

SUSTAINABLE MANUFACTURING AND SOURCING IN THE ASIA PACIFIC REGION

Meeting the new German standard of care for human rights and the environment



Published by:

Singaporean-German Chamber of Industry and Commerce

Address: 25 International Business Park, #03-105 German Centre, Singapore 609916

Phone: (+65) 6433 5330 Fax: (+65) 6433 5359

Email: info@sgc.org.sg Website: www.sgc.org.sg

Konrad-Adenauer-Stiftung Ltd Rule of Law Programme Asia

Address: ARC 380, 380 Jalan Besar, #11-01

Singapore 209000 Phone: (+65) 6603 6171

Website: https://www.kas.de/rlpasia

Author:

Robin Hoenig

Designed by:

Drummond Printing Pte Ltd http://www.drummond.com.sg/

Disclaimer: While every effort has been made to ensure that the information contained herein is comprehensive and accurate at the time of print, the publisher will not accept any liability for omissions and errors. The inclusion of an organisation/company and information about its programs and services in this publication does not imply endorsement by the publisher, nor does exclusion indicate lack of endorsement. Opinions expressed are to be attributed solely to the author and do not reflect the views of the SGC or the KAS. This publication is for information purposes only. It may not be used by political parties or by election campaigners or supports for the purpose of election campaigning. This applies to federal, state and local election as well as elections to the European Parliament.

Contents

Lis	t of abbreviations	5
Ab	out SGC	6
Ab	out KAS	7
Th	ank you	8
Pre	eface	9
Exe	ecutive summary and key findings	10
1.	Introduction	12
2.	Background: Safeguarding human rights and the environment through corporate due diligence	13
	Development of global value chains	13
	Value Chains and Sustainable Development	13
	Current corporate due diligence frameworks and regulations	15
	The German Due Diligence Law (GDDL)	20
3.	Methodology	23
4.	Profile of respondents: Contextualising the analysis	24
5.	Current manufacturing and sourcing in Asia	27
	Geographical organisation of supply chains in APAC	27
	Supply chain complexity	29

0.	sourcing in APAC	32
	Corporate due diligence: A common practice among German companies in APAC	32
	Scope of the current due diligence practices	34
	Monitoring compliance	35
	Dealing with non-compliance	37
	Perception of suppliers in APAC on complying with sustainability requirements	39
7.	The GDDL: perspectives from German companies operating in APAC	40
	GDDL Readiness: Do German companies comply with the GDDL?	40
	Building up new due diligence competence	41
	Challenges in complying with the GDDL	42
	Legal ambiguity	42
	Insufficient time to ensure full compliance with the GDDL	42
	Lack of external auditors in host markets	44
	Difficulties in flagging non-compliance due to the political context	46
	Expecting higher costs and higher bureaucracy	47
	Access to suppliers and geographical dispersion	48
	Supporting companies in overcoming challenges. What can the German government do?	49
	Effectiveness of the GDDL in safeguarding human rights and environmental protection in supply chains	50
	Impact of the GDDL on GVCs	51
	The impact of the GDDL on global competitiveness	53
8.	Company editorials	54
	Editorial 1: Perspectives from the ams OSRAM Group	54
	Editorial 2: Perspectives from a sportswear manufacturer	55
	Editorial 3: Perspectives from Haas & Co	57
	Editorial 4: Perspectives from a clothing retailer	58
Co	nclusion	60
	pendix	
Bib	oliography	64
Αh	out the author	71

List of abbreviations

APAC	Asia Pacific
ASEAN	Association of Southeast Asian Nations
BAFA	Bundesamt für Wirtschaft und Ausfuhrkontrolle
CDU	Christian Democratic Union of Germany
COVID-19	Coronavirus Disease
СРТРР	Comprehensive and Progressive Agreement for Transpacific Partnership
CSR	Corporate Social Responsibility
CSU	Christian Social Union in Bavaria
GDDL	German Due Diligence Law
GDP	Gross Domestic Product
GVC	Global Value Chain
ILO	International Labour Organisation
LkSG	Gesetz über unternehmerische Sorgfaltspflichten in Lieferketten
MNC	Multinational Companies
NAP	National Action Plan for Business and Human Rights
SME	Small and Medium-Sized Enterprises
SPD	Social Democratic Party of Germany
OECD	Organisation for Economic Co-operation and Development
UNGP	United Nations Guiding Principles on Business and Human Rights

About SGC

The Singaporean-German Chamber of Industry and Commerce (SGC) is part of a network of 140 offices of the German bilateral Chambers of Commerce (AHKs) abroad in 92 countries. AHKs are institutions of German foreign trade promotion. The Association of German Chambers of Industry and Commerce e. V. (DIHK) coordinates and continuously develops the network of German Chambers of Commerce Abroad. They are proportionately funded by the Federal Ministry of Economics and Energy affairs (BMWi). The SGC is a bilateral chamber and one of the largest national Business Chambers in Singapore with a membership of about 600 representatives from a variety of industries from Germany and Singapore. The SGC is a valuable and well-established networking platform and well connected with authorities in Singapore and Germany. Through its active industry committees, SGC gives a voice to businesses. With its distinct service unit and trade fairs arms - DEinternational and Fairs & More respectively - the SGC builds a primary source for receiving reliable information on the German and Singapore business environment as well as bilateral trade relations. DEinternational serves clients in their business needs e.g. searching for business partners, organising business missions and business trips, finding staff members, and providing market analysis. DEinternational works in many areas such as energy efficiency, water management, Industrie 4.0, smart city development, research and many more.

SGC Corporate Gold Members

























Supported by:



on the basis of a decision by the German Bundestag

About KAS

The Konrad-Adenauer-Stiftung (KAS) is a German political foundation, which has, for over 50 years, committed itself to the promotion of democracy and international cooperation. Founded in 1964, it was named after the first Chancellor of the Federal Republic of Germany, Konrad Adenauer.

KAS offers political and social training activities, conducts research, grants scholarships to students, and supports and encourages international understanding and economic development.

The Rule of Law Programme is a worldwide programme of KAS with regional offices in Asia, Europe, Latin America, Sub-Saharan Africa and Middle East/Northern Africa.

The Rule of Law Programme Asia, based in Singapore, is dedicated to working with its Asian partners towards the development of rule of law in the region. It initiated its digitalisation programme to take stock of the regional developments regarding the emergence of new media and advanced technologies. One of the particular areas of focus is to explore the interplay between technology, society and the rule of law.

Thank you

We would like to thank the following German chambers in APAC for supporting this Project.



German Industry and Commerce Ltd. 德國工商會有限公司



German Industry and Commerce Ltd. 德國工商會有限公司



German-Indonesian Chamber of Industry and Commerce



Korean-German Chamber of Commerce and Industry 한독상공회의소



Delegation der Deutschen Wirtschaft in Myanmar Delegation of German Industry and Commerce in Myanmar



Deutsches Wirtschaftsbüro German Trade Office Taipei 德國經濟辦事處



Indo-German Chamber of Commerce Deutsch-Indische Handelskammer Mumbai · Delhi · Kolkata · Chennai Bengaluru · Pune · Düsseldorf



Deutsch-Philippinische Industrie- und Handelskammer German-Philippine Chamber of Commerce and Industry



Malaysian-German Chamber of Commerce and Industry Deutsch-Malaysische Industrie- und Handelskammer



Deutsch-Thailändische Handelskammer German-Thai Chamber of Commerce

Preface

The new German Corporate Due Diligence Law is the first comprehensive and legally binding mechanism in Germany that safeguards human rights and the environment in supply chains and heralds a new era of sustainable practices in manufacturing and sourcing. In already complex global production networks, complying with the requirements of the new law has created a myriad of challenges for companies and has sparked debates on the feasibility of such legislation, especially amongst entrepreneurs and politicians. Critical discourse has also focused on the potential impact of mandatory due diligence on competitiveness in global markets and whether the law could lead to offshoring and reshoring and contribute to shifts of global and regional value chains.

We, the Konrad-Adenauer-Stiftung (KAS), Rule of Law Programme Asia, and the Singaporean-German Chamber of Industry and Commerce (SGC), are excited to present our new study on "Sustainable manufacturing and sourcing in the Asia Pacific - Meeting the new German standard of care for human rights and environment protection" that seeks to contribute to these public debates in the context of the Asia-Pacific region.

The study offers an exceptionally comprehensive data set with responses from hundreds of companies, explains the current standard of care in supply chains in Asia, pinpoints key challenges in complying with the new law, and lays the foundation for a more nuanced discussion on mandatory corporate due diligence in global production networks. And, thus, is aiming at supporting businesses and politics alike in their efforts to strengthen human rights.

More than 350 companies took part in this survey. We are grateful for their engagement as well as for the interviews that provided additional and valuable insights. Their expert knowledge and hands-on, practical experience are the basis of this study.

We express our gratitude to SGC's and KAS' networks for their support in conducting this study. Looking forward to an intense exchange about these findings!

Jens Rübbert
President
SGC

Tim Philippi Executive Director SGC Stefan Samse
Director Rule of Law
Programme Asia
KAS

Executive summary and key findings

Several countries, including France, the UK, Australia and Germany, have implemented mandatory due diligence laws for human rights and the environment. This has sparked national and international debates about the mandatory nature of due diligence laws, their effectiveness in safeguarding human rights and the environment, and potential impacts on value chains and competitiveness. In light of the recently passed mandatory due diligence law in Germany, the Singaporean-German Chamber of Industry and Commerce, supported by the Konrad Adenauer Foundation, has undertaken a comprehensive survey to study this topic to better inform the public debate and provide a factual foundation for future discussions. The 26-question survey collected responses in November 2021 from 364 companies that are part of the German Chamber Network in the Asia-Pacific region.

Key findings:

- All industries, particularly raw-material intensive industries, are extensively sourcing from China.
- The majority of German companies already exercise due diligence as a standard of care for human rights and the environment. Corporate due diligence is predominantly practised in downstream supply chain segments and less frequently in upstream supply chain segments.
- Only companies with more than 1000 or 3000 employees fall under the scope of the GDDL. The data collected shows that only a small number of those companies currently comply with the requirements of the new regulation.
- Although the GDDL only applies to MNCs with more than 1000 or 3000 employees, the study finds that almost all SMEs anticipate that they will be indirectly impacted by the regulation. Subsequently, many are working on a compliance strategy.
- The study identifies the following six challenges in complying with the GDDL:
 - i. Across all sectors and company sizes, respondents find the GDDL to be ambiguous. This makes it difficult for enterprises to ensure full compliance with the law. As a result, a vast majority of companies expressed the need for sector-specific guidelines on GDDL-compliance.

- ii. The study finds that the timeframe between the ratification and entry into force of the GDDL does not grant all companies sufficient time to implement a compliance strategy.
- iii. Some companies rely on third parties to conduct on-site inspections and audits. The data shows that there is a lack of external auditors in APAC. This makes compliance with the GDDL more difficult, especially when companies do not have a presence in their sourcing markets.
- iv. The data shows that companies operate and source in markets, where governments have asserted their sovereign rights to conduct their internal affairs without outside interference. More than a third of respondents find it difficult to flag non-compliance with human rights due to the political context. There is also a strong link between the difficulty in flagging non-compliance due to the political context and the lack of social auditors.
- v. A vast majority of respondents expect to incur high costs and more bureaucracy in complying with the law. There is a strong link between building up new due diligence competencies, such as hiring new staff, and the anticipated rising costs.
- vi. Some manufacturers, predominantly from labour-intensive sectors, asserted that geographical dispersion of suppliers is a challenge in complying with the GDDL. This is particularly observed in the electronics and semiconductor industry.
- The majority of companies expect the GDDL to be relatively effective in safeguarding human rights and the environment. Nevertheless, in labour-intensive industries, a comparatively higher proportion of respondents are sceptical regarding the GDDL effectiveness. 20 per cent of respondents expect the GDDL to be ineffective in protecting and upholding human rights and environmental protection.
- The GDDL is expected to have a moderate impact on manufacturing and sourcing in APAC. Close to one in four companies are likely to offshore manufacturing activities from markets with lower human rights and environmental governance to markets with more robust framework conditions. Some manufacturers, predominantly in raw material-intensive industries, are also likely to shift their network of suppliers.
- MNCs expect the GDDL to have a net positive effect on their global competitiveness, while smaller companies expect a net loss in global competitiveness.

1. Introduction

Today, few would deny that the corporate duty to respect human rights and the environment exists independently of the state. The debate has moved on to how businesses should respect human rights. According to the UN Guiding Principles and OECD Guidelines, the heart of the answer lies in the conduct of human rights due diligence. Until recently, these principles remained in the realm of "soft" law, relying on voluntary adoption of guidelines and recommendations, such as the German National Action Plan for Business and Human Rights (NAP)¹. In Germany, this has drastically changed in 2021, with the adoption of the Act on Corporate Due Diligence in Supply Chains² (herein referred to as GDDL), which requires companies to fully assume responsibility to safeguard human rights and the environment in their operations and supply chains. This puts Germany in a group of European countries like France and the UK that have already instituted legal frameworks of their own.

This GDDL is currently widely discussed among politicians, civil society and the business community in Europe and Asia. To contribute to this discourse, this study aims to evaluate (1) the degree to which current due diligence practices meet the requirements of GDDL (2) what challenges companies expect to face in complying with the GDDL (3) the impact of the GDDL on German companies.

The first chapter sets the stage by describing how production in global value chains can carry certain human rights and environmental risks. It describes existing voluntary and mandatory due diligence frameworks and provides an overview of the GDDL. Chapter 2 briefly describes the methodology, while chapter 3 gives an overview of the survey respondents to provide the reader with a foundation for the analysis. In chapter 4, the respondents' geographical organisation of manufacturing and sourcing and the complexity of their suppliers' network is described to showcase the supply chain linkages of German companies in APAC. Chapter 5 consists of a stocktaking of due diligence practices prior to the GDDL. Chapter 6 assesses the road towards achieving compliance with the GDDL and highlights the challenges companies expect to face, what actions they are likely to take and how this will impact their competitiveness. The final chapter consists of four company editorials that showcase different perspectives on corporate due diligence and GDDL-compliance.

¹ In German: Der Nationale Aktionsplan Wirtschaft und Menschenrechte (NAP)

² In German: Gesetz über unternehmerische Sorgfaltspflichten in Lieferketten (Lieferkettensorgfaltspflichtengesetz, LkSG)

2. Background: Safeguarding human rights and the environment through corporate due diligence

Development of global value chains

International production, trade and investment are organised within so-called global value chains (GVCs), where different stages of production processes are located across various countries (OECD, n.d). In each stage of the GVC, value is added to the final product or service. Value-adding activities can range from R&D and design, international trade in raw materials (such as steel) and intermediates (cables, technical textiles or car parts), product assembly, supply chain activity (transport and storage) and other tasks (such as marketing and after-sales services). As such, the production in GVCs shares two main features: geographic dispersion and functional specialisation. First, production occurs across different countries and jurisdictions. Second, the tasks that companies perform are specialised. Specific corporations, tiers of corporations, and even significant segments of national economies devote themselves to a particular task in the production chain for goods. What we are witnessing is the division of labour for a particular good or service among different countries and within segments of those countries (Parella, 2019). For example, the Italian bicycle manufacturer Bianchi carries out its design work prototyping and conception work in Italy and assembles most of its bicycles in Taiwan, using parts and components from Japan, Italy and Malaysia. Each supplier has niche expertise. Shimano of Japan, for example, produces brakes for Bianchi, and the handlebars are made in Taiwan (World Bank, 2020). Sourcing from different countries allows the company to leverage different competitive advantages and optimise its manufacturing process and costs, while ensuring its position as an innovative and high-quality brand of bicycles.

Value Chains and Sustainable Development

Participation in global value chains can lead to economic growth, industrialisation and promote the transfer of know-how and technology. As such, it is an important driving force for economic development. Bangladesh is a powerful example of how participation in the apparel and footwear value chain has supported economic growth and structural change. In the late 1980s, Bangladesh's apparel and footwear exports accounted for less than one per cent of the global total. Since then, the business of exporting apparel

made from imported textiles has grown on average by nearly 18 per cent a year. Today, Bangladesh is the third-largest exporter of clothing and footwear worldwide after China and Vietnam. The sector accounts for almost 90 per cent of the country's exports, 14 per cent of GDP, and employs approximately 3.6 million workers (Word Bank, 2020).

