The Influence of the UN Sustainable Development Goals on Standardisation in Transnational Law

A Legal Analysis of Steering Effects on the Extractive Industries

Doctoral Thesis

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Foreword

This thesis was submitted as dissertation to the Faculty of Law of the SWPS University for Humanities and Social Sciences, Warsaw in February 2024. Large parts of this thesis were developed from 2020 to early 2024 during my work as a research assistant at the Brunswick European Law School (BELS), Faculty of Law, Ostfalia University of Applied Sciences cooperating with the SWPS University of Social Sciences and Humanities, Warsaw and, partly, at the Lauterpacht Centre of International Law (LCIL) at Cambridge University during a research stay in 2022.

Without the willingness of the SWPS to open their doctoral programme to a foreigner during a global pandemic and to support my preparation, this thesis would not have been realised. By owing special gratitude for their benevolence, thought provoking insights and many exchanges, I thank the director of the doctoral institute Prof Dr hab Teresa Gardocka as well as Prof Dr hab Marek Piechowiak, Prof Dr hab Hubert Izdebski and Dr Pawel Kowalski, my excellent second supervisor.

This thesis has been mostly inspired by my work at the professorship for European and International Economic Law at BELS and by the opportunity to do research at the LCIL as a PhD researcher. During this formative period, I had the privilege of meeting many exceptional scholars who have influenced my thinking. Prof Marie-Claire Cordonier Segger, Prof Markus Gehring and Dr Joanna Gomula stand out among them. They not only gave me professional impetus, but also welcomed me as a friend. Both professionally and personally, they have left an indelible impression on me and I am profoundly grateful for their mentorship and encouragement. The scholars, fellow PhD candidates, colleagues and students who I have crossed paths with during the last almost four years continue to enrich my thinking and keep me awake on the importance of law as a unifying factor across all facets of life. I owe a debt of gratitude to this diverse community for sparking my intellectual curiosity.

Throughout the entire course of my studies, one element remained constant regardless of all pressures: the reliability, trust and kindness of my doctoral supervisor Prof Dr Winfried Huck. His inexhaustible confidence in me and my work fortified both my skillset and my will to complete this thesis. Since the very first semesters of my Bachelor's and Master's programmes, he has shaped my legal education and mindset and equipped me with the tools of conclusive reasoning. With all sincerity, I thank him for the many years of inspiration, his unwavering support and the opportunity to open up this path for me. His mentorship during my doctoral studies and beyond is unparalleled.

Finally, there is only one more thing to say: Dearest Hanna, my beloved daughter, this thesis is for you. Always stay curious - through the universe and back.

Puerto de la Cruz, 23 February 2024 Jennifer Alexandra Katharina Maaß

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List of Abbreviation

AAAA	Addis Ababa Action Agenda
AB	Appellate Body
ACP	African Caribbean Pacific Group
ACP EPA	Economic Partnership Agreements with the African, Caribbean and Pacific States
AFTA	ASEAN Free Trade Area
AHWG	Ad Hoc Working Group on Critical Raw Materials
AIIB	Asian Infrastructure Investment Bank
ALI	American Law Institute
APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
ASM	Artisanal Mining
AU	African Union
BIT	Bilateral Investment Treaties
BRI	Belt and Road Initiative
CAP	Common Agriculture Policy
CBIRC	China Banking and Insurance Regulatory Commission
CDA	Centre for the Development of Agriculture
CDE	Centre for the Development of Enterprise
CFCP	Common Foreign and Security Policy
CFP	Common Fisheries Policy
CFSC	Common Foreign and Security Policy
CIL	Customary International Law
CISDL	Centre for International Sustainable Development Law
CJEU	Court of Justice of the European Union
CO_2	Carbon Dioxide
COPUOS	Committee on the Peaceful Uses of Outer Space
CPI	Climate Policy Initiative
CRMA	Critical Raw Materials Act
CSD	Commission on Sustainable Development
CSDDD	Directive on Corporate Sustainability Due Diligence
CSR	Corporate Social Responsibility
CSRC	China Securities Regulatory Commission
DNSH	Do No Significant Harm
DSB	Dispute Settlement Body
DSU	Dispute Settlement Understanding
EBA	European Banking Authority
EBA_1	Everything But Arms
EBRD	European Bank for Reconstruction and Development

EC	European Community
ECHR	European Charter of Fundamental Rights
ECOWAS	Economic Community of West African States
ECSC	European Coal and Steel Community
EGA	Environmental Goods Agreement
EIA	Environmental Impact Assessment
EIB	European Investment Bank
EITI	Extractive Industries Transparency Initiative
ERMA	European Raw Materials Alliance
ESG	Environmental, Social, Governance
ESMA	European Securities and Markets Authority
ETO	Extraterritorial Obligations
EU	European Union
EuBA	European Banking Authority
EuGBS	EU Green Bond Standard
Eurosif	European Sustainable Investment Forum
EUSFTA	European Union Singapore Free Trade Agreement
FCN	Friendship, Commerce and Navigation Treaties
FDI	Foreign Direct Investment
FIL	Foreign Investment Law
FSF	Financial Stability Board
FTA	Free Trade Agreement
GATS	General Agreement on Trade in Services
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GFC	Green Finance Committee
GGGI	Global Green Growth Institute
GHG	Greenhouse gases
GRI	Global Reporting Initiative
HLPF	High-Level Political Forum
IAIS	International Association of Insurance Supervisors
ICJ	International Court of Justice
ICMM	International Council on Mining and Metals
IDI	Institut de Droit International
IDS	International Development Strategy
IFC	International Finance Corporation
IIA	International Investment Agreement
IIDB	International Investment and Development Banks
IL	International Law
ILA	International Law Association
ILC	International Law Commission
ILO	International Labour Organization

ILP	International Legal Processes
IMF	International Monetary Fund
IOPS	International Organisation of Pension Supervisors
IOSCO	International Organization of Securities Commissions
ISDL	International Sustainable Development Law
ISDS	Investor-State Dispute Settlement
ITC	International Trade Centre
JEFTA	Japanese European Free Trade Agreement
KP	Kimberley Process
KPCS	Kimberley Process Certification Scheme
LDC	Least Developed Countries
LSM	Large-Scale Mining
LFP	Cobalt-Free Lithium Iron Phosphate
LMS	Legislation and Mandatory Standards
MAI	Multilateral Agreement on Investment
MCSA	Minerals Council South Africa
MDGs	Millennium Development Goals
NAFTA	North American Free Trade Agreement
NCP	National Contact Points
NGFS	Network for Greening the Financial System
NGO	Non-Governmental Organisation
ODA	Official Development Assistance
OECD	Organisation for Economic Cooperation and Development
OWG	Open Working Group
PBOC	People's Bank of China
PIGA	Partnership for Investment and Growth in Africa
PTA	Preferential Trade Agreement
RBC	Responsible Business Conduct
RIA	Regional Integration Agreement
RSSF	Renewed Strategy for Sustainable Finance
RTA	Regional Trade Agreement
RtD	Right to Development
SADC	Southern African Development Community
SASB	Sustainability Accounting Standards Board
SD	Sustainable Development
SDG(s)	Sustainable Development Goal(s)
SEE	Socio-economic environmental factors (SEE)
SEIP	Sustainable Europe Investment Plan
SIA	Sustainability Impact Assessment
SRI	Sustainable and Responsible Investment
SSDS	State-to-State Dispute Settlement
TBT	Agreement on Technical Barriers to Trade

TCFD	Task Force on Climate-related Financial Disclosures
TEU	Treaty on European Union
TFEU	Treaty on the Functioning of the European Union
TPRM	Trade Policy Review Mechanism
TRIPS	Agreement on Trade-Related Aspects of Intellectual Property Rights
TSD	Trade and Sustainability Chapter
UDHR	Universal Declaration of Human Rights
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNCITRAL	United Nations Commission on International Trade Law
UNCTAD	United Nations Conference on Trade and Development
UNEP	United Nations Environment Programme
UNEP FI	United Nations Environment Programme Finance Initiative
UNFCCC	United Nations Framework Convention on Climate Change
UNGA	United Nations General Assembly
UNOOSA	United Nations Office for Outer Space Affairs
UNPRI	UN Principles for Responsible Investment
VCLT	Vienna Convention on the Law of Treaties
VCLTIO	Vienna Convention on the Law of Treaties between States and International Organisations
WCED	World Commission on Environment and Development
WCS	World Conservation Strategy
WEF	World Economic Forum
WHO	World Health Organization
WSSD	World Summit on Sustainable Development
WTO	World Trade Organization

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A. Introduction

I. Outline and Justification of Topic

Humanity faces serious consequences as a result of its exploitative[1] use of natural resources[2] and its quest for maximising development and benefit.[3] These include increased natural disasters, escalating and armed conflicts[4] and humanitarian crises[5] as well as other inter-state tensions.[6] The People's Republic of China (China) has raised the issue of technology leadership and economic dominance, which is reflected in an increasing rivalry between the United States of America (U.S.) and China. In a legal landscape dominated by intergovernmental action, consequently, issues of international, European and national law are raised. In this complex interplay, strategic raw materials are key for the economic and societal development and safeguarding the long-term competitiveness, prosperity and security of states or regional groups such as the European Union (EU).[7] States worldwide, like the EU, are facing a broadening of these issues in view of the considerable impacts of predominantly human-induced climate change[8] and the concomitant need for a sustainable transformation of states, their economic actors and societies.[9]

However, most strategic raw materials[10] in the EU are naturally limited in stock or in (secure) supply.[11] To balance the depletion of natural resources and the accompanying

[1] Bergandi, 'The Ecological Catastrophe' in Westra et al (eds), *The Role of Integrity in the Governance of the Commons* (2017), 179f.; Huck, 'Die Integration der Sustainable Development Goals (SDGs) in den Rohstoffsektor' (2018) *EuZW* 2018, 266 (267).

[2] A/RES/70/1, Transforming our world: the 2030 Agenda for Sustainable Development, 25 September 2015, para. 59; Scholtz and Barnard, 'The Environment and the Sustainable Development Goals' in French and Kotzé (eds), *Sustainable Development Goals: Law Theory and Implementation* (2018), 243f.

[3] Maaß, *Die Normativität der SDGs in den internen und externen Politiken Europas* [The normativity of the SDGs in internal and external politics of the EU] (2020), 1; Alam et al. (eds), *International natural resources law, investment and sustainability* (2017); Ezirigwe (2017) Human rights and property rights in natural resources development, 35(2) *Journal of Energy & Natural Resources Law*, 201-13.

[4] Billon, *Fuelling war: Natural resources and armed conflicts* (Routledge 2013); see also Geneva Academy, <https://geneva-academy.ch/galleries/today-s-armed-conflicts>; UN, <https://www.un.org/en/un75/new-era-conflict-and-violence> (each last accessed: 10.02.2024).

[5] A/RES/70/1 (n 2), para. 14.

[6] COM(2021) 66 final of 18 February 2021 from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on Trade Policy Review: An Open, Sustainable and Assertive Trade Policy, 1, 6.

[7] Regulation (EU) 2020/852 of 18 June 2020 of the European Parliament and the Council on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088, para. 4; see exemplified by the energy sector: Viñuales, 'Legal front-lines in the geopolitics of the energy transformation' (2021), 2021-02 *C-EENRG Working Papers*, 1 (12).

[8] IPCC, Climate Change 2021: The Physical Science Basis (IPCC 2021),

[9] IPCC, Background Note: High Level event on Sustainable Economic Transition and Economic Diversification, 1f.; see also FCCC/CP/2015/10/Add.1 (Paris Agreement), preamble and Art. 2.

[10] Irrespective of a definition that has yet to be given, strategic raw materials are understood in this frame of reference as natural resources or minerals that do represent a clearly defined, unchangeable group but vary over time depending on the technology (and purpose) used.

[11] European Parliamentary Research Service (EPRS), Securing Europe's supply of critical raw materials: The material nature of the EU's strategic goals, PE 739.394 (2023), 1, 4.

changes in human living conditions, legal and political strategies as well as the cooperation and mutual support of global actors appear to be an inescapable precept.[12] In view of the increasing number of challenges associated with the supply chains in question, a potential framework for solving or counteracting them could be provided by the United Nations (UN) Sustainable Development Goals (SDGs).[13] Adopted on 25 September 2015 by all UN member states with the UN General Assembly (UNGA) resolution A/RES/70/1 (Global Agenda 2030),[14] the SDGs have since acted as a global guise aiming to mitigate (social) distributional injustices and negative environmental impacts while forwarding economic progress.[15] By implementing the Global Agenda 2030 and its inherent SDGs, "safe operating spaces"[16] that do not violate "planetary boundaries"[17] shall be created for both purposes human preservation and sustainable development. After the first six years in effect, the SDGs have yielded an increase in standard setting, but remain poorly understood outside relevant professional circles. Even lesser have they been analysed from a legal point of view.[18] The insufficient information situation hinders resilience of the SDGs and thus impedes the demanded global transformation and social governance.[19]

The Global Agenda's call for "expanding human capabilities"[20], developing and applying resilient technologies that take account of climate change and respect biodiversity points to the transformation of industries and accompanying standard-setting needed. The EU has set the Global Agenda 2030 as its overarching policy goal and already uses a wide

[12] Which for the purpose of the study means full and partial subjects of international law such as States and international organisations; COM(2021) 66 final (n 6), 8: "developing cooperative frameworks for fair and equitable access to critical supplies"; see for earlier discussions also: Nijkamp et al., 'Regional sustainable development and natural resource use' (1990) Review 4.suppl_1 *The World Bank Economic Review*, 153-88.; Wisner, 'Criminalizing Corporate Actors for Exploitation of Natural Resources in Armed Conflict: UN Natural Resources Sanctions Committees and the International Criminal Court' (2018) 16.5 *Journal of International Criminal Justice*, 963-83.

[13] These are already widely incorporated into policy, strategies and law, see, e.g.: European Commission (EC), <https://ec.europa.eu/ environment/green-growth/raw-materials/index_en.htm>; <https://ec.europa.eu/info/strategy/international-strategies/sustainable-development-goals/eu-approach-sustainable-development_en> (each accessed 10.02.2024).

[14] A/RES/70/1 (n 2), paras. 1, 91.

[15] UN, About the SDGs, <https://www.un.org/sustainabledevelopment/sustainable-development-goals/> (accessed 10.2.2020).

[16] Kotzé (n 2), 54.

[17] See A/RES/70/1 (n 2), preamble, paras. 3, 13.

[18] See Annex A; see also Cordonier Segger 'Inspiration for Integration: Interpreting International Trade and Investment Accords for Sustainable Development' (2017) 3(1) *CJCCL*, 159 (162); Viñuales (n 7), 1 (19); however, the first legal commentary on the SDGs was published in 2022: Huck, *Sustainable Development Goals: Article-By-Article Commentary* (2022).

[19] Kotzé (n 2), 54 f, 64; Garver, 'Ecological Integrity in the Anthropocene: Lessons for Law from Ecological Restoration and Beyond' in Westra et al. (eds), *The Role of Integrity in the Governance of the Commons* (2017), 196, 200.

[20] A/RES/70/1 (n 2), para. 25; further elaborated: Independent Group of Scientists appointed by the Secretary-General, Global Sustainable Development Report 2019: The Future is Now – Science for Achieving Sustainable Development (2019), xxiii.

range of instruments to strive towards a sustainable transformation aiming to align with the SDGs.[21]

Industrially usable alloys such as Cobalt, Lithium, Antimony and Vanadium are key in the EU's prudence, industrial transformation and strategic positioning. Since these raw materials are classified particularly sensitive within the EU due to their absence or insufficient natural occurrence,[22] a reliable supply strategy is to be set. To ensure supply security, the EU needs to upbuild cooperative strategic relationships to other members of the world community with high "standards of governance".[23] However, states with access and mining rights to those strategic raw materials may not always adhere to comparable or demanded standards. Therefore, this thesis will be devoted to identifying and classifying the progress made in standard-setting based on or initiated by the SDGs in these areas. Their steering effect on transnational law against the self-favouring ambitions of global actors to form a new world order[24] is of particular interest and will be examined with a focus on investment and financing sectors as the main affecting areas to be expected.[25]

To promote human well-being and safeguard the Earth's wealth and resources, human capabilities need to be expanded "far beyond the thresholds of extreme poverty, whether based on income or other basic needs, to empower people to bring about change".[26] Against this background, the EU's shift towards an "open strategic autonomy" will be considered in particular. This concept that aims to enhance Europe's self-sufficiency and independence in critical areas while staying open to global trade and cooperation is echoed in the European Raw Materials Alliance.

Following the origin of the term "autonomy", ""auto" in Greek means self, and "nomia" means law", the purpose is to become or remain capable of making decisions for oneself and to minimise (external) dependencies.[27] With its focus on qualified openness, investment and finance, this geopoliticised trade strategy of the EU draws on changes in global

[21] See EC, <https://ec.europa.eu/international-partnerships/sustainable-development-goals_en>; <https://ec.europa.eu/info/strategy/international-strategies/sustainable-development-goals/eu-approach-sustainable-development_en> (each accessed: 01.02.2024); See international views on integrating the principle of sustainable development, e.g.: Cordonier Segger (fn 18), 159 (163); Cordonier Segger, Gehring and Newcombe (eds), *Sustainable Development in World Investment Law* (2011).
[22] See Annex B and Annex C.
[23] Communication COM(2020) 474 final of 3 November 2020 from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Critical Raw Materials Resilience: Charting a Path towards greater Security and Sustainability, 16.
[24] China's Belt and Road Initiative (BRI) will be of particular interest since it draws the path of critical raw material supply for the EU and thus further secures the already superior position of China as leading supplier; see COM(2021) 66 final (n 6), 9.
[25] COM(2020) 474 final (n 23), 8, 14, 16.
[26] The future is now (n 20), xxiii.
[27] Borrell, Why European Strategic Autonomy Matters (2020) [found in: Gehrke, 'EU Open Strategic Autonomy and the Trappings of Geoeconomics' (2022) 27 *European Foreign Affairs Review* (Special

partnerships and environmental conditions and departs from past neoliberalism.[28] This development affects the way in which new standards, policy and legal frameworks, as well as the interpretation and application of existing standards, are developed.

II. Research Situation and Analytical Framework

A structured search showed that the SDGs have been analysed from multiple perspectives, also with references to investment law or financing, but rarely from a specific legal point of view.[29] The results show that the academic investigations either focus on merely one of the related areas or on specific SDGs. Filtering out non-legal contributions shrinks the search results significantly.[30] Though studies address Corporate Social Responsibility (CSR), governance strategies, investment law and finance and partially also take up the idea of sustainability,[31] they do not focus on the SDGs as an influential starting point for standardisation or their legal interlocking and incorporation into foundational legal systems. Few contributions directly deal with the SDG's steering function in the highly sensitive area of EU raw materials supply, thereby combining the most moulding areas of law.[32] Secondary studies that relate to the EU's global strategic positioning in the quadrant of investment, finance and most critical raw materials are lacking.[33] Studies on the named critical raw materials either focus on the country of origin or explicitly focus on China as a dominant strategic global actor and main supplier of future critical raw materials.

The life span of the SDGs is limited, but the application of the paths to sustainability offered with them is not. The existing legal gap is to be filled and made operable which is attempted with this work in this strategically significant area for the EU.

Issue), 61 (61); see also Euractiv, <https://www.euractiv.com/section/energy-environment/interview/eus-sefcovic-europe-must-be-much-more-strategic-on-raw-materials/> (last accessed: 10.02.2024); see also EPRS (n 11), 1, 4.

[28] Schmitz and Seidl, 'As Open as Possible, as Autonomous as Necessary: Understanding the Rise of Open Strategic Autonomy in EU Trade Policy' (2023), 61 *JCMS*, 834 (839).

[29] See Annex A; see also Cordonier Segger (n 18), 159 (162).

[30] See Annex A.

[31] Oehler et al., Why Self-Commitment is not Enough: On a Regulated Minimum Standard for Ecologically and Socially Responsible Financial Products and Services in Walker et al. (eds), *Designing a Sustainable Financial System: Development Goals and Socio-Ecological Responsibility*, 411.

[32] Beverelli et al. (eds), *International Trade, Investment, and the Sustainable Development Goals* (2020).

[33] See Annex A (Reference date of the search: 31/01/2021).

III. Approach and Scope of Study

1. Research Objectives

The SDGs[34] and other (binding and non-binding) international agreements[35] as well as European policy[36] call for comprehensive and cross-sectoral cooperation, particularly with non-state actors. The aim of this thesis is therefore to show the extent to which the SDGs have influenced the sensitive areas mentioned, the legal conditions under which they unfold their potential as a governing instrument, and the interconnectedness with private groups and organisations as well as their work and impact on transnational law. The overriding research questions are: Which governance effects do the SDGs have on transnational law with respect to standardisation or (normative) standard-setting? How do the SDGs influence standard-setting to the degree of a sustainable global transformation in investment law and finance? How could the EU utilise common elements of such standards for its strategic positioning and incorporate them into its statutory framework? How could standard setting in the extractive industries be changed or simplified in transnational law in the future and made more resilient and sustainable? Are the SDGs the factor that unites different areas of law in a joint sustainability law, due to their extensive scope, their interdependencies and their holistic approach?

2. Method of Investigation

The planned study will combine various elements and approaches of legal analysis in order to do justice to its far-reaching scope. Different research methods are prioritised in different parts and chapters of the study. Adapting the methodological approach to the respective fundamental structure of examination allows for best serving the different purposes of the respective sub-studies. Thus, the role and function of social, political and economic aspects of law, its creation and norm development are unravelled.[37]

The integrated use of methods further corresponds to the selected initial perspective on European law. The EU's historical singularities in its origin as an economic grouping of states and their subsequent integrative coalescence coupled with expanding competences determine its policy-making and, to a greater extent, the interpretation and application of law within the EU. Disregarding these levels would bear the risk to understand law as a

[34] A/RES/70/1 (n 2), paras. 60, 67.
[35] E.g. EITI, The global standard for the good governance of oil, gas and mineral resources from 17/6/2019, principles 5, 6, 12.
[36] Council Conclusions, 8286/19 of 9 April 2019 of the Council of the European Union, Towards an ever more sustainable Union by 2030, paras. 10, 15.
[37] See Pound, 'Law in Books and Law in Action' (1910) 44 *Am L Rev*, 12, 15; see generally: Siems, Comparative Law (2014).

merely formal system[38] inflicted or disconnected with e.g., politics and economics.[39] Moreover, the principle of proportionality[40] deeply coins the legal understanding within the EU and requires not just a single-sided, simplistic view but a holistic and balanced one. However, the chosen integrative approach should be understood as an enrichment of the doctrinal approach applied which is essential to be able to classify authoritative sources in the considered overall system of law and to connect the results of the various analyses, also with regard to their coherence in this system.

The acknowledgment of the basic legal understanding within the EU underlines the need for a doctrinal approach that is fortified by interdisciplinarity, i.e., allows also for the application of interpretative legal theory[41] and measuring the social impact of law[42] (where applicable) as well as using the means of analogies and theorising. In addition, as a means of support, elements of a comparative analysis as well as judicial interpretations of the various legal families are used to classify the standard-setting found.[43] This allows to transfer learning effects of foreign legal concepts to the EU legal context.[44] Moreover, it captures the fact that the EU itself has a legal self-understanding but does not have an independent doctrine communautaire in its *acquis* to rely on but is shaped by the doctrines of all member states and on further levels from third states and international organisations. In also following the thoughts of *Von Bogdandy*, an integration allows for clear demarcation of the respective purposes within the chapters and sub-chapters.[45]

In the same logic as the SDGs, this study attempts to take a practical approach that can be used both by the EU institutions and by legal practitioners operating in the various sectors of value and supply chains within the analysed extractive industries. The approach to be developed in this study must be capable of being mapped in a legally relevant and systematic way but must not lose its practicality in order to provide relevant knowledge for stakeholders. To this end, the three parts and the respective sub-chapters are structured in a way

[38] Frankfurter, 'The Conditions For, and the Aims and Methods of, Legal Research' (1930) 15 *Iowa L Rev*, 129.
[39] van Gestel and Micklitz, 'Revitalizing Doctrinal Legal Research in Europe: What About Methodology?' (2011) Law 2011/05 *EUI Working Papers*, 20; Stebek, 'Zweigert and Kötz on West European Legal Traditions' 2(2) *Mizan Law Rev*, 353.
[40] To be understood as a form of striving for a just equilibrium.
[41] Beever and Rickett, 'Interpretative Legal Theory and Academic Lawyer' (2005) 68 *Mod L Rev*, 320.
[42] See Pound (n 37), 12, 15.
[43] Smith, 'Taking Law Seriously' (2000) 50 *U Toronto LJ*, 241; Glenn, 'Aims of Comparative Law' in Smits et al., *Elgar Encyclopedia of Comparative Law*, 87.
[44] EU institutions increasingly use comparative law methods in the drafting of new EU law and in the decision-making by the ECJ; van Gestel and Micklitz (n 39), 27, 39; see also Lenaerts, 'Interlocking Legal Orders in the European Union and Comparative Law' (2003), 52 *International & Comparative Law Quarterly*, 873-906.
[45] See von Bogdandy, 'The past and promise of doctrinal constructivism: A strategy for responding to the challenges facing constitutional scholarship in Europe' (2009) *ICON*, 364 (381, 398) in being aware that this approach is not without controversy.

that progresses from the theoretical foundations to the practical implementation of sustainability standards in the extractive industries. In order to add depth to the analysis, this demands the inclusion of various dimensions, such as (legal) principles, sustainability considerations in international agreements, and the SDGs' global governance impact.

The main area of law examined in this study is the "regime" of transnational law. By (one well-known) definition, the term *transnational law* describes "all law which regulates actions or events that transcend national frontiers"[46] and thus allows the inclusion of public and private law. In this way, different perspectives of the shaping and application of law by different actors such as European and EU member state legislators, private companies or individuals and other actors, can be adopted, reflecting the holistic approach of the SDGs and adding value to the super- and subordinate as well as egalitarian relations in the multilevel or, with regard to the field of examination, "multi-centric"[47] system of law. This enables consideration and recourse to national law insofar as EU law and international law remain incomplete, increases the acceptance of the regulations to be developed and incorporates the law and ideas of international law and practice. This encompasses, amongst others, principles of international law, customary international law at both formal and substantive levels but also extends to *soft law*. Given that the SDGs are still frequently perceived and positioned in the form of their resolution,[48] soft law plays a significant role in determining most areas of the financial sector.

In general, this refers to international economic law with its pillars of "international trade law; the law of global financial markets; and international inward investment law" [49] being the fabric to which large parts of the global community still allow themselves to be subordinated for the purpose of communal and prosperous exchange. Based on this assumption, transnational law connects the spheres of politics and law and thereby draws an idea that is not new but must necessarily be taken into account in order to bring together the different, yet simultaneously and often for the same spheres effective levels of law and thus also law and society.[50] Finally, this examination deliberately takes a constructivist, i.e. inclusive, approach to the discussions on the self-definition and purpose of transnational law. Both substantive contents of standards and formal aspects are considered in an outcome-oriented manner. A determination as to whether identifiable standards, as a pluralistic approach, take on a mainly coordinating function between jurisdictions and thus

[46] Jessup, *Transnational Law* (1956), 2; however, a deeper insight into the term 'transnational law' is still to be given (see for a more detailed description Chapter A. II. 3. (dd) of this thesis).
[47]"[W]hich is composed not only of "hard" rules but also of diverse elements of "soft" law", Izdebski, 'Contemporary Expressions of Personal Law: Co-Existence or Conflict with Territorial Law?' (2021), 94141 *Acta Universitatis Lodziensis Folia Iuridica*, 141 (144, 151).
[48] By late 2022, only one comprehensive legal commentary explicitly considering, amongst others, the international and European legal levels, has been published: Huck (n 18).
[49] Tietje, Relationship of International Economic Law to Domestic Law in Cottier and Nadakavukaren Schefer, *Elgar Encyclopedia of International Economic Law* (2017), 11 (12).
[50] See Cotterrell, 'What Is Transnational Law?' (2012) 37(2) *Law & Social Inquiry*, 500 (500).

facilitate coordination between actors, or whether a "universalist harmonisation" and thus a "legal uniformity", a "world law" or a "functional unity through compliance" in fact emerges through this means,[51] can and should remain to be answered only in the concluding chapter.

Part 1: Towards a Network of Interdependencies: Outlining Framing Elements of Standard Setting in European and International Law

B. Theoretical Foundations on Framing Global Challenges

I. The Level Playing Field – Scientific Data and Facts of Anthropocene Struggles

This chapter is intended to outline the basic factors that affect humanity and influence its development. For example, as being a natural part of their surrounding biophysical systems, it is essential to at least outline current environmental conditions of human beings. Reinforcing the previously established basic assumption that man as an end in himself strives for development in order to pursue his/her natural inclination and to experience fulfilment, socio-economic environmental factors are also referred to. In this way, the points of reference that relate to human coexistence and behaviour and can be assigned to a legal sphere become visible. The principles found provide a first legal classification of this study and support a justification of a vision common to humanity about the further development and existence in this world, whether such a vision already exists or is yet to be developed.

1. Scientific Foundations about the Needs of our Time

Currently, about 7.95 billion people populate planet Earth.[52] This corresponds to a doubling since 1970. Assuming a constant increase, 10.89 billion people are expected to exist on,[53] draw from and explore the Earth by the year 2100. In order to ensure the survival,

[51] Cotterrell (n 50), 500 (501); Tietje (n 49), 13.
[52] UN, Department of Economic and Social Affairs (DESA), Population Division (2022). World Population Prospects 2022 (UN DESA/POP/2021/TR/NO. 3); Worldbank, population, total, <https://data.worldbank.org/indicator/SP.POP.TOTL> (last accessed: 04.01.2024).
[53] UN, Department of Economic and Social Affairs (DESA), Population Division (2022). World Population Prospects 2022 (UN DESA/POP/2021/TR/NO. 3); Worldbank (n 52).

development and prosperity of human societies, natural resource deposits must be utilised and exchanged (regionally, internationally and globally). By their very nature, natural resources and raw material deposits are unevenly distributed worldwide and are consequently utilised, exploited and supplied to (world) markets in varying proportions. This inherent disparity, despite factoring in comparative (cost) advantages,[54] leads to different starting points for economic, social and other societal progress within all countries, irrespective of parameters such as the form of government, the level of development or the population density.

The different natural conditions of the countries and the partly very high degree of exploitation of raw materials as well as other environmental changes caused by humans (e.g., mining, river regulation, damming or flooding of water bodies, draining of peatlands, contamination and pollution of natural habitats) lead to an environmental imbalance, which aggravates the phenomenon of climate change. This is evident, among other things, from the "atmospheric concentrations of greenhouse gases [which] reflect a balance between emissions from human activities, sources and sinks. Increasing levels of greenhouse gases in the atmosphere due to human activities are a major driver of climate change".[55] In the broader perspective, unsustainable resource depletion and exacerbating environmental changes will lead to a foreseeable insufficiency in the supply of natural resources for humankind and the next generations. According to current technical and scientific understanding, this trend is likely to impair future populations in their personal socio-economic development and their further societal prosperity and capabilities.

The socio-economic level, which is inseparable from the environmental level,[56] highlights current and future developments in the resilience and security of supply of human societies.[57] The growing density of populations and their demographic dispersion mostly in urban areas or regions intensify tensions between these levels.[58] Concomitantly, the need for clean or potable water increases, thereby accompanied by rising levels of pollution, malnutrition and further socio-economic issues of human societies such as poverty and

[54] The Ricardo model of comparative cost advantages should be mentioned in this context. Other theories that demonstrate the economic and social advantages of the exchange of raw materials or goods are contained, e.g., in Mankiw and Taylor, Grundzüge der Volkswirtschaftslehre [Macroeconomics] (8th Ed., 2021).

[55] State of the global climate 2022, https://storymaps.arcgis.com/stories/6d9fcb0709f64904aee371eac09afbdf (last accessed: 30.08.2023).

[56] Cordonier Segger and Schrijver, ILA Guidelines for Sustainable Natural Resources Management for Development (2021), 68 *Netherlands International Law Review*, 315-47.

[57] IPCC, Climate Change 2023 Synthesis Report: A Report of the Intergovernmental Panel on Climate Change, 68ff.

[58] 56 per cent of the world population are urban residents (2021) and will be at 68 per cent in 2050; UN Habitat, World Cities Report 2022, Envisaging the Future of Cities, XV; EC, Study on the Critical Raw Materials for the EU 2023 – Final Report (2023), 1.

"marked disparities in health and well-being"[59], affecting locations that are highly vulnerable to natural disasters to a greater extent. Urbanisation and urban transition (as a form of large-scale involuntary migration) in combination with high population growth exponentially increase the demand for raw materials and thus the need for resource extraction. The industrial use of raw materials, as well as future industries and their needs, especially the adaptation and mitigation of climate change and the related goal of climate neutrality, is also coupled to ceasing to emit climate-relevant emissions, particularly CO_2.[60] Consequently, the demand for the geographically concentrated critical raw materials and minerals required for this purpose will increase. As a result, scarcities, intra-state turmoil due to rising inequality and geopolitical confrontations that potentially culminate in interstate conflicts become more likely, while at the same time the willingness of states to cooperate with each other decreases.[61] Multiple global political and economic impacts ensue, such as

> "[h]igher commodity prices [which] have driven inflationary impacts along the wider value chain, explored further (and felt more acutely) in the section on Resource competition. This has encouraged some countries and multinational companies to accelerate efforts to turn towards the circular economy as a means of securing and diversifying the supply of critical minerals and metals, reducing the need for extraction and associated emissions. Despite […] efforts and continued climate ambitions, higher prices and shortages are slowing momentum for the green energy transition in the short-term. In lower-income economies without local minerals and metals assets, the promise of support with green energy infrastructure is partly unfulfilled, and some are considering reverting to carbonintensive energy sources to secure energy."[62]

At the same time, this brings with it new branches of industry or the transition of entire industrial sectors, which also changes forms of work, sectoral employment and, moreover, the regulatory framework, which in itself also implies economic aspects, capable of leading to positive or negative changes within societies,[63] e.g.,

> "[i]ndustry coalitions are working with future-focused governments to establish the incentives, policy frameworks, standards and certifications, and circularity-focused capabilities that are

[59] World Economic Forum (WEF), The Global Risks Report 2023, Insight Report (18th Ed. 2023), 37ff. (esp. 41); United Nations, Department of Economic and Social Affairs, Population Division (2019). World Urbanization Prospects: The 2018 Revision (ST/ESA/SER.A/420). New York: United Nations, 4ff.
[60] EC, SWD(2023) 219 final, Commission Staff Working Document for a Regulation of the European Parliament and of the Council on establishing a framework of measures for strengthening Europe's net-zero technology products manufacturing ecosystem (Net Zero Industry Act), 7-13; EC, The Green Deal Industrial Plan: putting Europe's net-zero industry in the Lead (2023), 2; Bashmakov et al., Industry in IPCC, Climate Change 2022: Mitigation of Climate Change, Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (2022), 1207ff.
[61] WEF (n 59), 41, 60.
[62] WEF (n 59), 60.
[63] See e.g. Cuéllar and Mashaw, Regulatory Decision-Making and Economic Analysis in Parisi (ed), *The Oxford Handbook of Law and Economics, Volume III: Public Law & Legal Institutions* (2017), 59.

> necessary to scale. In some markets, business models are being transformed to decrease demand and increase both the recovery potential and actual recovery of metals and minerals, partially mitigating the demand-supply gap going forward."[64]

In this context, it is noticeable that ambitions are comprehensively conceived, promoting domestic regulation through avenues such as public law. Moreover, extending beyond national borders, these aspirations find expression through intergovernmental channels, leveraging foreign trade law, trade policy instruments, and diplomatic approaches.[65]

2. Comparing Law and Fact for Development and Sustainability

The environmental, political and social framework conditions depicted above, as well as the indispensable necessity to extract raw materials, allow conclusions to be drawn with regard to concrete life realities. Here, the ability to create economic activity and prosperity within a state is directly shaped. This relation suggests that this balance can only be achieved if all states are able to realise participation in an equitable manner. Where a state experiences disadvantages without compensation or perceives to be subject to such disadvantages, the resulting imbalance impairs or shifts the scope for further state development and, consequently, for the individual too. The degree of this shift indicates the distance from sustainable development for all those involved. To avoid or minimise this shift, orientation towards common objectives is of considerable importance. Therefore, the thesis within this sub-chapter is that a common vision and/or set of goals is indispensable to successfully implement sustainable development nationally and in an international and global context.

States and inherent human societies, economic and other actors interact with each other in a variety of ways. Besides cultural exchange, economic interdependencies in particular serve the interaction and approximation of human societies. Though the ostensible function of this exchange (depending on the political view) may be assumed to be profit maximisation, for example, and this may be deemed valid for certain actors, such as companies,[66] a more profound function lies in another area. The exchange of trade goods and the investment in other states is a main instrument of human peacekeeping, in the spirit of historian and political philosopher Montesquieu: "Peace is the natural effect of trade" as

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[64] WEF (n 59), 60.

[65] See e.g. WTO, Trade and Environmental Sustainability Structured Discussions (TESSD), <https://www.wto.org/english/tratop_e/tessd_e/tessd_e.htm> (last accessed: 04.02.2024); Kaufman et al., 'Green industrial policy will drive decarbonization, but at what cost to trade?' (2023), *Finance & Development (IMF)*, 22 (24); Woods, 'Superpowers are Forsaking Free Trade: Free trade is taking a back seat to powerful nations' politics, hurting developing economies (2023), *Finance & Development (IMF)*, 44 (46); Amighini et al., Global value chains: Potential synergies between external trade policy and internal economic initiatives to address the strategic dependencies of the EU (PE 702.582), Study requested bei INTA (European Parliament 2023), 7, 9f.

[66] See e.g. Friedman, Capitalism and Freedom (1962), 133.

the "union [of the trader and the seller] is founded on their mutual interest".[67] The exchange of trade goods or, in today's globalised world, the exchange of tangibles or non-tangibles and values of an intellectual or non-intellectual nature, which can, however, be measured with a financial equivalent, serve to maintain, develop and, not least, stabilise state, social and political conditions.

This type of agreement, which initially is limited to the creation of common commercial interests, has been and can be traced in the history and further development of the economic integration of states. Trade and investment agreements of varying degrees of integration and their expansion over time with regard to substance (and thus effectiveness) no longer allow for the argumentation of an exclusively national or domestic relevance.[68] Rather, a globalised world and cross-border conditions of economic activity and the associated life realities represent the regular case. In this context, the EU acts, for instance, via bi-, pluri- and multilateral free trade and investment agreements as well as other, e.g. strategic or diplomatic partnerships, which are imbued with European values and principles and which the EU endeavours to spread throughout the world.[69] Moreover, the practically universal scope of world trade law,[70] both in a general sense and specifically concerning tradable raw materials (commodities)[71] and associated intellectual property, encompasses all activities of the EU and other members of the World Trade Organization (WTO).

Within this legal framework, trade and investment are key drivers of development. Development particularly relies on the export of goods and services to foreign markets for its continued progression. UNCTAD assesses the dependence between export activity and growth in gross domestic product (GDP), along with corresponding correlations for investment activity. The significance of, and reliance on, the export of natural resources is notably evident in developing countries, particularly for "raw materials supplier in Africa as well as for Latin American countries where agriculture still represents a large share of total exports".[72] The pronounced dependence is evident in the substantial rise in imports of natural resources from the EU, as well as from China and the USA.[73] Globally, trade in natural resources is manifested in an increase of over 50%. The vulnerability to external

[67] Montesquieu, The Spirit of Laws, vol. 2, Chap. II, 2 and Chap. XIII, 12.
[68] Originating with Treaties of Friendship, Commerce, and Navigation, economic agreements evolved into comprehensive free trade, development and other political agreements that enriched economic benefits with mutual recognition and the promotion of shared (or aligned) values and objectives; see Maaß (n 3), 63f.
[69] Art. 2 in conjunction with Art. 3(5) TEU.
[70] The WTO has 164 members and 25 observer governments, 24 of which are observers in negotiating status, except for the Holy See (Vatican City).
[71] 2020 ILA Guidelines on the Role of International Law in Sustainable Natural Resources Management for Development, 3.3.1 Mineral Commodities, including Precious Minerals.
[72] UNCTAD, Key Indicators and Trends in International Trade: A Bad Year for World Trade, 2016 (UNCTAD/DITC/TAB/2016/3), 22.
[73] UNCTAD, Key statistics and trends in international trade 2022 - The remarkable trade rebound of 2021 and 2022 (UNCTAD/DITC/TAB/2023/1), 17 Feb 2023, 11.

shocks due to dependence on commodity exports has heightened up to 2021, notably in Latin American countries. In the same period of time, commodity-depleting countries in Africa have witnessed a decrease in their dependency.[74]

UNCTAD, among other entities, consolidates the development dependency of states, the promotion of sustainable development, the preservation (or establishment) of peace, and the imperative to mitigate the impacts of climate change while ensuring security of supply. Against the background of the goal of limiting global warming to 1.5°C, UNCTAD states that "the world needs about 1.5 times today's global GDP in investment between now and 2050".[75] This highlights the significance of Foreign Direct Investment (FDI) as a catalyst for these initiatives, a trend that continues to grow in Least Developed Countries (LDCs) and developing nations. Key challenges in achieving energy transition and sustainable development include the high cost of capital, occasional insufficient focus on specific sectors and supply chains, inadequate tools, poorly designed policy frameworks, unreformed International Investment Agreements (IIAs), and the dwindling availability of climate finance. This aligns with longstanding investment policy advice.[76]

3. Globalisation, Protectionism, Co-Existence – Need for a Common Vision?

The central question of this chapter addresses a crucial aspect contributing to security and peacekeeping: How can stability within and between states be attained? This question is closely tied to the extraction and utilisation of resources, especially those of a critical nature, and hence is indispensable to this analysis. Faced with an increasingly crowded planet and rapidly expanding natural constraints,[77] human beings, as one of the main population groups, must formulate strategies that respect ecological limits while concurrently enabling the realisation of our human potentials. This encompasses social and societal capabilities as well as the promotion of economic development. Individuals, along with states and companies, must be provided with comprehensive support for their development through a network of diverse measures. Accommodating different needs and concerns to the greatest extent possible forms simply the first step in developing satisfactory measures.

Considering the effects of climate and further environmental change and the numerous diversity of interrelationships to the realities of human life,[78] illustrates the complexity of the overall process needed on the one hand and the need to act as comprehensively as

[74] UNCTAD (n 73), 20.
[75] UNCTAD, World Investment Report 2023, 177.
[76] UNCTAD (n 75), 177; UNCTAD, Investment Policy Framework for Sustainable Development (UNCTAD/DIAE/PCB/2015/5), 2015.
[77] "[U]nsustainable patterns of production and consumption […] continuing population growth" amplify "accumulation of evidence on environmental problems", UN DESA, United Nations expert group meeting on population and sustainable development, in particular, sustained and inclusive economic growth, New York, 21 and 22 July 2021 (UN DESA/POP/2021/EGM/NO.2), 5.
[78] See Sen, Development as Freedom (1999), 111ff.

possible on the other.[79] The necessity to identify frameworks and align them with a shared objective exposes the crucial requirement to be sensitive to different existing values, political and legal conditions, and other principles. For the purposes of this examination, these considerations will be contextualised within the multi-level or multi-centric system of law, encompassing both positive and non-positive sources of law.

A first framing shall be given with the preamble to the ILA Guidelines on Natural Resources[80] which states,

> "RECOGNIZING that the principle of sustainable use of natural resources is intertwined with the principle of equity and eradication of poverty, including intra- and inter-generational equity and the right to development; the principle of common but differentiated responsibilities and capabilities; the principle of a precautionary approach to human health, natural resources and ecosystems; the principle of public participation and access to information and to justice; the principle of good governance; and the principle of integration and interrelationship, in particular in relation to human rights and social, economic and environmental objectives, and necessitates cooperation and action at all levels, in internal and external relations and involving all actors to ensure sustainable consumption and production patterns[.]"

These guidelines do not present a fundamentally new understanding of the interconnectedness between the exploitation of natural resources, human development possibilities, and the emergence of sustainable development. This awareness was already documented, at the latest, in 1972 with the outcome document of the United Nations Conference on the Human Environment in Stockholm. The Stockholm Declaration and Action Plan for the Human Environment, a significant driving force behind the establishment of the later Global Agenda 2030, articulated this interrelation in 26 principles and an associated action agenda.[81]

At that time, "their thraldom to environmental perils of their own making" and "destructive forces" were categorised as "mass poverty, racial prejudice, economic injustice, and the technologies of modern warfare", the eradication of which was deemed necessary to achieve the ideal of a "peaceful, habitable and just planet" and "improving the human environment".[82] Development was considered commendable, while "no growth" was

[79] Resolution No. 4/2020, The Role of International Law in Sustainable Natural Resources Management for Development.
[80] 2020 ILA Guidelines on the Role of International Law in Sustainable Natural Resources Management for Development, preamble.
[81] Declaration on the Human Environment, Adopted by the United Nations Conference on the Human Environment, Stockholm, 16 June 1972; see A/RES/2994/XXVII, A/RES/2995/UVII and A/RES/2996/XXII of 15 December 1972.
[82] A.CONF./48/14/Rev.1, Report of the United Nations Conference on the Human Environment, Stockholm, 5-16 June 1972, Stockholm Declaration and Action Plan for the Human Environment, Chap. VIII, paras. 34, 44.

deemed unacceptable. Similar to the aforementioned ILA guidelines, the opportunity for development for all was foregrounded in a just manner, achievable only through shared principles and cooperation.[83]

Natural resources were accorded significant importance in this declaration, as well as in various outcome documents of World Summits[84] in the decades that followed before the development of the Global Agenda 2030 and the SDGs. Their occurrence, extraction or mining, utilization, and value creation should be safeguarded and carefully managed, with the purpose of benefiting present and future generations and "maintaining [...] restore or improve" the capacity of the Earth.[85]

Simultaneously, the ILA guidelines on natural resources and the Declaration on the Human Environment reveal the necessary context to be considered if one aims to realise this objective. It requires the consideration of various international legal principles (as above), integration into human rights, political will for embedding in national and international contexts. Furthermore, a functioning, accessible legal system focused on participation, cooperation, and diplomacy is of indispensable value. Thus, more than just the numerous levels of law come to light. The different existing legal traditions and state-political systems demand a highly diverse categorisation, interpretation, and implementation of a sustainable approach to resource management.

The political declarations initially made at the international level by UN member states confront various processes and developments in the context of global economic activities, systemic competitions, political resentments, disharmonies, and differences in views. Centuries of colonialism, two World Wars, a Cold War, ongoing conflicts spreading across various regions worldwide, and a recent war on European soil, on one hand, and a history of increasing economic integration, partly growing interdependence, and the simplification of trade, financial, and other exchanges, on the other, have led states to find new ways of exchange and communication.

In international organisations, these states come together on a significant scale, exchanging information on conflicts worldwide, common and divergent issues, and developing strategies and goals. The UN serves as a noteworthy example of an organisation with con-

[83] A.CONF./48/14/Rev.1 (n 82), Chap. VIII, paras. 34, 44.
[84] Such as the so-called Johannesburg Declaration (A/CONF.199/20*) as outcome document of the 2002 World Summit on Sustainable Development (WSSD); see for a comprehensive overview: Huck (n 18), Introduction, paras. 243-88.
[85] Declaration on the Human Environment, Adopted by the United Nations Conference on the Human Environment, Stockholm, 16 June 1972; see A/RES/2994/XXVII, A/RES/2995/UVII and A/RES/2996/XXII of 15 December 1972, Principles 2, 3 and 5; see also Huck (n 18), Introduction, paras. 155.

siderable significance and mandates. Using its six main organs, numerous thematic subsidiary bodies, and specialised agencies,[86] it implements these mandates. Aligned with its fundamental purpose to maintain world peace, uphold international law, protect human rights, and promote international cooperation, the UN is inherently suited as a forum to assume global governance in a collective sense. Moreover, in matters of economic, social, humanitarian, and ecological concerns of international nature, it provides support as per Article 1(1), (3) of the UN Charter. The UN is connected to numerous economic organisations, associations, as well as blocs of nations. These entities, in turn, align with reports, resolutions, and declarations of the UN, supporting solutions based on these foundations.

In the light of globalisation and the challenges addressed in Chapter A. I. 1., the development of shared agendas has been the primary (potential) means in the history of the UN to achieve mutual political understanding and joint declarations among the now 193 member states. Given the numerous, severe, and ongoing challenges, it is a logical step, within the framework of its governance function to date, to elevate issue-specific agendas to a new level and elaborate on them more extensively. Consequently, and in line with previous efforts, the Global Agenda 2030 for the Transformation of Our World formed such a comprehensive agenda. This agenda "is a plan of action for people, planet and prosperity" and embodies the vision to "free the human race from the tyranny of poverty and [...] to heal and secure our planet."[87] Its task is to influence a broad range of stakeholders, states, public and private actors, as well as individuals, to align themselves with common goals, incorporate them into their spheres, and independently interpret their implementation. It relies on the concept of sustainability, described as a "conceptual synthesis of 30 years of development policy with various strategies, approaches, and experiences".[88] As will be demonstrated later (see Chapter A. II. 2), this agenda is thematically broad and connected to values that are internationally known or recognised, even if they are not actually practiced in every political or value system.

4. Common Vision of the EU

The union of European countries after the Second World War, initially forming a community for coal and steel (ECSC),[89] has grown historically through various phases, transcending the nations of today's EU in an ongoing integration process beyond a mere community of economic interests. The fundamental orientation was initially driven by the idea of co-

[86] This refers to the legally, organisationally and financially independent organisations that are linked to the UN by international agreements concluded in accordance with Art. 63 of the UN Charter.
[87] A/RES/70/1 (n 2), preamble.
[88] Gehne, Nachhaltige Entwicklung als Rechtsprinzip [Sustainable development as a legal principle] (2010) [found in: Gehne, ‚Das Nachhaltigkeitskonzept als rechtliche Kategorie im Spannungsfeld zwischen staatlichen Regulierungsinteressen und Investorschutz' in: Bungenberg et al. (eds), Internationaler Investitionsschutz und Europarecht, 273.
[89] Marshall Plan of the victorious powers, for the purpose of controlling war-strategic raw materials.

operation and solidarity, aiming to develop and sustain prosperity for the European peoples and equally serve as a means of ensuring peace. The integration process evolved beyond purely economic endeavours and was complemented in the founding treaties with additional intentions, including those related to sustainable development. With the Treaty of Amsterdam, which came into effect on May 1, 1999, this is now enshrined as a fundamental objective in the primary law of the EU.

Within the preamble of the Treaty on European Union (TEU), the objectives in Article 2 Treaty establishing the European Community (TEC, now partly Article 2 TEU), and as a cross-cutting matter related to environmental law, reference points have emerged in the primary law of the EU. These increasingly form the basis for European policy strategies, resulting in legislative proposals and secondary law of the EU that is added to the *acquis communautaire*. With the European Council's declaration of the European sustainability strategy in 2001,[90] seven priority areas were identified, crucial for the EU's understanding of sustainable development[91] and understood in parallel with the Lisbon Strategy for economic policy.[92]

At that time, as well as today, sustainable development remained not an end in itself but was understood as a driver of innovation, generating economic prosperity, and serving the assurance of raw material supply. Simultaneously, the EU is committed to its industrial and, thus, (still) primarily economic future, where the security of the supply of raw materials plays a significant role in economic development, contributing to the establishment of a peaceful and prosperous society. The EU's commitment to internal and external coherence, Art. 21 TEU in conjunction with Art. 3 TEU and Art. 7 TFEU, ensured that further processes were initiated to embed the goal of "Sustainable Development" in all areas of competence and instruments. EU coherence is established as a uniform and comprehensive coherence requirement in Article 7 TFEU in conjunction with Article 21(3)(2) sentence 1 TEU, as well as its predecessor, Art. 3(1) TEU (Amsterdam) and Art. 1 TEU (Maastricht). For achieving this coherence, no meaningful distinction between internal, external, and substantive coherence may be created.[93]

[90] COM (2001) 264 final, Communication from the Commission: A Sustainable Europe for a Better World: A European Union Strategy for Sustainable Development, 15.05.2001.
[91] Priority areas comprised: sustainable transport; sustainable consumption and production; conservation and management of natural resources; health; global poverty and sustainable development challenges; social inclusion, demography and migration; COM (2001) 264 final (n 90), Climate change and clean energy; BMK, <https://www.bmk.gv.at/themen/klima_umwelt/nachhaltigkeit/strategien/eu_sds.html#:~:text=Mit%20dem%20Vertrag%20von%20Amsterdam,Europ%C3%A4ischen%20Rat%20in%20G%C3%B6teborg%20verabschiedet> (last accessed: 04.02.2024):
[92] Maaß (n 3), 44ff.
[93] Schuster, Das Kohärenzprinzip in der Europäischen Union [The principle of coherence in the European Union] (2017), 2.

The instruments employed by the EU include diplomacy, governance, and partnerships. The latter often emerge first through the integration of trade and investment, provided there is added value perceived or generated for each party involved. This holds true, at least, for partnerships that are legally oriented towards each other and/or are structured in a similar way. The EU is firmly integrated economically worldwide through numerous agreements, which is reflected in the supply and value chains of European companies. To date, the EU has concluded 41 comprehensive trade agreements with 72 countries.[94] The number of bilateral investment agreements is estimated to be around 2,500, of which about 1,500 involving member states were ratified before the Treaty of Lisbon (2009). These bilateral, and beyond that, plurilateral investment agreements and the associated FDI are key in addressing the EU's identified major challenges: mitigating climate change, green and digital transition, security, rule of law, and peace.[95]

The EU's investment policy is undergoing a reform course aimed at political and legal recognition of its sustainability commitment, aligning with the Global Agenda 2030 and the SDGs. The renewal of IIAs, especially minimising the asymmetries triggered by them and aligning the independent IIAs of EU member states with union goals, will be a focal point of the planned reforms.[96] The EU employs political "drilling and proclaiming", legal initiatives, as well as governance and orientation to UN specifications for this alignment.

Regarding companies operating under various EU-influenced IIAs, the EU has a clear vision of how conditions of supply and value chains are reflected globally. In addition to EU originating companies or those directly investing in the EU, a multitude of other companies are involved internationally, ranging from resource producers, mining or value-adding companies, suppliers, and many more. In this often complex interplay between actors in different states, situations frequently arise where human rights violations and environmental impacts occur. Across borders and actors in various political and legal situations, the problem of proving liability and causal chains often arises, as well as the determination of relevant figures, data, and facts. The EU has recognised this challenge and the misalignment of objectives with its own and those of the SDGs. After much hesitation, it has created an action plan addressing the necessary changes. The long-evolving political statement, the EU Green Deal, combines eight target areas that aim to transform the EU into a climate-neutral continent while remaining one of the most competitive globally. To transform the economy accordingly and unleash and channel FDI in the required areas, alongside other strategies, it has introduced the EU Taxonomy. This extensive classification

[94] <https://www.consilium.europa.eu/en/eu-free-trade/> (last accessed: 01/09/2023, 11:02).

[95] Although empirical evidence has not yet shown a direct causal relationship between IIA and direct investments; European Parliament (EP), <https://www.europarl.europa.eu/doceo/document/A-9-2022-0166_DE.html> (last accessed: 01/09/2023, 11:04); COM(2023) 376 final, Communication from the Commission to the European Parliament and the Council, 2023 Strategic Foresight Report, Sustainability and people's wellbeing at the heart of Europe's Open Strategic Autonomy, 06.07.2023, 1.

[96] 2021/2176(INI), The future of EU international investment policy, paras. 21 ff.; European Parliament resolution of 23 June 2022 on the future of EU international investment policy (2021/2176(INI)), T9-0268/2022, paras. 7, 37.

system came into effect on July 12, 2020, aiming to help investors assess whether investments meet the requirements. It also establishes a common language between investors, issuers, project promoters, and policymakers to create market transparency and simplify adaptation processes.[97]

Moreover, the Critical Raw Materials Initiative[98] (European Raw Materials Alliance – ERMA) aims to ensure that critical needs for growth and jobs in the EU are met. With this initiative, a strategy has been established "to reduce dependencies on non-energy raw materials for industrial value chains and societal well-being by diversifying sources of primary raw materials from third countries, strengthening domestic sourcing, and supporting the supply of secondary raw materials through resource efficiency and circularity."[99] It pursues two workstreams: consultation processes and investment channels, with a specific focus on Rare Earth Magnets and Motors and Materials for Energy Storage and Conversion.[100] Both these efforts and governance and diplomacy initiatives have focused on cooperation, relying on principles established, among others, by the Extractive Industries Transparency Initiative (EITI) Standard[101] and the outcomes of the Kimberley Process (KP). While EITI, as a multi-stakeholder organisation comprised of governments of implementing and supporting countries, companies, and civil society organisations, seeks to include stakeholders in a common governance process through principles and transparent reporting, the KP is a commitment to remove and prevent trade with conflict diamonds from all global supply chains. Mandated by the UN in 2003, this process connects 59 members, including the EU, industry, and civil society as a multilateral trade regime. Utilising the "Kimberley Process Certification Scheme (KPCS) under which States implement safeguards on shipments of rough diamonds and certify them as 'conflict-free'", they establish minimum requirements and national legislation and institutions in the areas of export, import, and internal controls. Furthermore, they commit to transparency and the exchange of statistical data. These initiatives, based on the voluntary participation of stakeholders, have also guided the EU, which considers market liberalism as one of its top priorities.

However, against the backdrop of escalating conditions in the global context, the challenge arises to implement the EU's long-term sustainable development, particularly as geopolitical interests become more pronounced. Prior to the renewed declaration, including through mining and processing on its own territory (versus the environmental change and

[97] See Maaß, 'Der Europäische Green Deal als Grundlage nachhaltigen Klimaschutzes'(2022), 2(1) *Nachhaltigkeitsrecht (NR)*, 18-26.
[98] COM(2008) 699 final, The raw materials initiative.
[99] COM(2020) 474 final (n 23), 2.
[100] ERMA, <https://erma.eu/> (last accessed: 01.02.2024).
[101] This standard, formerly known as EITI principles, has been replaced with the 2023 EITI Standard, as of 12 June 2023, <https://eiti.org/collections/eiti-standard> (last accessed: 01.02.2024).

likely harm these undertakings will produce), the risk of short-term non-sustainability increases. Moreover, it remains to be questioned what significance this holds for globalisation in general. Is it a model that reframes globalisation anew? Does it signify globalisation with less trust, and with a backdoor always integrated? An example of this can be observed in the EU Sustainable Finance Taxonomy, which aims to steer "public and private investments towards sustainable activity" with a focus on redesigning mining and extractive value chains.[102] The Revised EU Industrial Strategy[103], the currently under discussion Critical Raw Materials Act (CRMA)[104], and the recently announced focus on open strategic autonomy and economic security are expected to introduce new conditions to diplomacy, trade, and investment negotiations. In 2022, the European Council adopted the Versailles Declaration, calling for "further decisive steps towards building our European sovereignty" and towards "reducing our dependencies." It emphasised the need to secure the EU supply of Critical Raw Materials (CRMs), particularly by leveraging the strengths of the Single Market.[105]

The European Commission and the European Parliament take a corresponding tone as the starting point for their discussions. The established frameworks dictate, among other things, which areas, business actions, and standards are to be classified as sustainable in the European sense. In the context of critical raw materials, the initiated sustainability transition aims to strategically reshape supply chains and ensure reserves in the event of a supply risk. The main purpose of the created or planned regulations is to counteract raw material criticality by establishing a diversified supply and processing chain, which includes at least partial autonomous production or extraction within the EU, thereby reducing dependencies. The approach of the EU, as outlined in the 2023 study, acknowledges China as the "largest supplier of several critical raw materials".[106] Political options align with the established approach, advocating for "greater EU action in international standards-setting" and "developing additional standardization deliverables for industrial processes" concerning circularity, standards, and environmental footprint. The EU's approach demonstrates that strategic diversification is coupled with simplified access to financing and extends beyond a single stage of the value chain. To facilitate supportive strategic projects, the EU aligns its framework with international standards, clearly integrating the

[102] Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088; (EU) 2020/852 on the establishment of a framework to facilitate sustainable investment.
[103] COM(2023) 62 final, Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, A Green Deal Industrial Plan for the Net-Zero Age, 01.02.2023.
[104] COM/2023/160 final / 2023/0079(COD), Regulation of the European Parliament and of the Council establishing a framework for ensuring a secure and sustainable supply of critical raw materials and amending Regulations (EU) 168/2013, (EU) 2018/858, 2018/1724 and (EU) 2019/1020; this proposal bases, amongst others, on EC (n 58, Study on CRM).
[105] EC (n 58, Study on CRM).
[106] EC (n 58, Study on CRM), 7.

intention to create a forward-looking geopolitical strategy that respects planetary boundaries.[107] Furthermore, it plans to "request one or more European standardization organizations to draft European standards in support of the objectives."[108] This approach fuels the EU's vision of strengthening its "offer on the global stage" by way of cooperation, shifting to sustainable production and consumption patterns and thus becoming a highly attractive investment zone.[109]

In the long term, the EU formulates its aspirations in accordance with the sustainability vision enshrined in the foundational treaties and expressed consistently in previous political statements. This vision aims to "[u]ltimately [...] increase the wellbeing of current and future generations, and safeguard[ing] global competitiveness, strong social foundations, and resilience."[110] Now more than at any other time, the EU insists on these established goals to address the global challenges of climate change, depletion of existing resources, and existing system competitions. The EU, fundamentally guided by the precautionary principle, appears to remain true to itself by expressing its intention to act preventively in these and other areas. Investments are intended to avoid losses, response costs, and yield additional societal benefits.[111]

5. EU, China and their Global Interaction on Strategic Raw Materials

In being aware of their geologically limited conditions of a secure supply with a wide range of Critical Raw Materials (CRM),[112] it is specifically in the area of lithium, cobalt and antimony supply as well as (heavy and light) rare earths (HREE and LREE) supply that the EU cannot draw on its own raw materials deposit to a sufficient extent for European industries and its broader economy. Despite the fact that some geographical areas within the EU can be used for the extraction of some of the critical raw materials,[113] the external strategic, political and legislative orientation of the EU is crucial in order to meet the Union's security needs, to be able to compete in the global economy and,[114] moreover, fulfil its international obligations,[115] amongst others, related to becoming climate-neutral. The same applies to the connected transitions, for example, of the energy sector and the

[107] COM(2023) 376 final (n 95), 1.
[108] EC, <https://single-market-economy.ec.europa.eu/single-market/european-standards/standardisation-requests_en> (last accessed: 04.02.2024).
[109] COM(2023) 376 final (n 95).
[110] COM(2023) 376 final (n 95), 1.
[111] COM(2023) 376 final (n 95), 7.
[112] Currently (2023), the EU considers a total of 34 raw materials to be strategically critical; see EC (n 58, Study on CRM), 20.
[113] See COM(2020) 474 final (n 23), 12; the CRM Resources Potential in the EU was already known earlier. However, the CRM extraction had been classified as too expensive, demanding and land-use-inefficient, which has brought the diversification of CRM sources increasingly to the fore, see Commission of the European Communities, COM(2008) 699 final, The raw materials initiative — meeting our critical needs for growth and jobs in Europe, 2.
[114] COM(2020) 474 final (n 23).
[115] Arising, amongst others, from the United Nations Framework Agreement on Climate Change (UNFCCC) and the Paris Agreement (PA).

restructuring of large parts of the European industries, supply and value chains as well as private households alongside the global demand to act similarly.[116]

The EU is striving to diversify its CRM supply channels on the world market in order to be able to meet the growing needs and industrial demand. In this context, its main CRM points of supply for cobalt, lithium and antimony, as well as rare earths, are located in different main supply areas. European demand and supply chains are particularly directed via the African continent, mainly the Democratic Republic of Congo (Kinshasa), South America, with Argentina, Chile and Bolivia at the forefront, and Asia, where the People's Republic of China (PR) is most prominent.[117] However, almost no direct imports of CRM from the producing countries to the EU are in existence. Instead, raw materials are first processed, thus creating added value and industrial usability. Then, industrially usable intermediate products are imported into the EU. The EU is working with different international partners to foster cooperation in the area of trade and investment facilitation in order to strengthen strategic supply chain security. For example, the EU-US-Japan Trilateral on Critical Raw Materials on supply risks, trade barriers, innovation and international standards[118] "has resulted in the establishment of a Strategic Standardisation Information ("SSI") mechanism on international standards development aiming to encourage engagement in new standardization opportunities and explore taking coordinated action if standardization activities pose a challenge to U.S.EU *(sic!)* strategic interests and values."[119]

Moreover, organisations such as the OECD, the UN with its specialised agencies, the WTO (to some extent), the G20 as well as bilateral raw material dialogues, including with China are upheld to form and maintain strategic partnerships. Thereby, regulations and standards to be applied in the process of extraction is only the first step in the strategic partnerships with the EU. In particular, processing and refining of raw materials is considered concise and relevant for (partner) countries with high resource wealth.[120]

China occupies a special status for the EU in this specific network as it "provides 98% of the EU's supply of rare earth elements (REEs) and around 62% for all its defined 30

[116] COM(2019) 640 final, Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, The European Green Deal, 11.12.2019, 6; COM(2020) 474 final (n 23), 6, 16; Snoussi-Mimouni and Avérous, 'High demand for energy-related critical minerals creates supply chain pressures' (2024), *WTO Blog*.
[117] See Annex C.
[118] Whitehouse, <https://www.whitehouse.gov/wp-content/uploads/2022/05/TTC-US-text-Final-May-14.pdf> (last accessed: 19.01.23), fn. 19. ii, iii, Annex I.
[119] U.S.-EU Joint Statement of the Trade and Technology Council 16 May 2022 Paris-Saclay, France, <https://www.whitehouse.gov/wp-content/uploads/2022/05/TTC-US-text-Final-May-14.pdf> (last accessed: 19.1.23), Annex I, fn. 4.
[120] COM(2020) 474 final (n 23), 16.

CRMs".[121] In the processing of these raw materials it is also Chinese companies or companies with Chinese ownership that add value and prepare the raw materials for industrial processing in the European market. In the area of the EU's critical raw materials, for example, "Chinese companies control up to almost 80% of the worldwide REEs production, more than 90% of its refining processes, around 80% of global refined cobalt production, and more than 60% of the worldwide lithium-ion manufacturing capacity."[122] In material procurement and processing, China also takes risks that the EU is not willing to take. For example, China also acquires mines and value-added companies operating in the surrounding areas from regions that are afflicted with greater insecurity or instability and, for example, makes investments in (post-)war zones such as Afghanistan and promotes projects in politically unstable regions.

Historically, China has pursued the competitive displacement of non-Chinese mine operators through low prices, low environmental standards, and speed of production due to, among other things, low respect for labour rights and associated human rights violations. Today, China's strategies include considerable price competition, the strategic purchase of mines and the vigorous processing of the extracted raw materials either in China or by companies of Chinese shareholders, before the worldwide sale or export of the extracted raw materials takes place.[123] With China occupying the entire processing cycle in purely market-driven, highly competitive manner, it has created almost monopolised markets. Particularly easy access to (investment) projects within the respective raw material processing circuits proves easy to achieve, especially in fragile markets where corruption, poverty and conflict prevail.[124]

Contrary to the much shorter planning targets and strategies hitherto encountered in Western-style Europe, China's political and economic policies are shaped by a long-term perspective and strategic concepts, including "the strategic control of crucial supply chains for disruptive technologies and associated critical raw materials (CRMs)."[125] China's leader and reformer Deng Xiaoping already stated in 1992: "The Middle East has oil, China has rare earths."[126] From the mid-1980s to early 2000, China artificially deflated the cost of REE exploration and production so that Western companies and mines had to close. Since then, they have dominated global REEs production also due to its tolerance towards highly polluting, low-cost mining of REEs." Simultaneously,

[121] Energypost, <https://energypost.eu/critical-raw-materials-for-the-energy-transition-europe-must-start-mining-again/> (last accessed: 04.02.2024).
[122] Energypost (n 121).
[123] DW, <https://www.dw.com/en/how-chinas-mines-rule-the-market-of-critical-raw-materials/a-57148375> (last accessed: 13.02.2024).
[124] See e.g. Rabe et al., 'China's supply of critical raw materials: Risks for Europe's solar and wind industries?' (2017) 101 *Energy Policy*, 692-99.
[125] Energypost (n 121).
[126] Penke, China's dominance of strategic resources, DW, 13.04.2021.

