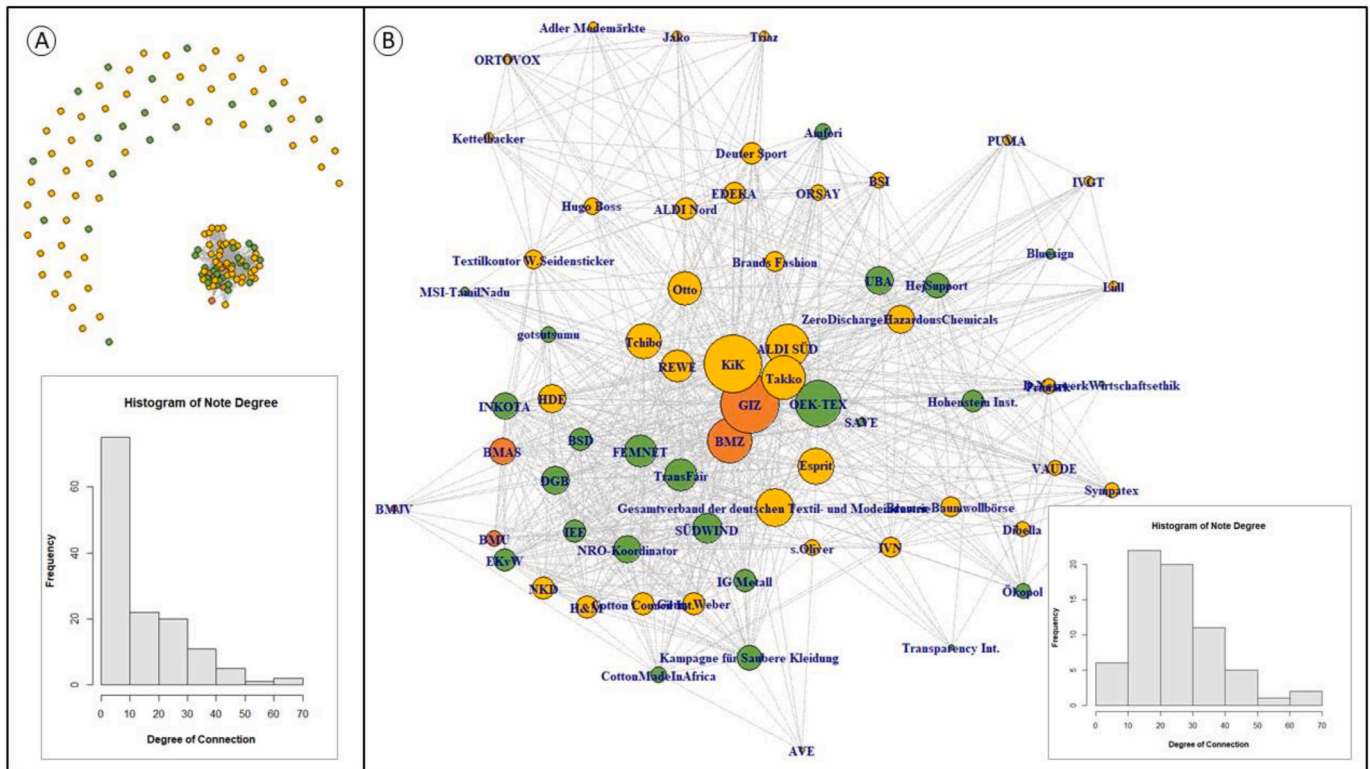


Fig. 2. Quantitative SNA of the Textiles Partnership based on the annual reports 17–19, indicating all members and their links to others through expert groups, in the steering committee and in partnership initiatives. A shows the entire network with all participating member organizations and their links, as well as a histogram of node degree. B visualizes a network of only connected actors of degree centrality and a histogram of node degree. Both networks use colours to assign actors to their stakeholder groups - Orange: State, Yellow: market, Green: civil society. (For interpretation of the references to colour in this figure legend, the reader is referred to the Web version of this article.)

made at the next steering committee meeting. In this bureaucratic process, there is neither a formal space for the participants of the two groups to discuss the contents nor the possibility to include the great diversity of members in the decision-making processes. These structures were established by the steering committee in 2018 to increase the focus and efficiency of the previously less well-organized issue-specific working groups, which were much criticised for their ineffectiveness due to fluctuating membership: “So, there was a restructuring, due to the fact that the working groups were completely ineffective [...] because of the high level of participation, they were really more like learning and exchange platforms [...]” (Transcription 12, NGO 03).

Furthermore, the structures around the three pillars of individual responsibility, joined commitment and mutual support show limits and potentials of private governance to create learning spaces for the whole network (Fig. 3 – dimension C). With regard to individual responsibility, where all members are expected to submit binding annual roadmaps to make progress towards sustainability visible, the platform offers a wealth of knowledge aggregates on sector risks and due diligence guidance: “We are now so well organized in the members’ area, where webinars are offered on all kinds of topics. So I think this learning character is given for many and you can enter into an exchange with all the views that are represented in Germany if you want to” (Transcript 3, Company 01). However, civil society representatives and especially more critical NGOs question the impact due to the binding roadmaps: “[...] random samples are taken to check whether what is written in the roadmaps [is implemented], but you know, this is nothing fundamental, [...] so you can also question how much is not audited [...]” (Transcript 14, NGO 05). With regard to joined commitment, partnership initiatives actively strive for improvements in textile-producing countries. These are also appointed by the steering committee and attention is paid to ensuring that they consist of a multi-actor constellation. However, here again, the voluntary commitment of

business actors is sparse, which may also be due to the fact that economic actors have to co-finance 50% of the projects and, like others, weigh up their financial and human resources. A successful example, however, is the Tamil Nadu Partnership Initiative, which aims to systematically improve working conditions in the southern Indian state (Textiles Partnership, 2018). Through cooperation the initiative has trained “more than 10,000 workers in South India in their rights and has begun to build up structures on the ground to support and promote long-term dialogue on this issue” (Transcript 04, Company 02). Here, representatives of the state, an NGO and four companies have joined together as main partners, with two associated partners from another company and a standard organization, as well as two NGOs from India. Initially, it was the NGO representative who introduced the issue and today, cross-stakeholder organizational structures have since been formed (Textiles Partnership, 2019). The last pillar, which stands for the dialogue and learning of the partnership, also invites external associate members (Fig. 3 – dimension D), to create learning and exchange spaces. At so-called networking events, all members are invited to discuss specific topics in workshop formats. In addition, there is the online platform where jointly developed knowledge aggregates are made available, but which also functions as a communication tool for all members.

4.3. Quality of interactions

There are many opportunities for intra-group learning among active members in subgroups, with NGOs and industry actors being the main counterparts in differing modes of interaction, in which nevertheless cross-stakeholder agreements can be reached. In the steering committee a more political form of deliberation has emerged, as this is where the final decisions are made. Here, political opponents with differing views are particularly well defined: “It is quite clear that the classic roles are

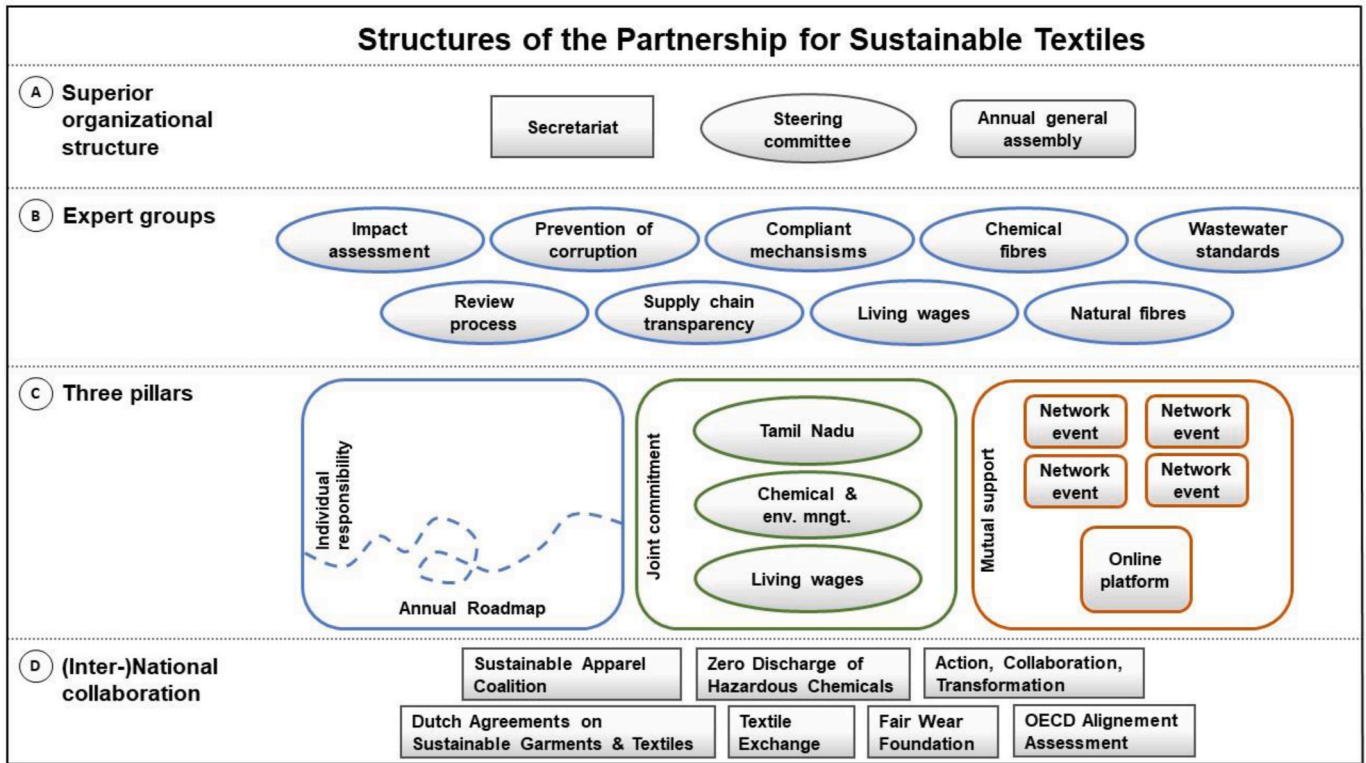


Fig. 3. Visualization of the structures of the Textiles Partnership. At the top are the overarching organizational structures, the steering committee as the central decision-making body, the annual meeting and the secretariat as the executive body in dimension A. The expert groups are then visualized by blue circles in dimension B, followed by the three pillars of the partnership: individual responsibility, joint commitment and mutual support in dimension C. Here the inherent structures are visualized, such as annual roadmaps, partnership initiatives in green circles or networking events and the online platform in orange squares. Below this, international cooperation and the various initiatives and networks with which the partnership collaborates can be seen in dimension D. (For interpretation of the references to colour in this figure legend, the reader is referred to the Web version of this article.)

visible in the steering committee, i.e. business versus NGO side” (Transcript 02, State 02). Although the space is designed for long-term and diverse multi-stakeholder interaction, processes of policy coordination are political and require facilitation by state representatives and the trade union representative elected as moderator. The participants have to represent their very heterogeneous stakeholder groups, which is why the processes of reaching agreement are more conflictual: “[...] in the steering committee, it is much more political, which is why it is important that we prepare and provide preliminary information [in expert groups]” (Transcript 07, Company 05). NGO representatives also confirm, that “there are definitely differences between how things are discussed at the expert group level and how they are discussed at the steering committee level. So you have a different form of interaction, because there are simply different players sitting in the groups” (Transcript 10, NGO 01). In expert groups, on the other hand, substantive discussions arise because they relate to specific topics and consist of different experts, as a company representative confirms: “in the [...] respective expert groups, which are all [...] multi-stakeholder groups, there is of course mutual learning from and with each other, and that is what makes the partnership unique” (Transcript 04, Company 02). Participants are selected based on their expertise and usually meet with a mandate to make joint decisions through deliberative processes. Thus, space is created to discuss very technical issues, engage through long-term collaboration and find different ways to reach agreements over time: “So, [in expert groups] it is also controversial but always with a goal to come to a constructive result and always very fact-oriented” (Transcript 10, NGO 01), or as company representatives express: “these meetings are very consensus-oriented” (Transcript 07, Company 05). Close cooperation in the expert groups even creates trust between participants: “[...] there are always the same companies, or at least often the same companies, with which you can get more intensively involved. [...] when you work so closely

together, you naturally get to know each other better and build up a relationship of trust, that’s clear” (Transcript 11, NGO 02). But this also applies to the steering committee, where a form of trust and subgroup identification also develops over time: “[...] but of course we have got to know each other well, and we also go on retreats once a year, where we sit together for two days overnight in a place where we are far away from work and can talk about other topics in the evening [...], and I think that is very important” (Transcript 09, Association 02). In partnership initiatives many members see great potential for mutual learning through joint project implementation and the pooling of strengths: “[We] use the partnership initiatives as fields of exchange on content, where one can then also act together on specific issues” (Transcript 17, Standards Organization 01). However, the fact that there are only three initiatives suggests that voluntariness is a barrier to fulfilling this potential. A company representative stated that from a design perspective, participation should be binding. They pointed to the fact that intensive cooperation can create joint success: “so afterwards we always said: did you ever think that [we] would sit at the same table and tell each other quite clearly that it is nonsense what you’re thinking and vice versa? And that in the end we’d manage to achieve something together?” (Transcript 03, Company 01).