While GVC participation has brought Bangladesh growth and prosperity, value chain activity has also carried adverse social and human rights implications. For example, in April 2013, an accident in the Rana Plaza building in Dhaka, Bangladesh, which housed five garment factories, killed at least 1,132 workers and injured more than 2,500 (ILO, n.d.). The disaster highlighted the poor working conditions and the unsafe work environment in these five factories. This has resulted in a larger discourse on workplace safety, human rights and environmental degradation in GVCs (ILO, n.d.) and further strengthened the commitment of German companies to implement CSR practices.

The ILO (2020) estimates that a total of 160 million children were in child labour at the beginning of 2020 – a 5.5% increase from 2016 (ILO, 2020). Another 40 million people were victims of modern slavery, of which 10 per cent were subjected to state-imposed forced labour (ILO, 2017). Many other workers currently face inhumane working conditions. These practices are found around the world and occur in different production networks.

The organisation of global value chains has made it difficult for companies to ensure that goods and services are produced ethically. The geographical dispersion means that value chain activity can occur in nations that do not have human rights laws or enforce a human rights regime that does not align with international standards. Sometimes governments also lack the institutional capacity to enforce human rights laws. This also applies to environmental standards. The functional specialisation in value chains has led to complicated supplier networks, where the production includes hundreds or even thousands of contractors and sub-contractors. As production networks become increasingly complex, there is also a higher risk that a supply chain is exposed to human rights violations or environmental degradation.

The German Federal Ministry of Labour and Social Affairs (BMAS, 2020) conducted a comprehensive study on this topic. The study identifies 29 sectors that participate in GVC activity and are exposed to human rights risks. The study finds that human rights risks are the highest in upstream supply chain activities, such as raw material extraction. The automotive, chemical and machinery sectors are part of the 29 identified sectors as they are raw material-intensive industries. Industries with labour-intensive production, including textile and clothing, food and beverages and electronics, are also coined high-risk sectors. The study also identified risks in Germany.

Companies are becoming increasingly aware of these issues and have implemented extensive CSR initiatives and human rights due diligence. For example, in response to the 2013 Rana Plaza factory building collapse, the Plaza Accord, an independent, legally binding agreement between brands and trade unions to work towards a safe and healthier

 $^{^{\}scriptscriptstyle 3}\,$ In German: Bundesministerium für Arbeit und Soziales (BMAS)

garment and textile industry in Bangladesh, was implemented. The Accord covers 190 brands, 1600 factories and more than 2 million workers. Independent organisations regularly inspect the 1600 factories for fire, electrical and structural safety. Other initiatives in the textile, clothing and footwear sector include the Ethical Trading Initiative (ETI), Fair Wear Foundation (FWF) and ACT (Action, Collaboration, Transformation). For instance, ACT is a legally binding initiative between brands, retailers and trade unions to achieve living wages through industry-wide collective bargaining agreements. ACT provides a framework through which all actors – brands and retailers, trade unions, manufacturers, and the government – can exercise their responsibility to achieve paying living wages. Such initiatives have been founded in other industries. For example, 34 German chemical companies, including BASF, Evonik and Henkel, launched "Together for Sustainability" (TFS). Members of TFS have agreed on a single audit programme to improve sustainability practices within their supply chains (TFS-initiative, n.d.).

Some companies have committed to keeping their operations and supply chains ethical and implementing strict social, human rights, and environmental due diligence procedures.

Current corporate due diligence frameworks and regulations

Having explained the organisation of GVCs, associated human rights and environmental risks and industry initiatives to tackle such challenges, this section defines the concept of corporate due diligence and outlines existing international frameworks and national legislation.

Due diligence refers to a process of investigations conducted by a business to identify and manage commercial risks. As such, due diligence processes confirm facts, data and representation involved in a commercial transaction to determine the value, price and risk of such transactions, including the risk of future litigation (Bonnitcha and McCorquodale, 2017).

In the context of sustainable development, due diligence involves the action taken by companies to identify and act upon actual and potential human rights and environmental risks in their operations and supply chain. The concept of due diligence goes well beyond the idea of doing harm. It requires proactive steps to prevent and address potential adverse impacts (UNGA, 2018).

There is no international, legally binding framework that obliges corporates to adopt human rights and environmental due diligence. Instead, existing international frameworks provide recommendations, guidelines and best practices for human rights due diligence. Some governments have introduced national, legally binding legislation to address the gaps in international law.

International frameworks

At the international level, there are three main non-binding frameworks: The United Nations Guiding Principles (UNGP), the OECD Guidelines on Responsible Business Conduct and the ILO's Tripartite declaration (MNE Declaration).

1. The United Nations Guiding Principles (UNGP)

The 2011 United Nations Guiding Principles (UNGP) affirm that both states and business enterprises carry the responsibility to respect human rights. The UNGPs builds on three pillars: (1) The State's duty to protect human rights, (2) the responsibility of corporate entities to respect human rights and (3) the need to provide access to remedy for those who have been adversely affected by business-related activities (UNHR, 2011). The second pillar specifies that business entities should incorporate a policy commitment into their corporate structure and implement human rights due diligence procedures as an operational means to respect human rights. Part of that procedure should address 'potential impacts' through prevention or mitigation, while 'actual impacts' – those that have already occurred – should be a subject for remediation (UNHR, 2011).

2. The OECD Guiding Principles on Responsible Business Conduct

These Guidelines cover nine areas of responsible business conduct: information disclosure, human rights, employment, labour, environment, anti-corruption measures, consumer interest, science and technology, competition and taxation. The guidelines stipulate that corporate should:

- A. Adopt a responsible business conduct policy, build internal capacity and functional alignment, supplier and business partner engagement, set up internal controls and data collection on supply chain, establish grievance mechanism.
- B. Identify and assess risks of adverse impacts in the supply chain: map operations, business partners and supply chains, prioritise further assessment based on the severity of harm, identify risks of circumstances inconsistent with standards in the guidelines.
- C. Manage risks in the supply chain: inform senior management, fix internal systems, build leverage individually or collaboratively, use existing networks to manage risk, build internal and business partner capacity, provide remedies when the enterprise has 'caused' or 'contributed' to adverse impacts.
- D. Verify the effectiveness of the enterprise's due diligence: where relevant, monitor medium-high-risk operations, products or services after the change of circumstances; undertake audits and similar activities.
- E. Report publicly and communicate, with due regard for commercial confidentiality and competitive concern.

3. The ILO's Tripartite Declaration of principles concerning multinational enterprises and social policy (MNE Declaration).

The MNE Declaration was adopted close to 40 years ago (amended in 2000 and 2006) and revised in 2017. It provides direct guidance to enterprises on social policy and inclusive, responsible and sustainable workplace practices, building on international labour standards (ILO conventions and recommendations).

EU legislation

Protecting and upholding human rights and safeguarding the environment are core values of the EU and are embedded in EU law. The Charter of Fundamental Rights of the European Union stipulates that the EU and its member states are required to comply with human rights standards whenever implemented in EU law (Charter of Fundamental Rights of the European Union, 2012). The Treaty of the European Union (TEU) asserts the EU to 'work for the sustainable development of Europe based on balanced economic growth and price stability, a highly competitive social market economy, aiming at full employment and social progress, and a high level of protection and improvement of the quality of the environment" (TEU, 2012). As such, the EU has implemented a number of initiatives to address the negative impact of business on human rights and the environment, including the non-financial reporting directive, the timber regulation (EUTR) and the Conflict Minerals Regulations.

1. The Financial Reporting Directive (Directive 2014/95/EU)

The Financial Reporting Directive requires large companies to disclose information on the policies they implement concerning environmental protection, social responsibility and treatment of employees, respect for human rights, measures to counter corruption and bribery and diversity in companies. Reporting currently only applies to large public-interest companies with more than 500 employees. Currently, approximately 11,700 large companies, including listed companies, banks, insurance providers and other companies designated by national authorities as public-interest entities, are subjected to these requirements (European Commission, n.d).

2. The Timber Regulation (Regulation EU 995/2010)

The Timber Regulation entered into force in March 2013 and prohibits the placing of illegally harvested timber and products derived from such timber on the EU market. To this end, EU operators who place timber products on the EU markets must exercise due diligence to ensure they supply products made of legally harvested timber. While corporates may set up their due diligence system, it must include the following elements:

• Information: The operator must have access to information describing the timber and timber products, country of harvest, species, quantity, details of the supplier and information on compliance with national legislation.

- Risk assessment: The operator should assess the risk of illegal timber in his supply chain, based on the information identified above.
- Risk mitigation: In case the assessment discloses a risk of illegal timber in the supply chain, that risk can be mitigated by requiring additional information and verification from the supplier.

The regulation is legally binding in all EU Member States. National authorities are responsible for enforcing the regulation. Non-compliance of companies with the EUTR is met with effective, proportionate and dissuasive penalties (EU Commission, N.d.). For instance, in 2020, the Netherlands inspected 34 companies that imported wood or wood products from China, Ukraine, Brazil, Nigeria, Ecuador and Cameroon. Overall, the Dutch authorities found that three companies did not comply with the regulation and imposed penalties ranging from 100,000 Euros to 163,000 Euros (NVWA, 2020).

3. Conflict Minerals Regulation (Regulation EU 821/2017)

In January 2021, the Conflict Minerals Regulation entered into force. The regulation requires EU importers of tin, tantalum, tungsten and gold to ensure they import these minerals and metals from responsible and conflict-free sources only. To this end, importers are required to follow the OECD's Due Diligence Guidance for Responsible Supply Chain from Conflict-affected and High-Risk Areas' (OECD guidance). This guidance requires importers to establish a strong company management system, identify and assess risk in their supply chain, design and implement a strategy to respond to identified risks, carry out an independent third-party audit and report annually on its supply chain due diligence. The EU Commission estimates that the regulation impacts 600 to 1,000 EU importers and indirectly affects 500 smelters and refiners. National authorities are responsible for enforcing the regulation.

4. The road towards mandatory due diligence in the EU

Several EU agencies, national parliaments and stakeholders have asked for a more comprehensive EU-wide due diligence framework.

The EU Council's Conclusion on Global Value Chains (2016) encouraged the European Commission "to enhance the implementation of due diligence and to foster dialogue and cooperation amongst all relevant public and private stakeholders" (p.6) and asserted a joint responsibility of governments and businesses to foster more sustainable supply chains. In its Conclusion on Business and Human Rights (2016), the EU Council urged business enterprises to "comply with UN Guiding Principles, the ILO Tripartite Declaration and the OECD Guidelines, inter alia by integrating human rights due diligence into their operations to better identify, prevent and mitigate human rights violations" (p.3). The Council also recognised that integrating human rights due diligence into business operations is indispensable to sustainable development and achieving the UN Sustainable Development Goals (EU Council, 2016).

In October 2016, the European Parliament adopted the report on corporate liability for serious human rights abuses in third countries with an overwhelming cross-party majority. This report stresses that non-binding private sector initiatives are not sufficient by themselves. Accordingly, it called on the EU and its Member States to lay down binding and enforceable rules setting out that companies must respect human rights throughout their operations by establishing mandatory human rights due diligence. In its initiative resolution on sustainable finance in May 2018, the Parliament called on the Commission to present a legislative proposal on "an overarching, mandatory due diligence framework including a duty of care to be fully phased-in within a transitional period and taking into account the proportionality principle" (EU Parliament, 2018).

In March 2021, the EU Parliament adopted a legislative initiative resolution, recommending that the EU Commission initiate a legislative proposal on corporate due diligence and accountability. In the Annex of the resolution, the Parliament included a draft directive with extensive due diligence obligations, covering human rights, environmental and good governance risks and goes beyond existing national regulation, including the German due diligence law (EU Parliament, 2021). The purpose of the resolution was to influence the legislative procedures launched by the Commission on sustainable corporate governance. The EU Commission is currently working on a proposal of an EU-wide due diligence law that will be published in 2022.

National legislation in the EU

1. The Dutch Child Labour Due Diligence Law

In May 2019, the Dutch Senate adopted a new legislation requiring companies to identify and prevent child labour in their supply chains. Companies are required to determine whether there is a reasonable suspicion that products or services involve child labour. If the latter is confirmed, corporates are required to develop an action plan in line with UN Guiding Principles or OECD Guidelines for Multinational Enterprises in order to prevent and mitigate the risks of child labour (Amfoi, 2020). Similar to other human rights due diligence laws, companies must produce a statement which declares that their company is conducting due diligence. Non-compliance with the due diligence requirement is met with criminal penalties, such as up to four years of imprisonment, community service, or a fine of up to 830,000 Euros.

2. The French Duty of Vigilance Law

The law requires companies with over 5,000 employees to undertake due diligence in their supply chain. The Duty of Vigilance Act is structured around two mechanisms. The first is a "civil duty of vigilance" aimed at preventing risks and serious abuses of fundamental rights, health, personal safety and the environment linked to supply chain activities. In consultation with stakeholders and trade unions, companies are required to develop a vigilance plan. This plan should identify, analyse and map the environmental and human rights risks arising from the company's activities. The plan should also include measures

to mitigate risks and must be implemented, monitored, and made publicly available. The second is a "redress and liability mechanism "of these obligations. Companies that fail to comply with their Duty of Vigilance are subjected to sanctions, such as penalty, and are liable for damages caused.

The German Due Diligence Law (GDDL)

Unlike other countries, German did not have a national legislation on corporate due diligence. The adoption of the GDDL in 2021 marks an important milestone in working towards a higher standard for care for human rights and the environment in supply chains. This section provides an overview of the GDDL's origin, its coverage, protected legal positions, substantive and procedural requirements and implementation.

1. Origin of the GDDL

Germany relied on voluntary commitments to implement corporate human rights obligations as a party to the UN Guiding Principles on Business and Human Rights. In 2016, the government implemented the National Action Plan for Business and Human Rights (NAP). The German NAP contains five central requirements on human rights due diligence:

- (1) A policy commitment by company management regarding respect for human rights
- (2) A risk assessment of potential and actual adverse impact of business activities on people
- (3) Measures to address identified risks and monitoring of their effectiveness
- (4) Reporting
- (5) Grievance mechanisms

The German NAP stipulated that the Federal Government expects all enterprises to introduce the aforementioned process in a manner commensurate with their size, the sector in which they operate and their position in supply and value chains. The government asserted that "it would review compliance annually from 2018 onwards. In the absence of adequate compliance, the Federal Government will consider further action, which may culminate in legislative measures" (Auswärtiges Amt, 2017, p.10).

In the NAP, the Federal Government set the benchmark that at least 50 per cent of all enterprises based in Germany with more than 500 employees will have incorporated the elements of human rights due diligence into their corporate processes by 2020 (Auswärtiges Amt, 2017). To monitor the progress, the German government conducted two surveys in 2019 and 2020. More than 3,000 companies were invited to participate in

the first survey, 400 businesses participated. Out of the 400 companies, 20 per cent were complying with the NAP requirements. In the second survey, 450 companies participated in the survey. 17 per had implemented due diligence procedures in line with the NAP, and the 50 per cent benchmark was not met (BMZ, n.d.).

In their coalition agreement, the then governing parties CDU, CSU and SPD agreed that legislative provisions would be necessary in order to safeguard human rights and the environment. On 3 March 2021, the German Federal Cabinet approved a draft legislation on corporate due diligence in supply chains. Following engagements with industry representatives, the new legislation was adopted on 11 June 2021 and authorised of the German Bundesrat on 22 June 2021. On 22 July 2021, the act was published in the Federal Law Gazette.

2. Coverage of the GDDL

Regardless of their legal form, the act covers businesses in Germany. The law takes effect on 1 January 2023 and applies to companies with 3,000 employees or more. After one year, on 1 January 2024, the application of the law expands to enterprises with 1,000 employees or more. When calculating the number of employees of a company, employees of subsidiaries are taken into account, including part-time workers.