"Xi Jinping demanded to ensure China's self-sufficiency in key commodities"[127] so that a corresponding independence from global markets is created or maintained. China's comprehensive conservation strategy specifically refers to ensuring long-term sustainability, economic stability, and national security which should lead to resource security, energy independence technological innovation, climate resilience and economic diversification, also contributing to China's national security.[128] However, "it is the major growth in the Chinese economy that is driving the need for [critical raw materials] imports"[129] and which leads to China's global mining strategy and the associated development, acquisition or participation of new CRM mines worldwide.[130]

In addition to securing its own supplies, China is particularly interested in achieving a balance of power (a balance of power China wants to maintain). Throughout history, China takes on efforts in international endeavours to "gain higher status in the international legal order"[131], having often seen itself exposed to an imbalance in the distribution of power and having often demanded a just change in this relationship in international bodies. During the set-up of the UN, China "had high expectations that international law could stop aggression and protect minor States by the power of the international community"[132] and to anchor the PR China from being the "[c]elestial Empire to a full recognition of equality with the Western countries".[133] Chinas' growing needs prospectively lead to higher pricing in the world markets and basically to "more intensive exploration and discovery, or […] re-opening of previously uneconomic deposit".[134] Similarly, the EU's demand for critical raw materials (CRMs) is expected to surge significantly to align with the Union's envisioned transformation outlined in the EU Green Deal and other policies. European companies are also responding to the call for industry restructuring, particularly in the transport and heavy industry sectors. A renewed competition among various economic powers seems to have begun, not for dominance per se, but to establish a new world order through supply security within the framework of globalisation. Irrespective of the political system, the maximization principle is not subject to debate as it serves as a means to establishing sustainable development. The focus is on determining the conditions of global economic relations (cooperations), investment flows, and financial currents. Most recently, the

[127] Energypost (n 121).
[128] See SCMP, <https://www.scmp.com/economy/china-economy/article/3159522/xi-jinping-says-china-must-be-self-sufficient-energy-food-and>; <https://www.scmp.com/economy/china-economy/article/3161587/china-vows-greater-iron-ore-self-sufficiency-deglobalisation>; Merics, <https://merics.org/en/4-beijing-advances-technological-self-reliance-all-means> (each last accessed: 04.02.2024).
[129] Kinnaird and Nex, Critical Raw Materials: An introduction in Yakovleva and Nickless (eds), Routledge Handbook of the Extractive Industries and Sustainable Development (2022), 17.
[130] See Energypost, <https://energypost.eu/critical-raw-materials-for-the-energy-transition-europe-must-start-mining-again/> (last accessed: 05.02.2024).
[131] Chi-Hua Tang, China-Europe in Fassbender and Peters, *The Oxford Handbook of the History of International Law* (2012), 701 (717).
[132] Chi-Hua Tang (n 131), 701 (721).
[133] Chi-Hua Tang (n 131), 701 (722).
[134] Kinnaird and Nex (n 129), 17.

BRICS conference was convened, during which the inclusion of additional states (Saudi Arabia, Iran, the United Arab Emirates, Argentina, Egypt, and Ethiopia) was approved for January 1, 2024, points to a geopolitically and economically expanding alliance gaining momentum.[135]

Furthermore, China has established its advancement with projects such as the Belt and Road Initiative[136] (BRI) and additional policy plans, amongst others, China 2025, China 2049 and the Global Security Initiative. The financing and participation in large infrastructure projects, both on land (roads, railways, bridges, pipelines) and at sea (new and existing ports), aim to diversify the country's energy supply and open up new market access. Through China's establishment of the Asian Infrastructure Investment Bank in 2015 and the New Development Bank of BRICS countries in 2016, investment and financial flows are significantly made accessible to Chinese investors and companies by 148 participating partner countries. Financing loans are often tied to strict conditions, such as the establishment of ownership and extensive recovery rights in the event of default, which may even allow the seizure of sovereign property. Today, about "60 percent of Chinese foreign loans are at risk of default."[137] The ongoing challenges, including the COVID-19 pandemic and the Russian war in Ukraine, further exacerbate the solvency of the less affluent countries that have joined the BRI. Despite some countries reconsidering their political orientation and expressing a desire to terminate their business relationship with the BRI, the Initiative continues to represent the world's largest investment project.[138]

The EU has acknowledged this trend and aims to counteract it by providing exceptional financial support for European (strategic) projects. These projects, serving the implementation of open strategic autonomy, are intended to ensure that the EU has the capacity "to cope alone if necessary but without ruling out cooperation whenever possible. It goes some steps beyond smart supply chain management by taking into account geopolitics as well as economic factors."[139] Raw materials policies, in particular, are now a central issue in the EU's industrial, energy, and climate change policies and legislation. The surrounding political and legislative framework acknowledges its own capacity insufficiency compared to other international actors such as the U.S., China, or India. Therefore, *open* strategic autonomy aims not only for self-sufficiency but also for diversification, (competitive) sustainability, and preparedness. Relevant regulations along the EU Green Deal include the REPowerEU package, the NextGenerationEU (temporary) instrument, the forthcoming

[135] Tagesschau, <https://www.tagesschau.de/ausland/afrika/brics-gipfel-hintergrund-staaten-100.html> (last accessed: 09.09.2023).
[136] See Annex D.
[137] <https://www.bpb.de/kurz-knapp/hintergrund-aktuell/539650/7-september-2013-china-verkuendet-die-plaene-zur-neuen-seidenstrasse/> (last accessed: 09.09.2023).
[138] Between 2013 and 2022, China invested around 950 billion dollars in the BRI countries.
[139] European Parliamentary Research Service (EPRS), What if open strategic autonomy could break the cycle of recurring crises?, Scientific Foresight: What if?, PE 747.420 – May 2023, 1.

Critical Raw Materials Act (CRMA), the Energy Efficiency Directive, the Renewable Energy Directive III, the Energy Taxation Directive, the Chips Act, the Cyber Resilience Act, and the future industrial strategy, to reshape technology, know-how, innovation, and economic strength. All these areas are closely linked to European trade policy, emphasizing single market finance opportunities and private and public investments to reinforce EU financial and capital markets. Similar to the Chinese approach with the AIIB, the European Investment Bank (EIB) Group plays a crucial role in the European vision.[140] In collaboration with the Commission, its goal is to "uphold and promote the European Union's values, principles and geopolitical interests worldwide" within the EU mandates both within and outside the EU territory.[141]

These respective alliances come as no surprise, as they are the logical consequence of their respective transition efforts. However, the approaches differ when closely examining the financing or investment conditions. While sustainability, supply security, and energy transition are pursued as strategic, long-term goals on both sides, the political approaches show different emphases. While the EU voluntarily subordinates its economic activity, both domestically and internationally, to the purpose of sustainability, this is not perceptible in China's actions. Although sustainability is politically perceived by them as a driver for innovation and necessity, it is not a prerequisite for project financing. Neither does it apply to their own nor foreign companies or the BRI member states. In contrast, the EU sets sustainability as a condition in domestic and foreign policy actions and as a prerequisite for the disbursement of financing and investment. Future legislation will further tighten this approach. While the EU continues to formulate a clear strategy towards China as a systemic rival,[142] China seems not to formulate any interests related to the EU. Rather, the EU is hardly attributed strong economic and geopolitical independent and serious significance by China. At the same time, China's global strategic investments are increasing, expanding its market and areas of influence, serving as leverage in many areas. China's influence within Europe and in areas that are also in union interest is growing and seems to successfully dictate conditions, as seen in political actions and economic projects like the BRI. Statements from the Chinese representation, such as "China must resist 'global

[140] EPRS, A new European innovation agenda, PE 733.655 – September 2022, 1-11.
[141] The Bank plays a key role in implementing Neighbourhood, Development and International Cooperation Instrument (NDICI) – Global Europe and is a participant in its governance as a member of the European Fund for Sustainable Development (EFSD) and the European Fund for Sustainable Development Plus (EFSD+) Strategic Board; EIB, 2022 Financial Report (2022), 14, 75, 147.
[142] JOIN(2019) 5 final, Joint Communication to the European Parliament, the European Council and the Council EU-China – A strategic outlook, 12.3.2019 and the renewed European Parliament resolution of 16 September 2021 on a new EU-China strategy (2021/2037(INI)); Text adopted by Parliament of 18. January 2023 Implementation of the common foreign and security policy - annual report 2022 (2022/2048(INI)).

liberal influence' and has called for 'a culturally unified and self-confident nation governed by a strong, centralized party-state' that is 'immune to Western liberalism'"[143], influence the actions and impact of the EU in the global context as well. This is evident, for example, in the EU's 2021 globally strategic initiative to create a Global Gateway, aiming "to invest in sustainable infrastructure projects and establish economic partnerships" with the goal "to tackle the most pressing global challenges, from fighting climate change, to improving health systems, and boosting competitiveness and security of global supply chains."[144] This €300 billion direct response to China's strategic leadership emphasises the weight of China's influence on the union's orientation and strategy development. Accordingly, this must be taken into account in the analysis, evaluation, and further development of standardisation in the strategic CRM supply and beyond.

II. UN Sustainable Development Goals (SDGs) – Anchor or Necessitates of Humankind?

The preceding chapter has illustrated the complex field within which the EU operates in domestic and foreign policy as it seeks to realise its vision of a climate-neutral, sustainable, and highly competitive continent. Accordingly, the starting point for the manifestation and implementation of this vision is complex. The transport of its values must face a normative structure that is ultimately enforceable. This means that, in addition to the level of political statements, legal mechanisms must be created that are either enforced or potentially enforceable. The range and depth of possible instruments and measures that can be employed are vast. Thereby, "[h]ard law can have soft content and soft law may produce hard obligations."[145] The various legal, partially legal, and non-legal levels are sometimes conditioned by and rooted in political ideas that have solidified from complex societal processes.[146] Although Grimm raised this issue in the context of a German political science debate, this assumption simultaneously corresponds to an international research area that views law and politics as mutually influential.[147]

[143] Arho Havrén, A Look at What the Future May Hold: China's Strategy for Europe in 2035, *per Concordiam: Journal of European Security and Defense Issues* (20 June 2023).
[144] EC, Global Gateway, <https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/stronger-europe-world/global-gateway_en> (last accessed: 21.09.2023)
[145] Andrecka and Peterková Mitkidis, 'Sustainability requirements in EU public and private procurement – a right or an obligation?' (2017) 2017(1) *NJCL*, 57 (82).
[146] Grimm, Recht und Politik, 9 *Juristische Schulung* (1969), 501 (502).
[147] Tomuschat, Democracy and the rule of law in Shelton (ed), *The Oxford Handbook of International Human Rights Law* (2013), 469.

The shaping of norms at the international level is subject to a wide variety of challenges, such as differing interests, which frequently expresses in the so-called "North-South divide"[148] (but not only there[149]) or the often lengthy processes of law enforcement, for example, in order to comply with and manifest the sources of law listed in Art. 38 of the Statute of the International Court of Justice, Chapter XIV of the United Nations Charter (ICJ Statute). Moreover, the diversity of fora in which such processes may occur makes it difficult for international or global norms to emerge readily and meaningfully. However, since the establishment of the UN at the latest, collective conviction-building at the international level has been a widely used instrument to maintain or generate peace and security as well as human survival worldwide.[150] Conflicts and other issues, many of which are complex, entangled and transcend state borders, are pushing the traditional actors in international law – that is, states[151] – to their limits. New actors, some of whom are already endowed with subjectivity under international law,[152] are becoming more dominant in international affairs relevant to international law and gaining importance where objectives borne by the international community are concerned. Irrespective of the question of whether and to what extent state sovereignty is affected by this development,[153] the UN provides a global forum[154] and "a vital node for networks of actors"[155] capable of generating a form of global governance and thus a common orientation with regard to political, legal and social goals, aspirations and (to some extent) purpose. Within this international

[148] See instead of many: Islam, History of the North–South Divide in International Law: Colonial Discourses, Sovereignty, and Self-Determination, in Alam et al. (eds), *International Environmental Law and the Global South* (2015), 23-49.
[149] See on different other divides e.g.: Rupnik, 'The East–West Divide Revisited 30 Years On' in Wallace et al. (eds), *Europe's Transformations: Essays in Honour of Loukas Tsoukalis* (2021), 85-100; Schwarzenberger, 'The Impact of the East-West Rift on International Law' (1950), 36 *Transactions of the Grotius Society*, 229-69.
[150] Weiss and Daws, 'The United Nations, Continuity and Change' in Weiss and Daws (eds), *The Oxford Handbook on the United Nations* (2018), 3.
[151] While the State shall be understood as a 'conception with both internal and external implications [such as] territory, population, society, government, history, culture, mythology […]' and 'represented by a government', it is the historically as a European-coined idea of international law that is to be understood as 'inter-state law' where the political systems of the state are 'interacting, having relations.', Henkin, International Law: Politics and Values in Wiessner, *General Theory of International Law* (2017), 273 f.; see also Cassese, States: Rise and Decline of the Primary Subjects of the International Community in Fassbender and Peters, *The Oxford Handbook of the History of International Law* (2012).
[152] This includes, for example, international organisations and other legal entities, partly on the assumption that Multinational Enterprises (MNEs) are also included, and to a limited extent individuals (natural persons); see Dworkin, A New Philosophy of International Law and Institutions in Wiessner, *General Theory of International Law* (2017), 393-95 (Sect. III, Sect. IV fn 13), see with respect to the acknowledgement of individuals also: ICJ, *LaGrand (Germany v. United States of America)*, Judgment, I. C. J. Reports 2001, 466.
[153] Characterised by the factors of territory, authority, state people and independence (1934 Montevideo Convention on the Rights and Duties of States) and other factors such as respect for human rights and human dignity.
[154] Albeit neither politically nor legally intended, to elevate the UN to a globally superordinate decision-making body; Alvarez, Legal Perspectives in Weiss and Daws (eds), *The Oxford Handbook on the United Nations* (2018), 79; see Art. 10 ff. UN Charter.
[155] Gordenker and Jönsson, Evolution in Knowledge and Norms in Weiss and Daws (eds), *The Oxford Handbook on the United Nations* (2018), 110.

organisation (IO), the General Assembly (GA) acts as a special 'hub' where all members of the UN meet with equal voting power (as an expression of egalitarian practices) and lend voice to this power through the pronouncement of recommendations or the adoption of resolutions.[156] The subjects of sustainability, sustainable development, human rights or the management and use of natural resources[157] have been discussed many times in the history of the UN at World Summits and high-level meetings and woven into resolutions and other outcome documents.[158] The respective ambitions and objectives of the UN members are translated into action plans in the form of global goals and agendas, which support strengthening their implementation and further development.[159]

The Sustainable Development Goals (SDGs) were developed in this level playing field[160] in a supra-dimensional process that went far beyond the UN arena.[161] The SDGs are embedded in the resolution "Transforming our world: the 2030 Agenda for Sustainable Development" (Global Agenda 2030). They target different levels of implementation and involve numerous actors in order to preserve the human living environment, thus forming a global vision and ambitious and transformative plan of action,[162] ensuring their steady development.[163] The multifaceted (and holistic[164]) design of the SDGs manifests in their

[156] Charter of the United Nations, Arts. 10-14, 35.
[157] A term that remains to be defined hereinafter; see Chapter C. I. of this thesis.
[158] See for a general overview on the topic of sustainable development in international law Schrijver, *The Evolution of Sustainable Development in International Law: Inception, Meaning and Status* (2008); Dodds et al., *Negotiating the Sustainable Development Goals: A transformational agenda for an insecure world* (2017), 5-23; Huck (n 18), Introduction, mn. 28-45.
[159] Fukuda-Parr, 'Sustainable Development' in Weiss and Daws (eds), *The Oxford Handbook on the United Nations* (2018), 764 f.
[160] See Chapter A. I. of this thesis.
[161] United Nations Development Group 2013, A Million Voices: The World We Want, A Sustainable Future With Dignity For All (2013); on inputs of the civil society, academia and the private sector see: IAEG-SDG, Open Consultation with Civil Society, Academia and Private Sector <https://unstats.un.org/sdgs/iaeg-sdgs/open-consultation-stakeholders> accessed 5 February 2022.
[162] A/RES/70/1 (n 2), preamble (para. 2).
[163] A/69/700, The road to dignity by 2030: ending poverty, transforming all lives and protecting the planet Synthesis report of the Secretary General on the post 2015 sustainable development agenda, para. 48.
[164] Which could be argued to be disputable, since upon closer inspection they appear to be inconsistent and fragmentary with many issues; critical academic discussions are widely led, see e.g. Huck, 'Transformation of Sustainable Development Goals in Regional International Organizations: Vertical Effects, Contested Indicators, and Interlinkages for the Formation of Environmental Law' in Junker and Farah (eds), *Globalisation, Environmental law and Sustainable Development in the Global South: Challenges for Implementation* (2022); Huck and Kurkin, 'The UN Sustainable Development Goals (SDGs) in the Transnational Multilevel System' (2018) 2 *Heidelberg Journal of International Law (HJIL)/ Zeitschrift für ausländisches öffentliches Recht und Völkerrecht (ZaöRV)*; Kotzé, 'The Sustainable Development Goals: an existential critique alongside three new-millennial analytical paradigms' in French and Kotzé (eds), Sustainable Development Goals: Law, Theory and Implementation (2018); Bali Swain, 'A critical analysis of the Sustainable Development Goals' in Leal Filho (ed), *Handbook of Sustainability Science and Research* (2017).

linkage to all conceivable spheres of life. Additionally, in some instances they refer directly to technical, financial or investment instruments and/or measures,[165] which reveals their potential applicability and impact also in the extractive industries.

A closer examination of the SDGs, in particular a review of their history, conceptualisation and their relationship to and embedding in different areas of international law, will provide information on interlinkages and similarities, so-called "law denominators". Such law denominators can be assigned possible functions and potential effects. In this way, possible effects or recurring "patterns" can be identified, especially in the context of European and international standard setting around the extractive industries. At best, model-like components or structures will emerge, the use of which allows standardisation to become more readily accessible, more efficient or more easily applicable for standard-setting actors, institutions and users.

1. Brief History and Vision of the SDGs

When, after a fifteen-year decade, the global community realised that the then prevailing agenda, the UN Millennium Development Goals (MDGs)[166], could only be implemented with scattered success, the shortcomings of these jointly adopted goals were quickly recognised. The MDGs, eight in number, and targeting exclusively towards developing countries, were criticized for their one-sidedness and narrow focus on financial aid coming primarily from the Global North, without fostering meaningful transformation.[167] After a three-year long negotiation process, which involved immense participation from a wide range of stakeholders, an action agenda was compiled and presented to the UN General Assembly in a joint effort.[168]

Unanimously adopted by 193 UN Member States on 25 September 2015, the Global Agenda 2030[169] came into effect on 1 January 2016 and since then guides the decisions of all acknowledging states with the aim of transforming the world towards sustainable development. As a global development agenda focussing on all signature states, sustainable development is understood as the basic assumption for any action that relies on three dimensions: 'the economic, social and environmental'.[170] The Agenda, the SDGs contained

[165] Amongst further references: A/RES/70/1 (n 2), paras. 27, 28, 30, 40 f., 43 f., 62-7, 86, Goal 1.4, Goal 3.8, 3.c, Goal 5.a, Goal 8.3, 8.10, Goal 9.3, 9.a, Goal 10.5, 10.6, 10.b, Goal 15.a, 15.b, Goal 17.3, 17.4, 17.5

[166] A/RES/55/2, United Nations Millennium Declaration, 18 September 2000.

[167] Similar constraints and criticism of the domination of the Global North were also present in previous negotiations to establish sustainable development agendas; see e.g. Redclift and Springett, Sustainable Development: History and evolution of the concept in Redclift and Springett, *Routledge International Handbook of Sustainable Development* (2015), 7; see also Huck (n 18), Introduction, mn. 41.

[168] See on the process at the UN: Dodds et al. (n 158), 25 ff.

[169] A/RES/70/1 (n 2).

[170] A/RES/70/1 (n 2), preamble.

and the variously connoted principles it incorporates[171] are based on a broad understanding of sustainable development and its contextual singular circumstances that has grown over many decades.[172] As a historic decision,[173] this agenda for the first time universally places all people equally in the focus of achieving its objectives, regardless of their classification under a nationality or the development status of their very state.[174] For this reason alone, but also because of its structure, principles and mechanisms, it is more comprehensive in its approach than previous agendas had been. The idea of universality is emphasised in the introductory words of the Global Agenda 2030, describing it as an agenda of "unprecedented scope and importance" that must be considered and implemented to the extent possible[175] by all conceivable actors on a "great collective journey"[176] (*the* transition).

With this transition, the aim is to achieve a 'more sustainable, equitable world'[177] through social, legal and political transformation that enables every human being to live with dignity, in harmony with nature, and protected from barriers that limit their own opportunities for development.[178]

a. Intersections of Human Rights and Sustainable Development

Connections between human rights and sustainable development are equally discussed in academic debates as being inherently intertwined, sometimes as mutually reinforcing, but also controversially debated in different timelines. The sustainable development approach undeniably incorporates a social dimension, within which issues comparable to human rights, and, above all, inseparable themes that reinforce each other, are often discussed.[179] Nevertheless, human rights have been, and continue to be, treated at times as a legal subject matter detached from sustainable development. In addition to supporters in the academic debate, the Global Agenda 2030 itself highlights the interconnectedness of both areas in its preamble, vision[180], guiding principles[181], as well as in its internal and external

[171] See for a deeper analysis: Huck (n 18), 1-88.
[172] Gillespie, *the long road to sustainability: the past, the present, and future of international environmental law and policy* (2017); see contextualised with international law: Voigt, *Sustainable Development as a Principle of International Law: Resolving Conflicts between Climate Measures and WTO Law* (2008).
[173] A/RES/70/1 (n 2), para. 2.
[174] A/RES/70/1 (n 2), para. 2.
[175] A/RES/70/1 (n 2), paras. 4 and 5 which state 'that [the Agenda] is applicable to all' and that 'the Goals and targets [are wished to be] met for all nations and peoples and for all segments of Society'.
[176] A/RES/70/1 (n 2), para. 4.
[177] Dodds et al. (n 157), 5.
[178] See UN-DESA, *TST ISSUES BRIEFS: A compendium of issues briefs prepared by the United Nations inter-agency technical support team for the United Nations General Assembly Open Working Group on Sustainable Development Goals.* (2014).
[179] Asumu, Deciphering Sustainable Development within the Framework of the International Human Rights System, 6(1) *Strathmore Law Journal* (2022), 151 ff.
[180] A/RES/70/1 (n 2), para. 19.
[181] A/RES/70/1 (n 2), para. 35.

principles.[182] The Addis Ababa Action Agenda (AAAA)[183], inseparably linked to the Global Agenda and serving as its financing instrument, also categorizes human rights and their observance as one of the cornerstones for sustainable development.[184]

Aligning Human Rights with Sustainable Development: A Global Nexus

Human rights, regardless of their much earlier emergence, gained universal recognition, especially with the Universal Declaration of Human Rights (UDHR) of the United Nations. The individual freedoms and autonomy rights, derived from universally accepted moral principles, are considered indispensable for every individual. Since their formalisation in 1948, they have been incorporated into numerous constitutions and foundational laws. Structurally, they adhere to the principles of inalienability and indivisibility, being egalitarian and universal. Human rights have gained significance through successive temporal developments, particularly in their legal interpretation. In 1966, two international treaties under international law, namely the International Covenant on Civil and Political Rights (ICCPR, "UN Civil Pact", A/RES/2200A(XXI)) and the International Covenant on Economic, Social, and Cultural Rights (ICESCR, "UN Social Pact", A/RES/2200A(XXI)), were added to the UDHR. While not formally binding, these covenants are treaties that developed the human rights contained in the UDHR and came into force in 1976. As a trio, they claim global recognition and implementation as leading international human rights agreements. Additional human rights treaties and sometimes optional protocols, both international and regional, have been added since then.[185] Although human rights have an equal impact on every individual, the primary addressees of these norms are initially the states that acknowledge them. In international human rights law, these states are recognised as the "rights-bearer" responsible for respecting, protecting, and fulfilling human rights. This implies that states have

> "[t]he obligation to respect [which] means that states must refrain from interfering with or curtailing the exercise of human rights. The duty to protect requires states to protect individuals and groups from human rights violations. The obligation to fulfil means that states must take positive measures to facilitate the enjoyment of fundamental human rights."[186]

Structure, Evolution and General Functioning of Human Rights

It is evident that human rights not only provide individuals with existential protection but also aim to create opportunities for development. Examples include the right to freedom of movement, the right to education, and the right to participation in cultural and political

[182] A/RES/70/1 (n 2), paras. 10-3, 66 f.; Huck (n 18), Introduction, mn. 114-303.
[183] A/RES/69/313, *Addis Ababa Action Agenda of the Third International Conference on Financing for Development (Addis Ababa Action Agenda)*, 27 July 2015.
[184] A/RES/69/313 (n 183), 6.
[185] See for an overview: <https://www.ohchr.org/en/core-international-human-rights-instruments-and-their-monitoring-bodies> (last accessed: 11.02.2024).
[186] <https://www.un.org/en/about-us/udhr/foundation-of-international-human-rights-law> (last accessed: 07.03.2023).

processes. The design of these rights indicates a recognition of the development of individuals and, beyond that, of society as a whole. The primary purpose of legal protection for human beings is the creation of opportunities, as argued by scholars like Amartya Sen and Martha C Nussbaum.[187] Despite controversies, arguments for recognising a human right to development can be derived from the Universal Declaration of Human Rights (UDHR).[188]

While debated, the importance of linking human rights to environmental protection, particularly climate change, in the authors' view must be added. The profound impacts of environmental degradation and climate change are considered significant violations of human rights.[189] Politically and legally acknowledging human dignity entails recognising the environmental freedom of individuals and their broader environment, including the biophysical systems they inhabit. Simultaneously, this aligns with economic development to address these challenges. The implementation of human rights, therefore, signifies a form of development, also in economic terms. It is the interconnectedness of the three levels of sustainable development that becomes fully acknowledged and meaningful.[190] This alignment has its roots in the right to development.[191] Thus, there are connections between human rights and all pillars of sustainable development.[192] Some conceptual similarity between human rights and sustainable development in contemporary interpretation can be assumed. However, both concepts are measured against different criteria. While human rights primarily address the state in their legal sources (application-oriented), sustainable development, with a much broader scope of addressees in legal and non-legal sources, is directed towards achieving specific goals (e.g., climate neutrality, clean water, etc.). Therefore, "human rights represent an elementary vision of what sustainable development entails."[193]

Human rights, in all their diversity, possess a fundamental application structure composed of "regulation's principles, like transparency, consultation, and participation."[194] These

[187] Sen (n 78); Nussbaum, Capabilities and Human Rights (1997), 66 *Fordham L. Rev.*, 273.
[188] Sarkar, Internationale Development Law: Rule of Law, Human Rights & Global Finance (2020), esp. 124 f., 144 ff.
[189] See Chapter A. I. 1., 2. of this thesis.
[190] See ILC reports and resolution No 2/2020.
[191] See Chapter B. II. 1 b) of this thesis.
[192] UN NGLS, Human Rights Approaches to Sustainable Development (UN 2002); See also for the argumentation of linkages between the SDGs and human rights using the example of SDG 13: Ruppel and Dobers, SDGs und Pariser Abkommen: Symbiose zur Verwirklichung von Menschenrechten und Klimaschutz?, 4 *Nachhaltigkeitsrecht* (2022), 462 (463 f.); using the same example in judicial reasoning: Supremo Tribunal Federal (Brazil), *Partido Socialista Brasileiro (PSB), Partido Socialismo e Liberdade (PSOL), Partido dos Trabalhadores (PT) e Rede Sustentabilidade v. União Federal*, ADPF 708.
[193] Asumu (n 179), 151 (153).
[194] Decaux, The Impact of Individuals and other non-state Actors on Contemporary International Law in Pisillo Mazzeschi and de Sena, *Global Justice, Human Rights and the Modernization of International Law* (2018), 11.

principles presuppose the establishment or maintenance of the rule of law, which is also connected to access to justice. Without evaluating the functioning of these structures, it is noticeable that a similarity is present in the approach of the SDGs, notwithstanding linguistic disparities from human rights discourse. Echoing the human rights regime, both the SDGs and the concept of sustainable development share foundations grounded in partnership, cooperation, and, as an innermost principle, on peaceful conditions. The nexus between peace,[195] sustainable development, and human rights serves both as an articulation and a mechanism of implementation. The sustained adherence and implementation of these principles stand as indispensable prerequisites for upholding peace, wherein the intrinsic essence revolves around the recognition of human dignity.[196] From an international perspective, legal frameworks and institutions in translating these principles into actionable mechanisms are main drivers of their interpretation. The establishment and maintenance of the rule of law, deeply connected to access to justice,[197] require a robust legal infrastructure extending beyond national boundaries. This entails harmonising legal standards, enforcement mechanisms, and avenues for redress on a global scale.[198] Presuming that justice in a human rights context pertains to the equality of individuals and should contribute to its attainment, individuals must have access to institutions that empower them to realise their human rights. For example, when comparing various acknowledged international standards, such as Art. 8 and 10 of the UDHR or Art. 12(2) and 40(2)(iii) of the Convention on the Rights of the Child,[199] it is affirmed that a condition or the capability of individuals to defend and exercise their rights is necessary to establish consistent access to justice.[200] With the global community grappling with most diverse challenges such as climate change, economic disparities and public health crises, the effectiveness of legal frameworks becomes paramount. Existing legal structures, therefore, must be adaptable to address emerging issues and ensure their relevance in a swiftly changing world without deviating from their fundamental principles to remain reliable. The observed parallelism between the SDGs and human rights signifies not only a conceptual alignment but also underscores the interconnectedness of legal and policy frameworks. This interconnected-

[195] A/RES/70/1 (n 2), para. 35.
[196] Huck (n 18), Introduction, mn. 53-63.
[197] UN-DESA (n 178), 140; see also: Huck and Maaß, 'Gaining a Foot in the Door: Giving Access to Justice with SDG 16.3?' (2021), 2021-5 *C-EENRG Working Papers*, 1-34.
[198] See with regard to labour standards: Harrison et al., 'Governing labour standards through free trade agreements: limits of the European Union's trade and sustainable development chapters' (2019) 57(2) *Journal of Common Market Studies*, 260-77.
[199] More examples include: United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), Arts. 27, 40; Convention on the Rights of Persons with Disabilities (CRPD), Art. 13; European Convention on Human Rights (ECHR), Arts. 6, 13, 35, 46; EU Charter of Fundamental Rights, Art. 47 [found in: Huck and Maaß (n 197), 1 (7)].
[200] Huck and Maaß (n 197), 1 (7).

ness reinforces the notion and the argument that sustainable development, rooted in principles of partnership, cooperation, and peaceful conditions, is not merely an aspiration but a legal imperative.[201]

b. The Right to Development and Sustainable Development

An agenda of development, according to Amartya Sen, as a "process of expanding all freedoms and removing major sources of 'unfreedom', forms the starting point, the achievement of which is seen as a primary end of sustainable development."[202] From the philosophical thoughts that spurred economic and legal discussion over many decades, a third-generation human right, proclaimed in 1986, emerged, that today also provides a basis for an ecologically sustainable environment.[203] This right, included in the constitutions of several countries globally,[204] is intended to surround all equally and be implemented by all states through effective development policies at the national level. The right obligates the state both unilaterally and globally. This means that both independent actions or omissions and actions within the community of nations are encompassed, forming the extraterritorial impact of this human right. Based on the experiences and progressive development of nearly four decades, states have reached a broad consensus aimed at enabling the implementation of the right to development.[205]

Before sustainable development was conceptualised, its "deeper roots" were unveiled from almost four decades of setting an aegis for development that strived for a right to development in a human rights context. However, the initially pursued development primarily relied on the idea of economic development, which was only later enriched by

[201] See the work of the International Law Association (ILA), New Delhi Conference on the Legal Aspects of Sustainable Development (2002); Berlin Conference on International Law on Sustainable Development (2004); Toronto Conference on International law on Sustainable Development (2006); Rio de Janeiro Conference on International Law on Sustainable Development (2008); The Hague Conference on International Law on Sustainable Development (2010); see also A/78/10*, United Nations Report of the International Law Commission Seventy-fourth session (24 April–2 June and 3 July–4 August 2023), para. 265f.; Barral, 'Sustainable Development in International Law: Nature and Operation of an Evolutive Legal Norm' (2012), 23(2) *European Journal of International Law*, 377-400; Sands, 'International Courts and the Application of the Concept of "Sustainable Development"' (1999), 3 *Max Planck UNYB*, 389 (392).

[202] Sen (n 78) [found in Walker et al., SDGs (2017), 21].

[203] A/RES/41/128, Declaration on the Right to Development, 4 December 1986 which states: 'development is an inalienable human right by virtue of which every human person and all peoples are entitled to participate in, contribute to, and enjoy economic, social, cultural and political development, in which all human rights and fundamental freedoms can be fully realized'; Francioni and Quirico, 'Untying the Gordian Knot, Towards the human right to a climatically sustainable environment?' in Quirico and Boumghar (eds), Climate Change and Human Rights – An international and comparative law perspective (2016), 147.

[204] A/HRC/54/27, Reinvigorating the right to development: A vision for the future, Report of the Special Rapporteur on the right to development, Surya Deva, 4 August 2023, para. 27.

[205] A/HRC/WG.2/19/CRP.1, The international dimensions of the right to development: a fresh start towards improving accountability, Olivier De Schutter, 22.01.2018, Summary.

"social, cultural, and political dimensions."[206] In the current understanding in the international debate, the right to development impacts the interpretation of other 'consensus documents'. For example, regarding the Global Agenda 2030, "[i]t is informed by other instruments such as the Declaration on the Right to Development".[207] Furthermore, the Agenda recognises the right to development as a fundamental pillar of the desired peaceful, just and inclusive societies and reaffirms key principles of the Declaration on the Right to Development throughout the 2030 Agenda, as were the principles of the Rio Declaration on Environment and Development and the principle of common but differentiated responsibilities.[208]

However, although the right to development does not manifest by its wording an "explicit obligation to protect the natural environment, and to contribute to the provision of global environmental goods"[209], in current interpretations it does not omit such obligations. Rather, it is grounded in its stipulation to entitle every human person and all peoples inalienably with "economic, social, cultural and political development, in which all human rights and fundamental freedoms can be fully realized."[210] This evaluation changed over the decades with aggravating impacts of climate change and other natural disasters.[211] Moreover, without prejudice to the relevant provisions of the International Covenants on Human Rights, the declaration affirms their inherent right to exercise full sovereignty over all their natural wealth and resources. Also, in the more recent interpretation of the UN Special Rapporteurs on the right to development, the specific interconnection between such very right and environmental protection were acknowledged in different contexts, amongst others, highlighting its overarching principle of intergenerational equity.[212] States have a prime responsibility to create conditions that improve the well-being through national development policies, by full respect for the principles of international law and inter-state cooperation. By recognising these features, the Global Agenda 2030 can be considered a concrete blueprint for realising the right to development sustainably.

[206] ADI / ILA, White Paper 18, SDGs beyond 2030 (Paris 2023), 10.
[207] A/RES/70/1 (n 2), para. 10.
[208] A/RES/70/1 (n 2), para. 12, 35.
[209] Scholz, Reflecting on the Right to Development from the Perspective of Global Environmental Change and the 2030 Agenda for Sustainable Development in Kaltenborn et al., *Sustainable Development Goals and Human Rights* (2020), 194.
[210] A/RES/41/128 (n 202), Article 1(1).
[211] In the 90s and 2000s, especially developing countries argued that environmental provisions which are more costly would hinder their economic development and thus hinder poverty reduction; Imme Scholz, Reflecting on the Right to Development from the Perspective of Global Environmental Change and the 2030 Agenda for Sustainable Development, 194.
[212] See e.g. UN Special Rapporteurs on the right to development: Climate Action and the Right to Development: A Participatory Approach, Policy Brief by Saad Alfarargi, October 2021; A/HRC/54/27 (n 203), para. 13.

2. Conceptualisation, Structure and Mechanisms of the SDGs and the Global Agenda 2030

The Global Agenda 2030 is structured in different parts to serve various purposes. Besides the classifying arrangement in preamble, declaration, means of implementation and a follow-up and review system, the Global Agenda 2030 contains as one main part the Sustainable Development Goals (SDGs). The SDGs consist of 17 goals and 169 sub-goals which are assigned to 231 indicators.[213] While SDGs 1 to 16 are of substantive nature, SDG 17 forms a means of implementation. Moreover, each of the first 16 SDGs exhibit a structure where their first sub-targets contain a substantive core and the last ones (indicated by letters a., b., c.) declare the method of implementation. Both the agenda and the SDGs contain further levels of systematic order that have already been identified in literature. According to Huck and Viñuales, the Global Agenda 2030 is permeated with inner and outer principles. While the inner principles should strengthen the inner coherence and adhere the different parts to specific functions, the outer principles embed the entire agenda in the most diverse field of international law. All principles serve the purpose to clarify the political intent and legal meaning of the agenda including the SDGs.[214]

As one main aspect, the underlying fabric of the concept of sustainable development with its tripartite character (economic, social and environmental) and its intra- and intergenerational equity approach is reaffirmed.[215] Being of non-legal but merely political nature, the resolution forms a universal action plan of unprecedented scope that is interwoven with the evolution of customary law, general principles of international law and the multi-level and multi-centric system of law in the broad sense. In particular, the sections of the preamble, vision, and means of implementation of the Global Agenda 2030 indicate the respective legal regimes that underlie the guiding principles. Additionally, the means of implementation are described with a particular emphasis on finance, technology transfer, and performance review. These aspects have been both institutionalised (amongst others, via the Technology Facilitation Mechanism, High-Level Political Forum) and primarily facilitated by the private sector, with investment also being channelled. In addition to SDG 17, which serves as an implementation goal, SDG 2 (food security), SDG 7 (energy infrastructure and clean energy technology), and SDG 10.B (reducing inequality between countries) are outlined as essential mechanisms, along with the Addis Ababa Action Agenda (AAAA) for financing and investment.[216] The Global Agenda 2030, in its entirety,

[213] A/RES/71/313 (E/CN.3/2021/2), Global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development; the latest revised version can be found at https://unstats.un.org/sdgs/indicators/indicators-list/ (last accessed 07.05.2022).
[214] Huck (n 18), mn. 122, 234.
[215] Sands and Peel, *Principles of International Environmental Law*, 210 [found in Viñuales, *Rio Declaration* (2015), 151].
[216] Viñuales, 'Foreign investment and the environment in international law: current trends' in Miles (eds), Research Handbook on Environment and Investment Law (2019), 14-6, 36f.

encompasses concepts, structures, and mechanisms that already acknowledge the following: The initial level of sustainable development within a state or society, measured by the SDGs, including the concept of sustainable development, varies. Different country- and society-specific circumstances require different solution strategies and intensities.

a. System-theoretical Considerations of the SDGs

The overarching objective of this sub-chapter is to discern the systematic structure that guides the legal standing of the SDGs, emphasising the interplay between system theory and international law. As evident from the origin and developmental trajectory of the SDGs, it is now essential, concerning the determination of their systematics, to consider their connection to international law. This specific connection, along with their broader system theory, will make their significance understandable and ultimately reveal the potential of their governance function. To achieve this, the underlying system theoretical principles that govern the classification of these goals within the legal frameworks will be briefly outlined. By first exploring the outer systematic aspects through anchoring the SDGs in international law (aa), and subsequently delving into the inner systematic classification of contextually relevant SDGs (bb), the aim is to provide a holistic view of the legal foundations that underpin the Global Agenda 2030. This systematic exploration sets the stage for a nuanced understanding of the legal surrounding of sustainable development and its global implementation.

(aa) Outer Systematic of anchoring the SDGs in International Law

As stated before, the Global Agenda 2030 and the associated SDGs are not merely aspirational objectives but are intricately connected with international law. The outer systematic classification involves anchoring these goals in the broader framework of legal norms and principles. While the UNGA resolution itself provides the basis for the agenda's existence and implementation, it does not generate effects or consequences in a legal sense. The non-binding nature of the UNGA resolution, however, does not detract from its integration into the law. Rather, the resolution serves as a testament to the integration of the SDGs into the fabric of international law. As Huck states, these external systematic which can be read from external principles "are like layers wrapped around the core of the SDGs".[217] Consisting of the outcomes of a decade-long development and of various conferences in the context of development, sustainability, nutrition, elimination of asymmetries between countries, disaster risk reduction, development aid and other financing, among others, they delineate the meaning and (legal) obligations of "governments, individuals and organisations". In acknowledging this comprehensive international *acquis*, the interconnectedness

[217] Huck (n 18), Introduction, mn. 304.

of the SDGs with customary law, general principles of international law and a shared conceptual theoretical understanding is revealed.[218] These outer systematic (together with the inner systematic of the SDGs), amongst others, identified by Huck and Viñuales are instrumental in ensuring coherence within the agenda and embedding it in the various relevant fields of international law.[219] Addressing all of the various stakeholders illustrates a recognition of a multi-centric legal system that is nourished by the system of the multi-level system of law and in this way also reinforces their legal significance.

(bb) Inner Systematic of the SDGs

The inner systematic classification delves into the specific legal and contextual relevance of individual SDGs. Each SDG within the Global Agenda 2030 shares a unique structure, with the first sub-targets addressing a substantive core and subsequent sub-targets outlining methods of implementation. This categorisation is evident in their designation, which differentiates firstly between numbers (.1, .2, .3, etc.) and then letters (.a, .b, .c, etc.). This classification is roughly analogous to the differentiation between substantive law (defining the law) and formal law (determining the procedural aspects of law). The SDGs provide 16 specific goals for sustainable development in certain contexts, with the seventeenth goal promoting partnership approaches,[220] exhibiting strong interconnections in practice. All SDGs are intertwined with one another, neglecting any kind of hierarchy between them. Therefore, generally said, each SDG has relevance in the context of this thesis. However, the mining sector and associated finance and investment show that some of the SDGs address more directly pressing issues in the extractive industries of critical raw materials and surrounding financial markets. For example, SDG 1 (no poverty), SDG 2 (zero hunger and food security), SDG 3 (good health and wellbeing), SDG 5 (gender equality), SDG 6 (clean water and sanitation), SDG 7 (affordable and clean energy technology), SDG 8 (industry and innovation), SDG 9 (infrastructure, innovation and industrialisation) and SDG 10.B (reducing inequality between countries), SDG 12 (responsible consumption and production), SDG 13 (climate action) and SDG 16 (peace, justice and strong institutions) are identified as crucial mechanisms.[221] The integration of the Addis Ababa Action Agenda (AAAA) into the discussion further emphasises the legal underpinnings of financing and investment in sustainable development. This holistic approach ensures that the legal mechanisms for achieving SDGs are comprehensive, ranging from overarching UNGA resolutions to specific goal-oriented actions.

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[218] This must be assumed is theoretically correct. However, when examining the practice, distinctions in contemplation and practical implementation concerning theoretical understanding become evident. For instance, countries such as China, Saudi Arabia, and others do not acknowledge a fundamental democratic approach in their governance. This fundamental democratic understanding, in turn, is envisioned a basic prerequisite for the realisation of sustainable development as envisioned by the Global Agenda and its foundations; A/RES/70/1 (n 2), para. 9.

[219] Huck (n 18), Introduction, mn. 234-304; Viñuales (n 216), 14-6, 36f.; Maaß (n 3), 29-40.

[220] A/RES/70/1 (n 2), 14ff.

[221] World Economic Forum (WEF), Mapping Mining to the Sustainable Development Goals: An Atlas (2016), 4.

The conceptualisation, structure, and mechanisms of the SDGs and the Global Agenda 2030 are deeply rooted in international law. The outer systematic anchoring in international law, as reflected in the UNGA resolution, provides the legal framework for the entire agenda. Simultaneously, the inner systematic classification sheds light on the legal nuances and contextual relevance of individual SDGs, reaffirming their legal significance and ensuring a comprehensive approach to sustainable development.

b. Principles of the SDGs Systematic

Considering the SDGs, every state can first be described as being in a fragile condition. Every state, regardless of its political or economic power, is a state in a meta-state that lacks completeness due to the absence of sustainable development. This assumption of a 'state of development' can be broken down for each of the levels addressed by the SDGs. It presupposes the basic human aspiration for more and at the same time puts it into a new context. It takes advantage of the relentless upheaval of human beings and their constructs (such as states, companies, organisations) by allowing for a maximum principle of sustainable development that strives for harmony (proportionality) within itself. It is not necessarily about achieving maximum growth in an economic sense, but about acting and being maximally sustainable. The maximum condition described is thus merely borne by a different thought, but at the same time continues to allow the eternal striving of human beings for more.

c. Legal Classification of the SDGs

Analysing the resolution A/RES/70/1 reveals that it is to be understood as a recommendation to states, lacking mandatory implementation or self-control mechanisms, to Art. 10 of the UN Charter. Consequently, it cannot be deemed legislatively binding[222] in this domain.[223] Consequently, a legal obligation of the SDGs is fundamentally excluded based on this premise.[224] However, this perspective prompts a broader consideration—does it represent merely the viewpoint of a UNGA resolution or, alternatively, a form of organisational law-making? This introduces the dichotomy between the rule of law and soft law. The Yale School's of thought[225] teleological interpretation suggests moving beyond the

[222] Though the process of drafting and adopting these resolutions may well resemble legislative processes. Few governments and international lawyers consider that UNGA has legislative power (sui generis) over (member) states; see Peterson, 'General Assembly' in Weiss and Daws (eds), *The Oxford Handbook on the United Nations* (2018), 125; Klein and Schmahl, 'The General Assembly, Functions and Powers, Article 10' in Simma et al., *The Charter of the United Nations: A Commentary*, Vol. I (3rd Ed. 2012), 478 ff.

[223] The work and outcomes (resolutions) of the UN Security Council are excluded from this assessment, since these follow different parameters, Art. 12 UN Charter.

[224] See Huck (n 18), Introduction.

[225] Also known as the New Haven school of thought, this scholarship deems "law as a social process of authoritative decision-making […] necessarily expand[ing] the state-focused perspective of both the realists and positivists", Berman, 'A Pluralist Approach to International Law' (2007), 32 *Yale Journal of International Law*, 301 (302), see also Annex E.

literal meaning of treaty texts, attributing additional significance to align with the purpose of enhancing desired values. Legal scholars adopting a teleological interpretation, such as the Yale School, go beyond the conventional positivist stance to derive a more comprehensive perspective on law, specifically including its social ends, "considering legal order as a process and not as a condition."[226] While norms may exhibit varying degrees of impact, dismissing normative assertions outright as non-law is deemed an unproductive strategy. Consequently, there is a discernible shift towards an international law approach rooted in legal pluralism. This perspective widens the scope of actors involved in law-making to include not just states but also structures of authority with effective power (including consequent control). In this sense, efficient outcomes are assumed to being made by politically relevant actors in an "ongoing process of authoritative and controlling decisions" which, thus, makes the process of law-making a dynamic process. It seems logical to follow this way of conceptualising law in the field of study, since all phenomena, from the founding of the UN, international law, human rights, governance and transnational relations between states and other actors, originated in the process of globalisation. Hence, it seems obvious that the effects and offshoots of globalisation should be understood as a "mixed international domestic law subject" that reflects "social and economic phenomena, such as culture and commerce".[227] In this way of understanding law, it must be measured by its ability to function within globalisation phenomena.

Navigating the realm of international legal processes (ILP) and constructivist theories, such as those of Habermas,[228] however, raises critical questions in this context. How could legal frameworks be established that are oriented towards the SDGs or integrate them? Maintaining the rule of law becomes complex when non-state actors gain legislative authority. This raises further questions: If decision-making in international organisations (IOs) replaces state consensus, which IOs should be considered? The interpretation of their 'laws', influenced by the understanding of the UN, the application of the Vienna Convention on the Law of Treaties (VCLT), and the already set in place and future interregional implementation of the SDGs (e.g. at the EU level, including in EU legislation) all come into play, further subdividing into national applicabilities.

The application of the doctrinal approach leads to queries about the extent of these considerations: Do they apply exclusively in international law, the EU, or at the national level? Does their relevance change based on the implemented instrument or remain consistent

[226] Pound, Philosophical Theory and International Law, 1 BIBLIOTHECA VISSERIANA 73, 89 (1932) [found in: Hongju Koh, 'Is There a "New" New Haven School of International Law?' (2007), 32 *The Yale Journal of International Law*, 559 (562).
[227] By suggesting as 'new' New Haven school of thought: Hongju Koh, 'Is There a "New" New Haven School of International Law?' (2007), 32 *The Yale Journal of International Law*, 559 (572f.).
[228] Stanford Encyclopedia of Philosophy, 'Jürgen Habermas' (Sep 15, 2023); see also Finlayson, James Gordon, Habermas and Frankfurt School critical theory, *Habermas: A Very Short Introduction* (Oxford Academic, Oxford 2005).

across different levels? These inquiries have the potential to unravel the complexities surrounding the legal classification of the SDGs, contemplating not only their international dimension but also their implications at various hierarchical levels. While within the limited scope of this study not all of these questions can finally be answered, some structural thoughts can be found nevertheless: The categorisation of the SDGs seem to align most closely with a Constructivist School of thought, drawing notably on the perspective of Habermas and similar thoughts. A key factor is their emphasis on normative aspects which characterises the Constructivist School and which places significant importance on normative aspects of law and legal norms.[229] The SDGs themselves are inherently normative, embedded in legal principles, rules and drawing from international and all other levels of law. The role of communicative action, as highlighted by Habermas, is central to the creation and interpretation of legal norms. The development of the SDGs was marked by extensive global discourse, negotiations, and contributions from various stakeholders, reflecting a communicative approach. Moreover, one of the SDGs main principles, democratic deliberation, is underscored by constructivism as vital in shaping legal norms. The adoption of the SDGs entailed a participatory process involving countries, civil society, and the private sector in discussions, aligning with a democratic approach.[230] Constructivism acknowledges the interconnectedness of global issues and emphasises the necessity for collaborative solutions. The SDGs embody a holistic approach, recognising the interdependence of social, economic, and environmental dimensions, aligning seamlessly with the constructivist view. The normative power of international cooperation and the development of shared norms are recognised by the Constructivist School.[231] The SDGs, being a product of international cooperation, represent a shared commitment among nations to work towards common goals. While elements of other schools may also be applicable, such as the Yale School's emphasis on real-world impact and consequences, the Constructivist School's focus on normativity, discourse, and global collaboration makes it particularly well-suited for comprehending the underlying philosophy of the SDGs and their approach to addressing global challenges. Moreover, they are capable of connecting to further approaches.

When applying a doctrinal perspective to this question, it becomes evident that the absence of hierarchies, as established in another principle of the Global Agenda 2030, underscores

[229] See Annex E.
[230] The SDGs and the Global Agenda were developed in a "three-year-long transparent, participatory process inclusive of all stakeholders", <https://www.undp.org/sdg-accelerator/background-goals> (last accessed: 05.02.2024); UN-DESA (n 178), 7.
[231] Fioretos and Tallberg, 'Politics and theory of global governance' (2020), 13 *International Theory* (2021), 99 (100, 103); Altwicker and Diggelmann, 'How is Progress Constructed in International Legal Scholarship?' (2014), 25(2) *European Journal of International Law*, 425 (441); see for an overview on constructivism: Karber, '"Constructivism" as a Method in International Law' (2000), 94 *ASIL Proceedings*, 211 [found in: Altwicker and Diggelmann, 'How is Progress Constructed in International Legal Scholarship?' (2014), 25(2) *European Journal of International Law*, 425 (427)].

the need for a nuanced legal interpretation and seeking potential connection points between the different approaches to law systematics. While differing in their legal theory approaches, the Constructivist and Doctrinal Schools can find common ground when examining the SDGs in transnational law. Constructivism, which emphasises normativity, communicative action and global cooperation as a normative framework for addressing global challenges, is consistent with the holistic nature of the SDGs. Interpreting legal doctrines provides a practical foundation for incorporating SDGs into legal systems. A doctrinal view together with the SDGs' embedding in international (and other layers of) law point to the actionable legal frameworks that structurally translate its aspirations. Since transnational situations by their very nature occur beyond national borders, the connection between these approaches is demanded beyond doubt to enhance adaptability to global challenges and find effective solutions. Thus, the Constructivism's global emphasis aligns with the SDGs and their ethical and communicative dimensions, while the doctrinal method provides a framework for integrating these global principles domestically, ensuring practical implementation.

The SDGs in the form of their resolution are of non-binding nature. However, they unfold steering functions and trigger shared efforts of a multitude of actors. Not at least, they are transformed themselves into other 'law', either of non-binding nature (soft law) or of binding nature (hard law) as can be seen from their reception into interregional or domestic legislation. In essence, the legal classification of the SDGs involves a comprehensive, multi-dimensional approach that includes the international level, recognises their transformative impact on different areas of law from national and regional to international legal frameworks, from soft to hard law, and opens up to an understanding of law that is truly interconnected.

3. The Transnational Perspective of Sustainable Development and the SDGs

For the purposes of this study, a transnational lens will be most helpful in discovering elements that are common in realising sustainable development through the SDGs in the different levels and centre points of law.[232] The UN mandate for sustainable development is to facilitate international cooperation and provide a platform for countries to align their (international) development strategies (IDS) with the SDGs. The UN's role includes facilitating partnerships, providing guidance and monitoring progress towards the goals.[233] In this regard, the High-Level Political Forum on Sustainable Development (HLPF) is the main UN platform for reviewing the implementation of the SDGs.[234]

[232] A/RES/70/1 (n 2), para. 10; see also: Pekmezovic, The UN and Goal Setting: From the MDGs to the SDGs in Walker et al. (eds), Sustainable Development Goals: Harnessing Business to Achieve the SDGs through Finance, Technology and Law Reform (2019), 28.
[233] On the expansion of the UN mandate: A/RES/70/305, Revitalization of the work of the General Assembly, 30 September 2016; A/RES/71/323, Revitalization of the work of the General Assembly, 20 September 2017.
[234] UN, <https://hlpf.un.org/> (last accessed: 06.02.2024).

In the context of international law and in order to achieve these goals, corporations are increasingly recognised as key actors in achieving sustainable development.[235] Here, the UN Guiding Principles on Business and Human Rights (UNGP)[236] and various voluntary codes and standards, such as the UN Global Compact[237] and the OECD Guidelines for Multinational Enterprises[238], provide frameworks for corporate responsibility in contributing to sustainable development. Nevertheless, it has been also acknowledged that the primary source of financing capabilities and innovation lies within the private sector. Furthermore, corporations were identified as the primary entities neglecting human rights, environmental protection, and sustainable practices. Given their frequently transnational supply and value chains, a more comprehensive approach was deemed necessary to enact effective measures.[239] The transnational perspective also acknowledges the role of subnational governments and non-state actors in sustainable development since subnational policies are influenced by international norms and soft law measures. Furthermore, there is a growing recognition of the importance of engaging local governments, civil society, and the private sector in the implementation of the SDGs to scale up global impact and a common thrust. The concept of sustainable development and the SDGs involves a multi-level and a multi-actor approach that integrates international norms and principles with national and subnational policies, recognising the essential role of corporations and other non-state actors in achieving global sustainability objectives.[240] To illustrate the most influential legal elements of the transnational perspective, this chapter aims to elucidate the legal incorporation of the SDGs. An analysis of the legal regimes deemed most relevant in transnational law facilitates the derivation of common principles. The identification of these principles will conclude the theoretical examination of the systematic parameters in this study. The consolidation of this initial part of the investigation will thus provide insight into the extent to which the SDGs practically impact transnational law. The examination of their influence on specific standards in finance and investment law, however, will be reserved for the second part of this study, which will draw from the "external conditions" developed here as the main analytical framework.

[235] Johns, Theorizing the Corporation in International Law in: Anne Orford and Florian Hoffmann (eds), *The Oxford Handbook of the Theory of International Law* (2016), 635; A/RES/70/1 (n 2), para. 10.
[236] A/HRC/17/31, Report of the Special Representative of the SecretaryGeneral on the issue of human rights and transnational corporations and other business enterprises, John Ruggie, Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework, Annex, 6-27.
[237] UN Global Compact, <https://unglobalcompact.org/> (last accessed: 07.01.2024).
[238] OECD Guidelines for Multinational Enterprises on Responsible Business Conduct (Ed. 2023, replacing Ed. 2011) (OECD Publishing, Paris 2023).
[239] Gillespie (n 172), 159 ff.; UN-DESA (n 178), 87f.
[240] A/RES/70/1 (n 2), para. 10.

a. Embedding the SDGs in Law

The dominant influencing factors of this study, considering its systemic structures[241], are on the horizontal axis of the different areas of law, which have priority in this investigation. Their classification and interpretation are necessary to obtain the framework for a view most approximate to the reality and conclusive. The different strands of the legal fields examined, despite their unequal legal resilience, are to be classified in their respective historical and jurisprudential contexts. In this regard, on the one hand, the starting point and fundamental understanding of this study becomes apparent and, on the other hand, clarifies common parameters that influence the further course of this study. If common denominators can be identified, this allows for an overall condensation of the equation which therefore is decisive for the development of future scenarios (Chapter F.). In this chapter, the areas of investment law, finance law, human rights and sustainable development (law) will be considered, which as yet lacks clarity and certainty, but whose classification is indispensable for this study. The legal areas will be considered on the level of international law, extended in each case by the European legal requirements. Insofar as other relevant legal families differ in their existing particularities in so that another application, design or interpretation of law occur and are decisive, these too will be considered, thus revealing de facto disparities.

Trade, investment and finance on an international level have a facilitating and supporting function for the global economy. These areas are intended to promote resource allocation, wealth and economic growth and economic stability. These functions can be assigned to the term development as it is understood in economic development theory,[242] but also in the concept of sustainable development as coined in the Global Agenda 2030.[243] Today, each of these functions is surrounded by an area of law relating to it, which has grown independently, partially with no mutual reference. Both common features and particularities of these areas of law form reference points for the legal classification of the SDGs and the Global Agenda 2030, and accordingly also for the evolving sustainable development *law* and consequently for standardisation in transnational law. Therefore, their classification and interpretation, at least briefly, enables the legal framework for further consideration in this study to be established. In the following sections, the legal areas primarily examined in this study are briefly described in their perceptible current state of development with regard to their respective significance for sustainability- and SDG-related standardisation. In each section, an overall contextualisation is followed by an examination of its brief historical context, the systematic structure and a subsection on the meaning, significance and gravity of the area of law against the background of the SDGs and the instruments associated with them.

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[241] See Chapters A. III. 2. and B. II. 2. of this thesis.
[242] Sarkar (n 188), 43-68; Ranis and Fei, 'A Theory of Economic Development' (1961), 51(4) *The American Economic Review*, 533-65.
[243] A/RES/70/1 (n 2), paras. 3, 9, 13, 21, 27, 66ff.

(aa) Investment Law

International investment law is a major source of influence in the security of raw material supply. It provides safeguards for financial market participants or issuers, both natural and legal entities, that do a "placing [of] capital or laying out of money in a way intended to secure income or profit from its employment".[244] Also during the process of developing the SDGs and during the debate on their financing, it was recognised that mineral-exporting states are not only dependent on the extractive industry and related investments, but also on the principles enshrined in international investment law, such as the principle of permanent sovereignty over natural resources (PSONR), which must be permanently and fully valid. In this regard, particular importance is attached to "promot[ing] [...] capacity-building for contract negotiations for fair and transparent concession, revenue and royalty agreements and for monitoring the implementation of contracts"[245] as a solution initiative for the special challenges in the extractive industries.

1. Brief Historical Context

Although evidence of a foreigner's law can be traced back to the times of the Holy Roman Empire, international investment law (IIL) emerged "relatively recently"[246] and was only perceivable as being a legal regime after the end of World War II. Starting with the establishment of the so-called Bretton Woods system, the General Agreement on Tariffs and Trade (GATT 1947), the International Monetary Fund (IMF) and the International Bank for Reconstruction and Development (IBRD, i. e. World Bank) were set up. Yet, at that time, it was bilateral investment treaties (BITs) that were concluded mainly by developed, capital-exporting countries which prevented the realisation of an internationally uniformly understood investment law. However, recognising its shortcomings, it soon developed into a regime striving for a multilateral approach.[247] For the time being, however, no internationally unified provisions could be found. These foundering approaches were recouped in the 1960s to 1980s by the continuing conclusion of BITs, which were frequently shaped by the interests of the countries of the so-called Global North. In the course of the political and ideological opposition between the so-called Global South and the Global North, which is reflected, among other things, in the UN Resolution on Permanent Sovereignty over Natural Resources[248] (PSONR) of 1962, UNCTAD was founded in 1964 with the aim of promoting the development and integration of developing countries into the world economy. During the period of decolonialism, as a "relatively rapid process towards the

[244] Black's Law Dictionary (rev. 4th Ed.), 960.
[245] A/RES/69/313 (n 182), para. 26.
[246] Schill, Tams and Hofmann, 'International Investment law and history: An introduction' in Schill, Tams and Hofmann, *International Investment Law and History* (2018).
[247] Efforts included, for example, the 1948 Havana Charter (which did not enter into force) or the 1962 OECD Draft Convention on the Protection of Foreign Property.
[248] General Assembly Resolution 1803 (XVII), Permanent sovereignty over natural resources, 14 December 1962.

economic independence"[249] of states, in particular, a New International Economic Order[250] (NIEO) was called for in 1974. The end of the Cold War in 1991 formed a further anchor point in the reform of the IIL. The successful establishment of the WTO and the GATT in 1994, as well as the replacement of the gold standard, then paved the way for a more institutional framework of common principles in world trade law.

Although neither the Agreement establishing the World Trade Organization (Marrakesh Agreement) nor the GATT 1994 contain direct provisions concerning investment, attempts have been made many times within the WTO to include corresponding regulations. In addition, the recognition that the use of investment and related measures affects trade is evident. Moreover, the Agreement on Trade-Related Investment Measures (TRIMS), as part of the WTO's single package approach, has created a globally applicable framework for regulating the distorting effects of investment on trade in accordance with Article III:4 of GATT 1994 or Article XI:1 of GATT, whose deliberations are based on reports and negotiation rounds that were conducted prior to the establishment of the WTO.[251] In the course of the further development of the WTO and its influences on IIL, UNCTAD in particular has played a key role with its specific mandates. UNCTAD provides data and drives studies of investment issues, as these fall under "development as a whole"[252]. In addition, its ad-hoc committees with specific mandates generate know-how on how to create new mechanisms for expanding investment and financial flows, which should support less developed countries in particular.

2. Systematic structure

Layers of Norms

IIL is part of international economic law, mainly under the auspices of the WTO and its respective agreements, regional and bilateral agreements and national investment legislation. Here, international, contractual and national legal frameworks are interrelated.[253] Thus, IIL does not refer to one holistic area of law but to such areas that are covered by the more than 3.300 international investment agreements (IIAs) today.[254] The principles of originally IIL thus have an impact on a wide range of subject areas, which differ greatly in their legal characteristics and thus combines a great variety of procedures, measures or

[249] Augenstein, 'Paradise Lost: Sovereign State Interest, Global Resource Exploitation and the Politics of Human Rights' (2016) 27(3) *EJIL*, 669 (673).
[250] A/RES/S-6/3201, Declaration on the Establishment of a New International Economic Order, 1 May 1974.
[251] Hahn, WTO Rules and Obligations Related to Investment in Bungenberg et al., International Investment Law: A Handbook (2015), paras. 2-5, 7; WTO, <https://www.wto.org/english/tratop_e/invest_e/invest_info_e.htm#:~:text=The%20Agreement%20on%20Trade%2DRelated,can%20restrict%20and%20distort%20trade.> (last accessed: 12.09.2023)
[252] Weiss, Trade and Investment in Muchlinski et al., *The Oxford Handbook of International Investment Law* (2008), 189.
[253] Instead of many: Salacuse, *The Three Laws of International Investment: National, Contractual, and International Frameworks for Foreign Capital* (2013).
[254] Van Aaken, International Investment Law and Policy, 1.

standards in bilateral, regional or multilateral form and levels.[255] Although a distinction must be made between the multilateral investment protection agreements (MIAs), which continue to exist despite the failure of the Doha Development Round[256], and the bilateral investment agreements (BITs), this "foreign law" is also characterised by several principles. These principles provide protection either for the investor or for the host state, i.e., the state in which an investment is made.

Investors and the purpose of investment

Investors as the natural or legal person or entity undertaking an investment are covered by the protective purpose of these principles. However, while the determination of who is an investor and what is their nationality may more easily be ascertainable in the case of direct investment treaties under the guise of multilateral or regional sources of investment protection law, in the case of the investment of a multinational enterprise and its shareholders, it can only be determined under complex considerations. The complex networks of such corporations, located in different jurisdictions, blur and diffuse the boundaries of what can be determined with certainty when the majority, shareholding and voting relationships of companies that span the globe with their supply, production and value chains have to be identified when defining the nationality of the investor. This, however, is the first of two basic prerequisites for determining whether and to what extent such an investor is covered by investment protection law.

The second basic requirement is to determine whether an investment has been made. The existence of an investment depends on whether it falls within the scope of application. Definitions of what constitutes an investment are numerous and are prescribed, for example, by national legislation or in bilateral or other investment protection treaties and interpreted in the jurisdiction of the WTO, in various procedures of the Dispute Settlement Body (DSB).[257] The different definitions basically follow three models: the asset-based model, the transaction-based model and the enterprise-based model. The latter model tends to be taken from the BITs, while the first two models tend to be located in national foreign investment laws. Regardless of the categorisation of the respective investment as such, the classification is indispensable to not only provide protection or legal consequences, but also to grant access to the jurisdiction of the International Centre for Settlement of Investment Disputes (ICSID).[258]

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[255] Albeit the Doha Development Round is now considered to have failed as a reformative instrument for shaping the multilateral future, multilateral agreements already exist that continue to be effective.

[256] The WTO Doha Development Round had been set in 2001 as a reformative instrument for shaping the multilateral future. It is not foreseeable for the time being that the round will be continued; see Genevieve Dufour and David Pavot, 'WTO Negotiations: The Unfinished Doha Development Agenda and the Emergence of New Topics', (2020) 15(5) *Global Trade and Customs Journal*, 244-51.

[257] See instead of many *AMT v Zaire* (36 ILM 1531 (1997)); *Fedax v Venezuela* (37 ILM 1378 (1998)).

[258] Schlemmer, Investment, investor, Nationality, and Shareholders in Muchlinski et al., *The Oxford Handbook of International Investment Law* (Oxford 2008), 51-85.

General Standards and Principles of Treatment

IIL encompasses general standards and principles of treatment that govern the treatment of foreign investments by host states. These standards and principles are crucial for ensuring a fair and conducive environment for cross-border investments. One fundamental principle is the standard of fair and equitable treatment (FET), which obligates host states to provide foreign investors with a level of treatment that is just, impartial, and non-discriminatory. This includes protection against arbitrary or discriminatory measures that may negatively impact investments. In specific investment situations open to a vast array of varying interpretation, the principle of FET forms a "mandatory standard of treatment" in IIL, most often explicitly included in respective treaties. This principle remains undefined but has been interpreted in arbitrary processes widely.[259]

Another key principle is the protection against expropriation without compensation. Host states are generally prohibited from seizing or expropriating foreign investments without offering fair and adequate compensation. This ensures that investors are protected from unjust deprivation of their assets. National treatment and most-favoured nation treatment are principles aimed at preventing discrimination. National treatment mandates that foreign investors receive treatment no less favourable than that afforded to domestic investors. Most-favoured nation treatment requires that foreign investors are treated at least as favourably as investors from any third country. In addition, stabilisation clauses and umbrella clauses are additional features that may be present in investment agreements. Stabilisation clauses seek to freeze the legal framework governing an investment for a specified period, avoiding legislative change, and thus providing stability and predictability for investors. Umbrella clauses elevate breaches of specific contractual obligations to treaty violations. This enables investors to directly bring claims for breach of contract under the umbrella of the investment treaty. Overall, these general standards and principles collectively establish a framework for the protection of foreign investments and promote a conducive climate for international investment activities.