However, there are structural challenges to inter-group learning, firstly because there is no formal space for exchange between subgroups, especially expert groups and the steering committee, and secondly because prioritisation of decisions leads to stakeholder-specific coordination processes instead of promoting exchange between heterogeneous stakeholder groups. In the decision-making process between expert groups and the steering committee, frustration often arises among expert group members when draft documents are not accepted. Members feel that their expertise is questioned: “[...] and what was missing was the coordination with the steering committee, similar to what we do in the

stakeholder group [...] They need to take the time to look at what we [...] have developed beforehand so that they are prepared for what is coming. Either they trust us and wave it through, or they take the time and deal with it so they don't go back into the discussion in these meetings" (Transcript 03, Company 01). NGOs also see difficulties when content is decided in expert groups, but then discussed again in the steering committee and fed back: "so in the expert group it is always very constructive and positive [...] and at the steering committee level there was sometimes a blank rejection [...] and, yes, unfortunately there was always a bit of a ping-pong between the expert group and the steering committee level [...]" (Transcript 10, NGO 01). This does not reflect an exchange mechanism between the groups that allows for constructive debate. It becomes even more problematic when considering actor constellations in terms of diversity and imbalance of representation from the network analysis, e.g. NGOs struggle with resources and therefore staff several instances with the same representatives. Thus it can happen that some members are active in both, the expert group and the steering committee, which causes a feeling of imbalance and even frustration in others, because this does not apply to all stakeholder groups: "For example, in the [...] expert group there is a [NGO representative] who is also a member of the steering committee [...]. So of course you have a knowledge advantage [...]" (Transcript 03, Company 01). For the subsequent decision-making in the steering committee, participants informally consult with their stakeholder group. This is done rather informally both in one-to-one meetings and with the respective stakeholder groups before and after each committee meeting via the online platform, which offers stakeholder group-specific areas (see Table 3, line 6). "Yes, we always engage in exchange with the respective stakeholder groups. [...] That is why there are corresponding channels on the online platform in which the stakeholder groups can exchange information. [...] when it comes to larger issues, we coordinate accordingly, especially since we have [...] a group of experts, myself as a representative of the economy and a representative of the association, [...], and we naturally exchange ideas very closely" (Transcript 04, Company 02). These processes enable the members to get a picture of the opinions of the heterogeneous stakeholder groups and thus allow the steering committee to negotiate the different opinions and views, especially of NGOs and business representatives, in hard-fought political debates in order to make issue-specific but also structural decisions for the partnership. However, the upstream and downstream coordination processes encourage stakeholder group-specific dialogues and thinking, as the actor groups themselves are already diverse and need to agree on a common set of opinions.

Independently of decision-making processes, inclusive social learning spaces are created for all members at annual meetings and networking events as well as via the online platform (see Table 3, row 4, 5, 6). Here, structured forms of knowledge acquisition and open forms of communication, which enable a fair and constructive dialogue are fostered. For example, experiences and information from the partnership initiatives are shared. However, network events are only of short duration and lack a certain degree of commitment, as they do not necessarily create liabilities. Nevertheless, they create potential for networking and developing a common understanding of the complex issues at stake rather than for immediate problem solving: "And the network aspect at the general meeting and also at the network meetings, that is a very big added value, of course" (Transcript 02, State 02). The website is also used for the provision of knowledge aggregates and for communication purposes, but promotes exchange within the respective stakeholder groups.

5. Discussion

This study has explored social learning spaces offered by the Textiles Partnership as an MSI to gain insights into how learning is facilitated in collaborative governance. The results show that the partnership consists of a large number of heterogeneous yet unequally distributed members, which implies a great opportunity for learning. The deliberative-

Table 3
Quality of interaction within different subspaces for learning.

Row	Space	Description	Quality of interaction
1	Steering committee	Central decision making body, forum of political representatives	Political decision-making of a balanced group of stakeholder specific and political representatives; political deliberation and consensus decision-making including facilitation & moderation; informal stakeholder group coordination; trust and identity building within the steering committee beyond stakeholder boundaries & among stakeholder groups through internal political coordination
2	Expert groups	Forum of experts developing content-related proposals	Technical discussions of a balanced group of stakeholder specific representatives based on their technical expertise; content-related deliberation; preparation of proposals; long-term collaboration; trust and identity building beyond stakeholder boundaries
3	Partnership initiatives	Joint initiatives of partnership members for content-related project development and implementation	Joint project initiation beyond stakeholder boundaries; cooperative discussions and decisions; trust and identity building through project implementation; participation of members is challenging
4	Annual meeting	Network event including formal presentation of annual report and content-related work	Presentation of annual report; formal and informal exchange between diverse participants on a content specific level (workshops, round table discussions, networking, etc.)
5	Network events	Network event including content-related work	Formal and informal exchange between diverse participants on a content specific level (workshops, round table discussions, networking etc.)
6	Online-platform	Virtual knowledge domain and platform for exchange	Online learning platform for knowledge aggregation; central information platform for participants provided by the secretariat; exchange and coordination among stakeholders, especially through stakeholder group specific online-areas

democratic decision-making structures that are evident in the implementation of subgroups, such as the steering committee and the expert groups, are conducive to intra-group learning, as here the diversity of elected stakeholder representatives engage in an intensive process of substantive or political exchange over a longer period of time. At the same time, however, these structures also close down spaces of social interaction for inter-group learning and between the totality and diversity of members because they are only accessible to some and strengthen stakeholder-specific opinion-building for decision-making. In addition, there are implications for learning through barriers to private governance, such as issues of lacking ambition or voluntariness of members, which prevent the full potential of other learning spaces, such

as partnership initiatives, from being fully exploited. This is reflected in the network analysis, which shows that fewer than 50 per cent of members are actively involved in the steering committee, the expert groups or the partnership initiatives, and that there are only a few members who are very strongly connected. Thus, despite the creation of these learning spaces and taking into consideration the third pillar for learning and dialogue, which has more of a network character, there is a lack of targeted emphasis on integrating the wide diversity of opinions and perceptions into social learning processes to foster a full shared understanding of the 'wicked' sustainability challenges for transformation.

Our findings suggest that while MSIs offer a potential for social learning through the diversity of members and their different perceptions, they should pay attention to a balanced distribution of stakeholders to exploit this potential. Diversity, i.e. the bringing together of heterogeneous perceptions, is the very reason why such institutional forms of collaborative governance have become increasingly popular across sectors in recent years (Jerbi, 2012). MSIs, in contrast to centralized nation-state forms of regulation, emphasise dialogue and negotiation, as opposed to government as the sole actor exercising decision-making power. In international supply chains, sustainability challenges have clearly evolved beyond national borders, so that international labour concerns, environmental pollution and the liberalisation of globalised markets have increasingly encouraged the participation of market and civil society actors (Gill, 2008). Now, institutional, interactive governance modes such as MSIs rely on the integration, negotiation and co-decision-making of all stakeholders to address 'wicked' sustainability challenges jointly (Kristjanson et al., 2014). According to Cuppen (2012), the politically shaped and heterogeneous opinions and viewpoints offer great potential for learning, which is seen as an important side effect of governance for transformative change (Ruggie, 2002). Also from a learning theory perspective, it is the diversity of perceptions that can promote processes of learning when new ideas are introduced that are not normally known to those involved (Jehn et al., 1999; Hisschemöller, 2005). Heikkilä and Gerlak (2019) found across five case studies, that diverse stakeholder participation and diverse forms of knowledge increase potentials for learning. However, Newig et al. (2019) found no empirical link between diversity and learning, nor did Witting et al. (2021), who use similar categories to our study to conceptualise learning spaces. Siddiki et al. (2017) however found empirical evidence that belief diversity has a significant effect on learning, while affiliation diversity does not, but rather hinders learning. They argue that the nature of diversity must be taken into account for collaborative governance arrangements to be effective. It is therefore important to discuss that in our empirical study, diversity is perceived through the indicator of the sector of an involved actor and its size, rather than being an exact proxy for diversity of worldviews (Cuppen et al., 2010) or different types of knowledge.

We argue on the basis of our study that in the individual subgroups, which are composed of diverse stakeholder representatives, either project-based, content-based or political exchange can take place and the different opinions can be expressed in dialogue. The study thus also shows that a general balance of diversity across the network has implications for the constellation of subgroups. Thus, if representation in the whole MSI network is unbalanced, e.g. because, as in our case, market actors have a much larger share as they are the main addressees of the partnership, capacity and balance problems may arise in subgroups. This can mean that the same representatives are included in expert groups and the steering committee and thus have a knowledge advantage or that other representatives feel disadvantaged as a result. Therefore, in our conceptual understanding, balanced membership diversity is important for the creation of learning spaces to establish such a balanced distribution of actors in the network and thus participation in deliberation and learning. This leads to the question of how to create conditions for an even distribution of members in private governance where challenges of capacity and voluntariness are juxtaposed.

For learning spaces to be fruitful for all participants, governance structures and management processes need to balance governance outcomes while ensuring that the wide diversity of perceptions is included and that different opinions can co-exist, rather than encouraging the formation of exclusive subgroups to facilitate rapid decision-making. Structures and management processes are crucial to create the right conditions for collaborative governance (Klijn and Koppenjan, 2012), and learning between stakeholders (Heikkilä and Gerlak, 2019). In our case study, this is demonstrated by the highly committed secretariat, which not only organises the online platform with knowledge aggregates and networking events to maintain the learning character of the partnership, but also undertakes the preparation and follow-up of all subgroups. At the same time, the study shows a great empirical example of how different homogeneous understandings can emerge within sub-networks of such a network, described by Bodin and Crona (2009). In the sub-groups and the informal consultation processes of stakeholder groups for decision-making, their own discourses and understandings emerge that are distinct from other groups. While subgroups in our study allow for long-term cross-stakeholder collaboration, they are not inclusive of all members and there is little opportunity for exchange between groups. Politically motivated informal consultations also promote and reinforce homogeneous opinions since they do not exchange opinions with one another. Moreover, time pressure and the need to reach consensus hinder learning opportunities. Heikkilä and Gerlak (2019) argue here rather that forms of experimentation that do not end in sanction lead to learning. However, it is of course questionable whether the participants in the initiative would even engage in lengthy discussions if the aim is not to create governance outcomes but only learning outcomes. It is rather a practical trade-off, i.e. finding a balance for creating inclusive learning spaces and decisive governance outcomes. Cuppen (2012) argues that constructive conflict "[...] does not mean that a stakeholder dialogue cannot lead to consensus. Rather, it means that participants are not forced to reach consensus, as this can hinder the creation of useful knowledge for policy makers and stakeholders and lead to the adoption of invalid assumptions and/or inferior (policy) decisions" (p. 26). From our perspective, structures for learning should provide time and open-ended discussions to integrate the diversity of perceptions side by side. At the same time, there must also be space for governance decisions to make the real impact of the initiatives visible to society. However, it should be clear that time is needed to avoid ad hoc decisions when different stakeholders with different opinions and world views come together.

