

Technology and human rights risks: An upstream and downstream approach for investors



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Key points:

- Technology is a part of everyday life, but tech firms face multiple environmental, social and governance (ESG) challenges
- Human rights are a major challenge for tech firms – both in devices' supply chains, i.e., upstream risks and in the use of their products and services, i.e., downstream risks
- Investors have a key part to play in better addressing and mitigating upstream and downstream human rights risks in the technology industry

Technology is part of everyday life – products and services are embedded into global society and are helping to accelerate the megatrend of worldwide interconnectivity.

Technology firms have become a significant source of return for investors but they have also raised a range of important environmental, social and governance (ESG) related challenges around areas including data privacy, [artificial intelligence](#) and [digital inclusion](#).

One growing area of concern for responsible investors is how technology companies can potentially impact human rights.

Human rights and tech devices

As a responsible investor, understanding the risks associated with human rights in the technology sector – especially regarding smartphones and their raw materials - is crucial. In the first part of this paper, we aim to explore the multifaceted human rights risks in the upstream supply chain - inventory flow in the pre-production stage of tech companies - focusing on raw materials and explain why investors need to pay careful attention to these factors.

We will then later look at the risks and investors' concerns regarding downstream supply i.e., finished goods going to customers.

We adopt a definition of human rights aligned with the United Nations Guiding Principles on Business and Human Rights (UNGPs). Endorsed in 2011, the UNGPs are the first international instrument to assign companies the responsibility to respect human rights.

Article 12 of the UNGPs states: *"The responsibility of business enterprises to respect human rights refers to internationally recognized human rights – understood, at a minimum, as those expressed in the International Bill of Human Rights and the principles concerning fundamental rights set out in the International Labour Organization's Declaration on Fundamental Principles and Rights at Work."*¹

The technology industry, particularly smartphone production, relies heavily on complex and expansive supply chains involving numerous raw materials. These materials, including metals and minerals, are extracted and processed worldwide, often with significant human rights implications throughout the supply chain.

We are focusing on the mining industry as it's the starting point of the value chain, though the whole chain is at risk regarding human rights from the ground to the final assembly line.

Human rights and the end use of tech products and services

Besides workforce issues, we are looking here at how firms' products and services could harm what is referred to as downstream human rights risks, i.e. the risks involved when products and services leave a firm for consumption.

"Technology company business models, and the commercial underpinnings of 21st century technological advances, are being increasingly criticised for creating or exacerbating negative impacts on a range of human rights. Business executives and entrepreneurs across the technology industry are being called on to address this concern. That companies do so in credible ways is fast becoming essential to gain (or regain) trust from stakeholders, build resilience into business models and sustain their legal and social license to operate."
B-Tech Foundational Paper²

While the concept of tech companies putting human rights at risk through their products and services may look hard to quantify, organisations like the United Nations (UN) have put together principles and frameworks aimed at guiding tech companies and investors in addressing such risks.

For example, the B-Tech project – launched by the Office of the United Nations High Commissioner for Human Rights – provides "authoritative guidance and resources for implementing the United Nations Guiding Principles on Business and Human rights (UNGPs) in the technology space".

We are convinced investors have a role to play in better addressing and mitigating downstream human rights risks in the tech sector. We are fully aligned with two of the main building blocks of the B-Tech Project:

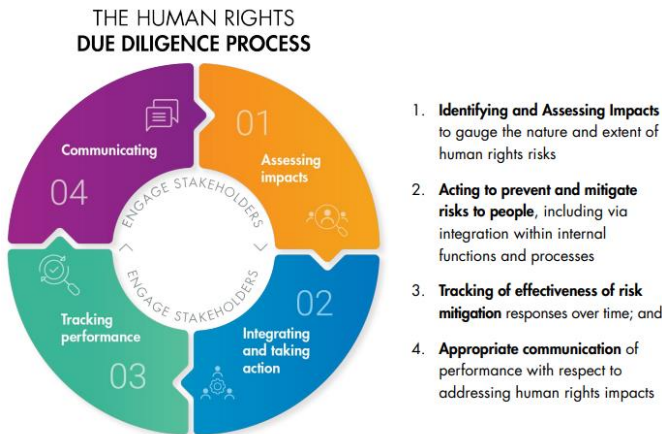
- Under the UNGPs, companies are expected to conduct human rights due diligence across all their business activities and relationships. This includes addressing situations in which business model-driven practices and technology design decisions create or exacerbate human rights risks
- Institutional investors - including asset managers, pension funds, private equity firms and venture capitalists - have a responsibility to respect human rights consistent with the UNGPs. This means they should integrate human rights considerations in all stages of technology investing, including in how they inform and influence their investee's business model choices