Along the general standards and principles of treatment in international investment law, other crucial principles include PSONR, benefit sharing and full protection and security. PSONR underscores the sovereign right of states over their natural resources.[260] While foreign investors have the right to exploit these resources, states retain the authority to regulate and control them in the public interest. Benefit sharing is a principle that promotes the fair distribution of benefits arising from investment activities. It emphasises that local communities and the host state should receive a fair share of the economic gains generated

[259] Kläger, 'Revising Treatment Standards – Fair and Equitable Treatment in Light of Sustainable Development', in Hindelang and Krajewski (eds), *Shifting Paradigms in International Investment Law* (2016), 65-80, 130-160.
[260] Schrijver, Sovereignty over Natural Resources, Balancing Rights and Duties (2008).

by the investment. The principle of full protection and security requires host states to ensure the safety and security of foreign investments. It goes beyond physical protection to include protection against arbitrary or discriminatory actions by the state or non-state actors that may harm the investment. These principles contribute to the broader framework of IIL, seeking to balance the interests of host states and foreign investors. PSONR upholds a state's authority over its resources, benefit sharing fosters equitable distribution of gains, and full protection and security aim to safeguard investments from harm. Together, these principles in conjunction with fair and equitable treatment, protection against expropriation, and non-discrimination provide a comprehensive legal framework for international investments.[261]

3. Meaning, Significance and Gravity

The use of investments, e.g., in the form of FDI, is subject to a variety of rights at different levels, which must be taken into account by investors, host and home states in the investment process.[262] Investments are regularly linked to the economic growth of a state. The higher the financial amount of investment transactions within a state, the higher the expected financial outcome for both investor and host state, with a disproportionately higher effect in developing and least developed countries.[263] In this context, growth is not only understood in the economic sense of prosperity or welfare, but also as bringing social progress and forming the basis for global peace and security.[264] This growth is accompanied by other developments, such as the emergence or expansion of (safe) food and water supply, educational opportunities and jobs, health care or access to justice.[265] These effects are particularly evident in the interaction of private business activity, investment and innovation.[266]

With this brief consideration, it becomes evident that IIL and the effects of FDI correlate in many ways with the basic idea of sustainable development: Long-term partnerships (cooperation) support the achievement of economic, social and ecological welfare and peace.[267] The areas of IIL and sustainable development, which have already been linked

[261] Cottier and Nadakavukaren Schefer, Elgar Encyclopedia of International Economic Law (2017), Part II, Section I-III (166-215).
[262] See Salacuse, *The Three Laws of International Investment: National, Contractual, and International Frameworks for Foreign Capital* (Oxford University Press, Oxford 2013), 48.
[263] The assumption that, in addition to international trade and economic networking, foreign investment in particular stimulates growth goes back to A/RES/1515, A/RES/1516, A/RES/1519, and A/RES/1526.
[264] Starting from the processes of decolonisation, see e.g. "basic to the attainment of international peace and security and to a faster and mutually beneficial increase in world prosperity", A/RES/1710 (XVI) United Nations Development Decade, A programme for international economic co-operation (I), 19 December 1961.
[265] A/RES/69/313 (n 183), paras. 34, 35; see also Pahuja, *Decolonising International Law: Development, Economic Growth and the Politics of Universality* (2011), 90 f.
[266] A/RES/69/313 (n 183), paras. 35.
[267] Thus, Montesquieu already recognised (though not first) that soldiers do not cross borders when trade and exchange flourish, Charles de Montesquieu, On the Spirit of Laws, (vol. 2, 1748), 319.

many times,[268] encompass ideas of the bindingly sustainable, partly liability-generating necessity "to include the main rules of modern international investment law in a global multilateral [...]" context, which is supplemented in numerous areas by voluntary initiatives and further develops the legal field into a sustainable one under "gentle" influence.[269] In this context, Schrijver described in his work on Permanent Sovereignty Over Natural Resources (PSONR), the need for a "global multilateral investment convention" that could be established

> "along the lines of the nearly forgotten ICC Guidelines on International Investments (1972), which in a balanced manner set out rights, duties and responsibilities of the three parties concerned: investor, host government and home government. The PSNR-related UN resolutions and the Draft UN Code of Conduct on TNCs, the Draft OECD Convention on the Protection of Foreign Property (1967), the BITs and MITs, the arbitral awards, the lump sum agreements, and the World Bank Guidelines all provide useful reference material upon which such a global multilateral convention might ultimately be based. Permanent sovereignty, international economic co-operation and international arbitration arrangements should be the cornerstones of such a convention."[270]

Schrijver's idea is again found in the financing instrument of the SDGs, the AAAA, which aims to complement investment with policies and regulatory frameworks "to better align private sector incentives with public objectives, including incentives for the private sector to adopt sustainable practices and promote long-term quality investments".[271] In this context, foreign direct investment and private international capital flows are "important components of national development efforts".[272] One tendency, however, can be observed since the 2000s, that IIL increasingly gives space to and processes other concerns in addition to its inherent basic economic idea. The interconnectedness between the (supposedly) different orders of trade, investment and monetary relations as well as the maintenance of human rights, environmental protection, the creation of capabilities and sustainable development can be read in the realities of life as well as in academic debate and economic studies.[273] This sustainability orientation is also recognisable in the European approach, which refers significantly to the Global Agenda 2030 and the SDGs. Union legislation and administrative practice endeavour to implement this. The particular focus here is on standardised transparency and steering requirements for investments and capital flows in order

[268] Shawkat Alam, Jahid Hossain Bhuiyan and Jona Razzaque, 'International natural resources law and sustainable investment: Principles and practices' in Alam et al. (eds), *International Natural Resources Law, Investment and Sustainability* (Routledge 2018), 24-26.
[269] A/RES/69/313 (n 183), para. 26.
[270] Schrijver (n 260), 365 f.
[271] A/RES/69/313 (n 183), para. 36.
[272] A/RES/69/313 (n 183), para. 35.
[273] Weiss, Trade and Investment in Muchlinski et al., *The Oxford Handbook of International Investment Law* (2008), 190f.; ILA, Resolution 3/2002, Sustainable Development, New Delhi Declaration of Principles of International Law relating to Sustainable Development; Piketty, Capital and Ideology (2019).

to achieve sustainability and climate protection in the medium and long term and to undermine harmful influencing factors such as data loss and greenwashing.[274] These requirements are designed within the relevant requirements for sustainable investments in conjunction with requirements for financial management,[275] the legal regime of which is presented below.

(bb) Finance Law

Financial law is the set of rules and regulations that govern activities and transactions in the financial industry. These rules and regulations are intended in particular to ensure the functioning and stability of the financial markets and to protect investors from risks. In principle, they are designed according to the principles of fairness, transparency and regularity. Different financial laws regulate the activities of financial institutions concerning internal procedures and interaction with market participants operating in the financial market.

Traditionally, financial markets are divided into different sectors. Main sectors are insurance, commercial banking, derivatives, capital markets and investment and asset management.[276] In practice, they converge, albeit their analysis remains largely sector-based. Financial law, however, is understood in this study, from a practical perspective, as a cross-sectoral area of law that follows functional structures and is subject to developments in the law and in the markets.[277]

1. Brief historical context

The first forms of finance-related law can be traced back to the ancient civilisations of Mesopotamia and Greece, in which commercial transactions, debt, and banking practices were already regulated at least in rudimentary form. One of the first (still comprehensible) written laws that laid down financial and commercial regulations is the Code Hammurabi.[278] In the Middle Ages, commercial law emerged in connection with expanding trade within Europe, which introduced legal concepts such as laws against usury or the maintenance of partnerships, also in order to put financial transactions on a secure footing. These can already be assessed as the starting point for modern financial market law. With the rise of banking in the 17th and 18th centuries, specific banking laws and regulations developed. Within Europe, e.g. in England and the Netherlands, legal frameworks were introduced for the granting of banking licences, depositor protection, negotiable instruments

[274] Wellerdt and Stolz, Nachhaltige Investments glaubhaft regulieren Eine Betrachtung des europäischen Ansatzes, Greenwashing aufsichtsrechtlich zu verhindern, und dessen Rezeption im angloamerikanischen Rechtsraum (2023) *EuR*, 181 (181).
[275] See e.g. Communication from the European Commission to the European Parliament, the European Council, the Council, the European Central Bank, the European Economic and Social Committee and the Committee of the Regions, Action Plan: Financing Sustainable Growth ("EU Action Plan on Sustainable Finance"), 8 March 2018, COM (2018) 97 final.
[276] Benjamin, *Financial Law* (2007).
[277] Armour et al., *Principles of Financial Regulation* (2016).
[278] Babylon 1754 BCE.

and bankruptcy (today: insolvency). With the emergence and expansion of capital markets in the 19th and 20th centuries, securities regulation emerged to protect investors and ensure market integrity. The securities laws that emerged regulated not only the issuance, trading and disclosure of securities, but also issues such as fraud, insider trading and market manipulation. By this time, the bill of exchange had established itself as a private system of financial ordering, surrounded by a growing field of legal structures, particularly designed for its interpretation and to increase its enforceability against any contracting party in the event of a dispute.[279] Financial law underwent significant changes, among other things, due to the effects of the global financial crises[280], which resulted in specific laws to ensure financial stability and investor protection (including the establishment of the Security and Exchange Commission (SEC) and the Financial Stability Board (FSB)).

In the context of globalisation, financial markets have become increasingly interconnected. In particular, the creation of the Bretton Woods Institutions, the International Monetary Fund (IMF) and the World Bank, and the establishment of the Basel Committee on Banking Supervision in 1974, which has since been the global body for banking regulation, have increasingly led to the setting of standards and increased cooperation in financial regulation. While a harmonisation in the various areas of competence cannot be deemed true, observable currents have emerged since the beginning of the 2000s that aspire to incorporate the concept of sustainability into the processes of financial systems. Most notably, this is evident in newly developed (or reinterpreted) standards that specifically intend to include environmental, social and governance (ESG) factors, non-financial (and soon to come sustainability) reporting (disclosure requirements) and other regulations to promote sustainable financial practices.[281]

2. Systematic structure

General financial law in the broader sense basically includes banking law, banking supervisory law and financial law. Legally, it thus includes areas of general civil and property law as well as elementary contract law. Furthermore, a distinction must be made between public and private financial law in the broader sense to be able to understand the scope of financial systems in their construction and, beyond that, their regulation as well as their failure. In this context, the different areas of law have different tasks: While private law provides the basic elements for financial assets and their issuers, public law and regulation by the public sector largely serves to hedge risks and thus maintain stability.[282] Public financial law includes those legal provisions that affect the financial management of public

[279] Pistor, Regulating Financial Markets – An LTF Perspective in Avgouleas and Donald, The Political Economy of Financial Regulation (2019), 21.
[280] These included the Great Depression of the 1930s and the global financial crisis of 2008.
[281] Deakin, The Evolution of Theory and Method in Law and Finance in Moloney et al. (eds), The Oxford Handbook of Financial Regulation (2015).
[282] Pistor (n 279), 20f.

entities such as the federal government, federal states and municipalities. This includes financial constitutional law, budgetary law, financial equalisation law, cash law, auditing law, tax law, fee law, contribution law, subsidy law, public credit law and customs law. It deals with questions of procurement, administration, distribution and use of public funds. This includes financial equalisation, budget law, the principle of connexity, the public budget, accounting, taxes, the state budget, subsidies, customs law as well as financial supervision and financial control. Private financial law, on the other hand, refers to the financial system of companies and private households. It encompasses all other areas of finance law that regulate the financial legal relationships of legal entities based on private law. It is important to note that these must be business relationships between legally – not necessarily economically – equal legal entities which regulate banking, money, insurance, currency and foreign exchange law, securities law and payment transactions.

Definition and Function of a financial market

Interactions within these areas take place on the financial market, also referred to as the financial system. Evaluated economically, this is the place where supply and demand for capital meet, whereby this can be further subdivided into capital markets and financial intermediaries. While capital markets enable a direct exchange, i.e. without an intermediary, of financial resources (e.g. securities, shares, bonds), financial intermediaries are characterised by the fact that a capital flow is only made possible through the mediation of a third party, usually banks. If these exchanges relate to primary markets, new securities are issued; in secondary markets, on the other hand, securities that have already been issued are traded. The function of a financial market is therefore to act as a market on which financial instruments are traded directly or indirectly. Insurance companies, banks and other service providers as well as private actors and individuals interact as market participants within the financial systems and together form the financial services sector.

From a legal point of view, at its core, financial market regulation aims to protect investors, maintain market integrity, and foster efficient capital allocation. Key components of the legal framework include securities laws, which regulate the issuance and trading of financial instruments such as stocks and bonds. These laws require disclosure of relevant information to investors, preventing fraud and ensuring that market participants make informed decisions. Market manipulation and insider trading are strictly prohibited to maintain fair competition and prevent the exploitation of non-public information for personal gain. Regulatory bodies, such as the Securities and Exchange Commission (SEC) in the United States, play a crucial role in enforcing these prohibitions and overseeing market activities. Financial market regulations also address the operation of financial intermediaries, such as banks and brokerages, imposing requirements to safeguard client assets and maintain the stability of the financial system. Anti-money laundering (AML) and know your customer (KYC) regulations are integral to preventing illicit financial activities and

ensuring the legitimacy of transactions. In addition, market regulators often implement prudential regulations to manage systemic risks and promote financial stability. These measures may include capital adequacy requirements for financial institutions and stress testing to assess their resilience under adverse conditions. Overall, the legal framework governing financial markets serves to balance the interests of investors, maintain market integrity, and contribute to the overall stability of the financial system. It involves a complex interplay of statutes, regulations, and oversight mechanisms designed to create an environment that fosters trust, transparency, and efficiency in financial transactions.[283]

3. Meaning, Significance and Gravity

Financial systems and markets change in economic, technological and social dynamics, which is also expressed in reactive financial law. And the interconnectedness of the financial industry with other economic sectors is also complex and multifaceted. The integration of environmental, social and governance aspects points to a growing awareness of the close link between finance and development, which ultimately translates into prosperous and empowered societies.[284]

Environmental challenges such as climate change, natural disasters, pollution and resource scarcity, together with the recognition of human rights, labour standards, good governance and ethical business practices, are aspects that coalesce by their very nature[285] and are also capable of influencing the stability of any financial mechanism. Furthermore, the realisation that sustainability risks, such as environmental impacts of climate change (floods, droughts, tornadoes, etc.) and social disruptions (smouldering and open conflicts, civil wars, etc.) also represent financial risks, has triggered a change in risk management on the supply side as well as in investor demand. Financial institutions, regulatory authorities and political decision-makers regularly take sustainability considerations into account in investment decisions, standard-setting and legislation. Here, the different levels of law intertwine international agreements on environmental and climate protection, such as the Paris Agreement, and political sustainability agendas, such as the SDGs, which in turn point to financial systems, instruments and corresponding law as an important means of implementation.[286] For example, the SDGs' financing instrument already sets out the work plan for setting up financial market regulation:

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[283] Pistor (n 279), 19.

[284] Stephen, Financial markets in Stephen (ed), *Law and Development:An Institutional Critique*, 93-125; Not at least, the objectives set in Official Development Aid (ODA) show that this connection is recognised.

[285] ILA, Resolution 05/2022, Committee on Sustainable Development and the Green Economy in International Trade Law, preamble, Annex IV; ILA ; see also: Cordonier Segger and Espa, Advancing sustainable natural resources management for development through international law, governance and capacity, Policy Brief (Leverhulme Trust 2020), 2f.

[286] A/RES/70/1 (n 2), paras. 39 ("global solidarity, in particular solidarity with the poorest and with people in vulnerable situations"), 41 ("Public finance, both domestic and international, will play a vital role in providing essential services and public goods and in catalysing other sources of finance), 43 (re

> "We will work to strengthen debt management, and where appropriate to establish or strengthen municipal bond markets, to help subnational authorities to finance necessary investments. We will also promote lending from financial institutions and development banks, along with risk mitigation mechanisms, such as the Multilateral Investment Guarantee Agency, while managing currency risk. In these efforts, we will encourage the participation of local communities in decisions affecting their communities […]."[287]

Sustainability and other types of regulation, however, possess another dimension of gravity. They offer financial avenues for "companies of all sizes, from SMEs to the largest listed companies, the possibility of raising debt and equity capital and the establishment of mechanisms through which capital providers are protected".[288] Financing, in addition to its function as a starting point and facilitator for the establishment of sustainable development in an international framework, represents one of the most important pillars of real economy-oriented national economies and thus also of macroeconomic investment dynamics and distribution. Consequently, each adjustment that is made in the area of finance, including pursuing the goal of sustainability, is associated with an essential risk assessment and a corresponding obligation to balance risk. In this respect, the Multilateral Investment Guarantee Agency (MIGA) is of considerable importance for risk balancing in the private sector, as it takes over insurance and other risk assumption contracts, e.g. transfer, expropriation and breach of contract risks, as well as damage risks due to military actions and civil unrest.[289]

(cc) Human Rights Law

As a basic building block and legal embedding of sustainable development shaped by contemporary understanding, the human rights regime is closely linked to the legal interpretation of the Global Agenda 2030. It also serves as a legal foundation, and internal and external principle for the SDGs,[290] even if the linguistic shift from this human rights language suggests otherwise. As diverse as the reasons for this may have been, the results of years of negotiation on this embedding are to be summarised in the main struggle of the so-called (Global) North - South Divide in the Open Working Group and the succeeding HLPF. While the Global North was inclined towards acknowledging the more obvious connection with human rights, the Global South feared a "degradation" or "shortening" of

"international public finance, including official development assistance (ODA)), 44 ("international financial institutions to support, in line with their mandates, the policy space of each country"), see also SDGs 1.4, 15.b, 17.1 to 17.5, 17.16

[287] A/RES/69/313 (n 183), para. 34.

[288] Gullifer and Payne, *Corporate Finance Law: Principles and Policy* (2015).

[289] Powell, Multilateral Investment Guarantee Agency (MIGA) in Cottier and Nadakavukaren Schefer, Elgar Encyclopedia of International Economic Law (2017), 79-81; see also <https://www.miga.org/> (last accessed: 13.09.2023).

[290] Huck (n 18), Introduction, mn. 54, 121 and see mn. 139.

the agenda and its goals to a mere "development aid agenda", especially against the background of the Millennium Development Goals (MDGs), the predecessor of the SDGs, which were formulated more closely to human rights but were perceived as less successful.[291]

The Global Agenda 2030 and the SDGs "seek to realize human rights"[292] and "protect human rights"[293] and include a "universal respect for human rights"[294] in the vision to be fulfilled and as guidance. Their indispensability, as well as the instruments associated with them, is emphasised and accepted as a prerequisite for the creation of peaceful societies and for the fulfilment of the agreed goals themselves.[295] It is their recognition, promotion and incorporation into legal systems that enables the realisation of the Sustainable Development Goals.

1. Brief historical context

Human rights, though not explicitly named, can be traced back to ancient times. King Hammurabi of Babylon, around 1750 BC, instituted laws that included principles of justice, fairness, and protection. The oldest evidence of human rights dates back to the 6th Century BCE with the Cyrus Cylinder, which articulated rights such as the prohibition of slavery, freedom of religious worship, and racial equality. The idea that equality of rights applies to all people finds roots in Greek philosophy, particularly in the teachings of the Stoics. "According to the Roman jurist Ulpian, natural law, assured by nature and not the state, applied to all human beings, whether Roman citizens or not", emphasising a fundamental equality of human beings.[296] The conceptual divide between positive law and natural law emerged, challenging the classical natural order of obligation. The modern understanding and justification of human rights began to take shape. In 1947, the UN Commission on Human Rights, chaired by Eleanor Roosevelt, called for proposals to collectively establish human rights.[297] This initiative led to the creation of the UDHR[298] in 1948, a foundational document within the International Bill of Human Rights.[299] This framework was later complemented by the International ICCPR and the ICESCR in 1966. During the Cold War era, the Human Rights System grew slowly. The cultural, ideological, and po-

[291] Dodds et al. (n 158), 34f.; UN-DESA (n 178), 1f.
[292] A/RES/70/1 (n 2), preamble.
[293] A/RES/70/1 (n 2), para. 3.
[294] A/RES/70/1 (n 2), para. 8, 10.
[295] A/RES/70/1 (n 2), paras. 35, 74(e).
[296] Claude and Weston (eds), *Human Rights in the World Community: Issues and Action* (2016), 17.
[297] Goodale, 'Anthropology and the Grounds of Human Rights' in Chesterman et al., *The Oxford Handbook of United Nations Treaties* (2019), 145 f.
[298] General Assembly resolution 217 A, 10 December 1948.
[299] Morsink, The Universal Declaration of Human Rights: Origins, Drafting, Intent.

litical differences among nations hindered rapid progress. Notably, some countries maintained a biological understanding of racial differences in codified law until the 1960s.[300] The momentum gained with the adoption of the ICCPR and the ICESCR which marked a turning point in the global human rights landscape. Despite Cold War tensions, subsequent decades witnessed a growing recognition of individual rights, gender equality, and the rights of marginalised groups. The end of apartheid in South Africa and the fall of the Berlin Wall further underscored the global commitment to human rights. The establishment of international criminal tribunals in the 1990s marked a shift towards accountability for human rights abuses. Today, human rights remain at the forefront of global discourse, with ongoing challenges, amongst others, regarding state sovereignty or access to justice[301], advancements in technology, and a renewed focus on issues such as climate justice shaping the evolving human rights situation.[302]

2. Systematic structure

Human rights, universally applicable to every individual "regardless of nationality, sex, national or ethnic origin, colour, religion, language, or any other status" [303], form a comprehensive regime spanning all aspects of life, open to diverse interpretations. Despite this diversity, the underlying system is unequivocal. The structure of human rights can be categorised into three generations, further elaborating on the original principles of the UDHR with varying degrees of legal enforceability.[304] First-generation rights, encompassed by the ICCPR, involve the immediate realisation of civil and political rights. Second-generation rights, under the ICESCR, pertain to economic, social, and cultural rights and involve progressive realisation over time. The third or future generation focuses on the evolving concept of the right to development. Currently, nine core human rights treaties exist, with the option to include nine additional optional protocols.[305] These treaties reflect the commitment to extending and refining the protection of human rights.

Structurally, human rights are underpinned by three irrevocable principles: 1) universality and inalienability, 2) indivisibility and interdependence, and 3) equality and non-discrimination. Dignity, subsidiarity, sovereignty, solidarity, equality, proportionality, democracy, and the rule of law are fundamental principles guiding states in fulfilling their obligations. States are obligated to respect human rights by refraining from interference, pro-

[300] See Goodale (n 297), 152 f.; In other parts of the world, this thinking and behaviour persisted, for example until the 1990s with apartheid in (South) Africa.
[301] Huck and Maaß (n 197), 1-34.
[302] Claude and Weston (n 296), 5f., 17-20.
[303] <https://www.ohchr.org/en/what-are-human-rights> (last accessed: 20.04.2023).
[304] Ramcharan, 'The Covenants' in Chesterman et al., *The Oxford Handbook of United Nations Treaties*, 397.
[305] <https://www.ohchr.org/en/core-international-human-rights-instruments-and-their-monitoring-bodies> (last accessed: 20.04.2023).

tect individuals and groups against abuses, and fulfil positive actions to facilitate the enjoyment of basic human rights. International human rights law outlines these governmental obligations to act in certain ways or refrain from certain acts, aiming to promote and protect the human rights and fundamental freedoms of individuals or groups.[306] This legal framework emphasises the interconnectedness of affirmative actions and refraining from specific acts to ensure the promotion and protection of human rights on a global scale.

3. Meaning, Significance and Gravity

Human rights serve as a guiding principle for fostering "productivity, inclusive economic growth, and job creation" through private business activity, investment, and innovation.[307] Their meaning, significance, and gravity become particularly pronounced when examined within the framework of sustainable development, with a focus on finance law and investment law, especially in critical raw materials and extractive industries.

The essence of human rights lies in their universality, applying to every individual regardless of nationality, fostering an environment that transcends borders. In the realm of sustainable development, human rights take on profound significance as they underpin inclusive economic growth, ensuring that the benefits of productivity and innovation extend to all segments of society. The gravity of human rights in finance law and investment law is evident in their role as a moral and legal compass, guiding financial activities towards socially responsible and sustainable practices. Financial systems play a pivotal role in supporting sustainable development, and human rights provide a framework for ensuring that economic activities contribute positively to societal well-being. In the context of critical raw materials and extractive industries, human rights gain further prominence. These industries often operate in regions where the potential for human rights abuses is high. The significance of upholding human rights becomes paramount in addressing issues like fair labor practices, community engagement, and environmental sustainability in the extraction and processing of critical raw materials. Moreover, the gravity of human rights violations can have profound implications for investors and businesses. Legal frameworks rooted in human rights principles help mitigate risks, foster responsible investment practices, and contribute to the overall stability and sustainability of the financial system.

The meaning, significance, and gravity of human rights in the context of sustainable development, finance law, and investment law are deeply intertwined to creating a harmonious balance between economic progress and the protection of fundamental rights of the individual. Upholding human rights principles in critical raw materials and extractive industries is crucial for ensuring responsible and sustainable practices, aligning financial activities with societal well-being and long-term development goals.

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[306] UN, <https://www.un.org/en/global-issues/human-rights> (last accessed: 05.02.2024).
[307] A/RES/70/1 (n 2), para. 67.

(dd) Transnational Law

The brief considerations of investment law, finance law and human rights law have shown that each of these regimes is not limited to certain territories, but has supranational, supra-state, partly universal effects or is understood in this way. It became apparent that each of these legal regimes cannot be limited to actors in the sense of traditional international law. Rather, in addition to states as original subjects of international law,[308] which are to be understood as being capable of acting under international law, private actors and non-state IOs, with and without state reference, play a particularly important role.

Transnational law in turn takes up these and other areas of law as it is fed and nourished by different legal orders.[309] The understanding of this structure, which already in its naming[310] indicates that it is to be understood as transcending the state or, more precisely, a nation, and furthermore pervades "through" the state or the nation (permeability), as a structure changes state sovereignty, and is even capable of undermining it.[311] Through this understanding, a certain systematic proximity to (International) Sustainable Development Law, which is yet to be presented, and the similarity of its functions are noticeable.

1. Brief historical context

Existing as a concept since the mid-20th century, its surrounding understanding evolved with the increasing complexity of economic processes and the further course of globalization. This sprouted phenomena that made it impossible to ignore the changes in the conditions of international law. Reimann describes the most profound changes as follows:

> "First, numerous fields lying beyond the traditional law of nations have developed, matured, and become important in practice. Second, the world legal order has become more diversified and complex. Third, the boundaries between public international law and other areas have blurred or broken down."[312]

[308] Other original subjects of international law are the International Committee of the Red Cross, the Holy See, and the Sovereign Military Order of Malta, and derivative subjects of international law such as the European Union (EU) and, as the only universal subject of international law, the United Nations (UN).
[309] Micklitz, Rethinking the public/private divide in Maduro et al., Transnational Law: Rethinking European Law and Legal Thinking (2014), 274.
[310] The prefix „trans" means „through" in Latin language, in German „(hin)über, (hin)durch und darüber hinaus, jenseits"; <https://de.pons.com/%C3%BCbersetzung/latein-deutsch/trans?bidir=1> (last accessed: 15.04.2023).
[311] See Winter, Transnationale informelle Regulierung: Gestalt, Effekte und Rechtsstaatlichkeit in Calliess, Transnationales Recht Stand und Perspektiven (2014), 97.
[312] Reimann, From the Law of Nations to Transnational Law: Why We Need a New Basic Course for the International Curriculum (2004) 22 *Penn. St. Int'l L. Rev.*, 397 (401).

Jessup, being one of the most formative authors of the concept of transnational law in his time, in turn took the changes in the system of international law that were already discernible in his time and defined the necessary recasting of what is more than just international law, transnational law as

> "all law which regulates actions or events that transcend national frontiers. Both public and private international law are included, as are other rules which do not wholly fit into such standard categories."[313]

With the instruments of the sociology of law, which, according to Teubner and Durckheim, elicits the idea of transnational law of a contract that asserts itself and yet appears as a quasi-expression of positive law, its sources of law are first understood as almost every conceivable law created between the participants be it private law or non-law, to which they promise to adhere. Thus, it is its interpretation by an "independent adjudicating body" that interprets and applies law, i.e. precedent and decision-making in the event of a dispute, that gives transnational law its status as quasi-positive law.[314] According to Teubner, even if transnational law does not have the same effect as, for example, national law, its influence on global (economic) actors is obvious and immense. This form of steering influence is not merely measurable by means of lawmaking (as a form of standardisation) and enforcement (realisation), but also by economic activity, which becomes manifest, for example, in the establishment of strategies to avoid legal disputes.

Theoretical and functional approaches to the study of law have sharpened the understanding of transnational legal phenomena and clarified its existence in the multi-level (and at the same time multi-centric) system of law. Transnational law is to be understood as a structure that has become immanent to this system through globalisation processes. This structure is neither purely private-law nor purely public-law in nature and, moreover, absorbs new developments within existing legal regimes. This flexible structure surrounds transnational actors in their respective applications and spreads in the (legal) space that legal dogmatics has left or still leaves free. Examples include, among many others, the IASB accounting standards or the FIDIC contracts issued by the International Federation of Consulting Engineers and required for funding by the World Bank and other multilateral development banks (e.g., the EBRD) and, to some extent, by the EU (e.g., with ISPA).

2. Systematic structure

Transnational law covers situations that arise across borders. These do not only occur internationally, i.e., between states, but also involve situations between other actors.[315] In

[313] Jessup (n 46), 2.
[314] See Renner, Transnationales Recht: Thema, Theorien und Kontext, Diskussion in Grundmann et al., Privatrechtstheorie, Bd. II (2015), 1879.
[315] Jessup (n 46).

departing from the traditional understanding of law, it is no longer feasible to draw boundaries between public and private law. Rather, it allows for new classifications and includes private and civil society actors who, for their part, create types of norms in state territories that are applied within the state in question and in other states. Transnational law-making actors thus replace the state as the "sole source of law on its territory".[316] In this regard, the enclosure of a state is not decisive. Rather, it testifies to an understanding and a systematic approach to law that takes transnational situations and their need for regulation as its starting point and does not function in a way that is ostensibly dogmatic and measured by sources of law. Jessup describes this with the words "*ubi societas, ibi ius*", whereby *societas* is multifaceted and not necessarily to be understood as connected to a state.[317] This results in a more functional view and "capture of transnational phenomena"[318], which is subject to the development of globalisation.[319] While the functionality can be assigned as originating from society as meaning-giving and facilitating, the determination of its connection points requires a more differentiated view. Thus, transnational law can be identified through different lenses, which either focus on its object, its effect, its content, or its originator (source), or even grasp the transnational perspective as a legal method[320] that demands "a reorientation of legal theory [...] and legal practice".[321]

A more detailed examination of the originators of transnational law suggests transnational or multinational corporations, business associations and networks that weave dense webs of contractual, supra-contractual and / or quasi-contractual relationships around the world. Multinational or transnational companies enter into obligations via partly global supply, production and value chains where parent corporations and subsidiaries are established and carry out activities in different locations, for example in developing or least developed countries and industrialised countries.[322] Therefore, it is no longer sufficient to "[...] simply equate developing countries with capital-importing and industrialised countries with capital-exporting countries [...]. Sometimes it is even unclear which state is the relevant home or host state."[323] Thus, transnational law is practically relevant in the multi-

[316] Franzius, Transnationalisierung des Europarechts in Calliess, Transnationales Recht Stand und Perspektiven (2014), 406.
[317] Jessup, 'The Reality of International Law' (1940), 18(2) *Foreign Affairs*, 244-253.
[318] Renner (n 314), 1875.
[319] Sieber, Legal Order in Global World – The Development of a Fragmented System of National, International, and Private Norms – (2010), in von Bogdandy and Wolfrum, Max Planck Yearbook of United Nations Law, Vol. 14, 4; Tuori, On Legal Hybrids and Perspectivism in Maduro et al. (eds), *Transnational Law: Rethinking European Law and Legal Thinking* (2014), 18; Daniels, The Concept of Law from a transnational Perspective (2010), 59ff.
[320] Viellechner, Was heißt Transnationalität im Recht? in Calliess, Transnationales Recht Stand und Perspektiven (2014), 58-75.
[321] Viellechner (n 320), 73.
[322] Schrijver (n 260), 364.
[323] Schrijver (n 260), 364 f.

level system of law in the broader sense possessing "political, social, and legal implications"[324], and in particular in connection with the various sectors of the extractive industry. The well-known definition referred to in the introductory chapter of this thesis, according to which the term *transnational law* describes "all law which regulates actions or events that transcend national frontiers"[325] and thus includes at least public law, private law, and private standard setting, reflects its comprehensive reach and significance within the multi-level and multi-centric system of law. It is therefore assumed that this legal regime refers to legal principles and norms that operate across national borders and influence the behaviour of states, (private) entities, and individuals in international contexts.[326]

One illustration of transnational law is the (quite debated[327]) *lex mercatoria*, a transnational legal regime which operates autonomously, relying on its own distinct norms and mechanisms, established through universally understood rules devised not by any parliament but by enterprises led by a common understanding. This regime is deeply rooted in the principle of private autonomy within private law, primarily mediated through (international) arbitration.[328] This interpretation aligns with Teubner's conception of transnational law as an 'anational' legal system with global significance which is exposed to a political sovereign possessing effective regulatory authority to a minimal extent.[329] This means private autonomy and contractual agreements hold greater significance than the direct influence of specific national regulatory authorities, making private actors the main shaping actors of the transnational legal system.

This idea of a more functional view on transnational law needs to be supplemented by further thoughts. Within the transnational legal sphere, users and practitioners such as multinational companies active in international trade and other private actors are scattered

[324] Shaffer and Coye, From International Law to Jessup's Transnational Law, From Transnational Law to Transnational Legal Orders in Zumbansen (ed), *The Many Lives of Transnational Law: Critical Engagements With Jessup's Bold Proposal*, (2020), 126f.; see also: Shaffer et al., 'International Law and Transnational Legal Orders: Permeating Boundaries and Extending Social Science Encounters' (2021), 22(1) *Chicago Journal of International Law*, Article 15, 168 (182ff.); Kahraman et al., 'Domestic courts, transnational law, and international order' (2020), 26(1_suppl) *European Journal of International Relations*, 184-208; UNODC, <https://www.unodc.org/e4j/en/firearms/module-5/key-issues/international-public-law-and-transnational-law.html> (last access: 02.01.2023).
[325] Jessup (n 46), 2.
[326] Sieber (n 319), 4.
[327] See for profound overviews of the general debate: Toth, 'Lex Mercatoria—The Debate as it Currently Stands', The Lex Mercatoria in Theory and Practice (2017); Piergiovanni (ed.), *From lex mercatoria to commercial law* (2005); opposing scholars objecting that it lacks a method: Berger, The Creeping Codification of the Lex Mercatoria (1999), (others include e.g. Kropholler, Spieckhoff, Rehbinder and Reithmann); scholars in favour of its existence and adequacy: Winship, 'Review of Lex Mercatoria and Arbitration: A Discussion of the New Law Merchant, by T. E. Carbonneau' (1992), 26(3) *The International Lawyer*, 850-3; Michaels, 'The True Lex Mercatoria: Law Beyond the State' (2007), 14(2) *Indiana Journal of Global Legal Studies*, Article 11.
[328] Teubner, 'The Kings Many Bodies: Self-Deconstruction of Laws Hierarchy' (1997) 31(4) *Law & Society Review*, 763 (769), see also Wethmar-Lemmer, 'The debate on the existence of the lex mercatoria' (2006), 47(1) *Codicillus*, 23 (26).
[329] Teubner (n 328), 763 (769).

around the world and are each influenced by their national legal systems.[330] For example, with relevance to public transnational law, such constellations can be found in Hong Kong which operates under the "one state, two systems" framework put in place by the People's Republic of China or in Scotland with its distinct legal system which coexists within the broader legal framework of the United Kingdom. In both examples the legal systems exist simultaneously, maintaining a certain level of autonomy while being part of a larger sovereign entity. With regard to private transnational law, nations frequently engage through agreements, conventions, or recognised (legal) frameworks beyond the set principles of lex mercatoria. Examples include International Commercial Arbitration where rules and conventions of international arbitration bodies, such as the International Chamber of Commerce (ICC) or the United Nations Commission on International Trade Law (UNCITRAL) are adopted by nations. Furthermore, several countries including the United States, the United Kingdom, and France have legislation aligned with UNCITRAL rules for international arbitration. Another example includes the Uniform Commercial Code (UCC) adopted by several states in the United States. While not purely transnational, the UCC's uniformity facilitates interstate commerce and aligns commercial laws across different jurisdictions within the country. In the same way, the Principles of European Contract Law (PECL) or International Investment Agreements aim to facilitate international commerce, ensure legal predictability, and harmonise rules governing cross-border transactions. Here, due to their dependence on interpretation, the interplay between the various legal families is shaped by and simultaneously contributes to the multipolar nature of these cross-border supply chains and transboundary resource management.

3. Meaning, Significance and Gravity

The question of the existence and legitimacy of transnational law has already been discussed many times in legal theory. Legal traditionalists argued early on that law without a legitimate legislator, realised by the state and its institutions, was unlawful and thus could not be in existence. Sources of law, which by their very nature follow a numerus clausus, cannot grow indefinitely, let alone be created by non-state institutions.[331] The classification and transmission of law in cross-border situations according to this understanding is an indication that no other law exists in addition to the original law created by the authority of the state. This view, termed legal etatism[332], is opposed by proponents who follow a legal pluralism that is oriented towards the thesis of "living law" in Ehrlich's sense.[333]

[330] Lake, 'The Organizational Ecology of Global Governance' (2021) 27(2) *EJIL*, 345-68.
[331] See Kant, Zum ewigen Frieden [On Eternal Peace], VIII (IV), 381 (1995) and Hegel, Grundlinien der Philosophie des Rechts [The Philosophy of Right & Law] (1820).
[332] Speake and LaFlaur, The Oxford Essential Dictionary of Foreign Terms in English, 'etatism' (1999).
[333] Original Theory of law practiced by society (inner order of associations): Ehrlich, Grundlegung der Soziologie des Rechts (1913); and in continuation of this theory: Renner, Zwingendes transnationales Recht: Zur Struktur der Wirtschaftsverfassung jenseits des Staates (2011); Hatzimihail, The Many Lives – And faces – of Lex Mercatoria: History as Genealogy in International Business Law (2008), 71 *Law and Contemporary Problems*; empirically examined in: Stein, *Lex mercatoria: Realität und Theorie*, Bd. 28, Juristische Abhandlungen (1996).

Their arguments point, among other things, to the emergence and application of the lex mercatoria (in English: the law merchant). These "norms" or rather rules and principles, which have arisen from the customs and traditions of commercial transactions, are accessible to the respective national jurisdiction, even beyond the continental European legal family, and are thus recognised by the state judiciary. Remarkably, these and other forms of transnational law (also) manifests outside the commonly accepted sources of law and is effective, for example, when it refers exclusively to contracts under private law. This private side of transnational law sometimes entirely lacks reference to state authority, its sanctioning power, its political control or even the legitimacy of a democratic process. Nonetheless, a willingness to follow unfolds for these elements, the (sometimes global) normative power of the factual[334] in the absence of state recognition,[335] democratic legitimacy and / or respect for fundamental values or judicial protection.[336] Examples of these forms of transnational law are, in addition to the aforementioned lex mercatoria, various corporate codes of conduct, and other soft law such as political agendas, the SDGs, or facilitating private agendas or guidelines of associations, such as the OECD Guidelines for Multinational Enterprises or the UNIDROIT Principles. Whether it is customary practice, ready-to-use standard agreements or political declarations of intent, all forms serve in different ways to align users with each other (governance). Thus, they are intended to simplify the desired legal relations "in informal structures"[337], to render them more efficient and to serve a specific purpose.

The more surprising aspect here is that structures and their functions of integrating societies and their possibilities of exchange lead to a progressive fragmentation precisely in order to maintain the integration of these societies and their common interaction and exchange. Allowing for the different legal and soft law regimes, both public and private, either substantive or formal, are intricate but powerful when it comes to legally understanding global phenomena and bringing about regulation of such global phenomena. Jessup himself argued the need not only for functional application but also for adequate definition. According to Cardozo, who argued that "we must enlarge it [the definition] till it is broad enough to answer to realities"[338], a multifaceted "problem-solving capacity"[339] unfolds, whose potential is not exhausted in individual topics or in temporary institutions. With the inclusion of sustainability requirements, notably human rights and environmental

[334] Reference is made here to Jellinek's school of thought, which differentiates between the effect and validity of law and shows that non-valid "law" can also have an effect, and is sometimes more effective than positive-law norms enacted by a state are able to have; see Jellinek, Allgemeine Staatslehre, 3. Aufl. 1914, S. 337ff.
[335] See Teubner, Global Bukowina in Grundmann et al., Privatrechtstheorie, Bd. II (2015), 1911, who in turn follows Kelsen's idea of a basic norm and Hart's idea of a global „rule of recognition".
[336] Winter (n 311), 108.
[337] Winter (n 311), 95.
[338] Jessup, Transnational Law (1956), 7; pointing to Cardozo, The Nature of the Juridical Process (1921), 127.
[339] Winter (n 311), 105.

protection standards, in instruments of transnational law, and furthermore its increasing interpretation in a sustainable sense, which refers directly to the Global Agenda 2030 and the SDGs contained therein, transnational law can be assumed to be a carrier of sustainable development to a growing extent.

In the area of transnational law to be established or applied in the EU, this ultimately means the recognition of a *legal hybrid law* that functions more efficiently than international law orientated towards states alone. However, this also implies that the EU itself, as a supranational object, is permeated by the structure of "transnational law".[340] This is a remarkable phenomenon, considering the exclusive self-regulation by the European standards control bodies (Normenkontrollgremien), which function independently of other legal systems, such as international or member state law. In this regard, it may be questioned whether the process of transnational lawmaking "in a manner of evolution and synthesis"[341] does not reverse the process of lawmaking when regulations that originating in the (international) sustainability regime are then incorporated into the legislative processes of the EU. The EU's intention to become the most competitive region in the world, in any case, suggests a high-frequency development landscape in this area, as will be demonstrated in the further course of this analysis.

(ee) (International) Sustainable Development Law

While international sustainable development is understood to "[i]ntegrate environment, human rights and the economy"[342], the definition as an independent field of law cannot be clearly described and delimited. The concept of sustainable development presented by Gro Harlem Brundtland in her final report "Our Common Future" of the UN World Commission on Environment and Development (UNWCED) in 1987 already indicates the scope to which a legal field dealing with it is also subject when it states that

> "[h]umanity has the ability to make development sustainable to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs."[343]

In this way, the Commission paved the way for a definition of sustainable development that is detached from time; rather, it is a "process of change"[344] and can therefore be interpreted in different ways. As such, sustainable development is dependent, among other

[340] Cantero Gamito and Micklitz, The Role of the EU in Transnational Legal Ordering Standards, Contracts and Codes (2020); and with regard to EU values: Calliess, Christian 'Europe as Transnational Law – The Transnationalization of Values by European Law', 10(10) *German Law Journal*, 1367-82.
[341] Hatzimihail (n 333), 169 (180).
[342] CISDL, <https://www.cisdl.org/about/> (last accessed: 15.04.2023).
[343] A/42/427, Report of the World Commission on Environment and Development: Our Common Future, 10 March 1987 (Brundtland Report), para. 27.
[344] A/42/427 (n 343), para. 30.

things, on the respective state of the art, on political and institutional circumstances and on the prevailing necessities of the time.[345] Thus, this definition basically corresponds to the principle of abstraction in law anchored in continental Europe (and other legal families) and is suitable as a basis and starting point for the determination and structuring of an individual legal regime.

With that in mind, the question of what constitutes a sustainability law and what determines its structures, can be approached further. Evolved historically through coordination processes within the United Nations and its various entities and organisations, the structure of sustainability law emerges as a genuine cross-cutting subject that can be attributed not merely to one but to many legal regimes, including international, European, and domestic law. Placing it distinctly in either public or private law does not enhance understanding. Instead, a comprehensive normative understanding is required, with the purpose of implementing the globally sought sustainability transition. Consequently, it cannot be confined to a specific legal field, such as environmental law, but must be comprehended as a sociopolitical guiding idea evolving into a legal guiding principle.[346] As a novel approach to understanding law, International Sustainable Development Law (ISDL) underscores the interconnectedness of environmental, human rights, and economic considerations within the concepts of sustainable development.

1. Brief historical context

Legal developments that can be attributed to ISDL could be argued to be all law that was triggered by an argument based on sustainability. However, this alone would fail to fulfil the purpose of ISDL and lack any meaningful structure. The historical context of international sustainable development law from a legal perspective can be described as a response to the need for balancing economic growth with environmental protection and social equity. Initially, the principle of sustainable development was conceived to balance economic differences between states, particularly those with stronger development needs, allowing them to exploit their natural resources sustainably. However, this principle has been critiqued for its roots in colonial history and for often prioritising economic growth over genuine environmental sustainability. The principle of sustainable development has evolved to include the idea of ‘green growth’ or ‘green economy’, suggesting that minor corrections to the capitalist market economy are sufficient to achieve environmentally sound development. This approach has been criticised for sustaining economic growth at the expense of the environment. Furthermore, the principle of sustainable development has been incorporated into various international agreements, such as the 2015 Paris Agreement and the 2017 UN General Assembly Resolution ‘Our Ocean, Our Future: Call to

[345] A/42/427 (n 343), para. 27ff.
[346] See Hofbauer und Beham, „Was ist Nachhaltigkeitsrecht? Die juristische Bewältigung der österreichischen Klimaneutralität 2040“ f(Gastkommentar), Wiener Zeitung, 04.03.2021.

Action'. The influence of international sustainable development governance on subnational governments has been studied to understand how global governance impact local sustainable development approaches and how advanced an ISDL at the different levels of law, law-making and legislation and legal interpretation is.[347] The policy convergence literature, regime theory, and globalization literature provide a theoretical framework for analysing the similarities between different policies and the causal mechanisms related to the international policy environment.

In brief, the historical context of international sustainable development law is multifaceted, with its principles both shaping and being shaped by global economic, environmental, and social dynamics. Sustainable development has been subordinated to be both a tool for balancing development needs with environmental concerns and a subject of critique for its potential to perpetuate economic growth at the environment's expense.

2. Systematic structure

Attempting to examine the aforementioned Brundtland definition, which is understood as a foundational concept within the UN and its various institutions, establishments, and member states, from a legal standpoint to draw conclusions about a definable legal field, only few structures or a systematic arrangement can be identified. Following its principles of equally considering ecological, economic, and social objectives in its implementation, it is inconceivable in its form as a legal field limited by national borders or exclusively located within a legal family. It is universal and, consequently, international. ISDL is also thematically unbounded. Instead, due to its connection to the concept of sustainable development, it is an approach that extends into other legal regimes, influencing and sometimes even incorporating them. Its incorporation and level of integration into the politics and laws of states or groups of states are also manifested in varying degrees, thematically diverse, and consequently variable.[348] Examples include Articles 3(3), (5) TEU and other primary EU law, such as EU free trade agreements and numerous secondary EU law (regulations and directives), which specify and give legal force to this common sustainability determination in each case. It is noticeable that different levels of bindingness and enforceability are achieved depending on the respective integration level, the formulation

[347] Huck (n 18); Huck (n 164); Cordonier Segger, Crafting Trade and Investment Accords for Sustainable Development: Athena's Treaties (2021); Huck, Measuring Sustainable Development Goals (SDGs) with Indicators: Is Legitimacy Lacking? in Iovane et al., The Protection of General Interests in Contemporary International Law: A Theoretical and Empirical Inquiry (2019), 8ff.; Cordonier Segger and Weeramantry, Sustainable Development Principles in the Decisions of International Courts and Tribunals: 1992-2012 (1st Ed., 2017); Cordonier Segger, Gehring and Newcombe (eds), *Sustainable Development in World Investment Law* (2011); Schrijver (n 158); Gonthier, 'Sustainable Development and the Law / Le Développement Durable et Le Droit' (2005) 1 *McGill International Journal of Sustainable Development Law and Policy / Revue Internationale de Droit et Politique Du Développement Durable de McGill*, 11-8; Maaß, Die Normativität der SDGs in den internen und externen Politiken der EU (2020); see also: CISDL, <https://www.cisdl.org/publications/> (last access: 05.02.2024).

[348] See for a comprehensive overview Cordonier Segger (n 347).

used, and the possible subsequent review mechanisms or accessibility of norm control bodies.

3. Meaning, Significance and Gravity

The gravity of ISDL is, by definition, not fully and precisely determinable. As a cross-cutting issue, it frequently intertwines with other areas of law, interacting with them, re-evaluating them, and particularly reinterpreting them. Interestingly, its impact is not limited to existing law ("the past") but significantly shapes the reorientation and nature of new law ("the future"). ISDL transforms today's understanding of law, serving, according to the current perspective, the implementation of the Global Agenda 2030 in its respective regional and national interpretations, as well as the holistic concept of sustainable development, embodied by the concrete translation in the SDGs.

Despite lacking a self-standing system, ISDL adheres to specific concepts, structures, and even mechanisms of implementation. Its incorporation into positive law enables its integration with existing legal systems and, consequently, their judicial review mechanisms. The law of sustainable development thus gives leeway for "sustainable development more broadly, and [I]SDL specifically, is not a final goal, but rather relates to society as a process."[349] Moreover, its thematically non-limiting nature provides points of connection for supportive measures such as private standards, aiding in achieving politically and legally defined objectives. Legal systems thus partake in a sustainable transformation that opens up to concepts beyond the realm of law. While this may be perceived as a form of fragmentation at the periphery of a foundational legal system, the enhancement in its responsiveness is undeniable, benefiting its resilience.[350]

b. Creating 'Law Denominators' in the context of the SDGs

The analysis reveals several significant 'law denominators' within the framework of the SDGs. Firstly, the identification of legal norms and principles consistently appearing across various legal frameworks responding to the SDGs establishes 'norms of normativity'. This involves exploring normative aspects aligning with the fundamental principles of sustainable development. Another key denominator, 'communicative action', emphasises the role of discourse and communicative action in legal interpretations and implementations related to the SDGs. Democratic deliberation emerges as a critical aspect in shaping legal norms, as highlighted by the 'emphasis on democratic deliberation and inclusive decision-making processes'. Recognising the interconnectedness of global legal

[349] See Bürgi Bonanomi, Sustainable Development in International Law Making and Trade: International Food Governance and Trade in Agriculture (2015) at 154 [found in: Bellinkx, 'The Transformational Character of Sustainable Development Law in Multilateral Energy Investment: Why Principles Matter' (2021) 17(2) *CanLIID*, 277 (308)].

[350] See generally for ISDLs' interlinkages with investment law: UN, "Guiding Principles on Business and Human Rights (2011); Williams, Corporate Social Responsibility and Corporate Governance, in: Gordon and Ringe (eds), *Oxford Handbook of Corporate Law and Governance* (Forthcoming).

issues and advocating for collaborative solutions forms the denominator of 'global collaboration and integration'. The exploration of legal mechanisms facilitating international cooperation and shared norms, as exemplified by the SDGs, is inherent in this concept. Additionally, 'democratic deliberation in legal processes' is identified as fundamental in the formulation and adaptation of legal norms, particularly in addressing global challenges. Furthermore, 'normativity of international cooperation' underscores the normative power of international cooperation in developing shared legal norms, reflecting the collaborative nature of the SDGs. The 'holistic approach to legal solutions' recognises the need for comprehensive problem-solving, considering social, economic, and environmental dimensions in line with the integrated nature of the SDGs. Lastly, the 'adaptability of legal systems' represents a crucial denominator, emphasising the necessity for legal systems to be flexible and responsive to evolving challenges, aligning with the dynamic nature of sustainable development.

These 'law denominators' collectively encapsulate common legal elements and principles that underpin the pursuit of sustainable development as outlined by the SDGs. They transcend specific legal domains, contributing to a cohesive and integrated legal framework for sustainable development. This suggests a constructivist assumption of law, as it critically reflects the interplay of these common denominators and emphasises their importance in shaping a legal framework that seems to best contribute to achieving the SDGs.

c. Current Global State of SDGs and Sustainability in Transnational Law

The SDGs have already passed the mid-point of their life cycle in 2022. The planning of a future agenda has already begun in various committees and organisations.[351] Yet, until 2030, the SDGs will remain in effect, will continue to be implemented and monitored, as well as being subject to impact assessments and extensive data analyses. The following figure shows the life cycle of the SDGs in a simplified form. Although further data is relevant and additional documents and resolutions have been developed and adopted alongside the Global Agenda 2030, these are not listed separately in order to summarise the current global status of the SDGs in their fundamental progress:

[351] See e.g. UNESCO, <https://www.unesco.org/en/articles/culture-global-public-good-member-states-rally-culture-stand-alone-goal-post-2030-agenda> (each last accessed: 14.02.2024); BonnAlliance, <https://www.bonnalliance.de/en/bonn-alliance/research-education-transfer/projects/sustainability-looking-beyond-2030/>; see also Froehlich, Post 2030-Agenda and the Role of Space: The UN 2030 Goals and Their Further Evolution Beyond 2030 for Sustainable Development (2018).

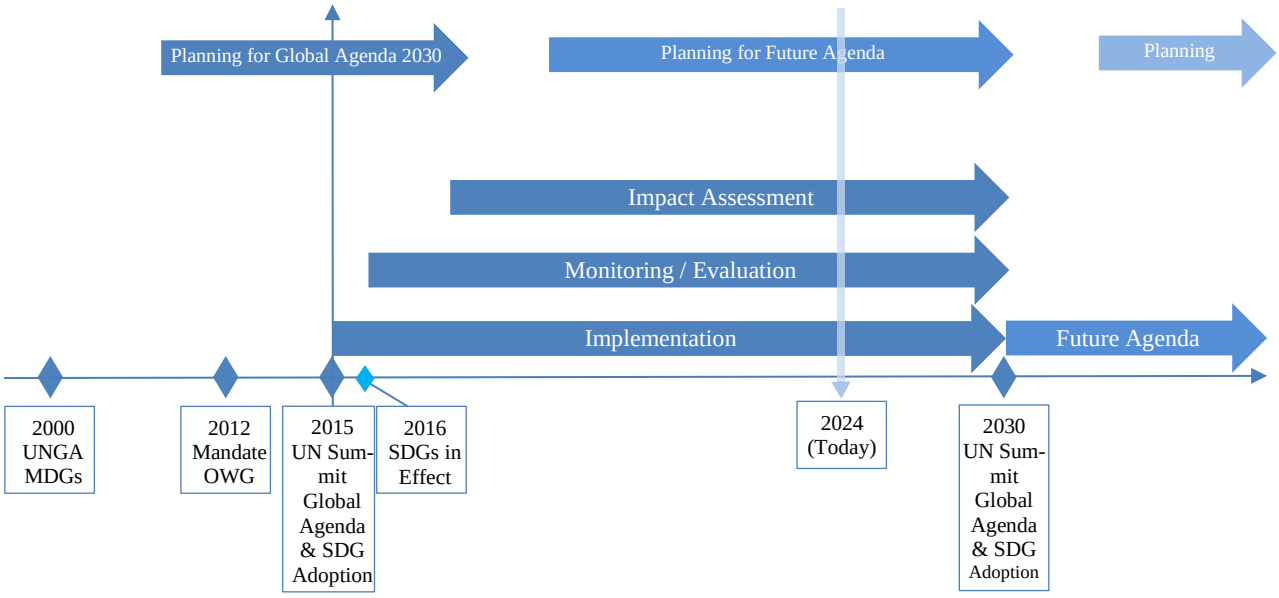

Fig. 1) Life Cycle of the Global Agenda 2030 and the SDGs[352]

The current global state of the SDGs and sustainability is not easily surveyed.[353] While substantial strides have been made in integrating sustainability into international legal frameworks, further efforts are required to overcome existing challenges and respond to emerging global issues. In assessing the life cycle of the SDGs, a varied picture emerges, hindered by insufficient or ambiguous data in some areas.[354] Since the contemporary emphasis on sustainability encompasses diverse aspects of human existence, from environmental preservation to socio-economic development, the SDGs necessarily needed to stand as a comprehensive framework addressing related global challenges. Here, the role of transnational law in catalysing sustainability and the SDGs is evident, with its diverse norms, principles and institutions that enable cross-border interactions. It drives the implementation and utilisation of the SDGs through treaties, conventions, customary law and international jurisprudence, thus providing a regulatory framework for activities with cross-border implications. The SDGs align with a plethora of legal aspects, including environmental agreements addressing ecological sustainability and human rights instruments forming the basis for several goals. For example, the Paris Agreement on Climate Change and the Convention on Biological Diversity address ecological sustainability. Since these

[352] Source: Own visualisation.
[353] See Independent Group of Scientists appointed by the Secretary-General, Global Sustainable Development Report 2023: Times of crisis, times of change: Science for accelerating transformations to sustainable development, (United Nations, New York, 2023), XIX, 4, 101, 105, 110; UN, The Sustainable Development Goals Report 2023: Special Edition (UN 2023), 75; .
[354] See Independent Group of Scientists appointed by the Secretary-General, Global Sustainable Development Report 2023: Times of crisis, times of change: Science for accelerating transformations to sustainable development, (United Nations, New York, 2023), XIX, 4, 101, 105, 110; UN, The Sustainable Development Goals Report 2023: Special Edition (UN 2023), 75; SDSN, Sustainable Development Report 2023: Implementing the SDG Stimulus (Includes the SDG Index and Dashboards) (Dublin University Press 2023).

agreements obligate states to mitigate climate change and protect biodiversity, they topically align with SDG 13 (Climate Action) and SDG 15 (Life on Land). International human rights laws, including the UDHR, the ICCPR, and the ICESCR, form the basis for several SDGs, promoting social justice, gender equality (SDG 5), access to education (SDG 4) as well as strong institutions and access to justice (SDG 16). Moreover, international (or transnational) trade law, governed by the WTO and regional trade agreements, influences economic sustainability (SDG 8), seeking to align economic growth with social and environmental considerations, thus reflecting a specific interconnection of the SDGs.

However, despite the noticeable absorption of the substance and principles of the SDGs into transnational law and some remarkable alignment, challenges persist. Implementation gaps, resource constraints, and the complexity of international negotiations hinder the complete realisation of the SDGs. Beyond that, addressing global challenges such as the COVID-19 pandemic, accumulating conflicts and humanitarian crises, as well as emerging technologies requires ongoing adjustments to transnational legal frameworks.

Part 2: Standard Setting and Steering Effects in Application and Practice: Sustainability in the Extractive Industries

C. Extractive Industries in a Hyper-Globalised World

The extractive industry can essentially be defined by analysing its main purpose, which is the provision of raw materials in demand. To fulfil its purpose, any process that serves to provide such materials in physical form must be considered as associated to the extractive industry. While the UN in a specialised commission defines extractive industries to "consist […] of any operations that remove metals, mineral and aggregates from the earth"[355], UNCTAD defines them as a process which "involve[s] different activities that lead to the extraction of raw materials from the earth (such as oil, metals, mineral and aggregates), processing and utilization by consumers".[356] A similar, almost identical, definition that accentuates the processuality is given by Sigam and Garcia who formulate that "[e]xtractive industries recover raw materials from the earth, process them, and turn them into products and services for use by consumers. These raw materials may be fossil fuels (notably coal, oil and gas), minerals (such as bauxite, phosphate, potash, copper, gold and

[355] UN ESCWA, Extraction industries, <https://archive.unescwa.org/extraction-industries> (last accessed: 25/01/23)
[356] UNCTAD, Claudine Sigam and Leonardo Garcia, Extractive Industries: Optimizing Value Retention in Host Countries (UN, New York/Geneva 2012), 8.

diamonds, rare earth minerals) and aggregates (such as sand, gravel and clay)."[357] Reflecting the broader definition of UNCTAD and the more specific definition of Sigam and Garcia, a description by Mayes, Hull and Gomes illustrates the wider functionality of the extractive industries, assuming them to be the "first stage of our global cycles of production and consumption"[358]. It follows, that extractive industries are complex and operate in different technical areas, including the operation of mines, quarries and other different types of civil engineering, but also the management of salines and mining within (deep) sea areas, amongst others. The purpose of mining is to provide raw materials for further processing, enrichment or transformation for various industries and / or for final consumption.

The extractive process (extraction), and the necessarily associated processes of provision (e.g. transport, value creation) in their different natural framework conditions reveal three main groups or frames of reference that are affected by extractive processes: nature (as the exploited environment), people (as inhabitants in extraction areas, as employees or others involved in mining companies) and (extracting and investing) companies. In further concentricity, states capable of regulation, as well as stakeholders in general, such as interest groups of the industries, or of environmental protection, belong to the affected groups. Extractive processes, due to the diverse characteristics of the material to be mined, are linked to different legal frameworks and capable of producing different legal consequences. For instance, material to be mined under water or be harvested from water may be linked to UNCLOS or domestic law while material to be mined on land may be linked to CBD, specific environmental law, and labour law, amongst others. Also, as the International Energy Agency (IEA) assesses, raw materials extraction and secure supply hold great promise in fulfilling several functions. These include playing a key role in clean energy transitions, supporting the mitigation of climate change effects, improving livelihoods, lifting people out of poverty, and contributing to the wealth of states.[359] The multi-level and multi-centric legal system and non-law (soft law) generate standards and standardisations that need independent evaluation. This chapter serves as an introduction to the main part of this investigation, particularly laying the foundation for the current framework within which extractive industries operate. This initial substantive classification aims to identify similarities and differences in specific country and institutional contexts, and standard-specific contexts. Drawing on this, potential simplifications, synergies, and other leverage points can be pinpointed which will serve as reflective elements in Chapters C

[357] Sigam and Garcia, Extractive Industries: Optimizing Value Retention in Host Countries (2012), *ECLAC*.
[358] Mayes et al., Chapter 22 - From linear economy legacies to circular economy resources: Maximising the multifaceted values of legacy mineral wastes in Stefanakis and Ioannis Nikolaou, *Circular Economy and Sustainability* (2022), 409-431.
[359] IEA, The Role of Critical Minerals in Clean Energy Transitions, <https://www.iea.org/reports/the-role-of-critical-minerals-in-clean-energy-transitions/sustainable-and-responsible-development-of-minerals> (last accessed: 25.01.2023).

and D and will nourish opportunities for the development of standards and sustainability in general.

Within this chapter, firstly, raw materials and their criticality are initially defined, and the relevant raw materials are examined in more detail regarding their extraction, the structure of their supply chains, and dependencies. Subsequently, the legal principles governing their extraction are presented, and the relevant standard-setting in transnational law is analysed from a general viewpoint. In all areas of investigation, particular emphasis is placed on the initial situation, implementation and the degree of influence on the EU's legal and policy areas. Where possible, comparative reviews of relevant legal systems are added to provide a more comprehensive picture. After an independent summary or interim conclusion, this introductory section leads into an examination of standardisation in the areas of financing and investment.

I. The Notion of (Critical) Raw Materials

Throughout history, raw materials have been linked to the development of humans and civilisations, with the degree of development advancing with the increased use, more structured and planned extraction and use of raw materials for developmental purposes. With the beginning of the 19th century in particular and the accompanying industrial revolutions, especially so-called critical raw materials exerted influence on the level of development of states and their societies.[360] The availability of, and the dependence on raw materials has been and still is a crucial factor for participation in the global economy and, beyond that, for the security and stability of economic systems. The primarily relevant raw materials classified as critical varied in the course of time, depending on the type and nature of the revolution and the technological output required for development. In the global context, the most commonly perceived critical raw materials today are rare earth elements (REE), the platinum group metals (PGMs - platinum, palladium, rhodium, ruthenium, iridium, and osmium) and cobalt and antimony.[361] However, the properties with which raw materials are classified have mostly remained constant. A basic distinction must first be made between the terms raw materials, natural resources and commodities. These terms which in the realm of international law represent three fundamental concepts are widespread but are used distinctively for differing purposes.

1. Defining Raw Materials, Natural Resources and Commodities

Raw Materials

Raw materials are primary, unprocessed substances derived from the Earth's natural environment. Amongst others, they include minerals, ores, energy resources, agricultural products, and other basic materials that serve as the initial inputs for industrial or economic

[360] Kinnaird and Nex (n 129), 14 ff.
[361] See Kinnaird and Nex (n 129), 16.

activities. Raw materials are subject to various legal frameworks, both at the national and international levels, governing their extraction, trade, and sustainable management. In the EU context, the Commission recently defined raw materials in the proposal for a framework regulation as "a substance in a processed or unprocessed state used as an input for the manufacturing of intermediate or final products, excluding substances predominantly used as food, feed, or combustion fuel".[362]

Natural Resources

Natural resources encompass a broader spectrum of elements within the Earth's ecosystem, including raw materials. They extend to all renewable and non-renewable resources that have intrinsic value to human societies, such as water, air, biodiversity, and ecosystems. By their very nature, precisely defining the term 'natural resource' is hardly possible due to their ambiguity. The UN in various international agreements and conventions, amongst others, gives indications on how to understand such term. However, definitions of natural resources are context-specific and deviate depending on the relevant legal regime.[363] For example, the CBD defines specific types of natural resources, such as genetic resources, ecosystems, and biological diversity. The United Nations Convention on the Law of the Sea (UNCLOS) declares natural resources in the specific context of the continental shelf to

> "consist of the mineral and other non-living resources of the seabed and subsoil together with living organisms belonging to sedentary species, that is to say, organisms which, at the harvestable stage, either are immobile on or under the seabed or are unable to move except in constant physical contact with the seabed or the subsoil."[364]

Moreover, several constitutions worldwide directly classify natural resources. For example, in Bolivia's constitution, natural resources are described as "[m]inerals in all of their states, the hydrocarbons, water, air, soil and the subsoil, the forests, the biodiversity, the electromagnetic spectrum and all the elements and physical forces capable of use, are considered natural resources."[365] In the United States of America, no explicit definition in state law exists, although 72 of them reference the term 'natural resources'. Rather, "general descriptive phrase[s]" can be found such as "air, water, land, and other natural resources"[366] which imbue with a sense of *ejusdem generis*. Similarly, the constitutions of Bolivia and Argentina address the concept of natural resources in a broader context, emphasising surrounding aspects such as environmental protection, sustainable development, and state ownership or regulation of certain resources. These constitutions relate to the

[362] COM/2023/160 final (n 104), Art. 2(1).
[363] WTO, World Trade Report 2010 (WTO 2010), 46.
[364] Art. 77 UNCLOS (Rights of the coastal State over the continental shelf).
[365] Art. 348 Constitution of the Plurinational State of Bolivia (2009).
[366] Frisman, 'Definition of Natural Resources' (2003), 2003-R-0296 *OLR Research Report*.

management and use and partially to the protection of natural resources, thereby lacking a specific legal definition.

The People's Republic of China understands natural resources, irrespective of a standalone definition related to raw materials, as state-owned assets. The state is primarily the entity exercising exclusive state ownership, management, and control over these resources and implementing corresponding political (and legal) frameworks.[367] China's political system, characterised by one-party rule under the Chinese Communist Party (CCP), places significant importance on centralised control over natural resources to support the country's economic development and social stability.[368] Not only within China but in different jurisdictions, natural resource management often aligns with broader state objectives, including economic growth, energy security, and environmental protection.[369] In summarising these various legal perspectives, a possible definition of natural resources could be: "a naturally occurring substance or feature of the earth that has economic value and is subject to exploitation for economic gain."[370]

Commodities

Commodities refer to tradable goods, which can be either raw materials or processed products. They are often standardised and fungible, making them suitable for trade in global markets. Commodities may include agricultural goods, minerals, energy products, and manufactured items. Commodities are subject to international trade law and agreements that facilitate the flow of goods across borders, impacting issues like tariffs, quotas, and quality standards. Additionally, international environmental law and conservation regimes and strategies such as the IUCN's 1980 World Conservation Strategy: Living resource conservation for sustainable development (WCN) often regulate the use and protection of natural resources to ensure their sustainable utilisation and preservation for future generations. The term and scope of commodities is thus framed much more specifically as it is explicitly connected with the legal regimes of trade, which simplifies the interpretation of its legal meaning.

