



LEVIN SOURCES

International instruments review in the context of the EU Batteries Regulation

FOR THE ATTENTION OF:

Cecilia Mattea, Transport and Environment



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Contents

About this report.....	2
International Instruments	3
European Union Frameworks.....	9
Private Initiatives	14
Potential upcoming initiatives	16
Conclusion and recommendations.....	17
ANNEX I.....	19
ANNEX II.....	21

About this report

Transport and Environment (T&E) contacted Levin Sources to support the strengthening of the proposed EU Regulation on Batteries and Waste Batteries to ensure that only batteries sourced with the highest social and environmental standards are ultimately placed on the EU market. T&E contacted Levin Sources to conduct a rapid review to understand which environmental instruments are best suited to address the environmental risk categories listed in Annex X of the draft EU Regulation on batteries and waste batteries.

This report summarises most relevant instruments categorised as international, European Union frameworks and private initiatives.

Levin Sources is a consultancy and social venture that moves more raw materials through systems where good governance and better business are the norm.

We are a core team of strategists, researchers, project managers, educators and communicators with multidisciplinary abilities and collective expert knowledge in sustainable supply chains, extractives, minerals science & engineering, biodiversity and conservation, human rights and vulnerable groups, responsible business conduct and good governance.

We are trusted by the full diversity of players in the minerals system, from Fortune 500 companies and SMEs to industry associations and certification bodies to NGOs and civil society to governments in fragile states and in G20 economies.

International Instruments

The international instruments identified have a broad sectoral scope and do not provide mineral specific information. The table below summarises international instruments recommended for each risk category. The recommended instruments include those that cover all the issues of each risk category, have endorsement at the EU level, have political acceptance and are WTO aligned. We have also included other instruments, which have a narrower scope but are generally endorsed by the EU and have political acceptance.

Risk category	Planetary boundaries	Instrument(s) recommended	Why	Other instruments
Water	Water use Freshwater	<p>Convention on the Law of the Non-navigational Uses of International Watercourses (1997)</p> <p>Does not have clear guidance for companies</p>	<p>International treaty, adopted by the United Nations, pertaining to the uses and conservation of all waters that cross international boundaries, including both surface and groundwater. The Convention is regarded as an important step in establishing an international law governing watercourses. The Convention addresses the conservation and management of water sources.</p> <p>It has been ratified by 36 states, including individual EU member states.</p>	<ul style="list-style-type: none"> • Ramsar Convention – focusing on the conservation of wetlands • UNECE Protocol on Water and Health – focused on water sanitation • Integrated Water Resources Management (IWRM) principles adopted at the International Conference on Water and the Environment in Dublin, Ireland, in 1992 • Integrated water resource management in action (UNEP) – guidance on water resource management • Guide to responsible business engagement with water policy (UN Global Compact, 2010) – guidance
		<p>Convention on the Protection and Use of Transboundary Watercourses and International Lakes (1996)</p> <p>Does not have clear guidance for companies</p>	<p>This Convention is a unique legally binding instrument promoting the sustainable management of shared water resources. The convention requires parties to control, prevent and reduce transboundary impacts of the use of waters.</p> <p>The Convention has been signed by 26 states and it was adopted by the Senior Advisers to the Economic Commission for Europe Governments</p>	
		<p>Setting Site Water Targets Informed By Catchment Context: A Guide For Companies (2019)</p>	<p>This guidance aims to help companies set effective site water targets informed by catchment context. The guide is targeted to all sectors including mining and is intended</p>	

Risk category	Planetary boundaries	Instrument(s) recommended	Why	Other instruments
		Does have clear guidance for companies	for site staff or technical water specialists, and relevant corporate staff. The guidance was done by UN Global Compact, CDP CEO Water Mandate, Pacific Institute, The Nature Conservancy the World Resources Institute and Word Wildlife Fund.	outlining the five principles for responsible business engagement in water policy
	Water use	<u>Guidance for Companies on Respecting the Human Rights to Water and Sanitation</u> (2015) Does have clear guidance for companies	This guidance done by UN Global Compact and the Pacific Institute provides companies with practical measures on how to bring human right lens to their corporate water stewardship strategies. The guidance document is designed to be applicable to a broad range of corporate water users, including mining companies.	
	Freshwater	<u>CEO Water Mandate's Water Disclosure Guidelines</u> (2014) Does have clear guidance for companies	This guidance document done by UN Global Compact, CDP Pacific Institute and World Resources Institute provides companies with specific guidance on how to disclose corporate water disclosure that addresses the complexity and local nature of water resources. It offers a common approach that can be used by multiple sectors including mining.	
Biodiversity	Biodiversity loss	<u>Convention on Biological Diversity Decision COP VIII/28- Voluntary guidelines on Biodiversity- Inclusive impact assessment</u> Although they offer guidance, it might not be clearly targeted at companies	International legal instrument for "the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources". The Convention on Biological Diversity has been ratified by 196 nations including individual EU member states.	<ul style="list-style-type: none"> • <u>General Assembly Resolution 71/285: United Nations Strategic Plan for Forests 2017–2030 A/RES/71/285</u> – focused on forests conservation and management • <u>New York Declaration on Forests</u> (UN 2014) - focused on forests
		<u>A Framework for Corporate Action on Biodiversity and Ecosystem</u> (2012)	This guidance developed by the UN Global Compact and the International Union for Conservation of Nature provides a framework for developing, implementing and disclosing practices and policies on biodiversity and	