An important component of the quality of interactions for participatory learning lies in social relations, trust and identification (Hahn et al., 2006). In the case study, trust building can be observed at different levels, e.g. in subgroups and stakeholder groups, but is missing between groups and for the entire network. Here, formal and informal space for exchange can help to create situations where participants can learn from each other, build private bonds and gain knowledge through working relationships. This phenomenon was identified in all three subgroups, exemplified in the Tamil Nadu partnership initiative, where joint work led to a shared understanding of making differences on the ground. Freeth and Caniglia (2020) argue that interactions should be engaging and actors should go beyond their comfort zone to find agreements between opposing views, which is conducive to social learning. However, we argue that this space should be opened to all participants and can be fostered and ensured by placing a particular and theoretical emphasis on facilitating learning (Raymond et al., 2010). We thereby argue that there is a need to involve moderators and facilitators who have extensive experience in creating spaces that facilitate learning between such groups and for the whole network. Otherwise, political tension dominates the discussions in actor-specific subgroups, which in turn leads to different understandings, partly because stakeholders bring in interests and stake, in addition to their knowledge and expertise (Scherer and Palazzo, 2007). At the same time, however, we would like to emphasise that such groups should not comprise solely of topical experts. In our empirical example, such exclusivity creates a clash

between expert groups and the steering committee. In expert groups, non-experts are excluded and thus removed from the learning space, although lay knowledge is recognized as important to solve sustainability problems (Siebenhuner, 2004). Fostering exchange between the more political steering group, the expert knowledge from the expert groups and the lay-local knowledge from the whole network could be crucial and would possibly solve the structural challenges between the groups. This however, must be empirically proven. MSIs may create inclusive atmospheres for exchange for all, also because participation in private governance is on a voluntary basis. We can infer from our findings that resources or capacities are crucial components for organizations to engage in private governance. Wood (2015) agrees that resource wealth is seen as a factor in improving social learning simply because it supports the capacity to participate. Therefore, it needs to be recognized that the participation in such arrangements can also be a burden on actors and that a lack of financial and human resources without other incentives can hinder participation and therefore diversity for learning.

Unexpected results suggest that organizational learning processes in favour of project-based expert groups led to the exclusion of the great diversity of members in decision-making processes. The fact that the steering committee exchanged ineffective working groups for expert groups suggests that decision-makers reflected on what was working and what was problematic, and made changes in response. They contrasted the underlying goals of the partnership with the expectations of the governance initiative brought in from outside and therefore sought new and more efficient organizational structures for decision-making. This makes sense from a deliberative-democratic perspective, but hinders learning opportunities, and represents a practical trade-off. This is where multi-objective organizations face practical challenges when they focus on different goals, for example constructive conflict for learning, and deliberative democracy for finding representative agreements in heterogeneous groups. In constructive conflicts, the aim is to enable an open exchange, to stimulate discussions about different worldviews, to initiate learning processes and to share, discuss and expand knowledge (Cuppen, 2012). In deliberative processes, the political sphere of CSR, as discussed by Scherer et al. (2006) is also about making decisions for governance outcomes. The two are not necessarily mutually exclusive, as argued above, but once decisions have to be made too quickly, discussions will not lead to rich learning outcomes. A balance must be found here, as MSIs act in real-world contexts and need to create impact but also aim to create inclusive social learning spaces, where different perceptions and opinions can be exchanged and discussed for a better understanding of wicked sustainability challenges. For this, a space for exchange and reflection must be provided so that learning can take place at both levels - the individual level for acquiring knowledge and skills, but also the organizational level through socialization and the creation of identities.

To further understand learning processes in our case, it would be useful to explore the collaboration processes, and understand how and why they have evolved into the structures, processes and qualities that they currently have; to understand the evolution pathway of the network. To do so would require much deeper engagement with the dynamics of power and influence throughout the MSI. This was not possible within the scope of this study: Firstly, the method of qualitative actor mapping was difficult to apply in the political and therefore sensitive context of the Textiles Partnership; secondly, many interviews were conducted via telephone due to time constraints of respondents, which made the visualization difficult. New methodological approaches could help to implement digital data collection and lower the barriers to openness of participants in the political environment. Furthermore, a silent observation or participation in the partnership would be helpful to gain further insights into the interaction and collaboration processes. Here, it can be explored whether the framework of learning spaces along the diversity, structures and quality of interactions can also be used for the analysis of learning processes and products. It also has to be critically

reflected that no quantitative data on the network meetings were accessible. Although the data in the annual report allowed for a quantitative assessment of the participation of subgroups, insight into further data from the network events could have complemented the picture of collaboration. Here, modes of participatory research, such as transdisciplinary research, have great potential to improve data acquisition. We therefore recommend that research expanding on our understandings should take an approach that fosters deeper engagement, and rich understandings of MSI evolution.

6. Conclusion

This empirical study serves to gain insights into spaces for social learning in MSIs, as learning in collaborative governance is crucial to gaining a holistic understanding of sustainability challenges alongside governance outcomes. We conduct an SNA based on quantitative and qualitative data and question whether the Textiles Partnership, as a well-established multi-objective organization, serves to enable and design spaces for learning. We define learning spaces based on the diversity of member organizations, structural conditions and the quality of interactions between participants.

The analysis reveals that the partnership consists of a diverse group of member organizations. It provides jointly produced knowledge aggregates and involves members in short-term open and fair dialogues under the umbrella of dialogue and learning. However, in order to promote governance outcomes, they have created deliberative-democratic structures and thus closed down spaces for learning. Only a few elected members interact in the steering committee and in expert groups, which neglects the great diversity of members and does not provide space for exchange. There is also space for joint project implementation, but these develop rather slowly due to a lack of resources or ambition in the context of PCSR. Thus, the political context in which MSIs are embedded, the different but interdependent objectives, and the structural conditions that result from them lead to little interaction and subgroup thinking between stakeholder groups, but also between subgroups. For learning to be fruitful, particular emphasis must be placed on integrating diversity into social interactions. They not only need to promote the exchange of knowledge, but foster situations where members get to know each other, build trust and resolve constructive conflicts by expanding their comfort zones in appropriate learning environments. Emphasis must be placed on the design and facilitation of learning spaces, which requires the involvement and learning of experts with extensive experience in the complex field of learning.

Further research should build on involving learning experts that can contribute explicit knowledge based on what facilitates learning in such large networks. Furthermore, research should be more involved, e.g. through participatory research approaches such as transdisciplinary research to ensure a better understanding of social interactions. Here, an analytical framework for differentiating different forms of learning in MSIs could be helpful. Finally, processual and cognitive learning processes should also be investigated through long-term studies to assess the effects of MSI participation on members, but also on the sector for a sustainability transformation.

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CRedit authorship contribution statement

Felix Beyers: Conceptualization, Methodology, Software, Formal analysis, Investigation, Writing – original draft, Visualization, Project

administration. **Julia Leventon:** Conceptualization, Methodology, Supervision, Writing – review & editing.

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Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.esg.2021.100113>.

Appendix A. Semi-structured interview guide

Table 4
Semi-structured interview guide showing categories and questions

Nr.	Categories	Questions
1	Introduction	Which organization do you represent in the Textiles Partnership?
	Objective of participation	Why is your organization participating in the partnership?
2	Platform for dialogue and learning	What potential does your organization see in the partnership as a platform for dialogue and learning?
3	Engagement in the Partnership	Can you list all Textiles Partnership events/meetings/subgroups/initiatives in which your organization participates?
4	Selection for deepening of analysis	Which event/meeting/subgroup/initiative do you think is most interesting for you to achieve your goal of why you are participating in the partnership?
5	Actors	If we now look at the selected event/meeting/subgroup/initiative, please take some time and list all persons/organizations you are in direct contact with.
6	Reason for interaction	Can you elaborate on how you interact with each individual actor in the event/meeting/subgroup/initiative?
7	Roles of participants	What roles do the different actors take on in the selected event/meeting/subgroup/initiative?
8	Learning	What role does learning play in the context of the selected event/meeting/subgroup/initiative?
9	Broadening to enrich the analysis	Which actors outside this event/meeting/subgroup/initiative play a crucial role for you in the Textiles Partnership and in which other event/meeting/subgroup/initiative?
10	Interaction, Roles, Learning	Can you describe how you are in contact with these actors, what role they play and what this means for learning?
11	Information for further interviewees 1	How confident are you that the information you have just shared is fully representative of your organization’s interaction in the Textiles Partnership?
12	Information for further interviewees 2 Snowball sampling	Please name three actors that are important for the Partnership as a platform for dialogue and learning.

Appendix B. Coding scheme

Table 5
Coding scheme with codes, subcategories and descriptions

Codes	Subcategories	Description
Members of the partnership	Background	# Items relating to individual background of interviewee and how and since when they participate in the partnership/general information
	Objective of participation	# Items relating to the aim of the member organization interviewed to participate in the partnership
	Potential of partnership	# Items relating to the dialogue and learning potentials of the partnership/items defining the partnership
	Objective of participation in subgroup(s)	# Items relating to the entity’s objective to participate in specific subgroups
	Stakeholder groups: + State + Company + Association + NGO + Union + Standards Organization + Advisory member	# Items relating to specific stakeholder groups/perceptions/information
Structure of the partnership	Development of the partnership	# Items relating to partnership-developments over time
	Organizational structure of the partnership	# Items related to formal and informal structures of the partnership/the three pillars of the partnership,
	Subgroups: + Steering committee + Annual general assembly + Network event + Online platform + Review-process + Impact assessment	# Items relating to structures in terms of subgroup organization, the steering committee, expert groups, network events, etc.

(continued on next page)

Table 5 (continued)

Codes	Subcategories	Description
Quality of interactions of members of the partnership	+ Environmental themes	# Items relating to modes of interactions
	+ Social themes	
	+ Economic themes	
	Interaction:	
	+ Moderation	
	+ Mediation	
	+ Facilitation	
	+ Negotiation	
	+ Coordination	
	+ Consultation	
Additional and emerging themes	+ Reporting	# Items relating to perception of interaction
	+ Informing	
	+ Debating	
	+ Decision-making	
	+ Forging alliances	
	Perception of interaction	
	Roles	
	Learning	
	External effects resulting from the partnership	
	External effects that influence the partnership	
Science		# Items relating to roles of participants
		# Items relating to learning
	External effects that influence the partnership	# Influence of partnership on others
	Science	# Influence of others on the partnership
	Snowball sampling	# Items related to science/scientific knowledge/role of science and scientific knowledge in the partnership
		# Items of important/additional/relevant interviewees

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Article 3: Collaborative textile governance²

Title: Collaborative textile governance: navigating diversity in the sustainability governance landscape through social interaction

Abstract:

Collaborative governance holds great promise for addressing wicked sustainability challenges in the textile sector. However, the field consists of a multitude of public and private initiatives and reveals a complex landscape that is difficult to navigate even for the actors involved. We know little about how governance actors navigate the diversity of governance initiatives. Therefore, we provide a framework for analysing governance modes and social interactions in collaborative governance. We use an exploratory case study of the German Partnership for Sustainable Textiles (hereafter: Textiles Partnership). The partnership is a multi-stakeholder, collaborative governance initiative that links to a variety of different initiatives, and highlights barriers and transformation potential both within and outside its boundaries. Based on qualitative interviews, analysis of policy documents and a focus group discussion, we show that the complexity of the collaborative governance field in the context of the textile industry is accompanied by capacity constraints for all actors involved. Such complexity raises questions about whether this influences actual change on the ground. Therefore, there is a growing call from actors within the partnership towards more state-centred regulation, resulting in the Due Diligence Act being passed in 2021, to regulate corporate action across national borders.