Distinguishing between commodities, natural resources, and raw materials is crucial due to the unique roles and implications associated with each term. These distinctions carry far-reaching consequences in the legal, economic, environmental and development policy

[367] Although Art. 10 of the Constitution of the People's Republic of China (PRC Constitution) (revised in 2004) highlights the principle that "land in the cities is owned by the state", Art. 11 affirms that the state owns "all-natural resources, including land, forests, mountains, rivers, and mineral resources."
[368] Art. 9 of the PRC Constitution states, "[t]he state-owned economy, namely, the socialist economy under ownership by the whole people, is the leading force in the national economy."
[369] Singh et al., 'Do natural resources impact economic growth: An investigation of P5 + 1 countries under sustainable management' (2023), 101595 *Geoscience Frontiers*, 1 (2).
[370] See Frisman (n 366), 'Definition of Natural Resources' (2003), 2003-R-0296 *OLR Research Report*.

context, as they determine the legal framework for resource management, trade and investment, environmental protection and sustainable development.[371] Regarding legal and regulatory frameworks, commodities, as tradable goods, are subject to specific rules governing international trade. For instance, the trade of commodities such as oil and agricultural products often involves international agreements and standards. Natural resources, which include broader elements such as biodiversity and ecosystems, may fall under environmental regulations, emphasising conservation and sustainable use. Raw materials, focusing on materials used in manufacturing, may be subject to industrial and trade regulations specific to their extraction and processing.

Trade and economic considerations further highlight the importance of differentiation. Commodities, being tradable goods, play a crucial role in global markets. For example, the international coffee market relies on the trade of coffee beans as commodities. The unique rules and standards of commodity markets impact pricing, trade negotiations, and market dynamics. This is distinctly different from natural resources, which may include elements like water and air, essential for life but not always traded as commodities.

Effective resource management also requires recognising these differences. Policies addressing natural resources often aim at sustainable utilisation and preservation. For instance, regulations protecting forests as natural resources may focus on sustainable logging practices. Raw materials, critical for industrial development, may include minerals like iron ore and copper, with extraction regulations aimed at balancing economic interests with environmental impact. Environmental conservation efforts are closely tied to the distinction between these terms. Conservation regimes often target natural resources to ensure their sustainable use. One such example is the Amazon rainforest, considered a natural resource for its biodiversity, which is subject to conservation efforts to prevent deforestation. On the other hand, raw materials such as rare earth metals may require environmentally conscious mining practices to minimise ecological impact. Investment and development decisions are influenced by the nature of resources. Investors seeking profitable ventures may focus on commodities such as crude oil for power generation or metals for manufacturing. In contrast, policy makers seeking sustainable development may prioritise natural resources such as clean water, recognising their essential role in supporting communities and ecosystems. Overall, the nuances between commodities, natural resources, and raw materials are essential for informed decision-making across various sectors. Whether in crafting legal frameworks, facilitating international trade, managing resources sustainably, or fostering economic development, the distinctions provide a foundation for

[371] See e.g., United Nations Conference on Trade and Development (UNCTAD), <https://unctad.org/topics> (last accessed: 24.01.2024).

tailored approaches that balance economic interests with environmental and social considerations. Distinct responsibilities, competencies, and connections to various concepts inherently result in diverse legal consequences and spheres of legality.

Criticality can be approximately determined by "what is required by a country for its technological outputs, the number of deposits around the world that can produce the commodity and the political stability of that country."[372] Since the focus of this study is on the critical raw materials as defined by the EU, the definition of the criticality of the EU must be taken into account accordingly. Criticality here is defined as the degree of high industrial importance for the EU and the simultaneous determination of the supply risk.[373] In other words, critical raw materials of the EU refer to "minerals and metals required by industry"[374] (economic importance), that can only be extracted or mined to a limited extent on its own territory and are so scarce that either their occurrence or the supply and supply chains (security of supply) are assessed as critical or risky.[375] The assessment of criticality is carried out by the European Commission in cooperation with the Ad Hoc Working Group on Critical Raw Materials (AHWG) and is subject to a specifically developed methodology, which was last updated in 2017.[376]

2. Critical Raw Materials: Cobalt, Lithium, Antimony and Vanadium

Critical raw materials (CRM) are an integral part of the economy due to their irreplaceable use in the area of digitalisation, for renewable energy transition and technologies such as electric vehicles.[377] In the international context, several organisations determine and define CRM and, amongst others, seek to align such evaluation and the management of CRM with the UN SDGs in order to support their "sustainable and ethical supply".[378] The main target establishing supporting frameworks lies in achieving a net-zero economy where main tools include setting up socio-environmental-economic contracts and environmental stewardship, finding common sustainable finance principles and taxonomy, promote a sustainable resource management system as well as framing traceable, transparent and sus-

[372] Kinnaird and Nex (n 129), 16.
[373] European Commission, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, Pennington et al., Methodology for establishing the EU list of critical raw materials: guidelines, (2017), 2.
[374] Kinnaird and Nex (n 129), 16.
[375] COM(2020) 474 final (n 23), 3.
[376] The methodology was not changed in the 2020 reassessment and continues to refer to the methodology established in 2017; European Commission (n 373); JRC technical report 2017: Assessment of the Methodology for Establishing the EU List of Critical Raw Materials, (2017).
[377] WTO, <https://www.wto.org/english/blogs_e/data_blog_e/blog_dta_10jan24_e.htm> (last accessed: 10.01.2024); UNECE, <https://sdgs.un.org/partnerships/list-critical-raw-materials-eu-2017-linked-renewed-eu-industrial-policy-strategy> (last accessed: 10.01.2024).
[378] UNECE, Policy Brief: Transforming Extractive Industries for Sustainable Development (2021), 15, 17f.; UNECE, <https://unece.org/unece-and-sdgs/critical-raw-materials> (last accessed: 01.10.2023), European Commission, <https://single-market-economy.ec.europa.eu/sectors/raw-materials/areas-specific-interest/critical-raw-materials_en> (last accessed: 10.01.2024); COM(2020) 474 final (n 23).

tainable systems in extractive related supply chains and strategic environmental assessments. The expected result is a shift from short-term economic considerations to long-term financial risk assessments while generating comprehensive social, environmental, and cultural benefits.[379] This shift, however, is accompanied by a significant scaling up of production and trade of critical raw materials needed for the desired transition.

In this context, the OECD, as one of the largest data processing organisations, identified a concentration of the production, as well as imports and exports, of critical raw materials, while the need for the use of such raw materials remains diversified in global markets. Together with such concentration, export restrictions and import dependencies have increased significantly.[380] In the EU, critical and strategic raw materials do not occur naturally or in sufficient quantities. CRM supply is a prerequisite for achieving the EU's objectives, "needed to produce high-tech and high value-added products and develop key technologies fundamental to achieving economic, digital, and defence sovereignty in Europe."[381] Their importance, derived from their major economic significance now and in the future, is reason for the EU to adopt a corresponding strategic position to ensure a stable and reliable access to these resources. The approach pursued by the EU emphasises the sustainable management and use of such resources and aligns it with the SDGs. Here, different levels of relationships are considered by the EU: while the prevention of human rights infringements is to be achieved at the political level to generate stable and lasting peace, it adopts a more nuanced approach at the economic level. In particular, the EU seeks long-term partnerships based on a balance of power and mutual trust. However, the Union's approach must be assessed in the light of the fact that, with having fewer population (than other regions), the EU is being outflanked by emerging economic superpowers such as the People's Republic of China. China is successfully restructuring global partnerships, including those with the African continent and beyond.[382]

China, for example, declared with regard to their BRI[383] that it "dovetails with the UN 2030 Agenda for Sustainable Development in concept, measures and goals".[384] Moreover, the BRI seeks for "regional integration and global development by aligning with plans such as […] the Master Plan on ASEAN Connectivity 2025, the ASEAN Outlook on the Indo-Pacific, the African Union's Agenda 2063, and the European Union's Strategy on

[379] UNECE (n 378).
[380] Kowalski and Legendre, 'Raw materials critical for the green transition: Production, international trade and export restrictions', No. 269 *OECD Trade Policy Papers* (2023), 22-34.
[381] European Parliamentary Research Service (EPRS), Ten issues to watch in 2021 (2021), 14.
[382] See e.g. on the BRI's approach from a Chinese perspective: <http://www.beltandroadforum.org/english/n101/2023/1010/c124-895.html> (last accessed: 30.01.2024).
[383] See Annex D.
[384] BRI Forum, <http://www.beltandroadforum.org/english/n101/2023/1010/c124-895.html> (last accessed: 30.01.2024).

Connecting Europe and Asia."[385] Through the BRI, however, the PRC exerts influence on the global market system and on "regional and global economic governance". By steering BRI participants through the PRC's self-standing agenda and in setting new rules and standards "with strong potential for universal application [...] which has effectively filled in gaps in the global governance system [...]", it is thus becoming a leading player.[386] These rules and standards, backed by the UN resolution 71/2016, are promoted to become higher-standards driving development. In this regard, China's endeavours are coined by multi-level policy coordination and joint communication mechanisms for aligning development strategies, technological and economic policies, as well as administration rules and standards.[387] However, this comes with some unexpected paradigm shifts. Through investments in physical assets which are unavoidable for BRI participants,[388] China deploys its influence as financier and standard setter with a focus in 2023 on technology and in metals and mining.[389] This form of soft power, called *infrastructure diplomacy*, forms one part of its own strategic partnerships which are directly dependent on success and failure of trade and economic relations with states.[390] Against this background, China seeks to enter into a Comprehensive Strategic Partnership (CSP) with the entire African continent and has done so by now with at least 25 of the 54 African states.[391] During the integration into the BRI and the set-up of infrastructure, China frequently becomes the largest lender of money for BRI participants. Here (and elsewhere), China is aggressively demanding first payment, threatening to withdraw investment or from the economic relationship at all, e.g. when there is a payment default, a political statement opposing the

[385] BRI Forum, <http://www.beltandroadforum.org/english/n101/2023/1010/c124-895.html> (last accessed: 30.01.2024).
[386] BRI Forum, <http://www.beltandroadforum.org/english/n101/2023/1010/c124-895.html> (last accessed: 30.01.2024).
[387] The inner core of the BRI is connectivity which is build upon the five areas: policy, infrastructure, trade, financial and people-to-people; Nawami, The Belt and Road Initiative: an interface with multilateral development banks on international cooperation and global governance in Carrai et al. (eds), The Belt and Road Initiative and Global Governance (2020), 98.
[388] Asia Society Policy Institute (Russel and Berger), Weaponizing the Belt and Road Initiative (2020), 27; Foundation for Defense Democracies (FDD), Below the Belt and Road Corruption and Illicit Dealings in China's Global Infrastructure (2020), <https://www.fdd.org/analysis/2020/05/04/below-the-belt-and-road/> (last accessed: 05.02.2024); Nedopil, China Belt and Road Initiative (BRI) Investment Report 2023 (2024), Griffith Asia Institute, Griffith University (Brisbane) and Green Finance & Development Center, FISF Fudan University (Shanghai), 10.
[389] Of strategic importance are "minerals and metals [which] are particularly relevant to the green transition (e.g., lithium) and batteries for electric vehicles" and "batter[ies], car parts, EV manufacturing, as well as telecoms", Nedopil (n 388), 13.
[390] Lewis, OBOR in the context of China-EU FDI and China's evolving economic diplomacy in Chaisse (ed), China-European Union Investment Relationships: Towards a New Leadership in Global Investment Governance?, 178f.
[391] China-Africa Cooperation Vision 2035, <http://www.focac.org/eng/zywx_1/zywj/202201/t20220124_10632442.htm> (last accessed: 30.01.2024); China-African relations, <https://www.chathamhouse.org/2023/01/china-africa-relations> (last accessed: 30.01.2024); Lewis (n 390), 186.

Chinese political understanding, non-compliance with the rules and standards set or limited access or other market restrictions to raw materials for Chinese investors, for example, sometimes even leading to a bailout from the International Monetary Fund (IMF).[392]

In addition to these convoluted economic ties that intends to lead to "a new era of globalization"[393], the Global Agenda 2030 and its basic principles also impact on political and legislative processes within the countries possessing the strategic raw materials needed in the EU. For instance, the DR Congo in their 2002 Mining Code and in their 2009 Mining Vision acknowledge the UNGP and the OECD Guidelines since 2012.[394] The non-binding UNGPs and the OECD Guidelines form a "central normative framework for a wide range of states, businesses and other stakeholders"[395] spanning the entire processes around raw material extraction, use and management. However, while these may affect international and domestic public law, "there are still governance gaps that persist at the international level, especially as it relates to accessing remedy."[396] With the close economic interdependencies, which are also strategic or diplomatic in nature, raw materials and their utilisation are subject to a thicket of different standards and regulations that are barely transparent for the EU, particularly in the BRI network.

a. Determining Criticality: Scope, Definitions and Purpose

Various definitions and criteria used to identify critical raw materials

As described above, the term 'raw material' is still largely inconsistent and is mostly used to describe substances in different aggregate states or so-called commodities that are not processed in their respective state or only processed to a certain degree.[397] While often used synonymously, the term (natural) resources can be placed on a broader level, although this is also controversially discussed on different levels.[398] In a EU context, the term natural resources is first found in Art. 191 TFEU. Beyond that, explicit reference to the term "natural resources" is not confined to specific articles. Rather, the term is implicitly

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[392] See e.g. in the case of Zambia: China-African relations, <https://www.chathamhouse.org/2023/01/china-africa-relations> (last accessed: 30.01.2024); see e.g. in the cases of Sri Lanka and Myanmar: Mark et al., 'Sharing the Spoils: Winners and Losers in the Belt and Road Initiative in Myanmar' (2020), 39(3) *Journal of Current Southeast Asian Affairs*, 381 (387); see more generally: Council on Foreign Relations, China's Massive Belt and Road Initiative, Backgrounder, 02.02.2023; Gelpern et al. (AidData), How China Lends: A Rare Look into 100 Debt Contracts with Foreign Governments (University of Williamsburg 2021).

[393] Zhang et al. (eds), China's Belt and Road Initiative: Changing the Rules of Globalization (2018).

[394] 204 Arrêté Ministériel n° 0057 du 29 février 2012 portant mise en oeuvre du Mécanisme Régional de Certification de la Conférence Internationale sur la Région des Grands Lacs "CIRGL" en République Démocratique du Congo, 2012, <http://mines-rdc.cd/fr/documents/Arrete_0057_2012.pdf> (accessed 18 December 2015) (Arrêté Ministériel n° 0057 du 29 février 2012) [found in: https://www.amnesty.org/en/documents/afr62/3183/2016/en].

[395] <https://www.swp-berlin.org/10.18449/2023C16/> (last accessed: 04.02.2024).

[396] <https://www.swp-berlin.org/10.18449/2023C16/> (last accessed: 04.02.2024).

[397] Proelß, Die Kompetenzen der Europäischen Union für die Rohstoffversorgung in Ehlers et al. (eds), *Rechtsfragen des internationalen Rohstoffhandels*, p. 163 f.

[398] Terhechte, Towards a European Natural Resources Law? in Bungenberg et al., *European Yearbook of International Economic Law* (2018), 206.

woven into various legal instruments that address environmental protection, sustainable development, and specific economic sectors. Art. 191 TFEU underscores the integration of environmental protection into EU policies, emphasising the prudent and rational use of natural resources.

Within the Common Agricultural Policy (CAP), diverse regulations refer to sustainable agriculture, soil protection, and rural development, all of which indirectly impact the management of natural resources in the agricultural sector. The Common Fisheries Policy (CFP), encapsulated in Regulation (EU) No 1380/2013, governs fisheries activities to ensure the sustainable exploitation of marine biological resources and the protection of marine ecosystems. Addressing water resources, the Water Framework Directive (WFD), articulated in Directive 2000/60/EC, establishes a comprehensive framework for their protection and management, with a focus on sustainable usage and prevention of deterioration. The Waste Framework Directive (Directive 2008/98/EC) manages waste and includes provisions that touch upon the efficient use of resources. The Raw Materials Initiative, outlined in Communication COM(2008) 699 final, delineates the EU's strategy to ensure sustainable and undistorted access to raw materials. Additionally, the Circular Economy Action Plan, articulated in Communication COM(2020) 98 final, concentrates on promoting resource efficiency, waste reduction, and circular business models, indirectly addressing the sustainable management of natural resources. Therefore, natural resources may implicitly occur in the objectives and provisions of these legal instruments rather than explicitly stated. Collectively, the legal bases mentioned contribute to the EU's comprehensive approach to the sustainable utilisation and protection of natural resources. However, the ideas connoted are diverse, and it can be observed that there is no strict demarcation between the terms natural resource, raw material, and commodity. In fact, the normative, i.e., legal, meaning of both terms is significant within this analysis. Critical raw materials are particularly susceptible to vulnerable and volatile supply and demand situations since they are generally available in a significantly smaller quantity compared to other commodities. Additionally, they are often a byproduct in the extraction of other resources, which may require special treatments, such as petrochemical processing, to make them usable.[399]

Differences between regulatory and industry-specific definitions

Concerning the Union's criticality assessment, the classification considers not only the significance of the resource for future demand but also the occurrence frequency, geographic accessibility, and the effort required for industrial processing. Moreover, the assessment places particular emphasis on the dependence on the supply chain and delivery security. "Rare earths" are metals (rare earth elements - REE) that are not all genuinely rare in the classical sense but are infrequently concentrated and suitable for extraction.

[399] Kinnaird and Nex (n 129), 18.

This group comprises 17 elements, including the 15 lanthanides (atomic numbers 57 to 71) as well as scandium and yttrium (SATW 2010, page 16). Primarily mined (around 90%) in China, rare earths play a crucial role in metallurgy and electrical engineering.[400] While the dependency on China for critical raw materials is 44%, it significantly rises to approximately 98% in the case of rare earths.[401]

Purposes served by designating certain raw materials as critical

Irrespective of the level (international, European, or national) at which resources are classified as critical, this serves different purposes all aligned with the goal of ensuring sustainable access to resources that are crucial to the most diverse industrial ecosystems and "most sections of society".[402] The categorisation of resources as critical enables the promotion of policies and legislative initiatives specifically aimed at guiding policy programs and influencing industries. They become strategic raw materials where "materials [are] expected to grow exponentially in terms of supply, which have complex production requirements and thus face a higher risk of supply issues." For the EU, strategic CRM are those needed for "the EU's renewable energy, digital, space and defence objectives."[403]

At the Union level, the reduction of external supply dependencies and the promotion of responsible sourcing, either within its own territory or among partner countries sharing similar values, is particularly significant. Their surrounding economic and geopolitical dynamics are regularly reassessed. At the member state level, adherence to the Union's assessment is followed, though independent priorities are set to align with industrial or other economic interests. This approach enables strategic resource planning and, notably, risk mitigation, significantly influencing investment decisions and preventing disruptive processes within supply chains. In line with political and legal declarations at international, European and member state level, environmental and sustainability aspects are paramount. Sustainable resource management aims to minimise negative environmental and social impacts while promoting innovation and industrial competitiveness.[404] In the case of the EU, a particular focus is placed on clean energy technologies (photovoltaic, wind, storage), electric mobility, and digital technologies (ICT, robotics, 3D printing) within industrial ecosystems such as automotive, renewable energy, defence, and aerospace.

[400] Nordman et al., Die Rohstoff - Expedition (Springer, Berlin/Heidelberg 2015), p. 65.
[401] European Commission, Study on the EU's list of Critical Raw Materials – Final Report (2020), 9.
[402] European Council (EC), <https://www.consilium.europa.eu/en/infographics/critical-raw-materials/#:~:text=Critical%20raw%20materials%20(CRMs)%20are,EU's%20critical%20raw%20materials%20supply> (last accessed: 06.02.2024).
[403] EC, <https://www.consilium.europa.eu/en/infographics/critical-raw-materials/#:~:text=Critical%20raw%20materials%20(CRMs)%20are,EU's%20critical%20raw%20materials%20supply> (last accessed: 06.02.2024).
[404] European Commission, Critical Raw Materials, <https://ec.europa.eu/growth/sectors/raw-materials/specific-interest/critical_en> (last accessed: 28.09.2023); see also: European Commission, Critical materials for strategic technologies and sectors in the EU - a foresight study (2020).

Alongside the implementation of key initiatives such as the central EU Green Deal, the establishment of a sustainable circular economy and the (decentralised) control of strategic investments are pivotal.[405] These objectives converged into a proposal for a framework regulation, aiming

> "to strengthen the different stages of the European critical raw materials value chain;
> to diversify the EU's imports of critical raw materials to reduce strategic dependencies;
> to improve the EU capacity to monitor and mitigate current and future risks of disruptions to the supply of critical raw materials;[406]

and

> "to ensure the free movement of critical raw materials on the single market while ensuring a high level of environmental protection, by improving their circularity and sustainability."[407]

This proposal had its first reading in the European Parliament on 12 December 2023, mainly agreed upon.[408] The proposal includes an independent definition of critical raw materials, which can be derived from Article 2(2), 4(1) in connection with Annex II, Section 1 of the proposal. Although criticised as insufficient regarding human rights and environmental protection,[409] this proposal, along with the Commission's proposal for a Net Zero Industry Act, aims to prevent interruptions in secure supply. More broadly, it addresses geopolitical and security concerns and enhances trade and economic relations.

b. Methods of Extraction and their Impacts on (Transnational) Life

The raw materials reflected upon are extracted using advanced, highly technical processes, with each method having a different impact on (transnational) life. Land mining and deep-sea mining are two widely used techniques, each with specific consequences. Land mining uses open pit and underground mining methods, such as heap leaching. Cobalt, for example, is often extracted as a by-product of copper and nickel mining and refined using hydrometallurgical processes.[410] Lithium is mined using brines and hard rock, with new technologies such as direct lithium extraction (DLE) exploring more efficient methods. Vanadium, which is extracted from magnetite ores, is extracted by roasting, smelting and leaching. These extraction methods have a direct impact on transboundary life and are regulated by the United Nations Convention on the Law of the Sea (UNCLOS), in particular Articles

[405] ERMA, <https://erma.eu/> (last accessed: 28.09.2023).
[406] COM/2023/160 final (n 104), Explanatory Memorandum, (1.).
[407] COM/2023/160 final (n 104).
[408] The legislative procedure on this draft can be found here: <https://eur-lex.europa.eu/procedure/EN/2023_79> (last accessed: 30.01.2024).
[409] European Environmental Bureau (EEB), EU's Critical Raw Materials Act: Improved ambitions, but language still raises concerns for Environmental Standards, Indigenous Peoples' Rights Protection, and Demand Reduction, 12.12.2023.
[410] British Geological Survey (Petavratzi et al.), BGS Commodity Review, Cobalt; Cobalt Institute, <https://www.cobaltinstitute.org/about-cobalt/cobalt-life-cycle/cobalt-mining/> (last accessed: 05.02.2024).

2, 77, 56 and 153. However, the legal framework lacks enforcement mechanisms and comprehensive regulation as it is based on regional instruments and national legislation with different characteristics.

Key issues include resource management, environmental regulations, supply chain transparency, human rights, indigenous peoples' rights, trade and investment aspects. The mining industry is evolving towards a more sustainable mining industry due to sustainability aspects and new technologies. Innovative methods such as the direct extraction of lithium contribute to a smaller environmental footprint. Circular economy initiatives and resource efficiency strategies are gaining traction, promoting recycling and responsible sourcing of key raw materials. The EU Green Deal and the Circular Economy Action Plan are instrumental in developing sustainable extraction and recycling technologies and creating legal incentives for companies to adopt responsible practices. With this come the complex legal implications of cobalt, lithium and vanadium extraction for cross-border life a few of which include resource management, environmental regulations, supply chain transparency, human rights, trade and investment. The legal framework for the extraction of cobalt, lithium and vanadium continues to evolve and adapt to the global shift towards sustainability and responsible resource management in the modern age of technology and industry.

c. Country-specific Criticalities in the Extraction Processes

More specific country-specific conditions, economic data, the legal framework and requirements for the raw materials cobalt, lithium, antimony and vanadium are analysed below. In each case, the country that is of the greatest importance for the EU's raw material supply within the relevant original raw material extraction will be analysed. The associated risks, potentials and special features in relation to the EU's supply of raw materials are illustrated. These country-specific condition matrices are then brought together so that a unique view of the conditions that are decisive for extraction in a global context is possible. The consolidated results should then allow conclusions and deductions to be made about potential starting points for regulation and highly effective or more effective standard-setting. Similarities and differences will be highlighted and the extent to which joint regulation and the extent to which regulation of the extractive industries under consideration that builds on and / or ties in with each other is / would be sensible, practicable and enforceable will be determined.

(aa) Extraction of Cobalt – Conditions in the EU's Main Hub DR Congo

The largest francophone country and with one of the largest populations (estimated 89.5 million people), the Democratic Republic of Congo (DRC) is one of the most resource-rich and at the same time most fragile countries in Africa. The DRC, which holds approx-

imately 50 % of the world's cobalt reserves, is responsible for the majority of cobalt production (around 70 %[411]) prepared for the European market. The mining of cobalt and a variety of other mineral resources, including copper, niobium, tantalum, oil, industrial and jewellery diamonds, gold, silver, zinc, manganese, tin, uranium and coal, accounts for the largest share of domestic (nominal) gross value added in per cent and generates its second strongest (real) economic growth (by sector).[412] At the same time, the country faces acute food insecurity and malnutrition (< 76 per cent in rural areas) and has experienced very low economic growth over the last two decades. A devastating civil war (1996-2002) and recurring conflicts have led to an extremely fragile situation: 540,000 refugees and 4.5 million internally displaced people live in the country, more than 64 per cent of the population is poor and the country's governance structures and institutions are considered extremely weak. The judicial system encounters substantial impediments, facing constrained access to conflict-affected areas and struggling to mediate or resolve disputes in a manner deemed equitable. The first non-violent transition of government took place in 2019.[413] This and other instabilities lead to a high level of corruption. Despite its high economic potential (due to abundant and diverse natural resources, a strategic location at the centre of Africa, and a large and young population), the DRC has been unable to convert its ample natural and human resources into sustainable economic growth and shared prosperity.[414] Hermes categorises the DRC as a market or investment environment (business environment) with the highest risk category.[415] The World Bank has dedicated its country-specific project and development strategy for the years 2022 - 2026 to the priorities of reducing the risks of escalating violence and conflict, improving services, strengthening human capital and promoting the private sector in order to implement reforms and stimulate private sector growth.

The DRC's economic growth is largely dependent on the extraction of raw materials. Copper and cobalt account for more than 80 % of exports, exposing the country to fluctuations in global commodity prices and demand. The end of the civil war in July 2003 and the resumption of engagement by the international community, which also coincided with a recovery in mineral and metal prices on the world market, led to an expanding economy with GDP growth averaging 6 % per annum in 2003-2007. However, the channelling of

411 Swissinfo, <https://www.swissinfo.ch/ger/wirtschaft/kongo-kobalt_-der-kleinbergbau-im-kongo-muss-gefoerdert-werden-/48287850> (last accessed: 08.02.2024).
412 39.3 % or 4.7 % mining/industry in 2020, see GTAI, Economic data compact, DRC, May 2022, 1.
413 Report No. 168084-ZR, International Development Association, International Finance Corporation Multilateral Investment Guarantee Agency, Country Partnership Framework for the Democratic Republic of Congo for the period FY22-26, 24.01.2022; GTAI, EB 2019/127/R.21, Democratic Republic of the Congo Country Strategic Opportunities Programme 2019-2024, 30.07.2019, 5.
414 Report No. 168084-ZR, International Development Association, International Finance Corporation Multilateral Investment Guarantee Agency, Country Partnership Framework for the Democratic Republic of Congo for the period FY22-26, 24.01.2022; GTAI, EB 2019/127/R.21, Democratic Republic of the Congo Country Strategic Opportunities Programme 2019-2024, 30.07.2019, 11.
415 GTAI, Economic data compact, DRC, May 2022, 6.

private investment into the extractive sector, as well as poor governance in the sector, led to limited transformation of resource rents into productive public expenditure. This in turn limited diversification and further increased commodity dependence, fuelling continued growth volatility. The private sector in the DRC consists of extractive industries, mostly controlled by foreign investors and state-owned enterprises, as well as low-productivity agriculture, a modest formal private sector and numerous informal micro, small and medium-sized enterprises (MSMEs), which employ 89 % of the labour force. Although the DRC has attracted significant FDI in the extractive industries, technology transfer and productivity gains are limited. The main obstacles to the growth and market presence of small and medium-sized enterprises (SMEs) include difficult access to finance, the inferior quality and high cost of inputs, inadequate infrastructure and unfair competition.[416]

Economically, the DRC is largely linked to PR China in terms of both imports and exports of goods (categorised as main supplier country and main buyer country), while intra-African countries and third countries follow at a considerable distance. Although the DRC has been a member of the WTO and various African organisations (COMESA, SADC, CEEAC and AfCTA [signed, not ratified]) since 1997, there is currently no free trade agreement with the EU in its entirety or integration as a customs union. It is only under the Generalised System of Preferences (GSP) that there is a link between the EU and the DRC, which has been in force since 1 July 2971. In this respect, the EU has established preferential treatment under the Everything but Arms (EBA_1) scheme for all least developed countries which is linked to the current LDC status in each case. The EBA scheme abolishes customs duties and quotas for all imports of goods (except arms and ammunition) from the least developed countries into the EU. The EU can withdraw EBA preferences in certain exceptional circumstances, such as serious and systematic violations of principles laid down in international conventions on fundamental human and labour rights.[417] Further preferential treatment under the GSP+ system, which creates a link to sustainable development and good governance, is not in place for the DRC.[418]

Within the DRC, the mining sector is regulated by the Mining Code of 2002, which was amended and supplemented by Law No. 18/001 of 9 March 2018. In addition to the Mining Code and the regulations, other legal and regulatory texts also contain provisions for the mining sector, such as the Tax Code or the Customs Code. The 2018 Mining Act and its

[416] Report No. 168084-ZR, International Development Association, International Finance Corporation Multilateral Investment Guarantee Agency, Country Partnership Framework for the Democratic Republic of Congo for the period FY22-26, 24.01.2022; GTAI, EB 2019/127/R.21, Democratic Republic of the Congo Country Strategic Opportunities Programme 2019-2024, 30.07.2019, 19.
[417] <https://trade.ec.europa.eu/access-to-markets/de/content/alles-ausser-waffen-eba> (last accessed: 18.05.2023).
[418] Nor has there been any restriction on this categorisation by the EU, e.g. through a unilateral graduation of certain DRC product sectors.

implementing decree contain provisions on the disclosure of beneficial ownership by mining companies. The Ministry of Mines implements the state mining policy and is responsible for granting or denying mining rights, the mining cadastre (CAMI) in accordance with the Mining Code, either through a tender process or through an application for rights.[419] However, these intentions are counterbalanced by an extractive industry in the DRC, which, in addition to large-scale mining (LSM), consists of about 20 % artisanal mining (ASM). In ASM in particular, "[s]erious, systematic human rights violations are commonplace, including child labour, health hazards due to high concentrations of toxic metals and the lack of the most basic safety equipment in and around the mines."[420] The government does not have an accurate overview of the number of people employed in ASM, the number and depth of tunnels and the number of unauthorised mining operations on LSM sites. It is estimated that over 40,000 children are employed in the mines, sometimes working up to 12 hours a day. The raw materials mined in ASM are largely sold on black markets or directly to LSM operators, so that the mined quantities are added to the official mining quantities of LSM. While the purchase or sale on black markets is virtually untraceable for official bodies, direct sales are usually associated with considerable human rights risks and human rights violations. The associated negative effects often lead large companies to turn away from direct trade in ASM, which results in the expansion of the black market. This harbours the increasing danger that regulation and standards will come to nothing, as official trading processes will no longer take place.

Cobalt salts obtained from mined raw materials are categorised into three groups for commercial applications: 1) lithium-ion batteries, which are made from cobalt oxides, sulphates and hydroxides; 2) superalloys, magnetic materials and catalysts, which are made from electrodeposited cobalt. Superalloys have excellent heat-resistant properties and retain their rigidity, strength, toughness, and dimensional stability. They can withstand temperatures of 800 to 1000 °C for extended periods of time; and 3) Hard alloys made from cobalt powders. The extraction, production and value-added chains are often interlinked.[421] The following figure shows a simplified flow chart of the individual production stages from the original mines which may also form mining cooperatives or involve sponsors covering capital or operating costs (especially in ASM) via intermediaries (négociants) who regularly are individual buyers of ores and precious metals to the various refineries, smelters or license holders (also listed as entité de traitement) that ultimately produce the industrial precursors[422]:

[419] See <https://eiti.org/countries/democratic-republic-congo> (last accessed: 17.05.2023).
[420] UNPRI, Human rights risks in the cobalt supply chain, <https://www.unpri.org/social-issues/how-investors-can-promote-responsible-cobalt-sourcing-practices/2975.article> (last accessed: 04.10.2023).
[421] OECD, Interconnected supply chains: a comprehensive look at due diligence challenges and opportunities sourcing cobalt and copper from the Democratic Republic of the Congo (2019), 20.
[422] Federal Institute for Geosciences and Natural Resources [Bundesanstalt für Geowissenschaften und Rohstoffe – BGR], Mapping of Artisanal Copper-Cobalt Mining Sector in the provinces of Haut-Katanga and Lualaba in the Democratic Republic of the Congo (2019), 29-32.

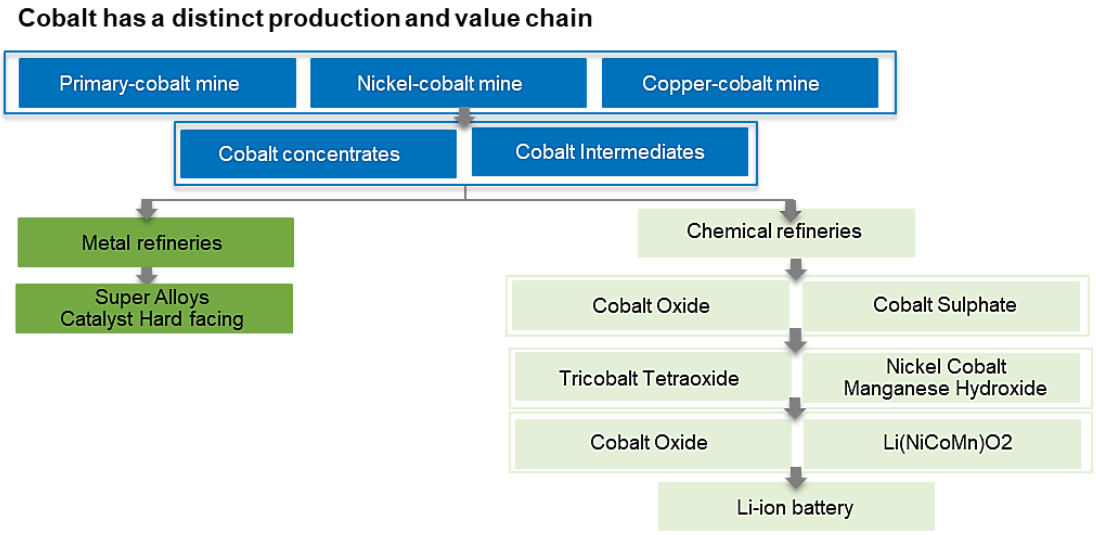

Fig. 2) Global Cobalt Industry Chain[423]

Within large-scale mining (LSM), different supply chain types, operating standards and interactions with artisanal and small-scale mining (ASM) activities exist. These differences naturally pose particular challenges regarding due diligence and OECD Annex II risks and have implications for the economic dynamics and governance of the sector. The sourcing of copper and cobalt from LSM in the DRC is sometimes portrayed as a strategy to circumvent certain human rights risks that are thought to be more prevalent in ASM. Both forms of mining bring several benefits to the country, particularly for generating government revenue, promoting infrastructure development and increasing exports. However, LSM does not avoid every risk of the OECD Guidelines such as those named in Annex II or other negative impacts. The historical and operational context of the sector, as well as the structure of the LSM supply chain, emphasise the continued importance of robust due diligence and risk mitigation efforts.[424]

Cobalt mining in the Democratic Republic of Congo faces major challenges due to a combination of socio-economic, political, environmental and ethical factors. With ASM operations several typical occupational health and safety risks burden the workforce, amongst others, injuries and disorders, heavy metal poisoning (also affecting the unborn child and breast milk), overexertion and fatigue, gender-based violence and fatal accidents. Along with ongoing conflict, weak governance and the presence of armed groups contribute to unethical mining practices, human rights abuses and environmental degradation. Child labour is a widespread problem and the economic benefits of global cobalt demand are un-

[423] Benchmark Mineral Intelligence, <https://www.benchmarkminerals.com/>; <https://www.crux-investor.com/posts/the-ultimate-guide-to-the-cobalt-market-2021-2030f> (each last accessed: 08.02.2024).
[424] OECD (n 421), 21.

evenly distributed across the country, hampered by limited infrastructure and market volatility. Addressing these issues requires concerted efforts to promote responsible mining, improve governance and ensure equitable economic distribution in the region.[425]

(bb) Extraction of Lithium – Three-Country-Corner of Chile/Bolivia/Argentina still define EU's Demand

The raw material lithium is mainly extracted from compounds contained in brine, while mining is atypical and only takes place in oligopolistic markets. The largely vertically integrated companies that extract lithium are often strategically involved with each other, which is why the separation between primary extraction and further processing is not considered to make sense.[426] Chile and Argentina accounted for 99.8 % of global net exports in 2022. Together with Bolivia, in particular the Uyuni Salt Lake (Salar de Uyuni) in the Bolivian highlands, they have the largest lithium deposits in the world. The EU sources its lithium almost exclusively from this tri-border region (Chile, Argentina and Bolivia). However, while Chile and Argentina have the corresponding industries, primarily from brine evaporation, Bolivia lacks the logistics infrastructure required for lithium production as well as water, gas and electricity lines.[427]

Bolivian President Evo Morales categorised lithium as a strategic resource in 2008 and also initiated a process in 2022 to initiate industrial production, which has not existed to date. In future, selection processes are to enable joint ventures as an alternative development strategy.[428] In Chile, on the other hand, lithium has been a "Material of Nuclear Interest" since 1975 and is managed by CCHEN (Chilean Nuclear Energy Commission). Since 1979, lithium has been state property and mining licences are issued exclusively by CORFO (Corporación de Fomento de la Producción). The Chilean lithium industry has been undergoing reform since 2016 with the aim of creating a more attractive investment climate for value-adding companies.[429] In the course of the moderately successful reform to date, there have been increasing violations of the rights of the indigenous population. The subsequent legal proceedings and the introduction of the new government under President Gabriel Boric are intended to re-regulate the lithium industry.

The largest consumer (approx. 40 % of global market demand) of Latin American lithium is China, which is also the world market leader in processing and refining it. Only isolated

[425] BGR (n 422), 36-45; World Bank, 2020 State of the Artisanal and Small Scale Mining Sector (2020), 18-27.
[426] DERA, Rohstoffinformation Lithium (2022), 31.
[427] Deutscher Bundestag, Wissenschaftliche Dienste, Lithium Vorkommen, Abbau und ökologische Auswirkungen in Bolivien, Sachstand WD 8 - 3000 - 135/18 (2019), 4.
[428] DERA (n 426), 31.
[429] Particularly products of high value creation (e.g., Cathodes, battery components and other lithium ores) shall be extracted in a first step. If the targets are not met, the latest third tender is to reinvent primary production; DERA (n 426), 46.

cases of industrial interest in further processing can be observed in the EU. The mining of lithium is subject to different legal frameworks in different mining countries, and the legal areas are in a state of flux. For example, the African country of Zimbabwe[430] passed a Base Minerals Exports Control (Unbeneficiated Lithium Bearing Ores) Order[431] in 2022, which effectively bans the export of unprocessed lithium. Although this has so far mainly affected Chinese companies, this order is likely to lead to an adjustment of the value chain and subsequently the supply chain as demand for lithium increases.[432] Further developments can also be observed in Mexico (establishment of state-owned companies) and Serbia (Jadar project). The developments that can be observed do not indicate a uniform approach that would enable joint standardisation based on the type of company. Focussing on the EU, a primary supply of lithium has hardly been established to date,[433] which explains the exorbitant dependence on imports on the one hand and the non-existent European processing industry on the other. The secondary supply, i.e., lithium recovered from recycling, is forecast to be just 4% by 2030 with a recovery rate of around 70 % during recycling.[434]

(cc) Extraction of Antimony and Vanadium – EU Dependencies on the PR China

Antimony and vanadium, regarded as crucial raw materials for advanced technologies in the aerospace industry and renewable energy storage, are produced in limited quantities globally. The PR China stands out as the world's foremost producer of these elements, resulting in a monopolistic market position. The economic landscape surrounding the extraction of antimony and vanadium in China is shaped by the country's dominance in production. From a legal perspective, the extraction and processing of these raw materials are subject to a framework that regulates export controls, environmental practices and occupational safety. The Chinese legal system with its overarching national mining laws, which are supplemented by special regulations at provincial and municipal level, is designed to ensure sustainable and responsible raw material extraction.

China's mining figures for antimony and vanadium are considerable and reflect the country's leading position. The mining structures are a predominantly state-controlled system in which state-owned enterprises (SOEs) play a dominant role. This is in contrast to Latin American countries, which often use market-orientated models with increased involvement of private companies. However, despite China's monopolistic position, challenges

[430] Although the lithium markets are currently considered less important, Zimbabwe still holds the sixth largest lithium reserves; DERA (n 426), 31.
[431] Statutory Instrument 213 of 2022, available at: <https://veritaszim.net/sites/veritas_d/files/SI%202022-213%20Base%20Minerals%20Export%20Control%20%28Lithium%20Bearing%20Ores%20and%20Unbeneficiated%20Lithium%29%20Order%2C%202022.pdf> (last accessed: 12.10.2023).
[432] GTAI, Knupp, Simbabwe unterbindet Lithiumexport, 08.02.2023.
[433] Combined boron/lithium projects may be realised in Valjevo, Serbia and Lopare, Bosnia in the future. However, the production volumes envisaged fall well short of the EU's anticipated requirements.
[434] DERA (n 426), 55f.

and potential risks emerge on various fronts. Politically, the state-controlled system and dominance of SOEs may raise concerns about fair competition and market access. Socio-economically, there may be disparities in the distribution of economic benefits, impacting local communities and regions differently. Legally, maintaining an equilibrium between state control and private sector involvement poses an ongoing challenge, requiring continuous adjustments to the regulatory framework. The governance of private standard-setting for sustainability in this sector is a critical aspect. While China has adopted international soft law principles such as those from the International Council on Mining and Metals (ICMM),[435] the alignment challenge lies in ensuring that private standards align with global sustainability goals. The integration of soft law principles, including those focused on environmental standards and responsible business conduct, reflects a dynamic state of transition towards a more environmentally and socially responsible extractive industry.

However, Chinese market players and their highly competitive behaviour continue to prove to be a sensitive area associated with persistent environmental misconduct and human rights violations.[436] Looking ahead, the development of the antimony and vanadium sectors in China is likely to be influenced by both internal and external factors. Internally, the Chinese government's policies and regulatory adjustments will be crucial in shaping the development of these commodity industries. Externally, global market demands, environmental concerns and the changing landscape of international relations will contribute to the future development of China's monopoly markets for antimony and vanadium. From a Union's perspective, balancing economic interests, sustainability goals and international co-operation is critical to secure its supply chains. The same scales of balance apply to the PR China to ensure the continued growth and responsible management of these important commodity sectors.

d. Global Interdependence of Critical Raw Materials Supply Chains

Structurally, classic supply chains are characterised by the fact that they unite various players in the areas of procurement, production and sales, who together form a multi-layered network. The purpose of this network is to deliver goods or products in the required quantity, quality and time at competitive costs. These connections horizontally and vertically integrate producers, manufacturers, suppliers and (end) consumers in a variety of

[435] ICMM, <https://www.icmm.com/en-gb/news/2017/icmm-signs-mou-with-cccmc> (last accessed: 05.02.2024); see in the Chinese context: Minerals Council South Africa (MCSA), South African Mining Innovation Ecosystem Review: A review of the South African mining innovation ecosystem's performance between 2017 and 2022 (2022), 28f.

[436] Zhang et al., 'Economic Impacts and Challenges of Chinese Mining Industry: An Input–Output Analysis' (2022), 10(784709) *Front. Energy Res*, 2f., 12; MCSA, South African Mining Innovation Ecosystem Review: A review of the South African mining innovation ecosystem's performance between 2017 and 2022 (2022), 36.

ways at home and abroad. The various forms of exchange give rise to different dependencies that arise either at the first stage (procurement, e.g. before or during the extraction of raw materials) or at the second stage (production and sales, e.g. after supply and value creation). The raw materials or the products created from them or the processing for the demand markets are of such high relevance for at least one of the customers within the supply network that they are categorised as particularly valuable or necessary in the supply. Although the term "supply chain" is not universally legally defined, national and regional legislations deal with the term.[437]

In principle, raw materials are inputs in the production of other goods, which makes them so-called upstream goods in domestic and international supply chains. Domestic natural resources are usually considered common goods, which are generally characterised by high price and volume volatility. However, rights of exploitation are most often issued to private actors. Also, frequently, their extraction creates environmental and social externalities, which justifies the use of regulation and state control. For example, the use of a subsidy can lead to prices in the end market changing artificially and not as a result of market events, e.g. becoming more favourable, thus distorting or suspending competition. Export taxes and other export restrictions are also suitable for changing, e.g. increasing, world market prices. The resulting systemic significance in the case of political regulation, but also caused by other disruptions, is accordingly suitable for expressing geopolitical rivalries or economic coercion.[438] The commodities considered in this study are characterised in their supply chains by the fact that a significant proportion of the markets they serve are subject to Chinese ownership. These shares are growing in line with the direct investments made by China, which particularly extend to areas that have been ignored by other players, such as American and European companies, or are not considered sufficiently profitable. In this respect, the OECD as one of the largest data processing organisations was able to identify a considerable concentration of production as well as imports and exports of critical raw materials, while the need of use of such raw materials remains diversified in global markets. Together with such concentration, export restrictions and import dependencies have increased significantly.[439]

In addition to the restrictions mentioned above, further influencing factors in supply chain relationships lie in other trade and other policies, specific regulation in the mining sector, social, environmental and governance standards, state participation and other government

[437] See, amongst others, § 2(5) LkSG: „alle Schritte im In- und Ausland, die zur Herstellung der Produkte und Erbringung von Dienstleistungen erforderlich sind, angefangen von der Gewinnung der Rohstoffe bis zur Lieferung an den Endkunden"; 6 USC § 1171(d)(1): "The term "international supply chain" means the end-to-end process for shipping goods to or from the United States, beginning at the point of origin (including manufacturer, supplier, or vendor) through a point of distribution to the destination"; see also: <https://www.sustainablesupplychains.org/> (last accessed: 04.02.2024).
[438] OECD, Kowalski and Legendre (n 380), 35f.; see exemplary case studies: Chapter B. I. 3. (a)-(c).
[439] OECD, Kowalski and Legendre (n 380), 22-34, 35ff.

support, investments and financial policies. In addition to the environmental considerations included in the regulatory framework, human rights standards are also part of the spectrum to be taken into account. In their regulations, states include extractive actors in the implementation of human rights and other due diligence obligations that were previously the exclusive domain of the state. In many different forms, this inclusion covers a large proportion of the numerous (including corporate) interdependencies within supply chains. In this context, regulation also refers to legal relationships beyond national borders. An extra-territorial scope is intended to increase the effectiveness of regulation or standardisation and, at best, to achieve an enforcement effect.

For example, Cobalt ores and concentrates are mined both in artisanal and small-scale mining and industrially in opencast and underground mining. Until the year 2021, one of the largest cobalt-producing companies was the Swiss company Glencore plc. Glencore plc specialises in the production and distribution of metals, minerals and petroleum products. Other than coal, nickel, zinc, iron ore, aluminium and ferroalloys, the company mines copper and cobalt, mainly in the DR Congo, Australia, Canada and Norway. As a mine operator, Glencore plc is therefore at the beginning of an upstream production process, which is followed by the purchase or sale by an intermediary and the prevention and refinement of the extracted raw materials, in this case cobalt-containing iron ore. The refined or value-added cobalt is then fed into the downstream process, i.e. into product manufacturing, processing and sales. Component manufacturers therefore further process the primary materials before battery manufacturers and finally electronics and car dealers feed them into their own product manufacturing and then to the end consumer. The following illustration provides a simplified example of the process of conveying and processing cobalt via upstream and downstream supply chains:

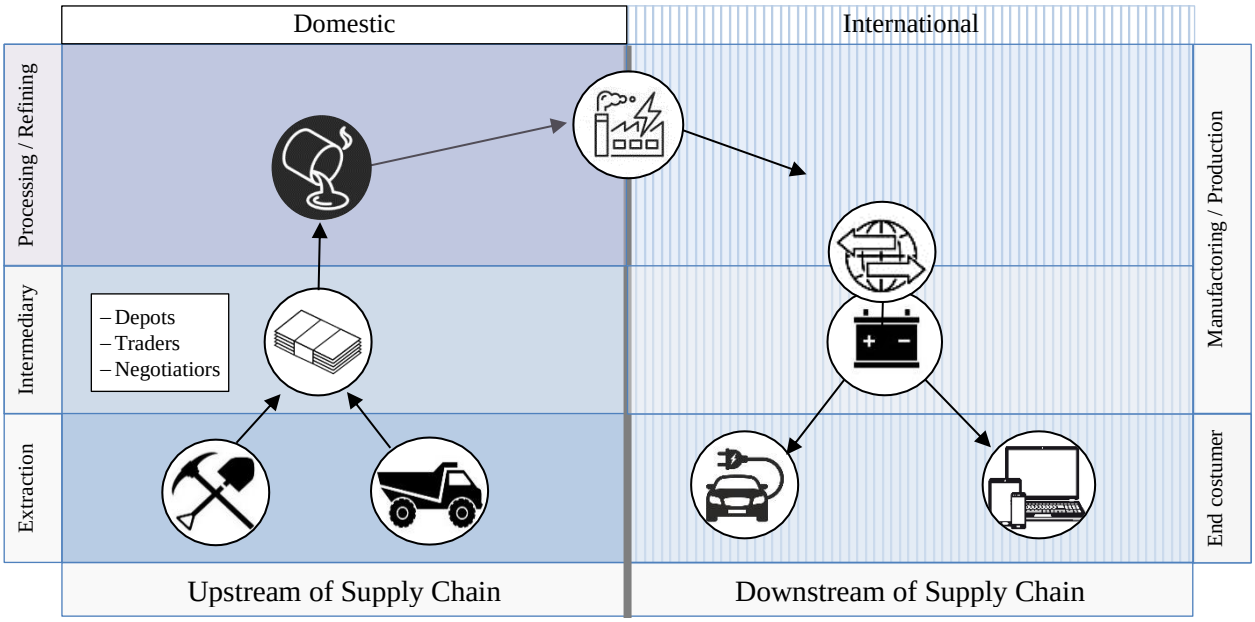

Fig. 3) Upstream and Downstream in Cobalt Supply Chains[440]

The actors involved in the upstream process encompass all entities from the mining stage to the fine refiner, which serves as the control point. Their duty involves the collection of chain of custody or traceability information, either individually or as part of a collaborative industry initiative. On the other hand, downstream actors encompass all entities from the fine refiner onwards to consumer-facing companies. Their responsibility is to identify fine refiners within their supply chain and assess, either individually or as part of a collaborative industry initiative, the due diligence performed upstream at the control points.[441]

(aa) Legal Principles of Extraction

The complex global supply chains for CRM are affected by standards under public and private law, the origins of which are national, regional and international. Moreover, this comprehensive legal framework(s) address(es) the nuances of the most diverse extraction techniques, considering their environmental and social implications. In this initial situation, both considerable complications and diverse opportunities for standardisation that is committed to sustainable transition arise. In order to understand the broader legal implications of raw materials extraction, one must necessarily consider the legal principles that govern these processes. A fundamental principle is the obligation to "do no significant harm", i.e., to ensure that extraction activities do not cause harm to other states. This principle is applied within the framework of (limited) sovereignty, seeking to strike a balance

[440] Own illustration based on CFR, UNPRI and Edison lithium; see <https://www.cfr.org/backgrounder/cobalt-boom>; <https://edisonlithium.com/cobalt-information/>; <https://www.unpri.org/social-issues/risks-in-the-upstream-cobalt-supply-chain/2976.article> (each last accessed: 04.02.2024).
[441] OECD (n 424), 8; see also: Altmann et al., Creating a Traceable Product Story in Manufacturing Supply Chains Using IPFS (2020), https://www.researchgate.net/publication/346416544_Creating_a_Traceable_Product_Story_in_Manufacturing_Supply_Chains_Using_IPFS .

between territorial control and the concept of permanent sovereignty over natural resources. An example of legal changes affecting mining practices is the 2018 revision of the Congolese Mining Code. This revision, which came after six years of negotiations, introduced significant changes, particularly with regard to the conditions for mining permits, licence fees and taxes, local development and transparency. In particular, the guarantee for the stability of the tax system has been cancelled, which has changed the dynamics for mining companies.[442] Working within this legal framework, Chinese due diligence guidelines for responsible mineral supply chains are in line with OECD guidelines and apply universally to copper and cobalt. This international harmonisation, as one example, underlines the global applicability of standards covering both ASM and LSM.[443] Against this background, in its report, the EITI recommended that a law be passed to regulate the presence and employment of vulnerable people at artisanal mining sites, which must be a national priority.[444]

As exemplified above,[445] the legal systems of the PR China, the DR Congo, and the Latin American countries Argentina, Bolivia, and Chile exhibit both disparities and shared elements in their approaches to regulate in the context of extractive industries. For example, property rights and a comprehensive regulatory framework related to mineral resources, or their extraction have been established which recognise, amongst others, state ownership, usufruct rights, and concession-based systems and aspects such as licensing, environmental protection, labour laws, and taxation as common features. Moreover, since the adoption of the Global Agenda 2030 environmental and social factors together with strict regulation in the extraction process gain more importance in these areas. Beyond that, these countries frequently have BITs in place to promote foreign investment in their extractive industries. However, while the PR China has a predominantly state-controlled system, where state-owned enterprises (SOEs) play a dominant role, Latin and South American countries, in contrast, tend to embrace market-driven models, with more involvement from private companies. When it comes to legal traditions, it is notable that the legal systems of China and the Latin American countries have civil law traditions, whereas the DR Congo combines elements of civil law and customary law due to its historical context. These diverging structures also influence the climate for foreign investors. While there is a great interest of China in fostering foreign investment with their own participation, Latin American countries have experienced fluctuations in their approaches, including nationalisations and protectionism in some cases. In any case, in the EU the common trade policy of the Commission and the external relations, as rooted in the diplomatic services, are responsible motors for the development to those countries.

[442] OECD (n 421), 8, 16.
[443] OECD (n 421), 51f.
[444] EITI, Panning for Data: Artisanal and Small-Scale Mining (ASM) in EITI Countries (2018), 4.
[445] See Chapters B. I. 2. C. 1) – 3) of this thesis.

Yet, the influence of soft law, especially sustainability and environmental standards is notable too. All these countries' legal systems absorb and help produce global soft law instruments and principles focusing on sustainability, environmental standards and human rights. For instance, the Paris Agreement or the United Nations Guiding Principles on Business and Human Rights, which are fundaments of the Global Agenda 2030, have directly and indirectly shaped their legal frameworks. They exert influence on legal systems globally by providing a framework for sustainable development, climate action, and international cooperation, amongst others, through the incorporation in or amendments of domestic legislation, or the development of specific strategies to achieve the SDGs. These often lead to changes in domestic laws, through institutional changes or in reporting mechanisms.[446] The adoption of international sustainability and responsible business principles, influenced by soft law and standards, is evident in the operations of extractive industries in these countries. For instance, the International Council on Mining and Metals (ICMM) standards, adopted globally, reflects a commitment to enhancing environmental and social practices in the extractive sector. ICMM is adopted by "27 mining and metals company members and over 35 national, regional and commodities association members"[447] which equates to approximately one third of the global mining and metals industry to enhance environmental and social practices in the extractive sector. However, while the DR Congo is member of the broader EITI principles, the more specific ICMM by now is not directly acknowledged by Congolese businesses despite some international businesses which are mining in the DR Congo following these standards. Similarly, this applies to the PR China and Latin American countries Argentina, Chile and Bolivia.

While disparities exist in these countries' legal systems, shared elements allow soft law and standards to influence the adoption of international sustainability and responsible business principles. This dynamic state of transition lays the groundwork for a possible shift towards a greener and socially responsible extractive industry where sustainability standards, be they of public or private law nature, are provided agile development spaces. Various legal frameworks operating within such distinct systems are nevertheless connected via international law and its principles, affected by state sovereignty as well as diplomatically through their internal and external ambitions. Achieving an equilibrium is paramount to the promotion of peace, sustainable development and state sovereignty at the same time However, this view must be critically scrutinised, specifically in light of the principles of

[446] See e.g. the Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (Escazú agreement), Adopted at Escazú, Costa Rica, on 4 March 2018 which directly refers to the Global Agenda 2030 and the decade-long UN outcome documents regarding sustainable development; Bundes-Klimaschutzgesetz [Federal Climate Protection Act], Federal Climate Protection Act of 12 December 2019 (Federal Law Gazette I p. 2513), which was amended by Article 1 of the Act of 18 August 2021 (Federal Law Gazette I p. 3905) which in § 1 directly refers to the Paris Agreement.

[447] EITI / ICMM, <https://eiti.org/supporters/international-council-mining-and-metals#:~:text=Bringing%20together%2027%20mining%20and,enhancing%20mining's%20contribution%20to%20society> (last accessed: 08.02.2024).

international law, which in contemporary interpretation might doubtfully ask for equity to prevail. Furthermore, the respective state practice must be anticipated, especially in view of the fact that various initiatives, such as the BRI of the PR China, are criticised for this very reason.[448]

(bb) Balancing Sovereignty

The principles of public international law, namely territorial sovereignty, res nullius[449], res communis[450], and the common heritage of mankind[451] collectively define the parameters within which states navigate the extraction and utilisation of natural resources. The historical concession framework, where transnational corporations assumed a quasi-sovereign role over a host country's resources, reflects the dynamics of the international economic order. Extending beyond territorial boundaries, the principle PSONR also reflects a human rights dimension. PSONR, rooted in customary international law, recognises the rights of indigenous communities, and grants them a say and opportunities to participate in the use of natural resources in their territories.[452] The question of a state's sovereignty over its own territory[453] and over the ownership of natural resources[454] also finds expression in judgments such as the ICJ Armed Activities on the Territory of the Congo.[455]

Shared Resources and Legal Extraction

Shared resources pose unique challenges as their use demands state obligations. These encompass notification, information, and consultation as well as strict environmental impact assessments. The equitable and reasonable use of shared resources is permitted, while any exclusion or extensive cross-border extraction is deemed unlawful. In the case of fossil, metallic, and mineral resources, however, every state has the right to utilise these re-

[448] Chesterman, 'Can International Law Survive a Rising China?' (2020), 31(4) *European Journal of International Law*, 1507-20.
[449] Res nullius refers to a situation that is no one's concern, see Kempe, Michael and Robert Suter (eds), *Res Nullius: Zur Genealogie Und Aktualität Einer Rechtsformel* (Duncker & Humblot GmbH, 2015).
[450] An area of territory that is not subject to legal title of any state such as the High Seas or outer space, Oxford Reference, <https://www.oxfordreference.com/display/10.1093/oi/authority.20110803100408305> (last accessed: 11.02.2024).
[451] Resources of certain areas "lie outside the limits of national jurisdiction", Wolfrum, The Principle of the Common Heritage of Mankind (1983), 43 *ZaöRV*, 312-37.
[452] General Assembly resolutions 837 (IX), 1314 (XIII), 1803 (XVII) of 14 December 1962, "Permanent sovereignty over natural resources" and 2692 (XXV), where the General Assembly refers to "peoples and nations"; General Assembly, Implications, under international law, of the United Nations resolutions on permanent sovereignty over natural resources, on the occupied Palestinian and other Arab territories and on the obligations of Israel concerning its conduct in these territories, para. 15(b).
[453] Art. 2(1), 2(4), 2(7) UN Charter in conjunction with Art. 42 of the Hague Regulations of 1907.
[454] General Assembly resolution 1803 (XVII) of 14 December 1962, "Permanent sovereignty over natural resources".
[455] Armed Activities on the Territory of the Congo (*Democratic Republic of the Congo v. Uganda*), judgment of 9 February 2022 (I.C.J. Reports 2022, p. 13), paras. 168, 259-366.

sources within its borders. This means, while legal extraction is permissible, as demonstrated in cases like Dederer,[456] instances where it violates human rights underscore the need for a nuanced legal approach. This framework primarily concerns the right to dispose of raw materials, emphasising responsible and sustainable extraction practices without compromising the integrity of surrounding ecosystems.

In the theoretical consideration of where overlaps can arise in the sovereign action of a state, various concepts come to mind: With regard to fiduciary aspects, the concept of a state acting as a trustee over natural resources is one of them. Following from this, the common concern of humankind plays a significant role. This concept, which also includes the climate and biodiversity, for example, complicates the legal discourse. In the search for transitional solutions, the introduction of regulations on state liability is one possible way forward. If governments have to compensate damage caused by marine pollution and then hold private companies accountable, this can mean a gradual change in the legal framework that is also in line with evolving global expectations regarding critical commodity supply chains.[457] However, such an overlap between sovereignty and international law in the extractive industry requires a nuanced approach. Influential players such as China, with its leading companies in the value chain, emphasise the need to delineate complexity and emphasise responsible resource management. An overarching principle that determines this delicate balance is the principle of DNSH which constitutes a commandment designed to ensure that a state's pursuit of resource extraction does not inflict harm (or damage) on other states.[458] A distinction must be made between territorial state sovereignty and permanent sovereignty over its natural resources (PSNR). The latter, rooted in customary international law, emerged as a response to the decolonisation process and the aspirations of newly freed states for economic development and independence. This principle, enshrined in UNGA/RES/1803 (XVII) (1962), echoes in human rights instruments, even extending to non-state entities, such as indigenous peoples, to dispose of natural resources.

The interplay of sovereignty extends beyond state borders, particularly in the case of coastal states. For instance, UNCLOS delineates zones, from the coastal area to the Exclusive Economic Zone, where sovereignty is asserted, yet constrained by international agreements and human rights obligations. As mentioned before, shared resources, such as common river currents or migratory animals, introduce the need for a collaborative dimension. The Pulp Mills case serves as an illustrative example, establishing state obligations of notification, information, and consultation. It underscores that while the equitable and

[456] High Court of Australia, *Roads and Traffic Authority of NSW v Dederer* [2007] HCA 42; 2007) 234 CLR 330 (30 August 2007).
[457] See a similar thought in: Willemez in Mauerhofer, *Sustainability and the Law*, 29.
[458] *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, ICJ Reports 1996, 226, para. 29.

reasonable use of shared resources is permitted, exclusion or extensive cross-border extraction is deemed unlawful. However, the dynamics change when dealing with fossil, metallic, and mineral resources. Here, every state is permitted to use such resources within its borders, emphasising the principles of resource sovereignty up to the Earth's core. Yet, potential violations of borders necessitate specific resolutions on a case-by-case basis. In cases of legal extraction by private actors that unintentionally violate human rights, as the findings conveyed by Dederer show,[459] emphasises the importance of reconciling resource extraction practices with the principles of sustainability. This not only involves protecting the resources to be extracted, but also the ecosystems that surround them. Rather, this raises (at least) the crucial question: does sustainability require a state based on trust? This is reminiscent of the German constitutional article 14 II Grundgesetz [German Basic Law – GG] which raises the question of whether the state's fiduciary obligation towards natural resources should go beyond the mere exploitation of resources. A clear illustration of this is the previous standard case within the extractive industries where the concession represented the classic contractual framework in the commodities sector (oil, hard minerals, timber, etc.). The transnational company operating under the concession made a direct capital investment for the purpose of exploiting a specific natural resource. In many cases, the concession was tantamount to a de facto takeover of sovereignty over the host country's natural resources by transnational corporations.[460] This brief excursion into just a few examples show an immense practical significance and illustrates that the balancing act between sovereignty and principles of international law in the extractive industry is a multi-faceted challenge. The evolving landscape requires a nuanced approach that protects state autonomy and its right to regulate while ensuring responsible and sustainable resource management on a global scale. In a similar sense, the *Pulp Mills* case exemplified the joint use of a river and mutual interference. In this case, it had been established that states are obliged to notify, inform and consult as well as lead environmental impact assessments,[461] and that solely the *equitable and reasonable* use of shared resources is permitted.[462] An exclusion[463] of usage or the significant cross-border extraction[464] of resources, however, is unlawful. By contrast, the situation regarding fossil, metallic and

[459] Dederer, 'Rohstoffausbeutung, -bewirtschaftung und -verteilung aus Sicht des Völkerrechts' in Ehlers et al., *Rechtsfragen des internationalen Rohstoffhandels* (Fachmedien Recht und Wirtschaft, Frankfurt am Main 2012), 45 (see esp. fn. 47).
[460] Asante, 'Restructuring Transnational Mineral Agreements' (1979) 73 *AJIL*, 335 (338).
[461] *Case Concerning pulp mills on the River Uruguay (Argentina v Uruguay)*, ICJ Judgment (20 April), para. 204; *Responsibilities and Obligations of States Sponsoring Persons and Entities with respect to Activities in the Area*, Advisory Opinion, 1 February 2011, para. 99 ff.
[462] *Case Concerning pulp mills on the River Uruguay (Argentina v Uruguay)*, ICJ Judgment (20 April), para. 177 (sustainable balance between protection and use of the resource); see also Art. 13 ILA Berlin Rules on Water Resources; and pertaining to the strict equality of users, see: *Territorial Jurisdiction of the International Commission of the River Oder*, PCIJ, Series A No 23, 27 unless there exist properly acquired rights which could be weighed out.
[463] *Gabcikovo-Nagymaros Project (Hungary v Slovakia)*, ICJ Judgment, ICJ Reports 1997, 7, para. 85.
[464] Art. 12 I, 16 ILA Berlin Rules on Water Resources; see also *Case Concerning pulp mills on the River Uruguay (Argentina v Uruguay)*, ICJ Judgment (20 April), para. 177.

mineral resources is different. In principle, every state is allowed to use natural resources in their solid state to the core of the Earth. This enables the usable share of each state to be calculated even for liquid or gaseous natural resources. At most, a violation of the border is likely to be problematic in specific cases, but equally amenable to being resolved.

3. Potential Entry Points of Standard Setting for Extractive Industries

Identifying potential starting points is intended to provide a basis for regulating and setting standards in the extractive industry on the one hand and emphasise its meaningfulness for businesses on the other. This will also support the reasoning for the simplified standard-setting described later in this study.[465] Starting points include different phases of the extraction process, each of which presents different challenges and opportunities for effective governance.

1) Contract initiation: Negotiating Extraction Agreements

The initiation of extraction contracts serves as a fundamental entry point for regulation and standard setting. During the negotiation phase, governments and mining companies have the opportunity to set clear conditions that are in line with sustainability goals. From a legal perspective, the inclusion of environmental and social standards in extraction contracts is essential. However, such a process presents challenges, as the balance between attracting investment and safeguarding environmental and social interests must be critically reflected on, particularly regarding the effectiveness (or enforceability) of such standards, e.g., through the inclusion of dispute resolution mechanisms.

2) Commissioning of the mine: Operational Phase and Compliance

During the operational phase, the regulatory focus shifts to compliance with established standards. A solid legal framework should require environmental impact assessments, labour practices and community involvement throughout the mine's operational life. Effective enforcement mechanisms and regular monitoring are essential at this stage. In practice, legal instruments such as compliance audits and penalties for non-compliance enable ensuring industry adherence to standards. A critical assessment of the legal infrastructure supporting these measures is necessary to avoid regulatory gaps and ensure continuous compliance.

3) Mine Closure and Follow-up: Remediation and Post-Closure Obligations

The closure of a mine is crucial for the implementation of previously issued regulations and further regulatory interventions. Mine closures are usually accompanied by comprehensive wind-down plans, including environmental remediation and post-closure obligations. Among other things, mechanisms are established to financially secure the remedia-

[465] See Chapters C. III. and E. I. of this thesis.

tion costs for which companies are responsible. From a practical perspective, legal requirements for progressive reclamation and community involvement in the decommissioning process can improve the long-term sustainability of mining operations. Critical in this regard is the enforceability of post-closure obligations and the clarity of legal provisions to address potential disputes that may arise during or after the closure of a mine.

Businesses should operate on principles that avoid intransparency and corrupt practices internally, within their supply chains and with state actors.[466] The standards that accompany these activities must either enable or promote this. This means, identifying potential starting points for regulation and setting standards in the extractive industry requires strategic alignments of the regulatory framework to the different phases of the extraction process, be it legally hard or soft.[467] While the negotiation of extraction contracts forms the basis, robust mechanisms to ensure compliance are needed during the operational phase. In the decommissioning phase, legal provisions are required for remediation and ongoing obligations. In practical terms, regulation and standard setting must be measured by its enforceability, monitoring capabilities and ability to adapt to the evolving needs of industry and society. In order to translate these starting points into effective regulations, generally applicable principles, international standards, guidelines and international obligations, particularly with regard to sustainable development, must serve as a basis. With regard to companies operating in the EU, the relevant Union legislation, and principles or participation in a certification scheme recognised under the EU regulations must also be added.