Risk category	Planetary boundaries	Instrument(s) recommended	Why	Other instruments
		Provides clear guidance for companies	ecosystem services incorporated into corporate sustainability strategies.	
Climate Change	Climate change	<p><u>Paris Agreement, United Nations Framework Convention on Climate Change</u> (UNFCCC, 2015)</p> <p>Does not provide clear guidance for companies</p>	<p>This an international normative framework and agreement was the outcome of the negotiations launched in 2011 at the 17th Conference of the Parties in Durban to develop a legal instrument applicable to all Parties to cut greenhouse gases (GHG) emissions and to be implemented from 2020.</p> <p>The Paris Agreement has been ratified by 175 parties including the EU.</p>	<ul style="list-style-type: none"> • <u>Global compact for sustainable energy: a framework for business action</u> (UN Global Compact, 2011) – focused on the support of the Energy for All initiative • <u>Business Leadership for 1.5 degrees</u> (UN Global Compact, 2019) – does not provide clear guidance, but examples of strategies and solutions taken by corporates to address climate change.
	Ocean acidification (indirectly)	<p><u>Adapting for a Green Economy: Companies, Communities and Climate Change</u> (2011)</p> <p>Does provide clear guidance for companies</p>	<p>This guidance done by UN Global Compact, UNEP, World Resources Institute and Oxfam presents the business case for climate adaptation in ways that build the resilience of vulnerable communities in developing countries. It applies to multiple sectors including mining.</p>	
		<p><u>The Guide for Responsible Corporate Engagement in Climate Policy</u> (2013)</p> <p>Does provide clear guidance for companies</p>	<p>This guidance done by UNEP, UN Global Compact, World Resources Institute and World Wildlife Fund sets baseline expectations for companies to provide input to governments for the creation of effective climate policies. The guide also connects the dots between sustainability commitments with corporate policy positions. It applies to multiple sectors including mining.</p>	
Air	<p>Atmospheric aerosols</p> <p>Ozone depletion</p> <p>Chemical pollution</p>	<p><u>UNECE Convention on Long-range Transboundary Air Pollution</u> (1979) and <u>Extended Protocols</u></p> <p>Does not provide clear guidance for companies</p>	<p>The Convention lays down the general principles of international cooperation for air pollution abatement and sets up an institutional framework. Over the years, the number of substances covered by the Convention and its protocols has been gradually extended, notably to ground-level ozone, persistent organic pollutants, particulate matter and heavy metals.</p>	

Risk category	Planetary boundaries	Instrument(s) recommended	Why	Other instruments
			<p>Ratification is protocol specific, the EU has signed the eight protocols that include:</p> <ul style="list-style-type: none"> - 1999 Protocol to Abate Acidification, Eutrophication and Ground-level Ozone and its 2012 amended version - 1998 Protocol on Persistent Organic Pollutants (POPs) and its 2009 amended version - 1998 Protocol on Heavy Metals and its 2012 amended version - 1994 Protocol on Further Reduction of Sulphur Emissions - 1991 Protocol concerning the Control of Emissions of Volatile Organic Compounds or their Transboundary Fluxes - 1988 Protocol concerning the Control of Nitrogen Oxides or their Transboundary Fluxes - 1985 Protocol on the Reduction of Sulphur Emissions or their Transboundary Fluxes by at least 30 per cent - 1984 Protocol on Long-term Financing of the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP) 	
Waste treatment	Chemical pollution Land use	<p>Global Industry Standard on Tailings Management (2020)</p> <p>Does provide clear guidance for companies</p>	<p>Co-developed by ICMM, UNEP and PRI. The Global Industry Standard on Tailings Management is directed at Operators and applies to tailings facilities, both existing and to-be-built.</p> <p>The scale of implementation is not clear.</p>	<ul style="list-style-type: none"> • Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal

Risk category	Planetary boundaries	Instrument(s) recommended	Why	Other instruments
	Chemical pollution Land use	<u>Safety Guidelines and Good Practices for Tailings Management Facilities</u> (2014) Does provide clear guidance for companies	The guidelines developed by UNECE support policymakers and the business sector in enhancing awareness and the sharing of experience and good practices and for the better harmonization of the regulations and requirements concerning the safety of Tailing Management Facilities. The scale of adoption of the guidelines is not clear.	<ul style="list-style-type: none"> • <u>Convention on the Transboundary Effects on Industrial Accidents</u> – focused on tailings management • <u>Minamata Convention</u> – mercury specific (relevant for gold/silver extraction, nickel and copper ores)
Soil	Land use Chemical pollution Biogeochemical	<u>Voluntary Guidelines for Sustainable Soil Management</u> (2017) Does provide clear guidance for companies	These Voluntary Guidelines were developed through an inclusive process within the framework of the Global Soil Partnership (GSP). They do not cover mine rehabilitation issues. The Guidelines were adopted by the 4th GSP Plenary Assembly (Rome, 25 May 2016).	<ul style="list-style-type: none"> • <u>The convention on Biological Diversity</u> – focus on biodiversity but also includes references to terrestrial ecosystems and soils • <u>United Nations Framework Convention on Climate Change</u> – focuses on climate change mitigation and adaptation measures but also includes references to terrestrial sinks •
Crosscutting		<u>Environmental Stewardship Strategy – Overview and Resource for Corporate Leaders</u> (2010) Does have clear guidance for companies	This guidance done by UN Global Compact and Duke University presents an interactive approach to manage a variety of key environmental issues including; climate change, emissions, waste management, resource consumption, water conservation, biodiversity protection and ecosystem services.	
		<u>Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters</u> (Aarhus Convention) and its	The UNECE Aarhus Convention establishes a number of rights of the public with regards to the environment broadly. The Convention provides for the access to environmental information, the public participation in environmental decision making and the right to review	

Risk category	Planetary boundaries	Instrument(s) recommended	Why	Other instruments
		<p><u>Protocol on Pollutant Release and Transfer Registers (PRTRs)</u></p> <p>Does not have clear guidance for companies</p>	<p>procedures to challenge public decisions. Aarhus Protocol on pollutant release became an internationally legally binding instrument on pollutant release and transfer registers. Its objective is “to enhance public access to information through the establishment of coherent nationwide pollutant release and transfer registers (PRTRs)”.</p>	

European Union Frameworks

European frameworks identified have a broad sectoral scope and generally do not provide mineral specific information. The table below summarises European instruments recommended for each risk category. It is not clear if EU frameworks can be applied to third countries, but these frameworks can provide a basis/benchmark for other regions to adapt to their own regulations.

Risk category	Planetary boundaries	Instrument recommended	Why	Other instruments
Water	Water use Freshwater	<p><u>EU Water Framework Directive (WFD) (2000/60/EC)</u></p> <p>Does provide clear guidance for companies</p>	<p>The Directive establishes a legal framework to protect and restore clean water (inland surface waters, transitional waters, coastal waters and groundwater) in the EU and to ensure its long-term sustainable use. It is complemented by more specific legislation, such as the Drinking or Bathing Water Directive, the Floods Directive and the Marine Strategy Framework Directive, as well as by international agreements. It aims to prevent and reduce pollution, promote sustainable water use, protect and improve the aquatic environment and mitigate the effects of floods and droughts. The overall objective is to achieve good environmental status for all waters.</p> <p>Although there are issues in the implementation of the Directive, including pressure by industry lobby groups to weaken the legislation, in 2020 the EC announced that it would not be changed. The focus needs to be on supporting its implementation and enforcement.</p>	<ul style="list-style-type: none"> • Technical Guidance for Deriving Environmental Quality Standards (EQS): this guidance serves as a foundation for Member States to implement the Water Directive in their legislation • UNECE-WHO/Europe Protocol on Water and Health: The main aim of the Protocol is to protect human health and well being by better water management, including the protection of water ecosystems, and by preventing, controlling and reducing water-related diseases. The Protocol is the first international agreement of its kind adopted specifically to attain an adequate supply of safe drinking water and adequate sanitation for everyone, and effectively protect water used as a source of drinking water.