3. Protected legal positions

The Annex of the act lists all legal positions protected by the GDDL. For human rights, the GDDL is comprehensive and covers prohibitions of child labour, forced labour and slavery, unequal treatment on the grounds of national, social or ethnic origin, health status, disability, sexual orientation, age, gender, political opinion, religious belief, the withholding of appropriate wage and forced evocation of unlawful seizure of land and the prohibition of hiring or using private or public security forces involving torture or injury to life or limb. These obligations also strive for the protection of workers' safety and freedom of association at the workplace. For environmental protection, the GDDL is less comprehensive. It covers aspects linked to human health, including prohibitions of causing harmful impacts on the soil, water pollution, air pollution, harmful noise emissions and excessive water consumption, provided these are likely to adversely affect natural resources on which people depend, deny people access to safe drinking water, impede or destroy access to sanitation or impact human health. The GDDL obliges companies to comply with prohibitions enshrined in the Minamata Convention on Mercury, the Stockholm Convention on Persistent Organic Pollutants and the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal.

4. Risk management and reporting requirements

The GDDL requires companies to implement human rights and environmental due diligence in their supply chain to prevent and mitigate potential violations. As such, companies are required to establish appropriate and effective risk management

in relation to their own business, direct suppliers and – to a limited extent – indirect suppliers. The company's "own business" covers subsidiaries abroad, subject to the legal and factual relationship between the headquarters and the subsidiaries. If the parent company has legal and factual control over its subsidiary, it can be held accountable for human rights violations and environmental degradation caused by its subsidiary. If human rights or environmental risks are identified, companies must immediately adopt appropriate preventative measures. The law also requires companies to provide internal complaints procedures or grievance mechanisms that enable people to notify potential risks or violations. As part of its preventive management, companies must issue a statement on their human rights strategy. Companies are also subjected to annual reporting requirements on their compliance with the GDDL. This report has to be made publicly available for at least seven years.

In a nutshell, the following five measures have to be implemented:

- I. Draft and adopt a policy statement on respecting human rights
- II. Carry out a risk analysis: by implementing procedures for identifying disadvantageous impacts on human rights
- III. Engage in risk management (including remedial measures) to prevent potential negative impact on human rights
- IV. Establish a grievance mechanism
- V. Transparent public reporting

5. Implementing the GDDL

The Federal Office for Economic Affairs and Export Control (BAFA)⁴ will ensure the effective implementation of the GDDL and has a monitoring function. If a company refuses to cooperate in its investigation, BAFA can impose a penalty payment of up to 50,000 Euros. If an enterprise is found to have violated its due diligence obligation under GDDL, BAFA can impose a fine of 800,000 Euros or two per cent of the company's annual turnover. Companies can also be excluded from public procurement in Germany for up to three years.

⁴ Bundesamt fuer Wirtschaft und Ausfuhrkontrolle (BAFA)

3. Methodology

This study is primarily based on a survey and interviews.

The survey was distributed to member companies of the German Chamber Network across the following markets: China, South Korea, India, Hong Kong, Taiwan, Indonesia, Malaysia, Myanmar, Thailand, Singapore and the Philippines. Between 14 October 2021 and 20 November 2021, 364 companies participated in the survey. The survey consisted of 26 questions and was designed by the Singaporean-German Chamber of Industry and Commerce in cooperation with the Konrad-Adenauer-Stiftung. The author analysed the raw data.

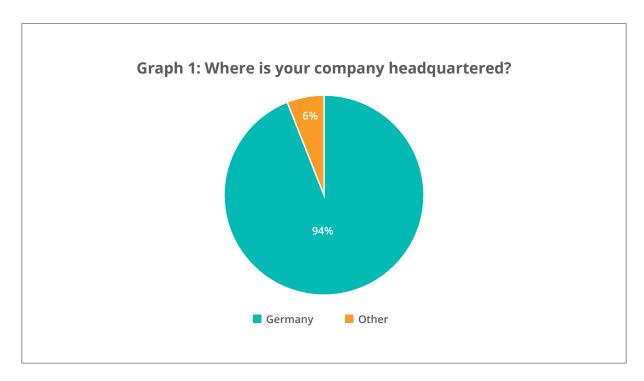
Between 3 October 2021 and 2 December 2021, the Singaporean-German Chamber of Industry and Commerce (SGC) conducted telephone-based, semi-structured interviews with four German companies, who served as basis for the company editorials. Two out of four companies have chosen to remain anonymous.

4. Profile of respondents: Contextualising the analysis

Companies were asked to provide information about their company, including where they are headquartered, what size their enterprise is, and what sector they predominantly operate in. This will serve as a unit of analysis for the chapters five, six and seven.

Respondents headquarter location

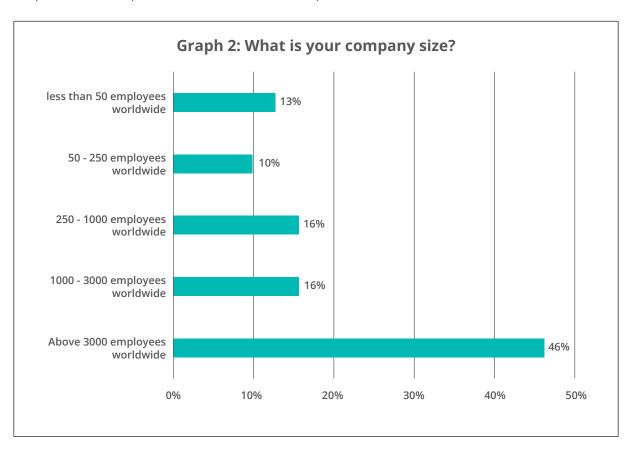
Almost all respondents (94 per cent) are headquartered in Germany. The remaining respondents indicated that they are headquartered in the following countries: Austria, Belgium, Hong Kong, France, Norway, New Zealand, the Philippines, Singapore, Switzerland and Thailand.



Respondents company size

The EU Commission has used the number of employees of an enterprise as a criterion to determine its size. Businesses with less than 50 employees are classified as small companies, and firms with 50 to 250 employees are medium-sized enterprises. Corporations with more than 250 employees are large enterprises or MNCs (EU Commission, 2016).⁵ The majority of respondents were MNCs (78 per cent), while ten per cent are medium-sized enterprises, and 13 per cent of respondents are small companies.

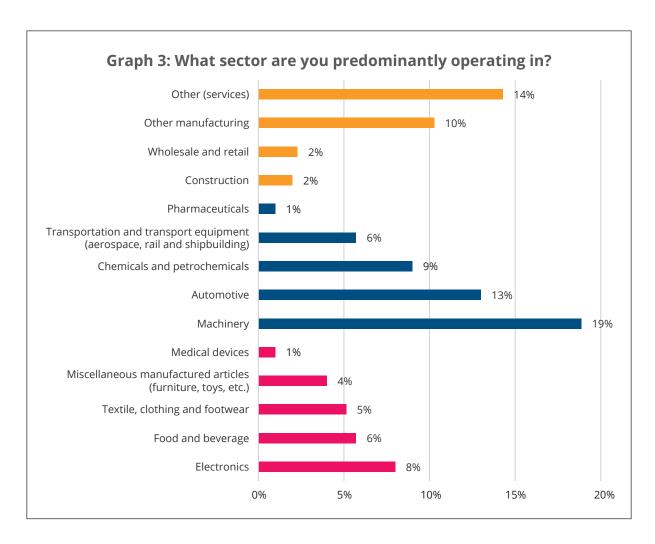
The study further classified MNCs into three categories: (1) MNCs with 250 - 1000 employees. These companies do not directly fall under the scope of the GDDL. (2) MNCs with 1000 - 3000 employees. These companies have to comply with the GDDL as of 1 January 2024. (3) MNCs with more than 3000 employees. These companies have to comply with the GDDL upon entry into force on 1 January 2023. As such, a majority of respondents (62 per cent) fall under the scope of the GDDL.



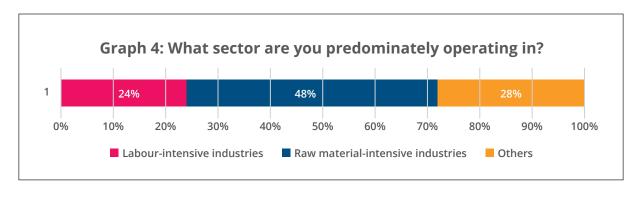
Respondents' industry⁶

Respondents are predominantly from the following sectors: machinery (19 per cent), motor vehicles and car parts (13 per cent), chemicals and petrochemical (6 per cent), and electronics and semiconductor (8 per cent) (see Graph 3). This reflects Germany's industrial base, where these sectors account for 13 per cent, 22 per cent, 11 per cent and 10 per cent, respectively of total manufacturing output in 2020.

⁶ For further clarification, the sector "electronics" captures electrical machinery, semiconductors and ICT, while the transport industry consists of rail, shipbuilding and aerospace manufacturers. The sector "chemicals" covers chemical industries and Petrochemicals" and "Food and Beverages" also encompasses faming and agriculture.



We further classified manufacturing sectors into two overarching categories: labour-intensive industries and raw material-intensive industries⁷. Labour-intensive sectors are electronics, food and beverages, textile, clothing and footwear, miscellaneous manufactured articles and medical devices. Raw material-intensive industries include machinery, automotive, chemicals and petrochemicals, transportation and pharmaceuticals. The remaining sectors are clustered as 'other industries'). Respondents are mostly from raw material-intensive industries (48 per cent) (see Graph 4).



 $^{^{7}\,}$ The sectoral classification is based on research from the German Federal Ministry and McKinsey (2021).

5. Current manufacturing and sourcing in Asia

When establishing and maintaining human rights due diligence, companies have to identify and assess risks of adverse impacts on human rights and the environment in their supply chain and manage those risks accordingly. An important step is to map operations, business partners and supply chains (OECD, 2016). This section provides insight into the respondents' geographical organisation of supply chains and the complexity of their suppliers' network.

Geographical organisation of supply chains in APAC

German companies are integrated into global value chains and leverage international production networks in Asia-Pacific. Table 1 displays in which markets respondents are manufacturing and sourcing.

The data underscores China's importance in global production networks. More than half of the respondents (57 per cent) produce in China, and almost two-thirds (65 per cent) source from the People's Republic (see table 1). Particularly, raw material-intensive industries have strong supply chain linkages to China, with 70 per cent producing and 80 per cent sourcing from China (see table 1). Many raw material-intensive sectors, including the pharmaceuticals, aerospace, automotive and machinery are also R&D-intensive industries. These sectors have solidified their supply chain linkages in China as the country was moving up the value chain from low-cost manufacturing to more knowledge-intensive activities. For instance, today, China accounts for approximately 30 per cent of the manufacturing output in the automotive industry, and more than 80 per cent of the world's auto supply chain is connected to China (KPMG, 2020).

With China moving up the value chain, low cost, labour-intensive manufacturing increasingly shifted out of China into Southeast Asia and South Asia. This is reflected in the data as production (48 per cent) and sourcing (61 per cent) activities in China in labour-intensive sectors are substantially lower than in raw material-intensive industries (see table 1). Despite moving-up to more R&D-intensive industries, China remains pivotal in labour-intensive manufacturing. For instance, a study conducted on the textile and clothing value chains by the ASEAN-Japan Center (2021) found that Cambodia, Myanmar and Vietnam's garment industries are highly dependent on inputs from China.

Against the backdrop of the GDDL, this suggests that companies must be able to conduct human rights and environmental due diligence in China to comply with the GDDL.

In East Asia, excluding China, most manufacturing and sourcing takes place in raw material-intensive industries. 13 per cent of respondents manufacture and 22 per cent source from Japan (see table 1). This underscores Japan's tight integration into GVCs and is in line with OECD data that highlights Japan's strong forward participation in GVCs in chemicals, basic metals and transport equipment (OECD, n.d.). This also corroborates the observation that Japan's degree of vertical specialisation in value chains has increased over the years and that the country has participated as a supplier of inputs and intermediates in global production networks (Ito et. al, 2020). South Korea is equally important in raw material-intensive industries, with 14 per cent of companies manufacturing and 20 per cent sourcing from the market. Korea's GVC-participation is extensive, its proportion of intermediates exports increased over the years, positioning the economy in upstream segments of GVCs (Goodgeon et al., 2021).

The data reveals that ASEAN is important for manufacturing and sourcing. Thailand and Malaysia are crucial in raw material-intensive sectors. For instance, 14 per cent of respondents are manufacturing and 22 per cent are sourcing from Thailand. This is largely attributed to the country's role as an automotive hub in Asia. In 2019, the country hosted 2400 automotive manufacturers that conducted a range of value chain activities, ranging from simple product assembly to advanced engineering, product design and development (ASEAN-Japan Center, 2020). While Thailand was mainly integrated into the automotive chain through backwards participation, the country has gradually increased its forward linkages by leveraging regional production networks (ASEAN-Japan Center, 2020).

Labour-intensive industries have strong supply chain linkages in Vietnam (26 per cent), Indonesia (26 per cent), and the Philippines (20 per cent). For instance, the Philippines is an important sourcing market for the electronic industry, which accounts for 60 per cent of the country's total export share (Philippines Department of Statistics, 2021). The Philippines primarily participates in the component stage of electronics value chain, such as the production of integrated circuits (Department for Trade, 2017) which are used in further manufacturing in Hong Kong (21 per cent), China (13 per cent), Singapore (8 per cent) and Japan (6 per cent) (Semiconductor and electronics Industries in the Philippines Foundation, 2021).

Among the listed countries, Laos, Cambodia, Bangladesh, and Myanmar are classified as Least Developed Counties (LDCs) by the United Nations (UNCTAD, n.d.). Raw-material intensive industries have almost no linkages to these markets. Not one respondent is manufacturing in one of the four markets, and sourcing is extremely limited (1%). Labour-intensive industries have a stronger presence and linkages to LDCs, particularly in Cambodia. 7 per cent of companies have manufacturing capabilities in the Kingdom, while 12 per cent source from its market. This reflects Cambodia's growing importance in the textile and footwear value chain. This industry accounts for 70 per cent of manufacturing output and 80 per cent of total goods exported. It is vital to note that a significant share (80 per cent) of all garment and textile exports are based on non-equity mode production, which means that most exporters, such as Golden Apparel, Cambo Hansome, and New

Wide Cambodia, etc., are operating as partners or subcontractors with international/ German clothing and footwear companies. The latter will thus source from Cambodia.

Table 1: In which markets are you manufacturing and sourcing?

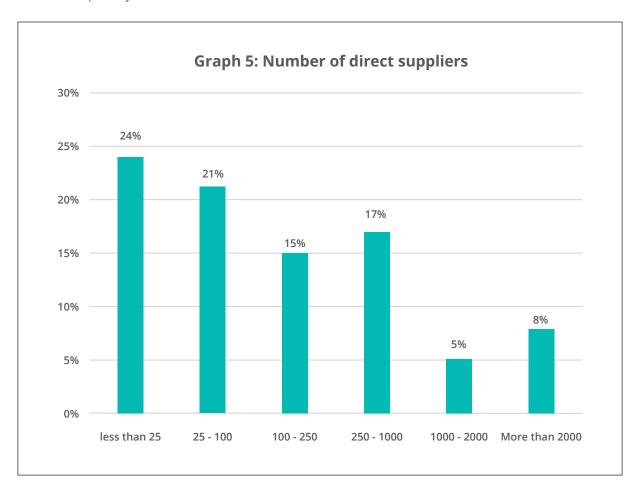
		All industries Labour-intensive industries			Raw material- intensive Industries	
	Manufacturing	Sourcing	Manufacturing	Sourcing	Manufacturing	Sourcing
Australia	2%	7%	5%	3%	0%	7%
New Zealand	3%	5%	6%	3%	3%	4%
China	57%	65%	48%	61%	70%	80%
South Korea	11%	18%	11%	10%	14%	20%
Japan	7%	14%	3%	6%	13%	22%
Taiwan	7%	19%	3%	13%	11%	18%
Hong Kong	5%	10%	5%	9%	2%	6%
India	14%	15%	12%	19%	19%	19%
Sri Lanka	1%	3%	3%	6%	0%	3%
Bangladesh	1%	4%	3%	9%	0%	1%
Brunei	0%	1%	0%	0%	0%	1%
Cambodia	2%	4%	7%	12%	0%	1%
Laos	0%	3%	0%	5%	0%	1%
Myanmar	1%	3%	0%	5%	0%	1%
Vietnam	10%	15%	15%	26%	6%	10%
Singapore	8%	13%	8%	18%	7%	14%
Malaysia	11%	18%	6%	14%	13%	20%
Thailand	14%	19%	13%	22%	14%	22%
The Philippines	5%	14%	6%	20%	4%	9%
Indonesia	8%	15%	3%	25%	7%	13%

Supply chain complexity

The number of direct suppliers can vary significantly within and across sectors. For example, the German car manufacturer Audi interacts with more than 14,000 direct suppliers from more than 60 countries ((Audi, 2021), while BMW Group's global network of 3,200 suppliers produces at 4,500 production locations in around 50 countries

(BMW, 2018). The small-sized company Haas & Co Magnettechnik, sources from less than 50 direct suppliers to manufacture its magnets.