II. Legal Principles of Standard Setting in Transnational Law

Assuming "[s]tandards [being] norms that are used to calibrate actions and behaviour"[468], standard setting in law constitutes one type of pursuing legal governance. Standard setting, within the legal landscape, is a structured process of formulating guidelines, protocols, or regulations that establish a uniform framework for operations, ensuring consistency, efficiency, and compliance across varying jurisdictions. Consequently, standard setting, in this context, forms a backbone for regulatory frameworks and governs activities, trade, and interactions of most diverse actors. More specifically, in transnational law, the creation, implementation, and enforcement of standards enables harmonising practices amidst actors of different jurisdictions and legal systems including legislative bodies, regulatory agencies, industry experts or international organisations. From a systematic point of view, standard setting structures (in transnational law) consist of meticulous deliberations, consultations, and evaluations with the purpose of reconciling actions. Transnationally created standards are aimed at the smooth functioning of the exchange relationship and are intended to avoid litigation. Transnational activities and the use of transnational mechanisms

[466] ITC, The Business Guide for Sustainability in Foreign Investments, 2.
[467] ITC (n 466), 8f.
[468] Hüpkes, International Standards in Cottier and Nadakavukaren Schefer, Elgar Encyclopedia of International Economic Law (2017), 558.

and standards created are hence self-created "law" of the private sector and also represent the quantitatively largest share of all financing and investment situations, which will be discussed in more detail later in this study. The much smaller proportion, i.e., the exception, refers to cases that can be identified (if at all) on the basis of dispute proceedings. Consequently, the study of transnational law, its relationships and the prerequisites for the creation of standards is therefore indispensable in order to understand practical events and issues.

Beyond this purpose, the standards established within the purview of transnational law serve as instrumental tools in realising sustainable development and sometimes more directly the objectives outlined in the Global Agenda 2030 and the SDGs. For a standard to effectively contribute to this agenda, it must embody principles of environmental sustainability, social responsibility, and economic viability.[469] These standards should be understood to be dedicated to international standards in this regard already set[470] and drive practices towards environmentally friendly resource management, promote social equity, and foster economic growth within a sustainable framework. In the context of strategic raw materials vital for the EU's transition to a carbon-neutral continent, standards aligned with the Global Agenda 2030 and the SDGs need to ensure responsible extraction, utilisation, and management of these resources. Legal embedding and contextualisation of standards, therefore, become crucial to drive sustainable practices and contribute significantly to the attainment of such targets. This results in the following principles:

1) Drawing key principles from the Global Agenda 2030, this framework should transcend geographical boundaries, providing a universally applicable structure. Such abstraction guarantees consistent interpretation and implementation in so that a shared comprehension of the legal imperatives associated with the SDGs emerge.[471]
2) The standard needs to adapt an interconnected goal integration through abstraction. Recognising the inherent interconnectedness among SDGs, each standard should be meticulously designed, acknowledging the positive impact actions aligned with one goal can have on others. This abstraction avoids isolated efforts which is demanded by the holistic approach of the Global Agenda 2030 itself.
3) The standard must be quantifiable and transparently indicate its metrics to be measurable and allow for identifying achievement.[472] This precision facilitates effective monitoring and evaluation, ensuring accountability and transparency. Moreover, inclusive stakeholder engagement needs to be incorporated as a principle. Drawing from the

[469] A/RES/70/1 (n 2), see preamble and para. 2.
[470] See A/RES/70/1 (n 2), para. 67.
[471] Here, the work of Huck (n 18) supports the understanding of legal substance, definitions, judicial interpretations and practical evidence of the Global Agenda 2030 and the SDGs.
[472] See Huck (n 164, Transformation of SDGs); Huck (n 347, Measuring SDGs), 8ff.

> Global Agenda's call for partnerships and leaving no one behind, this abstraction demands the active involvement of governments, businesses, civil society, and local communities.

Abstracting from the Global Agenda 2030's demand for resilience and flexibility, the standard should then evolve in response to changing global circumstances and emerging challenges. Moreover, for ethical and equitable abstraction and principles from the Global Agenda 2030 to come into effect, the standard must abstract from the emphasis on reducing inequalities and promoting social justice. This ensures that legal provisions contribute to fair and inclusive outcomes. Also, standards need to incorporate an integrated policy coherence to comply with the demand for policy alignment set in the Global Agenda 2030. Consequently, the standard should promote consistency in legal frameworks to support sustainable development across sectors. The Global Agenda 2030 also emphasises the rule of law and accountable institutions. Therefore, the standard must adhere to international norms, thereby promoting peace, justice, and strong institutions (through good governance). Finally, the standard needs to be designed in an agile manner in so that it has the capacity to adapt to changing regulation or rapid global changes such as through political changes, economic alteration or natural disasters. Standards as well as the process of standard-setting must encapsulate the essence of the Global Agenda 2030 and translate its broad aspirations into precise, actionable provisions. At best, this follows an approach that clarifies the normative substance or legal meaning of its content. In this way, the standard serves as an effective instrument in achieving the SDGs' objectives while maintaining adaptability. To be able to understand this principles assumed to be valid, this sub-chapter aims to dissect the interlinkages and principles which underly the standard setting in the domain of transnational law with a particular focus on the strategic raw materials imperative for the EU's transition to a carbon-neutral continent.

1. Standard Setting in Transnational Law

Private Law in an International Context

Standardisation and standard setting have a particular practical significance in and for the private law in the international sphere. According to the International Organization for Standardization (ISO), standardisation is the process of creating standards (or provisions) "with regard to actual or potential problems for common and repeated use"[473] that guide the production of a good or service based on consensus among all stakeholders. In more detail, the ISO/IEC Guide 2:2004 *generally* defines a standard for all practical purposes to be a

> "document, established by consensus and approved by a recognized body, that provides for common and repeated use, rules, guidelines or characteristics for activities or their results,

[473] International Organization for Standardization and International Electrotechnical Commission (ISO/IEC), ISO/IEC Guide 2, 'Standardization and Related Activities – General Vocabulary' (Geneva 2004), 8.

> aimed at the achievement of the optimum degree of order in a given context. Note: Standards should be based on the consolidated results of science, technology and experience, and aimed at the promotion of optimum community benefits."[474]

Therefore, generally, standards have the potential to foster cooperation and coordination if they do not overlap, duplicate, contradict, are inconsistent or burdensome for its users.[475] More specifically, *private* standards can be understood

> "as standards developed by private entities such as companies, non-governmental organizations or multi-stakeholder coalitions. These standards may vary in scope, ownership and objectives. Objectives range from environmental conservation, ensuring food safety, protection of social and human rights, to promoting good agricultural and manufacturing practices. Private standards can be numerical standards defining required characteristics of products such as contaminant limits or maximum residue limits, or process standards prescribing the production processes (including performance objectives) or pertaining to management system and documentation requirements."[476]

Standards created by private organisations or institutions are already in place, all of them seeking to facilitate the interpretation and translation and transfer of global norms and frameworks such as human rights or environmental rights into business activities. For instance, in the extractive industries, multinational businesses across various sectors, including mining and oil, voluntarily adhere to the ISO 14001 Environmental Management Standard.[477] This standard sets guidelines for environmental management systems, ensuring businesses maintain eco-friendly practices irrespective of the legal systems in different countries with some measurable positive effects in pollution mitigation.[478] Since 2011, the United Nations Guiding Principles on Business and Human Rights (UNGPs)[479], proposed by UN Special Representative on business and human rights John Ruggie, and endorsed by the UN Human Rights Council in June 2011[480], influence industries globally. By outlining the responsibility of businesses to respect human rights through implementing a

[474] Art. 1.1 of the ISO/IEC Guide 2 (2004), 38.
[475] See UN Principles for Responsible Investment, Collaborating through industry initiatives, <https://www.unpri.org/social-issues/tackling-human-rights-risk-in-the-cobalt-supply-chain-through-industry-initiatives/2980.article> (last accessed: 04.10.2023).
[476] International Trade Centre (ITC), The Interplay of Public and Private Standards Literature Review Series on the Impacts of Private Standards – Part III (2011).
[477] ISO, ISO 14001:2015, <https://www.iso.org/standard/60857.html> (last accessed: 03.01.2024).
[478] See Goerger, 'The Effectiveness of Environmental Management System Standards' (2021), *Env L, Pol & Gov eJournal* (SSRN), 33f.
[479] A/HRC/17/31, Report of the Special Representative of the Secretary General on the issue of human rights and transnational corporations and other business enterprises, John Ruggie, Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework, Annex, 6-27.
[480] A/HRC/RES/17/4, Human rights and transnational corporations and other business enterprises, 6 July 2011.

three-pillar-framework (respect, protect, remedy)[481], businesses operating in diverse legal environments are supported in how to understand human rights and spurred to align their practices with these principles, promoting ethical conduct and upholding human rights in their operations. Furthermore, the more sector-specific Extractive Industries Transparency Initiative (EITI)[482] forms a global standard for governing natural resources, ensuring transparency and accountability in the extractive sector. Participating countries and industries follow EITI guidelines to disclose payments and revenues from natural resource extraction, enhancing accountability and reducing corruption. These frameworks and standards serve as guidelines that industries and businesses align with, promoting a degree of uniformity and ethical conduct in their operations regardless of the legal systems they operate within.

Standards in Public International Law

Standards in the international sphere can originate from the domain of private law, such as those created by private institutions. In addition, (quasi-)global standards can also originate from the domain of international public law and be subject to regulation in the process of their development. World trade law, for example, stipulates that standards are deemed to follow the so-called "TBT six principles". Based on the Code of Good Practice for the Preparation, Adoption and Application of Standards as part of the WTO Agreement on Technical Barriers to Trade (TBT Agreement), these six principles "widely followed by standards bodies seeking international relevance [and notified to ISO/IEC] cover: transparency, openness, impartiality and consensus, effectiveness and relevance, coherence, and the development dimension."[483] Accepting and implementing the Code of Good Practice for the Preparation, Adoption and Application of Standards and the principles is equally open to any standard-setting body whether a central government body, a local government body, or a non-governmental body".[484] The transparency required in this area of public international law (i.e. WTO law) is generated through the early dissemination of data via single entry points and notification procedures before the WTO.[485] However, several differences occur between the ISO/IEC and WTO approaches. While the latter includes consensus as a requirement and with the "WTO's TBT Agreement mainly focuses on the compatibility of standards with international trade, the ISO guide provides general advice on procedures for the development of standards and participation in the standards-

[481] The UN Working Group on Business and Human Rights, The UN Guiding Principles on Business and Human Rights: An Introduction (2011), 2; Business & Human Rights Resource Centre, <https://www.business-humanrights.org/en/big-issues/un-guiding-principles-on-business-human-rights/> (last accessed: 03.01.2024).
[482] EITI, <https://eiti.org/documents/eiti-principles> (last accessed: 03.01.2024).
[483] WTO, Principles for the Development of International Standards, Guides and Recommendations, <https://www.wto.org/english/tratop_e/tbt_e/principles_standards_tbt_e.htm> (last accessed: 04.11.2023).
[484] TBT, 1868 U.N.T.S. 120 (Agreement on Technical Barriers to Trade), Annex 3 "Code of Good Practice for the Preparation, Adoption and Application of Standards", B.
[485] WTO, <https://www.wto.org/english/res_e/statis_e/itip_e.htm> and <https://notifications.wto.org/en> (each last accessed: 03.01.2024).

development process."[486] Another example of almost global standard setting can be seen in the so-called Paris Agreement[487] which bears objectives in the area of climate change mitigation. Industries involved in resource extraction worldwide align with the Paris Agreement by implementing strategies to reduce greenhouse gas emissions to minimise their environmental impact. In the form of a legally binding international treaty, the Paris Agreement influences states, and thus the businesses therein, to adopt sustainable practices despite differing legal landscapes.

Standards in an EU Context

In the EU context, transnational standard setting is particularly inherent to the EU's political understanding and actions. While the EU had already sought to be a formative standard setter beyond its borders in 2007,[488] its current policy recognises the need for private actors to create transnational standards, particularly for the purpose of sustainability transformation.[489] At that time, the European Commission intended to use EU external powers to set "a reference for global standards", fostering "high quality rules and values around the world" that could be used as a reference point for third countries.[490] The conjecture was that such rules would eventually lead to a "convergence to the top" instead of a "race to the bottom" in the international arena.[491]

According to the European Commission, "standards are technical specifications defining requirements for products, production processes, services or test-methods".[492] Regularly, these specifications are developed by industry and market actors following some basic principles such as consensus, openness, transparency and non-discrimination. Generally, the European Standardisation Organisations (CEN, CENELEC, ETSI or EFRAG) are responsible for European Standards which can be used to support EU legislation and policies. This initial situation in the EU shapes certification, labelling schemes, practices,

[486] <https://www.ecologic.eu/sites/default/files/publication/2016/201-54_final_report.pdf> (last accessed: 05.01.2024), 20; see also: Micklitz (n 309), 290f.
[487] Paris Agreement to the United Nations Framework Convention on Climate Change, Dec. 12, 2015, T.I.A.S. No. 16-1104.
[488] European Commission (EC), Commission staff working document - The external dimension of the single market review, COM(2007) 724 final.
[489] See e.g. EC, Database on transnational company agreements, <https://ec.europa.eu/social/main.jsp?catId=978&langId=en> (last accessed: 03.01.2024); Cremona and Micklitz, Private Law in the External Relations of the EU (2016).
[490] EC, Commission staff working document - The external dimension of the single market review - Accompanying document to the Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - A single market for 21st century Europe {COM(2007) 724 final}, 3.
[491] EC, Commission staff working document - The external dimension of the single market review, COM(2007) 724 final, 2; see also: Cremona and Micklitz, Private Law in the External Relations of the EU (2016).
[492] EC, European standards, <https://single-market-economy.ec.europa.eu/single-market/european-standards_en> (last accessed: 03.01.2024).

codes, and standards, which, one the one hand, build on existing EU sustainability legislation or shape such legislation, on the other.[493] One example here includes the EU's anti-greenwashing standards, which explicitly aim to initiate further (and therefore voluntary) commitments in the private sector or to substantiate green claims. The European Commission has put forward a directive to regulate green claims, setting out comprehensive rules for the validation, communication and endorsement of *voluntary* environmental claims and labelling used by traders selling products to consumers in the EU. The proposed directive complements previous initiatives from 2022 designed to amend EU consumer protection laws to combat unfair commercial practices that discourage consumers from making sustainable consumption choices. Beyond that, it may provide the basis for enforcement action and collective redress under the EU's New Deal for Consumers.[494] The EU thus embraces and supports transnational standards with its own legislative instruments. While such standards may result in technical provision or in other soft law, amongst others, in ethical or sustainable schemes, guidelines or codes of conduct. With regard to the extractive industries, an example can be found in the principles for sustainable raw materials, which were developed "to align the understanding of sustainable raw materials extraction (from exploration to post-closure) and processing operations in the EU amongst its Member States and define the general direction towards the SDGs".[495]

Transnational Law in the European and Global Context

Considered to be particularly critical for sustainable transitions include the dynamic areas of investment and financial law in the extractive industry.[496] Global supply chains are associated with challenges, interactions and conflicts between different legal systems, legal regimes[497], and actors. Key actors for the EU are the PR China, the DR Congo and the Latin American countries Argentina, Bolivia, and Chile. Their legal systems and applied measures (besides other influential actors[498]) reveal legal disparities and shared elements, offering most complex interrelations.[499] Therefore, elements of a comparative approach are considered useful to apply a *ratio legis* to the to the assumed functionalities[500] of the

[493] Cantero Gamito and Micklitz, The role of the EU in transnational legal ordering. Standards, contracts and codes (2020), 2ff.
[494] COM(2018) 183 final, Communication - A New Deal for Consumers, 11.04.2018; and unter the Green Claims Directive: European Parliamentary Research Service (EPRS), 'Green claims' directive Protecting consumers from greenwashing, BRI(2023)753958.
[495] EC, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, EU principles for sustainable raw materials (2021).
[496] COM(2020) 474 final (n 23), 8, 14, 16; see also: COM(2021) 66 final (n 6), 12.
[497] Such as Human Rights, transnational law, investment law, finance (law).
[498] Such as WTO, World Bank, UNCTAD.
[499] Riesenhuber, 'Rechtsvergleichung als Methode der Rechtsfindung?' (2018) *AcP 218*, 693 (696).
[500] Within the deployed functional method, epistemological, presumptive, systematising, evaluative, unifying and critical functions of comparative study in particular are assessed as purposeful and applied; Michaels, 'The functional Method of Comparative Law' in Zimmermann and Reimann (eds), *The Oxford Handbook of Comparative Law*, 339-382 (2006).

respective laws and allow for integrating these (and soft law) with the affected life realities, and in this way generate a more profound comprehension.[501] However, reconciling the fundamentally different legal systems under consideration[502] needs a broader understanding of the methodology, such as teleological interpretation to accommodate the innate international features of transnational law attempting to create a "consistent and coherent"[503] picture of legal reasoning. Transnational law significantly influences the regulation of extractive industries and thus, the legal systems of the PR China, the DR Congo, and the Latin American countries of Argentina, Bolivia, and Chile (which are major CRMA suppliers to the EU). In the context of multipolar global supply chains, harmonising effects are notable in regulation and to a higher degree in these diverse legal frameworks.

a. Forms of Standards Creation and Standard Setting Infrastructure

The process of standard setting in transnational law involves various mechanisms that promote cooperation between international organisations, governments, industry associations and other stakeholders. These bodies set soft law standards that transcend national boundaries and create an infrastructure that amalgamates various expertise and regulatory approaches. In the context of sustainability standard setting for the extractive industry and strategic raw materials in the EU, this network includes several 'building blocks' and 'conceptual guidelines'.[504] The EU's conceptual guidelines are planned to "addressing public good alignment, expected qualitative characteristics of information, relevant time-horizons, clear boundaries, double materiality and connectivity between financial and sustainability reportings"[505] to achieve coherence and consistency in implementing the sustainability infrastructure. In doing so, private transnational regulation "transpose[s] public requirements into directly applicable provisions[506] and in this way creates comparability with those of public authorities. While "[s]tandard-setting is generally carried out based on a conceptual framework. Six concepts are particularly relevant to sustainability reporting in the EU and would need to be operationalised through 'conceptual guidelines'."[507]

Forms of Standards

A distinction must first be made between the type of standards, as the form of (legal) binding nature depends on the area of law or application. Standards come in different

[501] Siems (n 37), 147 (152, 155).
[502] Siems (n 37), 147 (154).
[503] Siems (n 37), 147 (149).
[504] EFRAG, Proposals for a Relevant and Dynamic EU Sustainability Reporting Standard-Setting, Final Report (2021), 7, 40-59.
[505] EFRAG, Proposals for a Relevant and Dynamic EU Sustainability Reporting Standard-Setting, Final Report (2021), 3.
[506] Partiti, 'Evolutionary Dynamics of transnational Private Regulation' (2021) DP 2021-013 TILEC Discussion Paper, 4.
[507] EFRAG, Proposals for a Relevant and Dynamic EU Sustainability Reporting Standard-Setting, Final Report (2021), 7ff.

forms, categorised based on their nature or application. Depending on the perspective, the categories are not exhaustive, overlap to some extent or a standard belongs to several categories at the same time. Normative standards, including business and human rights and legislation, are legally binding. Other standards, such as those set by multi-stakeholder bodies, co-operative standards and codes of conduct, fall into the category of non-binding standards. Standard-setting approaches include various methods of development and different expectations regarding their compliance such as legal requirements (legislation and mandatory standards – LMS), voluntary sustainability standards (VSS) and corporate social responsibility (CSR) activities.[508] Accordingly, as one approach, standards can be categorised by considering the type of the standard-setter who brought the standard into existence. For the relevant standards in this field of investigation, this can be classified as follows:

1) Standards set by a legislator or legitimised quasi-legislator ('*normative standards*')
   - Business and Human Rights
   - Legislation and domestic law
2) Standards set by private (international) organisations or actors ('*other standards*')
   - Multistakeholder bodies that form global principles and criteria
   - Cooperative Standards
   - Codes of Conduct

This in turn translates into different approaches to manage compliance where either legal requirements such as LMS, VSS or CSR activities as additional, internal form of standardisation steer the behaviour of actors. In the context of this study, this can be figured into the more detailed matrix as follows:

- Normative Standards
  - Legislative Standards
    Legislative framework defined by the EU or national legislators
    These may also steer the behaviour of stakeholders towards sustainable practices within investment contracts, including within areas protected by private autonomy.
  - Contractual Standards
    Investment treaties, such as International Investment Agreements (IIAs) and Bilateral Investment Treaties (BITs), amongst others, establish contractual standards that influence and guide the behaviour of the parties involved.
- Voluntary Standards
  - Voluntary Sustainability Standards (VSS)

[508] See e.g. ITC, The Business Guide for Sustainability in Foreign Investments, 8f.

The dissemination of VSS in many sectors support shaping and promoting sustainable practices, despite the sheer number and complexity of these standards

- Quasi-Voluntary Sustainability Standards (qVSS)
  In addition to the traditional VSS, quasi-voluntary sustainability standards serve as an additional level of standardisation. However, in reality, these standards are not voluntary, as they determine business practice. Although they are not prescribed by law, they correspond de facto to application practice, from which there can be no deviation. Examples include customs among merchants to some extent, the FIDIC model contracts, e.g., for Construction, Plant and Design-Build or Engineering, procurement, and construction (EPC)/Turnkey contracts.

– Internal standards:
  - Corporate Social Responsibility (CSR) activities
    Internal standards set by companies as part of their CSR activities represent an additional, internally driven form of standardisation. These self-imposed standards serve as a guideline for the behaviour and practices of companies and reflect the commitment to sustainable and socially responsible behaviour in the investment context.
– Ethical standards
  - Ethical guidelines
    Beyond normative and voluntary standards, ethical guidelines encompass a broader set of principles that guide investment practices, amongst others. These may include considerations of human rights, ethical business behaviour and equitable economic development to ensure that investments comply not only with legal and voluntary standards, but also with overarching ethical principles. They represent the meta-level, i.e. the deliberations on standard development and standardisation.[509]

The mechanisms and infrastructure of standard-setting in transnational law must, at least in the context of the EU, be aligned with the priorities of the EU and global sustainability policy. Here, standard setting is based on the concept of the "public good" and emphasises the public interest in the regulatory process. When setting standards for sustainability reporting, overarching international agreements, global sustainability strategies, targets, standards and EU-supported developments should be taken into account. This alignment aims to promote consistency in sustainability reporting and improve the behaviour and reporting required of companies in order to support a sustainable future. In this regard, alignment of the European Sustainability Standards (ESS) refers to the consideration of key international agreements, including the 2030 Agenda for Sustainable Development,

[509] See Chapters A. I. 3. and A. II. 2. b. of this thesis.

the Paris Agreement on climate change, the International Labour Organisation (ILO) conventions, the UNGP and the OECD Guidelines for Multinational Enterprises. These international agreements, policies and standards are continuously prioritised and woven into Union policies and standard setting and possible alignment is monitored.

At an operational level, these are fundamental framework conditions to ensure effective standard setting. This includes integration and compatibility with existing EU regulations, consideration of reporting obligations and harmonisation with EU policies. Disclosures under the Non-Financial Reporting Directive (NFRD) or the soon to come Corporate Sustainability Reporting Directive (CSRD) and other relevant sustainability reporting obligations shall be conceptually robust and systematically analysable within the EU environment and improve data and cooperation. To this end, standardised indicators should be used across the EU to minimise unnecessary overlaps between different regulations and common indicators should be developed instead, also to avoid additional burdens. In particular, a strict evaluation based on principles and criteria for information quality should be used. Overall, aligning standards with EU and global sustainability policy priorities requires a systematic and coordinated approach that takes into account international agreements, existing regulations and overarching sustainability goals.

b. Examining the Nexus between Legal Systems and Transnational Standard Setting

Legal Systems

Legal systems are not abstract, but dynamic constructs expressed through an organised set of laws, norms, principles, rules, and values, which are related to each other and usually possess a hierarchy, although this may not always be clearly delineated. These systems are deeply influenced by the historically evolved "ideas, norms, beliefs, and values"[510] and the culture of the societies they govern, expressed by their own specific languages. These societal elements give rise to unique legal cultures, effectively shaping the legal landscape of a nation or a union of states. Resultingly, legal systems continuously evolve and adapt due to changing circumstances.[511] Although also referred to as a "legal family", which may express a common idea, it is the systematised structure that makes the term "legal system" appear more appropriate (in the context of this elaboration) in order to emphasise the "wholeness" of its idea. Accordingly, the unique evolution of legal systems manifests in perceivable structures and components mainly within public law, that collectively facilitate their functioning. These sub-systems include the judicial branch, interpreting laws ranging from constitutional laws to subsidiary regulations, and moreover, the legislative

[510] World Bank, World Development Report 2017, 102-7.
[511] Huneeus et al., 'Cultures of Legality: Judicialization and Political Activism in Latin America' (2010), 1118 *Univ. of Wisconsin Legal Studies Research Paper / STUDIES IN LAW AND SOCIETY* (2010), 7.

and executive branches responsible for law production and enforcement, as well as auxiliary societal functions that support the legal system.[512] Collectively, these structures and components govern the behaviour and actions of individuals and entities, whether private or public, within a given jurisdiction.[513]

Legal systems can be broadly categorised by their legal tradition into common law, civil law, and religious law.[514] These categories are not rigid and often overlap as nations draw from multiple systems based on their historical trajectories,[515] forming mixed systems. The historical context and the language of each nation shapes its legal system and influences how laws are interpreted and enforced within their borders.[516] Against this background, legally pluralistic systems are capable of creating interruptions. In legal pluralistic systems the coexistence of diverse autonomous legal orders is recognised either in the same territory or for the same group of people (or both).[517] This dichotomy might unintentionally produce legal inequalities and undermine the fundamental principle of legal equality.[518] For example, such systems can be found, amongst others, in South Africa, India, and Indonesia, where indigenous or customary legal systems exist alongside the national legal system. In South Africa, the legal pluralism between customary law and the modern legal system has raised concerns about potential inequalities, particularly in family law matters.[519] Similarly, India's legal system recognises both religious laws and civil laws, leading to complexities in matters such as marriage, inheritance, and personal status. Indonesia shows legal pluralism with its diverse ethnic groups, each following their customary laws alongside national laws.[520] Germany traditionally tolerates legal pluralism to some extent, for example, in professional chambers such as in chambers of industry and

[512] Ladeur, 'The Theory of Autopoiesis as an Approach to a Better Understanding of Postmodern Law, From the Hierarchy of Norms to the Heterarchy of Changing Patterns of Legal Inter-relationships' (1999) No. 99/3 *EUI Working Paper LAW*, 1-45; Merry, 'Legal pluralism' (1988), 22(5) *Law & Society Review*, 869-96.
[513] Notwithstanding that the term legal system can be understood manifold and through most different lenses; see Shapiro, Legality (2011), 5.
[514] Such as the canon law following the roman-catholic church, national secular laws or sharia law following the Muslim religion or sometimes other traditional systems such as in some African states which predate the occupation period. Further categories might be seen in indigenous legal traditions rooted in the customs and practices of specific cultural groups.
[515] See Hart, The Concept of Law, 3f.; Raz, 'The Identity of Legal Systems' (1971), 59(3) *California Law Review*, 795 (795).
[516] Koskenniemi, 'Why history of international law today?' (2004) 4 *Rechtsgeschichte*, 61 (63 ff.).
[517] Wolfrum, Legal Pluralism from the Perspective of International Law in Kötter et al. (eds), Non-State Justice Institutions and the Law: Governance and Limited Statehood (2015), 216.
[518] Tamanaha, 'Understanding legal pluralism: Past to present, local to global' (2008), 30(3) *Sydney Law Review*, 375-411; A certain kind of pluralism might be observed when there is a conflict of laws. In Germany, for example, private international law applies in this case based on the German Introductory Act to the Civil Code (EGBGB) and the Rome I, II (and III) Regulations.
[519] Merry, 'Review of Law, Custom, and Social Order: The Colonial Experience in Malawi and Zambia, by M. Chanock' (1988) 11(2) *APLA Newsletter*, 3–5; Phiri, 'A legal analysis of disjunctions between statutory and customary land tenure regimes in Zambia' (2022), 54(1) *Legal Pluralism and Critical Social Analysis*, 96-116.
[520] Fuller, 'Review of Competing Equalities: Law and the Backward Classes in India, by M. Galanter' (1988), 49(3) *The Modern Law Review*, 400-3.

commerce.[521] Introducing multiple legal systems may encroach upon the autonomy and consistency of the primary legal system,[522] creating challenges in its uniform interpretation and enforcement.[523] In these intersections of legal systems, certain legal regimes possess the ability to influence and challenge legal systems, their radiance and effectiveness, while simultaneously being exposed to the influence of those same systems. A legal regime, most basically, can be understood as "a system or framework of rules governing some physical territory or discrete realm of action that is at least in principle rooted in some sort of law."[524] By analysing transnational law as one of the most practically relevant legal systems affecting the extractive industry, it is examined which and how elements and developments of legal systems, in particular common law and civil law systems, influence (global) transnational standards.

International resource standards are profoundly influenced by the legal traditions and philosophies embedded in different legal systems. This section examines the legal traditions of key legal systems relevant to natural resources extraction, i.e., precedent-based common law, code-driven civil law, and treaty-oriented international law traditions, each exerting a unique influence on standard development and application. Exploring the historical origins and foundational principles of these legal systems unveils their contributions to standard setting in the field of natural resource extraction and contrasts their influence with the growing impact of non-governmental international standard-setting bodies. In this respect, the underlying values of the standards set and organisations as well as the perceivable values of the legal systems in question, particularly with reference to the extractive industries, are unravelled.

Beyond the classification of legal traditions, as broader legal influences, policy objectives, such as economic development, environmental sustainability, and public health, additionally impact standard setting. Legal frameworks and policy goals mutually influence each other,[525] showcasing how these frameworks align or diverge based on policy objectives. This direct interrelation emphasises the link between legal systems and standards. Generally, this relationship is more significant in systems demonstrating a robust willingness and capacity to accept and follow to the evolving drift line. However, international re-

[521] Wolfrum, Legal Pluralism from the Perspective of International Law in Kötter et al. (eds) Non-State Justice Institutions and the Law: Governance and Limited Statehood (2015), 217.
[522] Winter, Transnationale informelle Regulierung: Gestalt, Effekte und Rechtsstaatlichkeit in Calliess, Transnationales Recht Stand und Perspektiven (2014), 97.
[523] Twining, 'Normative and Legal Pluralism: A Global Perspective' (2009), 20(473) *Duke Journal of Comparative & International Law*, 473 (495); Griffiths, 'What is Legal Pluralism?' (1986), 18(24) *The Journal of Legal Pluralism and Unofficial Law*, 1-55; acknowledging this to be stated from the viewpoint of a Western European people assuming legal plurality to be less effective for upholding individuals' rights.
[524] Hurst, Understanding Legal Regimes, in: Hurst (ed.) *Ruling before the Law: The Politics of Legal Regimes in China and Indonesia* (2018), 21.
[525] Tomuschat, Democracy and the rule of law in Dinah Shelton, *The Oxford Handbook of International Human Rights Law* (2013), 469.

source standards do not materialise in isolation but are propelled by international agreements, treaties, and conventions that establish obligations and principles for signatory nations. The influence of international legal instruments on standardisation is evident in the shared standards and obligations produced across various bodies and committees, emphasising their role in this process. The endeavour to harmonise standards across jurisdictions are central to nurturing cooperation among nations and organisations, driven by legal mechanisms. The legal strategies employed reveal the complexity of global standard setting, standard setting actors and standard harmonisation initiatives.[526] More specifically, legal influences on resource standard setting are profoundly shaped by the interpretation and application of such standards. Several legal principles apply, such as the rule of law, proportionality, and non-discrimination, and guide the practical application of standards, with real-world case examples illustrating their impact. Beyond that, the enforcement of standards is critical in ensuring compliance with established standards. Regulatory authorities hold specific legal or de facto powers to monitor and enforce compliance with standards. Legal provisions granting these enforcement powers reveal the legal framework governing standard enforcement. Disputes in global resource standard setting necessitate mechanisms for resolution, including litigation, arbitration, and alternative dispute resolution methods. Notable legal cases have set precedents in standard-related disputes, highlighting the role of legal processes in dispute resolution.[527] As a further, more practical influence, innovation and technology intersect with standards, changing their scope of application.

Standards as Transnational Law

From the aforementioned, it can be derived that standards may relate to the spheres of public or private law and soft law which points to the heterogeneity of standard-setting infrastructure and mechanisms.[528] In the area of private transnational regulation, private standardisation "transpose[s] public requirements into directly applicable provisions"[529] and in this way creates comparability with the requirements of the public sector. In some cases, private transnational regulation exceeds public requirements[530] or covers additional or other topics. Regarding transnational standards in the pursuit of sustainability, these

[526] OECD/ISO, International Regulatory Co-operation and International Organisations: The Case of the International Organization for Standardization (ISO) (2016), 53.
[527] See e.g. cases highlighting challenges arising from private standard setting in natural resource industries, particularly in relation to sustainability, environmental impact, and corporate accountability: U.S. Supreme Court (USSC), *Kiobel v. Royal Dutch Petroleum Co.*, 569 U.S. 108 (2013); USSC, *Chevron Corp. v. Donziger*, No. 18-855 (2d Cir. 2021).
[528] See Federal Institute for Geosciences and Natural Resources [Bundesanstalt für Geowissenschaften und Rohstoffe – BGR], Sustainability Standard Systems for Mineral Resources: A Comparative Overview – 2022 (BGR 2022), Executive Summary and 15.
[529] Partiti (n 506), 4.
[530] Reference is made here to Jellinek's school of thought, which differentiates between the effect and validity of law and shows that "non-law" can also be effective and is sometimes even more effective than positive-law norms enacted by a state; see Jellinek, Allgemeine Staatslehre (3rd Ed., 1914), 337ff.

determine a habitus to be established, such as "criteria defining good social and environmental practices in an industry or product".[531]

Although transnational sustainability standards cannot be strictly delimited and consequently, cannot be substantially defined,[532] some systematic aspects, possible classifications and formal characteristics can be identified: By definition, these private standards are "designed and owned by non-governmental entities, be they for profit (businesses) or not-for-profit organizations".[533] Consequently, these private standards as a majority of sustainability standards are voluntary (VSS) in nature as they only exert effect for the declaring parties without being connected to legal consequences defined by a specific positive legal source or system. VSS follow a declared sustainability objective or an ethical objective or an objective otherwise defined as superior, which should correspond to at least one of the sustainability target levels (social, ecologic or economic). In this way, VSS exert gentle pressure on the behaviour within the respective acknowledging entity such as a company, thus performing a governance or steering function towards the aspired sustainable transition of the acknowledged standard.[534] In this context, VSS may operate within a sphere that is equally addressed by legislative standards at a different legal level. For instance, VSS objectives might align with the Paris Agreement, the SDGs, or the EU's Anti-Greenwashing framework.[535]

c. Standards in the Pursuit of Sustainability

The following section highlights the existing development of standards in the EU's critical raw materials supply as well as their links and effects in the context of the EU's general commitment to sustainability and against the backdrop of the SDGs. This section thus serves as a general introduction to the topic of standardisation and enables a region- or country-specific legal, political and social classification in the further course of the study.

Sustainability standard setting

Standards that are subject to the goal of sustainability have existed for some time and have been given renewed impetus in the course of various development and sustainability debates and with the adoption of the SDGs.[536]

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[531] ISEAL/WWF, Sustainable Development Goals and Fairtrade: The Case for Partnership (2015).
[532] Magers, Sustainable Investment Law – How to Legally Implement Sustainable Standards in Idowu et al. (eds), *The Future of the UN Sustainable Development Goals: Business Perspectives for Global Development in 2030* (2020), 310.
[533] Liu, Private standards in international trade: issues and opportunities (2009), 2.
[534] See Blankenbach, "Voluntary Sustainability Standards" in Negi et al., *Sustainability Standards and Global Governance: Experiences of Emerging Economies and the Sustainable Development Goals*, 19; see also: German Institute of Development and Sustainability, Making Supply Chains Sustainable, <https://www.idos-research.de/en/supplychains/> (last accessed: 03.11.2023).
[535] See A. III. c) 3) of this thesis; see also: Vallejo, Voyaging through Standards, Contracts, and Codes: the Transnational Quest of European Regulatory Private Law in Cantero and Micklitz, *The Role of the EU in Transnational Legal Ordering* (2020), 265-98.
[536] Blankenbach (n 534), 19.

In principle, these define a habitus to be anchored, such as "criteria defining good social and environmental practices in an industry or product".[537] However, it is difficult to assign them to a specific orientation. Sustainability as such cannot be strictly defined but encompasses a wide variety of fields of application. A fixed definition would stand in the way of achieving the goal and purpose of sustainability. Accordingly, it follows that sustainability standards cannot be strictly delimited and therefore cannot be substantially defined.[538]

However, a few systematic aspects, possible classifications and formal particularities can be identified: The vast majority of sustainability standards are voluntary, so-called voluntary sustainability standards (VSS). These VSS follow a declared sustainability objective or an ethical or other objective defined as superior, which should correspond to at least one of the sustainability objective levels (socially, ecologically or economically sustainable). VSS are adopted by the user, such as companies, NGOs or other public or private organisations, e.g. universities, administrative authorities, in a declaration that is usually publicly comprehensible and taken into account in the respective internal (strategic) decision-making process. These are implemented and publicised internally through "codes of conduct, transparency rules, labelling, promotion of innovative practices, sustainable public procurement and other measures."[539] This first form of VSS can be classified as "basic standards"[540], which exert gentle pressure on behaviour in the respective company and thus gently steer it.

Another characteristic of these basic VSS is that although their objectives may be linked to sustainability goals (or its levels), they often cannot be assigned to an overarching overall agenda and in particular not directly to the SDGs (ESG standards or Paris Agreement standards are cited as examples), even if the UN points to potentials and synergies and such a direct link is established in regional and national implementation. It is also hardly possible to make a statement about the (underlying) purpose of these basic VSS. In principle, they are intended to achieve behavioural control that is perceptible to the public. A further purpose is named in the literature with the empowerment of consumers.[541] At the same time, it often remains unclear how effective basic VSS are. Their exact design, in particular the inclusion of all relevant stakeholders (multi-stakeholder approach) and the seriousness of the implementation efforts determine this significantly.[542] However, labelling in particular is noticeably associated with greenwashing and an increase in intransparency. Although various initiatives within the EU and its member states are attempting

[537] ISEAL/WWF, Sustainable Development Goals and Fairtrade: The Case for Partnership (2015).
[538] Magers (n 532), 310.
[539] German Institute of Development and Sustainability, Making Supply Chains Sustainable, https://www.idos-research.de/en/supplychains/ (last accessed: 02.02.2024).
[540] German Institute of Development and Sustainability, Making Supply Chains Sustainable, https://www.idos-research.de/en/supplychains/.
[541] Blankenbach (n 534), 19.
[542] Blankenbach (n 534), 20.

to create clarity, the actual social benefit within a supply chain as a whole is either not comprehensible or is only comprehensible in a distorted manner.

SDGs and Sustainability Standard Setting

The SDGs, including their sub-goals, do not contain any independent references to the application or creation of new standards. However, the resolution surrounding them contains the following reference within the means of implementation:

> "We will foster a dynamic and wellfunctioning business sector, while protecting labour rights and environmental and health standards in accordance with relevant international standards and agreements and other ongoing initiatives in this regard, such as the Guiding Principles on Business and Human Rights and the labour standards of the International Labour Organization, the Convention on the Rights of the Child and key multilateral environmental agreements, for parties to those agreements."[543]

This shows that, on the one hand, standards that serve the Global Agenda 2030 already exist and that the members of the UN recognise a levelling of goals using these, in particular international standards and other initiatives. It is also clear that standards are recognised as a separate order alongside other agreements.

Sustainability Standard Setting in the Extractive Industries

The role of standards established within the purview of sustainability represent a critical facet of transnational law. They serve as instrumental tools in realising sustainability objectives when extracting or utilising resources such as cobalt, lithium, manganese, and vanadium. Sustainable standards in this context either refer more generally to (some kind of) sustainable development or more specifically to objectives outlined in the Global Agenda 2030[544] and the SDGs. For a standard to effectively contribute to these objectives, it must embody principles of environmental sustainability, social responsibility, and economic viability. This is the case, when, for instance, these standards drive practices towards environmentally friendly resource management, promote social equity, and foster economic growth within a sustainable framework.[545] Yet, they are hardly categorizable in a specific orientation or area of action. Sustainability as such cannot be strictly demarcated but encompasses a wide variety of fields of application. A rigid definition[546] would hinder

[543] A/RES/70/1 (n 2), para. 67.
[544] A/RES/70/1 (n 2).
[545] ISEAL/WWF, Sustainable Development Goals and Fairtrade: The Case for Partnership (2015).
[546] Although Gro Harlem Brundtlandt's definition of sustainable development is frequently referred to internationally, regionally and nationally. However, this is unprecedented in scope: "development that meets the needs of the present without compromising the ability of future generations to meet their own needs", World Commission on Environment and Development (WCED), Report of the World Commission on Environment and Development: Our Common Future (so-called 1987 Brundtland report), Annex to A/42/427, para. 27.

the objective and purpose of achieving sustainability. Accordingly, it follows that sustainability standards cannot be defined in terms of their (legal) substance either.[547]

In the context of strategic raw materials vital for the EU's transition to a carbon-neutral continent, standards aligned with the Global Agenda 2030 and the SDGs would ensure responsible extraction, utilisation, and management of these resources. The legal embedding and contextualisation of standards, therefore, become crucial to drive relevant sustainable practices and contribute significantly to the attainment of global sustainability targets. The standards to become meaningfully effective necessitate comprehensive frameworks that prioritise sustainability, environmental responsibility, and ethical practices.[548] For the EU, the importance of sustainability standards in this sector lies in the alignment with the principles set forth in the European Green Deal[549], the circular economy action plan[550] and the more recent proposal of the EU Critical Raw Materials Act (CRMA)[551]. The CRMA aims to ensure the EU's "access to a secure and sustainable supply of critical raw materials, enabling Europe to meet its 2030 climate and digital objectives."[552] They aim to mitigate environmental degradation, minimise social disruption, and promote responsible resource management throughout the value chain.

In setting sustainability standards for these extractive industries, the challenge lies in harmonising economic objectives with stringent environmental criteria. While standards should facilitate resource extraction necessary for technological advancements and mitigate the adverse environmental impacts, they also need to comply with existing EU regulations, and contribute to achieving the SDGs which is an overarching objective declared with the EU Green Deal. Additionally, the EU provides regulatory space and explicitly allows for interlinkages these of privately set standards while seeking to ensure compliance with international agreements, such as the Paris Agreement, in order to foster a cohesive global effort toward sustainability. The EU, thus, uses different approaches and connects the different systems to develop and implement sustainability standards in its extractive industries and beyond. In this way, the EU shows a strong commitment to sustainability, setting precedents for responsible resource utilisation and contributing to achieving long-term environmental and economic objectives. However, voluntary efforts have failed to yield adequate improvements, notably "in high-risk sectors such as garment,

[547] Magers (n 532), 310.
[548] EC, Making Mandatory Human Rights and Environmental Due Diligence Work for All: Guidance on designing effective and inclusive accompanying support to due diligence legislation (2022), 10; see also: Blankenbach (n 534), 19.
[549] COM(2019) 640 final (n 116).
[550] COM(2020) 98 final, A new Circular Economy Action Plan: For a cleaner and more competitive Europe, 11.03.2020.
[551] COM(2023) 160 final, 2023/0079(COD), Proposal for a Regulation of the European Parliament and of the Council establishing a framework for ensuring a secure and sustainable supply of critical raw materials and amending Regulations (EU) 168/2013, (EU) 2018/858, 2018/1724 and (EU) 2019/1020, 16.03.2023.
[552] EC, Press Release, 16 March 2023, Critical Raw Materials: ensuring secure and sustainable supply chains for EU's green and digital future.

mining, and agriculture". These sectors continue to witness recurrent issues including "forced labour, child labour, inadequate workplace health and safety, exploitation of workers, and environmental impacts such as GHG emissions, pollution, and biodiversity loss (including deforestation and forest degradation)."[553]

d. Effects of Voluntary Sustainability Standards (VSS) in the Critical Raw Material Supply of the EU

The integration of VSS into the EU's critical raw material supply has both positive and unintended consequences. One notable aspect is that by creating higher standards, a potential barrier to market entry may unintentionally favour the exclusion of weaker market participants.[554] This phenomenon, which is widespread worldwide, prompts a critical examination of the delicate balance between setting strict standards and ensuring accessibility for all market participants. In the area of VSS, the effect is twofold. On the one hand, these standards make a decisive contribution to the development of a circular economy and are in line with the EU's strategic sustainability goals. However, the question arises as to whether these standards should be strategically aligned with an "intelligent mix" of incentives and obligations.[555] This balance is essential as the EU seeks to maximise the development benefits of investment while avoiding unintended consequences that could result from overly stringent standards.

The interplay between laws, regulations and voluntary CSR initiatives is another layer in the landscape. While laws form the basis of investor responsibility, voluntary CSR initiatives and standards are increasingly influencing corporate practices and investment decisions. Governments that recognise the evolving landscape can use these initiatives to effectively complement the legal framework. This dynamic interaction underscores the need for a nuanced approach - a harmonious integration that harnesses both the power of regulation and private sector initiative to maximise development outcomes. In the international context, regulatory frameworks play a central role in setting standards. IIAs and other agreements under international law could serve as a reference point for generally recognised international standards. This in turn supports the spread of CSR standards at a global

[553] EC, Making Mandatory Human Rights and Environmental Due Diligence Work for All: Guidance on designing effective and inclusive accompanying support to due diligence legislation (ITC 2022), 10.
[554] German Institute of Development and Sustainability, Shaping Supply Chains Sustainable, https://www.idos-research.de/en/supplychains/ (last accessed: 02.02.2024).
[555] Stoffel, Laws and incentives – a pathway to fair globalisation, Can the Supply Chain Act bring about Social Justice?, https://www.die-gdi.de/en/the-current-column/article/can-the-supply-chain-act-bring-about-social-justice/ (last accessed: 02.02.2024).

level.[556] The reinterpretation of legal frameworks and the linking of existing standards with new values will become essential components in promoting a more complex development agenda. At the boundary between soft law and private standards, the landscape of codes and standards for corporate behaviour is expanding. This development heralds a new generation of investment policies that are aligned with the Sustainable Development Goals. However, this shift requires careful consideration to find the right balance between regulatory oversight and private sector initiatives. A particular focus on promoting certain types of investment, such as 'green investment' and 'low-carbon investment', emphasises the transformative potential of private sector contributions.[557]

However, the potential negative impact on standards cannot be overlooked in the absence of robust governance and oversight. The challenge is to ensure capable institutions and technical competences to navigate this complicated landscape. The fundamental hurdle of the inadequate risk-return profile of many investments in sectors linked to the SDGs adds to the manifold effects and requires strategic recalibration to attract more private sector contributions.[558] The impact of the VSS on the EU's critical raw material supply is multi-layered. Finding the right balance between promoting sustainability, avoiding unintended consequences and ensuring full participation requires a nuanced and strategic approach. The EU is at the intersection of regulatory frameworks and private sector initiatives and is ready to capitalise on this dynamic for optimal development outcomes.

e. Challenges and Opportunities in Harmonising Transnational Standards within the EU

The standards defined by the EU Green Deal represent a significant stride towards the harmonisation of sustainability reporting through the European Sustainability Reporting Standards (ESRS). The main objective of these standards is to reduce the reporting burden for companies while improving the quality of their disclosures.[559] This dual purpose emphasises the critical importance of introducing common standards that align sustainability reporting with financial reporting and ensure parity of importance. In the preparation of EU standards, a collaborative approach is adopted, involving orientation, consultation, and guidance from key institutions. Notably, the European Financial Reporting Advisory Group (EFRAG) plays a pivotal role in providing expertise and insights. Additionally, close collaboration with regulatory bodies such as the European Securities and Markets Authority (ESMA), the European Banking Authority (EuBA), the European Insurance and

[556] UNCTAD, UNCTAD's investment policy framework for sustainable development, 2015, 7.
[557] UNCTAD (n 556), 10, 18.
[558] UNCTAD (n 556), 10, 22.
[559] EC, EU-Standards für die Nachhaltigkeitsberichterstattung, <https://ec.europa.eu/newsroom/fisma/items/707248/de> (last accessed: 24.08.2023).

Occupational Pensions Authority (EIOPA), the European Environment Agency (EUA), the EU Agency for Fundamental Rights (FRA), the European Central Bank (ECB), the Committee of European Auditing Oversight Bodies (CEAOB), and the Platform on Sustainable Finance ensures a comprehensive and inclusive standard-setting process.

The involvement of these institutions reflects a commitment to a multi-stakeholder approach, recognising the diverse perspectives and interests in sustainability reporting. By engaging with entities ranging from financial regulators to environmental agencies and fundamental rights bodies, the EU Green Deal standards incorporate a holistic understanding of sustainability. The EU Green Deal's focus on the Sustainable Finance Platform consultation further signifies the proactive efforts to align sustainability standards with broader financial considerations. This collaborative platform facilitates discussions on sustainable finance and provides a forum for stakeholders to contribute to the development of standards that integrate ESG factors into financial decision-making. Additional planning envisages a "systematic and inclusive process" that involves national and European authorities, for example, and also takes private and civil society organisations into account in order to develop standards for sustainability reporting. The standards developed by EFRAG are being honed by the Commission "in particular to ensure proportionality and simplify the proper application of the standards by companies."[560] It is striking that the financial reporting body is to remain untouched, even though close structural cooperation is to take place within EFRAG. Specific requirements for standard-setting in the context of EU's sustainability reporting are as follows:

- "take into account EU policy objectives and legal requirements, for example the main pillars of the EU's sustainable finance agenda such as the Taxonomy Regulation and the Sustainability Disclosures Regulation;
- they are proportionate for SMEs and strike a balance between 1) the specific governance, organisation and resources of SMEs and 2) the need for SMEs to provide sustainability information that is relevant to their stakeholders (especially financial institutions and stakeholders along the value chain);
- the key role that intangible assets play in the development of sustainable businesses and therefore also in sustainability reporting."[561]

In addition, the concept of double materiality means that companies are obliged to report in two ways. In addition to the sustainability risks to be identified (i.e. those that affect them), they must also report on the impact of their own activities on people and the environment. In future, these standards are to be based on the ESG concept and will depict

[560] COM(2023) 5303 final, Delegated Regulation (EU) .../... of the Commission of 31 July 2023 supplementing Directive 2013/34/EU of the European Parliament and of the Council with sustainability reporting standards, 6.
[561] European Commission, EU-Standards für die Nachhaltigkeitsberichterstattung, <https://ec.europa.eu/newsroom/fisma/items/707248/de> (last accessed: 24.08.2023).

both industry-independent, industry-specific and company-specific figures, data and facts. The information would be made available and interpreted accordingly for the area of corporate strategy, its implementation and realisation. A further development of the "hot needle knitted", standard setting is planned and corresponds to the regular EU-wide procedure in legislation and further development. It is clearly emphasised that European standard-setting should be oriented towards global standard-setting initiatives in order to make results available and interpretable across the board (interoperability) and thus achieve the greatest possible control. In particular, the guideline on sustainability reporting, which was revised in late summer 2023, thus lays the foundation for sustainable investments, as will be shown below.[562] This in turn refers to additional delegated acts that are intended to establish further standards. For example, the Commission was initially required to adopt "sector-specific standards, appropriate standards for listed SMEs and standards for non-EU companies" by June 2024. However, this requirement was postponed until mid-2026 in order to avoid overburdening the European economy on the one hand and to ensure consistent, practice-oriented standardisation on the other.[563]

f. Interim Result

From the analysis so far, it can be summarised that standard setting and standards regarding natural resources encompass international regulations or guidelines that govern the extraction, management, and utilisation of natural resources internationally or globally. In international law, standards can be classified distinctively as these may occupy normative fundaments such as business and human rights or environmental rights and principles,[564] legislation and domestic laws. Partly, these may be equipped with legislative governance function such as could be seen from the EU standard setting infrastructure. An example can be found in the principles for sustainable raw materials, which were developed "to align the understanding of sustainable raw materials extraction (from exploration to post-closure) and processing operations in the EU amongst its Member States and define the general direction towards the SDGs".[565] However, standards might fall under the category

[562] See Chapter D., III., 2.; Ref. Ares(2023)4009405 - 09/06/2023 (Draft COMMISSION DELEGATED REGULATION (EU) …/... of XXX supplementing Directive 2013/34/EU of the European Parliament and of the Council as regards sustainability reporting standards, 3).
[563] Ref. Ares(2023)4009405 - 09/06/2023 (Draft COMMISSION DELEGATED REGULATION (EU) …/... of XXX supplementing Directive 2013/34/EU of the European Parliament and of the Council as regards sustainability reporting standards, 4); European Parliament, <https://www.consilium.europa.eu/en/press/press-releases/2024/02/07/council-and-parliament-agree-to-delay-sustainability-reporting-for-certain-sectors-and-third-country-companies-by-two-years/> (last accessed: 17.02.2024); progress overview traceable at: EFRAG, <https://www.efrag.org/lab5> (last accessed: 17.02.2024).
[564] See e.g., International Court of Justice (ICJ), *Danube Dam Case (Hungary v Slovakia)*, ICJ Rep 1977, para. 7, where the court refers to applicable "current standards [to] be taken into consideration" to evaluate environmental risks.
[565] EC, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, EU principles for sustainable raw materials (2021).

of soft law[566] or non-legally binding (privately autonomous) foundations, including privately established codes of conduct or voluntarily agreed standards in the grid of standard-setting.[567] Since standards aim to ensure interoperability and safety, reduce costs, and facilitate companies' integration in the value chain and trade, their collective adherence fosters a robust framework for sustainable resource management and global economic development.

2. International Law and its Role in Global Standard Setting

International law, operating on the principles governing the relationships between states and their obligations under treaties,[568] provides the legal framework for global standard setting at least from a functional viewpoint. While it remains unclear which categorisation of law may apply to global or globally developed standards, their effect at the same time remains perceivable.[569] States that prioritise international norms and international cooperation, seeking to align standards with global objectives such as those outlined in the SDGs[570], significantly contribute to the creation and implementation of global and sustainability standards.[571] This influence becomes particularly important within the framework of multipolar supply chains, where a multitude of states and entities are involved in resource extraction and distribution. This means, influence spans areas related to environmental protection, social responsibility, and sustainable development within the extractive industries. However, the foundations of international law in conjunction with the international standard-setting bodies acting within its framework represent the boundaries for subsequent developments within the legal area. These have an effect not only on positive-law norms, but also on those norms and standards that do not place themselves in the legal area.[572]

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[566] To name but a few: UN Guiding Principles on Business and Human Rights; OECD Guidelines for Multinational Enterprises on Responsible Business Conduct.

[567] To name but a few: Aluminium Stewardship Initiative (ASI); DMT for the CERA 4in1 Performance Standard; International Council for Mining and Metals (ICMM) Standards; Initiative for Responsible Mining Assurance (IRMA) Standards; Mining Association of Canada (MAC) Standards; Responsible Jewellery Council (RJC) Standards; Responsible Minerals Initiative (RMI) Standards; Responsible Steel (RS) Standards; The Copper Mark (CM) Standards; World Gold Council (WGC) Standards; ISO 14001 and ISO 45001 / OHSAS 18001.

[568] Dixon et al., Cases and Materials on International Law (5th Ed., 2011), 1-18.

[569] Barrios Villarreal, International Standards as Part of International Law in International Standardization and the Agreement on Technical Barriers to Trade (2018), 58-77.

[570] Enshrined in A/RES/70/1 (n 2).

[571] See e.g. Blind and Heß, 'Stakeholder perceptions of the role of standards for addressing the sustainable development goals' (2023), 37 *Sustainable Production and Consumption*, 180-90; Biermann et al., 'Scientific evidence on the political impact of the Sustainable Development Goals' (2022) 5 *Nat Sustain*, 795-800; Nadvi and Wältring, Making sense of global standards, in Schmitz (ed), Local Enterprises in the Global Economy: Issues of Governance and Upgrading (2003); see for practical evidence: SDG Impact Standards, <https://sdgimpact.undp.org/practice-standards.html> (last accessed: 07.01.2024); United Nations Economic Comission for Europe (UNECE), Standards for the Sustainable Development Goals (UN, Geneva and New York 2018).

[572] See a similar reasoning in: Bello y Villarino, 'Global Standard-Setting for Artificial Intelligence: Para-regulating International Law for AI?' (2023), 41(1) *The Australian Year Book of International Law Online*, 157 (161).

Apparently, this seems to strengthen the argument for global regulation and standard-setting with the participation of international organisations in view of the current calls for more transparency and due process in the institutions of global governance in general and for openness in international standard-setting in particular. Nevertheless, it seems to be disputable whether an assessment of the necessary guarantees (or a "democratic minimum"[573]) to which an international standard setter must adhere is essential in times of increasing juridification of international rule-making at the transnational level.[574]

3. Global Players of transnational Standard Setting and the SDGs

International standard-setting involves the collaboration of various stakeholders. Notably, institutions and international organisations have acquired growing influence in shaping global standards for natural resources. While every relevant legal system, state policies and legislation shape the discretion available for private standard setting, these entities themselves, as representatives and manifestations of economic order on the one hand, as well as societal values and norms on the other, gain a meaningful role in steering global governance through standard setting.[575] With reference to the discussion above,[576] international standards organisations are defined as "the organisation" (i.e. the body based on the membership of other bodies or individuals and having a "defined constitution and its own administration") whose membership is open to the corresponding national bodies of all countries.[577] As defined within the TBT, these international bodies are to be understood as open, i.e. open to membership in principle (within the TBT, for example, to WTO members). Whether a norm or standard is in fact international in character and has international law as its cornerstone must therefore be assessed on the basis of the characteristics of the institution that promulgates it and not necessarily by the content of the norm or standard in question.[578]

International standard-setting institutions, often composed of experts and representatives from various nations, actively engage in the development and promotion of international standards. In this way, these institutions serve as much broader[579] forums for collaboration and consensus-building, helping to bridge the gap between diverse legal systems. Addi-

[573] Krisch, The Decay of Consent: International Law in an Age of Global Public Goods, 108(1) *AM. J. INT'L L.*, 16 (2014)
[574] See Delimatsis, 'Global Standard-Setting 2.0: How the WTO Spotlights ISO and impacts the Transnational Standard-Setting Process' (2018), 28 *Duke Journal of Comparative & International Law*, 273 (277).
[575] See Coglianese, 'Private Standards and Public Governance' (2019), *Yale Journal on Regulation* (Symposium on Joanne Yates and Craig N. Murphy's "Engineering Rules"), 1 (1).
[576] See Chapter B. II. 1. of this thesis.
[577] ISO/IEC Guide (2004), 39-41.
[578] Delimatsis (n 574), 273 (282).
[579] See OECD, The Contribution of International Organisations to a Rule-Based International System: Key Results from the partnership of international organisations for effective rulemaking (2019), 1.

tionally, standard-setting organisations are driven by specific values and goals, i.e., in advocating for sustainability and responsible resource management, also capable of impacting on public authorities within a state.[580] For example, in the EU context, stakeholder participation in the development of European standardisation is explicitly requested. In this regard, "appropriate representation and effective participation of all relevant stakeholders, including SMEs, consumer organisations and environmental and social stakeholders in their standardisation activities"[581] shall be encouraged. Both internationally and at EU level, it is becoming recognisable that regulatory authority, particularly with regard to the development of standards, is being practically outsourced or at least private regulation is being actively encouraged. The complementary function of standardisation that has existed for many decades in addition to traditional (national) command and control regulation is thus changing. This type of regulation, which explicitly creates spaces, raises the idea that non-binding ("soft") norms such as standards no longer only have a gap-filling function for "harder" forms of law. Rather, it appears internationally and at EU level that international organisations are being given some state powers, as they may act more effectively, for example. Their standards thus become the starting point for public law regulation (which remains with states).[582]

To comprehensively understand the influence of international standard-setting institutions and non-governmental organisations, it is essential to assess the values and norms that guide their standard-setting efforts. For example, in the extractive industries, international (or global) standards aim to address environmental, social, and ethical concerns within the extraction or production processes, basing on environmental and human rights. However, while some standards of relevant international standard-setting organisations and non-governmental entities can be found a result of the SDG development and sustainable development interpretation,[583] the values and norms embraced may not always align perfectly with those of the legal systems discussed. This contrast proves the dynamics of global standard setting and the potential for standards to deviate from the values of specific legal systems. Further examining these deviations and divergences would provide deeper insights into understanding the complexities of standard setting within the extractive industries. However, due to limited space, only a brief review can be given subsequently.

a. Network of International Organizations Involved in Standard Setting

The extractive industry is shaped by a large number of IOs that jointly address issues transcending national borders such as ESG aspects within the sector and thus play a special

[580] Bellis, 'Public law and private regulators in the global legal space' (2011), 9(2) *International Journal of Constitutional Law*, 425-48, see also Coglianese (n 575), 15 (16).
[581] Regulation 1025/2012 of the European Parliament and of the Council of 25 Oct. 2012, on European Standardisation, Art. 5
[582] See a similar reasoning: Delimatsis (n 574), 273 (273).
[583] See e.g. UN Global Compact, <https://unglobalcompact.org/>; Principles for Responsible Management Education (PRME), <https://www.unprme.org/> (each last accessed: 07.01.2024).

role in setting standards. These can be divided into three categories: Intergovernmental organisations (IGOs), cross-governmental networks (TGNs) and private standard-setting organisations. In addition, there is a plethora of other forms of IOs that are normatively active, but which are difficult to categorise due to the diversity of their nature, membership and activities. While IGOs are classically established by "a treaty or other instrument governed by international law [and poss[ess] [their] own international legal personality",[584] TGNs are established by voluntary agreement and can be seen more as a network. Private standardisation organisations, on the other hand, are generally established under domestic law. They can be made up of non-governmental actors and governmental actors. While TGNs usually focus on one thematic area, this is not necessarily the case in the other two categories, which is sometimes reflected in a higher number of members. However, most IGOs encompass structured procedures to facilitate the inclusion of non-member entities, allowing them to commit through adherence or endorsement to the organisation's instruments. In more recent developments, these organisations can also exhibit various features of categorisation.

The following brief overview highlights organisations and standards that are directly or indirectly applied in the context of the extractive industries and thus correspond to the scope of this study: The UN is at the forefront of global governance and is committed to responsible business conduct through various initiatives. The UNGP provide a comprehensive framework to help companies address human rights concerns within their supply chains. Together with its specialised institutions, it has a major influence on setting standards for responsible practices in the extractive industry. These include, for example, alliances and initiatives created under the auspices of the UN Conference on Trade and Development (UNCTAD) such as the

- Fair Cobalt Alliance
- Responsible Minerals Initiative (RMI), formerly the Conflict-Free Sourcing Initiative (CFSI)
- Responsible Cobalt Initiative (RCI)
- Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development
- Cobalt Institute - Responsible sourcing initiative in partnership with RCS Global
- Global Battery Alliance, World Economic Forum (WEF)
- European Partnership for Responsible Minerals
- Raw Materials Observatory - Drive Sustainability, partnership between automotive companies coordinated by CSR Europe.

These initiatives refer to the OECD Guidelines for Multinational Enterprises and are aligned with their objectives, plan of action and means of implementation available for

[584] OECD, The Contribution of International Organisations to a Rule-Based International System: Key Results from the partnership of international organisations for effective rulemaking (2019), 3f.; see also: Benvenisti, The Law of Global Governance (2014), 92.

businesses. In their collaborative multi-stakeholder approach, downstream and upstream companies[585] are expected to communicate their expectations in order to make use of synergies, e. g. "to avoid replicating compliance standards".[586]

With regard to sustainability standards, the United Nations Forum on Sustainability Standards (UNFSS) acts as a hub for interest groups and promotes dialogue and cooperation. Its central role in promoting standards is reflected in documents such as the ILO Declaration on Multinational Enterprises and the UNGP, which place human rights and sustainability at the centre of business conduct. The WTO too, takes up these matters and addresses them to a certain degree, but is independent of the UN. Although it is only directly involved in setting standards to a limited extent, its influence on global trade rules and technical specifications also indirectly shapes sustainability practices. Among other things, the WTO determines the framework for trade relations and thus contributes to the broader discourse on the overlap between trade and environmental and social considerations. Moreover, the Organisation for Economic Co-operation and Development (OECD) is a focal point for responsible business conduct, particularly in the extractive industries. The OECD Guidelines for Multinational Enterprises and the Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas illustrate the organisation's commitment to addressing the challenges posed by mineral supply chains. Multilateral development banks, including the World Bank, the International Monetary Fund and the Inter-American Development Bank, exert influence through their due diligence practices, e.g., in international project financing. They emphasise the central role of the financial sector in sustainable development and are instrumental in reconciling investment with environmental and social considerations.