As part of our commitment to ESG and human rights, AXA IM excludes companies from our investment universe that are assessed as being non-compliant with the UN Global Compact (UNGC), OECD Guidelines for Multinational Enterprises, International Labour Organization Conventions or UNGPs³.

As a responsible investor, we believe in and endorse the UN's principles, that tech companies should properly uphold their responsibility to respect human rights and mitigate related downstream risks by establishing robust policies and processes which include, but are not limited to:⁴

- A high level, publicly available policy commitment at board and senior executive level to respect human rights throughout the company’s products and services
- Establishing and carrying out robust human rights due diligence (HRDD) processes – see Figure 1 - to ensure end-use risks are properly addressed
- Providing access to remedy procedures if and when companies identify adverse human rights impacts they have caused or contributed to

Figure 1 - B-Tech's human rights due diligence process



Source: *Taking Action to Address Human Rights Risks Related to End-Use*, A B-Tech Foundational paper, retrieved September 2023

Regulatory risk

Compliance with international regulations on responsible sourcing is crucial. Investors should assess how tech companies align with these regulatory standards. Furthermore, a strong commitment to ethical sourcing can enhance a company's reputation and attractiveness to socially responsible investors.

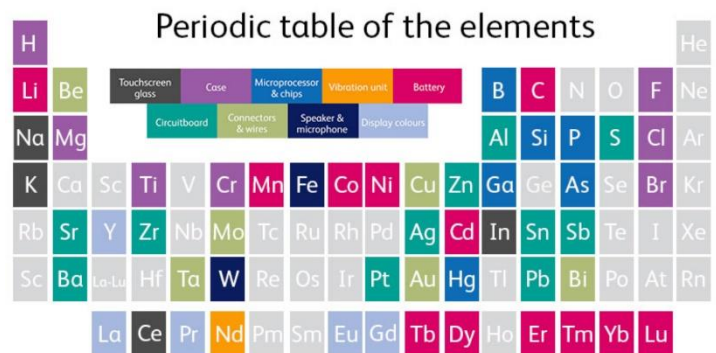
At a European Union (EU) level, new regulations such as the Corporate Sustainability Reporting Directive (CSRD) and the incoming Corporate Sustainability Due Diligence Directive (CSDDD) – in which financial institutions could be in the scope – are raising the bar for all corporates to have a due diligence processes in place.

Ground materials

Though we use our devices to surf the web virtually, smartphones are made with real elements which need to be extracted from the earth.

As highlighted in the periodic table below, a high proportion of chemical elements are present in our smartphones, from the battery to the glass screen protector, to the vibration unit that uses rare earth materials.

Such elements are present in a very small amount in our devices – but smartphones require a lot of these small things and the mining sector is a key sector that will continue to grow globally.



Source: National Museums Scotland: *From minerals to your mobile*⁵

Large-scale mining (LSM) and artisanal, or small-scale mining (ASM), are two key elements of the extractive sector. Both present risks and opportunities for the environment and people.

According to the Organisation for Economic Co-operation and Development (OECD), “ASM refers to formal or informal mining operations with predominantly simplified forms of exploration, extraction, processing, and transportation. ASM is less capital intensive and more labour intensive compared to large-scale mining.”⁶

ASM produces a significant share of minerals - representing 15% to 20% of global minerals, according to different estimates.⁷

ASM is very labour intensive and it's estimated that 150 million people depend on ASM for their livelihoods⁸ while around 44 million worldwide work directly in this industry⁹. For small scale mining, ASM has a large-scale impact in terms of employing workforce.