It is more difficult for companies with complex supply chains to conduct due diligence since they have to spend more time and resources on the continuous process of risk identification, prevention and mitigation. As such, the study also considers the supply chain complexity in the assessment.



Graph 5 reveals that 24 per cent of respondents source from fewer than 25 direct suppliers, and 21 per cent source from 25 to 100 suppliers (see Graph 5). This means that an aggregate of 45 per cent of companies have a rather simple network of suppliers. The supply chains of the remaining respondents (65 per cent) are considerably more complex. Five per cent of companies indicated that they source from 1000 - 2000 direct suppliers, while eight per cent have a suppliers network consisting of more than 2000 direct suppliers (see Graph 5). This underscores the variation in supply chain complexity among different companies.

Based on the data, this study has calculated a supply chain complexity index (see table 2). The index is a proxy for how complex supply chains are across different

industries, based on how many direct suppliers an industry sources from on average. Companies reported their approximate number of suppliers on a 6-point Likert scale (1 = less than 25 suppliers, 2 = 25 to 50 supplies, 3= 50 to 250 suppliers, 4 = 250 – 1000 suppliers, 5 = 1000 – 2000 suppliers, 6= more than 2000 suppliers.). We calculate the mean-score per sector to obtain the index. The higher the index score, the more complex a supply chain is. Respondents from the chemical industries (score: 3.40) report, on average, the highest number of direct suppliers and the most complex supply chain, followed by the food and beverage sector (3.25). In contrast, miscellaneous manufactured articles (1.71) and service industries (1.52) work, on average, with fewer direct suppliers (see table 2) and report a lower supply chain complexity index.

Table 2: Supply chain complexity index by sector

Chemicals and petrochemicals	3.40
Food and beverages	3.25
Transportation and transport equipment	3.25
Textile, clothing and footwear	3.22
Machinery	3.03
Industry average	3
Wholesale and retail	2.9
Automotive	2.95
Electronics	2.72
Construction	2.00
Miscellaneous manufactured articles	1.71
Other manufacturing	1.65
Services	1.52

6. Benchmarking human right due diligence by companies operating and sourcing in APAC

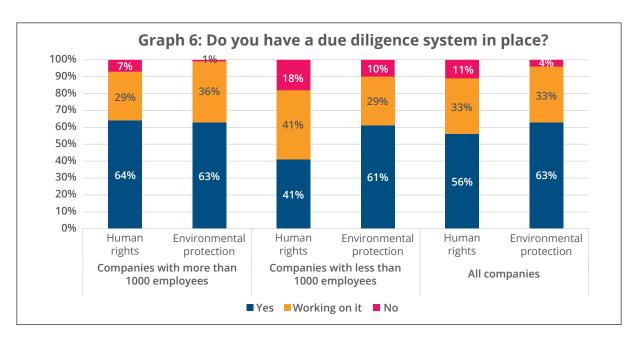
There is growing momentum in different industries to exercise due diligence as a standard of care for human rights and the environment. Some enterprises have adopted such mechanisms as they are legal prerequisites to sell goods and services in certain markets. Other companies have voluntarily adopted due diligence practices. This is either because companies are intrinsically motivated to do so and have incorporated such commitments in their larger CSR strategy, or because they pursue commercial interests, such as better branding, marketing, and reputation.

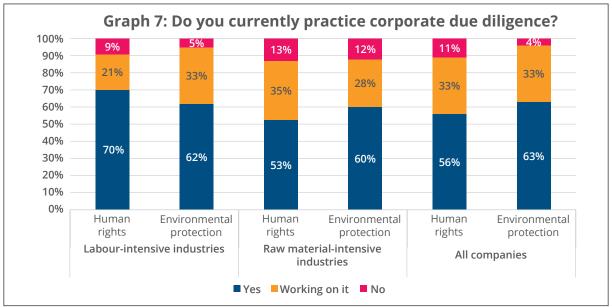
While companies frequently consult international guidelines and recommendations when carrying out corporate due diligence, the standard of care and the scope of application can vary from company to company. To obtain a benchmark on current due diligence practices in APAC, this section assesses:

- 1. How common due diligence practices are among respondents,
- 2. In which segments of the supply chain companies carry out due diligence,
- 3. What companies do to ensure compliance with sustainability requirements,
- 4. How companies deal with non-compliance,
- 5. How suppliers in APAC perceive human rights and environmental due diligence practices.

Corporate due diligence: A common practice among German companies in APAC

Graph 6 has also clustered respondents into two categories. The first category consists of companies with more than 1000 employees, the second category captures respondents with less than 1000 employees. The analysis shows that the former category is more progressive in conducting human rights (64 per cent) and environmental (63 per cent) due diligence (see Graph 6). These companies will also have to comply with the GDDL by 2023 or 2024 and can build on their existing frameworks when working towards GDDL-compliance. The latter category predominantly exercises due diligence as a standard of care for the environment but are less progressive in doing so for human rights. 41 percent currently have such a system in place, while 41 per cent are currently working towards one (see Graph 6).

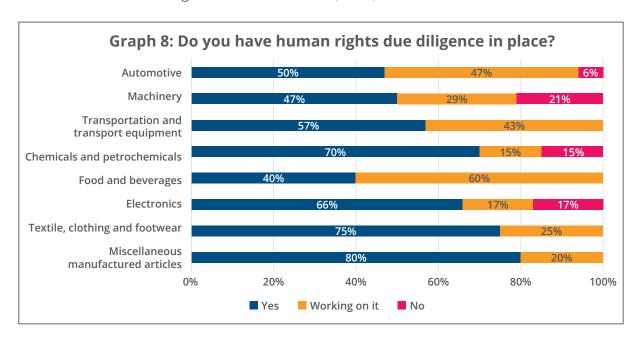




A data breakdown by industry cluster reveals that 70 per cent of labour-intensive industries conduct human rights due diligence, which is above industry average (see Graph 7). This means that labour-intensive industries are more progressive in adopting human rights due diligence as standard of care. Sectoral data underscores that these practices are commonplace among manufacturers of miscellaneous manufactured articles (80 per cent) and textile, clothing and footwear (75 per cent) (see Graph 8). In our interviews, interviewees from the textile, clothing and footwear industry stated that their sector had received much attention in the human rights discourse from the media and civil society. In response, many companies in these segments have adopted human rights due diligence practices and transparency mechanisms to showcase that they uphold internationally

recognised human rights standards. This may explain why this sector is compartively advanced excercising human rights due diligence.

Graph 7 depicts that half of the respondents (53 per cent) in raw material-intensive industries have adopted human rights due diligence as a standard of care. The implementation rate is consistent across three sectors: automotive (47 per cent), machinery (50 per cent) and transport and transport equipment (57 per cent). The chemical industry is an outlier in this analysis as 70 per cent of chemical manufacturers are undertaking human rights due diligence (see Graph 8). This is because the chemical industry has overall displayed a willingness to engage with human rights issues, according to a report issued by the UN Special Rapporteur on Human Rights and Hazardous Substances and Wastes and the Business and Human Rights Resource Center (2018).

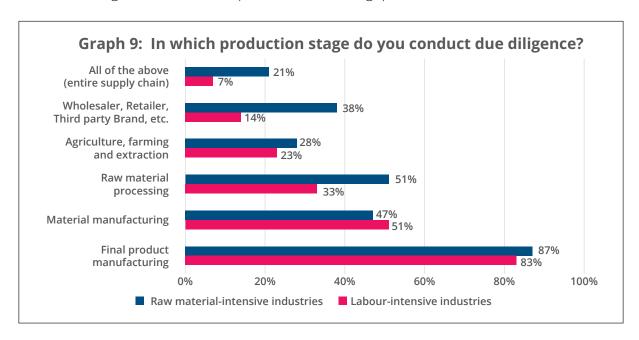


Scope of the current due diligence practices

The above-mentioned section has highlighted that the majority of companies currently carry out human rights and environmental due diligence. To identify which parts of the supply chain are covered by due diligence practices, we asked companies to indicate in what supply chain segments they are currently assessing to identify, mitigate and prevent human rights and environmental risks.

The data reveals that most of the due diligence activities are taking place in downstream supply chain segments. For instance, more than 83 per cent of respondents in labour-intensive industries conduct human rights due diligence in final product manufacturing, while 87 per cent of raw material-intensive manufacturers do so. In upstream supply chain segments, less human rights and environmental due diligence is being practiced

(see Graph 9). Only 23 per cent of labour-intensive manufacturers have implemented due diligence processes in agriculture, farming and raw material extraction, while 28 per cent of raw material-intensive sectors have done so. Human rights risks more frequently occur in upstream supply chain activities than in downstream supply chain activities (BHRBC, 2020). For instance, according to BHRBC (2018), human rights risks and abuses in the chemical industries are twice as high in raw material extraction (22 per cent) than in the manufacturing of chemicals (11 per cent). This is a gap that the GDDL seeks to address.



Companies that indicated "all of the above" subject their entire supply chain to human rights and environmental due diligence. These are predominantly raw material-intensive industries (21 per cent), while only seven per cent of labour-intensive manufacturers have indicated "all of the above". This means that, while human rights due diligence is more commonly practiced in labour-intensive industries, raw material-intensive manufacturers tend to have more comprehensive due diligence approaches, covering larger segments of their supply chain.

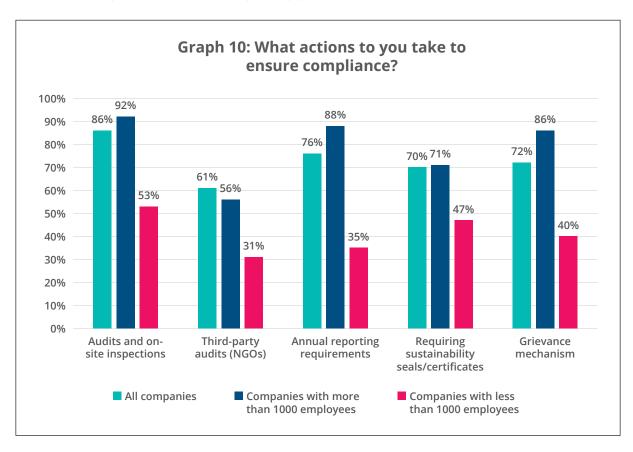
Monitoring compliance

Companies monitor compliance of suppliers with human rights and environmental standards through audits, on-site inspection, certification and reporting requirements. Some companies also engage third parties, such as external auditors, and leverage civil society to ensure that required standards are met. Companies will usually indicate in their supplier's code of conduct how they monitor compliance. For instance, am-OSRAM requires annual reporting by suppliers, conducts on-site inspections and works with third

⁸ These are respondents that have exclusively selected the answer "end the contractual relationship" in the survey question.

parties during audits. am-OSRAM has also established a complaint mechanism to detect risks and violations (see editorial).

Graph 10 depicts that almost all companies with more than 1000 employees conduct audits (92 per cent) and on-site inspections and require suppliers to submit annual compliance reports (88 per cent) (see Graph 10). Two-thirds of respondents (65 per cent) additionally conduct third-party audits and extensively rely on civil society and whistleblowers to detect human rights violations in their supply chain through grievance mechanisms (86 per cent). Establishing such a mechanism is also a central requirement of the GDDL. The data shows that a vast majority (86 per cent) of companies that fall under the scope of the law already comply with this.

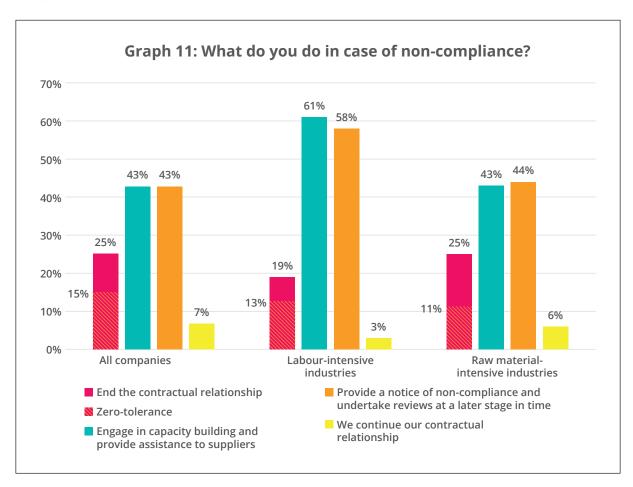


Overall, the monitoring efforts are less comprehensive among companies with less than 1000 employees. 53 per cent conduct audits and on-site inspection, while only 31 per cent of respondents work with third party auditors (see Graph 10). This means that some suppliers are not at all subjected to audits or on-site inspections. Instead, they appear to take a trust-based approach or assume compliance with their supplier's code of conduct. 40 per cent of respondents have established a grievance mechanism, suggesting that the engagement of civil society through a whistleblower-system is less common among smaller companies (see Graph 10).

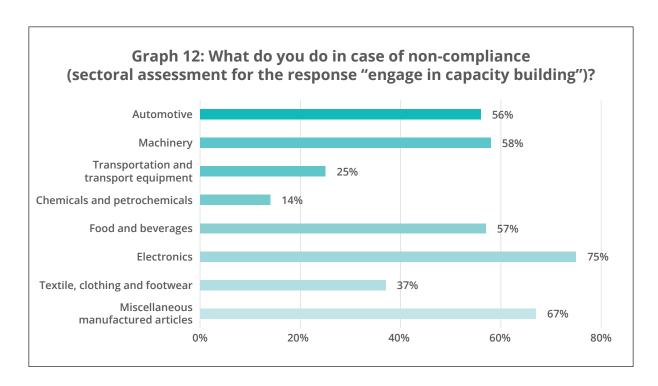
Dealing with non-compliance

Usually, the supplier's codes of conduct will spell out sanctions, mechanisms and actions a company employs if suppliers are found in violation of human rights, environmental and workplace standards.

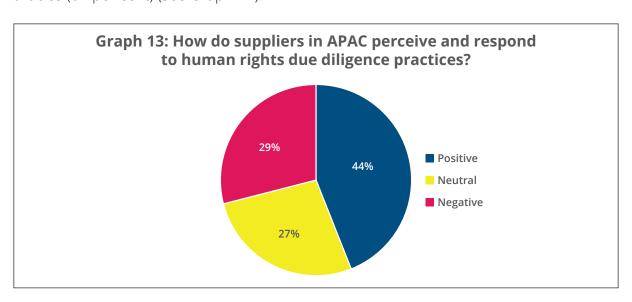
15 per cent of respondents employ a zero-tolerance policy8 (see Graph 11). This means if an audit reveals that a supplier violates the supplier's code of conduct, these companies will immediately terminate the business relationship. Zero-tolerance policies are adopted equally in labour-intensive (13 per cent) and raw material-intensive industries (11 per cent).



The majority of respondents (85 per cent) resort to other measures. 43 per cent of respondents will provide suppliers with a notice of non-compliance and undertake a review at a later stage in time, granting the supplier the possibility to implement an improvement plan (see Graph 13). However, this does not preclude the possibility of ending the contractual relationship at a later stage in time.