The EU, in cooperation with its member states, is actively contributing to a sustainable finance landscape and plays a key role in setting standards. Initiatives such as the Commodity Observatory are an example of cooperation between different players in the industry. The EU's influence also extends to international investment agreements, which emphasise the integration of CSR standards into the regulatory framework. The EU's commitment is also reflected in initiatives such as the European Green Deal, which aims to transform the continent into a climate-neutral entity by 2050. Various strategies, including the new Industrial Strategy and the Yearbook on Sustainable and Smart Mining and Energy, emphasise the EU's commitment to responsible and sustainable practices in the extractive industries. This broadly outlined dynamic network of international organisations, non-governmental organisations and collaborative initiatives is driving the development

[585] See Chapter B. I. 2. d) of this thesis.
[586] UN Principles for Responsible Investment, Collaborating through industry initiatives, <https://www.unpri.org/social-issues/tackling-human-rights-risk-in-the-cobalt-supply-chain-through-industry-initiatives/2980.article> (last accessed: 04.10.2023).

of standards for sustainable extractive industries and reflects a shared global commitment to responsible and sustainable practices.

b. Systematic and Functioning of International Organizations

Typically, the governance structures of IOs share a common structure. A supreme plenary body for important political and operational decisions is complemented by an executive body to advise on implementation decisions. Subsidiary bodies support the supreme and executive bodies in administrative and technical areas. In addition, a secretariat supports the administrative management of the organisation, organises meetings, links work areas between the bodies, conducts consultations and more.[587] Sometimes the secretariat is also responsible for substantive tasks such as proposal development, independent data collection, research and analysis, and monitoring and reviewing the implementation of the organisation's instruments. IOs adopt a large number of international instruments that have an external normative value and most of which are not legally binding. While treaties have a clearly defined status in international law, there are no generally accepted terminologies or definitions for the other instruments of IOs. As a result, numerous terms sometimes refer to similar instruments or the same term means different instruments. Although a precise categorisation cannot be made, some patterns in the various instruments adopted by the IOs can be recognised. The continuum ranges from legally binding to voluntary instruments, from political to technical standards and from normative to guidance documents. These instruments can be grouped into different categories, including treaties, prescriptive instruments such as resolutions or directives, policy instruments such as declarations or communiqués, incentive instruments such as guidelines, best practice guidelines or model laws, technical standards, mutual recognition agreements and supporting instruments such as action plans, roadmaps, guides, toolkits and glossaries.[588]

International rule-making works systematically and is a coherent system and not just a collection of actors and rules. These instruments serve as integral building blocks and contribute to a comprehensive framework that aims to "regulate" specific areas. Some instruments have a "primary" status, providing a broad framework for action, as is typically the case with treaties. Others are considered "secondary" or "complementary to a primary instrument" and either lay the groundwork ex ante, such as declarations that generate political momentum, or support implementation ex post, which is referred to as "supporting instruments". The interplay of these different types of instruments forms a coherent and dynamic system in the field of international rule-making. It can be said that IOs form a dynamic network that collectively steers the development of standards for a sustainable

[587] OECD, The Contribution of International Organisations to a Rule-Based International System: Key Results from the partnership of international organisations for effective rulemaking (2019), 5.
[588] OECD, The Contribution of International Organisations to a Rule-Based International System: Key Results from the partnership of international organisations for effective rulemaking (2019), 6f.

extractive industry. Through precise initiatives and collaborative frameworks, these organisations make tangible contributions to addressing the diverse challenges in the sector and signal a shared global commitment to responsible and sustainable practices. Here, IOs are main actors in promoting the recognition of a large proportion of standards, which are voluntary in nature and thus form a unique part of soft law. Propositions and providing principles of standard setting in investment where governments are called upon including and promoting "CSR standards as part of regulatory initiatives".[589]

4. International Jurisdictions, Legal Systems and Sustainability Standard Setting

This part of the study analyses the meta-level influences on sustainability standard setting. This meta-level consists of the framework conditions resulting from external (higher) circumstances, which stem from the nature of the legal framework and the legal culture and language of the reference system. Transnational standards and standard setting originate from or affect actors from a wide variety of legal systems (or legal families), each of which act differently in their lawmaking, application and recognition of standards set by private actors. The following analysis analyses two of the largest legal systems as well as some jurisdiction-specific characteristics of particular legal systems in order to understand whether and to what extent sustainability standards are subjected to them at all, negligibly or significantly. This analysis will allow for the possible redesign or reorganisation of standards, especially in the context of simplifying standard-setting in the further course of this study.

a. Common Law Systems: Foundations and Influence on Global Standards

Common law systems, which have their origins in the English legal tradition, arrived in the British-occupied territories in the course of colonialism and developed independently, for example in Scotland or Louisiana in the U.S. (which developed distinctively in the U.S.), as well as in other territories originally belonging to the United Kingdom such as New Zealand and Australia.[590] This legal system and its evolved systems are based on the development of case law through judicial decisions, with the doctrine of precedent (stare decisis et non quieta movere[591]) as the primary source of law. In the further development of equity law, the aim was to mitigate rigid outcomes arising from the common law by enforcing the principle that "equity shall prevail". Currently, English law, which is distinct from UK law (which is different in England, Wales, Scotland and Northern Ireland), combines predominantly common law principles in private law, supplemented by historic European legislation enacted during the UK's EU membership and Brexit-related legislation

[589] UNCTAD, 35 (Principle 9).
[590] Siac, Mining Law: Bridging the Gap Between Common Law and Civil Law Systems (1997), 454; Grinlinton, 'The Continuing Relevance of Common Law Property Rights and Remedies in Addressing Environmental Challenges' (2017), 62(3) *McGill LJ*, 633 (633).
[591] Which stands for "to stand by decisions and not disturb the undisturbed".

that is reshaping the UK's legal landscape. Historical rulings have shaped and grown this legal system, which differs within the contemporary common law systems and unifies the understanding of law in the former English colonies. This uniqueness is reflected in various private law standards such as the contract models of the Fédération Internationale des Ingénieurs Conseils (FIDIC) family, which is particularly evident in the transport sector including air and maritime transport.[592]

Through the doctrine of precedent, cases decided by higher courts set binding precedents for lower courts, shaping the interpretation and application of legal standards. This reliance on precedent also forms ground for the influence of common law on global standards related to natural resource extraction.[593] Emphasising legal precedent in common law systems sometimes extends to the global standard-setting process as they are deemed effective.[594] At the same time, rules, principles and procedures of common law "relevant to environmental protection, resource use, and the control of administrative action […] are sometimes preserved by the regulatory regime […] or remain available as alternate or supplementary mechanisms to enforce rights and obligations".[595] The influence of common law in the development and interpretation of global resource standards is significant[596] and way more regular as common law systems do not have a bright line separating public law from private law.[597] When legal systems within common law jurisdictions engage in international resource management, they often look to precedents, court decisions, and case law to interpret and apply standards. This approach promotes a uniform interpretation of global standards and encourages harmonisation with international norms, especially in the context of complex supply chains.

b. Civil Law Systems: Historical Evolution and Standardisation

Civil law systems, often associated with continental Europe, mostly operate on the basis of codified laws and comprehensive legal codes or statutes. This sub-chapter explores the historical evolution of civil law systems and their distinctive approach to global standard setting.[598] The historical origins of Civil law (Romano-Germanic) systems can be traced

[592] FIDIC, <https://fidic.org/> (last accessed: 04.01.2024); see for a general overview: Godwin, *The 2017 FIDIC Contracts* (2020); see for practical evidence: Hök and Stieglmeier, Applying FIDIC Contracts in Germany in Charret (ed.), FIDIC Contracts in Europe (2020).
[593] Abrams, natural resources law, *Encyclopedia Britannica* (2023).
[594] Grinlinton (n 590), 633 (683).
[595] Grinlinton (n 590), 633 (635); Bellis, 'Public law and private regulators in the global legal space' (2011), 9(2) *International Journal of Constitutional Law*, 425 (431); see applied in a court case: Supreme Court of Canada, *British Columbia vs. Canadian Forest Products Ltd.*, 2004 SCC 38, paras. 65, 81, [2004] 2 SCR 74 [Canadian Forest Products].
[596] See Ribeiro-Bidaoui, 'The International Obligation of the Uniform and Autonomous Interpretation of Private Law Conventions: Consequences for Domestic Courts and International Organisations' (2020), 67 *Neth Int Law Rev*, 139 (147), referencing to the judicial interpretation of the CISG on common law gauge: Oberlandesgericht Koblenz (Court of Appeal Koblenz), *'Clay Case'*, 6 U 555/07, 24.2.2011, para. 61.
[597] Siac (n 590), 454.
[598] See with regard to technical standardisation processes in the EU: Vallejo, 'The Private Administrative Law of Technical Standardization' (2021), 40 *Yearbook of European Law*, 172-229; see exemplified on PPPs:

back primarily to Roman law[599] and the legal traditions of continental Europe. The amalgamation of Roman law, canon law, and feudal law gave rise to the ius commune, a shared legal system across Europe prevailing until the era of national codifications that commenced in the late sixteenth century.[600] While there were notable local variations (ius proprium), Roman law left its imprint on both Catholic Europe and the Protestant culture of Northern Europe. Despite regional differences, Roman law introduced and developed numerous legal concepts that still exert influence.[601] For instance, it established the basis for the concept of abstraction and concepts such as "legal personhood, property rights, contract law, and tort law".[602] Over time, these systems evolved into comprehensive legal codes that govern various aspects of societal life. Although there is reason to assume that Roman and Civil law also had influence on common law,[603] the codification of laws and statutes mainly characterises civil law systems, which significantly differs from the case-based approach of contemporary common law.

From the viewpoint of the legal systems' judicial branch, it is within civil law systems that judges possess a narrower function (compared to their common law counterparts) as they primarily apply statutes and codes. Their focus lies in interpreting and enforcing existing laws rather than forging new legal principles.[604] By emphasising legal doctrine and scholarly insights, civil law systems rely on legal scholars and jurists whose interpretations significantly impact judicial rulings to a greater extent.

Since legislative bodies play a central role in shaping legal codes that encompass a wide range of legal matters, including those related to resource management and environmental protection, it can be stated that legislative governance within civil law systems has a notable impact on global standard setting. These systems seek to enact specific laws and regulations governing resource extraction, environmental preservation, and sustainability standards. This focus contributes to the development and interpretation of global standards that prioritise environmental regulations and sustainability principles. The introduction of various initiatives and legal frameworks characterises the quest and global imperative for an adequate and sustainable supply of minerals. One such initiative is the EU's Critical

APMG International, 1.5.1 How Varying Legal Traditions Interact with Different PPP Types; ITC, The Interplay of Public and Private Standards Literature Review Series on the Impacts of Private Standards – Part III (ITC 2011).

[599] Which can be traced back, amongst others, to Emperor Justinian's Corpus iuris civilis (institutes and codes) and customary practices.

[600] Further influences had been mercantile custom, and natural law theory.

[601] Domingo, The Revival of Roman Law and the European Legal Tradition, in Domingo (ed.), *Roman Law: An Introduction* (2018), 1ff.; Stein, 'Roman Law, Common Law, and Civil Law' (1991-1992), 66(6) *Tul L Rev*, 1591-1603; Glenn, 'Some Aspects of Roman Law in the World Today' (1954), 47(13) *The Classical Weekly*, 196–99.

[602] Stein (n 601), 1591 (1603).

[603] Stein, The influence of Roman Law on the common law (1994), 165-9; Nestorovska, 'Influences of Roman Law and Civil Law on the Common Law' (2005), 1(1) *Hanse L Rev*, 79-88.

[604] With the objection of Court of Justice of the European Union which has grown its unique legal culture of interpretation.

Raw Materials Act (CRM), which reflects the commitment to secure critical resources for industrial needs. Similarly, the United States has introduced the Inflation Reduction Act, Australia has introduced its Critical Minerals Strategy and Canada has followed suit with its own Critical Minerals Strategy.[605] Here, particular emphasis is placed on diversification in the supply of minerals. The IEA's Critical Minerals Policy Tracker has identified an extensive range of nearly 200 policies and regulations worldwide, of which more than 100 have come into force in recent years. This increase in regulatory activity reflects the growing awareness and urgency of critical minerals supply. While these policies are critical to securing key resources, they also impact the areas of trade and investment. For example, several countries, including resource-rich nations such as Indonesia, Namibia and Zimbabwe, have taken steps to ban the export of unprocessed ores.[606] This move signals a shift towards encouraging local beneficiation and value creation, with the aim of keeping more of the economic benefits within their own borders. However, such measures also have an impact on the dynamics of global trade and can lead to challenges related to the diversification and stability of mineral supply.

One concerning trend highlighted by the IEA is the remarkable increase in global export restrictions on key commodities, which have increased fivefold since 2009. While these restrictions are often driven by the intention to secure domestic supply, they can inadvertently cause disruptions in global supply chains and affect international trade relations. Striking a delicate balance between safeguarding national interests and maintaining cooperative global trade practices remains a critical challenge in the evolving landscape of commodity policy.

5. Impacts of Sustainability Standards on Transnational Actors

Sustainability standards wield significant influence over transnational actors, shaping their conduct, strategies, and interactions in the global arena. This influence is particularly pronounced in the context of sustainable development, where environmental, social, and governance considerations play a pivotal role. Examining these impacts through the lens of transnational law provides valuable insights into the evolving dynamics of global governance. Sustainability standards establish normative frameworks that transcend national borders. Transnational actors, including multinational corporations, find themselves navigating a complex legal landscape shaped by these standards. Compliance with sustainability norms becomes a paramount consideration, not merely as a matter of voluntary adherence but increasingly as an expectation embedded in transnational legal principles. Transnational law, characterized by legal pluralism, grapples with the coexistence of di-

[605] IEA, <https://www.iea.org/reports/critical-minerals-market-review-2023/key-market-trends> (last accessed: 01.02.2024).
[606] https://www.iea.org/reports/critical-minerals-market-review-2023/key-market-trends.

verse normative systems. Sustainability standards contribute to this legal pluralism, introducing an additional layer of complexity. Transnational actors must reconcile conflicting standards, navigate overlapping jurisdictions, and address challenges related to coherence in a legal landscape shaped by diverse normative influences.

Sustainability standards often embody principles of CSR. Transnational actors, under the purview of transnational law, are increasingly held accountable for their social and environmental impacts. Legal frameworks, both formal and informal, evolve to demand transparency, ethical conduct, and responsibility in a manner that transcends traditional notions of state-centric legal systems. Transnational actors engaged in global supply chains face heightened scrutiny regarding the provenance of their products. Sustainability standards, such as those addressing responsible sourcing and supply chain due diligence, become critical components of transnational legal expectations. Failure to comply may lead to legal consequences, reflecting the evolving responsibilities of actors operating across borders. Transnational law increasingly recognises the need for mechanisms ensuring access to justice in cross-border contexts. Sustainability standards often include provisions for dispute resolution, requiring transnational actors to engage with alternative forums beyond traditional national legal systems. This shift contributes to the development of transnational legal frameworks that accommodate the unique challenges of sustainability-related disputes. Many sustainability standards operate within the realm of soft law, emphasizing voluntary commitments and collaborative initiatives. Transnational actors, aware of the reputational and operational risks associated with non-compliance, engage with these soft law mechanisms. This interaction reflects the capacity of non-binding norms to influence behavior and shape the practices of transnational actors within a transnational legal context. Thus, sustainability standards, in their global application, contribute to the emergence of transnational legal orders. These orders, characterised by their ability to transcend state boundaries, redefine the responsibilities and rights of transnational actors. The interplay between these evolving legal orders and sustainability standards reflects a dynamic and adaptive process within the broader framework of transnational law and thus reshape the contours of transnational law beyond mere compliance.[607] As sustainability norms increasingly permeate global governance, transnational actors navigate a legal environment where their actions are not only scrutinized through the lens of traditional state-centric legal systems but are also profoundly influenced by evolving transnational legal principles centered around sustainability and responsible conduct.

[607] See for a review of practical examples: DasGupta et al., 'Multinational enterprises' internationalization and adoption of sustainable development goals' (2022), 18(4) *International Journal of Managerial Finance*, 617-38.

6. Interim Result

This chapter aimed for unravelling the relationship between diverse legal systems and their substantial influence on global resource standards, particularly within the realm of transnational natural resource extraction across (most often) global supply chains. The investigation of the predominant legal regime of transnational law in relation to the legal systems of common law, civil law, and international law has shown its distinct impacts on global standard setting. While the common law's reliance on precedent contributes to a uniform interpretation and alignment of standards, civil law systems seem to prioritise legislative governance, particularly when it comes to framing legislation and laws centered on environmental preservation and sustainability criteria. Thereby, the civil law system seems to be the most advanced system regarding explicitly allowing for transnational standard setting and acknowledging those standards via integrating space in its legislative processes. Evidence could at least be provided for the continental-European legal system.

Beyond that, international law, its principles and standard-setting bodies play crucial roles in fostering collaboration among nations and aligning standards with global objectives such as the Global Agenda 2030 and the SDGs. Here, a growing influence of non-governmental entities, international organisations and other private actors in shaping sustainability standards can be seen. Their advocacy for sustainability and responsible resource management introduces diverse values and norms, sometimes diverging from those entrenched in specific legal systems. Here, a fundamental challenge emerges in reconciling economic goals with rigorous environmental standards. Establishing sustainability benchmarks encounters the necessity to address environmental impacts while fostering technological advancements and adhering to international agreements such as the Paris agreement. At the same time, it can be seen that, against the blooming of high numbers of standards and labelling, few businesses effectively apply VSS throughout their supply chains. In the EU context, statistical evaluations, and the demands of "frontrunner companies" have led to the planning and implementation of mandatory due diligence legislations. Such mandatory obligations add substantive ground to the VSS grid. Therefore, the hypotheses formulated at the beginning of this study have proven to be verifiable, even if this study cannot provide a generally valid statement on the extent to which all members of a legal system prioritise alignment in standard setting with international norms or standards regarding sustainability. In this respect, the third hypothesis remains subject to more detailed examination in further research.

Moving ahead, a pragmatic and dynamic approach involving advancing technologies, cross-sector collaboration, and adherence to international agreements will prove indispensable in developing and implementing sustainable standards. These endeavours, particularly within the EU context, exemplify a dedicated commitment to sustainability and re-

sponsible resource utilisation, setting paragon and pattern for international or global sustainability standard setting. This proactive stance, exemplified, amongst others, by the EU's commitment, may not only provide interesting space for new ways of standard setting and standards' integration but also may pave the way for a unified global effort toward achieving long-term environmental and economic sustainability goals.

However, when questioning where to systematically categorise transnational law and its role for standard setting in the multi-level system of law, one might need to ask for the specific perspective at first. Considering more restrictive legal scholars most probably would amount to removing the term "law" from transnational law. Following for example Kelsens' Reine Rechtslehre[608] and his purely positivistic view of law, a transnational law system would most likely not appear. Rather, very soon, the fundamental question of what actually law is and which systems and outer and inner structures it might be capable of bringing up would occur. Here, Kelsen's theory might grapple with the decentralised nature of transnational law, which operates across various legal systems without a singular supreme norm (Grundnorm). When considering the absence of hierarchy or a universally recognised, supreme legal authority or sovereign that could establish the ultimate validity of these norms, a categorisation might fail. However, from the results derived from this analysis it must be acknowledged that transnational law practically shapes the standard setting sphere by using its own elements and structures of several systems and sub-systems, thereby forming a system-like fabric itself. This fabric traverses the expanses of the multi-level system of law constituting a multi-centric- one, which holds space for further theorising, approaching, and categorising the verities of legal systems.

III. Summary and Interim Conclusion

This chapter has outlined how commodities need to be categorised and defined and what makes them critical, particularly in the EU context. The importance of criticality was emphasised from the point of view of the extraction method and by highlighting country-specific circumstances in the main producing and supplying countries of the EU. These parameters showed the deep interconnectedness of the supply chains and the dependencies that exist within them. This chapter has also shown that legal principles exist as framework conditions from which there can be no deviation. In addition to fundamental principles of international law, these also include do no significant harm, PSONR and various other principles that stem from the concept of sustainable development, which have an impact on all three levels of impact (ecological, economic and social). Remarkably, this influence can also increasingly be seen in the respective legal systems of the extracting countries. The legislative initiatives and processes that have been launched are clearly influenced by

[608] Kelsen, Reine Rechtslehre [Pure Theory of Law]: Einleitung in die rechtswissenschaftliche Problematik, Studienausgabe der 1. Auflage 1934 (ed and introduced by Jestaedt, 2008).

the UN and the Global Agenda 2030 and the SDGs. Their offshoots and regional and national interpretations implement their original soft law in concrete terms. However, statutory standards do not always simplify the respective initial situations but must be appropriate to the complex problems that arise in the extraction, mining and procurement of the critical raw materials (as selected in this study). Remarkably, standards are increasingly linked to foreign policy instruments in order to be able to react to "systemic conflicts or the changed political coordinate system" and therefore have their own geopolitical traction.[609] The structures within this established raw materials law in conjunction with the transnational realities of the supply and value chains also showed that a balance of the respective sovereignties is not always given. Rather, sovereignty must be firmly established and is therefore merely a principle that is not unassailable. The interplay of these parameters in a hyper-globalised world also offers opportunities for new types of regulation. This regulation, which should at best be simplified to an easily utilisable extent, also highlights the need for transnational standardisation. This in turn follows its own mechanisms and works differently depending on the actor that initiated it. Although standardisation has specific characteristics, particularly in a EU context and also in other legal families, networks and the basic functioning of international organisations can be identified as the main drivers of standardisation. They recognise transnational requirements which regularly makes their standards particularly efficient and enables points of reference and inclusion for and in public law regulation. In this way, they consolidate the emergence of a transnational legal order. Even if a systematic categorisation based on fundamental legal principles remains open to challenge, a fabric that traverses the expanses of a multi-level and at the same time multi-centric system of law can be deemed a fact.

Due to their diversity, the extractive industries as a whole offer a broad scope for standardisation and regulation that support companies, investors and other stakeholders in their efforts to implement responsible procurement practices. However, it is also recognisable that the (legal) starting situations within the mining countries, the extraction and value creation processes are too different to undertake meaningful, uniform standardisation that either goes beyond a bottom line or even leads out of the EU's regulatory system alone. However, the analysis reveals scope for further standardisation potential, which could, for example, consist of regulating individual areas or processes. For example, there are ways of linking processes that already function independently of national borders, such as financing and investment. Processes can be summarised for a group of countries, for a group of raw materials (similar to rough diamonds, gold, etc.) or for the entire supply chain (as in the German Act on Corporate Due Diligence to Prevent Human Rights Violations in Supply Chains (Supply Chain Due Diligence Act - LkSG) or the EU proposal, for example) and also for something new (e.g. for the life cycle of the raw material). In the latter case, it would be conceivable that raw materials that are used for a specific (political)

[609] Schäffer, ‚Außenwirtschaftsrecht und Geopolitik: eine Neuorientierung' (2023), *EuZW*, 695 (698).

purpose (e.g. energy transition, climate neutrality, other internationally recognised goals) could be assigned to a regulatory environment depending on the status of their life cycle in accordance with corresponding legally effective principles. Areas of law such as customs law could support this type of standardisation and regulation. Specifically, the life cycle of a good or group of goods would be aligned with the life cycle of a regulatory environment.

This regulatory environment exists, for example, in the area of raw material extraction for the production of climate-neutral mobility in a standardised model X, while the market-ready products are fed into the standardised model Y. Once these products are on the sales markets, model Z of the legally recognised (private) standards is applied. If the standards are not or only partially applied after an introductory phase, these producers, manufacturers and retailers are removed from the supply chains with transition periods. Producers, manufacturers and retailers who already comply with the respective standards during transitional periods can achieve higher sales prices or benefit from incentives.[610] After the end of the transition period and the gradual phasing out of incentives, they can continue to realise higher profits through synergy effects and already established processes, even if prices adjust to the natural price structure. The respective standard patterns are based on a uniform foundation that runs through all standards like a fabric. In terms of the Global Agenda 2030 as a unique steering instrument, this fabric would consist, for example, of the UNGPs or the standards agreed in umbrella taxonomies.

In the following chapters, a detailed analysis will be conducted with reference to sustainability standard setting within the financial and investment sectors to determine how this standardisation enables, changes or prevents financing and investment in sustainable corporate action following or arising from the SDGs.

D. Sustainability Standard Setting in Finance: Implication for Transnational Law

This part of the study addresses the critical examination of sustainability standardisation in the area of financial law and its impact on transnational law. The focus is on the disclosure of the intersection of finance as a pre-step for investment and the determination of whether and how sustainability standards recognise and adopt this intersection. From the basic principles developed so far, it is clear that within the analysed areas of transnational law (governing the extractive industries), at its core, so-called soft law significantly impacts the structures and processes within the financial markets and their actors. Such soft

[610] UN, Policy Brief: Transforming Extractive Industries for Sustainable Development (2021), 11.

law primarily emerges from institutions such as the Financial Stability Board (FSB)[611] and the Basel Committee on Banking Supervision[612] the content and scope of which will therefore be explored. Additionally, practical influences of international investment and development banks, including the World Bank, and supportive financial agencies such as the International Monetary Fund[613], will be disclosed. Especially since these institutions are renowned for their role in shaping international financial stability and regulatory frameworks, with Basel III at the forefront, they hold considerable sway over global banking standards. Basel III is an international set of banking regulations developed by the Basel Committee on Banking Supervision to strengthen the banking sector's resilience to financial stress. The increased regulation is intended to promote stability, risk management and prudent banking practices worldwide. The main instruments are, amongst others, higher capital requirements, a leverage ratio, liquidity standards and measures to combat systemic risks. The FSB, which was founded in 2009 as the successor to the Financial Stability Forum (FSF) and strengthened in its mandate, capacities and assets in 2011, identifies systemic risks in the financial sector. In addition, the FSB serves as a coordinator for regulatory policy and promotes cooperation between countries.[614] Moreover, the International Organization of Securities Commissions (IOSCO), and the United Nations Environment Programme Finance Initiative (UNEP FI) are directly shaping and promoting sustainability standards.

The practical influence of international investment and development banks extends beyond conventional regulatory domains. Rather, they shape economic policies and development initiatives globally. Their central role in setting standards and influencing financial practices renders them indispensable in the analysis of sustainability standards in context of transnational law for the extractive industries. Despite the fact that today most financial standards are being primarily considered "soft law"[615], they are being followed by a wide range of actors. They are frequently led by international or domestic political or private objectives and are integrated into the structures of private actors via modes of compliance, incorporation, or referencing, amongst others. These standards, therefore, weave a functional unity between the transnational and the domestic, shaping the legal landscape to a notable extent. The focus in this sub-chapter is on deciphering the complex relationship

[611] "The Financial Stability Board (FSB) is an international body that monitors and makes recommendations about the global financial system [in order to] promote international financial stability; […]", https://www.fsb.org/about/.
[612] "The Basel Committee on Banking Supervision (BCBS) is the primary global standard setter for the prudential regulation of banks and provides a forum for regular cooperation on banking supervisory matters.", <https://www.bis.org/bcbs/> (last accessed: 02.02.2024).
[613] The IMF is an international financial institution which is mandated to support economic policies that promote financial stability and monetary cooperation in order to "achieve sustainable growth and prosperity", <https://www.imf.org/en/About/Factsheets/IMF-at-a-Glance> (last accessed: 02.02.2024).
[614] <https://www.fsb.org/about/history-of-the-fsb/> (last accessed: 29.11.2023).
[615] Hüpkes (n 468), 558.

between these soft law financial standards influenced or initiated by the SDGs by analysing their inclusion in financing mechanisms. Assessing these connections should enable a compelling rationale that not only highlights the substantive implications of financial standards, but also their concrete impact through the perceivable processes of integration. The operationalisation of these standards, amongst others, finds expression in the practices of investment and development banks.[616] Guidelines, such as the International Finance Corporation (IFC) Performance Standard 1 and European Bank for Reconstruction and Development (EBRD) Performance Requirement 1, underscore the practical adoption of these standards in the financing domain. However, performance standards and requirements are typically considered soft law rather than legally binding regulations. That means they provide guidelines and benchmarks for environmental and social sustainability but do not carry the same legal weight as statutory laws or regulations. Although being voluntary in nature, they form *the* best practices or guiding principles for entities involved in financing, lending, or development projects and are widely adopted in the financial industry.

However, the challenge lies in ensuring the effectiveness and harmonisation of these standards across jurisdictions and sectors. Achieving a universally accepted set of sustainability standards requires concerted efforts, continuous research, and collaboration among various stakeholders including governments, financial institutions, and civil society. Moreover, sustainable finance is conceptualised as the process of deliberating environmental, social, and governance considerations in investment decision-making. Sustainable finance, thus, serves as a focal point to uncover the inclusion of soft law financial standards in financing mechanisms and their impact on the overarching transnational legal framework.

This part of the study therefore aims to clarify several key aspects of how sustainability standards are set and impact finance, its surrounding areas of law and soft law in order to consequently show its effect on transnational law surrounding the extractive industries. For this purpose, first, the theoretical foundations of finance are outlined to a purposeful extent and the "toolkit" for financing and integrating sustainability and objectives of the SDGs is introduced. This general introduction lays ground for unpacking the structures and systems of the implementation and realisation of sustainability standards in financing sectors. In this way, an understanding of how sustainability standards in finance intersect with transnational law is created. This will provide a comprehensive understanding of their implications, challenges and potential pathways to find common ground for the successful integration of the SDGs into financial standards. In addition, the analysis will contribute

[616] See e.g. Harmonizing Investment and Financing Standards (2019), <https://www.undp.org/china/publications/harmonizing-investment-and-financing-standards> (last accessed: 02.02.2024).

to the next step of this study, when analysing and determining sustainability standards in investment law. The findings of this part of the study (C.) will embed the results there (D.) as a cross-cutting, perhaps facilitating factor.

I. Theoretical Foundations of Finance: Interdependencies of International Financing

The international legal framework for finance comprises various elements and sources. It includes international agreements, treaties, conventions, and soft law instruments established by IOs and bodies such as the International Monetary Fund (IMF), the World Bank, the Financial Stability Board (FSB), and others. Additionally, the framework involves principles[617] and standards set by specialised entities such as the Basel Committee on Banking Supervision, which formulates standards for banking regulation, and bodies that oversee financial markets, such as the IOSCO. These instruments and institutions collectively create the international legal framework governing finance, covering areas like banking, investment, securities, and financial stability and, thus, forming the basis for international finance law which guides the conduct and interactions in the global financial markets. Here, different levels of law are in parallel existence: While international agreements and treaties contribute to (global) standard-setting themselves, they also govern or influence national regulations to assimilate and enact regulations mandating ESG disclosures, reporting and sustainable (investment) practices. Beyond these positivist sources of law, soft law such as non-binding principles and its instruments such as guidelines and voluntary initiatives, sometimes with own sustainability frameworks lead to a high degree of implementation and thus, to a relevant current of governance. However, as a result of its relatively recent and mere responsive development,[618] financial regulation remains incomplete, also omitting aspects of financial markets intentionally to preserve the innovative potential of financial actors.[619]

1. Sustainable Finance

In this only partially developed field of financial standards, especially in the realm of sustainability or responsible finance, sometimes explicitly integrate principles aligned with the Global Agenda 2030 and the SDGs. Examples include incorporating ESG criteria into investment and lending practices for risk mitigation. Moreover, as reporting requirements, some financial standards require institutions to disclose their adherence to sustainable

[617] Principles include, for example, Sovereign Immunity, Non-Discrimination, Free Transfer of Payments, Sanctions and Embargoes, Stability and Security of Financial Systems, Transparency and Disclosure.
[618] Kern et al., Global Governance of Financial Systems: The International Regulation of Systemic Risk, 3; see also Chapter A. II. 3. B. 1. of this thesis.
[619] Tietje and Lehmann, 'The Role and Prospects of International Law in Financial Regulation and Supervision' (2010), 13(3) *Journal of International Economic Law*, 663 (664).

practices, including contributions to SDGs. Reporting frameworks, such as the Global Reporting Initiative (GRI), the Task Force on Climate-related Financial Disclosures (TCFD), UN Principles for Responsible Investment (PRI), the Sustainability Accounting Standards Board (SASB) or, regionally, the EU Sustainable Finance Disclosure Regulation (SFDR) include indicators related to SDGs and are integrated in financing mechanisms and standards.

This assimilation of sustainable principles within financial standards ties in with the global objectives encapsulated in the SDGs and can be seen in multiple ways within the finance landscape. For example, financial institutions progressively integrate SDG screening and due diligence mechanisms, partly initiated by domestic public law, and partly initiated voluntarily or as a result of global governance. These processes involve meticulous assessments of investments' potential impacts on SDGs, steering financing decisions toward aligning with these objectives. Simultaneously, the development of financial instruments tailored explicitly to the SDGs, such as green bonds and social impact bonds, distinctly embeds sustainable objectives within financing mechanisms. These instruments channel funds into projects directly contributing to specific SDGs. The inclusion of SDGs in financial practices is multi-dimensional. Firstly, market and consumer expectations play a pivotal role. Institutions adopting SDG-aligned standards may experience a favourable reception from markets and consumers, thereby potentially attracting investors and clients inclined toward ethical and responsible investments. Additionally, such inclusions can significantly enhance institutional reputations, fostering partnerships, collaborations, and expanding client bases. Moreover, regulatory influences significantly shape the integration of SDGs into financial standards. Several jurisdictions offer regulatory incentives, such as preferential treatments or reduced capital requirements, for institutions demonstrating commitments to sustainable finance. Further, alignment with global initiatives like the Principles for Responsible Banking (PRB) or the Principles for Sustainable Insurance (PSI) often coincides with integrating SDGs. These frameworks effectively guide financial institutions in weaving sustainability into their core business strategies.

The relationship between financial standards and the SDGs is dynamic. Thus, it necessitates an examination of both explicit integration of sustainable principles into standards and their practical inclusion in financing mechanisms. These processes of inclusion are under the influences of market dynamics, regulatory landscapes, and evolving stakeholder expectations. Soft law, notably from entities like the Financial Stability Board (FSB) or the Basel Committee on Banking Supervision, alongside the substantial influence stemming from entities like International Investment and Development Banks forms significant parts of these standards. In this regard, it is notable that the integration of soft law standards often facilitates functional unity and therefore, they are subsequently included in domestic

legal frameworks through compliance, incorporation, or referencing mechanisms.[620] Determining the relationship between financial standards and the SDGs also needs an evaluation of their inclusion in financing practices and their reciprocal influence. This interplay is vividly depicted in the implementation of environmental and social assessment and management systems, as evidenced in the practices of investment banks, which establish a robust legal framework. As a progressive evolution, sustainable finance considers environmental, social, and governance aspects in investment decision-making. Generally, contemporary financial standards relate to the SDGs in a complex, interconnected way as they engage various stakeholders and entities across legal, regulatory, and market domains.[621] A more specific definition in the EU context refers to "[s]ustainable finance generally refer[ring] to the process of taking due account of environmental, social and governance considerations in investment decision-making"[622] With regard of what constitutes an environmentally sustainable economic activity the EU defines this to be aligned with the

> "OECD Guidelines for Multinational Enterprises and UN Guiding Principles on Business and Human Rights, including the declaration on Fundamental Principles and Rights at Work of the International Labour Organisation (ILO), the eight fundamental conventions of the ILO and the International Bill of Human Rights. The fundamental conventions of the ILO define human and labour rights that undertakings should respect. Several of those international standards are enshrined the Charter of Fundamental Rights of the European Union, in particular the prohibition of slavery and forced labour and the principle of non-discrimination. Those minimum safeguards are without prejudice to the application of more stringent requirements related to the environment, health, safety and social sustainability set out in Union law, where applicable. When complying with those minimum safeguards, undertakings should adhere to the principle of 'do no significant harm' referred to in Regulation (EU) 2019/2088, and take into account the regulatory technical standards adopted pursuant to that Regulation that further specify that principle."[623]

Therefore, as one possible definition, it can be derived that sustainable finance is "the stocks and flows of financial resources and assets (across banking, investment and insurance industries) which is aligned with a large range of environmental, social and economic objectives and more generally with the delivery of the Sustainable Development Goals (SDGs)".[624] Beyond that, in specific pillars the international public and private human

[620] For example, the EU Taxonomy Directive leaves explicit space for the connection with private standards and merely frames what shall constitute a sustainable activity under such taxonomy; see Chapter C. II. 1. of this thesis.
[621] See (with reference to the Extractive Industries) Annex H.
[622] European Parliament, Sustainable finance – EU taxonomy, A framework to facilitate sustainable investment, 2.
[623] Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088, Recital (35).
[624] Berrou et al., An Overview of Green Finance in Migliorelli and Dessertine (eds), *The Rise of Green Finance in Europe. Palgrave Studies in Impact Finance* (2019), 3f.

rights context may specify this definition further. Accordingly, as this constitutes one definition formed from one practical context, other definitions are not excluded as they might be relevant in specific other legal areas including tax law or labour law or other levels of the multi-level system of law.[625]

In the context of sustainable finance, the term *green finance* is used as well. As highlighted by the UNEP, plenty of working definitions of such term are in existence with no clear demarcation. Sometimes the terms green finance and sustainable finance overlap in their meaning, sometimes green finance is connected to primarily refer to environmental objectives such as decarbonisation and achieving climate neutrality in the finance sector. In this respect, green finance is connotated with fostering *green* economic growth.[626] For more clarity and since during this examination sustainable finance is assumed to refer to the broader ground of the concept of sustainable development, green finance here is considered one fundamental component of sustainable finance.

When categorising sustainable finance in law, first, it is notable that it mostly consists of soft law. This soft finance law is mainly shaped by the FSB, the Basel Committee on Banking Supervision and a *de facto* influence from financing requirements of the International Investment and Development Banks, amongst others. This applies to the international sphere where "most of the sources of international financial law are informal [and where] intergovernmental institutions that set agendas and standards for the global regulatory community"[627] prevail. These institutions typically lack a treaty-based foundation, relying on consensus and non-binding bylaws. Additionally, coordination is driven not by heads of state but by central banks, regulatory agencies, supervisors, and finance ministries. However, finance soft law standards aim to create a cohesive framework and functional unity and may be integrated into domestic legislation through compliance, incorporation or referencing. This integration has "distributive effects on global markets and market participants", as it redistributes or rearranges financial current.[628] The implication of soft law thus functions "as a coordinating mechanism".[629] By now, due to the lack of effective central governance institutions, "hard law institutions and instruments play a very limited role in the regulation of finance, especially at the global multilateral level. The IMF and World Bank do not generally create regulatory standards, even though they might serve as monitors of regulatory activity."[630]

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[625] See for an overview e.g. UNEP, Design of a Sustainable Financial System, Definitions and Concepts: Background Note (2016), 16/13 *Inquiry Working Paper*, 6f., 12ff. (Annex I).
[626] See UNEP (n 625), 6f.
[627] Brummer, Why Soft Law Dominates International Finance—And Not Trade (2010), 13(3) *JIEL*, 623 (627).
[628] Brummer (n 627), 623 (627).
[629] Brummer (n 627), 623 (624).
[630] Both primarily focus on providing financial assistance, policy advice, and technical expertise to member countries; <https://www.imf.org/en/About/Factsheets/IMF-at-a-Glance> (last accessed:

In contrast, the G20[631] fulfils a more significant role as a forum of major economies, bringing together the finance ministers and central bank governors of its member countries to address global economic challenges. By coordinating policy, adopting principles and setting up working groups such as the Sustainable Finance Working Group (SFWG), the G20 actively influences international standards for financial sustainability.[632] Through collaboration with international organisations and private sector engagement, the G20 promotes the adoption of best practices and green investments. The outcomes of G20 meetings result in reports and recommendations that help shape global discussions on standards and practices for sustainable finance aligned to the Global Agenda 2030 and the SDGs which makes it a central platform for international cooperation in addressing sustainability issues in the financial sector.[633] In this regard, the G20 and the FSB, which is charged with oversight of systemic risk, closely align their efforts. Moreover, the IOSCO, the Basel Committee on Banking Supervision, and the International Association of Insurance Supervisors (IAIS) are key entities tasked with establishing global standards for banking, securities regulation, and insurance.[634] Additionally, the International Accounting Standards Board (IASB), in collaboration with the International Federation of Accountants (IFAC), provides international guidelines for representing specific transactions and events in financial reports. Addressing payment systems falls within the purview of the Committee on Payment and Settlement Systems (CPSS), and the Financial Action Task Force plays a crucial role in issuing regulations to combat money laundering and terrorist financing.[635]

The large number of standard-setting and shaping actors in the financial sector, of which only a selection has been given, already illustrates the potential magnitude of influence of private soft law and private and public organisations in conjunction with political instruments. Financing serves as a preliminary step to investment, exerting a steering function on the economic behavior of various entities such as states, corporations, and individuals. By strategically making sustainable objectivising a requirement for financing, it has the potential to steer investment activities and incentivise socio-economic sustainable transformation. However, the absence of a shared supranational framework which clearly defines overarching objectives of sustainability clearer than a mere concept of sustainable development[636] may result in confusion, deviation, and discouragement for economic operators. This lack of clarity brings a major risk of hampering cross-border investments,

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01.02.2024); <https://www.worldbank.org/en/what-we-do> (last accessed: 01.02.2024); Brummer (n 628), 623 (627).

631 The G20 is an "international forum of 19 countries and the European Union, representing 85% of global GDP, 75% of international trade and two-thirds of the world's population", <https://www.oecd.org/g20/about/> (last accessed: 31.01.2024).

632 See e.g. SFWG, G20 Sustainable Finance Roadmap (G20, 2022).

633 SFWG (n 632), 4f.

634 Brummer (n 627), 623 (628).

635 Brummer (n 627), 623 (629).

636 See Chapter A. II. 2. of this thesis.

highlighting the necessity for a comprehensive and common approach at the supranational level to guide and facilitate sustainable development initiatives.[637]

2. Soft Law Influence in Sustainable Finance

Sustainability norms set by a legislator in the finance sector is not a matter of course, but it is the influence of soft law mechanisms that plays a central role in shaping international norms and orientating towards the SDGs. This chapter addresses the subtle impact of soft law in sustainable finance, focussing on two key aspects. First, it examines the overall contribution of soft law to the development of international norms, highlighting its role in shaping the regulatory environment and fostering co-operative frameworks. Second, this chapter examines in which ways soft law aligns with and advances the SDGs and analyses its impact on sustainable development initiatives. In this way, at least some of the multiple dimensions of the impact of soft law in sustainable finance and its role in shaping the future of global financial practices are highlighted.

a. Soft Law's general Contribution to the Development of International Norms

Soft law is perceived differently with regard to its legal quality and effectiveness.[638] It is characterised by the fact that it is flexible and modifiable and can usually be implemented much more quickly by its users than is the case, for example, with statutory norms. According to its advocates, this makes it more effective and more relevant to reality and also ensures that hard law is in turn influenced by soft law and thus quasi-programmed. The opposing side, on the other hand, fears a deformalisation of the instruments of law enforcement, an unjustified and illegitimised proliferation and thus a weakening or withdrawal of legal authority, which dilutes the demarcation lines between politics and law even more.[639] Though the discussions may vary internationally and within the different legal families, these are the basic opposition arguments. However, this debate, which has been ongoing for more than a decade, is largely theoretical in nature. Although indispensable, the reality seems to lie somewhere between these layers of argumentation. Indeed, the influence and impact of soft law on the genesis of international norms can be recognised.[640]

Within the financial sector, soft law contributes to the development of international norms essentially through the following mechanisms:

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[637] See Lukšić et al., 'Innovative financing of the sustainable development goals in the countries of the Western Balkans' (2022), 12(15) *Energ Sustain Soc*, 1 (2, 4).
[638] See examples described in Chapter A. II. 3. a. of this thesis.
[639] D'Aspremont and Aalberts, 'Which Future for the Scholarly Concept of Soft International Law? Editors' Introductory Remarks', 25(2) *Leiden Journal of International Law*, 309 (309); Jaye, 'Shades of Grey: Soft Law and the Validity of Public International Law' 25(2) *Leiden Journal of International Law*, 313 (313).
[640] See e.g. for the EU legal sphere: Maaß (n 3).

Firstly, there is a direct normative influence insofar as ideas and political discussions are shaped by it during the development of norms. This was the case, for example, during the development of the EU Sustainable Finance Action Plan which resulted in the EU Taxonomy Regulation, the Non-Financial Reporting Directive, and the EU Green Bond Standard, during which the SDGs and the Global Agenda 2030 played a key role. The resulting regulatory framework and the included instruments for financial institutions allow them to experiment with sustainable finance practices, disclosure standards, and green financial products. The EU's soft law initiatives aim to align financial activities with environmental and social objectives. The EU Taxonomy Regulation, for instance, establishes criteria for determining whether an economic activity is environmentally sustainable, shaping the direction of sustainable finance in the EU. Similar activities can be seen in the international sphere: For instance, the Principles for Responsible Banking (PRB) by UNEP FI, are a set of soft law principles for "banks, insurers and investors accelerating sustainable development"[641] under the guise of the SDGs. The PRB constitutes "the world's foremost sustainable banking framework"[642] to experiment with and develop shared principles related to sustainability, responsible lending, and environmental and social risk management. Signatories to the PRB commit to these principles to voluntarily reconcile their corporate strategies with the SDGs and the Paris Agreement. The soft law nature allows for flexibility and adaptation to diverse banking practices globally.

At state level, for example, the PR China has the Green Finance Guidelines, issued by the People's Bank of China. These guidelines encourage financial institutions to voluntarily adopt shared principles related to integrating flexible environmental considerations into financial decision-making. They mostly include green lending, green bonds and environmental risk management. Another example is the German Corporate Governance Code (CGC): Although being intensely influenced from EU legislation as a member state of the EU, the CGC autonomously applies to German listed companies and its group entities (enterprise) and "companies with access to capital markets pursuant to section 161 (1) sentence 2 of the German Stock Corporation Act".[643] While not specific to the finance sector, the CGC practically shapes the governance practices and enterprise strategies of financial institutions and corporations in Germany and ties in, amongst others, with financial reporting and information distribution and ecological, social and broader sustainability-related objectives.[644] Compliance is voluntary, allowing companies to adopt principles that align with their specific circumstances. Thus, in this (and many other cases) soft law served as an incubator for new ideas and norms, allowing for experimentation with shared

[641] UNEP FI, <https://www.unepfi.org/> (last accessed: 12.01.2024).
[642] The PRB has over 330 signatory banks representing over half of the global banking industry UNEP FI, <https://www.unepfi.org/banking/bankingprinciples/> (last accessed: 12.01.2024).
[643] Federal Government Commission, German Corporate Governance Code (as amended on 28 April 2022, convenience translation), 2 f.
[644] See German Corporate Governance Code, Principles 2, 4, 6, 11, 15, 18, 22, 24.

principles and their further development. With regard to the extractive industries more specifically, there are similar functioning standards in place which are used from financial institutions themselves, e.g., to assess the environmental and social impacts of projects related to the extraction and processing of strategic raw materials.[645] Moreover, such standards may have been set from other institutions which may influence financial institutions[646] to consider the strategic importance of raw materials and the sustainability practices of companies involved in extraction when making investment decisions or these may have indirectly affect these in a broader sense, e.g. by encouraging transparency, risk assessment and responsible business practices.[647] However, this playing field does not demand an immediate commitment of legally binding obligations. In addition to the possibility of becoming hard law through recognition by the legislator, it would also be conceivable that, over time, compliance with soft law norms may become a customary practice, contributing to the formation of customary international law.[648]

b. Soft Law's Contribution to the SDGs

Specifically in the context of the SDGs, soft law instruments such as guidelines and best practices are crucial in offering practical guidance for the implementation of SDGs at the national and international levels. The SDGs rely heavily on voluntary commitment. Soft law provides a framework for states, businesses, and other stakeholders to make non-binding commitments towards sustainable development. Moreover, soft law encourages multi-stakeholder collaboration, involving governments, businesses, civil society, and international organizations. This collaborative approach is essential for achieving the interconnected goals of the SDGs. Soft law instruments often include mechanisms for monitoring and reporting progress toward SDG implementation. These mechanisms promote transparency and accountability among states and other actors. The adoption of soft law principles fosters the diffusion of global norms, encouraging their integration into national policies and legal frameworks. Functioning as an incubator, soft law provides a flexible platform for states to experiment with and develop shared principles before committing to binding obligations, influencing the emergence of hard law norms. Thus, soft law significantly impacts the finance sector and other industries by promoting shared understanding, coordination, and common approaches to global challenges. Its adaptability allows for

[645] See e.g. the "Equator Principles".
[646] Such as the China Green Industry Guidance Catalog, the EU Green Bond Standard (GBS) or the EU Raw Materials Scoreboard.
[647] See e.g. the German Sustainability Code.
[648] Examples of this process can be reasoned for the principle of common but differentiated responsibilities initially manifested in the Rio Declaration, the prohibition of torture affecting human rights customary law, the principles and objectives for nuclear non-proliferation and disarmament, or the Montreal Protocol on Substances that Deplete the Ozone Layer; see International Law Commission (ILC), Yearbook of the International Law Commission, Vol. II. (A/CN.4/SER.A/2018/Add.1 (Part 2)), Identification of Customary International Law (2018), 89-112; see also ICRC, International Humanitarian Law Databases.

swift responses to changing circumstances, fostering coherence and consistency. Successful soft law practices may inspire formal treaties, acting as catalysts for future legal developments.

Derived functions from soft law include screening and due diligence processes in financial institutions, incorporating SDG considerations into financing decisions. Additionally, the development of green and social finance instruments, such as green bonds, directly contributes to specific SDGs. Market and consumer expectations play a role, attracting investors and clients who prioritize ethical investments. Reputational impact enhances institutions' standing, attracting partnerships and collaborations. Regulatory incentives in some jurisdictions encourage financial institutions to align with SDGs, offering preferential treatment or reduced capital requirements for sustainable commitments. Aligning with global initiatives, such as the Principles for Responsible Banking (PRB) or the Principles for Sustainable Insurance (PSI), guides financial institutions in incorporating sustainability into core business strategies. Therefore, soft law has the ability to affect the finance sector (and other sectors) in at least the further ways: Since soft law aims to facilitate the practices and promotes a shared understanding between actors of diverse legal systems and, it supports coordinating and developing common approaches to emerging global challenges. In effect, soft law may foster a specific form of coherence and consistency. Since it is capable of adapting more swiftly to changing circumstances and evolving global challenges compared to formal, binding treaties, their flexibility allows for a more agile adaptability and responsiveness. As soft law standards and practices perceived as successful may inspire the negotiation and adoption of treaties or conventions, it can lay the groundwork for the development of more formal, binding legal instruments, thus functioning as a catalysator for future legal developments. The relationship between financial standards and SDGs measured against the explicit integration of their fundamental principles[649] and their practical inclusion in financing mechanisms shows dynamic processes. These integration processes are influenced by market dynamics, regulatory environments, and evolving stakeholder expectations. The integration of SDGs operates through various mechanisms, guided by soft law instruments, amongst others, as follows: Implementation Guidance, Voluntary Commitments, Multi-Stakeholder Collaboration, Monitoring and Reporting Mechanisms, and Global Norm Diffusion.

3. Role of International Investment and Development Banks (IIDB) in Critical Raw Materials Exploitation

This chapter highlights the role of IIDB for the sustainable supply of critical raw materials and standard utilisation. To this end, general practices and those specific to the extractive industries are identified. The analysis in this chapter is based on a selection of banks and

[649] See Chapter A. II. 2. b. of this thesis.

the financing instruments they issue considered to be the most important within the extractive industries. The selection was based in particular on the volume of market capitalisation, the amount and total volume of loans as well as the activity and reputation of the banks. The analysis is primarily based on the framework of the extractive industries in the EU's key producing countries as defined in this study. The parameters of the selection are summarised as being essential for the facilitation of large raw materials projects. Other banks, banking practices to generate sustainability and other financing options are not excluded but are not reported separately in this study.

Being one of the five member institutions of the World Bank Group, the International Bank for Reconstruction and Development (IBRD) grants loans to middle-income and creditworthy low-income countries. It focuses on development projects that aim to reduce poverty and promote sustainable development. In close co-operation and coordination with the International Development Association (IDA), both IDA and IBRD contribute to projects that aim to reconcile economic growth with environmental and social considerations. IBRD may provide financial assistance to middle-income countries for the development of extractive industry projects, incorporating sustainable practices and adherence to international standards. Simultaneously, IDA supports the poorest nations in implementing extractive industry projects, often with a greater emphasis on poverty reduction, environmental protection, and community development and facilitating sustainable development.[650] The collaboration involves, amongst others, joint initiatives to promote responsible extraction practices, environmental conservation, and the inclusion of local communities in decision-making processes. The IBRD and regional IIDBs, such as the Asian Infrastructure Investment Bank (AIIB), the European Investment Bank (EIB), the Inter-American Development Bank (IDB), and others, operate independently but often collaborate and influence one another at various levels. This influence can be observed both generally across their operations and more specifically in the extractive industries sectors.

a. General Practices of IIDBs

Since international and regional development banks often collaborate on projects that span multiple regions, they frequently coordinate efforts to address common development challenges, share knowledge, and avoid duplication of projects.[651] A common aspect within these collaborations is the co-financing of projects to leverage financial resources. To smoothly enable financing collaboration, they frequently work towards harmonising operational standards, policies, and procedures and reduce transaction costs for borrowers,

[650] In 2020, a Sustainable Development Finance Policy was adopted that provides new incentives for debt management and transparency as well as sustainable fiscal management in partner countries; see World Bank Group, Jahresbericht 2020 des deutschen Exekutivdirektors bei der Weltbankgruppe (2020), 44 <https://pubdocs.worldbank.org/en/851631603051451080/Annual-Report-EDS05-German.pdf> (accessed 11.02.2022).

[651] Examples include the ASEAN Catalytic Green Finance Facility (ACGF) initiated by the Asian Development Bank (ADB) and the Green Climate Fund (GCF).

thus enhancing effectiveness of joint initiatives. This also applies to the extractive industry projects. Frequently, the focus here is on ensuring the adherence to environmental and social standards while promoting sustainable practices in resource extraction. For this purpose, banks exchange information on best practices for environmental, social, and governance (ESG) standards across projects and regions or setting common environmental and social safeguards and ensure that internationally accepted standards are met, reducing the risks, e.g. of negative environmental and social impacts. Within collaboration in risk mitigation strategies, financial institutions often align their activities in the extractive sector with global initiatives such as the Extractive Industries Transparency Initiative (EITI) to promote transparency, accountability, and responsible resource management as well as capacity building in countries involved in extractive industries. This includes initiatives to enhance regulatory frameworks, governance structures, and the ability of local communities to engage effectively in decision-making processes.

Thus, the role of International Investment and Development Banks in the exploitation of critical raw materials generally involve providing financial support, influencing policies and standards, fostering innovation, and promoting responsible and sustainable practices throughout the entire value chain. These banks engage in project financing, contributing funds to development projects worldwide. This practice has implications for the diffusion of transnational legal norms as the banks become key actors in shaping global economic activities. These banks implement environmental and social safeguards in their financing agreements, necessitating adherence to specific standards and practices. This not only harmonizes legal standards but also contributes to the development and diffusion of norms related to environmental protection and social responsibility. The banks actively engage in policy advocacy, influencing legal and regulatory frameworks at both national and international levels. Furthermore, their commitment to capacity-building initiatives enhances the legal and institutional capabilities of borrowing countries, thereby reinforcing the rule of law and facilitating compliance with international legal norms.

b. Specific Practices of IIDBs in the Extractive Industries

In the extractive industries sector, IIDBs prioritise responsible and sustainable practices in project financing. This practice aligns with global standards and contributes to the development of transnational legal norms that emphasise ethical conduct in natural resources extraction. Banks often mandate compliance with international standards related to extractive industries, encompassing labor rights, indigenous rights, and environmental protection. This contributes to the integration of human rights norms into the legal framework governing raw material extraction. Through endorsement and adherence to international initiatives, these banks encourage responsible sourcing practices in the extractive sector. This not only fosters ethical extraction and trade of raw materials but also contributes to

the development of transnational legal norms prioritizing long-term environmental and social considerations.

The combined effect of these general and specific practices is the shaping and diffusion of transnational legal norms. These norms span a range of issues, including environmental protection, social responsibility, human rights, and sustainable development, creating a legal landscape that prioritises responsible and ethical conduct throughout the entire value chain of extractive industries. Thus, it can be derived that the practices of IIDBs influence the development and diffusion of transnational legal norms. These norms encompass a wide range of issues, including environmental protection, social responsibility, human rights, and sustainable development. In the context of the extractive industries, these practices contribute to shaping a legal landscape that prioritises responsible and ethical conduct throughout the entire value chain. In essence, their role encompasses supporting projects, influencing global standards, mitigating risks, and fostering sustainable practices to ensure the responsible exploitation of critical raw materials for economic development.

4. Role of Multilateral Organisations

The work of IIDBs and their diverse practices are connected to another grid, a network of influential organisations which collaborate to shape global standards and practices. A multitude of such organisations explicitly aim for sustainability objectives in their business relationships through standards and guidelines. These are meant to support, facilitate, and reorient financial relationship under a sustainability guise. For example, on a global financial scale, the International Monetary Fund (IMF) addresses climate-related financial risks, while the International Finance Corporation (IFC) within the World Bank Group supports projects contributing to sustainable development. The Global Green Growth Institute (GGGI) collaborates with governments and the private sector on green growth initiatives, and the Climate Policy Initiative (CPI) works to enhance the effectiveness of policies driving climate and energy investment. The Financial Stability Board (FSB) oversees the global financial system and established the TCFD, which develops recommendations for disclosing climate-related information. The GRI sets standards for sustainability reporting, while the United Nations Principles for Responsible Investment (UN PRI) encourages investors to integrate ESG factors, shaping global responsible investment standards. Furthermore, the IOSCO sets guidelines for ESG disclosure, promotes responsible investments, and fosters regulatory cooperation. The International Organisation of Pension Supervisors (IOPS) establishes global pension supervision standards, encourages pension funds to integrate ESG factors, and facilitates the exchange of best practices among supervisors. The Network for Greening the Financial System (NGFS), comprising central banks and supervisors, develops guidelines for integrating climate-related risks into financial supervision. The Organisation for Economic Co-operation and Development (OECD) pro-

vides a platform for governments to coordinate policies, with a focus on sustainable finance and corporate governance. The UNEP FI engages with financial institutions to promote sustainable finance practices.

Within the EU, the European Investment Bank (EIB) stands as the lending arm, actively supporting projects aligned with EU policy objectives, emphasizing sustainable development and climate action. Through its lending activities, the EIB plays a crucial role in financing sustainable infrastructure and innovation, promoting projects that adhere to ESG criteria. The European Banking Authority (EBA), responsible for regulating and supervising banking activities in the EU, is deeply involved in shaping regulatory frameworks, particularly those pertaining to sustainable finance. The EBA's guidelines contribute significantly to the regulatory landscape, ensuring the integration of sustainability considerations into the risk management and reporting practices of banks. Similarly, the European Securities and Markets Authority (ESMA) oversees securities regulation in the EU. Its work on developing regulations and standards for financial instruments, especially those with ESG components, influences the integration of sustainable finance principles within capital markets. ESMA's focus on disclosure requirements and ESG reporting standards is pivotal in this regard. The Platform on Sustainable Finance, as an EU advisory body, brings together diverse stakeholders to provide input on sustainable finance-related initiatives. It plays a significant role in shaping EU sustainable finance policies and standards by offering recommendations to the European Commission, fostering collaboration between public and private actors.

Turning to China, the People's Bank of China (PBOC), as the central bank, increasingly emphasises green finance and sustainable development in its policies. Its guidance and regulations are instrumental in integrating sustainable finance principles into the Chinese financial system, including the formulation of green bond standards and sustainable banking practices. The China Banking and Insurance Regulatory Commission (CBIRC) and the China Securities Regulatory Commission (CSRC), regulatory bodies overseeing banking, insurance, and securities activities in China, are actively working on incorporating ESG considerations into their regulatory frameworks. These guidelines influence how financial institutions and market participants integrate ESG factors into their risk management and reporting practices. The Green Finance Committee (GFC) under China Society for Finance and Banking, a non-profit organization, promotes green finance initiatives in China. Through research and guidance, the GFC contributes to the development of green finance standards, certification systems, and best practices, serving as a crucial intermediary between the government, financial institutions, and other stakeholders. In both the EU and China, these organisations play an active role in shaping the regulatory landscape and influencing financial institutions to embrace sustainable finance practices. Their collective

efforts contribute significantly to the global initiative aimed at aligning financial systems with environmental and social objectives.

While a myriad of more institutions and organisations could be deemed relevant in the context of this examination, this network forms the prime governance hub for sustainable finance in the public and the private sector. Their interlinkages are evident in collaborative efforts: IOSCO and IOPS cooperate on regulatory standards, TCFD's recommendations influence globally, NGFS collaborates with central banks, and UN PRI shapes responsible investment standards. GRI contributes to transparency, OECD and UNEP FI work on policy coordination, and IMF addresses climate-related risks. IFC supports sustainable development projects, GGGI collaborates on green growth initiatives, and CPI contributes to effective policies driving climate investment. This interconnected network collectively strives to advance sustainable finance principles globally.

5. Regulatory Dialogue and Policy Alignment

The alignment of regulation and policy in sustainable finance is a dynamic process flowing from both domestic and international levels. At the national level, regulatory bodies engage in dialogue to ensure consistency, while at the international level, collaborative efforts aim to harmonise standards. This alignment is crucial to establishing a coherent and effective framework that encourages responsible financial practices and addresses global sustainability challenges. As stated above, in the EU, the EBA and ESMA actively participate in regulatory dialogue. The EBA's development of guidelines and recommendations for integrating sustainability into risk management and reporting illustrates a commitment to a general alignment regarding EU sustainability policies. ESMA's work on disclosure requirements and ESG reporting standards further enhances policy coherence across financial markets. In China, the PBOC, CBIRC, and the China Securities Regulatory Commission (CSRC) contribute to domestic alignment.

Internationally, platforms such as the Platform on Sustainable Finance in the EU and the Green Finance Committee (GFC) in China facilitate dialogue and alignment on a global scale. The Platform on Sustainable Finance acts as an advisory body, offering recommendations to the European Commission and fostering collaboration between public and private stakeholders. The GFC, a non-profit organization, promotes green finance initiatives and serves as a bridge between the government and financial institutions in China. Additionally, the Network for Greening the Financial System (NGFS) operates globally, involving central banks and supervisors. NGFS's focus on developing guidelines for integrating climate-related risks into financial supervision underscores international efforts towards aligning financial regulation with sustainability goals. The level of alignment varies, with significant progress achieved in some areas. Notably, in the EU, the EU Taxonomy Regulation stands out as a pivotal development, providing a concrete framework to

categorise environmentally sustainable economic activities. This regulation not only fosters coherence within the EU financial markets, facilitates "cross-border sustainable investment in the Union", ends discouragement for investors due to fragmentation in the EU internal market but also serves as a benchmark for global sustainable finance practices.[652] Further demonstrating the commitment to alignment, the European Banking Authority (EBA) and the European Securities and Markets Authority (ESMA) actively contribute to the development of guidelines and recommendations. The EBA's efforts in integrating sustainability into risk management and reporting, along with ESMA's work on disclosure requirements and ESG reporting standards, exemplify a high level of alignment within the EU. These initiatives aim to establish a consistent approach to sustainable finance across member states.

In China, alignment efforts are evidenced by the PBOC, the CBIRC, and the CSRC. The formulation of green bond standards by PBOC reflects a targeted initiative to align policies with sustainable finance principles. The development of green bond standards by PBOC exemplifies a specific initiative aligning policy with sustainable finance principles. These regulatory bodies actively integrate green finance and sustainable development into their policies, and thus contribute to creating a unified approach within the Chinese financial system. While alignment progresses are evident, challenges persist, and the role of private standards in shaping policies and regulations is noteworthy. Private standards, such as those developed by the GRI and the TCFD, have significantly influenced regulatory landscapes. For instance, the TCFD's recommendations, developed by a private sector-led initiative, have gained global recognition and directly informed policies, including the EU Sustainable Finance Disclosure Regulation (SFDR). SFDR mandates disclosure of sustainability-related information, aligning with TCFD recommendations and showcasing the direct impact of private standards on shaping regulatory requirements.

Private standards further influence policies through voluntary initiatives adopted by financial institutions. For instance, major global banks aligning with the Principles for Responsible Banking (PRB), a private initiative led by the UNEP FI, voluntarily commit to integrating sustainability into their business strategies. This voluntary alignment serves as a catalyst for regulatory developments, encouraging regulators to incorporate similar principles into formal policies. Specific examples such as the EU Taxonomy Regulation and the influence of private standards such as TCFD and PRB underscore the tangible progress in aligning regulation and policy in sustainable finance. These examples highlight the crucial role of private standards in directly shaping regulatory landscapes in order to provide a foundation for a more harmonised, transparent, and sustainable finance regime. In the

[652] Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088, para. 12.

EU, the adoption of the EU Taxonomy Regulation represents a major step in aligning financial markets with sustainable objectives. The regulation establishes a classification system for environmentally sustainable economic activities, providing a common language for investors to identify sustainable investments. However, challenges persist, including divergent national approaches and differing definitions of sustainability. Achieving a higher level of alignment requires ongoing dialogue, the development of common standards, and the convergence of diverse regulatory frameworks.

From the perspective of transnational law, the regulatory dialogue and policy alignment in sustainable finance serve as a means to establish a shared legal framework that transcends individual jurisdictions. It follows that the approach to be driven needs several distinct means to be used. While regulation and policy in sustainable finance needs to be aligned with one "common language", for example, set up by taxonomies, it also needs to encompass national dialogue, international collaboration, and efforts to establish or acknowledge further common standards.[653] Examples from the EU and China demonstrate ongoing initiatives to align policies within regions, while global platforms and networks contribute to international dialogue and coordination. As the sustainable finance landscape continues to evolve, sustained efforts in regulatory alignment are essential to building a unified, effective, and globally coherent framework for responsible financial practices.

II. Toolkit for Financing Sustainability: The Creation of Common Language and Taxonomies

Creating a "common language" in sustainable finance involves establishing standardised terminology, definitions, and frameworks that enable consistent communication and understanding among various stakeholders. The special feature of the area analysed is that standards with the aim of directing financial activity towards sustainable ends cannot always be assigned to a particular legal sphere (e.g. public or private law). Rather, written standards serve the legal sphere, other regulation and political intentions, private(ly agreed) law or soft law, i.e. "non-law".[654] As they (are supposed to) stimulate behavioural control efficiently, they may also serve to align with other regulatory activities[655] and thus reach from one sphere into another and vice versa. In order to determine their degree of effectiveness and thus their "capability" as a "common language", their degree of prevalence must first and foremost be established. The instruments that aim to create this common language therefore also represent the parameters for their identification. From an

[653] Igan and Lambert, Bank Lobbying: Regulatory Capture and Beyond in Avgouleas and Donald (eds), The Political Economy of Financial Regulation (2019), 129-159; it is also included as a means and systemic issue in the Global Agenda 2030 itself: A/RES/70/1, preamble, SDGs 17.16, 17.17 and para. 70.
[654] See Chapter C. I. 1., 2.; see also Rouch, The social licence for financial markets, written standards and aspiration in Russo et al. (eds), Research Handbook on Law and Ethics in Banking and Finance (2019), 119.
[655] Rouch (n 654), 116.

overarching perspective, they contribute to the transparency, comparability and harmonisation of efforts in their area of application.

The emergence of global financial institutions as major players and policy makers that reconcile foreign direct investment with human rights, sustainable development and climate change reflects a significant effort to advance the abstract goal of sustainable or green development, thereby mobilising and shifting enormous amounts of financial capital.[656] While it is not always certain to tell whether these immensely powerful institutions have truly internalised the concept of sustainable development or are aligned with the Global Agenda 2030, it is however evident that a certain group of instruments stemming from certain initiatives is primarily utilised for achieving sustainable or green finance. Collectively, these instruments represent a kind of toolkit to which financial market players and other stakeholders orientate themselves. The best-known and (until today) most successful instruments in terms of market volume include 1) green bonds and other debt instruments geared towards sustainability, 2) ESG investments, 3) sustainable equity funds, 4) green loans, green financial technologies (Green FinTech) and their more specific forms, e.g. sustainability-linked bonds and sustainability-linked loans, sustainable banking standards, as well as social bonds and sustainability bonds.[657] Since the adoption of the Global Agenda 2030, these instruments have emerged as key drivers of sustainable finance and illustrate the way in which financial markets are increasingly responding to environmental and social challenges.

These instruments and approaches show how financial markets are increasingly responding to environmental and social challenges. Although many more instruments are conceivable or are in the process of being developed, the presentation in this chapter will focus on the instruments (narrowed down) that have achieved the largest market volume since 2019[658] and are therefore considered to be the most effective in their steering function. Obviously, this only represents a snapshot in time. Nevertheless, these instruments are likely to reveal further trends and developments and will particularly illustrate the character of the ‘common (financial) language’. This will probably also reveal the possibility of connectivity in the investment sector.

1. Sustainable Finance Practices

Sustainability standards within international finance law connect to a multifaceted legal framework primarily seeking to integrate ESG considerations into financial systems.[659] While responsible and ethical investment practices serve as a foundation, the envisioned

[656] See Annex F.
[657] <https://think.ing.com/articles/big-swings-in-2023-but-global-sustainable-finance-remains-in-rude-health#a5> (last accessed: 02.02.2024).
[658] See Annex F.
[659] See Chapters A. II. 3. bb) and B. 1. c) of this thesis.

target objectives lie in long-term economic stability and implementing a solid risk culture.[660] They translate into or accompany the following instruments:

Green bonds are one of the most widespread instruments in the field of sustainable finance. They enable the financing of environmentally friendly projects, including in the areas of renewable energy or sustainable infrastructure. In contrast, sustainability bonds, for example, do not finance specific projects, but rather the general operations of an issuer that pursues explicit sustainability goals, which in turn are linked to the financing conditions of the bond. Green bonds are structured either as proceeds bonds or as asset-backed bonds, depending on the terms and conditions set by the issuer. Proceeds bonds finance projects with specific environmental and/or social benefits. In the case of revenue bonds, the issuer undertakes to use the funds raised through the issue of green bonds for specific green projects or initiatives. The proceeds are earmarked for environmentally friendly purposes. Green bonds with a clear and transparent allocation of proceeds are attractive for investors, as they can ensure that their investment is used directly for sustainable purposes. To the extent that green bonds are structured as asset-backed bonds, the underlying assets serve as collateral for the bonds. In this structure, the issuer pledges certain green assets such as renewable energy assets or sustainable infrastructure projects as collateral for the bonds. If the issuer defaults on its obligations, investors have recourse to the underlying green assets. Both structures aim to improve transparency and accountability in the use of funds and to align with the principles of sustainable and responsible investment.