Keywords: Collaborative Governance, Modes of Governance, Social Interactions, Sustainability Transformation, Corporate Social Responsibility, Due Diligence Act

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1. Introduction

The global textile industry is increasingly recognised as a driving force behind wicked sustainability challenges (see e.g. Grimm, 2019). It is known for precarious working conditions, shown by the collapse of the Rana Plaza factory in Bangladesh with more than 1000 deaths (Jacobs and Singhal, 2017), and job losses for thousands of migrant workers during the Covid-19 pandemic (Choudhari, 2020). The industries are also associated with environmental pollution (Madhav *et al.*, 2018), social exploitation of labor (Smestad, 2009), resource dependencies between producing and consuming countries (Chapagain *et al.*, 2006), and overconsumption with fast fashion as the underlying paradigm in Western societies (McNeill and Moore, 2015). The European Commission's Green Deal specifically highlights the textiles system as a key area of focus for sustainability transformation under the new Industrial Strategy for Europe (European Commission, 2019).

Collaborative governance shows much promise towards enabling the necessary system changes in the textiles sector. It is defined as *“the processes and structures of public policy decision making and management that engage people constructively across the boundaries of public agencies, levels of government, and/or the public, private and civic spheres in order to carry out a public purpose that could not otherwise be accomplished”* (Emerson *et al.*, 2012: 2). It builds on the idea that the state cannot cope with dynamics and complexity of global production alone (Bair and Palpacuer, 2015), without including different kinds of knowledge (Swyngedouw, 2005). In practice, collaborative governance in the textile industry presents a large and complex conglomeration of diverse public and private initiatives aiming for market transformation towards sustainability (Beyers and Heinrichs, 2020). We define governance initiatives as various formal and informal, binding and voluntary, constellations between market actors, civil society organizations and the state, but also single-actor entry points such as legislation that indirectly affect other actors (Lange *et al.*, 2013). We refer to legislation such as the German or EU Due Diligence Act, but also to private certification schemes such as the Fair Labor Association.

In this paper, we aim to understand how actors navigate such complexity of initiatives in a collaborative governance arrangement. We do so by exploring the social interactions between actors within and beyond a collaborative governance initiative. We define social interaction as *“the myriad ways in which governance actors [...] interact and respond to each other”* (Eberlein *et al.*, 2014: 2). A focus on social interactions between heterogeneous actors in the field of collaborative governance can help us understand how individuals navigate the complexities of the landscape, as this represents their daily work, interacting, negotiating and lobbying with actors and initiatives. Furthermore, the form of social interaction shows how the heterogeneous actors collaborate. By heterogeneity in collaborative governance, we refer to the different intentions, values and beliefs of the actors involved between the state, business and civil society (see e.g. Lange *et al.*, 2013). Eberlein *et al.* (2014) adds that a focus on interactions helps to *“understand the implications [...] for regulatory capacity and performance, and ultimately for social and environmental impact”* (p. 1).

We apply our aim to the German Partnership for Sustainable Textiles (Textiles Partnership) as a rich example of complex collaboration; It includes more than 130 member organizations and forms many links with other governance initiatives. In the Textiles Partnership, participants have recognised their responsibility for textile sustainability along the supply chain, as Germany is one of the largest textile-consuming countries in the world. Drawing on the case, we ask how collaborative governance unfolds in the German textile industry and divide the question into two objectives. First, we examine the governance landscape by outlining the diversity of governance initiatives that links to the Textiles Partnership (Objective 1). Then, we explore how actors navigate through this landscape while bearing responsibilities for political decision-making. We do so by exploring their social interactions to understand how they interact across this complex landscape of governance initiatives (objective 2). These actors and their ability to navigate this landscape are crucial factors for creating sustainability transformation. In the next section of this paper, we construct our analytical framework based on theories of governance modes and social interaction. The methodology outlines the case of the Textiles Partnership and explains how we applied our framework. The results are presented in relation to the two objectives, before being discussed. We close with the argument that after multiple attempts at voluntary self-commitment by companies, there is now a growing consensus on the need for state legislation across national borders.

2. Theory – governance modes and social interaction

We provide a framework for the study of collaborative governance based on the theory of governance modes and social interaction of governance actors. Table 1 shows the different concepts and the analytical framework in relation to our two objectives.

The first dimension of our framework unpacks the diversity of governance initiatives by categorising them according to governance modes. We define governance modes as “*forms of realising collective goals by means of collective action*” (Lange *et al.*, 2013: 407). Initiatives such as legislation, certification schemes, etc. can thus be characterised by the type of collective action and goals they embody. Initially, we understand governance modes as relating to the three dimensions of governance (after Lange *et al.* (2013): polity (institutional structures), politics (political processes) and policy (policy content) (Treib *et al.*, 2007). Within this broad categorization, further details are added to delineate modes. These draw on five different modes according to Driessen *et al.* (2012). These five modes can be placed along an axis, which ranges from hierarchical, state-led modes of governance (decentralised & centralised modes), and through participatory action by representatives of the state and industry (public-private modes) and institutionalised forms involving all actors (interactive modes), as well as voluntary initiatives between the market and civil society (self-governance modes).

For institutional structures, initiatives can be differentiated based on their actor constellation, distinguishing between the governance triad of representatives of the state (representatives of ministries), market (representatives of companies and industry associations) and civil society

(representatives of NGOs, trade unions, standards organizations and advisory members). Within these distinctions, we examine the models of representation from corporatist models to institutional or partnership arrangements (see e.g. Glasbergen and Groenenberg, 2001). We also investigate rules of interaction and compare laws with voluntary and binding agreements (see e.g. Ostrom, 1990). We additionally look at the mechanisms of social interaction, i.e. from top-down state-led mechanisms towards interactive deliberative decision-making, and bottom-up negotiations (see e.g. Hanf and Scharpf, 1987).

For the policy processes, initiatives are located at different governance levels. In the context of the textile industry, we can distinguish between initiatives from the national sustainability strategy, the European strategy and the international focus on specific sectoral risks, including internationally recognised agendas and codes or guidelines that shape the governance landscape. We further examine the initiating actors of initiatives (see e.g. Kickert *et al.*, 1997), because this already provides us with first assumptions about the position of stakeholders in respective initiatives. In considering stakeholder position, we distinguish autonomy, involvement and equal roles of all participants (see e.g. Driessen *et al.*, 2001), based on the roles of actors and their influence in decision-making. Additionally, we distinguish the instruments of governance, such as laws, contracts, incentive-based instruments, negotiations and voluntary arrangements (see e.g. Richards, 2000), and differentiating the policy-science interface from integrating expert knowledge, issue- and time-specific knowledge, transdisciplinarity and expert and lay citizen knowledge (see e.g. Bäckstrand, 2003).

We can then further distinguish the sustainability objectives of governance initiatives (policy content) by differentiating between social, environmental, economic and more holistic sustainability targets. Together with the actor constellation and the governance levels, it provides us with a clearer picture of the different modes of collaborative governance in the field. This provides us with a general overview of the landscape and initial assumptions about the structures, processes and content of the respective initiatives (Lange *et al.*, 2013; see appendix A for a full list of identified governance initiatives including a brief description and its mode)

In the second dimension of our framework, we focus on the social interactions of governance actors within and between initiatives (objective 2). In looking at social interactions, we focus primarily on the micro level of interactions and examine the interactions of individual governance actors, which, however, have implications for the meso and macro levels, i.e. implications for the German textile industry level (meso) and the international global industry level (macro).

To understand social interactions, we examine the perception of interactions between actors and their quality. Social behavior and forms of exchange are indicators that show connections between individuals as representatives of organizations and thus initiatives. We distinguish between representatives of the state, market and civil society as indices of heterogeneous worldviews and opinions, while noting that they are not direct proxies for diversity of worldviews (Cuppen *et al.*, 2010); thus we consider

background information on the actors involved. We draw on exemplary cases and experiences of individuals and distinguish perceptions of four types of interaction (competition, coordination, co-optation and chaos) (Eberlein *et al.*, 2014: 11); while competition stands for competitive interactions in the governance process (see e.g. Bernstein and Hannah, 2008), coordination means conscious and purposeful cooperation. Here, dual memberships between initiatives create intention for coordination (Haufler, 2012) but also hierarchical arrangements (Aggerwal, 1998). Co-optation refers to repressive action by individual actors (Koppell, 2010), and chaos to unpredictable, undirected interactions. The forms of interaction help us better understand how actors navigate the complex governance landscape and whether cooperation results in collaborative action or comes with challenges.

Table 1. Objectives, concepts and analytical framework.

Objective	Concepts	Analytical framework
1. Identify initiatives and distinguish modes	Modes of governance (Driessen <i>et al.</i> , 2012; Lange <i>et al.</i> , 2013)	<p>Definition: Initiatives are formal or informal constellations between state, civil society and market, or single-actor initiatives (e.g. legislation), that strive for (collective) sustainability objectives.</p> <p>Distinction: Centralised, De-centralised, Public-private, Interactive, Self-governance</p> <p>Indication: Polity (institutional structures): actor constellation, rules of interaction, models of representation, mechanisms of social interaction; Politics (political processes): policy level, initiating actor, stakeholder position; Policy (policy content): sustainability objectives, instruments, policy-science interface</p>
2. Social interactions are shaped by and influence the modes	Social interaction (Eberlein <i>et al.</i> , 2014)	<p>Definition: Social interaction are the myriad ways in which governance actors and institutions interact with each other, within and beyond initiative boundaries.</p> <p>Distinction: Competition, Co-ordination, Co-optation and Chaos</p> <p>Indication: Perception of quality of interaction between state, market, and civil society representatives</p>

3. Methodology

3.1. Case – the German Textiles Partnership and related institutions

Our starting point was a single case, the German Textiles Partnership, to explore modes and social interactions with related governance initiatives. The Textiles Partnership is an established multi-stakeholder initiative consisting of seven stakeholder groups (state, companies, industry associations, non-governmental organizations, trade unions, standards organizations, advisory members). After 6 years of existence, and as a flagship project of the German government, in 2021 it consists of over 130 member organizations and aims to support economic actors on a voluntary basis to address their sectoral risks and contribute to a sustainability transformation through joint projects and learning (Textiles Partnership, 2017). So far, however, organizations with less than 50% of the turnover of the German textile sector participate in the partnership (Textiles Partnership, 2018).

The partnership has formed numerous collaborations and strategic alliances with other initiatives, and is an example of individual commitment and multi-mode governance. For example, it has committed to the UN Due Diligence Guidance, that contributes to how countries and companies perceive and fulfil

their human rights obligations (United Nations, 2011). It is part of a broader government textile strategy in response to the UN Guiding Principles with the publication and monitoring of the National Action Plan on Business and Human Rights (NAP) from 2018 to 2020, the Green Button as a government-led textile label for social and environmental standards (BMZ, 2019b), and the Due Diligence Act adopted in 2021. It has also developed formal and informal partnerships with many other privately organised initiatives that address specific sectoral risks, such as, Action Collaboration Transformation, which aims to improve wages in producing countries through “industry-level collective bargaining” and joint action of retailers and trade unions (Textiles Partnership, 2019).