Research has shown that compliance programs, promoted by global corporations and nongovernmental organisations alike, have produced only modest and uneven improvements in working conditions and labour rights in most global supply chains (Locke et al, 2019). Audits only provide a snapshot in time. It is what happens after the audits that matters. This is why some companies have moved away from a compliance-driven system towards a more collaborative approach, which entails working together with suppliers to assess gaps, build capacity and incentivise sustainable improvement. This can lead to systemic positive changes in supply chains and achieve greater realisation on human rights and environmental protection. This is reflected in the data, with 43 per cent of respondents having embraced this approach and continuously engaging in capacity building with suppliers. Particularly, labour-intensive manufacturers (61 per cent) work with their suppliers on improvements plans. This is widely practiced in the electronics sector (75 per cent) and among companies producing miscellaneous manufactured articles (67 per cent) (see Graph 12).



Perception of suppliers in APAC on complying with sustainability requirements

Respondents were provided with an open-ended question to share their experience on how suppliers in APAC perceive and respond to human rights and environmental due diligence practices. The results were mixed. We clustered the responses into three categories: (1) positive experience (2) neutral experience, and (3) negative experience.

44 per cent of companies reported a positive experience (see Graph 13). These respondents indicated that partners in APAC are supportive and comply with all human rights and environmental requirements. One German medium-sized manufacturer in the transport sector said that "our suppliers perceive this as positive and comply with our requirements. They want to grow with us and maintain long-lasting relationships and sustainability is a prerequisite to do so". Another German MNC in the machinery sector stipulated: "it is well perceived by our partners in Asia. We also cooperate and provide our expertise to several Tier-1 and Tier-2 suppliers in setting up their human rights due diligence. This is helpful to us". This showcases that German companies actually take on a capacity-building role in transposing human rights and environmental due diligence in their supply chain.

Neutral experience: 27 per cent of respondents shared experiences that we clustered as" neutral" (see Graph 13). These companies mainly indicated that their suppliers accept such requirements as part of the contractual relationship and view this as neither good nor bad. For example, MNC in the electronics sector stated that suppliers "are aware of this before they become authorised suppliers. They view it as part of the business transaction."

Negative experience: 29 per cent of respondents explained that their suppliers view these requirements as unnecessary and cumbersome (see Graph 13). One company indicated that "in countries with bad human rights records, such approaches are conceived negatively". Several companies asserted that suppliers often chose not to comply with these requirements when clients are smaller. For instance, an automotive manufacturer wrote that "our suppliers don't care what we, as a small medium-sized producer, demand. It is ignored". An MNC in the 'other manufacturing' sector stated that their experience is "mixed, and depending on the trading volume. If low, then we meet reluctance". This suggests that large companies have more bargaining power over their suppliers than smaller companies.

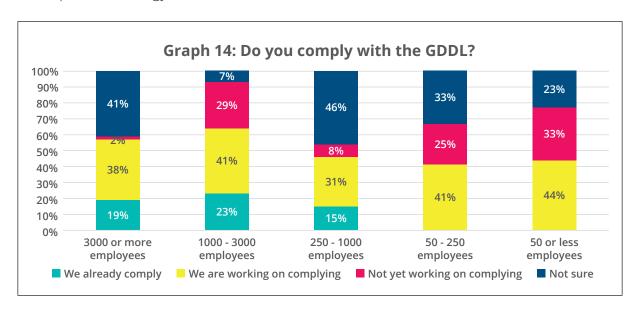
Another interesting perspective was provided by an automotive MNC. The company stated that suppliers "commit on paper, but not in practice". Several companies reiterated this. A company in the textile, clothing and footwear sector explained that "some suppliers accept our supplier's code of conduct, but don't adhere to it. We had contractors, subcontracting production without our prior authorisation. This is not in line with our corporate policy and creates CSR risks". This underscores the importance of inspections, audits and other mechanisms, such as whistleblowers, to ensure compliance with sustainability standards.

7. The GDDL: perspectives from German companies operating in APAC

Having assessed current manufacturing, sourcing and due diligence practices in APAC in Chapter six and seven, Chapter eight assesses how companies prepare for the GDDL compliance, what challenges they face in doing so and what support companies require. This chapter also provides insights the potential impact of GDDL on GVC and competitiveness in global markets.

GDDL readiness: Do German companies comply with the GDDL?

The due diligence law was published in the German gazette in July 2021 and will enter into force on 1 January 2023. To date, only 19 per cent of respondents with more than 3000 employees meet all the substantive and procedural requirements of the GDDL (see Graph 14). The remaining 81 per cent of respondents have approximately one year to ensure compliance. This is why 38 per cent of respondents are currently working on achieving compliance with the new law. Only a small percentage (2 per cent) has not put a compliance strategy in motion.



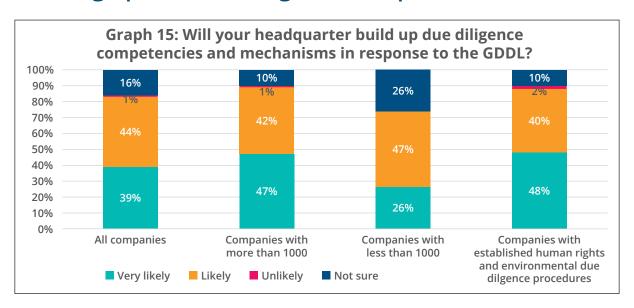
23 per cent of respondents with 1000-3000 employees already meet all requirements of the new law, while 41 per cent are working on building up the necessary competencies and procedures to meet the legal requirements of the GDDL (see Graph 14). A larger number of

respondents do, however, not yet meet all the requirements and have not started working on their compliance strategy yet.

Companies with less than 1000 employees are not required to comply with the GDDL requirements. The analysis shows that not a single medium-sized enterprise (50 – 250 employees) or small enterprise (50 or less employees) currently conducts corporate due diligence that meet the standard of the GDDL (see Graph 14). There are, however, 41 per cent and 44 per cent, respectively working on achieving compliance. This means that companies, irrespectively of size, are moving towards more sustainable practices in their operations and supply chains.

Across all company sizes, the GDDL is associated with much uncertainty. 41 per cent of companies with more than 3000 employees stipulated that they are 'not sure' if they comply with the GDDL. This was reciprocated among respondents with 250- 1000 employees (46 per cent), 50 – 250 employees (33 per cent) and less than 50 employees (23 per cent). This is further corroborated in all interviews, where company representatives explained that there is significant uncertainty regarding the scope of application of the law, e.g. on the company's internal operations and the upstream supply chain tiers.

Building up new due diligence competence



The previous section has highlighted that more than half of the respondents currently undertake human rights and environmental due diligence and some already comply with the GDDL. Companies that are currently working towards achieving compliance may be required to set up new internal competencies and procedures, such as hiring qualified supply chain and human rights professionals, providing in-house training, purchasing software and technology and establishing a grievance mechanism. Our analysis reveals that a vast majority of respondents (83 per cent) are either "very likely" or "likely" to build up new due diligence competencies in response to the GDDL (see Graph 15). This is particularly observed among companies that fall directly under the scope of the GDDL, where 47 per cent of respondents have indicated that their headquarter is "very likely" to set up new internal competencies and procedures. The data also reveals that 48 per

cent of respondents that already have due diligence procedures in place are "very likely" building up new competencies. This underscores that companies cannot simply extend their existing due diligence practices to new areas of application. Instead, it requires internal capacity building, which is likely to be associated with costs.

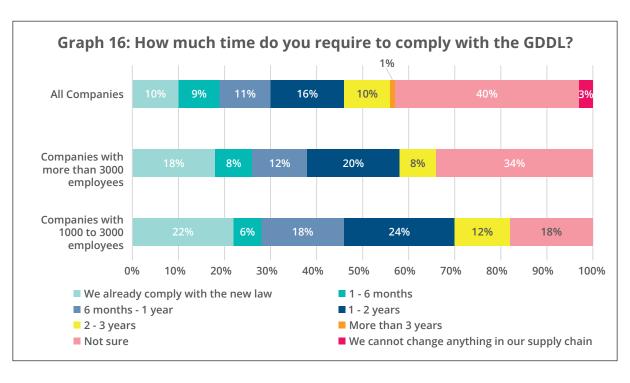
Challenges in complying with the GDDL

Legal ambiguity

41 per cent of respondents with 3000 or more employees indicated that they are not sure if they comply with the GDDL (see Graph 14), suggesting that there is some degree of ambiguity regarding the scope of application of the law. This is reiterated across all other company sizes. For instance, almost half (47 per cent) of the respondents with 250 -1000 employees indicated that they are not sure if they comply with the GDDL. Several companies have noted this in an open-ended answer box. One MNC in the automotive sector has explained: "Our legal counsel has assessed the GDDL. There are aspects that have to be clarified by authorities for us to fully comply". Another company in the food and beverage sector has reiterated this and explained that "we find the legal text vague, leaving a lot of room for interpretation. For compliance-purposes this is not good and we are not sure how to deal with our upstream supply tiers." This ambiguity is voiced as key concern in all interviews with companies (see all four editorial) and constitutes a major challenge for companies in complying with the GDDL.

Insufficient time to ensure full compliance with the GDDL

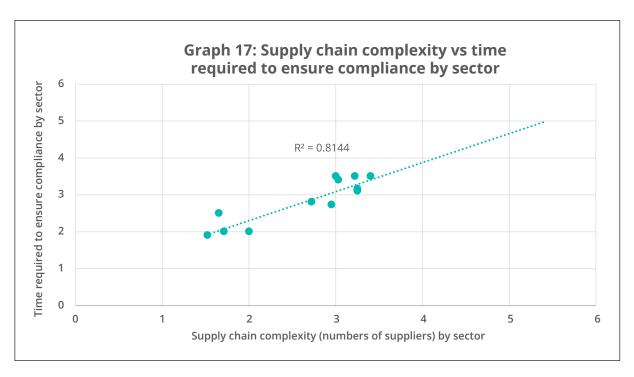
When new laws are passed, companies will require some time to achieve compliance with new substantive and procedural requirements. The legislator is aware of this and usually facilitates this. For instance, when the EU Conflict Mineral Regulation was signed into law in June 2017, companies were granted three and a half years until the law took effect on 1 January 2021. The EU Commission noted this would constitute a sufficient timeframe (EU Commission, n.d.)



The GDDL was published in the German gazette in July 2021 and enters into force on 1 January 2023. This means that MNCs with more than 3000 employees are granted one and a half years to meet the GDDL-requirements. The data breakdown by company size reveals that 38 per cent of respondents with more than 3000 employees will be able to ensure full compliance with the GDDL (see Graph 16). This is either because they already meet the GDDL-requirements (18 per cent), or they require less than a year to implement a compliance strategy (20 per cent). Among this group of companies, eight per cent however require at least two to three years to achieve GDDL-compliance. Another 20 per cent stated that they require a timeframe of one to two years, suggesting that some may only be able to ensure full compliance by mid-2023. There are thus some companies that will not be able to ensure compliance with the GDDL when it enters into force.

The GDDL also applies to companies with 1000 to 3000 employees, starting from 1 January 2024. This means MNCs with 1000 to 3000 employees are granted two and half years to ensure GDDL-compliance. In this case, 70 per cent of respondents with 1000 to 3000 employees asserted that they are able to ensure full compliance with the GDDL by 1 January 2024 (see Graph 16). 12 per cent of respondents said they require two to three years to ensure full compliance, which may suggest that some companies will not have sufficient time to prepare for the GDDL.

Companies reported the time they require to comply with the GDDL on a 6-point Likert scale (1 = we already comply, 2 = we require 1 – 6 months, 3 = we require 6 months - 1 year, 4 = we require 1 – 2 years, 5 = we require 2 – 3 years, 6 = we require more than 3 years, 7= we cannot change anything in our supply chain). We calculated the mean-score per sector to assess which industry requires, on average, the longest time to ensure compliance with the GDDL. The higher the mean-score, the longer a sector needs to ensure compliance with the GDDL. Respondents from the chemical industry (3.5), textile and clothing (3.5) and wholesale and retail (3.5) require the longest time.



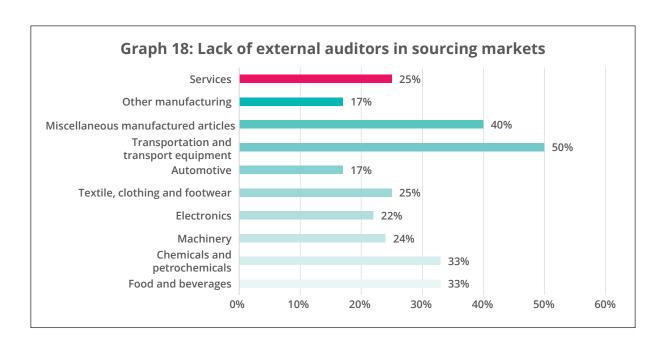
There is a strong, positive correlation between the supply chain complexity and the time needed to ensure compliance with the GDDL (see Graph 17). For instance, respondents in the chemical industries and textiles, clothing and footwear manufactures source, on average, from the highest number of suppliers and require, on average, the longest time to ensure compliance with the GDDL.

Table 3: How long do you require to comply with the GDDL? (mean score by sector)

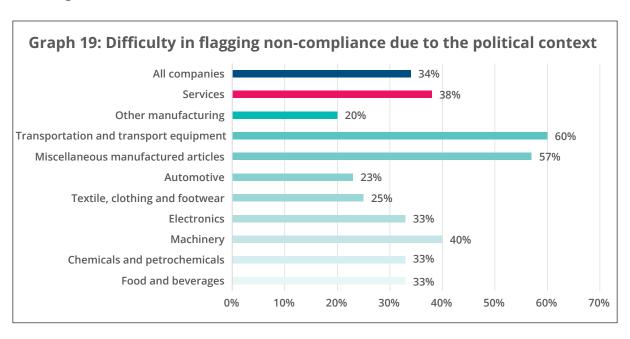
Chemicals and petrochemicals	3.5
Textile, clothing and footwear	3.5
Wholesale and retail	3.5
Machinery	3.4
Food and beverages	3.2
Transportation and transport equipment	3.1
Industry average	3
Electronics	2.8
Automotive	2.7
Other manufacturing	2.5
Miscellaneous manufactured articles	2
Services	1.9

Lack of external auditors in host markets

Some companies engage external auditors to ensure that their suppliers comply with human rights and environmental requirements. Some do so, because they lack the internal capacity and know-how to execute this task or for assurance and credibility purposes. Others opt to engage external auditors because their supply chain is complex and geographically dispersed. This is particularly important during times of COVID-19, since travel restrictions have made it more difficult for companies to conduct on-the-ground inspections if they are not present in the market (OECD, 2021). Therefore, having access to external auditors is important for companies that source in APAC and are required to comply with the GDDL. Although many auditing firms offer social audits, more than one in four respondents (27 per cent) expect a lack of external auditors to be a key challenge in complying with the GDDL. This challenge is particularly observed in two sectors: transport (50 per cent) and miscellaneous manufactured articles (40 per cent) (see Graph 18).