In the context of the commodities sector, green bonds are particularly important as they provide a financing mechanism for projects and initiatives that contribute to environmental sustainability.[661] The proceeds from green bonds are used in extractive projects, for example, in environmentally friendly practices for sustainable resource extraction or for measures to mitigate environmental impacts. These sustainable mining practices include, for example, environmental rehabilitation, environmental impact reduction, including through investments in research and development or in cleaner production methods. Moreover, waste reduction initiatives or favouring the connection with community engagement, social responsibility, and the protection of indigenous rights align with broader sustainable development principles. Here, as a set of voluntary guidelines, the Green Bond Principles

[660] Blair and Barbiani, Ethics and Standards in financial regulation in Russo et al. (eds), Research Handbook on Law and Ethics in Banking and Finance (2019), 33, 51, 53.
[661] See e.g. Project Ambatovy in Madagaskar(Nickel and Cobalt mining) applying Performance Standard 6: Biodiversity Conservation and Sustainable Natural Resource Management from the International Finance Corporation as requirement for financing, <https://ambatovy.com/en/wp-content/uploads/2022/11/Best-Africa-Project-Finance-Deal.pdf> (last accessed: 31.01.2024); and Cobalt Mining in the DR Congo where several financing and sustainability standards (shall) apply, Forschungsgruppe Afrika/Mittlerer Osten | AP NR. 01, JUNI 2023 (Carry et al.), Elemente einer nachhaltigen Rohstoffaußenpolitik Partnerschaften für lokale Wertschöpfung in mineralischen Lieferketten; Deutscher Bundestag Drucksache 19/13602 19. Wahlperiode 26.09.2019, 22, 26.

(GBP)[662] of the International Capital Market Association (ICMA) aim to provide more transparent, standardised reporting on the environmental objectives of bonds and their estimated impact. The GBP guide reporting in green, social or sustainability-related bonds too. The green bond segment dominated the sustainable financing market in the sector in 2022. Social Bonds constitute another segment within the sustainable finance market, concentrating on funding projects with distinct social objectives. The funds raised from social bonds are directed towards initiatives addressing specific social issues, including affordable housing, access to healthcare and education, employment generation in underserved communities, and efforts promoting social welfare. Social bonds attract investors aiming to make a positive impact on society while also gaining financial returns. Mixed Sustainability Bonds, also termed Sustainability Bonds, amalgamate aspects of both green and social bonds. The funds from these bonds are designated for projects contributing to both environmental and social goals. Typically addressing multiple sustainability challenges, these projects create a comprehensive impact on both the planet and society. Mixed sustainability bonds provide investors with a balanced approach to sustainability, enabling them to diversify their impact across various focus areas. Key players in this sector encompass Green Banks, Sustainable Asset Management Firms, Impact Investing Funds, Green Energy Companies, Social Enterprises, Sustainable Technology Companies, Green Real Estate Developers, Corporate Green Bond Issuers, and Sustainable Companies.[663]

The issue, however, is that in the GBP and comparable standards and initiatives "for environmentally sustainable bonds do not contain common definitions of environmentally sustainable economic activities. That prevents investors from easily identifying bonds the proceeds of which are aligned with, or contribute to, the environmental objectives laid down in the Paris Agreement."[664] Therefore, in a similar functionality, the EU Green Bond Standard (EuGBS) has been established determining criteria to align with the objectives of sustainable finance. The special feature here is that regulation and therefore "hard law [has been created] to incentivise [and redirect] private capital to flow to green projects."[665] With this hard law, however, the EU also recognises

> "the need to recognise a third country's criteria for determining environmentally sustainable economic activities as equivalent to the taxonomy requirements, provided that there are spe-

[662] ICMA, Green Bond Principles Voluntary Process Guidelines for Issuing Green Bonds June 2021 (with June 2022 Appendix 1).
[663] Precedence Research, Sustainable Finance Market Size, Growth, Report By 2032 (2023), <https://www.precedenceresearch.com/sustainable-finance-market> (last accessed: 31.01.2024).
[664] Regulation (EU) 2023/2631 of the European Parliament and of the Council of 22 November 2023 on European Green Bonds and optional disclosures for bonds marketed as environmentally sustainable and for sustainability-linked bonds, Recital (3).
[665] European Commission, Financing Sustainable Growth, 1; Regulation (EU) 2023/2631 of the European Parliament and of the Council of 22 November 2023 on European Green Bonds and optional disclosures for bonds marketed as environmentally sustainable and for sustainability-linked bonds, Art. 71 b) (Review).

> cific safeguards in place in order to ensure equivalent objectives, for the purposes of authorising the allocation of the use of proceeds of a European Green Bond in accordance with such third-country criteria."[666]

This is particularly significant in that the EU actively generates gaps that can be filled by third-country regulations on the one hand, but also by private regulations that are permitted in those countries, provided that they are in line with the objectives of the EU taxonomy. It thus creates docking points and an offer for a common, standardised financial language that does justice to transnational circumstances. The EU proactively promotes and thus recognises the necessary intertwining of private soft law and public (Union) law as necessary for the "proper functioning of the internal market".[667] The EuGBS, which is already recognised by the European Investment Bank[668], is a direct result of the recognition of the Global Agenda 2030 and the SDGs, whose inclusion in the Union's policy framework has been recognised as essential for a "sustainable European future […], both within the Union and globally".[669] The broader ESG investments take environmental, social and governance criteria into account, but already when making investment decisions. The volume of ESG investments has increased significantly since 2016, and the market potential is considered to be exponentially high.[670] Institutional investors and funds are increasingly integrating ESG factors into their investment strategies in order to achieve sustainable returns.[671]

The toolkit for financing sustainability involves various frameworks that aim to align financial practices, particularly in extractive industries, with sustainable development objectives. Therefore, the process of setting sustainability standards involves a combination of approaches, instruments and structures, including soft law mechanisms, industry best practices, and regulatory frameworks. These standards can take the form of guidelines, principles, or regulations, and they vary across regions and sectors. Most notably, these approaches include Green Bonds, Social Impact Bonds, and the incorporation of ESG criteria into investment decisions. In this regard, the following financial instruments are of central importance for the sustainability financing toolkit:

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[666] Regulation (EU) 2023/2631 of the European Parliament and of the Council of 22 November 2023 on European Green Bonds and optional disclosures for bonds marketed as environmentally sustainable and for sustainability-linked bonds, Art. 71 g) (Review).
[667] See Regulation (EU) 2023/2631 of the European Parliament and of the Council of 22 November 2023 on European Green Bonds and optional disclosures for bonds marketed as environmentally sustainable and for sustainability-linked bonds, Recital (6).
[668] See Regulation (EU) 2023/263, Recital (20).
[669] Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088, Recital (2).
[670] Gözlügöl, The clash of 'E' and 'S' of ESG: just transition on the path to net zero and the implications for sustainable corporate governance and finance (2022), *The Journal of World Energy Law & Business*; Precedence Research (n 663); <https://www.consultancy-me.com/news/5180/esg-in-the-financial-services-sector-dont-be-late-to-the-party> (last accessed: 01.02.2024).
[671] See UNECE, Policy Brief: Transforming Extractive Industries for Sustainable Development (May 2021) 16.

Taxonomies provide a standardised framework for categorising economic activities based on their environmental sustainability. In the extractive industry, they facilitate the differentiation of activities based on their positive or negative contribution to sustainability goals in extraction activities. It is observable that taxonomies are increasingly being used globally to introduce compliance requirements and reporting standards for financial institutions. In this way, they increase transparency and effectively increase accountability in financing decisions related to the extractive industry.

The second essential component is environmental, social and governance ESG criteria. They serve as an assessment lens for financial institutions to evaluate the sustainability performance of potential investments. In the context of the extractive industry, ESG considerations include the assessment of environmental impact, social responsibility and corporate governance practices. The integration of ESG principles is emerging as a robust risk management tool to help financial institutions identify and mitigate potential risks associated with commodity activities. A third aspect involves green finance, i.e. the conscious allocation of funds to environmentally friendly projects. This area has the potential to steer projects within the extractive industry. For example, sustainable mining practices, renewable energy initiatives or biodiversity conservation projects are financially supported. This is incentivised, for example, by mechanisms such as preferential interest rates or tax benefits that have been put in place by regulators and financial institutions to steer investments and their financing towards sustainable practices. Closely related to this is the fourth instrument, so-called green bonds, which function as sustainable debt instruments. In the commodities industry, these are expressly reserved for environmentally friendly projects that can be measured in terms of parameters. The issue of green bonds is a direct response to the increasing demand from investors looking for ethical and sustainable investment opportunities. Companies in the extractive industries can use green bonds as a strategic advantage to attract socially responsible investors.

Sustainable finance has already evolved significantly, introducing numerous tools and standards that align financial practices with sustainability objectives. Key components include sustainable equity funds, sustainable loans, green financial technologies and sustainable banking standards. Despite this perceptible progress, there are still challenges in implementation. To date, there is no standardised global framework. The definitions of sustainability, particularly in the legal sense, and the associated (potential) greenwashing are also still inconsistent, even if efforts to clarify them are increasingly gaining ground. These challenges require concerted efforts that lead to clarity, consistency, and effective oversight of sustainable finance practices. Against this backdrop, the financing toolkit initially offers a promising strategy for the sustainable transformation of the extractive industries.

While the lack of a clear, standardised international framework for sustainability underlines the need for a uniform classification system, which is crucial for effective and globally consistent sustainable finance practices, these financial instruments have the potential to provide legal safeguards for investors, financiers and companies.

a. EU-specific Sustainable Financing

The EU has taken a proactive lead in the development and implementation of regulatory frameworks to promote sustainable finance. A key part of these efforts is the Renewed Strategy for Sustainable Finance (RSSF)[672], unveiled in the second quarter of 2020. This strategy builds on the EU's 2018 action plan on financing sustainable growth which substantively connected finance with sustainability with the aim to create a system for classifying economic activities as (environmentally) sustainable.[673] The RSSF is closely linked to the broader Sustainable Europe Investment Plan (SEIP)[674] and focuses primarily on key objectives such as 1) increasing funding for the sustainable transition with instruments such as InvestEU; 2) creating an enabling framework for private investors and the public sector; and 3) providing support to public administrations and project promoters.[675] A distinctive feature of the EU approach is the active development of harmonised taxonomies. The EU aims to standardise the classification of sustainable economic activities, and thus promote transparency and comparability between member states.[676] In addition, the EU has introduced the Sustainable Finance Disclosures Regulation (SFDR)[677], which requires financial market participants and advisors to publicly report on how they integrate ESG factors into their decision-making processes. This regulation emphasises the growing importance of ESG considerations in the EU financial landscape.

The EU's Sustainable Finance Action Plan outlines a strategic initiative to redirect capital flows towards sustainable investments. This includes the establishment of EU Green Bond standards and a Green Bond Standard designed to guide issuers within the EU. The EU

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[672] COM(2021) 390 final, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Strategy for Financing the Transition to a Sustainable Economy {SWD(2021) 180 final}, 06.07.2021.
[673] European Parliament (Spinaci), Green and sustainable finance, PE 679.081 (2021), 1.
[674] COM(2020) 21 final, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Sustainable Europe Investment Plan, European Green Deal Investment Plan, 14.01.2020.
[675] Busch et al., *Sustainable Finance in Europe: Corporate Governance, Financial Stability and Financial Markets* (2021).
[676] This is mandatory for the EU for reasons of good governance and its principles, Art. 2 TEU and Regulation (EU) 2021/947 of the European Parliament and of the Council of 9 June 2021 establishing the Neighbourhood, Development and International Cooperation Instrument - Global Europe, amending and repealing Decision No 466/2014/EU and repealing Regulation (EU) 2017/1601 and Council Regulation (EC, Euratom) No 480/2009, Art. 8(1).
[677] Commission Delegated Regulation (EU) 2023/363 of 31 October 2022 amending and correcting the regulatory technical standards laid down in Delegated Regulation (EU) 2022/1288 as regards the content and presentation of information in relation to disclosures in pre-contractual documents and periodic reports for financial products investing in environmentally sustainable economic activities.

Green Bond Standard operates as a set of voluntary guidelines, offering criteria for what qualifies as a green bond. While the EU's Green Bond Standard is not exclusively tailored to the extractive industries, it sets out principles for environmentally sustainable projects. Financial institutions can refer to this standard when issuing or investing in green bonds related to projects in the extractive sector, contributing to sustainable practices. Another notable aspect is the EU Digital Finance Strategy[678], which focuses on promoting innovation in financial technology (FinTech) while ensuring consumer protection and financial stability. Key areas include blockchain and digital technologies.[679] However, the EU faces implementation challenges in realising its sustainability agenda. Challenges include the need for widespread adoption of sustainable practices, adapting to different national interests and addressing economic inequalities between member states.[680] In addition, the EU Green Deal[681] is the main political action agenda focusing on the transition to a circular economy, sustainable agriculture and decarbonisation. These form the basic framework for the EU's sustainable transition and thus the development of its financial markets. This overall framework is expected to be expanded further. Amongst others, an EU social taxonomy should have complemented the basic EU taxonomy[682] with regard to social aspects of sustainability, which can be measured by do no significant harm (DNSH). In view of Russia's invasion of Ukraine and the associated growing concern in the EU about an energy crisis, this was postponed and reserved for the further work of a subgroup.[683]

The EU basic taxonomy requires four conditions for an activity to qualify as aligned with the Taxonomy: 1) Substantial contribution to one or more of six environmental objectives; 2) do no significant harm; 3) comply with minimum safeguards[684]; and 4) comply with

[678] COM(2020) 591 final, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on a Digital Finance Strategy for the EU, 24.09.2020.
[679] See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Region, Shaping Europe's Digital Future, COM(2020) 67 final, 19.02.2020.
[680] Report with recommendations to the Commission on Digital Finance: emerging risks in crypto-assets - regulatory and supervisory challenges in the area of financial services, institutions and markets" (2020/2034(INL)),
[681] COM(2019) 640 final (n 116); COM(2023) 62 final (n 103).
[682] Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088.
[683] Platform on Sustainable Finance, Final Report on Social Taxonomy (Platform on Sustainable Finance 2022), 80ff.
[684] Meaning the economic activity is aligned with OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights, including the principles and rights set out in the eight fundamental conventions identified in the Declaration of the International Labour Organisation on Fundamental Principles and Rights at Work and the International Bill of Human Rights, Reg (EU) 2020/852 (EU Taxonomy), Art. 18.

technical screening criteria. In addition, a further proposal for a regulation on the transparency and integrity of ESG rating activities is planned.[685] This is currently at first reading.[686] The Directive on Corporate Sustainability Due Diligence (CSDDD), on which the Council and EU Parliament last agreed in principle on 14 December 2023, was also not adopted following Germany's announced abstention in the formal approval, but a vote on it was postponed indefinitely. Several member states had expressed concerns about the far-reaching catalogues of obligations, which would place an exorbitant burden on the EU economy, and in particular regulations on corporate liability, which would result in considerable competitive disadvantages. Germany, under the leadership of the Free Democratic Party (FDP), had warned against the adoption of the CSDDD.[687] Thus, while the basic EU framework for assessing sustainable finance remains applicable, specific EU regulations, policies and initiatives add complexity and require further coordination. For instance, the Renewed Strategy for sustainable finance which fits within the broader concept of the Sustainable Europe Investment Plan and focuses on reaching the following objectives: 1) Increasing funding for the sustainable transition with instruments such as InvestEU; 2) creating an enabling framework for private investors and the public sector; and 3) providing support to public administrations and project promoters.[688]

b. China-specific Sustainable Financing

China, currently accounting for almost one third of global greenhouse gas emissions, aims for carbon neutrality by 2060.[689] China's approach to sustainable finance has unique features that are characterised by its particular economic and regulatory landscape. An important aspect of China's sustainable finance framework is the development of taxonomies and standards for green finance. These standards, developed in response to the country's specific environmental and sustainability priorities, may differ from international norms. These standards reflect China's specific environmental and sustainability priorities and add a certain uniqueness to the country's sustainable finance practices. The governmental influence is also recognisable in ESG initiatives. Here, the Chinese government emphasises sustainable development in line with its broader economic and environmental goals. However, this state-centric approach represents a critical dimension that changes the balance between state-led initiatives and market-led mechanisms (as recognised as the foundation in the EU) and impacts the autonomy of financial institutions. In the light of its

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[685] COM(2023) 314 final (2023/0177(COD)), Proposal for a Regulation of the European Parliament and of the Council on the transparency and integrity of Environmental, Social and Governance (ESG) rating activities, 13.06.2023.

[686] The legislative process can be found here: European Parliament, Legislative Observatory, <https://oeil.secure.europarl.europa.eu/oeil/popups/ficheprocedure.do?reference=2023/0177(COD)&l=en> (last accessed: 12.02.2024).

[687] Euractiv, <https://www.euractiv.com/section/politics/news/german-liberals-want-to-renegotiate-eu-due-diligence-law-blame-spain/> (last accessed: 14.02.2024).

[688] Busch (n 675).

[689] International Trade Administration U.S., China Sustainable Finance and Green Bond Market, 26.07.2023.

global importance in trade and investment, one aspect is particularly critical: The handling of social and human rights factors in Chinese extractive industries, or in extractive industries that China finances or invests in, could lead to unfavourable circumstances in the future when investment projects or banking processes impinge on each other. China's sustainable financial practices are closely linked to the EU's secure supply of CRM. The inequality in taxonomies, the political influence on financial institutions in China, has the potential to thwart European endeavours within its CRM supply and value chains. For example, the financing of BRI projects has a significant impact on the accessibility of critical raw materials for the EU, exacerbating an already tense geopolitical situation. As part of the implementation of the Chinese BRI, independent considerations are also being made in the area of green financing. The focus here is on aligning financing practices with the sustainability goals of BRI-related projects. Overall, green bond issuance is on the rise in China, with definitions of "green" aligned with China's national sustainability priorities but not necessarily in line with international standards.[690] In this context, China's FinTech landscape is characterised by innovation and by government support with new financial institutions having been set up such as the Asian Infrastructure Investment Bank (AIIB) and the Silk Road Fund.[691]

2. Financing in the context of the SDGs

The significance of the toolkit becomes clearer when the alignment of financing practices with the Global Agenda 2030 is considered in its entirety, i.e. in addition to the SDGs, the AAAA and the associated sustainability initiatives. In this way, lines of development, potential conflicts and possible convergences at the transnational level can be identified in relation to investment and finance. Since the SDGs call for the mobilisation of public and private resources to support projects and standard-setting, an implementation element has been set up with SDG 17. All SDGs explicitly focus on strengthening global partnerships for sustainable development, including recognising the central role of finance and investment. As an overarching framework, the Global Agenda 2030 emphasises the collective obligation to eradicate poverty, promote prosperity and protect the planet. For its part, it emphasises the need for innovative financing mechanisms and increased cooperation between the public and private sectors and promotes the alignment of financial flows with the SDGs. As a financing instrument, the AAAA provides the global financing framework. It emphasises the importance of domestic and international resources, public and private financing and the role of various financial instruments. As a strategy, it particularly emphasises inclusive and sustainable economic growth through a mix of public and private financing sources.

[690] International Trade Administration U.S. (n 689); GIZ, Green Finance in China and the EU: A starting point for cooperation (2021), 8.
[691] Zhang and Wang, ASEAN in China's Grand Strategy in 4 *ASEAN@15* (Building ASEAN Community: Political–Security and Socio-cultural Reflections), 171.

At a transnational level, the goals of the SDGs, the Global Agenda 2030 and the AAAA converge in the need for global cooperation, innovative financing and inclusive development. The focus here is therefore on creating framework conditions that promote cross-border investment, technology transfer and knowledge exchange. International financial institutions facilitate these processes by promoting co-operative implementation strategies and supporting initiatives such as green bonds and impact investment. There are trends here that show some instruments to be particularly promising. These include debt cancellation for resource-dependent countries, the reallocation of Special Drawing Rights to channel liquidity into green projects, and the strengthening of direct taxation of income and property to improve the fiscal resilience of the sector. In addition, some financing models are considered innovative such as green finance, which expands green bonds to attract private investment in environmentally sustainable projects, sustainable debt support or blended finance, which combines public and private funds to mitigate risk and mobilise capital for impactful projects. For the extractive sector, UNECE has categorised the following measures as particularly successful:

> "1. Provide debt relief for commodity- dependent countries through service suspensions, establish a long-term debt swap mechanism for debt-for-climate/nature swaps, and integrate state-contingent clauses in debt contracts and income-linked bonds.
> 2. Reallocate Special Drawing Rights (SDRs) to commodity-dependent countries to channel liquidity to transform extractive industries. Use SDRs and fiscal recovery stimulus packages as an opportunity to invest in green projects, renewables, and sustainable and dual-purpose infrastructure.
> 3. Bolster direct taxation of income and property to enhance fiscal resilience in the sector."[692]

Cross-border investment, incentivised by transnational financial mechanisms such as FDI and sovereign wealth funds, contributes to cross-border investment for sustainable development. Regional economic integration efforts further enhance cross-border co-operation and facilitate the flow of investment and resources. Transnationally, the objectives of the SDGs, the Global Agenda 2030, and the AAAA converge on the need for global cooperation, innovative financing, and inclusive development.

3. Realisation and Challenges of Sustainability Standards in Financing Sectors

Implementing sustainability standards in the financial sector requires a combination of mechanisms, including financial incentives, uncommitted loan guarantees, voluntary principles, public pressure, profit considerations and ESG reporting. Financial institutions can be incentivised to adopt sustainability standards through financial incentives such as lower capital costs, lower risk premiums and better access to capital markets. Governments and

[692] UNECE, Policy Brief: Transforming Extractive Industries for Sustainable Development (May 2021) 16.

regulators can provide supportive tax incentives or other financial rewards for institutions that align their activities with sustainable practices. A possible outcome of creating incentives, such as tax breaks or preferential treatment, for investments aligned with the SDGs could lie in the encouragement of financiers to prioritise sustainability. However, the competitive landscape among financiers sometimes undermines adherence to sustainability principles, with profit motives overshadowing considerations of human rights and environmental impacts. Untied loan guarantees are assurances from governments or financial institutions that a loan is not tied to specific projects or activities that do not meet sustainability standards. These guarantees encourage financial institutions to support sustainable projects without undue financial risk, thus promoting investment in environmentally and socially responsible initiatives.

There are various voluntary principles, guidelines and frameworks that guide financial institutions in incorporating sustainability into their practices. Examples include the Equator Principles, the Principles for Responsible Banking and the TCFD. Financial institutions that voluntarily adopt these principles commit to incorporating ESG considerations into their decision-making processes. However, while voluntary principles can foster participation, reliance solely on voluntary compliance might lead to inconsistencies and gaps in adhering to sustainability standards. This is often contrasted by increasing public awareness and concern about environmental and social issues in the media. These are largely fuelled by activism, consumer choice and stakeholder engagement, which in turn can drive financial institutions to align their operations with sustainable practices in order to maintain public trust and reputation. This attention, as well as increasing demand for sustainable products, can put pressure on financial institutions to adopt sustainability standards and expand sustainable product offerings. In addition, financial institutions are increasingly recognising the long-term financial benefits of sustainable investments against a backdrop of increasing regulation and, in some cases, ease of operation. For example, companies with a solid ESG performance are generally considered to be more resilient and better positioned for long-term profitability. Incorporating sustainability considerations into investment decisions can lead to improved risk management, i.e., risk avoidance, lower operating costs and higher financial performance. In this context, ESG reporting plays a particular role in the rating of companies on the one hand, and in market resilience for companies on the other.

ESG reporting involves the disclosure of information on a company's environmental, social and governance performance. The non-financial indicators presented in their reporting allow financial institutions to gauge the sustainability practices of potential investments more easily, ultimately enabling more accurate and potentially more sustainable decisions. This also impacts market stability. Moreover, investors and stakeholders are increasingly relying on ESG reports to assess the impacts and risks associated with investments, which

in turn influences the flow of capital towards sustainable initiatives. The interaction of these elements contributes to the realisation of sustainability standards in the financial sector, promotes responsible investment and supports the shift towards a more sustainable and resilient financial system. In addition to the proposed tools and solutions, technologies such as blockchain and artificial intelligence could significantly improve the implementation of sustainability standards. The use of these innovations can revolutionise transparency, traceability and verification processes within financial systems and ensure the integrity of sustainable investments.

The lack of *globally* harmonised standards for companies' ESG reporting to date has led to significant discrepancies in the data and information available. This discrepancy, combined with the discrepancy between the reporting requirements of the EU Taxonomy Regulation, among others, poses a challenge for companies obliged to report on ESG. For example, under the guise of the EU Taxonomy Regulation, fund groups are required to produce two separate sets of ESG reports. While ESG reporting is essential for transparency and accountability, the lack of globally standardised company disclosures is hampering its effectiveness. The lack of available data makes it difficult to assess and compare sustainable performance across sectors and regions. The lack of harmonisation with a standardised financial language derived from a taxonomy adds to the complexity. To overcome these challenges, the promotion of international cooperation to establish harmonised global standards for corporate ESG reporting could be helpful. This would ensure the consistency, comparability and reliability of sustainability data and enable a more effective assessment of financial decisions.

Despite the crucial role of sustainability standards in financing sectors, challenges remain. The implementation of sustainability standards in the context of the SDGs is very complex due to global economic inequalities, social and environmental externalities and a lack of standardisation. Regulatory uncertainty also poses a challenge but offers market participants the opportunity to actively shape the regulatory environment and thus contribute to a stable and standardised sustainable financial sector. Adverse influences in sustainability finance include high upfront costs, information asymmetry, corruption, (banking) lobbying, soft law and fragmentation, greenwashing, short-termism, insufficient legal protection and barriers to market entry. Purely national reform approaches can lead to weak national banking systems that hinder sustainable development and standards. The greatest challenge lies in incomplete reform approaches that ignore important institutions and laws at international level and thus hinder sustainable development and standards.[693] Harmonisation between the EU and Chinese approaches to sustainable finance in the extractive industries using the proposed solutions is difficult to achieve due to the fundamental differ-

[693] Busch (n 675).

ences in regulatory philosophies and priorities. Recognising and respecting these differences while promoting common standards and cooperation initiatives is part of a pragmatic approach. However, the practical design remains diffuse.

Practical challenges the current financial law regime faces particularly include its responsiveness to the increasing number of investment screening laws, especially as these efforts extend to portfolio and foreign investments for national and economic security. National security policies, characterised by increasing political decision-making, are gaining importance and influencing competition between financiers, often without due regard for human rights. The phenomenon of greenwashing exacerbates these challenges and complicates the landscape of sustainable finance.

The soft law nature of sustainable finance rules contributes to the fragmentation of rule-making in the various sub-sectors.[694] Forums develop advisory rules and form a matrix of fora that guide financial policy in specific areas. The different regulatory philosophies of the EU and China[695] pose an obstacle as the EU emphasises market-based mechanisms while China takes a more state-centric approach.[696] To harmonise these different approaches, different environmental priorities, economic structures and the global impact of initiatives such as the BRI need to be taken into account. More market-driven challenges lie, e.g., in high entry costs which constraints the market itself. Sustainable initiatives and financing are commonly promised long-term financial returns that can, for example, maximise the potential of sustainable investments or promote the advancement of innovation. However, these and other benefits are initially preceded by high initial costs, which can lead to cautious investor behaviour. In order to promote large-scale projects in particular, such as the construction of sustainable infrastructure or the installation of renewable energy sources, suitable, modern financing strategies, financial stimulus by the government and cooperation between the public and private sectors are required.[697]

The regulatory uncertainty this creates also offers market participants a unique opportunity to influence the direction of sustainable finance. The new laws and regulations enacted by countries and financial authorities, which are expected to have a far-reaching (sometimes global) impact, enable market participants to actively participate in debates, help shape the regulatory environment and thus contribute to the development of efficient framework

[694] Newman and Posner, 'International Financial Regulation', Voluntary Disruptions: International Soft Law, Finance, and Power, Transformations In Governance.
[695] Shen, Regulations of Financial Services in China – Rules and Players in Marketizing Financial Services in Gołota et al. (eds), Perspectives on Chinese Business and Law: The Political Economy of China's Shadow Banking in Avgouleas and Donald (eds), *The Political Economy of Financial Regulation* (2019), 259-314.
[696] Avgouleas, The Incomplete Global Financial Order and Spillovers from Instability in Trade and Currency Market Regimes; Wellerdt and Stolz (n 274).
[697] Precedence Research (n 663).

conditions. Thus, ideally, companies, investors and financial institutions can establish themselves as pioneers in the field of sustainable finance, gain competitive advantages and influence proactive, positive change. This co-creation is likely to increase the level of acceptance for legislative change, resulting in a more stable and harmonised sustainable finance industry that attracts more investment and accelerates the shift to a sustainable and ethical financial ecosystem more broadly.[698] Moreover, inadequate assessment of environmental and social risks associated with investments can lead to the undervaluation of risks. This may expose investors to unforeseen risks, negatively impacting the financial viability of projects. However, the main challenge seems to lie in incomplete reform approaches which leaves out major institutions and laws at the international level.[699] Mere domestic reform approaches, however, lead to weak domestic banking systems as they are not connected and ready to assimilate foreign influences, systems and developments smoothly and swiftly, thereby hindering sustainable development and standards to come into proper existence. Detrimental influences in financing sustainability extend beyond the legal realm, encompassing ethical, economic, and social considerations.

Further negative influences can also be observed in information asymmetry, corruption, (bank) lobbying, greenwashing, short-termism, insufficient legal protection, global economic inequalities and social and environmental externalities. These challenges highlight the complexity of sustainable finance and require innovative solutions to overcome obstacles and maximise the potential of sustainable investments. In addition, persistent divergences in regulatory philosophies and priorities and the lack of multilateral cooperation mechanisms hamper harmonisation efforts. The global implications and expansive initiatives such as the BRI and other initiatives add an additional layer of complexity that requires coordinated international approaches to sustainable finance. Reflecting on these challenges emphasises the need for a multidimensional approach that includes legal reforms, ethical guidelines and international cooperation. Addressing these challenges requires a multi-dimensional approach that includes legal reforms, ethical guidelines and international co-operation. Strengthening the regulatory framework, promoting transparency and fostering a culture of responsibility among financial institutions are crucial steps to mitigate harmful influences and increase the effectiveness of sustainable finance. Overcoming the challenges of harmonising different approaches such as these of the EU and China necessitates recognising the fundamental differences and exploring alternative ideas that (may) promote common global standards while respecting the different regulatory philosophies and priorities.

[698] Precedence Research (n 663).
[699] See Kern et al., Global Governance of Financial Systems: The International Regulation of Systemic Risk, 3.

III. Simplifying Sustainability Finance

Innovation in financial products is playing a crucial role in the growth of the sustainable finance sector which is responding to the increasing demand for sustainable investments. This rise has led to the introduction of innovative instruments such as social impact bonds, green investment funds, green bonds and other ESG-focussed securities. The diversity and continued growth of these financial products is attracting more investors, fuelling industry expansion and strengthening global commitment to sustainability. FinTech innovations, particularly blockchain for supply chain transparency in the commodities industry, are helping to reduce the risk of unethical practices. Digital platforms for analysing ESG data help financial institutions to make informed decisions that are in line with sustainability goals. Various financial instruments, including Green Bonds, Social Impact Bonds, Sustainable Development Bonds, Green Loans, Impact Investing Funds and Blended Finance, have proven to be important tools for financing sustainable development projects.[700]

Regulatory dialogue, involving influential bodies such as the World Bank, the PRI and policy makers from emerging economies, plays a crucial role in aligning finance and investment policies. Creating a common language for the design, implementation and monitoring of sustainable finance and investment policies, facilitated by taxonomies, is crucial for the simplification and sustainability of financing for sustainable development in the context of the SDGs. Multilateral organisations such as the OECD, IOSCO and IOPS provide platforms for knowledge sharing, capacity building and the definition of best practices. Nevertheless, there are still challenges, such as different national priorities and different regulatory frameworks. Inconsistencies in the interpretation and implementation of standards and taxonomies in different jurisdictions are an obstacle.

Driving sustainable finance requires a holistic approach that includes international cooperation, improving transparency in financial markets, building capacity in emerging economies and engaging the private sector through incentives and regulatory frameworks that reward sustainable investment. By fostering cooperation, creating common ground through standardised frameworks and incentivising sustainable investment, the path towards facilitating and sustainably financing sustainable development under the SDGs becomes more comprehendible. This approach can create a conducive environment for mobilising capital for impactful and sustainable projects around the world. Alternative ideas for making cooperation work include the development of common global standards, joint research and information sharing, participation in international forums and platforms, and targeted cooperation through bilateral agreements on specific sustainable finance topics. These approaches take into account the diversity of regulatory approaches and at the same time promote alignment on common principles and priorities. For instance, taxonomies serve as effective tools in establishing this common ground. They provide a structured

[700] Lukšić et al. (n 637).

framework for categorising and defining sustainable finance activities, facilitating consistency and transparency across diverse financial markets. Multilateral organizations such as the OECD, IOSCO, and IOPS can play a facilitating role. They offer platforms for knowledge sharing, capacity building, and setting best practices, supporting countries in aligning their financial policies with sustainable development objectives. A holistic approach advancing sustainable finance therefore needs to include:

- Enhancing international cooperation and coordination among regulatory bodies to establish universally accepted standards and taxonomies.
- Encouraging greater transparency and disclosure in financial markets to mitigate risks associated with greenwashing or misallocation of funds.
- Promoting capacity building and technical assistance in emerging markets to enhance their ability to comply with international standards.
- Encouraging private sector engagement through incentives and regulatory frameworks that reward sustainable investments.

By fostering collaboration, establishing common ground through standardised frameworks, and incentivising sustainable investments, the path towards simplifying and sustaining financing for sustainable development within the SDG framework is disclosed. This approach can create a conducive environment for mobilising capital towards impactful and sustainable projects globally. Moreover, alternative ideas for functional collaboration focus on a different approach in connecting different forms of standard setting. Instead of harmonising existing frameworks, the EU and China in conjunction with institutions and private actors could collaborate on developing shared global standards sui generis fostering alignment on shared principles without neglecting diversity.

IV. Summary and Interim Conclusion

The findings in this chapter show first of all that financing itself has a steering effect. By deduction, this means that the bodies and actors operating in the financing sector are steering bodies that (can) contribute to updating or even harmonising the global regulatory framework. In the current financial market environment, the focus is on fundamental reforms to build a sustainable financial system. The regulation implemented or planned must keep pace with the objectives of the Paris Agreement and the SDGs. In this context, the enormously dynamic and complex relationship between financial standards and the SDGs is particularly noteworthy.

In addition to the contemporary gaps in legislative regulation, it is equally striking that core regulatory functions are actually carried out by a large number of private actors, international bodies and organisations. They regulate de facto, i.e. in practice, with the help of soft law standards, the adoption and fulfilment of which are, for example, a prerequisite for funding in specific projects. While these transnational standards are in effect, it is still noticeable that there is often a lack of a common language. It is conceivable, for example,

that different definitions lead to uncertainties regarding the requirements or to the non-coupling of different financing flows, which disrupts efficiency and possibly even effectiveness in the financial market. Taxonomies, which are being created worldwide, attempt to put a stop to this phenomenon by providing financial institutions, investors and companies with guidance and regulatory guidelines by defining criteria for sustainable investments. In addition, they open up strategies to minimise risks associated with unsustainable practices and ensure compliance by establishing monitoring mechanisms. However, there is no global standardisation here either, which is also due to the fact that there is no global institute for financing standards. Nevertheless, in conjunction with transnationally set standards, these are suitable for enabling (softer) forms of enforcement of basic principles of alignment, such as the UNGP, by recognising and incorporating guidelines and certain standards. It is recognisable that this approach has a particular impact on compliance and reporting. In this way, transparency and disclosure of ESG-related information become the basis for well-founded investment decisions, which are then in line with international goals and action plans such as the SDGs.

This development is reinforced in particular by regulatory dialogue and policy alignment, which functions as a means to establish shared legal frameworks or shared understanding of finance language. This common language, which does not (yet) exist, partly due to different histories within different legal families and market approaches, can become a lever for the promotion and further alignment of sustainable practices. Furthermore, it is already apparent that sustainability standards in financial law overlap significantly with investment regulations and, through their assessment grids, also represent a useful tool that influences investment decisions, risk assessments and corporate governance.

E. Sustainability Standard Setting in Investment Law

Considering IIL in conjunction with financial law, it is evident that their interplay has a profound impact on global economic development, as emphasised in the references to the Global Agenda 2030 and the AAAA.[701] Both of these resolutions emphasise the importance of investment law and foreign investment as key components of sustainability efforts that can transform the global economy.[702] Against this background, this chapter is primarily intended to highlight the linguistic linkages with financial law, which functions primarily through the establishment of a common language and the application of principles. In this context, it is useful to analyse IIL in terms of its sustainable development

[701] Bellinkx, 'The Transformational Character of Sustainable Development Law in Multilateral Energy Investment: Why Principles Matter' (2021), 17(2) *McGill Journal of Sustainable Development Law*, 276 (284ff.); Viñuales, 'Foreign investment and the environment in international law', in Miles, *Research Handbook of Environment and Investment Law*, 36.
[702] Viñuales (n 701), 36.

terminology, drawing on contemporary IIL principles.[703] The examination in this chapter resembles a bird's-eye view and encompasses a broad perspective that is not limited to specific actors in international law or a particular perspective of enquiry (e.g. climate change law). While this may seem unspecific, the study must be as comprehensive as possible in order to capture all conceivable commonalities.

This part of the study should be perceived similarly to the broad macroscopic setting of a filter in a technical study to capture phenomena. This approach ensures the inclusion of different streams and connecting lines of sustainability standardisation and the creation of spaces that enable them. As in the study on financial law above, this part also analyses the link between public and private law. To illustrate this link and the implications for the creation, application and enforcement of transnational standards based on a potential common language, the theoretical foundations of sustainable investment are briefly examined, complementing the introduction provided at the beginning. Subsequently, characteristics of investment law in different jurisdictions are highlighted to emphasise particular features that play a role, especially in the EU's CRM supply. Besides European jurisdiction, the jurisdictions analysed include the Chinese, African (especially the DR Congo) and Latin American (especially Bolivia, Chile, Argentina) jurisdictions. The selection aligns with the extraction of raw materials, value creation and supply chains, which are crucial to the EU and also trace the routes of the BRI. Subsequently, investment treaties concluded between states and between states and investors are scrutinised and measured against parameters such as the inclusion of sustainability clauses, the reference to private standards, the creation of access to justice and the actual application in transnational transactions. Finally, an analysis of dispute settlement procedures and decisions is carried out in order to examine their significance for sustainability standards in IIL and the steering effect of the SDGs. A summarising assessment of the direct links between IIL and international financial law is reserved for the summary and interim conclusion and, in the larger overall view, the further assessment in Chapter E.

I. Theoretical Foundations of Sustainable Investment

From a normative perspective, sustainable investment and sustainable international investment law are deeply rooted in the principles of sustainable development (law) and its legal embeddedness. This alignment includes fundamental principles such as the principle of common but differentiated responsibility, the precautionary principle, the principle of public participation, the principles of intergenerational and intragenerational equity, the principle of sustainable use of natural resources and the principle of reflexivity.[704] Another

[703] See Chapter A. II. 3. a. (aa).
[704] Bellinkx, 'The Transformational Character of Sustainable Development Law in Multilateral Energy Investment: Why Principles Matter'(2021), 17(2) *McGill Journal of Sustainable Development Law*, 276 (284-309); see also Huck (n 18), Introduction, mn. 176-83.

crucial aspect is the intersection of public and private law. In IIL, this intersection particularly reflects a "symbiotic relationship" with the right to development (RtD), which in turn is intertwined itself with the concept of sustainable development as set out in the Global Agenda 2030 and the SDGs.[705] Underpinned by the Paris Agreement, which was developed and ratified in conjunction with the Global Agenda 2030 and the AAAA, the link between IIL and the SDGs is additionally emphasised. Furthermore, social development, which is to be considered a cornerstone of sustainable development, inherently incorporates the "longer-established concept of human rights". The realisation of social development, and consequently sustainable development, depends on the very respect of human rights as its negation forms the counterpart of development. The global consensus of the scope and content of sustainable development in this regard can be directly read from the 17 SDGs and their 169 sub-goals and interpretational guide of the Global Agenda 2030.[706]

Key actors such as UNCTAD, UNCITRAL and the OECD play a central role in sourcing, analysing, reporting and interpreting data. Examining model bilateral investment treaties, advanced IIAs with human rights and sustainable development provisions, and arbitral awards or court judgements is a critical part of understanding the evolving landscape. The specificity of each issue to be regulated is recognised, highlighting the need for a tailored policy taking into account the characteristics of the companies subject to the regulator.[707] For example, "[i]ncorporating responsible business standards into global supply chains expands the reach of these standards to thousands of companies and can therefore be an extraordinary lever to improve business standards worldwide and to level the playing field. In this area, the OECD in particular, with government support, helps companies and governments to effectively fulfil due diligence obligations along their entire supply chains. For example, the OECD develops supply chain-specific standards for responsible business behaviour in the areas of raw materials extraction, finance, agriculture and textiles.[708] For example, the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals

[705] A/HRC/EMRTD/7/CRP.2, Right to development in international investment law: Study by the Expert Mechanism on the Right to Development, 09.03.2023, para. 6; see also: 2020 ILA Guidelines on the Role of International Law in Sustainable Natural Resources Management for Development, preamble; Chapters B. I. 3 and B. II. 1. b. of this thesis.
[706] A/HRC/48/63, Operationalizing the right to development in achieving the Sustainable Development Goals - Thematic study by the Expert Mechanism on the Right to Development, 06.07.2021; A/HRC/EMRTD/7/CRP.2, Right to development in international investment law: Study by the Expert Mechanism on the Right to Development, 09.03.2023.
[707] Baron, Design of Regulatory Mechanisms and Institutions in Schmalensee and Willig (eds), *Handbook of Industrial Organization*, vol. 11, ch. 24 (1989), 1347, 1349, [found in: Desierto, 'Public Policy in International Investment and Trade Law: Community Expectations and Functional Decision-Making' 26 *Florida Journal of International Law*, 51 (55f. [fn. 12]).
[708] OECD, Investment for Sustainable Development, 11(3) *OECD and Post-2015 Reflections*, 8.

from Conflict-Affected and High-Risk Areas[709] (OECD Due Diligence Guidance) provides a practical benchmark for companies along the entire mineral supply chain and its inclusion in international, national and industry standards and initiatives is growing."[710] It was developed through five multi-stakeholder consultations from 2009 till 2011 and supported by the UN Security Council. These consultations were initiated with the aim of advancing the recommendations on due diligence for Congolese minerals contained in a UN expert report on the DR Congo and harmonising them with the OECD guidelines in order to prevent conflict and turmoil.[711] The final report already named steps to be taken for protecting the vulnerable country, namely: "strengthening company management systems, identifying and assessing supply chain risks, designing and implementing strategies to respond to identified risks, conducting independent audits, and publicly disclosing supply chain due diligence and findings."[712] As the main multi-stakeholder initiative supplemented by Guidances on the supply chains of Tin, Tantalum, Tungsten and Gold, companies are supported with a comprehensive Guidelines on how to source and behave responsibly and sustainably within their supply chain and corporate engagement.[713] The structure of this Guidance includes:

> "1) an overarching due diligence framework for responsible supply chains of minerals from conflict-affected and high-risk areas;
> 2) a model mineral supply chain policy providing a common set of principles;
> 3) suggested measures for risk mitigation and indicators for measuring improvement which upstream companies may consider with the possible support of downstream companies; and
> 4) two Supplements on tin-tantalum-tungsten and gold tailored to the challenges associated with the structure of the supply chain of these minerals. The Supplements contain specific due diligence recommendations articulated on the basis of companies' different positions and roles in their supply chains."[714]

Moreover, this Guidance builds on and is consistent with the principles and standards contained in the OECD Guidelines for Multinational Enterprises and the OECD Risk Awareness Tool for Multinational Enterprises in Weak Governance Zones. It is also to be understood to be "consistent with applicable laws and relevant international standards".[715] Sectoral guidelines drawn up by the OECD create a common understanding among governments, companies, civil society and workers on due diligence for responsible business

[709] OECD, OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas: Third Edition (2016).
[710] OECD (n 708).
[711] S/RES/1952(2010), Adopted by the Security Council at its 6432nd meeting, on 29 November 2010, para. 7f.
[712] S/2010/596, Letter dated 15 November 2010 from the Chair of the Security Council Committee established pursuant to resolution 1533 (2004) concerning the Democratic Republic of the Congo addressed to the President of the Security Council, 29.11.2010, 96ff.
[713] OECD (n 709, OECD Due Diligence Guidance), 3.
[714] OECD (n 709, OECD Due Diligence Guidance), 16.
[715] OECD (n 709, OECD Due Diligence Guidance), 16.

behaviour. As a(n endeavoured) result, the resilience of corporate supply chains can be increased, uncertainties can be overcome and a long-term culture of values can be created. For example, the Guidelines, last updated in 2023, provide "recommendations for responsible business conduct across key areas, such as climate change, biodiversity, technology, business integrity and supply chain due diligence."[716] These OECD Guidelines for MNEs are backed by related due diligence guidance as tool for implementation.

These OECD Guidelines and their related Guidances represent private standards set by an intergovernmental organisation with the purpose to stimulate economic progress and world trade consisting of a mere 38 member countries[717], amongst others, through the means of public policy advice and international standard setting.[718] By incorporating these OECD Guidelines and Guidances into investment agreements, surrounding policies and other legislation as points of reference for responsible business standards in global supply chains, supported by government-sponsored standards, serves as a lever to improve business standards globally and create a level playing field. In order to give effect to this level playing field, the OECD Due Diligence Guidance demands the establishment of National Contact Points for Responsible Business Conduct (NCPs for RBC). NCPs are to be established by the governments in the form of an agency with the mandate to further promote the OECD Guidelines for MNEs and act as non-judicial grievance mechanisms and provide remedy. Specific features include that records of the cases brought before an NCP are publicly available and that the process lasts 14 months at maximum which is speedy in relation to cases before, e.g., domestic courts.[719] Beyond that, in order to provide effective access to justice, filing a case is without any fee.[720] Since the year 2000, 642 cases have been brought before the NCPs. In 2022 alone, despite a slight decrease, 41 specific instances were submitted to NCPs, a majority of them being concluded during mediation or by agreement.[721] Cases include references to sustainable development issues such as "failing to provide sufficient transparency and public notice, improper involvement of relevant stakeholders, or failing to carry out risk-based due diligence in the initial phase of the manufacturing facility project or failing to disclosure of transparent and detailed information of their suppliers' operations in cobalt and other minerals mining sites in the DR Congo.[722]

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[716] OECD, <https://mneguidelines.oecd.org/sectors/#:~:text=The%20sectoral%20guidance%20establishes%20a,and%20drive%20long%2Dterm%20value> (last accessed: 14.02.2024).
[717] Today, 51 governments adhere to the OECD Guidelines.
[718] OECD, <oecd.org/about/> (last accessed: 14.02.2024).
[719] See OECD, <https://mneguidelines.oecd.org/ncps/how-do-ncps-handle-cases.htm> and <https://mneguidelines.oecd.org/database/> (each last accessed: 14.02.2024).
[720] OECD, <https://mneguidelines.oecd.org/ncps/how-do-ncps-handle-cases.htm> (last accessed: 14.02.2024).
[721] "63% of accepted cases proceeded to mediation, [while] 36% of concluded cases involving mediation led to agreement", OECD, Annual report on the Activity of National Contact Points for Responsible Business Conduct 2022 (OECD 2023), 9.
[722] See e.g. West Virginians for Sustainable Development & Rockwool International A/S [Danish NCP], OECD, Annual report on the Activity of National Contact Points for Responsible Business Conduct

From a normative and practical point of view, the OECD Guidelines are not legally binding themselves on companies unless incorporated in binding legislation. However, they are mandatory for governments of the signatory states, which must ensure that the guidelines are realised and adhered to. About their effectiveness, perceived accountability and transparency, there is ongoing critics in the literature and data acquisition.[723] Nevertheless, the NCP mechanisms are used by their stakeholders, leading to solutions of instances even with extraterritorial reach and obligations (ETO) due to the wide scope of connecting points to NCP states. This suggests that NCPs are de facto effective and "influencing normative debate on corporate conduct"[724], thereby connecting public and private regulatory aspects of transnational law and governance.[725]

A new generation of international investment treaties and arbitration awards reflects the evolving role of investors in upholding human rights obligations and the commitment of states to international co-operation. The focus on the inclusion of human rights expertise in arbitrators and the evolving landscape of investor-state dispute settlement (ISDS) emphasises the commitment to align international investment agreements with the SDGs. The private, highly inconsistent commercial arbitration of investment disputes is being reassessed, stressing the urgency for more coherent and coordinated solutions. The UNCTAD Investment Policy Framework for Sustainable Development serves as a guiding document that provides a comprehensive summary and explores the integration of sustainable development into international investment agreements. The ongoing development of international investment agreements and dispute settlement mechanisms reflects a commitment to aligning investment practices with broader social, economic and environmental sustainability goals.

Key actors of data acquisition, analysis and reporting as well as interpretation include UNCTAD, UNCITRAL and the OECD. Moreover, in conjunction with this examination

2022, 17; 22 Italian associations and NGOs, represented by two lawyers of Studio Legale Dini-Saltalamacchia & Stellantis N.V. and FCA Italy S.p.A., OECD, <https://mneguidelines.oecd.org/database/instances/nl0050.htm> (last accessed: 15.02.2024).

[723] See e.g. Bhatt and Türkelli, 'OECD National Contact Points as Sites of Effective Remedy: New Expressions of the Role and Rule of Law within Market Globalization?' (2021), 6(3) *Business and Human Rights Journal*, 423-48; OECD-ILO CONFERENCE ON CORPORATE SOCIAL RESPONSIBILITY Employment and Industrial Relations: Promoting Responsible Business Conduct in a Globalising Economy, 23-24 June 2008, OECD Conference Centre, Paris, France, REVIEW OF NCP PERFORMANCE: KEY FINDINGS, 7.

[724] Buhmann, (Re-)enter the State: Business and Human Rights Dynamics as Shapers of CSR Norms and Institutions in Sales, *Corporate Social Responsibility and Corporate Change Institutional and Organizational Perspectives* (2019), 129.

[725] See similarly Buhmann, (Re-)enter the State: Business and Human Rights Dynamics as Shapers of CSR Norms and Institutions in Sales, *Corporate Social Responsibility and Corporate Change Institutional and Organizational Perspectives* (2019), 128.

of model bilateral investment agreements, progressive IIAs with human rights and sustainable development provisions and arbitration awards or other court judgments are assessed.

II. Characteristics of Investment Law in differing Jurisdictions

As outlined earlier in this study,[726] investment law at the international level follows a wide variety of historically established principles and rights that regulate the often complex interplay between host state, investor and home state. Similar to financial law, IIL also follows established principles, which are, however, anchored in law in a far more formalised manner. These principles are supplemented by well-established institutions which are intended to guarantee the implementation, interpretation and enforcement of IIL.

However, IIL is not without controversy. In addition to the general criticism that there is a lack of a comprehensive and generally recognised framework within the IIL and thus ultimately a lack of comprehensible coherence, it is in particular the various BITs and / or investment chapters in trade agreements that remain less comprehensible. They can contain contradictory provisions which prevents a harmonised and predictable system. The inconsistent mechanisms for settling investor-state disputes are perceived as equally controversial. The ISDS mechanisms contained in many international investment agreements are mainly criticised for their lack of transparency. In addition, the principle of the development of law is fundamentally excluded by the decisions of the dispute resolution bodies and arbitrators. This means that the decisions made by different arbitration tribunals can vary regardless of any similar cases, which leads to uncertainty and potential conflicts of interpretation and thus prevents consistency in the legal regime.

Another shortcoming that is particularly relevant in the context of this study concerns the widespread failure to incorporate the principles of sustainable development. Traditional investment treaties often prioritise investor protection over sustainable development goals. It is noticeable here that explicit dispute resolution mechanisms relating to sustainability aspects have been included in various investment treaties. However, these are also inconsistent in different jurisdictions and lead to different legal consequences. For example, while the latest generation of US investment treaties include sustainability aspects and their consideration as part of the main treaty, EU investment treaties are structured differently. Here, there are separate sustainable development chapters (as in the EU FTAs). Insofar as sustainability issues are affected within an investment, they are submitted to a separate dispute settlement mechanism that is not part of the main treaty. Violations of sustainability concerns therefore do not lead to a fundamental breach of contract, as they are not part of the fundamental elements of the contract but are to be understood separately. There is therefore a lack of balance in the consideration of the rights and obligations of

[726] See Chapter A. II. 3. a. (aa) of this thesis.

both investors and host states which could lead to potential biases. In this context, critics state that human rights, labour standards and environmental protection are not adequately considered in many investment agreements. This exclusion, in turn, prevents investments from making a positive contribution to social goals. Further contractual issues are evident when definitions of key terms and principles in investment treaties are ambiguous, their interpretation is also impaired. Ambiguities can therefore lead to disputes and problems in reaching a common understanding of contractual obligations and prevent the functioning of a long-term contractual relationship. This makes the interpretation of investment treaties sometimes difficult to satisfactorily be achieved, neither through applying the rules of interpretation as laid out in the Vienna Convention on the Law of Treaties[727] (VCLT), nor through applying other eligible principles such as the contested in dubio mitius.[728] Other instruments of interpretation such as the Vienna Convention on the Law of Treaties between States and International Organizations or between International Organizations (VCLTIO) which is not yet in force are not applicable.[729]

Upon closer examination of the history of IIL, it is remarkable that it was mainly characterised by negotiations between industrialised countries.[730] The perspectives and interests of developing countries are regularly not fully represented, which contributes to a perceived imbalance in the system. A further challenge lies in an asymmetric mechanism of the ISDS system. ISDS mechanisms allow investors to bring claims against states. However, enforcing arbitral awards can be complicated. Some states are reluctant to comply with unfavourable decisions, leading to concerns about the effectiveness of the dispute settlement process.

The lack of mechanisms for cooperation and coordination between states in this regard might hinder efforts to address global challenges such as climate change or public health crises through international investment agreements. Increasing instances of protectionism and unilateral actions by states have highlighted the limitations of existing international investment law in addressing today's challenges for a liberalised and open investment system. Reform initiatives seek to address these gaps and challenges. The development of model investment treaties and discussions in international fora aim to improve the effec-

[727] Vienna Convention on the Law of Treaties, Vienna, 23 May 1969, *UN Treaty Series*, vol. 1155, 331 (Final Act included in A/CONF.39/11/Add.2); the VCLT applies to treaties between States (Art. 1 VCLT), it has 45 signatories (with 35 ratifying states) and some states acknowledging its customary-law status (e.g. U.S. and India).
[728] Fahner, 'In Dubio Mitius: Advancing Clarity and Modesty in Treaty Interpretation' (2021), 32(3) *EJIL*, 835-62.
[729] Vienna Convention on the Law of Treaties between States and International Organizations or between International Organizations, Vienna, 21 March 1986, *UN Treaty Series*, vol. 2, 95 (copy included in A/CONF.129/15) which the ILC designed quite similar to the VCLT.
[730] Schill et al. (eds), International Investment Law and History (2018); Muchlinski, Policy Issues in Muchlinski et al. (eds), The Oxford Handbook of International Investment Law (2008), 3.

tiveness and inclusiveness of international investment law. However, this still is an evolving area and a balance between the interests of investors, their investment-specific endeavours pertaining sustainable development and the sustainable development objectives of host countries remain to be sought for.

Investment Law Characteristics and FDI in different Jurisdictions

EU investment law has distinct features that reflect its multi-layered nature and evolving legal framework. At its core, EU investment law operates within a three-tier structure known as the "three levels", which includes the following aspects: 1) EU investment law is characterised by a comprehensive framework created by secondary legislation. This includes directives, regulations and decisions adopted at EU level. The legal framework forms the basis for the regulation of investments within the EU and contains provisions that affect the rights and protection of investors. 2) Technical regulatory standards play a crucial role in specifying the provisions of EU investment law. Developed by the supervisory authorities and issued by the EU Commission as delegated acts, these standards provide detailed specifications and guidelines for the implementation of regulatory measures. They serve to clarify and operationalise the legal framework and ensure consistency and coherence in the application of investment regulations. 3) The European and national supervisory and regulatory authorities contribute to EU investment law through independent publications.[731] These include guidelines, notices and Questions and Answers documents. These publications provide additional insight, interpretation and practical guidance on the application of investment rules. They contribute to the ongoing dialogue between regulators and market participants, promoting transparency and regulatory convergence.

In the context of sustainability, the EU has proven to be a global leader in the regulation of sustainable investments.[732] With the creation of an EU-wide framework for the classification of financial products, as established by the Disclosure Regulation, the EU has taken a pioneering role in setting global standards for the regulation of sustainable investments.[733] Here, the taxonomy framework formulated in the Taxonomy Regulation plays a central role in defining sustainable investments and promoting a harmonised approach within the EU. However, challenges may arise where there are different definitions of sustainable investment, in particular between the Disclosure Regulation (Art. 2(17)) and the Taxonomy Regulation (Art. 2(1)). The EU's global leadership in sustainable finance depends on its ability to address such discrepancies and ensure a coherent and credible legal framework. While EU investment law is influenced by the principles of international investment law, it also operates in a unique and evolving context characterised by the EU's commitment to sustainable finance. The interplay between EU-level regulations, technical

[731] Wellerdt and Stolz (n 274), 181 (184).
[732] Wellerdt and Stolz (n 274), 181 (196).
[733] Wellerdt and Stolz (n 274), 181 (197).

standards and regulatory publications emphasises the dynamic and multi-layered nature of EU investment law and makes it an important force in shaping global standards for responsible and sustainable investment.

China's investment laws have undergone significant reform in recent years, reflecting the country's commitment to attracting foreign investment and promoting economic development.[734] The Foreign Investment Law (FIL), which came into force in 2020, is an important piece of legislation that aims to create a more transparent, predictable and equitable environment for foreign investors. A notable aspect of the FIL is its emphasis on equal treatment of foreign investors with their local counterparts and the promotion of non-discrimination. The law introduces a negative list approach, listing sectors in which foreign investment is either restricted or banned outright. This approach is intended to create clarity for foreign investors and streamline the regulatory environment. In addition, the law contains provisions that improve the protection of intellectual property rights and address concerns related to technology transfer. These measures are intended to create a safer and more attractive environment for foreign companies wishing to invest in China.

Investment laws in Africa vary widely due to the different economic, social and political realities of the continent. Legal frameworks often aim to create an investment-friendly environment, with countries taking different measures to attract FDI. In Africa, the legal landscape can vary significantly from country to country. While regional economic communities such as the African Union (AU) and regional blocs such as Economic Community Of West African States (ECOWAS) or Southern African Development Community (SADC) play a role in harmonising investment regulations, individual countries retain the autonomy to shape their specific legal frameworks. These frameworks tend to focus on sectors that are critical to economic development, including agriculture, infrastructure and energy. Governments can offer incentives such as tax breaks and legal protection against expropriation to attract foreign investors. In addition, BITs are often used to promote investment protection and provide dispute resolution mechanisms.

Latin American investment law, particularly in Bolivia, Chile and Argentina, is equally country-specific and reflects the different economic and political contexts. The different approaches within the region are somewhat more nuanced. Bolivia's investment laws aim to attract foreign investment, particularly in sectors such as energy and mining. Policies can include tax incentives and legal protection for investors. Bolivia has cancelled several bilateral investment treaties, signalling a change in its approach to investment arbitration. Chile has a comprehensive legal framework designed to attract foreign investment. BITs and free trade agreements play a central role in protecting and incentivising investors.

[734] Zhang and Wang (n 691), 215-44.

Chile's legal framework is generally considered favourable to foreign investors and reflects the country's commitment to creating a favourable environment for investment. Argentina's investment laws have changed over time and reflect the country's economic history. Policies may include sector-specific regulations and incentives. Argentina has been involved in investment disputes, which affects perceptions of the investment climate. Most importantly, the country has struggled with economic challenges, which affects the overall approach to investment regulations.

Although there are common themes across these regions that are driven by international investment norms, each jurisdiction has unique characteristics. One commonality is engagement in international investment treaties to provide a framework for investor protection. These treaties often include provisions on dispute settlement, protection against uncompensated expropriation and a commitment to fair and equitable treatment. Overall, however, the details vary. China differs from some African and Latin American countries in that it adopts a negative list approach and emphasises on equal treatment. The legal frameworks of Latin American countries may have unique approaches to investment disputes and treaties. Argentina's history of economic challenges has shaped its investment climate and its experience with disputes has influenced its approach to regulation. Investment laws in China, Africa and Latin America reflect an interplay of international norms and national considerations. Investors looking to invest in these regions need to consider the unique economic, political and legal context of each country.

III. Investing in Sustainability

Initiating investments in a sustainable manner is easier to define in theory than to realise in practice. While the analysis of the country- and region-specific implementation and application of investment law showed that, in addition to basic international principles, there are special features and deviations in the various jurisdictions. Based on this, but also on the use of sustainable development as an objective and purpose in investment agreements, a nexus can be derived. For example, designing the investment agreement and other relevant standards in the host country to be as investor friendly as possible is a sub-goal of the Global Agenda 2030 and the SDGs, in particular SDG 9. On the other hand, however, the excessive depletion of natural resources and social structures resulting from these investment-incentivising measures may have an impact on health, human rights provisions and the associated increase in production and (after value creation and production) consumption waste.[735] There are also numerous other links between the SDGs and the use of FDI in particular.[736] In this reasoning, FDI supports sustainable development, for example, through simplified "access to capital, technology, know-how, healthcare, water, sanitation,

[735] Cordonier Segger, Crafting Trade and Investment Accords for Sustainable Development: Athena's Treaties (2021), 314 f.
[736] A/RES/70/1 (n 2), paras. 20, 67 and SDG 2.a, SDG 7a., SDG 10.b, SDG 17.5.

energy, infrastructure and promote GDP an employment growth."[737] Moreover, SDG 10 (Reduce Inequality within and among countries) and SDG 17 (Global Partnership for Sustainable Development) independently refer to FDI as a key instrument for implementing the SDGs.[738] It follows that it is not enough to simply encourage more investment, but that regulation must adopt a flexible approach that also allows for a variety of reactions to changing situations. As an instrument, regulation regimes (be it private or public) must create sufficient legal certainty for all parties, while at the same time safeguarding the right of the host state to regulate and, as far as possible, allowing flexible control options. According to UN Principles for Responsible Investment (UNPRI), responsible investing is to be broadly defined as the practice of using ESG factors during the investment decisions about which stocks or bonds to buy, and thus, exert a steering effect on companies or assets.[739] Here, investors may have different objectives such as focusing exclusively on financial returns and considering the ESG issues that could affect them, or generating financial returns that achieve positive outcomes for people and the planet while avoiding negative outcomes.

1. Sustainability (Standardisation) and Investment Agreements

From the plenitude of bilateral and regional IIAs, only few were negotiated during broader inter-state negotiations but mostly by states following their own policy agendas, economic priorities, and political programs. Moreover, no round of negotiation led to a Multilateral Agreement on Investment (MAI) or any other kind of a global investment treaty or global *model* investment treaty by now, despite the acknowledgment that transnational investment flows have been accelerating rapidly. It was exactly the leaning towards "transnational corporations without imposing any corresponding obligations."[740] However, the development of the different generations of BITs[741] shows a certain kind of shifting ideology where a Hull doctrine had become predecessor to the Calvo doctrine and where highly individualistic treaties evolved into more modern, model-like treaties with uniform objectives, structures and standard clauses including for investor-state arbitration. The most recent generation of BITs seems to acknowledge "the need for 'rebalancing' [of] the private and public interests involved in foreign investments"[742] This can be seen, for example, in

[737] Basedow, EU International Investment Policy and the SDGs in Beverelli et al., *International Trade, Investment, and the Sustainable Development Goals: World Trade Forum* (2020), 53.
[738] SDG 10.b: "Encourage official development assistance and financial flows, including foreign direct investment, to States where the need is greatest, in particular least developed countries, African countries, small island developing States and landlocked developing countries, in accordance with their national plans and programmes" and SDG 17.5: "Adopt and implement investment promotion regimes for least developed countries".
[739] UNPRI, <https://www.unpri.org/introductory-guides-to-responsible-investment/what-is-responsible-investment/4780.article> (last accessed: 14.02.2024).
[740] Trebilcock and Howse, The Regulation of International Trade (3rd Ed.), 458-60.
[741] See Chapter A. II. 3. a. (aa) of this thesis.
[742] Petersmann, International Economic Law in the 21st Century: Constitutional Pluralism and Multilevel Governance of Interdependent Public Goods (2012), 290.

the embedding and the increase of IIAs focusing on contributing to sustainable development[743] with approximately 10 per cent of IIAs including statements regarding the overarching objective or consideration of sustainable development in their preambles and 13 per cent including substantive provisions with relevance to sustainable development.[744] However, what can also be seen is that "more than half of the treaty relationships are between higher and upper-middle income countries"[745] which might in effect circumvent the states that would be most in need for this kind of ideological shift being manifested in IIA clauses for sustainable development.

This can be seen in a part of the 224 IIAs that have been concluded since the adoption of the Global Agenda 2030. "31% of those IIAs contain provisions directly addressing the SDGs."[746] However, these IIAs address sustainable development and the SDGs distinctively. Amongst others, they underscore the right of States to regulate or they impose duties on foreign investors. Such duties include, e.g., the mandatory duties "to contribute to sustainable development, to observe specific standards, to comply with human rights generally and to comply with principles of corporate social responsibility."[747]

Since the adoption of the Global Agenda 2030, the contractual design of IIAs has fundamentally evolved with regard to the inclusion of sustainable development, the SDGs and human rights. Nevertheless, two important aspects can be identified: 1) Of the total number of IIAs in force or signed but not yet in force (approx. 3,300 IIAs), only 245 were signed after the adoption of the SDGs. This means that the vast majority of IIAs do not contain any sustainability or other provisions that relate directly to the SDGs, either per se or in terms of content. Of the approximately 70 IIAs that contain such provisions, they remain a de facto minority of all existing IIAs, and they continue to make up only a minority of the IIAs signed after the adoption of the SDGs. This means that here too, the inclusion of sustainable development and the SDGs in the IIAs has not yet become the norm within the treaty negotiations or even within national investment policies. There is certainly a need for greater international consensus here, particularly in terms of content,

[743] Gehring, Stephenson and Cordonier Segger, 'Sustainability Impact Assessments as Inputs and as an Interpretative Aids in International Investment Law' (2017), 18(1) *Journal of World Investment & Trade*, 163.
[744] With reference to the UNCTAD, IIA Mapping Project, <https://investmentpolicy.unctad.org/international-investment-agreements/iia-mapping#iiaInner> (last accessed: 14.02.2024); see for the method used UNCTAD, UNCTAD IIA Mapping Project Methodology, <https://investmentpolicy.unctad.org/uploaded-files/document/Mapping%20Project%20Description%20and%20Methodology.pdf> (last accessed: 14.02.2024); see also: Behn et al., A Global Public Good? An Empirical Perspective on International Investment Law and Arbitration in Iovane et al., *The Protection of General Interests in Contemporary International Law*, 108-9.
[745] Behn et al., A Global Public Good? An Empirical Perspective on International Investment Law and Arbitration in Iovane, *The Protection of General Interests in Contemporary International Law: A Theoretical and Empirical Inquiry* (2021), 110.
[746] A/HRC/EMRTD/7/CRP.2, paras. 11f.
[747] A/HRC/EMRTD/7/CRP.2, paras. 11f.

especially among the parties to the treaty negotiations. 2) Most of the newer generation of IIAs that include sustainable development in their substantive provisions continue to limit its role. They remain mainly exceptions, recommendations and political commitments, while binding state or investor commitments are the rare exception. One such exception is the BIT between Morocco and Nigeria of 2016. This was signed by both countries, but only ratified by Morocco. While the inclusion of "sustainable development" was retained in the subsequent Morocco Model BIT 2019 and Morocco has used it in other BITs, it was not included in the investment agreements with Brazil and Japan. In some cases, more conservative attitudes can be found in the drafting of model BITs, particularly with regard to the question of whether a foreign investment contributes to the development of the host country. In most cases, this issue is completely omitted.[748]

3) Including the term "sustainable development" in the definition of the term "investment", or how sustainable development could be achieved within the framework of international investment law, has so far been too little discussed. What is needed here is international cooperation, a recognition of economic, social and environmental aspects of interdependence that explicitly promotes dialogue between states and between states and civil society. In this context, how its inclusion in the new generation of BITs is interpreted by international arbitration tribunals dealing with investment disputes is also crucial for the further implementation of sustainable development in international investment law. While there is no precedent before arbitral tribunals, it is up to them to examine the practical and legal meaning of "sustainable development" and decide whether it is merely an objective or an enforceable hard treaty right. This is particularly relevant when the concept of "sustainable development" is included in substantive sections of IIAs. This is the case, for example, in the delimitation of the term "investment".[749]

As these are new types of instruments, it remains uncertain whether the host states will even invoke "sustainable development" as a defence against potential claims by investors in the event of legal disputes. It also remains to be seen whether arbitration tribunals will interpret this reference to "sustainable development" as an essential condition for the protected investment or merely as a recommendation. The legal significance of sustainable development in international investment law and its practical feasibility are also likely to be influenced by parallel developments in the municipal law of states. This is particularly relevant if the effects extend beyond national borders. A current example from Germany concerns a decision by the Federal Constitutional Court. Here, the justiciability of "sustainable development" was examined in the context of environmental and climate law without explicitly using the term. The court considered the concept of "intragenerational

[748] A/HRC/EMRTD/7/CRP.2, paras. 18-22.
[749] See e.g. the BIT between Morocco and Nigeria (2016), the Model BIT between Morocco (2019) and the BIT between Mauritius and Egypt (2014)).

justice" both within a state and across borders. Similarly, "intergenerational equity" was taken into account when examining Germany's obligations under the Paris Agreement. Although this does not directly affect international investment law, it is a relevant parallel development. This sheds insightful light on the growing role of sustainable development in international law and its legal interpretation in future investment disputes."[750]

In the same thrust, some of the more recent IIAs explicitly point to human rights obligations and instruments or even to the RtD. Here, obligations on investors are pushed through to "observe CSR standards, partly also with regard with human rights obligations under the domestic law of the host state.[751] This means that human rights violations are subject to review procedures and are thus given significantly more enforcement power, albeit before national courts. As a further effect, this inclusion could even make jurisdictional objection to human rights counterclaims by states a thing of the past. A category of breaches has thus been completely excluded, even if this remains limited to counterclaims (states themselves cannot initiate ISDS proceedings against investors). In some Model BITs, new approaches of interpretation in dispute settlement are integrated which points to a shift in understanding investors' compliance. For example, some of these BITs require the tribunal to consider the investor's non-compliance with the UNGP or the OECD Guidelines for Multinational Enterprises.[752] As in the analysis of international financial law, it can be assumed that the SDGs will also have a (possibly far-reaching) steering effect in the area of investment treaties in general, and more particular so in the investment agreements of the EU and its member states. What can be noticed is an increasing commitment to sustainable development with effect on the behaviour of global investors. The "sustainability status" of the investor is increasingly measured against private standards such as the UNGP and the OECD Guidelines which emphasise on compliance with human rights obligation on the one hand, and environmental protection on the other.