ASM presents high risks. These include working conditions (risk of death or accidents), forced and child labour, poor income, as well as possible links with armed groups and armed conflicts in some areas.

ASM is also responsible for mining tin, tungsten, tantalum and gold – known as '3TG' or 'conflict minerals'¹⁰. Some of these are present in our devices. Due to the link between these minerals and armed conflict, the EU¹¹ and US¹² have produced regulations to reduce the risk of financing such conflicts by requiring companies that import these minerals to do so from only conflict-free sources.

LSM is responsible for the majority of global production. LSM is very capital intensive and requires highly-skilled workers. In terms of human rights, LSM presents notable risks including conflicts with local communities and indigenous people. For example, Rio Tinto's destruction of rock shelters at Juukan Gorge in 2020 gave rise to global outrage.¹³

While we could oppose both ASM and LSM, we believe cooperation is both possible and needed for a fairer, cleaner mining industry. The mining industry calls for a 'co-existence'^{14, 15} between both industries. Multinationals can improve practices to help the populations working in ASM.

Investors also have a role to play to determine the future type of collaborations between the different actors by engaging with large mining corporations.

The Democratic Republic of Congo (DRC) and the cobalt industry is a key theme. It is estimated artisanal mining in the DRC accounts for as possibly as much as 25% of global cobalt production.¹⁶ Cobalt is used almost in all batteries in our devices.

The Fair Cobalt Alliance¹⁷ and ASM Cobalt¹⁸ are initiatives that are creating normative frameworks to help ASM be more structured and at the same time reduce risks of child labour and forced labour.

However, there's still a long way to go, as described by the US Department of Labor: *"In 2022, the Democratic Republic of the Congo made minimal advancement in efforts to eliminate the worst forms of child labor. In October, the Inter-ministerial Commission to Combat Child Labor in Mines and Artisanal Mining Sites launched the Child Labor Monitoring System. Moreover, the Ministry of Labor began recruiting 2,000 labor inspectors and controllers, some of whom will be trained to conduct inspections in mine sites."*¹⁹

Technology hardware manufacturers are taking actions to reduce these risks. These companies are making efforts and are implementing policies notably on recycling minerals to reduce the risk of modern slavery but are still subject to severe controversies.^{20 21}

We wanted to have a focus on mining as we consider it a key risk factor for human rights and the first step to have a cleaner value chain. But all along the chain, from raw materials and working conditions to the hardware, interactive media and services and the way that consumers are using the products, human rights are at risk.