3.2. Materials & methods

We initially drew on two data sources for this research. First, we examined 22 qualitative, semi-structured interviews with heterogeneous Textiles Partnership members from all stakeholder groups (see Table 2.), originally conducted for a previous research project. Here, participants were asked to share perceptions on their goals and engagement in the partnership, their interaction with other members and space created for social learning. Many participants reported that they collaborate with other initiatives to address sector risks and that collaboration is shaped by individual actors, but that they also feel constrained in their actions by competing governance initiatives. We used these transcripts as a starting point to frame our research question for this current paper, and the research reported in this paper follows these leads and builds on them. We therefore supplemented transcripts with website information from the Textiles Partnership and added policy reports to our dataset to create a better understanding of the governance landscape (see appendix B for a full list of the reports consulted in this research). Reports were selected based on two criteria: (1) the content had to be specifically related to the Textiles Partnership (e.g., government reports, annual reports), and (2) they were mentioned in the interviews or referenced on the website of the partnership (e.g., international guides, press releases).

Analysis of these data sources was via iterative coding of transcripts and reports. We used the MAXQDA software (VERBI Software, 2019; see appendix C for coding scheme for all data sources). To understand modes of governance (objective 1), we performed content analysis to identify initiatives that were referred to by participants and reports. These were listed and then categorised into the five modes based on the constellation of actors and the different indicator types of polity, politics and policy. We then used five explanatory cases, one for each mode, to obtain more depth and quality in our analysis. We select examples of initiatives based on relevance in relation to our case, the Textiles Partnership, and recurring description by participants. Then, using these explanatory cases, we focussed on the roles of individuals and social interaction (objective 2). We primarily used the qualitative interviews to better understand which actors from the Textiles Partnership played which role in collaborative governance.

Following the emergence of initial results, we conducted a focus group discussion with stakeholders from the Textiles Partnership to verify and deepen our understanding. A purposive sampling strategy was used to select respondents to ensure representatives from the governance triad of state, market and

civil society (see Table 2.). In the January 2021 session, which was held online due to the Covid-19 pandemic, there were three rounds based on the sub-research questions and objectives. For each of these rounds, we gave a brief input before the different participants could discuss and share insights. In the first round, participants were asked to validate and add to the identified governance initiatives related to the Textiles Partnership (objective 1). In the second round, stakeholders were asked to describe their experiences and concrete examples of drivers and barriers within different governance initiatives (objective 1 & 2). In the third round, participants were able to discuss the impact and forms of individual engagement and collaboration in the complex governance landscape (objective 2). The session was then transcribed and added to the dataset to be analysed using the same coding scheme.

Table 2. Interviewee list and focus group discussion separated by the different groups of actors

Stakeholder	Interview transcripts	Focus group discussion
State	2	1
Company	5	-
Association	2	1
NGO	6	2
Union	1	-
Standards organization	2, 1 written response	1
Advisory member	3	-

4. Results: German textiles & clothing governance

4.1. Governance modes

The governance landscape relating to the Textiles Partnership is diverse, consisting of a multitude of collaborative governance initiatives (we identified 31 in total) with varying actor constellations, different sustainability goals, and positioned at different political levels (see Figure 1). In the inner circle, the German sustainability strategy is illustrated, and different governance modes appear that are related to the Textiles Partnership, such as the national due diligence law or the Green Button¹. In addition, the Textiles Partnership has entered into nine formal and eight rather informal collaborations, visualised in the middle circle, ranging from multi-actor partnerships such as the Agreement on Sustainable Garments and Textiles from the Netherlands, to issue-specific self-governance agreements such as Zero Discharge for Hazardous Chemicals. The content of these partnerships differs, between cross-thematic partnerships that address issues “*such as promoting the due diligence approach at EU level, aligning standards and mutually recognising each other's efforts. Partnerships on specific topics deepen dialogue on issues such as living wages, grievance mechanisms, the use of chemicals and fibres*” (Textiles Partnership, 2020a: 12). For example, in the latter, members jointly coordinate the development of training materials and other support services on chemicals management. The eight informal collaborations mentioned by participants or featured in reports are project oriented, such as the Global Living Wage Coalition, which

¹ The Green Button (in German “Grüner Knopf”) is a certification scheme developed by the German government in 2019 that serves as a meta-label with social, ecological and company) criteria.

understanding of due diligence that also includes environmental aspects such as climate, deforestation and loss of biodiversity.

We classified seven private and public centralised governance modes. The former relate to international private standards and codes. The latter represent the National Action Plan on Business and Human Rights (NAP) monitoring process and the subsequent first draft of the National Due Diligence Act (see Table 3, column 2). The NAP-monitoring process carried out by the state reviewed the extent to which German companies comply with their due diligence as set out in the National Action Plan on Business and Human Rights (NAP)². The monitoring-process was carried out under scientific standards between 2018-2020. Following publication in 2020 (Federal Foreign Office, 2020), it became apparent that targets were not met, because 50 per cent of companies did not implement sufficient due diligence requirements (Federal Foreign Office, 2020), whereupon the government prepared a first draft for a Due Diligence Act to be implemented in the legislative period until 2021. Following other European countries such as the Netherlands, Great Britain and France, a law is intended to ensure that German companies can be held legally responsible in the event of non-compliance with human rights standards by their suppliers in producing countries (Klinger *et al.*, 2016). From 2023, companies with 3000, and from 2024, companies with 1000 employees based in Germany will be affected. The core is the introduction of a risk management system. Companies face fines and exclusion from public procurement procedures, but cannot be held liable under civil law. In terms of content, the law refers primarily to human rights due diligence, whereby environmental concerns are included if environmental concerns lead to human rights violations. Concluding, it refers to a graduated understanding of responsibility, as the focus is on the company's own business areas, i.e. the direct suppliers, and does not consider the entire supply chain.

There is one initiative that we classified as public-private mode. The Green Button, which was initiated by the German Government (Table 3, column 3). It was introduced in a trial phase between 2019 and 2021, and serves as a state-led meta-label in the German textile sector (BMZ, 2019C; Table 3, row 4). It aims to unravel the labyrinth of various private sustainability labels and “[...] covers the consumer side, to increase demand for sustainable textiles, because [...] consumers are not properly informed” (Focus group discussion (FGD), State 01). Currently, the product label has 26 social and environmental requirements and 20 additional corporate criteria, thus it covers social, ecological and economic concerns. As a public-private mode, it engages industry stakeholders and independent auditors in development and implementation through feedback mechanisms to incorporate expert knowledge

² NAP based on the UN Guiding Principles for Business and Human Rights - On this basis, the German government has also developed the NAP, which was adopted by the Federal Cabinet on 21 December 2016 (Materialie295_textilbuendnis, p. 35: 136), and is based on the coalition agreement which states "If the effective and comprehensive review of the NAP 2020 concludes that the voluntary commitment of companies is not sufficient, we will take national legislative measures and advocate EU-wide regulation" (Koalitionsvertrag 2018, p 156). In August 2020, BAMS and BMZ published a first version of the German Due Diligence Act and with the German EU Council Presidency since autumn 2020, an EU Due Diligence Act is also on the way.

(BMZ, 2019C). This is confirmed by a standard organization representative arguing that: “ [...] *we have to develop the Green Button this year so that it is useful, [...] as a real benefit to consumers and also remains applicable for companies. And the entire design has to meet the highest possible standards, so that there is also something for the workers at the bottom and it is not just a sign [...] for consumers, but that also really creates added value in the supply chain*” (FGD, Standard organization 01). It remains to be seen how the label will develop after the trial phase and whether it can become a recognised meta-label for the industry, but economic and governmental as well as independent monitors are in close exchange, with the decision-making power remaining with the state. NGOs can only influence indirectly through their evaluation.

There are five initiatives identified as an interactive governance mode. The key example is that of the Textiles Partnership consisting of seven stakeholder groups who deliberately seek joint solutions (Table 3, column 4). Approximately 130 organizations are represented, ranging from representatives of ministries (state), business and industry associations (market), to NGOs, trade unions, standardization organizations and advisory members (civil society). Decisions are deliberatively negotiated in sector-specific expert groups and passed on to the elected steering committee, which is the main executive decision-making body (Textiles Partnership, 2018). In terms of content, the Textiles Partnership pursues the relatively broad goal of “*significantly improving working and environmental conditions in the value chains of the textile and clothing sector*” (Textiles Partnership, 2020a: 2), and thus addresses the totality of sustainability challenges. The baseline represents alignment with the UN Guiding Principles for Business and Human Rights (United Nations, 2011), the OECD Due Diligence Guidance (OECD, 2017), and a veritable conglomerate of other standards and codes reflecting various industry-specific risks³ (Textiles Partnership, 2016). The partnership aims to provide guidance to their members through three pillars: individual responsibility, joint commitment, and mutual support. The first pillar, in particular, is intended to make the sustainability successes of members visible. To this end, the platform acts as a monitoring authority through annual roadmaps, which are now binding for all members (Textiles Partnership, 2018). In addition, projects in multi-stakeholder constellations are implemented in the second pillar to bring about change on the ground. However, there are currently only three projects with few participants from the partnership. Thus, it remains to be questioned, what effects the partnership really has, as described by an NGO representative: “*I think the interest of civil society in particular [...] is often seen in the fact that the partnership could bundle interests and leverage to tackle problems in the supply chain more effectively [...]. Nevertheless, this is precisely where the partnership still needs to improve*” (FGD, NGO 01).

³ i.e. Better Cotton Initiative (BCI), Business Social Compliance Initiative (BSCI), Cotton made in Africa (CmiA), Ethical Trading Initiative (ETI), Fair Labor Association (FLA), Fairtrade, Fair Wear Foundation (FWF), Global Organic Textile Standard (GOTS), Global Social Compliance Programme (GSCP), Social Accountability International (SAI) (Textiles Partnership, 2016)

Finally, modes of self-governance initiated by civil society and the private sector, alone or in partnerships, have evolved to address sectoral risks, and we identified 15. Initiatives either exploit market power of industry actors or use campaigning skills to raise awareness among consumers. A good example is Action, Collaboration, Transformation (ACT)⁴ (Table 3, column 5). ACT is a partnership that brings together major retailers, global brands and unions to organise collective bargaining at the industry level to achieve living wages for workers. Here, civil society and major multi-national businesses are working closely together to put pressure on the industry and the governments of producer countries, with great potential for change at market level described by an association representative: *“The best example is the question of Living Wages. [...] The only practicable instrument, and I have been working intensively on this for almost six years now, is collective bargaining. We are now on the right track [with ACT]. And even that is not easy, because it presupposes that you have something like free trade unions, free employers' associations, it is free of state intervention, in other words everything that we [in western countries] have fought for in a good 200 years, or 150 years. You can't impose that on any country from one day to the other.”* (Interview transcript 08 (IT), Association 01). They use and merge the different strengths of the actors involved in order to jointly address certain industry risks on a voluntary basis and thus show that cooperation is also possible beyond the previous competition.

⁴ Action Transformation Collaboration - <https://actonlivingwages.com/>

Table 3. Exemplary cases of governance modes in the German textile industry, differentiated according to Driessen et al. (2012) and adapted by authors through five different governance modes on the horizontal axes and structures (polity), processes (politics) and contents (policy) on the vertical axes; dominant role; ↔ equivalent role; - - - background role; S, central state; s, decentralised state; M, market, CS, civil society.