Risk category	Planetary boundaries	Instrument recommended	Why	Other instruments
Biodiversity	Biodiversity loss	<p><u>Birds Directive (2009/147/EC)</u></p> <p><u>Habitats Directive (92/43/EEC)</u></p> <p>Does provide clear guidance for Member States and companies (eg The implementation of the Birds and Habitats Directive in estuaries and coastal zones)</p>	<p>The Birds and Habitats Directives are the main legal tool the EU has to halt and reverse the loss of biodiversity. These Nature Directives are responsible for the creation of the largest and most coherent network of protected natural areas in the world – the Natura 2000 network. In 2016, the European Commission finalised a Fitness Check on these directives, concluding that they are still fit for purpose. The analysis clearly identified the need for a substantial improvement in their implementation</p>	<p>Natura 2000 (largest coordinated network of protected areas in the world)</p> <p><u>The EU Biodiversity Strategy 2030 (2020)</u>: This was launched in 2020 with the aim to establish more protected areas, restore degraded terrestrial and marine ecosystems, and unlock 20 billion EUR/year for biodiversity. In June 2021, MEPs urged the EU to implement legally binding targets.</p>
Climate Change	<p>Climate change</p> <p>Ocean acidification (indirectly)</p>	<p><u>CSN EN 19694-4 Stationary source emissions - Greenhouse Gas (GHG) emissions in energy-intensive industries - Part 2: Iron and steel industry and Part 4: Aluminium industry</u></p> <p>Does provide clear guidance for companies</p>	<p>This European Standard provides a harmonized methodology for calculating GHG emissions and GHG performance in the aluminium and steel industry. It is to be used in conjunction with EN 19694-1. Developed with a mandate from the European Commission, it has been recognised by one of the European Standardization Organizations.</p>	
Waste treatment	<p>Chemical pollution</p> <p>Land use</p>	<p><u>The Waste Framework Directive (2008/98/EC)</u>: does have clear guidance for companies</p> <p><u>The Landfilling Directive (1999/31/EC)</u>: does not have clear guidance for companies</p> <p><u>The Packaging Waste Directive (94/62/EC)</u>: does provide clear guidance for companies (requirements)</p>	<p>The Circular Economy Package includes four directives that were adopted by the European Parliament on 18 April 2018 and by the EU Council on 22 May 2018. The directives were recently published in the Official Journal (OJ L 150, 14 June 2018), and entered into force on 4 July 2018 and Member States should implement the directives within a two year period.</p> <p>Despite continuous progress in Member States and overall good performance at EU level, there</p>	<ul style="list-style-type: none"> • EU Hazardous Waste Directive (1991) • Best Available Techniques (BAT) Reference Document for the Management of Waste from Extractive Industries in accordance with Directive 2006/21/EC (2018): address risks linked to water, air and soil pollution

Risk category	Planetary boundaries	Instrument recommended	Why	Other instruments
		The Directives on end-of-life vehicles (2000/53/EC) : provides reports and studies	are serious gaps that must be swiftly addressed if Europe is to reap the environmental and economic benefits of the circular economy.	<ul style="list-style-type: none"> Seveso Directive: aims at the prevention of major accidents involving dangerous substances.
Waste treatment	Chemical pollution Land use	EC Mining Waste Directive (EC-BAR) : does provide clear guidance for companies	In the aftermath of two major accidents involving the spill of hazardous extractive waste, the Mining Waste Directive 2006/21/EC was adopted at EU level with the aim to prevent, or reduce as far as possible, the adverse effects from extractive waste management on health and the environment	Development of a guidance document on best practices in the extractive waste management plans (2019)
Air	Atmospheric aerosols Ozone depletion Chemical pollution	Industrial Emission Directive (2010/75/EU or IED) Does provide clear guidance (BAT) for companies	<p>Directive 2010/75/EU of the European Parliament and the Council on industrial emissions (the Industrial Emissions Directive or IED) is the main EU instrument regulating pollutant emissions from industrial installations. The IED was adopted on 24 November 2010. It is based on a Commission proposal recasting 7 previously existing directives.</p> <p>The IED aims to achieve a high level of protection of human health and the environment taken as a whole by reducing harmful industrial emissions across the EU, in particular through better application of Best Available Techniques (BAT).</p> <p>The IED is based on several pillars, in particular (1) an integrated approach, (2) use of best available techniques, (3) flexibility, (4) inspections and (5) public participation.</p>	