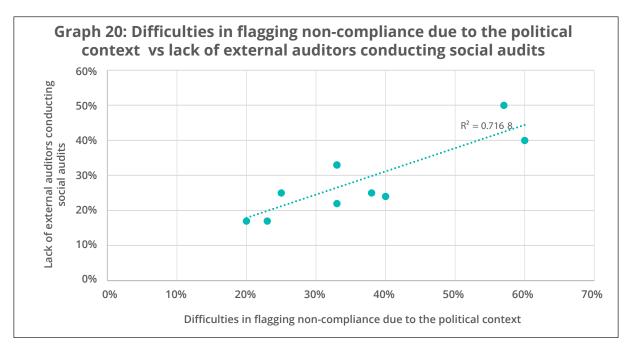


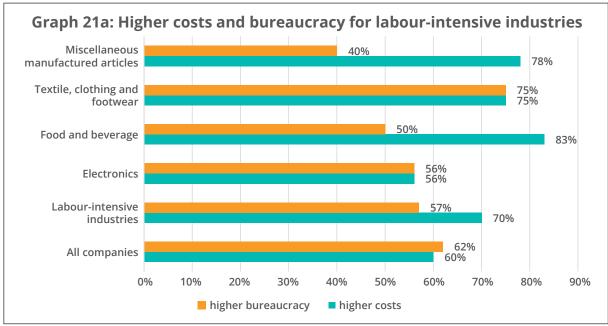
The Business and Human Rights Center has confirmed the lack of social auditors. In light of the recent allegations against China regarding labour camps for Uyghurs and other ethnic minorities in the Xinjiang province in China, the Center invited several large audit firms to elaborate on their auditing approach in Xinjiang. The majority of auditors indicated that they are not conducting any social or human rights audits in Xinjiang nor do they intend to do so in the future. For example, TÜV SÜD explained that "in the Xinjiang area, TÜV SÜD China conducted just a few social audits (such as BSCI) and the last ones took place in 2019. We are not accepting new orders for social audits there", while the company DQS CFS held they "have not done audits in the Xinjiang region in recent years and [that they] have no intention of doing any until the situation changes" (Business & Human Rights Resource Centre, 2021). This underscores that the current lack of social auditors in key manufacturing and sourcing markets will be a key challenge in ensuring compliance with the GDDL, especially if these companies do not have a physical presence in their sourcing markets.



Difficulties in flagging non-compliance due to the political context

Human rights are a highly politicised topic and several governments have cited their sovereign right to conduct their internal affairs without outside interference. This makes it difficult for companies to flag non-compliance with human rights without potentially facing repercussions. The survey data reveals that 34 per cent of respondents see this as main challenge in complying with the GDDL. This is particularly observed in the transport sector (57 per cent) and among companies producing miscellaneous manufactured articles (60 per cent) (see Graph 21).



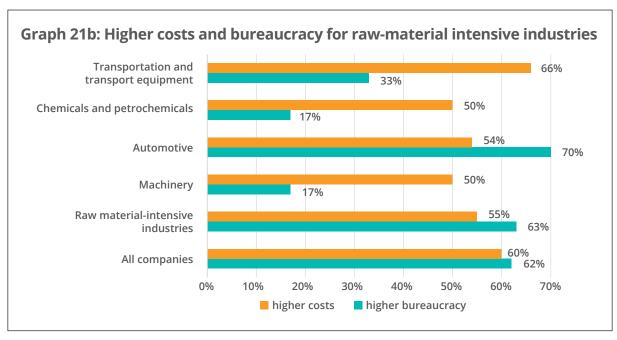


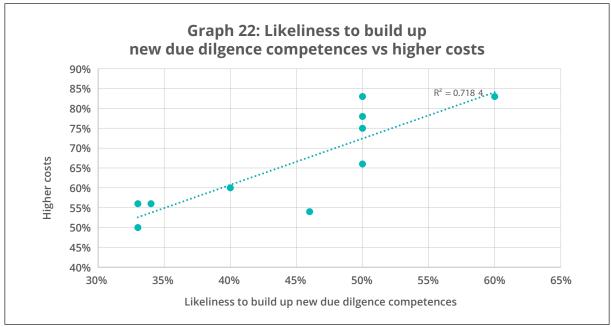
With an R2 of 0.7168, there is a strong, positive correlation between the difficulties in flagging non-compliance due to the political context and a lack of external auditors (see

Graph 20). This means providers of social audits tend to not offer their services in countries where governments are assertive regarding their sovereign right of non-interference.

Expecting higher costs and higher bureaucracy

The majority of respondents indicated that a key challenge in complying with the GDDL are higher costs (60 per cent) (see Graph 21a and Graph 21b). This is reported in all sectors.





A significant divergence is evident when classifying respondents into labour intensive-industry and raw material-intensive industries. More companies in the former group (70 per cent) expect costs to surge in response to the GDDL than in the latter group (55 per cent). This discrepancy may be explained by the more comprehensive existing due diligence practices in raw material-intensive industries (see Graph 9). This is supported

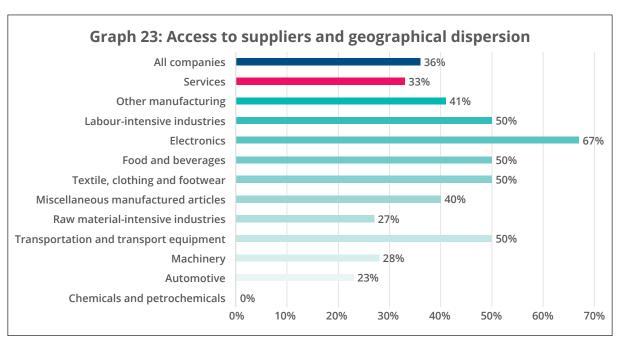
by the strong, positive correlation between the likeliness of building up due diligence competencies/mechanisms and rising costs due to the GDDL (see Graph 22). Costs arise because companies need to enhance their due diligence capabilities by hiring experienced professionals, providing internal training, etc. This has also been communicated in a interview with a clothing retailer (see editorial 4).

A majority of companies (62 per cent) are also expecting the administrative burden to increase (see Graph 21a and Graph 21b). This is because the GDDL prescribes annual reporting requirements. In addition, companies are required to establish or maintain a grievance mechanism, which creates additional bureaucracy. Most MNCs (86 per cent) already have a grievance mechanism in place, while fewer small companies have implemented such a complaint procedure (40 per cent) (see Graph 10). Particularly, respondents from the machinery (80 per cent) and textile and clothing sector (75 per cent) expect the bureaucratic burden to rise (see Graph 21a and Graph 21b).

Access to suppliers and geographical dispersion

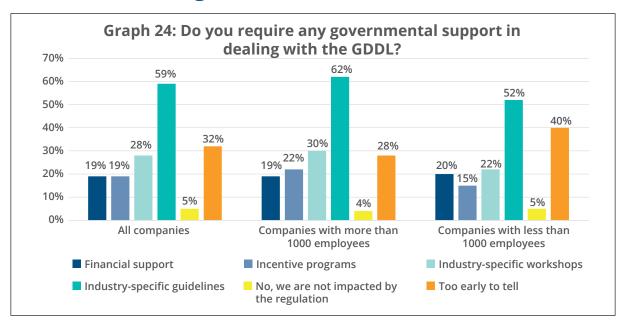
Access to suppliers is crucial in conducting human rights and environmental due diligence because companies will undertake on-site inspections and audits. This becomes more difficult and costly when suppliers are geographically dispersed. 36 per cent of respondents expect this to be a challenge in complying with the GDDL (see Graph 23). A breakdown by sector reveals that this challenge is greater in labour-intensive industries (50 per cent) than in raw material-intensive sectors (27 per cent). Each sectoral cluster has one outlier. In raw material-intensive industries, the chemical industry does not see access to suppliers as a challenge in complying with the GDDL. In the labour-intensive industries, the electronics sector is the outlier, where access to suppliers has been perceived as a significant challenge (67 per cent).

An assessment of the global chemical and electronics value chains provides a convincing explanation. For chemicals, the production has become highly concentrated in a few



value chains over the years. For instance, 74 per cent of today's global production capacity of Polyester Fibers is located in China (end-use: Textile). Also, 62 per cent of Ethyl Acetate production (end-use: Solvents) and 61 per cent of Polvester Polymers (end use: automotive, electronics, packaging, etc.) are predominantly produced in clusters in China. This is because these segments require scale economies and access to feedstock and therefore are prone to concentration in specific regions or even single markets (Gomez and Radel, 2020). In contrast, the electronic industry is characterised by internationally fragmented and well-integrated production networks with geographically extensive and highly modular value chains. Usually, high value-added and capital-intensive activities, such as R&D and design, take place in markets like Japan, South Korea, Taiwan and increasingly China. Component and system suppliers that manufacture high value-added intermediates, such as semiconductors, wafers, passive IC components, bare circuit boards, are located in markets like Hong Kong, South Korea, Malaysia and Singapore. Another group of component and system suppliers specialises in labour-intensive production activities, such as assembly and testing. This is often done in Cambodia, Indonesia, Laos, Malaysia, the Philippines, Thailand and Vietnam (ASEAN-Japan Center, 2020). This underscores that supplier for electronics sector are likely to be spread across the entire region, making on-site inspections and audits more difficult. In turn, this can make GDDL-compliance more complicated.

Supporting companies in overcoming challenges. What can the German government do?



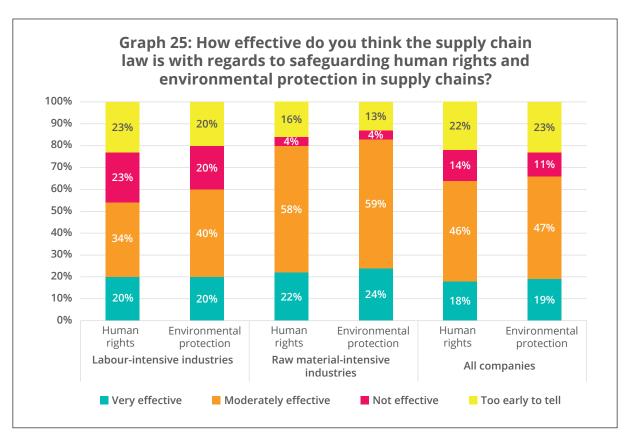
All four companies we interviewed expressed the concern that there is significant legal uncertainty regarding the scope of application of the GDDL. Interviewees expressed that they are waiting to obtain guidelines from BAFA to ensure full compliance with the GDDL. This concern is reiterated in the survey data. When asked what kind of governmental support companies require in dealing with the GDDL, 59 per cent of respondents said they need industry-specific guidelines (see Graph 24). Another 28 per cent said they would welcome industry-specific workshops. The response rate

is consistent among companies that fall under the scope of GDDL (companies with more than 1000 employees) and those that do not fall under the scope of the law (companies with less than 1000 employees). It is crucial that BAFA cooperates with industry players to develop industry-specific compliance guidelines for the GDDL.

The data reveals another important finding: only five per cent of respondents with less than 1000 employees indicated that they are "not impacted by these regulations". This suggests that although smaller companies are excluded from the obligations and reporting requirements of the GDDL, they are anticipating that they will be indirectly impacted by the GDDL. This is because larger enterprises are likely to contractually pass on GDDL obligations to their business partners and network of suppliers. Thereby, the GDDL-obligations trickle through the entire supply chain and also affect small and medium-sized enterprises. This is why smaller companies, such as Haas and Co., are working towards achieving compliance with the GDDL (see Editorial 3).

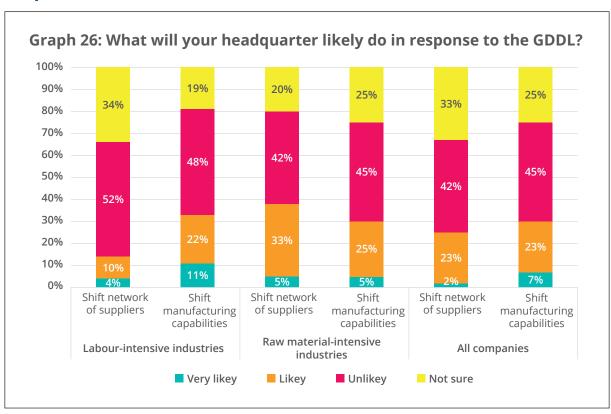
Effectiveness of the GDDL in safeguarding human rights and environmental protection in supply chains

64 per cent of respondents say the new legislation will be "very effective" or "moderately effective" in safeguarding human rights, while 66 per cent expect the law to be "very effective" or "moderately effective" in safeguarding the environment (see Graph 25). Therefore, companies recognise that corporate due diligence may be an essential instrument for better application of internationally recognised labour, social and labour standards in the production of goods and services.



14 per cent and 11 per cent respondents expect the GDDL to be ineffective in safeguarding human rights and the environment. A significant divergence is observed when classifying respondents into raw material-intensive and labour-intensive sectors. For the former, only 4 per cent expect the law to not adequately safeguard human rights and the environment. This means that the GDDL is expected to positively impact sustainability practices in the automotive, transport, chemical and machinery sector. For the labour-intensive industries, more than one in five respondents say that the law will not be effective in safeguarding human rights (23 per cent) and the environment (20 per cent) (see Graph 25). This may be due to systemic challenges in these sectors. For instance, suppliers in the garment and footwear industry and jewellery, accessories and handicrafts often subcontract manufacturing. If these subcontractors are unauthorised, this creates unaccounted human rights and environmental risks. As a result, several companies have prohibited unauthorised subcontracting in their supplier's code of conduct and implemented transparency measures, such as disclosing their suppliers lists and cooperating with whistleblowers.

Impact of the GDDL on GVCs



To understand the potential impact of the GDDL on global value chain activity, we asked respondents to indicate what actions their headquarters might undertake in response to the GDDL.

The GDDL covers any company's operation, including the manufacturing of subsidiaries abroad. German companies produce across the entire APAC region, including in markets with weaker human rights governance. The data demonstrates

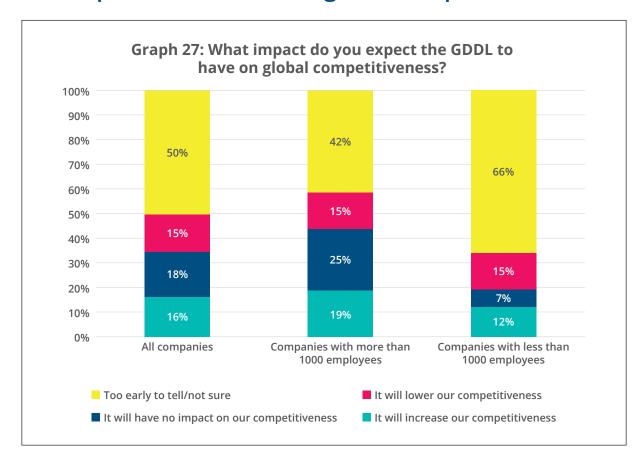
that in both labour-intensive and raw material-intensive industries, one in three companies have indicated that they are "very likely" or "likely" to relocate manufacturing capabilities as a result of the GDDL (see Graph 26). For GVCs in Asia-Pacific, the GDDL may thus induce offshoring activities from countries with weaker to countries with more robust human rights and environmental governance.

Raw material-intensive manufacturers produce predominantly in China, India, South Korea and Thailand, while labour-intensive sectors have production capabilities in China, Thailand and Vietnam. These countries are most likely to experience relocation activities. This does not preclude the relocation activity within the aforementioned three markets. Over the last years, companies in China have increasingly employed a China+1 Strategy and have diversified their operations in other markets. Many companies have chosen Vietnam to build up manufacturing in Vietnam due to its geographical proximity to China, access to low-cost labour and comprehensive network of trade agreements. In the context of human rights governance and the GDDL, German companies may seek to shift their production from China to Vietnam.

While EU lawmakers recently criticized Vietnam on freedom of expression (EU Parliament, 2021), the country has taken important steps to enhance workers' rights by enforcing a new labour code. Amongst others, the labour code allows independent trade unions to operate as opposed to being supervised by the state-run Vietnam General Confederation of Labour (Vietnam-Briefing, 2021). Vietnam has also enforced the EU-Vietnam Free Trade Agreement and the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP). Both trade agreements entail legally binding chapters on sustainable development that enforce international labour and environmental laws, such as the ILO Conventions. In the long run, these give the impetus for Vietnam to continuously enhance its human rights governance. China is not legally bound by any trade agreement to adhere to international labour and environmental standards.

The GDDL also requires companies to assess human rights and environmental risks along their supply chain, including direct and indirect suppliers. While some companies have long-lasting relationships with suppliers and engage in capacity building, others may start looking for alternative suppliers. This is predominantly observed among companies in raw-material intensive industries, where almost 40 per cent said they are "very likely" or "likely" going to shift their network of suppliers (see Graph 26). These industries are extensively sourcing from China, Japan, South Korea, Malaysia and Thailand. From a GVC's perspective, the flow of goods between suppliers and producers could induce larger changes in the region in these markets. In labour-intensive industries this is not expected to the same extent. Only 14 per cent indicated that they are "very likely" or "likely" going to shift their network of suppliers.