Column No		1	2	3	4	5
German Textile Industry		EU – Due Diligence Act	German – Due Diligence Act	Green Button	Textiles Partnership	Action Collaboration Transformation
Key features (modes) Driessen et al./authors		Decentralised governance	Centralised governance	Public-Private governance	Interactive governance	Self-governance
Polity	Actor constellation	European Parliament	State	State, Market, Independent monitors	Seven stakeholder groups (State, Market, Civil Society)	Market, Civil Society
	Model of representation	Corporatist (supra)national election	Corporatist, national election	Corporatist (informal)	Partnership institution	Partnership (private-private)
	Rules of interaction	EU Law – formal rules	Law – formal rules	Voluntary, incentive based	Binding roadmaps, voluntary commitment	Voluntary, self-crafted organization.
	Mechanisms of social interaction	National governments decide autonomously	Top down; command & control	State sets standards, private actors decide voluntarily	Deliberative negotiations – steering committee main-decision making	Bottom-up, deliberations & negotiations
Politics	Policy level	Supranational	National	National	(Inter-)National	International
	Initiating actor	European commission	Central gov't agencies (BMAS& BMZ)	Central gov't agencies (BMZ)	Central gov't agencies (BMZ)	Companies & unions - ACT
	Stakeholder position	Nat. gov. lobbying	Nat. gov. agencies & lobbying	State sets criteria, industry volunteers	Equal roles for all 7 stakeholder groups	Self-crafted organization
Policy	Sustainability objectives and targets	Monitoring of respect for human & environmental rights (holistic)	Monitoring of respect for human rights (risk specific)	Improve accessibility of sustainable textiles to customers (holistic)	Improve supply chains (holistic view)	Achieve living wages (risk specific)
	Instruments	EU-Legislation, under dev. & approval	Legislation, under dev. & approval	Compliance (26 soc.&ecol.+20 corporate criteria), independent inspectors	Roadmaps - negotiated agreements	Collective bargaining
	Policy integration	EU Strategy	National strategy	National strategy, Sectorial – textile specific	National strategy, Sectorial – textile specific	Sectorial – textile specific
	Policy-science interface	Primacy of generic, expert knowledge	Primacy of generic, expert knowledge	Expert and lay knowledge, independent advisory board	Expert and lay knowledge (7 stakeholder groups)	Expert and lay knowledge (companies & unions)

4.2. Social interaction in collaborative governance

Engaged individuals from all stakeholder groups navigate the complex landscape through active participation and partnership building, but are also constrained by their capacities, political differences and different strategies of the respective modes of initiatives. This is partly due to the role that individuals play or can play in each initiative as representatives of their stakeholder group.

Civil society actors have changed their role in the complex landscape, moving away from pure activist campaigning towards targeted networking and solution-oriented coordination. NGOs, in particular, have long been engaged in highlighting grievances in global supply chains. In Germany, however, their engagement and the form of interaction with other governance actors have changed, also due to the interactive governance mode of the Textiles Partnership. In the past customers were the focus of NGO campaigns to highlight human rights violations or environmental pollution in global supply chains to build pressure on industry through loss of legitimacy. These days, NGOs and trade unions are now building targeted partnerships with industry actors to jointly address sectoral risks. Solution-oriented paths are negotiated in consultation with heterogeneous actors within and outside the partnership. One example is ACT, with whom the partnership has formed collaborations to pool resources and tackle the problem together. The Textiles Partnership often forms collaborations through the work of the risk-specific expert groups and specifically with people using their own networks: *“It was very helpful that some of the members of the Textiles Partnership joined another broader initiative. It's called Act, which basically said, [...], the best wage is the one that is collectively bargained, above which you can basically go beyond what is paid in statutory minimum wages in many countries. [...]”* (Interview (IT) 16, Union 01). An NGO representative agrees, that a major benefit of the partnership is to make use of the individual networks and experiences: *“I believe that this point of cooperation between the partnership and other initiatives [is] to make use of learning experiences that have already been made in good selected international initiatives by individual companies and to carry these out more broadly in the partnership”* (FGD, NGO 02).

Such network building and bridging requires individual commitment and meticulous work, sometimes hampered by capacity constraints. Individuals build formal and informal connections to other representatives, prepare knowledge through aggregates and share expertise, but also negotiate and continuously bring in their critical perspective. Active NGO representatives seek exchange with industry representatives, rather in the role of an advisor exemplified by the statement of a representative: *“[...]we have to see it more as a learning platform for companies and where we, as civil society, are of course happy to support and also want to help drive the process forward”* (FGD, NGO01).

The shift in role from activist to networker, leading to debate about whether civil society should remain part of the Textiles Partnership or whether pulling out of the multi-stakeholder initiative creates a better outcome by sending a signal towards state-led legislation. This is explained by a standards representative: *“I think many NGOs feel similarly, away from “we campaign” to [...] “yes, we also advise*

and then it becomes more difficult to campaign”, [...] It remains to be evaluated, however, whether this will be more effective through a collaborative approach for NGOs, i.e. also for standard organizations, as well as for companies” (FGD, Standards organization 01). However, empirical evidence shows that committed civil society representatives are very active in the Textiles Partnership and contribute their expertise in the interactive governance mode, thus influencing proceedings. In public-private modes, such as the Green Button, they are not formally involved and can only indirectly influence what happens through critical assessments and publications. An NGO representative describes: *“[In our assessment of the Green Button reports, there was] far too little monitoring; we also saw that with the Textile Partnership, [...] that is the lack of logic and coherence between a risk analysis and measures. [...] and the interesting thing is of course the parallelism. I think we can learn a lot from each other”* (FGD, NGO 01). The different constellations thus create an influence on co-determination and the question arises to what extent this is reflected in the design of such initiatives.

Industry representatives who have to implement the requirements and codes in their daily practice, compete with each other, but also seek coordination beyond stakeholder boundaries. Competitors in global markets need to adapt daily practices to meet due diligence requirements. There is a demand that standards and norms that apply to companies in Germany are also secured across company and country borders with suppliers and producers. Currently, this is based on voluntary self-commitments, so that the efforts of companies are seen as an additional effort. The company representatives are therefore in favour of harmonising the codes between the initiatives in order to avoid duplication in reporting and to reduce the individual efforts: *“I think the keyword “harmonization” is particularly important for us from an economic point of view. [...] the question we [associations] get asked again and again [by companies] is, to what extent does my involvement in the Textiles Partnership play a role for the Green Button and vice versa? [...] why is it not possible to find a recognition system, [...] for the members, in terms of reporting obligations?”* (FGD, Association 01). Non-complementary governance initiatives with different objectives and governance structures thus create barriers for companies to participate due to multiple reporting requirements highlighted by an industry association representative: *“And they really have to be careful, especially with regard to a coming due diligence law, that they don't break this self-commitment of companies, that they can prove added value [in the Textiles Partnership], because [...] we all know that we can only spend our resources once, so you have to ask yourself why [companies] should still participate if [the initiatives] don't interact or build on each other in a meaningful way.”* (FGD, Association 01).

The experience of industry representatives is not universal, and a distinction has to be made between more ambitious and more conservative market actors for whom implementation means different efforts. As one state representative puts it: *“Of course we have actors, also companies that partly do not participate, but companies that are very, very committed”* (FGD, State 01). This is another reason why more and more industry representatives are now calling for government regulation, i.e. a supply chain law, to create a level playing field for all. This discourse has also emerged through the intense interaction

between stakeholder boundaries with other actors. By participating in the Textiles Partnership, entrepreneurs can show what is feasible so that they can contribute their sector-specific expertise and also use market networks to establish contacts with producing companies. At the same time, the Textiles Partnership serves an added value for the companies, as one company representative explains that all information about the successful implementation of the NAP monitoring process is prepared by the partnership for the companies: *"[s]o, if I as a company want to know [...], what are my reporter obligations, what problems do I have [in the supply chain], do I want to prepare myself for the NAP monitoring process? [...], then you can sit back in your armchair if you are a member of the partnership because you get all the information. We are so well organised now in the members' area where webinars are offered on all kinds of topics"* (IT 03, Company 01).

NGO representatives agree and argue that participation in the MSI offers great learning potential for market actors through meaningful exchange: *"[...] through the Textiles Partnership, many can actually learn how to make their own supply chain more resilient. And that is in the self-interest of all companies, because otherwise they would probably not be able to survive"* (FGD, NGO 01). The partnership thus serves as a complementary tool to the NAP and the subsequent Supply Chain Act, where all due diligence information is deliberately discussed, defined and prepared by and for its members.

State actors aim for complementary solutions through coordination, but are increasingly challenged by growing demands for state regulation and legislative action on global markets. Representatives express their role as follows: *"I believe that as the federal government we are there to first create the framework conditions for such an exchange, the political and the legal framework with a Due Diligence Act, and also to promote the discussion between the actors and to bring them together and, as I said, to find a compromise in this area"* (FGD, State 01). As market and civil society actors have claimed co-determination in regulatory and governance processes in recent years, state actors play rather mediating, moderating and facilitating roles in more institutional or partnership arrangements of governance. They create the space for exchange between the different actors and can thus also exert political pressure. On the one hand, there is a growing discourse for state-led legislation on global markets, so they want to fulfil their role in centralised modes of governance as well. Here, a state representative illustrates that the first drafting of a law is difficult in an international context and that content specifics are currently addressed through private initiatives: *"we are currently working on the Due Diligence Act [...] to create a binding state regulation, which, if we were to work specifically on the issue of living wages, for example, would set a kind of minimum standard for generally applicable requirements for actors, to create a level playing field. Whereby, of course, concrete technical details have not yet been elaborated, [...] which is why this is currently being supplemented by initiatives such as the Textiles Partnership. [...] that's what a law can do at this point, give a framework, [...], but the elaboration, [...], has to lie with the initiatives"* (FGD, State 01).

In the German political context, there are national inter-ministerial conflicts and negotiation processes that are expressed in the formulation of laws. Coordination and political competition between ministries are particularly relevant for more central governance initiatives. The question remains to what extent national initiatives work in global markets. Therefore, there is a growing dialogue with governments beyond national borders, so that European-wide approaches are increasingly sought. One example is the Due Diligence Act, which is to be implemented even more strictly in Europe. However, it is still recognised that the expertise of civil society and business representatives needs to be strongly incorporated through the interaction of multiple governance initiatives.

5. Discussion

Our results indicate that the diversity of private governance initiatives emerging over recent years result in an overly complex governance landscape that actors struggle to navigate. Individuals and their interaction are crucial for creating cooperation between governance initiatives and for carrying out processes of negotiation but they are pushed to their capacity limits by the multitude of tasks and initiatives. Although interactions have changed strongly towards coordination rather than competition through the work of the Textiles Partnership, the individual efforts of all stakeholder groups are influenced by competing modes of governance with different underlying goals initiated by differing stakeholders. Here, various actors have opportunities for political influence, which, however, also leads to a general lack of understanding of what is to be achieved. The benefits of alignment and harmonization are highlighted by our respondents, but only if leading to better visibility of objectives for all stakeholders and can be defined and achieved through collaborative action.

The large variety of governance modes that have emerged in our case, reflect the diversity of sustainability challenges when it comes to human rights violations, environmental impacts and unethical business practices in complex international markets (Beyers and Heinrichs, 2020). This is linked to the fact that since the 1990s, more and more non-state actors have become involved in the state regulatory process (Rose and Miller, 1992). It reflects and is confirmed by our study that state actors have recently increasingly turned to multi-stakeholder initiatives and other more collaborative modes to address the challenges of market transformation together with civil society and business. For example, risk-specific collaborations are also concluded with initiatives of self-governance, as can be seen in the collaboration between the Textiles Partnership and ACT. This is in line with the argument that state actors need both expert and lay knowledge as global markets have become too complex (Swyngedouw, 2005).

Such complexity is creating a growing consensus among actors that there is a need for state-led regulation on global markets. In our research, civil society and industry actors repeatedly argue that private governance mechanisms can only play a complementary role to public regulation. New efforts of strict, cross-border legal laws need to be established at national and international level to meet challenges of sustainability in global markets. Here, there is a need for global agendas for states to create harmonised international regulations, which should be continuously informed by non-state actors, so

that sufficient space for exchange and constructive conflict must continue to be created. These findings are in line with increasing loud voices from non-state actors in Europe now, calling for legal requirements to be enforced by national legislators, because private governance efforts are failing to bring about fast and effective change in complex global markets and ensure a level playing field for market actors. The question arises whether, after the emergence of countless private forms of governance over decades, and the resulting complexity for and burden on the actors involved, a new phase is now arising in which state intervention and international cooperation once again play a stronger role.