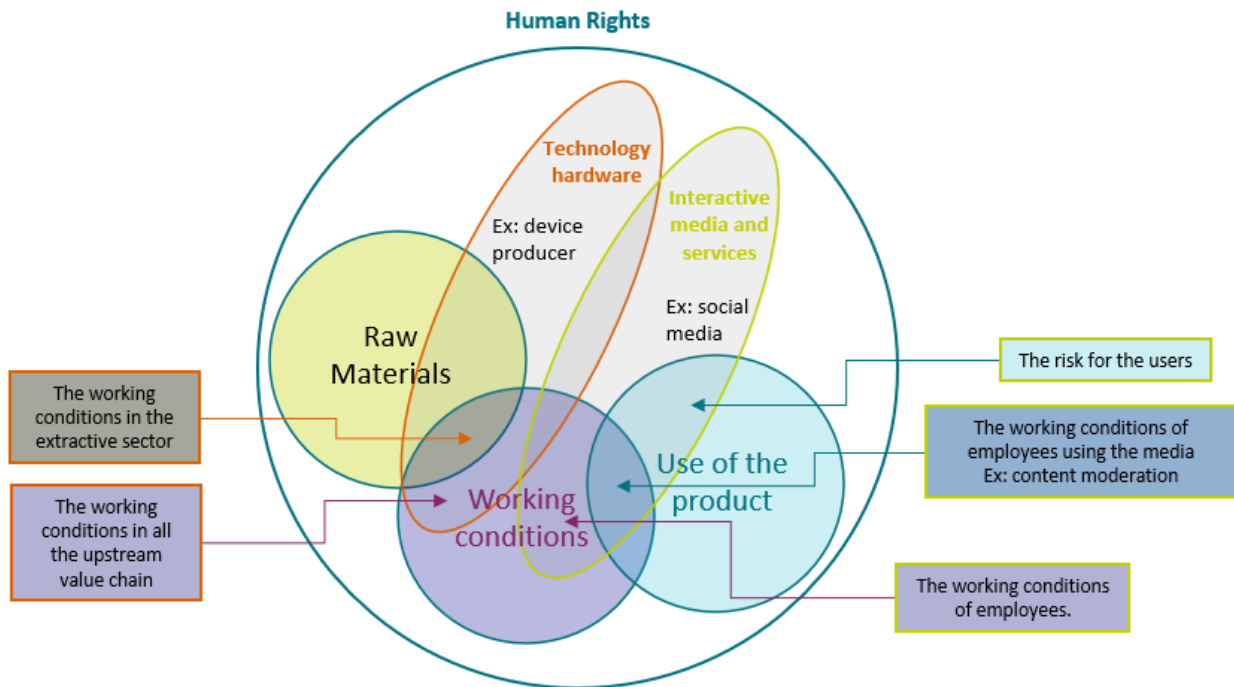
Human rights need to be all-encompassing

We should note that human rights – we describe the definition we use below – need to be wide-ranging when it comes to tech companies.

It is important to differentiate technology hardware companies which build and assemble devices – or have suppliers with strong commercial relationships – from interactive media and services companies i.e., hardware versus software firms.

Some companies operate on both sides and are therefore exposed to all supply chain risks.

Having examined the upstream aspect of human rights risks in the mining industry, we will also look at downstream human rights risks - which covers the use of products and services - and investors' concerns.



Source: AXA IM

Downstream risks and investors' concerns

Downstream risks include the ways in which tech companies' products and services can potentially harm human rights including privacy and data protection, freedom of expression, political discourse, discrimination, online hate speech and abuses to vulnerable populations.

We believe all these potential issues can be detrimental to end-users' and global society's trust in tech companies' products and services – which in our view is key to maintaining sustainable value creation in the tech sector. It translates into operational, reputational, financial and legal risks for tech companies and their investors, which may negatively impact trust, but also companies' social and legal license to operate.

As such, AXA IM has been a signatory of the "Tech Giants and human rights – Investor expectations" statement since 2020. It calls for big tech companies to integrate human rights into board oversight, business strategy and policies, and into risk management. It also presses tech companies to disclose and report on human rights, as well as to interact on these issues with stakeholders, policymakers and regulators.

Investors' concerns around downstream human rights risks for tech companies have also been illustrated by the growing number of collective engagement initiatives – more on that below – and digital and/or human rights-related shareholder proposals that have been submitted to tech companies' annual general meetings (AGMs) over recent years.

At AXA IM, we have integrated tech-related digital and/or human rights risks into our voting practices and supported a range of shareholder proposals at tech companies' AGMs. To further escalate our expectations, we also co-filed a shareholder resolution requesting the publication of a third-party Human Rights Impact Assessment at Meta Platforms' 2023 AGM.²²

The proposal recorded 17% support from shareholders overall, and 48% support from independent shareholders.²³

Tech companies' best practice

While we acknowledge how challenging it can be for tech companies to fully address and mitigate downstream human rights risks, we nevertheless noticed some upsides regarding companies' practices and commitments. We see that as a positive signal in terms of the willingness of tech companies

to tackle downstream human rights due diligence (HRDD) – and of the feasibility of such processes.