The impact of the GDDL on global competitiveness



The previous sections have revealed that companies will face higher costs and a larger administrative burden as a result of the GDDL. Some companies are also likely to shift their manufacturing capabilities and network of suppliers due to the new law. This can have implications on the cost of production and undermine competitiveness in global markets. Irrespectively of company size, 15 per cent of respondents have indicated that the GDDL will have an adverse impact on their global competitiveness (see Graph 27).

The data, however, also shows that 16 per cent expect the new law to increase their global competitiveness. The data shows that large companies (companies with more than 1000 employees) (19 per cent) are more capable of leveraging the GDDL to gain a competitive advantage in global markets than smaller companies (companies with less than 1000 employees) (12 per cent). This suggests that the GDDL is expected to have a net positive effect on global competitiveness for companies that are directly affected by the law. Companies that fall outside the scope and are indirectly affected expect a net loss in global competitiveness.

50 per cent of respondents indicated that it is too early to tell if the GDDL will have a positive or negative impact on global competitiveness. It is important to monitor this once the GDDL takes effect to ensure that German companies can continue to succeed internationally.

8. Company editorials

To obtain further insights, we conducted semi-structured interviews with four German companies. These interviews were used to write four company editorials. The editorial provide unique, company-specific insights on how the company is conducting human rights and environmental due diligence and how they are preparing for the GDDL. Two companies chose to remain anonymous and are referred to as "the company".

Editorial 1: Perspectives from the ams OSRAM Group

Background on the company

ams OSRAM is the world's third-largest LED/Sensors manufacturer, headquartered in Premstätten, Austria with a Co-headquarter in Munich, Germany. ams OSRAM positions itself as a high-tech photonics company and focuses on sensor technology, visualisation, Illumination and treatment by light.

Current human rights practices of the company

ams OSRAM actively integrates human rights into its corporate policies, systems, and processes to ensure that ams OSRAMs operations, supply chain and products respect and uphold human rights. The company's Human Rights Policies is based on the International Bill of Human Rights, the ILO Declaration on Fundamental Principles and Rights at Work and its Follow-up, the United Nations Global Compact Principles and the UN Guiding Principles on Business and Human Rights (UNGP).

ams OSRAMs enforces a Business Code of Conduct and the Suppliers Code of Conduct. The former binds all employees to ethical behaviour and builds on legal regulations and international treaties on human rights, anti-corruption and sustainability. As such, the company respects fundamental human rights, ensures its workers' health and safety, and protects the environment.

The latter extends the same obligations to suppliers. Additionally, the suppliers' code of conduct entails additional commitments on sourcing of conflict minerals, whereby suppliers are responsible for ensuring that raw materials are exclusively sourced from conflict-free areas. Suppliers must submit a written self-assessment annually or a written report approved by ams OSRAM to ensure compliance. Suppliers must also grant ams OSRAM or an appointed third party the ability to conduct on-site inspections. Noncompliance can lead to a termination of the business relationship. ams OSRAM has also established a grievance mechanism called "Tell ams-ams OSRAM" for data privacy and human rights violations. "Tell ams-ams OSRAM" is accessible to employees, suppliers, service providers, end-users of ams OSRAM and to local communities affected by ams OSRAMs operation and supply chain.

In 2020, OSRAM GmbH (part of the ams OSRAM Group) fulfilled the reporting requirements under the UK Modern Slavery Act, the Australian Modern Slavery Act and the German CSR Directive Implementation Act (CSR-RUG) and extensively illustrative OSRAMs commitment to safeguard human rights and the environment.

The German supply chain law: ensuring compliance

ams OSRAM welcomes the adoption of the German supply chains law. To ensure compliance with the new Due Diligence law, ams OSRAM already implemented an audit plan for high-risk suppliers and a remediation process. The company established an escalation process, which starts with the request for information and documents, e.g. ISO certifications, conflict minerals templates, self-assessments or sustainability audit requests. Required information must be provided and agreed remediation measures must be set and agreed on. An out listing is the final consequence.

ams OSRAM expects all suppliers (Tier 1 and Tier 2+) to align with the company's code. However, the onboarding process and business readiness process for a very small supplier is simplified and less documentation is required. To address the difficult challenge to control the far-reaching number of suppliers, ams OSRAM depends on the reliability and processes of their Tier 1 suppliers.

From an administrative perspective, the company already has the necessary capacity to comply with major parts of the supply chain law. A team of experts handles core tasks, and a grievance mechanism is already in place. The new law will also not undermine the company's competitiveness in the global markets.

However, there is still significant uncertainty regarding the scope of application of the law. ams OSRAM is waiting for clear guidance on the reporting format and content - provided by BAFA - so that the company can ensure full compliance with the German due diligence law.

Editorial2:Perspectivesfromasportswearmanufacturer

Background on the company

The company is a major sportswear manufacturer in Europe with a global presence in sourcing and sales markets. Footwear and apparel are two of the company's biggest segments.

Current human rights practices of the company

Already prior to the German supply chain law, the company has committed itself to upholding international human rights standards within its institution and supply chain since 1997. These rights are defined in the company's Labour Rights Charter, which demonstrates the company's commitment to the United Nations Universal Declaration of Human Rights.

The company works with and sources from around 500 independent factories that manufacture in more than 49 countries, making the company's supply chain global, complex and multi-layered. To uphold its workers health and safety, human rights and self-regard environmental protection across its supply chain, the company enforces a code of conduct for suppliers. The code of conduct draws from international law and the International Labour Organization (ILO) Conventions and follows the model code of conduct of the World Federation of Sporting Goods Industry (WFSGI). Compliance with the code of conduct is a condition to manufacture for the company. Suppliers must conduct internal assessments on a regular basis, allow the company or its representatives to perform announced or unannounced assessments, and ensure compliance with the Code of Conduct by subcontractors.

Any cases of non-compliance identified during audits are given a certain period for remediation. When ongoing and serious non-compliance and a lack of commitment to move towards compliance are identified, the company will issue a formal warning letter. In very serious cases or in cases of zero tolerance non-compliance, a 'stop work' letter will be issued, advising the offending supplier that business relationship is going to be terminated.

The German supply chain law: ensuring compliance

The company believes that unified standards for supply chain due diligence create a level playing field. They help to raise and align working and environmental conditions in supply chains across sectors. A patchwork of different national approaches and requirements in the EU must be avoided with regard to the internal market and the competitiveness of companies. Any legal requirements should follow UN Guiding Principles and OECD Guidelines for MNCs.

From a product supply chain perspective, the core elements of the overall compliance requirements of the new German law are already reflected in the existing company's human rights due diligence approach. The company is conducting strict due diligence with its direct suppliers and has been extensively collaborating with its suppliers and other stakeholders to create more transparency, build capacity and promote human rights in the upstream supply chain activity. Furthermore, the new supply chains law requires companies to establish a grievance mechanism. The company is a global front-runner in this and has had such a mechanism in place since 2014. The company's grievance mechanism is aligned with the UN Guiding Principles.

From a programmatic perspective, the company already has the necessary capacity in place to comply with major parts of the supply chain law. Core tasks are handled by a team of experts reporting to the General Counsel.

There is, however, still significant uncertainty regarding the scope of application of the law, e.g. on the company's internal operations and the upstream supply chain tiers. A number of vague legal terms require clarity to enable companies to execute the law properly and comply with it. Currently, there are no industry-specific guidelines on this matter. It is

necessary that such guidelines are provided by BAFA so that the company can ensure full compliance with the German due diligence law.

Editorial 3: Perspectives from Haas & Co. Magnettechnik

About the company

Haas & Co. Magnettechnik is a small-sized, German-owned business located in Wiesbaden in Germany. As a leading company in the market for magnet technology, Haas & Co. has offered since 1972 a broad portfolio of magnetic foils, tapes and pouches ranging to metal film and technical magnets, organisation magnets and accessories. The company sources from 50 suppliers worldwide.

Developing a CSR strategy and assessing human risk in Haas & Co.'s supply chain

In 2011, Haas & Co started working on a broad range of CSR issues, such as human rights risks in their supply chain, and have coined more sustainable and transparent business practices as the cornerstone of their operations. For its commitments and actions, Haas & Co. has been awarded the German CSR Award of the German Federal Ministry for sustainable supply chain management several consecutive years in a row and has reported compliance with Germany's Sustainability Code since 2018.

Haas & Co.'s ambition to mitigate and address human rights risks has led the company to undertake a comprehensive assessment of its supply chain, which included a stakeholder mapping, the identification of key human rights concerns, as well as a strategy to limit or mitigate these risks.

In the manufacturing process of magnets and magnet technology, Haas & Co. must procure raw earths, in particular Neodymium. Neodymium combined with iron and boron, creates the most powerful and permanent magnets, making it an essential component in its manufacturing process. There are two tiers in the Neodymium supply chain. The second tier are mines that extract the Neodymium. The first tier are companies that process the rare earth. Currently, China holds a monopoly in the extraction of Neodymium and accounts for approximately 80 per cent of the global supply. These mines are owned by a handful of Chinese enterprises. Most Tier 1 suppliers are also Chinese enterprises and source from these mines. Therefore, there is no flexibility in the market to source processed Neodymium that does not originate from those mines. There is also little information available on specific human rights risks in these mines. Haas & Co. identifies health protection and adequate wages as key risks. The company can, however, not verify this as it has no possibility to obtain access to these mines. As such, Hass & Co. is limited in its ability to address human rights risks with its indirect suppliers.

With Tier-1 suppliers, Haas & Co has found more room to work on its CSR ambitions. The company has established human rights requirements in its purchasing conditions and has continuously engaged with suppliers on implementing measures to ensure better workplace safety and human rights. This has been a great success. For example, Haas & Co.'s suppliers have made protective gear available to reduce the risk of accidents

and injury at the workplace and hired cleaners to address concerns regarding pollution during the Neodymium-processing.

German Supply Chain law

With currently 25 employees, Haas & Co. does not directly fall under the scope of the due diligence law. Nevertheless, the company invested a significant amount of time and resources in understanding the substantive and procedural requirements of the law as they anticipate that the law will impact them indirectly. This is because many of Haas & Co.'s clients will fall under the scope of the due diligence law. These clients have to ensure human rights due diligence across their supply chain and will in turn require compliance from their suppliers, including Haas & Co. This is why also small companies have to pay attention to the obligations under the due diligence law. Smaller companies have to be aware that implementing CSR initiatives and supply chain due diligence is not an easy task and requires planning time and sufficient resources.

Haas & Co also welcomes the current discussion of introducing an EU-wide due diligence law. It is important to have a harmonised Europe-wide regulation that companies can follow instead of fragmented national legislation with different substantive and reporting requirements.

Editorial 4: Perspectives from a clothing retailer

Background on the company

The company is one of the worldwide largest retailers in the apparel sector, with a presence in 21 countries and nearly 1,900 stores. The company's supply chain encompasses more than 1 million people, employed through 722 global suppliers, who run more than 1,600 production units.

Current human rights practices of the company

Already prior to the German supply chain law, the company has committed itself to upholding international human rights standards within its institution and supply chain as set out by the International Bill of Human Rights and the International Labour Organization (ILO) Declaration on Fundamental Principles. The company has also set up human rights due diligence processes to identify, prevent, mitigate and where necessary, remediate negative human rights risks and impacts on people. The company's approach is based on the UN Guiding Principles on Business and Human Rights, the OECD Guidelines for Multinational Enterprises and the principles of the UN Global Compact. Beyond that, the company is participating in relevant multi-stakeholder initiatives, including the 'Bangladesh Accord on Fiber and Building Safety', 'ACT on Living wages' agreement, the German 'Partnership for Sustainable Textiles', and the 'Dutch Agreement on Sustainable Garments and Textile'.

The company was one of the first apparel companies to institute a supplier's code of conduct in 1995. This code of conduct transposes the company's ethical and human

rights commitments along its supply chain. Compliance with the code of conduct is a condition to manufacture for the company. Suppliers must conduct internal assessments on a regular basis, allow the company or its representatives to perform announced or unannounced assessments, and ensure compliance with the Code of Conduct by subcontractors. Additionally, suppliers must obtain approval by the company for all production units, where owed or subcontracted, prior to commencing production. This ensures that the supply chains remain transparent and free of potential human rights violations or 'unethical' conduct.

In cases of violations of the code of conduct, the company will ask the supplier to develop an improvement plan and implement the plan within a specific timeframe. In case of egregious violations, such as child labour or in case of continued failure to implement the improvement plans, the company reserves the right to terminate business relationships with the supplier.

The German supply chain law: ensuring compliance

The company welcomes the adoption of the German supply chain law. From a supply chain perspective, the overall compliance requirements are manageable and are an important step towards driving sustainable development in the apparel sector. The new law will also not undermine the company's competitiveness in the global markets. From an administrative perspective, the company will have to build up additional capacity and manpower as the company currently does not have a human rights officer in place and requires additional staff to fulfil the new reporting requirements. While the company has already assessed the law, there is still some uncertainty regarding the concrete legal obligations under the law and what the BAFA exactly expects from corporates. In order to meet the BAFA's expectations and to ensure full compliance, the company would welcome if the authorities could provide a detailed, industry-specific guideline as soon as possible and not later than half a year before the law enters into force.

Conclusion9

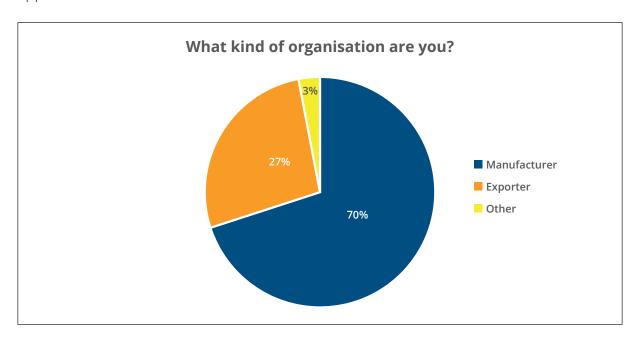
This study finds that many German companies have already implemented corporate due diligence for human rights and environmental protection. Nevertheless, the GDDL heralds a new era regarding the standard of care for sustainable business practices. This is because the new law is comprehensive, wide in scope and prescribes companies to exercise corporate due diligence across their operation and entire supply chain, including indirect suppliers. To meet the new GDDL requirements, many companies have started to work on a compliance strategy. In doing so, companies face various challenges. This study highlights six key challenges, including legal ambiguity, insufficient time to ensure full compliance with requirements, lack of external auditors in their host markets, higher costs and bureaucracy, access to suppliers due to geographical desperation and difficulties in flagging non-compliance due to the political context. While some of these challenges are systemic, the study finds that providing industry-specific guidelines can help companies to overcome the current legal ambiguity.

The study also assesses the impact of the GDDL on GVCs and finds that some companies may offshore operations from markets with lower human rights and environmental governance to markets with more robust framework conditions. This may also be accompanied by shifts in the network of suppliers. While this can moderately impact global production networks, the study finds that companies do not expect it will undermine their competitiveness in global markets.