Our case study suggests that this path may have been paved by the interactive mode of the Textiles Partnership involving all stakeholder groups, in which a form of cooperation and appreciation developed between former competitors despite competing perspectives. The intensive work of the interactive Textiles Partnership has significantly changed the interaction between NGOs and business representatives from a culture of campaigning, i.e. blaming and shaming, on the part of NGOs to cooperation and joint interaction. Today, engaged NGOs and trade unions prepare information and share knowledge, almost as advisory services, on how companies can address and overcome challenges in the industry to meet certain standards and promote change. The discourse on the strict withdrawal from such initiatives as a strong signal is not ending, whereby the opportunity to shape the content is then lost. Some company representatives act as advocates for sustainability and, together with NGOs and trade unions, build pressure on the market in producing countries by using their network to effect local change. And finally, the state creates these spaces of exchange by working to establish the framework conditions through national and international legislation, but also still taking into account private initiatives to support policy decisions.

Despite the role of the state in creating spaces of exchange, if collaborative governance is to be a pathway to sustainability transformation in this sector, the state also needs to respond to the outcomes of collaborative governance. In our case study, actors are committed to working towards sustainability, and are asking for state engagement to create conditions for outcomes, and not just further talking and collaboration. They are looking for deeper change within formal policy systems to shape the space they are collaborating within. The key question to ask is therefore “what next?”. Topics of the formal governmental policy process therefore come into play, in exploring how the outcomes of the partnership make their way into the policy sphere, what impact they have, what policies result, and on which level of governance. Given this call for greater state engagement, deeper critical attention should also be paid to the extent to which such partnerships serve to replace the role of state in regulating the textile system. We therefore look forward to studies that engage with the future of the Textiles Partnership, considering deeper explorations of power, lobbying and influence dynamics in collaborative governance.

6. Conclusion

This empirical study serves to gain insights into how actors navigate complex governance initiatives in a collaborative governance arrangement. It draws on a case study of the German Textiles Partnership, and embedded it within the broader textiles governance landscape. We find that the number of individual governance initiatives have proliferated and take multiple modes, requiring actors to take multiple (sometimes conflicting or uncomfortable) roles. At the same time, collaborative governance is increasingly dependent on the participation and social interaction of governance actors who shape collaboration but reach the limits of their capacity because they are entangled in the complexity. Thus, there is a growing call away from voluntary engagement towards public regulation and legislation, as both the effectiveness and efficiency of private governance initiatives are currently being questioned. These can only complement legal frameworks by bringing in participatory expert knowledge from non-state actors. We therefore find that the potential for this collaborative governance arrangement to create a sustainability transformation of the German textiles system is limited by a need for strong state regulation. We argue that coordination of interactions must be sought at the international or at least European level, as the sector crosses borders, and that content must be shaped and complemented by favourable structures and processes for engaged governance actors through targeted collaboration pathways. We recommend that future work follows the continued evolution of collaborative governance mechanisms, such as the Textiles Partnership, to critically explore their role (and the implications therein) in shaping state responses and regulation for sustainability.

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Appendices

Appendix A

Table 4. Governance initiatives related to the Partnership for Sustainable Textiles. The descriptions were taken from the respective websites and adapted accordingly.

No.	Name of initiative	Brief description	Mode
1	Partnership for Sustainable Textiles (Textiles Partnership)	German multi-stakeholder initiative initiated by the German government to find joint solutions to improve conditions in global textile production - all the way from raw material extraction to disposal. This is done both through joint projects on the ground and through the exercise of individual responsibility by each member and encompasses diverse fields of action and issues (adapted and retrieved from https://www.textilbuendnis.com/).	Interactive
2	National Action Plan Monitoring (NAP)	The monitoring process of the National Action Plan for Business and Human Rights (NAP) was initiated by the Federal Government and observes from 2018 to 2020 the extent to which German-based companies with more than 500 employees are complying with their due diligence obligations arising from the NAP (adapted and retrieved from https://www.auswaertigesamt.de/de/ausnenpolitik/themen/ausnenwirtschaft/wirtschaft-und-menschenrechte/monitoring-nap/2124010).	Centralised
3	National Due Dillgence ACT	The Federal Cabinet has approved the draft of a "Corporate Due Diligence in the Supply Chain Act 2021". The so-called Due Diligence Act creates legal clarity for business and strengthens companies' compliance with human rights: Through the law, companies based in Germany above a certain size will be obliged to better fulfil their responsibility in the supply chain with regard to respect for internationally recognised human rights by carrying out human rights due diligence (adapted and retrieved from https://www.bmas.de/DE/Service/Presse/Pressemitteilungen/2021/bundeskabinett-verabschiedet-sorgfaltspflichtengesetz.html).	Centralised
4	EU Due Dillgence Act	The EU intends to legislate on corporate due diligence through a due diligence law to improve working conditions and environmental standards in supply chains. As voluntary corporate due diligence has not gained acceptance, the Commission wants to establish a law in 2021 to ensure that global companies from Europe also take responsibility along their supply chains and at their production sites outside Europe. Once a European law is implemented, all member states must comply with it (adapted and retrieved from https://www.europarl.europa.eu/doceo/document/TA-9-2021-0073_EN.html).	De-centralised
5	Green Button	The Green Button is a government-led meta-label developed by the Federal Ministry for Economic Cooperation and Development in partnership with GIZ GmbH and implemented in a trial phase in 2019. The code of conduct specified for the use of the label is intended to ensure demanding ecological and social standards for textile goods placed on the German market (adapted and retrieved from https://www.bmz.de/de/entwicklungspolitik/gruener-knopf).	Public-private
6	Action, Collaboration, Transformation (ACT)	ACT (Action, Collaboration, Transformation) is a pioneering agreement between textile brands, retailers and trade unions to change the garment and textile industry and achieve living wages for workers through industry-wide collective bargaining connected to sourcing practices (adapted and retrieved from https://actonlivingwages.com/).	Self-governance
7	Ageement on Sustainable Garments and Textile (AGT)	Dutch multi-stakeholder initiative of companies and other organizations that signed an agreement on international good governance in the garment and textile industry with the aim of improving labor conditions, preventing environmental pollution and promoting animal welfare in the countries of production (adapted and retrieved from https://www.imvoconvenanten.nl/en/garments-textile).	Interactive
8	Collaboration for Sustainable Development of Viscose (CV)	The initiative provides a platform for viscose fibre manufacturers to achieve sustainable viscose and support their customers in meeting their sustainability commitments. It was established by ten viscose fibre producers in collaboration with two trade associations. As part of this self-regulatory initiative, members will adopt a much required sustainability pathway for the viscose industry (http://www.cvroadmap.com/en.html).	Self-governance
9	Fair Wear Foundation (FWF)	The Fair Wear Foundation is an independently run, not-for-profit organization that works to improve garment factory workers' conditions through four main activities: Brand Performance Audits, Factory Audits, Complaint helplines and Factory training (adapted and retrieved from https://www.fairwear.org/).	Self-governance
10	Open Apparel Registry (OAR)	The Open Apparel Registry (OAR) is a database of global apparel factories that is organised in an open-source manner, with affiliations and unique OAR IDs assigned to each factory (adapted and retrieved from https://info.openapparel.org/).	Self-governance
11	Organic Cotton Accelerator (OCA)	A multi-stakeholder organization entirely dedicated to the organic cotton sector. The global platform works to achieve integrity, assurance of supply and measurable social and environmental impact on organic cotton (adapted and retrieved from https://www.organiccottonaccelerator.org/).	Interactive governance
12	Sustainable Apparel Coalition (SAC)	A multi-stakeholder initiative from the US whose goal is to transform the economy for exponential impact through pioneering tools, a collaborative partnership and trusted industry sustainability leadership. Bringing a global consumer goods	Interactive/ self-governance

		industry that gives more than it takes - for the planet and its people - is their vision (adapted and retrieved from https://apparelcoalition.org/).	
13	Strategic Approach To International Chemicals Management (SAICM)	SAICM was developed by a multi-stakeholder and multi-sector preparatory committee and assists in reaching the 2020 target agreed at the World Summit on Sustainable Development in Johannesburg in 2002. The SAICM's overall objective is to reach sound management of chemicals throughout their life cycle, so that by the year 2020 chemicals are produced and used, in ways that minimise any significant adverse impacts on the natural environment and human health (adapted and retrieved from saicm.org).	Self-governance
14	Textile Exchange	Textile Exchange is a global nonprofit organization. Through a robust membership that represents leading brands, retailers and suppliers, the organization is positively impacting the climate by accelerating the use of preferred materials in the textile industry globally (adapted and retrieved from https://textileexchange.org/).	Self-governance
15	Zero Discharge of Hazardous Chemicals (ZDHC)	Initially initiated by 6 brands after a Greenpeace campaign, the ZDHC today is an organization that brings together 160 contributing organizations and companies to enable brands and retailers in the textile, apparel, and footwear industries to implement sustainable chemical management best practice across the value chain. Through collaborative engagement, standard setting, and implementation, we will advance towards zero discharge of hazardous chemicals (adapted and retrieved from https://www.roadmapzero.com/).	Self-governance
16	OECD - Allignment Assessment	The OECD Due Diligence Guidelines for Responsible Supply Chains in the Apparel and Footwear Sector are the benchmark, negotiated and supported by government, for due diligence by industry, multi-stakeholder and government-supported initiatives. To support a mutual understanding of due diligence while enabling mutual recognition of programmes, the OECD has started a voluntary process to evaluate the alignment of these initiatives with the OECD Guidelines. This process, called the OECD Alignment Assessment Process and is a voluntary one (adapted and retrieved from https://www.oecd.org/daf/inv/mne/alignment-assessment-garment-footwear.htm).	Centralised governance
17	Industrie All	IndustriALL Global Union is representing 50 million workers in 140 countries in the mining, energy and manufacturing sectors and is a global solidarity force leading the fight for better working conditions and trade union rights around the world (adapted and retrieved from http://www.industrialunion.org/).	Self-governance
18	Global living wage coalition (GLWC)	The Global Living Wage Coalition (GLWC) is a coalition of Fairtrade International, the Rainforest Alliance and Social Accountability International (SAI) in association with ISEAL and international living wage experts Dr Richard Anker and Martha Anker. The GLWC meets with a shared mission to see continuous improvements in the wages of workers on farms, factories and supply chains taking part in their respective certification schemes and beyond, and with the ultimate long-term goal of ensuring that workers are paid a living wage (adapted and retrieved from https://www.globallivingwage.org/).	Self-governance
19	CottonUpGuide	CottonUP is a hands-on tool to inform and guide business leaders and sourcing teams on the issues, benefits and options for sourcing more sustainable cotton. The guide is part of Cotton 2040, a multi-stakeholder initiative to significantly increase the use of sustainable cotton internationally (adapted and retrieved from http://cottonupguide.org/).	Self-governance
20	International Wool Textile Organization (iwto)	The International Wool Textile Organization (IWTO) is the global standards authority for the wool textile industry. IWTO has represented the collective interests of the global wool trade since 1930. IWTO's 33 members are based in 23 countries across the world and represent all stages of the wool textile supply chain, from farm to retail. Through scientific research, wool textile education and knowledge sharing, the IWTO ensures a sustainable future for wool (adapted and retrieved from https://iwto.org/).	Self-governance
21	Chemicals in Products (CiP) Programme	The Chemicals in Products (CiP) programme is a worldwide initiative that seeks to manage chemicals in products in an attempt to ultimately reduce the risk posed by these chemicals to humans and the environment. Access to chemical-inproduct information is a necessary prerequisite to enable sound management of chemicals throughout the product life cycle and supply chain (adapted and retrieved from https://saicmknowledge.org/program/chemicals-products):	Self-governance
22	Fashion Industry Charter for Climate Action (UNFCCC)	Under the umbrella of the UN Climate Change Secretariat, stakeholders in the fashion industry worked throughout 2018 to identify ways in which the broader textile, apparel and fashion industry can move towards a holistic commitment to climate action. They created the Fashion Industry Charter for Climate Action, which sets out a vision to achieve net zero emissions by 2050. It was launched at COP24 in Katowice, Poland, in December 2018 (adapted and retrieved from https://unfccc.int/climate-action/sectoral-engagement/global-climate-action-in-fashion/about-the-fashion-industry-charter-for-climate-action).	Self-governance
23	The Alliance for Integrity (AfIn)	The Alliance for Integrity (AfIn) is a German business-led initiative involving organizations from the private sector, civil society and the international community to work together to reduce corruption risks in partner countries (adapted and retrieved from https://www.allianceforintegrity.org/de/).	Self-governance
24	German Global Compact Network (GCN)	The UN Global Compact is the world's leading and largest initiative for responsible corporate governance. The vision of the UN Global Compact is an Inclusive and sustainable global economy based on ten universal principles - today and in the future. The Global Compact Germany supports companies and organizations in aligning their strategies and activities with the sustainability goals and vision of the	Self-governance