Risk category	Planetary boundaries	Instrument recommended	Why	Other instruments
Soil	Land use Chemical pollution Biogeochemical	<p><u>The EU Soil Policy and Thematic Strategy:</u> Does not provide clear guidance for companies</p>	<p>The strategy identifies the key soil threats in the EU as erosion, floods and landslides, loss of soil organic matter, salinisation, contamination, compaction, sealing, and loss of soil biodiversity. It consists of a Communication (COM (2006) 231) from the Commission to the other European Institutions, a proposal for a framework Directive (COM(2006) 232), and an Impact Assessment (SEC(2006) 620)</p> <p>Following the withdrawal of the legislative proposal due to the opposition of a minority of countries in the Council, in 2015 the Commission set up an Expert Group mandated by Member States to reflect on how soil quality issues could be addressed using a targeted and proportionate risk-based approach within a binding legal framework</p>	<p>There is a number of instruments that are relevant for soil protection:</p> <ul style="list-style-type: none"> - Industrial Emissions Directive - Sewage Sludge Directive - Land use, land use change and forestry Regulation
Cross-cutting (Chemicals)	Chemical pollution	<p><u>EU REACH Regulation</u> Does provide clear guidance for companies</p>	<p>REACH is a regulation of the European Union, adopted to improve the protection of human health and the environment from the risks that can be posed by chemicals, while enhancing the competitiveness of the EU chemicals industry. It also promotes alternative methods for the hazard assessment of substances in order to reduce the number of tests on animals. In principle, REACH applies to all chemical substances.</p> <p>The REACH Regulation has been notified to the WTO and its Members under the Technical Barriers to Trade (TBT) Agreement (reference G/TBT/N/EEC/52).</p>	

Risk category	Planetary boundaries	Instrument recommended	Why	Other instruments
		<p><u>EU Mercury Regulation - Regulation (EU) 2017/852</u></p> <p>Does not provide clear guidance for companies</p>	<p>The Directive covers the full life cycle of mercury. It complements a large body of existing EU environmental law on mercury and covers most of requirements of the Minamata Convention.</p>	
Cross-cutting (governance)		<p><u>Eco-Management and Audit Scheme (EMAS) and the related Sectoral Reference Documents</u></p> <p>Does provide clear guidance for companies</p>	<p>The EU Eco-Management and Audit Scheme (EMAS) is a premium management instrument developed by the European Commission for companies and other organisations to evaluate, report, and improve their environmental performance. EMAS is open to every type of organisation eager to improve its environmental performance. It spans all economic and service sectors and is applicable worldwide.</p>	
		<p><u>Environmental Impact Assessment Directive (85/337/EEC)</u></p> <p>Does provide clear guidance for companies</p>	<p>The Directive is in force since 1985 and applies to a wide range of defined public and private projects, which are defined in Annexes I and II</p>	
		<p><u>Environmental Liability Directive (Directive 2004/35/EC)</u></p> <p>Does provide clear guidance for companies</p>	<p>The Directive establishes a framework based on the polluter pays principle to prevent and remedy environmental damage. The Multi-Annual Work Programme (MAWP) 2017 – 2020 'Making the Environmental Liability Directive more fit for purpose' has been developed in response to the REFIT evaluation which showed clear knowledge gaps and implementation deficiencies that need to be tackled in a more structured and systematic way.</p>	

Private Initiatives

Although the EU Batteries Regulation cannot reference specific private initiatives, private standards are the only ones that have specific requirements tailored to the materials in scope. There are many private initiatives in the mineral sector (see full list in Annex II). The most relevant initiatives for the risk categories and materials in scope have been listed below.

Multiple material standards:

- Initiative for Responsible Mining Assurance (IRMA) Standard and Guidance documents – a globally recognised standard that covers all environmental issues related to the impacts of large-scale mining (LSM). It applies to all minerals that are in scope for the EU Batteries Regulation. IRMA has been developed through a thorough consultation process with multiple stakeholders and is one of the most stringent and demanding standards in the mining sector. This explains why the uptake has been quite slow. However, an increasing number of LSM companies are in the process of getting certified or planning to implement it.
 - o Shortfalls
 - Although it is a robust standard which has been developed with extensive stakeholder consultation, it requires a considerable investment, for example in audits (Consulted sources)
 - The uptake has been slow, however an increasing number of companies are engaging in the programme (Consulted sources)
- Towards Sustainable Mining (TSM) - launched in 2004 by the Mining Association of Canada (MAC), TSM is a world-recognized sustainability standard that is helping build capacity within the global mining industry. The initiative has been adopted as a Canadian industry standard for responsible business conduct promoted by the TCS and the Government of Canada. Five other countries on four continents—Finland, Argentina, Botswana, the Philippines and Spain—have also adopted the program, with the guidance of MAC and the support of the TCS. And authorities in other countries are exploring its adoption.
 - o Shortfalls:
 - Limited issue coverage (initially established within the regulatory context of Canada). For example, TSM in Canada doesn't cover reclamation and closure because effective government regulations already exist. It also doesn't cover air emissions and dust.
 - Lack of representation of communities (Consulted sources)
- Code of Risk-mitigation for Artisanal and small-scale mining engaging in Formal Trade (CRAFT) – a globally recognised progressive code to help both buyers and miners to define clear criteria for critical risks while assessing opportunities for – and making commitments to – mitigate risks and improve on other social, environmental and safety practices. CRAFT can be applied to all artisanal and small-scale mining activities, in this case cobalt and copper are in scope only.
- Note: as the Intergovernmental Forum (IGF)'s State of Sustainability Initiatives Review mentions, "government regulation is also a major driver of the uptake of mining Voluntary Standard Initiatives (VSIs), either as a legal obligation or to demonstrate compliance with sustainable development

practices or principles. Nonetheless, it is important to keep in mind that VSIs are fundamentally instruments of the market, subject to private, individual preferences and market forces”

Material specific standards:

- Aluminium Stewardship Initiative Standard – This standard is widely recognised and has been designed to be globally applicable in all stages of aluminium production and transformation. The standard addresses 11 elements, including greenhouse gas emissions, other emissions, effluents and waste, water and biodiversity.
 - o Shortfall
 - An academic research¹ established that competitive advantages, risk mitigation and reputation for involved companies are the underlying motivations for ASI, rather than improving the sustainability of the production chain. Although ASI involves external stakeholders, its actual legitimacy was contested (in 2015), because NGOs lack capacity to engage deeply.
- Copper Mark Criteria for Responsible Production – The Criteria are management system requirements, which include issues of environmental risk management, greenhouse gas emissions, energy consumption, freshwater management and conservation, waste management, tailings management, pollution, biodiversity and protected areas. Although we couldn't find apparent shortfalls, a more in-depth assessment might be needed to identify them.
- Cobalt Industry Responsible Assessment Framework (CIRAF) - While not a standard or certification scheme, the CIRAF provides a management tool and will enable participants to prove they are aligned with global good practice on responsible Cobalt production and sourcing with annual public reporting being a mandatory requirement. It covers nine priority risk areas encompassed within four key risk categories (environment, OHS, human rights, community).
 - o Shortfall: the uptake of CIRAF has been limited and it hasn't gained a recognition by stakeholders (Consulted sources)
- EGC standard and the Fair Cobalt Alliance Framework - those standards focusing on Artisanal and Small-Scale Mining are being launched and implemented in the DRC, the main cobalt producer globally.
 - o Shortfall: As EGC has just been launched and the Fair Cobalt Alliance is in the process of being developed, it is difficult to identify the shortfalls at this stage.
- Joint Due Diligence Standard for Copper, Lead, Nickel and Zinc - Developed by the CopperMark and RMI. The Standard is designed to enable effective due diligence for producers and/or traders of these metals and their bi-products.
 - o Shortfall: The standard has just been launched. It does not have a strong focus on environmental issues because it is mainly OECD aligned. It is a generic due diligence standard companies should use to engage with their supply chains. However the OECD is expanding the guidance to Environmental risks which means that the standard will need to expand to such risks

¹ Source: <https://lup.lub.lu.se/student-papers/search/publication/5463339>

- Responsible Steel – developed in 2019 to recognise steel sites operated in a responsible manner. The 12 principles of the standard include issues of environmental, social and governance. Although we couldn't find apparent shortfalls, a more in-depth assessment might be needed to identify them

Other relevant generic standards:

- ISO 9001: the standard sets out the criteria for a quality management system and is the only standard in the family that can be certified to (although this is not a requirement). It can be used by any organization, large or small, regardless of its field of activity. In fact, there are over one million companies and organizations in over 170 countries certified to ISO 9001.
- ISO 14001: the standard sets out the criteria for an environmental management system and can be certified to. It maps out a framework that a company or organization can follow to set up an effective environmental management system. Designed for any type of organization, regardless of its activity or sector, it can provide assurance to company management and employees as well as external stakeholders that environmental impact is being measured and improved.
- ISO 26000: the standard provides guidance rather than requirements, so it cannot be certified to unlike some other well-known ISO standards. Instead, it helps clarify what social responsibility is, helps businesses and organizations translate principles into effective actions and shares best practices relating to social responsibility, globally. It is aimed at all types of organizations regardless of their activity, size or location.
- ISO 20400:2017: the standard provides guidance to organizations, independent of their activity or size, on integrating sustainability within procurement, as described in ISO 26000. It is intended for stakeholders involved in, or impacted by, procurement decisions and processes

Shortfalls of ISO standards (eg 9001, 14001) : companies can decide on the scope of issues they want to report, so they may not address some important environmental impacts; those standards do not always result in an improvement of the environmental performance.