In the area of investment and particularly in dispute settlement proceedings, this acknowledgment and the instruments associated are capable of influencing the priorities, practices and obligations of both states and global investors. It is indeed perceivable that the SDGs serve as a normative guide for countries that conclude bilateral and multilateral investment agreements. Countries are increasingly recognising the need to align their investment policies and treaties with the overarching principles of sustainable development. This alignment is reflected in the inclusion of provisions that reflect the objectives of the SDGs, such as the promotion of responsible business conduct, environmental responsibility and social

[750] A/HRC/EMRTD/7/CRP.2, paras. 18ff.
[751] Article 15.1 of 2012 Model BIT of the Southern African Development Community, Article 5.3 of the Netherlands Model BIT (March 2019 version), Article 13 of India Model BIT (2016) Article 14 of the Morocco- Nigeria BIT (2016), Draft Pan-African Investment Code, Article 13 of India Model BIT (2016) [found in: A/HRC/EMRTD/7/CRP.2, para. 34 (fn. 49)].
[752] Dutch Modell BIT, Art. 23.

inclusion. Investment treaties are evolving to integrate these considerations, reflecting a growing awareness of the interlinkages between investment activities and sustainable development goals.

European international investment treaties which make up a significant part of the global investment landscape, are strongly influenced by the SDGs' steering effect. The EU has played a pioneering role in anchoring the principles of sustainable development in its international investment agreements. The EU's commitment to integrating the SDGs into its trade and investment policy is reflected, for example, in the inclusion of provisions on labour standards, environmental protection and human rights in its agreements. These agreements reflect a conscious effort to align investment practices with the broader Sustainable Development Goals and emphasise the role of investment in promoting inclusive growth and environmental sustainability. Global investors, recognising the importance of sustainable development and responsible investment, are increasingly pursuing strategies that align with the principles of the SDGs. Institutional investors, sovereign wealth funds and private companies are incorporating ESG considerations into their investment decisions. This shift is not just altruistic, but based on the realisation that investments aligned with the SDGs are more likely to be resilient, contribute to long-term value creation and mitigate the risks associated with environmental and social challenges.

The novelties or reinterpretations within investment treaties make the integration of investment and financing mechanisms in treaties a strategic tool for the management of financial flows. The discourse also extends to the regulation of European investments in third countries, with a potential "reverse" investment control mechanism (outbound investment screening) increasingly emerging. The EU review originally scheduled for 2023, which took place in the first quarter of 2024, fits in this direction and indicates a potential shift towards a more assertive stance on foreign investment screening.[753] In anticipation of this development, discussions on the inclusion of environmental and human rights criteria in the assessment of investments in third countries are gaining momentum. This is a fundamental sign of a broader commitment to aligning investments with sustainable practices. In line with this, a high degree of interoperability is being sought in the area of reporting standards in European sustainability reporting alongside initiatives such as the International Sustainability Standards Board (ISSB) and the GRI. This will not only harmonise EU standards worldwide, but also gradually simplify companies' reporting practices as it avoids unnecessary double reporting.[754] As the international community grapples with the complexities of sustainable investment, the interconnectedness of investment

[753] Schäffer (n 609), 695 (700); EC, <https://policy.trade.ec.europa.eu/consultations/monitoring-and-risk-assessment-outbound-investment_en> (last accessed: 21.02.2024).
[754] EC, Nachhaltige Finanzen: Europäische Standards für Berichterstattung (2023), *EuZW*, 684.

agreements, financial control and sustainability standards is becoming a key focus. Ongoing discussions and commitments emphasise the transformative potential of aligning investments with sustainability goals and are poised to herald a new era of responsible global finance.

2. Bridging Sustainability with Public-Private Standards

Sustainable investment standards are critical components that help investors integrate ESG factors into their decision-making processes. These standards, both public and private, shape the global investment landscape and have the capacity to promote environmentally friendly and socially responsible practices in line with the SDGs.[755] Among the well-known public sustainability investment standards, the UN PRI stands out. This global initiative encourages investors to incorporate ESG factors into their decisions, promoting sustainable practices in the financial industry. The EU Taxonomy Regulation, part of the EU's sustainable finance strategy, provides a classification system to determine environmentally sustainable economic activities within the EU. Additionally, the GRI offers a comprehensive sustainability reporting framework for organisations worldwide to disclose their ESG performance in a standardized manner.

On the part of private standards, the Forest Stewardship Council (FSC) sets responsible forest management standards, certifying products from sustainably managed forests. The Carbon Trust Standard independently certifies companies measuring, managing, and reducing their carbon footprint, encouraging sustainable practices to combat climate change. B Corp Certification recognises companies meeting high standards of social and environmental performance, emphasizing a commitment to aligning profit and purpose. The SASB develops industry-specific sustainability accounting standards to enhance the disclosure of financially material ESG information. Equator Principles, adopted by financial institutions, constitute a risk management framework for identifying, assessing, and managing environmental and social risks in project finance globally. These standards collectively guide investment decisions, ensuring a harmonised approach to sustainability across various sectors. The UN PRI, EU Taxonomy Regulation, GRI, FSC, Carbon Trust Standard, B Corp Certification, SASB, and Equator Principles contribute to improved communication and understanding of ESG risks and opportunities. Their influence extends to shaping the corporate landscape, encouraging transparency, accountability, and responsible practices. As sustainability gains prominence in investment decisions, the significance of these standards continues to grow, aligning capital flows with global sustainability objectives. The intersection of public and private standards reflects a comprehensive effort to foster a sustainable future in the realm of global investments.

[755] See Chapters B. II. 1. c. and C. II. 2. of this thesis.

The governance impact of the SDGs on investment is a catalyst for reshaping the global investment landscape. They are prompting a rethink of traditional investment paradigms and the promotion of a more nuanced approach that harmonises economic interests with social and environmental concerns. The influence of the SDGs is not limited to rhetoric, but is increasingly shaping the legal, political and strategic dimensions of investment at the international level. As states, European international investment agreements and global investors continue to chart a path towards sustainable development, the SDGs provide a navigational compass to guide their actions towards a more equitable, inclusive and environmentally sustainable global economy.

IV. The SDGs' Steering Effect: Investment Contracting, European IIAs and Global Investors for Sustainable Development

What favours sustainability in investment treaties?

Sustainable development in investment treaties is facilitated by the integration of provisions that align with the objectives of the SDGs. Achieving this involves striking a delicate balance between safeguarding investor rights and preserving state regulatory autonomy. By incorporating explicit references to the SDGs and acknowledging the right of states to regulate in the public interest, investment treaties can signal a commitment to broader sustainability objectives. Inclusion of environmental and social standards, promotion of corporate social responsibility, and safeguards for indigenous rights and local communities further contribute to sustainable development. Crafting dispute resolution mechanisms that address environmental and social concerns, allowing flexibility for regulatory measures, and periodically reviewing and updating treaties ensure responsiveness to evolving sustainability standards. Transparency, public participation, and incentives for green investments enhance accountability and encourage environmentally friendly practices. Ultimately, a holistic approach within investment treaties that encompasses economic, social, and environmental considerations fosters sustainable development by aligning investment practices with broader societal and environmental goals.[756] "Defining precisely what constitutes the SRI industry may be a challenge. One possible current definition is given by The European Sustainable Investment Forum (Eurosif), a leading European association for the promotion and advancement of the sustainable and responsible investment SRI industry in Europe. Eurosif defines SRI as "long-term oriented investment approach which integrates ESG factors in the research, analysis and selection process of securities within an investment portfolio."[757]

The Transposition into National Law and Measures

[756] WEF (Sauvant and Mann), Strengthening the Global Trade and Investment System for Sustainable Development: Towards an Indicative List of FDI Sustainability Characteristics (2017); International Trade Centre (ITC), The Business Guide for Sustainability in Foreign Investments (ITC 2021).

[757] Eurosif, <https://www.eurosif.org/sustainable-investment/> (last accessed: 12.02.204); see also: Berrou (n 624), 4f.

This section highlights the implementation of international sustainability standards in national law in several countries. It highlights different approaches and their effectiveness in promoting responsible mining practices. In France, the Sapin II law and the due diligence framework emphasise the commitment to ethical business conduct. Overall, however, its impact is only weakly perceptible. In Germany, the Supply Chain Act demonstrates a more comprehensive effort to regulate supply chains and strengthen corporate accountability. In Guyana, the Natural Resources Fund of 2019 and the Green State Development Strategy: Vision 2040 emphasise the country's commitment to aligning extractive industry practices with the principles of sustainability. Here

> "[t]he process of issuing mining leases for gold, diamond, bauxite, manganese, laterite and aggregate resource extraction require higher levels of research, scrutiny and regulation, use of standards for better management of land, water, mineral and aggregate resources, particularly in relation to controlling pollution from operations. Mercury for its contamination impacts, must be phased out of mining practices. The priorities are: to quantify and map the extent and occurrence of mineral and aggregate resources for better management, understand and manage rates of extraction, to control impacts, streamline revenue generation and associated contributory schemes, reducing pollution impacts, and ensure that laws and regulations are enforced, where needed. The country must also continue to meet its obligations under international conventions and through the Extractives Industries Transparency Initiative (EITI), of which it is a member."[758]

The emphasis on research, regulation and compliance with EITI principles there reflects joint efforts to manage resources effectively, control pollution and honour international commitments. In the UK, the Anti-Slavery Act is a notable regulatory measure that intersects with sustainability concerns and signals a wider consideration of ethical practices in the extractive industry. Furthermore, a paradigm shift can be seen in international investment law jurisprudence, where conflicts are increasingly assessed as conflicts of legitimacy, with environmental considerations taking on greater importance. This "valorised" approach introduces a perspective in which conflicts are seen not only as external factors, but as inherent components that do not require additional justification "with environmental aspects derived from domestic law but not international environmental law but where environmental aspects are given much more space and gravity "through the interpretation of legal concepts" (police powers doctrine, definition of like circumstances, levels of reasonableness of investors or use of emergency and necessity clauses)."[759] However, this development is more of an interpretation of existing investment law under the influence of international environmental law than a progressive development, as environmental aspects are normalised without a revolutionary change of perspective. Nevertheless, it is precisely

[758] Guyana Green State Development Strategy, 51, accessible through: <https://doe.gov.gy/published/document/5d12163ee571586f465b1b23> (last accessed: 02.01.2024).
[759] Viñuales (n 707), 27.

this normalisation of environmental considerations that is sometimes associated with sustainable development in arbitration jurisprudence. Notable references to international environmental law, such as those found in North American Free Trade Agreement (NAFTA) arbitration proceedings, emphasise the intrinsic relationship between environmental concerns and the operational dynamics of the extractive industries. This marks a shift away from a progressive view towards a more routine inclusion of environmental factors that is reshaping the discourse within international investment law.[760]

V. Effective Realisation of Sustainability through Dispute Settlement in IIL

IIAs establish international obligations ex contractu,[761] hence the dispute resolution mechanisms regarding the contractual relationship regularly arise from these agreements. In this regard IIL has a specific characteristic: Investment arbitration proceedings are generally confidential and arbitration hearings are non-public which limits access to decisions or certain details in arbitration proceedings. Nevertheless, the available materials indicate an influence of private standards, in particular environmental, social or corporate governance matters, in contentious proceedings. Nonetheless, the following examples can at best be seen as merely illustrative and not exhaustive. Environmental standards play an important role in some disputes involving non-compliance with standards by the host state or investor. For example, disputes arising out of the host state's failure to enforce environmental regulations or allegations against the investor for breach of environmental obligations set out in the investment agreement are among noticeable phenomena. Social standards, in particular labour rights, indigenous peoples' rights or community participation, are also regular causes for arbitration proceedings.

Corporate governance standards and regulatory obligations are another potential area for disputes. Investors may argue that regulatory changes in the host country have a negative impact on their investments, while states demand compliance with the same. Human rights considerations, although usually governed by general international law, can arise in investment disputes. For example, disputes may arise when a state fails to protect an investor's property rights in the midst of civil unrest. These examples are not universally applicable and do not indicate a certain trend. In this respect, it depends on various factors whether and at what point in time, and before which body a dispute settlement is carried out. For instance, some IIAs do not provide a forum non conveniens for transnational corporations which is frequently used by them to evade accountability where the infringement

[760] Viñuales (n 701), 35 f.
[761] Stegmann, Responsibility of the EU and the Member States under EU International Investment Protection Agreements (2019), 26 f.

or breach of contract occurred.[762] These factors include the substantive terms of the investment agreement but also the applicable (national) laws and the specific circumstances of the dispute in question. As noted above, dispute settlement or arbitration is the exceptional case. Settlements, mediation or the use of good offices (in the WTO context) are more common. In addition, the confidentiality surrounding many investment arbitration proceedings limits public access to information, results and details. A nuanced assessment of these proceedings involves a multi-layered analysis of treaty provisions, customary international law and case-specific facts. The parties often bring claims or counterclaims that originate from different legal families or are based on different legal theoretical considerations. In this overall view, the adoption of private standards is only one facet of the broader dispute landscape.

Part 3: Gaining Knowledge and Some Clarity: About Needs and how to Achieve Urgent Action

F. Future Development of Sustainability Standard Setting

The SDGS are "no globally agreed reference framework for responsible mining".[763] This statement is valid in the narrower sense. However, as could be shown with the analysis in this study, the SDGs might well be perceived a consolidated framework steering the areas of finance and investment and exert direct and indirect influence on the entire extractive industry and beyond. Due to their deep integration in international law and their increased inclusion in legislation, agreements, policy agendas and the more, the SDGs and the Global Agenda 2030 can certainly be assigned a value in the fabric of normativity.[764] While they lack a universally agreed frame of reference for responsible mining, they have an inherent global significance that cannot be denied. This chapter addresses various aspects of standard-setting in the future, which may be of relevance for a further development of sustainability. Of particular interest is how standard-setting and standards themselves can be simplified without disregarding key influencing factors. This includes, on the one hand, the orientation towards and linking with legal instruments as well as the linking with new technologies and future scenarios in raw material extraction. The study sheds light on legal mechanisms for organising processes that aim to legitimise the complicated decisions that such transitions entail. It also illustrates how these legal frameworks

[762] <https://www.swp-berlin.org/10.18449/2023C16/> (last accessed: 02.02.2024).
[763] BGR and DERA, Kickler et al., 'Mapping Sustainability Standards Systems for Mining And Mineral Supply Chains' (2019), 59 *Commodity TopNews*, 3.
[764] See Vinuales, 'Law and the Anthropocene' (2016), 72.

can support the transformative initiatives necessary for the adoption of sustainability, thereby unravelling potential pathways to promote responsible and sustainable practices in different sectors.

I. Simplification of Extractive Industries: Standardisation in Industry 4.0

This chapter is intended to create benchmarks for the success of standardisation in this area and identify initial possible starting points for effective regulation, which can be held up against the results of chapters B., C. and D. As outlined above,[765] norms in the area of standard-setting are of fundamental importance for shaping behaviour through defined rights and obligations. Compliance with norms not only reflects a commitment to normativity but is also crucial to the realisation of the SDGs.[766] Standards are a cornerstone of global governance and cover a spectrum of topics ranging from economic and environmental issues to social governance, technical regulations and management.[767] Their specific applicability in supply chain environments enables to identify the affected stakeholders, such as upstream or downstream companies,[768] and thus, show a standard's true scope and gravity.

1. Politics, Law and Strategic Levels of Consideration

At the international level, normative frameworks and global standards serve as minimum benchmarks. Cooperation between powerful economies such as the EU in securing raw materials transforms the competitive landscape into a joint endeavour.[769] Legally binding standards, including rules, laws and regulations exert influence beyond national borders, with international agreements such as those of the ILO having a (extra-territorial) global impact[770] despite the enforcement being controversial. Incorporating the principles of sufficiency, circularity and efficiency is essential for the creation of effective standards.[771]

2. Other Influencing Factors in Future Orientation

Furthermore, implementation guidelines or principles play a central role in translating international standards into practical application by companies or industries. Authorities such as the OECD and the ICMM thus help to shape and implement standards. Standards in the extractive industries, however, form around the mining, i. e. in the first part respectively of the upstream or downstream supply chain on the one hand while leaving gaps in

[765] See Chapter B. II. of this thesis.
[766] See Chapter B. II. 1. c. of this thesis.
[767] BGR and DERA (n 763), 3.
[768] See Chapter B. I. 2. d. of this thesis.
[769] <https://www.swp-berlin.org/10.18449/2022JR01/> (last accessed: 02.02.2024).
[770] For example, the Dodd-Franks-Act or the EU Conflict Minerals Regulation.
[771] ECOS and DUH, How to reduce our dependency on critical raw materials by stimulating circularity: ECOS, DUH and RREUSE position on the Critical Raw Materials Regulation proposal (2023), 11.

the second part upstream supply chain, particularly excluding secondary operations of refining and processing. According to the IEA diversifying refining and processing operations remains difficult since investors are challenged in multiple ways to uphold their most often specialised metallurgical, chemical and high-tech applications. Thus, addressing these gaps is a prerequisite in diversifying such (refining and processing) operations. Limiting pricing power due to margin pressures and a high price-volatility which prevents price hedging, short-term profits prioritisation and substantial industrial overcapacities and non-transparent stockpiles are likely to being exposed to distortive market behaviour. This adds to the comparably high capital costs for establishing technology and skills in a newly to be formed supply chain.[772] As is the case with mining activities, refining and processing operations are also highly geographically concentrated with a high density of monopolistic structures with China having a strong position and, thus, are likely to have a high risk-potential.

3. New Technologies and Data Acquisition: Chances and Risks

In the context of a newly to be understood industry, sustainability standards systems are emerging to set sector or issue-specific standards, primarily through voluntary mechanisms. These standards, which focus on practices and indicators, lead to certification or verification systems and awards. In addition, due diligence guidelines, supply chain regulations (e.g. OECD guidelines and UN standards), supply chain law and smart sanctions as issued by the UN Security Council or the UN Sanctions Committee and assessment of compliance with due diligence guidelines[773] contribute to shaping a more sustainable and responsible extractive industry. Standardisation in Industry 4.0 needs to offer a way to simplify and improve the extractive industries. A holistic approach that combines regulatory frameworks, global co-operation and technological advances is crucial for sustainable and responsible extractive industries.

II. Industry 5.0 as a New Understanding of Economies

Technologisation, industrialisation and innovation have always been advancing. With the advance of human endeavour and the advent of Industry 5.0 is also being heralded and a transformative era of business is emerging. In the scope of this thesis, innovative technologies and integrated governance are increasingly being introduced to address issues such as resource substitution and the need for sustainable development. The current discourse revolves around agile adaptations in regulatory approaches, reinterpretation especially with regard to circular economies and the restructuring of investments and financing. No-

[772] IEA, Critical Minerals Market Review 2023, 71.
[773] Krieger et al. (eds), *Due Diligence in the International Legal Order* (2020).

table examples of resource substitution include the switch to cobalt-free lithium iron phosphate (LFP) batteries, as practised by Tesla and others.[774] In order to minimise and diversify the demand for CRMs in manufacturing processes and reduce dependence on scarce resources, alternatives are being intensively researched. This trend is in line with the global endeavour to achieve climate neutrality on the continent by 2050, which requires a change in the raw materials industry. The WEF and the EU, for example, are conducting extensive research on Sodium nickel chloride (Na-NiCl2) batteries which seem to be emerging as sustainable energy storage systems based on non-critical raw materials which are widely available.[775] The main raw materials used for the production of Na-NiCl2 batteries are sodium (Na), chlorine (Cl) and nickel (Ni), which are non-hazardous. Its production is around 2.5 million tonnes per year, extracted from mines, but it is currently expensive. New ideas are being explored to significantly reduce the Ni content. A recent study of the European Parliament provides a general overview of this technology from its initial conception, together with research and development perspectives and application areas. While the applications are mainly focussed on grid storage due to the operating temperature (275 - 350 °C), other forms of utilisation are possible such as in EV production. Moreover, the patent portfolio is deemed not to be constrained since the main intellectual property is in the public domain. In addition, Switzerland is active in this technology with FzSoNick, a producer of commercial Na-NiCl2. While such advances are crucial for sustainable energy solutions, an accompanying question touches upon the potential impact on lithium producing countries if such plans become realised on large scale. With the possibility of reducing lithium in batteries by 70 % and replacing it with abundant sodium, countries relying on future lithium demand may have a shorter window of opportunity to capitalise on this. Other developments in sustainable battery production include the Li-Cycle. Glencore is currently conducting a definitive feasibility study (DFP) until around mid-2024 to produce recycled batteries via hydrometallurgical processing, with competitive and long-term financing from Glencore. Along with Li-Cycle's Spoke network and Glencore's Battery Circular Platform, this facility would effectuate the circular economy within the EU and make waste and end-of-life batteries a thing of the past, entirely in Europe.[776]

Falling lithium prices due to lower production and demand for electric vehicles are an existence pointing to the importance for vigilant policy making in producing countries in

[774] https://ecostandard.org/wp-content/uploads/2023/07/Position-Paper_Critical-Raw-Materials_Final.pdf, 6.

[775] Armand et al., Salt Batteries: Opportunities and applications of storage systems based on sodium nickel chloride batteries, In-Depth Analysis Requested by the ITRE committee (2023); Berretta and Harvey, Mining for a low-carbon economy: new technologies and integrated governance in Yakovleva, and Nickless (eds), *Routledge Handbook of the Extractive Industries and Sustainable Development* (2022), 172.

[776] <https://www.chemie.de/news/1180566/li-cycle-und-glencore-geben-plaene-fuer-ein-bedeutendes-europaeisches-batterie-recyclingzentrum-bekannt.html> (last accessed: 14.02.2024).

facing disruptive changes due to technological innovation. Adapting strategies to introduce new materials and diversify their economies will be key to managing these changing landscapes. However, more research needs to be conducted in order to assess the long-term impact of such new technologies. Of importance is their overall costliness, availability of production sites and its resulting waste and pollution as well as the stability and life cycles of these materials.

This is accompanied by the need for vigilant and adjustable regulatory approaches in transnational law for the extractive industry. The circular economy is taking centre stage, necessitating reforms in certain sectors and corporate structures. Reforms such as those which change the role of corporate boards to align them with "sustainable values" and "planetary boundaries", as well as the revision of legal and economic regulations, are imperative.[777] According to Montini, the current anthropocentric, human-centred regulatory systems need to be re-evaluated to meet the challenges of the 21st century. Already included in the 1972 Stockholm Declaration, the 1987 Brundtland Report, and the 1992 Rio Declaration,[778] this approach has not changed too much. In this regard, legal and economic regulation of human activities need to be "reconsidered and thoroughly revised, in order to promote new patterns of socio-economic development truly pursuing sustainability."[779] The need for an overarching approach beyond short-termism, myopia and deregulation must be discussed through all relevant forums. Deregulation, and thus a financial market that is more liberal, would only be possible if sustainability standards are recognisably followed and integrated into corporate activities within the extractive industries. However, the overlap between trade policy and the Common Foreign and Security Policy (CFSP) needs to be considered. Geo-economic and geo-political struggles emphasise the importance of strategic autonomy in external economic relations.

In May 2024, the first global supply chain forum will be held under the auspices of UNCTAD and the Government of Barbados. The high-level forums' focus in the negotiation between government officials, business leaders and experts will be to "explore how to promote development through sustainable and resilient transport and logistics, improved connectivity and trade facilitation."[780] The topics to be addressed remain the same as those already set out in the Global Agenda 2030: sustainable transport, logistics and improved connectivity and digitalisation, food security, transport costs, climate change resilience, energy transition and financing needs of developing countries. The issues also remain the same: the aim is to act more efficiently, more resiliently and more "green" in

[777] Sjåfjell, Realising the Potential of the Board for Corporate Sustainability in Sjåfjell and Bruner, *The Cambridge Handbook of Corporate Law, Corporate Governance and Sustainability*, p. 705 f.
[778] Rio Declaration, Art. 1: *"human beings are at the centre of concerns for sustainable development"*.
[779] Montini, Designing Law for Sustainability in Mauerhofer et al. (eds), Sustainability and Law: General and Specific Aspects (2020), 41.
[780] <https://unctad.org/news/barbados-host-first-global-supply-chain-forum-may-2024> (last accessed: 10.02.2024).

order to manage the polycrisis exacerbated through global pandemics, rising inequality, discrimination and challenges in the realisation of economic, social and cultural rights.[781] It remains to be seen whether the possibility of setting up global strategic partnerships with private players, international organisations or governmental organisations will also be discussed in such context. Looking to the future, new sources of resource extraction in regions such as Tibet, Afghanistan and even outer space are becoming prominent subjects. The evolving landscape of space law, where traditional legal systems do not apply, opens up opportunities for the creation of innovative legal frameworks for space exploration and resource extraction. Therefore, managing the impact of future life requires a holistic approach that integrates sustainability into legal frameworks, economic models and global cooperation. Industry 5.0 offers the opportunity to redefine the economy and ensure that innovation and governance contribute harmoniously to a sustainable and resilient future.

III. Steering Effects of Future Life: Some Scenarios to Think About

The development of future life is closely linked to a variety of positive and negative factors that need to be carefully considered. Although it is not possible to provide a complete analysis here, this chapter aims to provide at least a brief indication of possible scenarios that may affect transnational law in the extractive industries. Taking these into account and at the same time not excluding others is crucial for the design of sustainable and resilient standards of any type.

1. Competition, Security and Global Collaboration

Crucial to the governance of the future, both politically and legally, is the commitment to achieve global climate neutrality by 2050. This ambitious goal requires a radical change in the way resources are extracted, utilised and managed. This is accompanied by the search for new sources of raw materials, possible substitutes and extraction areas, which brings both opportunities and challenges. While regions such as Tibet and Afghanistan, which is often referred to as the "Saudi Arabia of lithium", are politically and diplomatically linked to issues that play a significant role in EU security policy.[782] On the other side, newly accessible "domestic mining" within the EU may be much more associated with issues of administrative law, and more specifically construction law, environmental law or competition law. This shows, global competition for important raw materials is measured by different parameters. Weighing up the economic benefits against environmental and social considerations will be decisive for future mining policy. The concept of open

[781] EITI, <https://eiti.org/blog/three-ways-extractives-transparency-can-help-countries-tackle-triple-crisis> (last accessed: 10.02.2024).

[782] Smith, China's Exploitation of Tibet's Mineral Resources; <https://www.meltdowninti-bet.com/e_mining.htm>; <https://energypost.eu/critical-raw-materials-for-the-energy-transition-europe-must-start-mining-again/>; <https://www.globalaffairs.ch/2023/04/13/afghanistan-s-lithium-riches-more-mirage-than-windfall/>; <https://www.arabnews.com/node/2296046/world> (each last accessed: 12.02.2024).

strategic autonomy and the geo-politicisation of external economic relations, as set out by the European Commision,[783] introduces further geopolitical considerations with relevance for transnational law. This shift emphasises the importance of aligning trade and investment policy with the CFSP to ensure a coherent approach to shaping the future economic landscape. The development of new sources of raw materials, as the discoveries in Norway, Serbia or Tibet show, indicate the need for global cooperation.[784] Joint efforts to introduce transparent and sustainable mining practices can help prevent environmental destruction and social injustice. This also includes a transnational legal framework that regulates the exploration, extraction and trade of raw materials and yet takes an agile approach to the use of adequate standards.

From another, yet complementing, perspective, diseases and pandemics, as the Corona global health crisis has shown, have far-reaching effects on life which will presumably increase in the future. The economic impact of pandemics, including slowing down the global economy, a drop in demand and an increased risk of corruption, can influence government structures and transnational laws and be a decisive factor for TNEs to choose or act in markets.[785] The delicate balance between public health measures and economic stability requires thoughtful regulatory frameworks to ensure resilience in times of crisis. Along with this, an often overlooked but crucial aspect is the relationship between urban planning and biophysical systems. The disruption of natural biotopes such as forests, lakes and seashores by human activity can lead to ecological imbalance and increased risk of communicable diseases. Recognising that human activities and the environment are interconnected suggests that a biophysical-systems approach to urban planning and resource management would be most sensible to implement.

2. Outer Space Extraction - Evolution of Natural Resources Law Renewed?

Generally, individual legal areas are characterised as legal regimes. However, the Outer Space[786] has the particularity that none of the legal systems anchored on Earth (within states) are valid in it. This applies at the latest when crossing the so-called of the Karman Line which is located in the Earth's thermosphere (95 km above surface (measured from the near-ground boundary layer)). From this point onwards, everything else (whether already recognised or not) "is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means."[787] Permitted interventions are for

[783] COM(2021) 66 final, 5, 7.
[784] See e.g. Norway, <https://www.dw.com/de/rohstoff-fund-in-norwegen-l%C3%A4sst-eu-hoffen/a-55956453>.
[785] See e.g. the assertion of claims based on force majeure: *Glencore v Zambia*; *Seadrill Ghana Operations Ltd v Tullow Ghana Ltd*.
[786] 2020 ILA Guidelines on the Role of International Law in Sustainable Natural Resources Management for Development, 5.
[787] Art. 2 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies.

peaceful, scientific purposes that benefit all states in a non-discriminatory manner.[788] Other than that, outer space is a province of mankind. In this regard, the Committee on the Peaceful Uses of Outer Space (COPUOS) is the forum for the development of international space law. The Committee has concluded five international treaties[789] and five sets of principles on space-related activities[790] with partially few signatory states.[791] All these international agreements and treaties dealing with the exploration of outer space do not deviate from these basic principles. Sometimes they are even invigorating these basic principles by establishing strict state liability such as with the Convention on International Liability for Damage Caused by Space Objects. Art. 2 of such Convention provides that the launching State of a space object has absolute responsibility to pay compensation for damage caused by its object to the Earth's surface or to aircraft in flight.[792] However, there is little else that could stand against the foreseeable rapid developments in space exploration and space mining. An original legal system in Outer Space can therefore not yet be assumed. This "green field" makes it possible to think more freely and independently of traditional legal structures. This would allow both the formal structures of an emerging legal system to be rethought and its substantive organisation to be reinterpreted. In view of the extraction activities on celestial bodies or asteroids already being planned and tested by private actors for commercial purposes and a growing space mining market to speculate, this idea should not be too far-fetched.[793]

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[788] Art. 1 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies.

[789] Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, Adopted by the General Assembly in its resolution 2222 (XXI), opened for signature on 27 January 1967, entered into force on 10 October 1967 (outer Space treaty); Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, Adopted by the General Assembly in its resolution 2345 (XXII), opened for signature on 22 April 1968, entered into force on 3 December 1968 (Rescue Agreement); Convention on International Liability for Damage Caused by Space Objects, Adopted by the General Assembly in its resolution 2777 (XXVI), opened for signature on 29 March 1972, entered into force on 1 September 1972 (Liability Convention); Convention on Registration of Objects Launched into Outer Space, Adopted by the General Assembly in its resolution 3235 (XXIX), opened for signature on 14 January 1975, entered into force on 15 September 1976 (Registration Convention); Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, Adopted by the General Assembly in its resolution 34/68, opened for signature on 18 December 1979, entered into force on 11 July 1984 (Moon Agreement).

[790] Declaration of Legal Principles Governing the Activities of States in the Exploration and Uses of Outer Space, General Assembly resolution 1962 (XVIII) of 13 December 1963; The Principles Governing the Use by States of Artificial Earth Satellites for International Direct Television Broadcasting, General Assembly resolution 37/92 of 10 December 1982; The Principles Relating to Remote Sensing of the Earth from Outer Space, General Assembly resolution 41/65 of 3 December 1986; The Principles Relevant to the Use of Nuclear Power Sources in Outer Space, General Assembly resolution 47/68 of 14 December 1992; The Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the Interest of All States, Taking into Particular Account the Needs of Developing Countries, General Assembly resolution 51/122 of 13 December 1996.

[791] Spacelaws, <https://spacelaws.com/space-law-fundamentals/> (last accessed: 10.02.2024).

[792] Willemez (n 457), 29.

[793] See for an overview of s transnational space mining companies: <http://www.space-settlement-institute.org/private-space-companies.html>; <https://www.mordorintelligence.com/industry-reports/space-mining-market-industry>; <https://www.ventureradar.com/keyword/Asteroid%20mining> (each last accessed: 10.02.2024).

3. Regulatory Efficiency and Renewal

Efficiency in the technologies used as well as in the regulatory landscape is another important aspect that simplifies decision-making processes and addresses business challenges. Since, today in Europe, approximately 200,000 people are still working in the coal mining industry. Some of the skills used in coal mining could be useful for setting up "new extractive industries".[794] Simplifying transnational regulations can improve the overall capacity to improve on skills located at a company and their technological progress as well as their ability to navigate the legal framework and contribute to sustainable development. Setting up shared taxonomies containing a shared language is only one solution to come, yet it is a crucial one.[795] In the current economic crisis, however, constraints on investment capital and fears of fiscal deficits may lead governments to enter into commodity contracts with less favourable or conflicting terms. A virtuous cycle - where contract disclosure stimulates public scrutiny, promotes better oversight and strengthens enforcement - could be cancelled out by weaker contract negotiations and a weakening commitment to contract disclosure. This could undermine the transformative potential of this new requirement and the emerging good practice.[796] Managing the impacts of future life requires a comprehensive approach considering climate targets, new sources of raw materials, pandemics, urban planning, geopolitical dynamics and regulatory efficiency. Transnational law must evolve to address these challenges and provide a robust framework for sustainable and resilient development on a global scale.

G. Conclusion, Forecast and Further Areas of Research

This thesis dealt with the overarching question of the influence and effectiveness of the SDGs on standard-setting in transnational law. The relevance and significance of the question was exemplified and illustrated by the supply of critical raw materials to the EU and the numerous associated problems of raw material extraction in global supply chains. This issue touches on countless realities of life and business worldwide, which do not appear to have been satisfactorily resolved to date. In particular, human rights violations, environmental degradation, in some cases the severe damage or even destruction of biophysical systems and especially their effects, such as climate change, intensifying (geo)political crises, numerous (open) centres of conflict, associated migration flows and ultimately the interdependence of these and other problems indicate that finding solutions in this area is not easy and is equally unthinkable. Rather, there is a need for development opportunities

[794] <https://www.euractiv.com/section/energy-environment/interview/eus-sefcovic-europe-must-be-much-more-strategic-on-raw-materials/> (last accessed: 10.02.2024).
[795] See e.g. UNDP China and China Development Bank, Harmonizing Investment and Financing Standards towards Sustainable Development along the Belt and Road: Economic Development along the Belt and Road (2019).
[796] EITI, <https://eiti.org/blog/three-ways-extractives-transparency-can-help-countries-tackle-triple-crisis> (last accessed: 10.02.2024).

in each of the realities of life addressed. The agenda for finding solutions agreed in the course of these findings, the Global Agenda 2030 and with it the SDGs, point to various possible solutions. It also points to the greatest possible steering effect that can be achieved if financing and investment are used. This is one of the main reasons for looking at standard-setting in these areas, international financial law and international investment law.

The first part of the study highlighted the network of dependencies in the supply of critical raw materials. It has been shown that the EU, like every other 'global player', is caught up in the interplay of global, extremely complex interests that can hardly be framed exclusively in political, legal or sociological terms. Rather, a holistic, interconnected view is required here, which can then do justice to the complexity of supply relationships in global networks, supply and value chains as well as living and economic realities. Such an approach is required with the SDGs in question. In its original form of a resolution on the transformation of our world, the agenda is not legally binding and cannot make up for its original soft law status by incorporating further financing instruments such as the AAAA. However, its legal embedding in the foundations and principles of international law also reveals a normative effect that cannot be denied. A certain perspective corresponds to their reception and integration into the "fabric" of international law and its specific regimes to a particular degree: the SDGs, themselves being transnational in their approach, require the lens of transnational law. Transnational issues, which are regulated transnationally and which also represent the practical reality in the multi-level system of law, develop their own pull effect, which has a major impact on the EU and the economic actors operating in or out of it, among others. The results presented in Part 1 of this study constitute the starting point and the framework for the main analysis within this study. They serve as an aid to interpretation and as a guide in the development of our own solution approaches in the context of the study.

The definition of the extractive industries, the (critical) raw materials and the mining situations on site, including in the DR Congo, in the so-called lithium triangle in South America (primarily Argentina, Bolivia, Chile) and in PR China as an independent mining area for various critical raw materials, but even more so as a transhipment centre for further processing, The importance and decentralised nature of the extraction processes and the activities associated with them are indicated by the investment and economic takeover of extraction-related activities such as the creation of infrastructure, market influence within the BRI or the processing of raw materials. The multi-level system there (not just the legal system) is also a multi-centred system. As a further point, this realisation significantly determines the disclosure of the standards used within the extractive industries and the legal principles they follow. Standards and standard-setting are not limited to normative standards under public law, but also refer to quasi-normative and non-normative standards. These can each have a different degree of effectiveness, which is partly independent of the

standard-setting actors. Their accessibility and reception in different legal systems and legal families varies around the world. From a sustainability perspective, however, it is clearly perceptible that standards are increasingly following the concept of sustainability, which has been developed over several decades by the UN and its associated or affiliated organisations on the one hand and is also increasingly directly oriented towards the SDGs and the Global Agenda 2030 on the other.

In order to clarify this "reception", the analysis and evaluation of standardisation in the areas of financial law and investment law has then shown that the definitions within the standards in particular, but also the way in which users are involved, are of enormous importance. Put simply, this means that where there is no standardised language, sustainable systems of development are unlikely to be created. Taxonomies are a sustainable implementation of this standardised language with great potential within the sustainability transformation, especially in the financial sector. It has been shown that these taxonomies do not necessarily have to be of a public-law nature. Rather, private actors such as international organisations also offer functioning standardisation systems, some of which have a de facto impact that is significantly more efficient. Further potential arises when these standards are combined with legislatively created taxonomies. This is the case, for example, when "docking points" and spaces are created that explicitly provide for the use of private sustainability standards but leave room for manoeuvre. These are favoured by transparent and clearly comprehensible definitions in different jurisdictions.

The evaluation of the actual influence of the SDGs shows a mixed picture in the financial and investment sectors. While in the financial sector, which is much more heavily permeated by soft law, various instruments naturally provide for alignment with the Global Agenda 2030 and its foundations and principles as well as the concept of sustainable development, this cannot (yet) be said of the investment sector. It remains to be assessed context-wise what sustainable investment means in legal and practical terms in the specific area of application, also against the background of different interpretations in different jurisdictions. Sustainability references nevertheless appear in IIAs, with a small proportion also making direct reference to the SDGs. The passage of time and the conclusion of new IIAs will likely bring about a change. However, an assessment in this area also remains largely unclear, as a specific characteristic prevents a more in-depth analysis. Disputed proceedings (with the exception of WTO proceedings, which have been publicly accessible since a few years) remain excluded from the public domain for as long as the contracting parties wish. There is no obligation to disclose disputes, analyses, decisions or other content. Furthermore, there is also no precedent. This means that even if decisions are comprehensible, they do not provide any indication of what legal conclusion can be expected in the future. It therefore remains a case-by-case decision, which remains depend-

ent on the expertise and mindset of the decision-making body, without being able to comprehend it. The extraction of arguments therefore remains a "fishing in the dark". Further transparency and, if necessary, procedural adjustments would help here. This idea, which generations of academics before me have already had, remains theoretical in nature and requires further work.

The results of the main investigation in the second part illustrate the approaches to finding a solution in the third and final part of this thesis. The further development of sustainability standards fundamentally requires simplification. This must be orientated towards the respective users and also be agile in its application. This means that standards, regardless of who sets them, must be abstract enough to address future scenarios and must not place an additional burden on users. This is particularly important because it is not only legal decision-making that is important. Rather, the approach must also take into account political developments, diplomatic necessities and strategic considerations. The fact that the issue being analysed is becoming increasingly important and requires a new understanding in addition to the legal one can be seen in academic and political debates across all borders. In the area of financing and investment, a common language needs to be developed in order to maximise the steering effect in the direction of the SDG targets. At the same time, it must be recognised that sameness is not always expedient. Differences and diversity also fuel innovation. Harmony is to be welcomed, but full harmonisation is unlikely to be expedient. This can be achieved, for example, through sui generis recognition, as is the case in the EU. It is becoming clear that the UN, which was originally set up as the main forum for such issues, no longer appears to be adequate for finding contemporary solutions. The formulation, the diversity of its mandates and the lack of assertiveness of its bodies are not sufficient to exert a strong and effective influence on its own. Although the UN is no longer up to date and sometimes appears to be a "toothless tiger", it remains important as a driving force and pioneer of new ideas, as it has demonstrated with the SDGs and much more. It also creates space for essential diplomatic exchange, even between non-aligned nations. Overall, the essence of the study shows that the novelty of standard-setting itself and the recognition of new actors in transnational events are needed, also because the reinterpretation of existing regulation remains difficult. The connection and creation of so-called "docking points" between private standards in public, legislatively created law appears promising in order to create flexible markets, agile solutions for future challenges in world affairs and, above all, assertiveness in transnational situations. This also offers a possible indication of future regulation in other transnational legal fields, with the law of private actors in outer space providing an interesting area for further questions. The transnational legal perspective here also represents the possibility of a method of how principles and systems can be constructively integrated. In the area of finance and investment analysed in this thesis, this would create diplomatic money flows for the purpose of steering progress and peace through sustainability, as it is envisaged by the Global Agenda 2030

and the SDGs. The overarching question of this study must therefore be answered as follows: The SDGs have a clearly perceptible effect on standardisation in transnational law, but this frequently remains limited so far. Nine years since the adoption of the SDGs are still too short to measure the actual success and extent of their effect. However, my findings stand and can only be measured by the coherence of the thought processes and the realities that will emerge in the future. A future agenda following on from the SDGs will therefore be particularly helpful if it weaves the type of standards and their inclusion into basic systems so that these can then be "filled" by relevant stakeholders in an agile and confident manner.

On critical reflection, it must be added to the investigation initiated here and the solutions developed that the large number of associated questions leads to a certain lack of clarity in the limited context of the investigation. The very broad perspective, which was intended to cover as many lines of development as possible, can also be assessed as too imprecise in specific individual cases when viewed critically. This study should therefore be categorised as a basic preliminary study that needs to be supplemented. Nonetheless, significantly more research needs to be carried out on the issues named, which also incorporates considerations from other jurisdictions. On the one hand, this must deal theoretically with the creation of a meta-theory of standard-setting (in, for and with) transnational law. However, concrete, practical questions and specific standards need to be analysed even more in order to determine whether the approach developed here is sustainable and can also do justice to future issues. This study reflects the status as of 23 February 2024 and could therefore not include more recent developments, which are worthy of consideration too, making it necessary to initiate further analyses. Just as the Global Agenda 2030 demands a new understanding of partnership,[797] the approach in further studies must also be that "we should look afresh".[798]

[797] Pasquot Polido, 'SDG 17: Partnership for the Goals' in Ralf Michaels and Verónica Ruiz-Abou Nigm and Hans van Loon (eds), *The Private Side of Transforming our World, UN Sustainable Development Goals 2030 and the Role of Private International Law* (2021), 555.
[798] *Case Concerning the Gabčíkovo-Nagymaros Project (Hungary v Slovakia)*, Judgment, 25 September 1997, para. 140.

Annex Directory

Annex A: Structured Data Base Search

This section summarises the structured database search for framing the dissertation topic and its methodological preparation. The database search was conducted the first time in January 2020 and repeated in January 2021. The following parameters apply to the search:

- The specified entry terms were used identically in each search engine or database
- The search covers the period from 2015 to 2021 (reference date: 31.01.2021)
- The search was conducted globally
- Synonyms, similar and related terms as well as typing errors were considered in the search ("blurred search")

Database used	Database Properties
Google (G)	– Fully-automated search engine – Standard, indexing algorithms ("web crawling")
Google Scholar (GS)	– Scientific search engine – Deep Web search for scientifically oriented content – publications (freely available and paid) from document servers of universities, research institutes and journals
Science Direct (S) / Scopus (S)[799]	– largest abstract and citation database of peer-reviewed literature (scientific journals, books and conference proceedings)
Bielefeld Academic Search Engine (Base)	– largest scientific search engine worldwide – specialised in Open Access publications
Microsoft Academic Search (MAS)	– multidisciplinary scientific search engine – enables the search for information on research results and activities
EBSCOHost / The Nation Archive (DFG)	– intuitive online research platform
Entry Terms for Engine Search	
Sustainable Development Goals AND Investment	SDG AND Investment

[799] Scopus was used to validate and refine Science Direct's search results. Both databases work with the same original sources.

Sustainable Development Goals AND Finance	SDG AND Finance
Sustainable Development Goals AND Raw Materials OR Natural Resources	SDG AND Raw Materials OR Natural Resources
Sustainable Development Goals AND Mining	SDG AND Mining
Sustainable Development Goals AND Extractive Industries	SDG AND Extractive Industries
Sustainable Development Goals AND (i) Cobalt, (ii) Antimony, (iii) rare earths, (iv) Vanadium, (v) Lithium	SDG AND (i) Cobalt, (ii) Antimony, (iii) rare earths, (iv) Vanadium, (v) Lithium
Sustainable Development AND …(*)	SD AND …(*)

Search Engine	G	GS	S	Base	MAS	E
Identification of Records	5,990	322	31,683	4,389	31	2,893
Records after removal of duplicates	4	-	3,406	-	31	597
Records after Screening[800]	4	43	1,127	218	10	245
Records after Eligibility test[801]	3	28	322	43	10	54
Records included[802]	3	8	23	5	10	11
Total of Records included						60

Source: Own survey.

*) Cross-searches were conducted using the terms "cobalt", "lithium", "antimony", "vanadium" and "rare earths" and overlapping, relevant sources were added to the search results.

[800] Records were excluded by inadequate title or abstract.
[801] Records were excluded by full-text assessment.
[802] A deviating number of records might occur if sources were qualified as non-target; the records included do not reflect the total number of literature considered for the literature review since the review goes beyond secondary sources.

Annex B: EU Critical Raw Materials 2020

2020 Critical Raw Materials (new as compared to 2017 in bold)		
Antimony	Hafnium	Phosphorus
Baryte	Heavy Rare Earth Elements	Scandium
Beryllium	Light Rare Earth Elements	Silicon metal
Bismuth	Indium	Tantalum
Borate	Magnesium	Tungsten
Cobalt	Natural Graphite	Vanadium
Coking Coal	Natural Rubber	**Bauxite**
Fluorspar	Niobium	**Lithium**
Gallium	Platinum Group Metals	**Titanium**
Germanium	Phosphate rock	**Strontium**

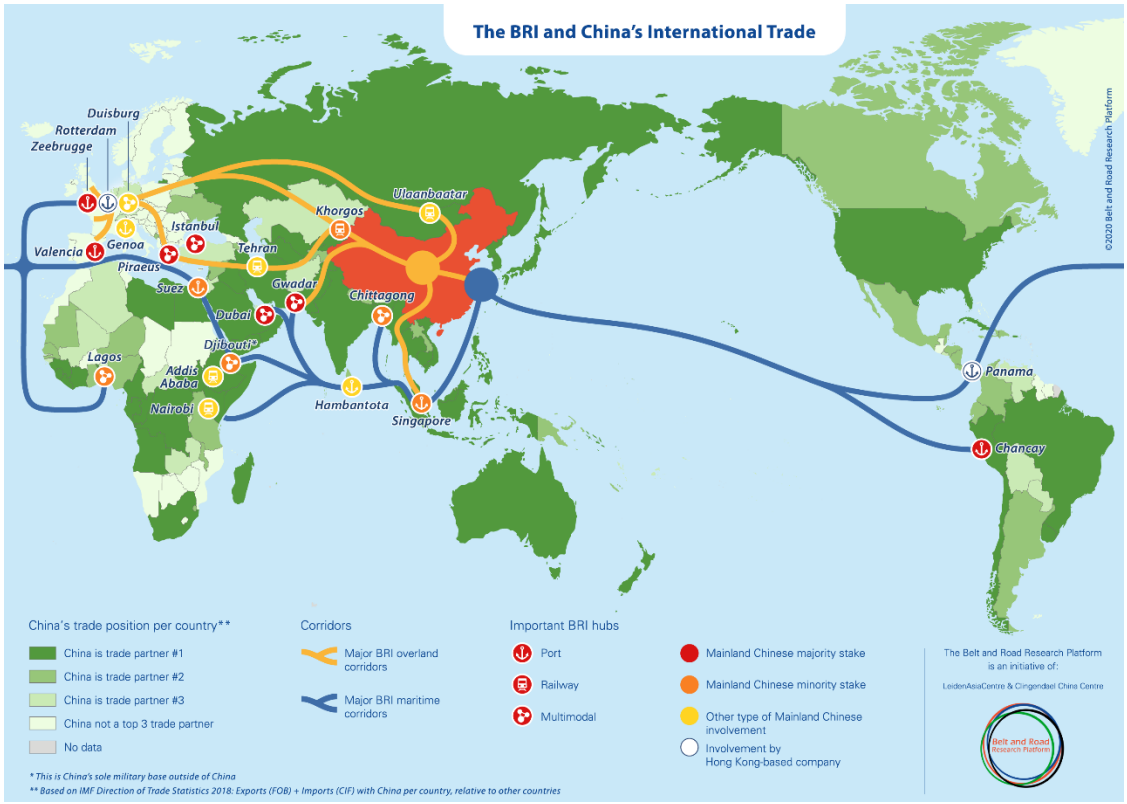
Source: Extract of COM(2020) 474 final, *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Critical Raw Materials Resilience: Charting a Path towards greater Security and Sustainability*, 3.9.2020, 3.

Annex C: EU Critical Raw Materials Supply 2020

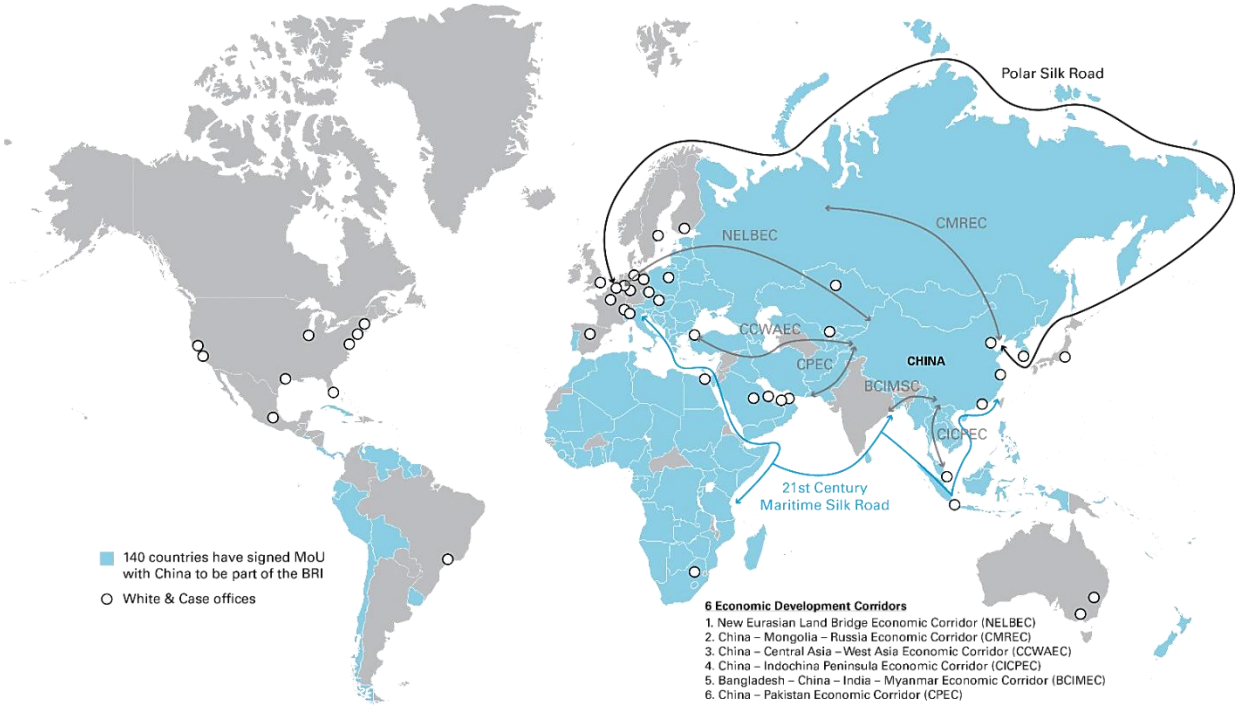
Raw materials	Stage	Main global producers	Main EU sourcing[33] countries	Import reliance[34]	EoL-RIR[35]	Selected Uses
Antimony	Extraction	China (74%) Tajikistan (8%) Russia (4%)	Turkey (62%) Bolivia (20%) Guatemala (7%)	100%	28%	• Flame retardants • Defence applications • Lead-acid batteries
Cobalt	Extraction	Congo DR (59%) China (7%) Canada (5%)	Congo DR (68%) Finland (14%) French Guiana (5%)	86%	22%	• Batteries • Super alloys • Catalysts • Magnets
Lithium	Processing	Chile (44%) China (39%) Argentina (13%)	Chile (78%) United States (8%) Russia (4%)	100%	0%	• Batteries • Glass and ceramics • Steel and aluminium metallurgy
Vanadium[40]	Processing	China (55%) South Africa (22%) Russia (19%)	n/a	n/a	2%	• High-strength-low-alloys for e.g. aeronautics, space, nuclear reactors • Chemical catalysts

Source: Extract of COM(2020) 474 final, *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Critical Raw Materials Resilience: Charting a Path towards greater Security and Sustainability*, 3.9.2020, 19-22 (consolidated version).

Annex D: Belt and Road Initiative



Source: https://leidenasiacentre.nl/wp-content/uploads/2021/02/VERSIE-FINAL-30-DEC-PNG-1-1.png (last accessed: 31.01.2024).



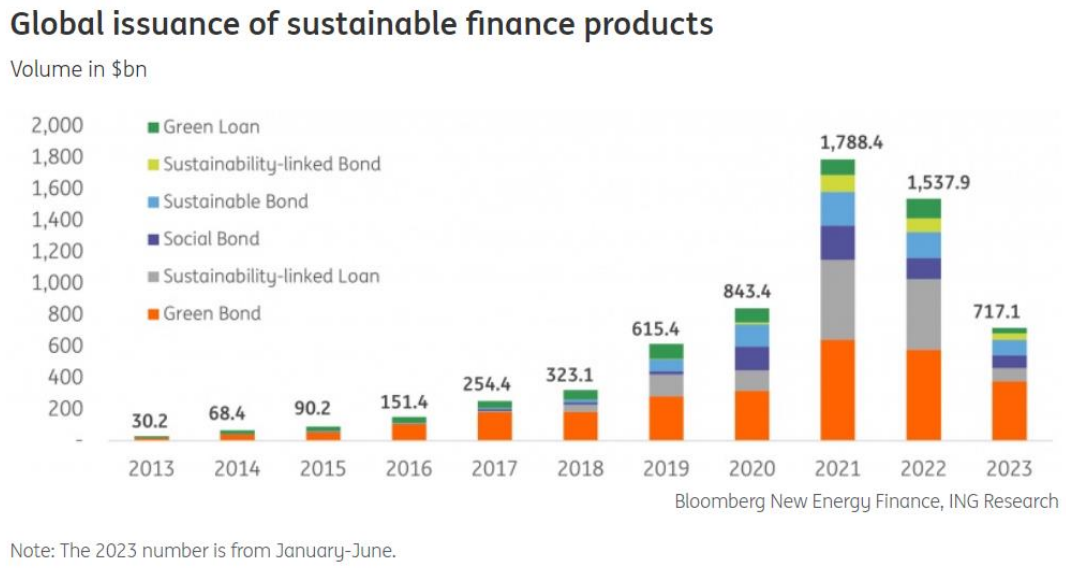
Source: https://www.whitecase.com/law/practices/construction/belt-road-bri (last accessed: 31.01.2024).

Annex E: Overview of Schools of Thought (simplified)

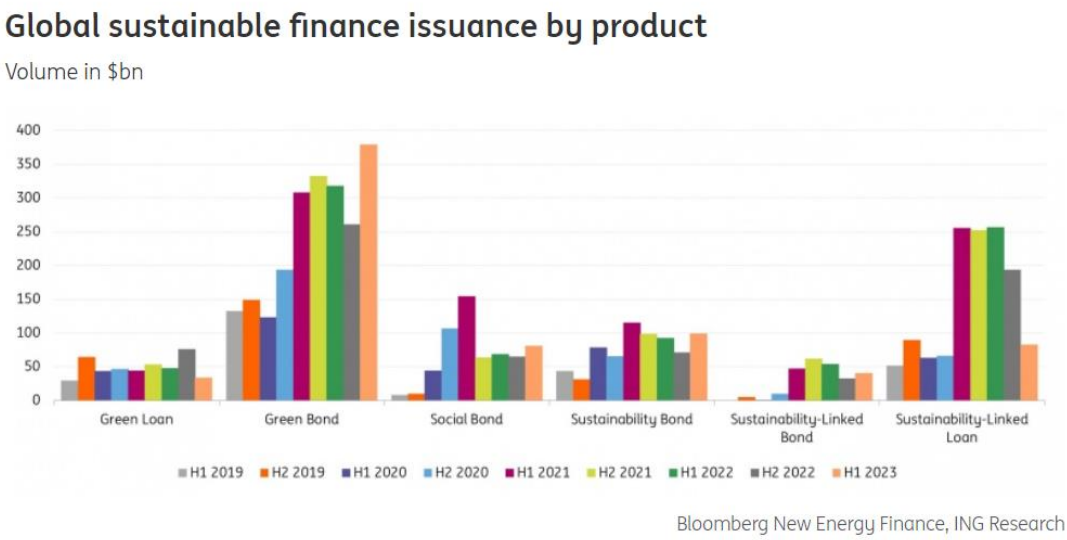
Aspect / School of Thought	Yale School (New Haven School)	"New" New Haven School	Constructivist School (Habermas)	Doctrinal School
Definition	The Yale School focuses on legal realism and pragmatism, emphasizing the impact of social and political factors on law.	The "new" New Haven School integrates policy considerations into legal analysis, expanding the pragmatic approach.	Constructivism, as per Habermas, emphasises the role of communicative action and discourse in shaping legal norms.	The Doctrinal School follows a traditional approach, interpreting and applying existing legal rules and principles.
Key Scholars	- Jerome Frank	- Guido Calabresi	- Jürgen Habermas	- Ronald Dworkin
	- Karl Llewellyn	- Michael Trebilcock		
	- Benjamin N. Cardozo			
Differentiators	- Emphasis on how law functions in society, focusing on social context and consequences.	- Incorporation of policy considerations alongside the sociological and pragmatic elements of the traditional Yale School.	- Focus on communicative rationality and the role of discourse in shaping legal norms.	- Traditional approach centered on interpreting and applying existing legal rules and principles.
	- Skepticism towards formalism and a preference for a dynamic, contextual approach to law.	- Policy-driven approach, addressing legal issues through the lens of efficiency and social goals.	- Critique of instrumental rationality and emphasis on normative aspects of law.	- Places importance on legal doctrines and precedent.
	- Recognition of the dynamic nature of law and its responsiveness to societal changes.	- Consideration of cost-benefit analysis and empirical data in legal decision-making.	- Emphasis on the importance of democratic deliberation in the creation and interpretation of legal norms.	- Often conservative in approach, seeking to maintain legal stability.
Examples of Contributions	- Legal realism, "law in action" perspective.	- Coase theorem, economic analysis of law.	- Theory of communicative action, discourse ethics.	- Concept of legal principles, theory of adjudication.

Source: Author's own visualisation.

Annex F: Sustainable Finance Products and Market Share



Source: <https://think.ing.com/articles/big-swings-in-2023-but-global-sustainable-finance-remains-in-rude-health> (last accessed: 31.01.2024).



Source: <https://think.ing.com/articles/big-swings-in-2023-but-global-sustainable-finance-remains-in-rude-health> (last accessed: 31.01.2024).

Annex G: Standards Parameters, Criteria and Indicators

Category	Criteria	Indicators
Macroeconomic Parameters	**1. Clarity and Consistency**	- Presence of clear and universally understood definitions.
		- Consistency in classification criteria for various sustainable finance instruments.
Microeconomic Parameters	**2. Compatibility with Existing Standards**	- Integration with widely recognized initiatives (e.g., UN Principles for Responsible Banking, TCFD recommendations*).
		- Avoidance of duplication or contradiction with established standards.
	3. Applicability Across Jurisdictions	- Consideration of legal variations in different jurisdictions.
		- Flexibility in accommodating regional nuances while maintaining global coherence.
	4. Accessibility and User-Friendliness	- Availability in multiple languages.
		- User-friendly interface and navigation.
Legal Parameters	**5. Contribution to Transparency and Disclosure**	- Inclusion of robust disclosure requirements.
		- Encouragement of standardized reporting on environmental, social, and governance (ESG) factors.
	6. Integration of Environmental and Social Objectives	- Inclusion of criteria addressing both environmental and social aspects.
		- Consideration of social impact alongside environmental sustainability.
	7. Mechanisms for Regular Updates and Revisions	- Provision for periodic reviews and updates.
		- Responsive mechanisms to incorporate emerging best practices.
Socio-Legal and Governance Parameters	**8. Stakeholder Engagement**	- Evidence of consultation processes during development.
		- Ongoing engagement mechanisms for feedback and improvement.
	9. Promotion of Consensus Building	- Evidence of collaborative initiatives involving different sectors.
		- Recognition of diverse perspectives in the development process.
	10. Monitoring and Evaluation Framework	- Inclusion of performance indicators.
		- Provision for regular impact assessments.

Source: Author's own visualisation.

* "[w]ith the release of its 2023 status report on October 12, 2023, the TCFD has fulfilled its remit and disbanded", <https://www.fsb-tcfd.org/recommendations/> (last accessed: 23.02.2024).

Annex H: Potential Evaluation Scheme of Sustainable Finance Instruments

Sustainable Finance Instrument	Function and Usability	Market Volume	Performance	Governance	Potential Connection with Sustainability Standards in Investment Law
Green Bonds	Finance environmentally friendly projects like renewable energy and sustainable infrastructure.	High market volume.	Proven track record; perceived as successful.	Stringent use-of-proceeds frameworks contribute to effective governance.	Directly aligned with sustainability standards, reflecting environmental goals in investment.
ESG-Investments	Consider Environmental, Social, and Governance criteria in investment decisions.	Growing market volume.	Positive performance due to increased investor interest in sustainable options.	Relies on ESG data and reporting for governance.	Reflects broader ESG principles in investment, aligning with sustainability standards.
Sustainable Equity Funds	Invest in companies meeting high ESG standards.	Growing market volume.	Performance influenced by the success of ESG-compliant companies.	Fund managers play a key role in governance.	Directly incorporates ESG criteria, contributing to adherence to sustainability standards.
Sustainability Loans (Green Loans)	Loans with proceeds tied to environmental or social criteria.	Increasing market volume.	Positive impact on funded projects' sustainability.	Governance varies; relies on lenders' commitment to sustainability.	Promotes sustainability in projects, aligning with relevant standards in investment law.
Green FinTech	Platforms aiding investors in making sustainable decisions.	Growing market presence.	Enhances access to sustainable investment options.	Governance influenced by platform policies and transparency.	Facilitates investor access to sustainable options, indirectly aligning with standards.
Sustainability-Linked Bonds and Loans	Instruments tying financial terms to ESG performance.	Emerging market interest.	Effectiveness depends on issuers' commitment to ESG goals.	Governance requires transparency in tracking and reporting performance against set targets.	Encourages ongoing commitment to ESG goals, aligning with sustainability standards.
Sustainable Banking Standards	Banks adopt standards integrating ESG factors in operations.	Widespread adoption.	Varied performance based on bank commitment.	Governance depends on internal policies and commitment to ESG integration.	Promotes ESG integration in banking, aligning with broader sustainability standards.
Social Bonds and Sustainability Bonds	Finance projects with positive social or environmental impacts.	Growing market interest.	Performance linked to impact on targeted areas.	Governance involves clear use-of-proceeds criteria and impact reporting.	Directly linked to social and environmental goals, aligning with relevant standards.

Source: Author's own visualisation.

Annex I: Standards Scheme of Sustainable Finance Instruments in Extractive Industries

Standard	Functionality	Impact/Permeation	Measurement Unit	Region
Equator Principles (EP)	Risk assessment and management of environmental and social risks in project financing.	Global impact with financial institutions adopting the principles.	Adoption rates, Project compliance	Global
Extractive Industries Transparency Initiative (EITI)	Promoting open and accountable management of natural resources through transparency in payments.	Enhances transparency and accountability in the extractive sector.	Compliance rates, Revenue transparency	Global
Task Force on Climate-related Financial Disclosures (TCFD)	Disclosing climate-related risks and opportunities in financial reporting.	Increasingly important for climate-related considerations in finance, including extractive industries.	Adoption rates, Climate risk disclosure	Global
Responsible Mining Index (RMI)	Assessment of policies and practices of large-scale mining companies in economic, environmental, and social aspects.	Drives responsible practices in the mining sector.	Performance scores, Sector improvement	Global (Focus on large-scale mining)
Global Reporting Initiative (GRI) - Mining and Metals Sector Supplement	Guidelines for sustainability reporting with additional guidance for extractive industries.	Encourages standardized sustainability reporting.	Reporting adherence, Disclosure quality	Global
Cyanide Code (International Cyanide Management Code)	Establishes best practices for the use of cyanide in gold mining operations.	Promotes responsible cyanide management in gold mining.	Certification adherence, Safety records	Global (Gold mining)
IRMA Standard for Responsible Mining	Focus on responsible mining practices, covering environmental and social aspects.	Drives responsible practices in the mining sector.	Certification adherence, Sector impact	Global (Focus on large-scale mining)
EU Sustainable Finance Taxonomy	Criteria for determining if economic activities contribute to environmental objectives, including extractive industries.	Shapes sustainable finance by classifying environmentally sustainable activities.	Activity alignment, Market adoption	European Union (EU)
EU Green Bond Standard	Establishes criteria for green bonds, applicable to extractive projects aligning with green finance criteria.	Drives investment in environmentally sustainable projects through green bonds.	Green bond issuances, Project alignment	European Union (EU)

Source: Author's own visualisation.

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Affirmation on Oath

I affirm in lieu of oath that this thesis was completed by me independently and without undue help from others.

Braunschweig, 1 June 2024
Place, Date

Signature