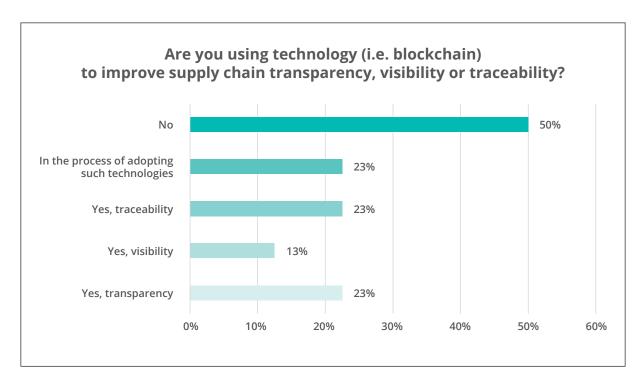
 $^{^{\}rm 9}\,$ For a summary of key findings, please refer to p.9-10

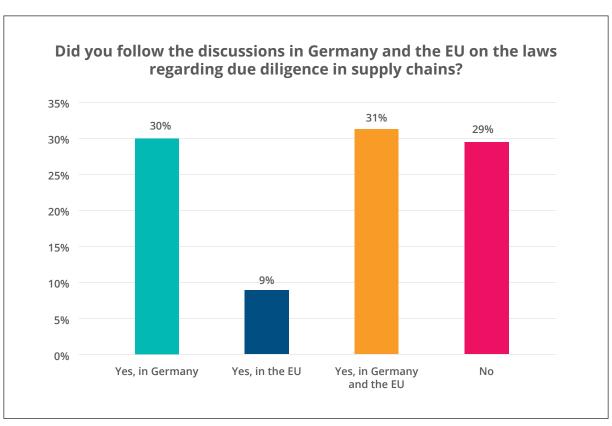
Appendix

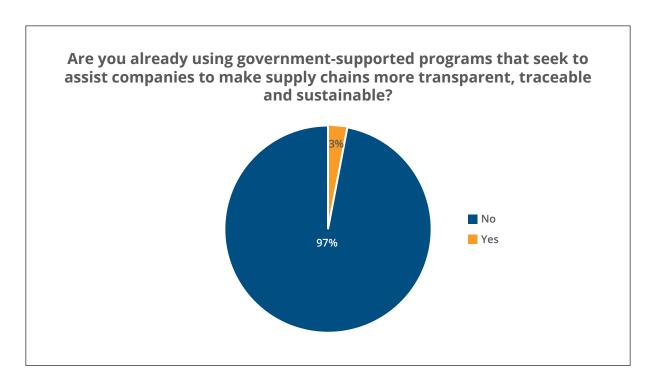
The survey consisted of 28 questions. Not all questions and responses were included in the analysis. Out of transparency purposes, the remaining results are included in this appendix.

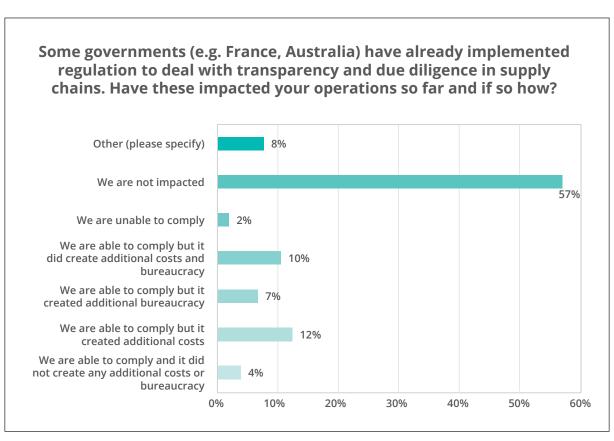












Bibliography

Amfori (2020). Dutch Child Labour Due Diligence Law. https://www.amfori.org/sites/default/files/amfori-2020-26-02-Dutch-Child-Labour-Due-Diligence-Law.pdf

ASEAN-Japan Centre (2019). Global Value Chains in ASEAN: Automobiles. Paper 12. https://www.asean.or.jp/ja/wp-content/uploads/sites/2/GVC Automobiles Paper-12 lanuary-24-2020-web-edited.pdf

ASEAN-Japan Centre (2019). Global Value Chains in ASEAN: Cambodia. Paper 3. https://www.asean.or.jp/ja/wp-content/uploads/sites/2/GVC-in-ASEAN-paper-3_Cambodia.pdf

ASEAN-Japan Centre (2021). Global Value Chains in ASEAN: Electronics. Paper 13. https://www.asean.or.jp/ja/wp-content/uploads/sites/2/GVCs_Electronics_Paper-13_full_web.pdf

ASEAN-Japan Centre (2021). Global Value Chains in ASEAN: Malaysia. Paper 6. https://www.asean.or.jp/ja/wp-content/uploads/sites/2/GVCs_Electronics_Paper-13_full_web.pdf

ASEAN-Japan Centre (2020). Global Value Chains in ASEAN: Textiles and Clothing. Paper 14.

https://www.asean.or.jp/ja/wp-content/uploads/sites/2/GVC_Textiles-and-clothing_Paper-14_full_web.pdf

ASEAN-Japan Centre (2020). Global Value Chains in ASEAN: Thailand. Paper 10. https://ec.europa.eu/regional_policy/sources/conferences/state-aid/sme/smedefinitionguide_en.pdf

ASEAN-Japan Centre (2020). Global Value Chains in ASEAN: Vietnam. Paper 11. https://www.asean.or.jp/ja/wp-content/uploads/sites/2/GVC_Viet-Nam_Paper-11_full_web.pdf

Audi AG (2021). Good chain reaction – Greater sustainability together with suppliers. https://www.audi.com/en/company/sustainability/core-topics/value-creation-and-production/sustainability-at-the-supply-chain.html Becker, D. (2020). COVID-19: impact on the automotive sector. KPMG. https://assets.kpmg/content/dam/kpmg/ar/pdf/2020/covid-19-impact-on-the-automotive-sector.pdf

BMW Group (2018). BMW Group recognises suppliers for outstanding innovations. https://www.press.bmwgroup.com/global/article/detail/T0287384EN/bmw-group-recognises-suppliers-for-outstanding-innovations?language=en

Bonnitcha, J., & McCorquodale, R. (2017). The Concept of 'Due Diligence' in the UN Guiding Principles on Business and Human Rights: A Rejoinder to John Gerard Ruggie and John F. Sherman, The European Journal of International Law Vol. 28 no. 3. III. http://ejil.org/pdfs/28/3/2800.pdf

Bundesministerium für Arbeit und Soziales (BMAS) (2020). Die Achtung von Menschenrechten und entlang globaler Werschöpfungsketten – Risiken und Chancen für Branchen der deutschen Wirtschaft.

https://www.bmas.de/DE/Service/Publikationen/Forschungsberichte/fb-543-achtung-von-menschenrechten-entlang-globaler-wertschoepfungsketten.html

Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung (BMZ) (n.d.). How Germany is promoting fair supply chains.

https://www.bmz.de/en/development-policy/supply-chains/background-supply-chains

Business & Human Rights Resource Centre (2018). Business & human rights in the chemical industry: An assessment of company responses to human rights issues. https://media.business-humanrights.org/media/documents/files/BHRRC_Chemical_Briefing_30_Jan_2018.pdf

Council of the European Union (2016). Council Conclusions on Business and Human Rights, 3.

https://data.consilium.europa.eu/doc/document/ST-10254-2016-INIT/en/pdf

Council of the European Union (2016). Council conclusions on the EU and Responsible Global Value Chains, 6.

https://data.consilium.europa.eu/doc/document/ST-8833-2016-INIT/en/pdf

Ethical Trading Initiative (2019). Enhance supply chain traceability and tackle unauthorized sub-contracting (UAS) to improve worker wellbeing.

https://www.ethicaltrade.org/sites/default/files/shared_resources/Unauthorised%20sub-contracting%2C%20briefing.pdf

EUR-Lex (2012). Charter of Fundamental Rights of the European Union. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:12012P/TXT.

EUR-Lex (2012). Consolidated version of the Treaty on European Union. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A12012M%2FTXT

European Commission (2014). Corporate sustainability reporting. https://ec.europa.eu/info/business-economy-euro/company-reporting-and-auditing/company-reporting/corporate-sustainability-reporting_en

European Commission (2021). EUTR Reports and Reviews. https://ec.europa.eu/environment/forests/eutr_report.htm

European Commission (2015). User guide to the SME Definition. https://ec.europa.eu/regional_policy/sources/conferences/state-aid/sme/smedefinitionguide_en.pdf

European Union (2015). User guide to the SME Definition. https://ec.europa.eu/regional_policy/sources/conferences/state-aid/sme/smedefinitionguide_en.pdf.

European Parliament (2018). European Parliament resolution of 29 May 2018 on sustainable finance (2018/2007(INI)).

https://www.europarl.europa.eu/doceo/document/TA-8-2018-0215 EN.html

European Parliament (2021). Corporate Due Diligence and Corporate Accountability. Legislative Train 11.2021,

https://www.europarl.europa.eu/legislative-train/theme-an-economy-that-works-for-people/file-corporate-due-diligence.

Garcia, B., & Weiss, D. (n.d.). Respect for Human Rights in Global Value Chains: Risk and Opportunities for German Industries. Bundesministerium für Arbeit und Soziales (BMAS). https://eu2020-reader.bmas.de/en/global-supply-chains-global-responsibility/respect-for-human-rights-in-global-value-chains-risks-and-opportunities-for-german-industries/

Global Newswire (2020). Vietnam Garment Manufacturer – The Emerging Player In The Textile Manufacturing Industry.

https://www.globenewswire.com/en/news-release/2020/11/04/2120387/0/en/Vietnam-Garment-Manufacturer-The-Emerging-Player-In-The-Textile-Manufacturing-Industry.html

Global Value Chains (n.d.). OECD. https://www.oecd.org/sti/ind/global-value-chains.htm

Gómez, M., Riveros, J., & Sachs, K. (2021). Labor-intensive factories – analytics-intensive productivity. McKinsey & Company.

https://www.mckinsey.com/business-functions/operations/our-insights/labor-intensive-factories-analytics-intensive-productivity.

International Bank for Reconstruction and Development / The World Bank (2020). Trading for Development in the age of Global Value Chains.

http://eecdf.org/App_UpLoad/file/20191031/20191031103021_4218.pdf

International Labour Organization (ILO) (2021). Child Labour, 12. https://www.ilo.org/wcmsp5/groups/public/@ed_norm/@ipec/documents/publication/wcms_797515.pdf

International Labour Organization (ILO) (2017). Global Estimates of Modern Slavery, 15. https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/ publication/wcms https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/ publication/wcms https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/">https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/ https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/">https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/ https://www.ilo.org/wcms.575479.pdf

International Labour Organization (ILO) (n.d.). The Rana Plaza Accident and its aftermath. https://www.ilo.org/global/topics/geip/WCMS_614394/lang--en/index.htm

International Labour Organization (ILO) (2017). Tripartite declaration of principles concerning multinational enterprises and social policy (MNE Declaration) – 5th Edition. https://www.ilo.org/rome/pubblicazioni/WCMS_094386/lang--en/index.htm

Khor, H. E., & Foo, S. Y. (2020). What lies ahead for global value chains in Asia? https://www.eastasiaforum.org/2020/07/28/what-lies-ahead-for-global-value-chains-in-asia/

Kiefner, A., Theissen, C. M., Wimmer, N., Burghardt-Kaufmann, A., Sitter, J., Kirschner, J., Kueper, S. (2021). The German Parliament passed the "Act on Corporate Due Diligence Supply Chains" on 11 June 2021.2021.

https://www.whitecase.com/publications/alert/german-parliament-passed-act-corporate-due-diligence-supply-chains-11-june-2021

Lee, G., Park, J., Park, J., & Lee, Y. J. (2020). Impacts of Changes in Korea's Global Value Chain (GVC) Participation Structure on Its Exports. Bank of Korea. https://www.bok.or.kr/eng/bbs/E0000828/view.do?nttld=10062734&menuNo=400214

Locke, R., Amengual, M. & Mangla, A. (2009). Virtue out of Necessity? Compliance, Commitment, and the Improvement of Labor Conditions in Global Supply Chains. Politics

& Society, vol. 37(3), pages 319-351.

https://ideas.repec.org/a/sae/polsoc/v37y2009i3p319-351.html

Maihold, G., Müller, M., Saulich, C., & Schöneich, S. (2021). Responsibility in Supply Chains. SWP Comment.

https://www.swp-berlin.org/en/publication/due-diligence-act-responsibility-in-supply-chains

Manakitsomboon, H. (2021). Automotive industry in Thailand – statistics and facts. Statista. https://www.statista.com/topics/6485/automotive-industry-in-thailand/#dossierKeyfigures

Manakitsomboon, H. (2021). Market share of domestic vehicle manufacturers in Thailand from 2017 to 1st quarter 2021. Statista.

https://www.statista.com/statistics/1022503/thailand-market-share-of-domestic-vehicle-manufacturers/

Nederlandse Voedsel – Warenautoriteit (2021). Annual overview 2020 EU Timber Regulation (EUTR).

https://www.nvwa.nl/onderwerpen/import-van-hout-en-houtproducten-flegt/rol-nvwa/jaaroverzicht-2020-eu-houtverordening-eutr

OECD (2021). Due Diligence of Mineral Supply Chains during the COVID-19 Pandemic. http://mneguidelines.oecd.org/due-diligence-of-mineral-supply-chains-during-the-covid-19-pandemic.pdf

OECD (2016). Quantifying the Costs, Benefits and Risks of Due Diligence for Responsible Business Conduct.

https://mneguidelines.oecd.org/Quantifying-the-Cost-Benefits-Risks-of-Due-Diligence-for-RBC.pdf

Parella, K (2019). Improving Human Rights Compliance in Supply Chains. Notre Dame Law Scholarship, 738.

https://scholarship.law.nd.edu/cgi/viewcontent.cgi?article=4886&context=ndlr

Philippine Statistics Authority (2021). Highlights of the Philippines Export and Import Statistics September 2021 (Preliminary).

https://psa.gov.ph/content/highlights-philippine-export-and-import-statistics-september-2021-preliminary

Safe Workplaces. ACCORD. https://bangladeshaccord.org/

SEIPI (2021). About the Philippines. https://www.seipi.org.ph/articles/about-the-philippines/

Sharma, D (2021). Human Rights Due Diligence Legislation in Europe – Implications for Supply Chains to India and South Asia. DLA Piper.

https://www.dlapiper.com/en/middleeast/insights/publications/2021/03/human-rights-due-diligence-legislation-in-europe/

The Centre for Economic Policy Research (CERP) (2020). Central hubs in global value chains and knowledge creation.

https://voxeu.org/article/central-hubs-global-value-chains-and-knowledge-creation

The Federal Government (2017). National Action Plan Implementation of the UN Guiding Principles on Business and Human Rights, 10.

https://www.auswaertiges-amt.de/blob/610714/fb740510e8c2fa83dc507afad0b2d7ad/nap-wirtschaft-menschenrechte-engl-data.pdf

Together for Sustainability (n.d.). TFS Framework. https://tfs-initiative.com/

UNCTAD (n.d.). UN list of least developed countries. https://unctad.org/topic/least-developed-countries/list

United Nations (2011). Guiding Principles on Business and Human Rights. United Nations Human Rights.

https://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf

Vietnam Credit (2020): Top 10 Largest Electronic Components Manufacturers in Vietnam. https://vietnamcredit.com.vn/news/top-10-largest-electronic-components-manufacturers-in-vietnam 13807

World Bank (2020). Trading for Development in the age of global value Chains. https://www.worldbank.org/en/publication/wdr2020

World Economic Forum (2020). Why the global trade of chemicals is key to COVID-19 recovery.

https://www.weforum.org/agenda/2020/12/global-chemicals-trade-value-chains-covid19/

World Trade Organisation (2019). Technological Innovation, Supply Chain Trade, and Workers in a Globalized World. Global Value Chain Development Report 2019. https://www.oecd.org/dev/Global-Value-Chain-Development-Report-2019-Technological-Innovation-Supply-Chain-Trade-and-Workers-in-a-Globalized-World.pdf WP (2017). The Philippines in the Electronics & Electrical Global Value Chain. https://industry.gov.ph/wp-content/uploads/2017/11/DTI-Policy-Brief-2017-07-The-Philippines-in-the-Electronics-and-Electrical-Global-Value-Chain.pdf

Zachariadis, I (2019). Global and regional value chains Opportunities for European SMEs' internationalisation and growth. European Parliament. http://www.iberglobal.com/files/2019-1/GVC european sme parl.pdf

Zamfir, I. (2020). Towards a mandatory EU system of due diligence for supply chains. European Parliament.

https://www.europarl.europa.eu/RegData/etudes/BRIE/2020/659299/EPRS_BRI(2020)659299_EN.pdf

About the author

Robin Hoenig is the Divisional Head of the Trade Policy Competence Center at the Singaporean-German Chamber of Industry and Commerce (SGC). In his role, he supports companies and informs the Association of German Chambers of Industry and Commerce (DIHK), the Federal Ministry for Economic Affairs and Climate Action and the German Chamber Network in the Asia-Pacific on trade policy matters.