Other relevant initiatives:

- Safety First: Guidelines for Responsible Mine Tailings Management: these guidelines developed by Earthworks and MiningWatch Canada provide guidance for mining companies on how to adequately protect communities and ecosystems from dam failures.
- Alliance for Water Stewardship (AWS). AWS is a global membership collaboration comprising businesses, NGOs and the public sector. The members adopt and promote a universal framework for the sustainable use of water – the International Water Stewardship Standard, or AWS Standard – that drives, recognizes and rewards good water stewardship performance. Detailed guidance and tools are available.
- Global Battery Alliance (GBA) Battery Passport: the GBA is a public-private partnership of around 80 businesses, governmental and non-governmental organizations founded in 2017 to support the establishment of a sustainable battery value chain by 2030.

Potential upcoming initiatives

There is the IUCN World Conservation Congress happening in Marseille in September, the 26th UN Climate Change Conference of the Parties (COP26) in Glasgow in October, and the COP15 Biodiversity Summit in Kunming, China, all of which might bring new agreements and/or conventions might be worth following.

Conclusion and recommendations

This section summarises the reasoning behind the selection of the above instruments and provides high-level recommendations to Transport and Environment to achieve the strengthening of the proposed EU Regulation on Batteries and Waste Batteries, in particular with regards to recommended instruments of Annex X.

Regarding international environmental instruments, we first selected the most relevant conventions that apply to the risks identified as in scope for this project and with wide international uptake and political acceptance. Being targeted at governments, they are very broad and generic, and the related protocols cover the whole supply chain and do not provide guidance for companies, for example on how to implement the different protocols developed by governments to align with those Conventions.

In order to cover these gaps, we have also recommended international instruments that apply to the risks identified as in scope for the project and that have clear guidance for companies. However, in most cases these instruments are not tailored to companies in battery materials supply chains. International instruments with a very limited focus (e.g. conservation of wetlands) were not prioritised, unless their focus was of high relevance for companies in battery materials value chains. Non prioritised international instruments have still been mentioned and listed as "other instruments" in the above section of "international instruments".

In general, a lot of instruments cover water-related risks, but fewer instruments cover the other risk categories. In order to cover that gap and the fact that international instruments are not tailored to companies in battery materials supply chains, we expanded our research scope to include relevant European Union Frameworks and also private or multi-stakeholder initiatives.

Most of the EU instruments selected provide clear guidance for companies, which is however, in general, not specific to nor tailored to battery materials. In terms of political acceptance, we have also indicated the level of implementation by the EU Member States and potential issues and solutions being discussed.

Regarding the private and multi-stakeholder initiatives, we have selected standards and tools that are relevant to mining but some also cover the whole supply chain or specific battery materials. However, these are voluntary and their successful uptake amongst companies is varied.

The summary table below shows the instruments coverage by risk category:

Risk category	International instruments	EU instruments	Private instruments
Water	5 recommended instruments, 3 have guidance for companies, but not specifically tailored to battery materials	1 recommended instrument for companies but not specifically tailored to battery materials	Recommended initiatives tailored to the battery sector materials and all stages to the value chain, the recommended instruments fill all risk categories, but have shortfalls explained in page 14
Biodiversity	Only 2 recommended instruments, one of which provides guidance for companies, but still broad and not tailored to battery materials	2 recommended instruments for companies but not specifically tailored to battery materials	
Climate change	3 recommended instruments, two of which provide guidance for companies but not tailored	1 instrument for companies in energy intensive industries, relevant for iron, steel and aluminium industries only	
Air	1 recommended instrument that does not provide guidance for companies	1 instrument with guidance for industrial installations	
Waste	2 instruments that provide guidance for companies in the	2 instruments, one tailored to mining companies	

	upstream side of the supply chain of battery materials only		
Soil	1 instrument only that provides guidance for companies, but not tailored to battery materials	1 instrument with guidance for companies but not tailored	

Overall, it would be good to include all the recommended international instruments in the Annex X of the EC Battery Regulation explaining their limitations as listed above and that tailored guidance for companies can be found in some EC instruments, private and multi-stakeholder initiatives. It would be great if the recommended EC instruments are listed, and a couple of examples of private and multi-stakeholder initiatives are also mentioned, without endorsing any specifically.