		UN Global Compact (adapted and retrieved from https://www.globalcompact.de/en/).	
25	UN Guiding Principles on Business and Human Rights (UN Guidance)	The UN Guiding Principles on Business and Human Rights constitute a set of guidelines for states and companies to help prevent, address and remedy human rights abuses committed in the course of business activities. They have been proposed by the UN Special Representative on Business and Human Rights, John Ruggie, and endorsed by the UN Human Rights Council in June 2011. Under the same resolution, the UN Human Rights Council established the UN Working Group on Business and Human Rights (adapted and retrieved from https://www.business-humanrights.org/en/big-issues/un-guiding-principles-on-business-human-rights/).	Centralised governance
26	OECD – Due Dilligence Guidance (OECD Guidance)	The OECD Due Diligence Guidance for Responsible Supply Chains in the Garment and Footwear Sector, adopted in 2017, sets out a shared understanding of due diligence in the sector to help brands and companies to meet the due diligence expectations set out in the OECD Guidelines for Multinational Enterprises (adapted and retrieved from https://www.oecd.org/industry/inv/mne/responsible-supply-chains-textile-garment-sector.htm).	Centralised governance
27	International Labor Organization (ILO)	Since 1919, the ILO, the only tripartite UN agency, has been bringing together governments, employers and workers from 187 member states to establish labor standards, formulate policies and develop programmes to advance decent work for all women and men (https://www.ilo.org/global/lang--en/index.htm).	Interactive governance
28	Business Social Compliance Initiative (BSCI)	BSCI is an industry initiative open primarily to European, but also to international trading firms and associations. Through their voluntary membership, the participatings pursue the goal of improving compliance with workers' rights and raising social standards in the global value chain. The member organizations have committed themselves to a defined code of conduct, the compliance with which they have verified externally in regular audits (adapted and retrieved from https://www.amfori.org/content/amfori-bsci).	(Private) Centralised governance
29	Ethical Tradingn initiative (ETI)	The Ethical Trading Initiative (ETI) is a leading alliance of companies, trade unions and non-governmental organizations committed to upholding workers' rights around the globe. Its shared vision is a world in which all the workers are free from labor exploitation and abuse, and enjoy conditions of freedom, security and justice (adapted and retrieved from https://www.ethicaltrade.org/).	Self-governance
30	Fair Labor Association (FLA)	FLA is a multi-stakeholder initiative to improve the lives of workers. The initiative aligns universities, civil society organizations (CSOs) and companies - to identify sustainable solutions to work-related systemic problems (adapted and retrieved from fairlabor.org).	Self-governance
31	Social Accountability International (SAI)	Founded in 1997, Social Accountability International (SAI) is a global non-governmental organization that promotes human rights to labor. SAI's vision is decent work anywhere - driven by the belief that socially responsible workplaces benefit the economy while ensuring basic human rights (adapted and retrieved https://sa-intl.org/).	(Private) Centralised governance

Appendix B

Table 5. Policy documents related to the Textiles Partnership: government reports, annual reports, international guides, press releases

Cat.	Nr.	Original title	English translation (title)	Author & date of publication	Reference
Principles	1	Leitprinzipien für Wirtschaft und Menschenrechte – Umsetzung des Rahmens der Vereinten Nationen „Schutz, Achtung und Abhilfe“	Guiding principles for business and human rights	UN, 2011	(UN, 2011)
	2	OECD-Leitfaden für die Erfüllung der Sorgfaltspflicht zur Förderung verantwortungsvoller Lieferketten in der Bekleidungs- und Schuhwarenindustrie	OECD Due Diligence Guidance for Responsible Supply Chains in the Garment and Footwear Sector	OECD, 2017	(OECD, 2017)
NAP	3	Nationaler Aktionsplan Umsetzung der VN-Leitprinzipien für Wirtschaft und Menschenrechte 2016–2020	National Action Plan: Implementation of the UN guiding principles for Business and human rights 2016-2020	Federal Gov't (Federal Foreign Office), 2017	(Federal Foreign Office, 2017)
	4	Final Report of the NAP Monitoring (2018–2020)	Final Report of the NAP Monitoring (2018–2020)	Federal Gov't (Federal Foreign Office), 2020	(Federal Foreign Office, 2020)
Textiles	5	Gute Arbeit weltweit	Good work worldwide	Federal Gov't (BMZ&BMAS), 2015	(BMAS & BMZ, 2015)
	6	Beitrag der Bundesregierung zur Förderung von nachhaltigen Textilien Textil-Maßnahmenplan der Bundesregierung 2018 und Fortschrittsbericht zu den Maßnahmen aus 2017	The Federal Government's contribution to the promotion of sustainable textiles: Federal Government's Textile Action Plan 2018 and progress report on the measures from 2017	Federal Gov't (BMZ), 2018	(BMZ, 2018)
	7	Beitrag der Bundesregierung zur Förderung von nachhaltigen Textilien Textil-Maßnahmenplan der Bundesregierung 2019 und Fortschrittsbericht zu den Maßnahmen aus 2018	The Federal Government's contribution to the promotion of sustainable textiles: Federal Government's Textile Action Plan 2019 and progress report on the measures from 2018	Federal Gov't (BMZ), 2019	(BMZ, 2019A)
	8	Nachhaltige Textilien – Eine Frage der Verantwortung	Sustainable Textiles – A question of responsibility	Federal Gov't (BMZ), 2019	(BMZ, 2019B)
Partnership	9	Das Bündnis für nachhaltige Textilien	The Partnership for Sustainable Textiles	Federal Gov't (BMZ), 2015	(BMZ, 2015)
	10	Aktionsplan Bündnis für nachhaltige Textilien	Action Plan Partnership for Sustainable Textiles	Bündnis für nachhaltige Textilien, 2015	(Textiles Partnership, 2015)
	11	Bündnis für nachhaltige Textilien – Beschluss des Steuerungskreises am 31.08.2016: Soziale Bündnisziele und -standards	Partnership for Sustainable Textiles - Decision of the Steering Committee on 31.08.2016: Social Partnership Goals and Standards	Bündnis für nachhaltige Textilien, 2016	(Textiles Partnership, 2016)
	11	Bündnis für nachhaltige Textilien - Jahresbericht 2016/17	Partnership for Sustainable Textiles - Annual Report 2016/17	Bündnis für nachhaltige Textilien, 2017	(Textiles Partnership, 2017)
	12	Bündnis für nachhaltige Textilien – Wir sind auf dem Weg – Jahresbericht 2018	Partnership for Sustainable Textiles – We make things work – Annual Report 2018	Bündnis für nachhaltige Textilien, 2018	(Textiles Partnership, 2018)
	13	Bündnis für nachhaltige Textilien – Weiter auf dem Weg – Jahresbericht 2019	Partnership for Sustainable Textiles – Further along the way – Annual Report 2019	Bündnis für nachhaltige Textilien, 2019	(Textiles Partnership, 2019)
	14	Bericht zur Mitgliederversammlung 2020	Report to the 6 th Members Meeting	Bündnis für nachhaltige Textilien, 2020	(Textiles Partnership, 2020A)
	15	Die Ausrichtung von Industrie- und Multi-Stakeholder-Programmen an den OECD-Leitlinien für Bekleidung und Schuhe - Bewertung des deutschen Bündnis für nachhaltige Textilien	The Alignment of industry and Multi-stakeholder programmes with the OECD Garment and Footwear Guidance - Assessment of the German Partnership for Sustainable Textiles	OECD, 20	(OECD, 2020)
16	OECD Allignment Assessment - Respnose PST	OECD Allignment Assessment - Respnose PST	Bündnis für nachhaltige Textilien, 2020	(Textiles Partnership, 2020B)	

Green Button	17	Der Grüne Knopf – Sozial. Ökologisch. Staatlich. Unabhängig Zertifiziert	The Green Button - Social. Ecological. State. Independently Certified	Federal Gov't (BMZ), 2019	(BMZ, 2019C)
	18	Der Grüne Knopf. Bekanntgabe und Teilnahmeaufruf zur Einführung des Siegels "Grüner Knopf"	The Green Button Announcement and call for participation for the introduction of the "Green Button" label	Federal Gov't (BMZ), 2019	(BMZ, 2019D)
Due Diligence Act	19	GUTACHTEN: Verankerung menschenrechtlicher Sorgfaltspflichten von Unternehmen im deutschen Recht	EXPORT REPORT: Anchoring human rights due diligence obligations of companies in German law	Prof. Dr. Remo Klinger, Prof. Dr. Markus Krajewski, David Krebs & Constantin Hartmann, 2016	(Klinger et al., 2016)
	20	Entwurf für Eckpunkte eines Bundesgesetzes über die Stärkung der unternehmerischen Sorgfaltspflichten zur Vermeidung von Menschenrechtsverletzungen in globalen Wertschöpfungsketten (Sorgfaltspflichtengesetz)	Draft for key points of a federal law on strengthening corporate due diligence to prevent human rights violations in global value chains (Due Diligence Act)	Federal Gov't (BMZ, BMAS), 2020	(BMAS& BMAS, 2020)
	21	Von der menschenrechtlichen zur umweltbezogenen Sorgfaltspflicht Aspekte zur Integration von Umweltbelangen in ein Gesetz für globale Wertschöpfungsketten	From the human rights to environmental Due diligence Aspects of integrating environmental concerns into a law for global value chains	Federal Gov't (UBA), 2020	(UBA, 2020)
	22	Corporate due diligence and corporate accountability - 2020/2129 (INL) - 10/03/2021	Corporate due diligence and corporate accountability	European Parliament, 2021	(European Parliament, 2021)

Appendix C

Coding scheme

Table 6. Coding scheme with codes, subcategories and descriptions

Codes	Subcategories	Description
Initiatives		
Modes of governance	Modes	# Items related to mode of governance + De-centralised + Centralised + Public-private + Interactive + Self-governance
	Polity	# Items related to model of representation # Items related to rules of interaction # Items related to mechanisms of social interaction
	Politics	# Items related to initiating actor # Items related to stakeholder position # Items related to policy level # Items related to power base
	Policy	# Items related to goals and targets # Items related to instruments # Items related to policy integration # Items related to policy-science interface
Social interactions	Interaction:	# Items relating to modes of interactions + Competition + Coordination + Cooptation + Chaos
	Actors	# Items relating to perception of roles of actors + State + Civil Society + Industry