Moreover, we would like to emphasize that the EC Battery Regulation should cover the whole battery life cycle so the instruments have been selected with this scope in mind. Although mining is perceived to have the most negative environmental impacts, there are also significant impacts occurring at other stages of the supply chain like metal smelting, processing and battery component manufacturing (for example Cathode Active Materials).

ANNEX I.

BACKGROUND AND PROJECT PURPOSE

Transport and Environment (T&E) contacted Levin Sources to support the strengthening of the proposed EU Regulation on Batteries and Waste Batteries².

For the first time, this recently proposed EU Regulation addresses supply chain due diligence requirements for economic operators that place electric vehicle and industrial batteries on the EU market. The proposed requirements, which are largely based on the Conflict Minerals Regulation, identify a series of environmental and social risks (in Annex X (2)). Further to this, the regulation presents a list of international instruments (in Annex X (3)), based on which the European Commission is to develop guidance on the application of the due diligence requirements, and which are aimed at covering the aforementioned identified risks.

T&E aims at strengthening the proposed regulation to ensure that only batteries sourced with the highest social and environmental standards are ultimately placed on the EU market. T&E contacted Levin Sources to conduct a rapid review to understand which environmental instruments are best suited to address the environmental risk categories listed in Annex X of the draft EU Regulation on batteries and waste batteries.

SCOPE OF WORK

Levin Sources will identify and review environmental instruments:

- that ideally are international instruments **endorsed at EU level**;
- that have some level of **political acceptance** (e.g. has been applied or referred to in EU legislation, EU institution reports, or national legislation);
- that could offer a **best-available alternative** (e.g. voluntary guideline, standard) should an instrument specific to the risk not be available;
- that are **WTO compliant**

Raw materials in scope for the environmental instruments review will include all the ones identified in the regulation (cobalt, natural graphite, lithium, nickel, and chemical compounds based on these raw materials), as well as copper, iron and bauxite.

T&E has expanded the environmental risk categorization of Annex X to further include climate change and waste treatment. Elements to integrate under each of the six environmental risk category could include but not be limited to:

1. Air – including:
 - Air quality management
 - Air emissions
 - Dust
 - Other air emissions (not greenhouse gas emissions as they are covered below)
 - Noise and vibrations
2. Water – including:
 - Water use and depletion:
 - Water management
 - Access to water
 - Surface water pass-by flows

² Proposed Regulation of the European Parliament and of the Council concerning batteries and waste batteries, repealing Directive 2006/66/EC and amending Regulation (EU) No 2019/1020

- Groundwater use
 - Mine dewatering & pit lakes
 - Storm water
 - Efficient use & recycling
 - Wastewater
 - Wastewater & water quality
 - Acid mine drainage
 - Water contamination
- 3. Soil – including:
 - Closure and land rehabilitation
 - Closure and reclamation
 - Subsidence and backfilling
 - Post-closure activities
 - Historical liabilities
 - Soil contamination
 - Soil erosion
 - Land degradation
- 4. Biodiversity – including:
 - Damages to ecosystem services
 - Habitats
 - Flora and fauna
 - Key biodiversity areas
 - Legally protected areas
 - Key biodiversity areas
 - Forests
 - Land use
 - Integrated land management
 - Mitigation hierarchy
 - Conflict with other land uses (ASM, LSM, agriculture, logging, etc)
 - Deforestation
- 5. Climate change – including:
 - Energy use
 - Renewable energy
 - Efficient use
 - Greenhouse gas emissions
 - Material use:
 - Efficient use and recycling
 - Sustainable sourcing
 - Natural resources use
- 6. Waste treatment – including:
 - Disposal of waste
 - Land application disposal
 - Hazardous and chemical waste disposal
 - Overburden, tailings and effluents

The review of instruments was done using Microsoft Excel, in order to prioritise, filter and analyse which instruments are most relevant for each material and risk category. We reviewed 82 instruments in total. Each instrument was analysed and categorized based on the conditions specified above (e.g. endorsement at EU level, political acceptance and WTO compliance). Most relevant instruments and findings have been

summarized in this report with a recommendation matrix that matches the instrument with the risk category and explains why that instrument is the best one. The report will be written in a concise, accessible and neutral manner.

ANNEX II.

Annex II compiles the Excel file with the reviewed list instruments, submitted in Excel format as an attachment to this document.