Positive examples of tech companies’ practices around downstream human rights risks include:

- Strong governance structures with board oversight of downstream human rights risks, as well as senior level cross-functional committees and individual human rights teams
- Some firms conducting company-wide human rights saliency analyses on their end-use, and starting to conduct human rights impact assessments on some of their products and services
- Addressing downstream human rights risks in product design, development and sales process

That said, tech companies’ policies and practices around downstream human rights risks remain at times far from optimal. HRDD processes are often only partial – for example, one firm can be very transparent on the impact of government policies on freedom of expression and privacy, but at the same time does not provide any information on how it tackles human rights risks related to targeted advertising or its algorithmic systems.

We identified a sample of 10 big tech firms – from the technology hardware, interactive media and services and broadline retail sectors – and looked at how these rank with regards to a set of indicators that we consider being relevant to assess alignment with the good practices we highlighted.

These indicators come from the following sources:

- The HR-related Core Social Indicators (CSI) from the World Benchmarking Alliance (WBA)
- The HRDD indicator from Ranking Digital Rights (RDR)

WBA’s CSI scores look at how companies disclose information on human rights, among other areas. We used six relevant CSI – all scored between 0 and 2:

- CSI 1: Commitment to respect human rights
- CSI 3: Identifying human rights risk and impacts
- CSI 4: Assessing human rights risks and impacts
- CSI 5: Integrating and acting on human rights risk and impact assessments
- CSI 6: Engaging with affected and potentially affected stakeholders
- CSI 8: Grievance mechanisms for external individuals and communities

RDR’s G4 indicator looks at companies’ practices on HRDD to identify and mitigate downstream risks – it scores tech companies on whether they provide evidence of **conducting robust, systematic risk assessments of:**

- Government regulations
- Policy enforcement
- Targeted advertising policies and practices
- Algorithmic systems
- Zero-rating models

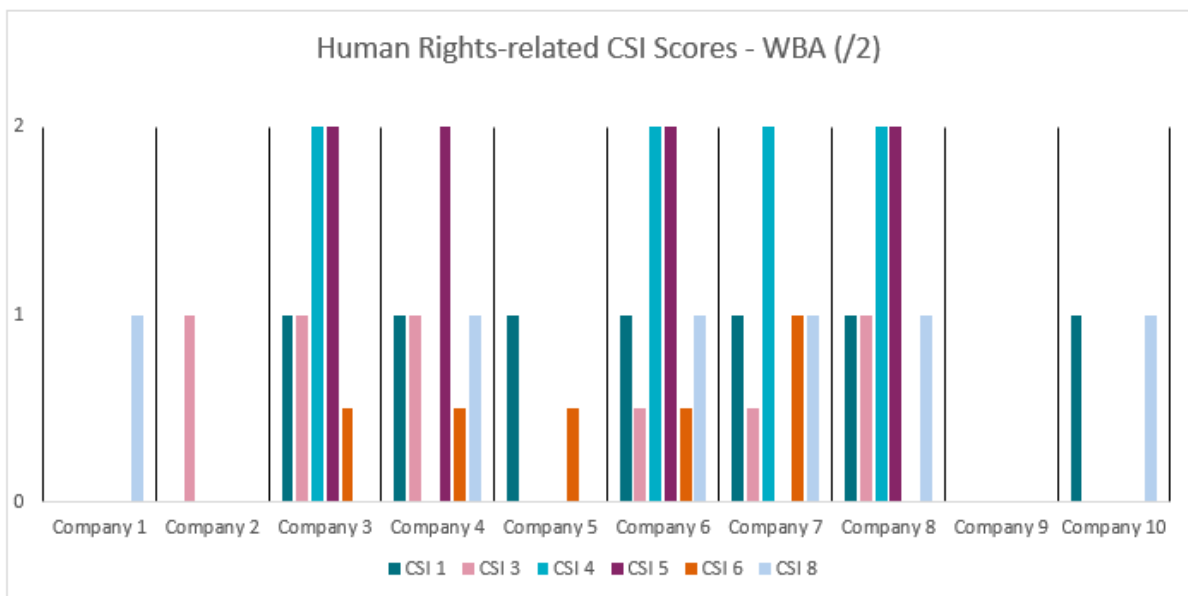


Figure 2 - Source: WBA, AXA IM

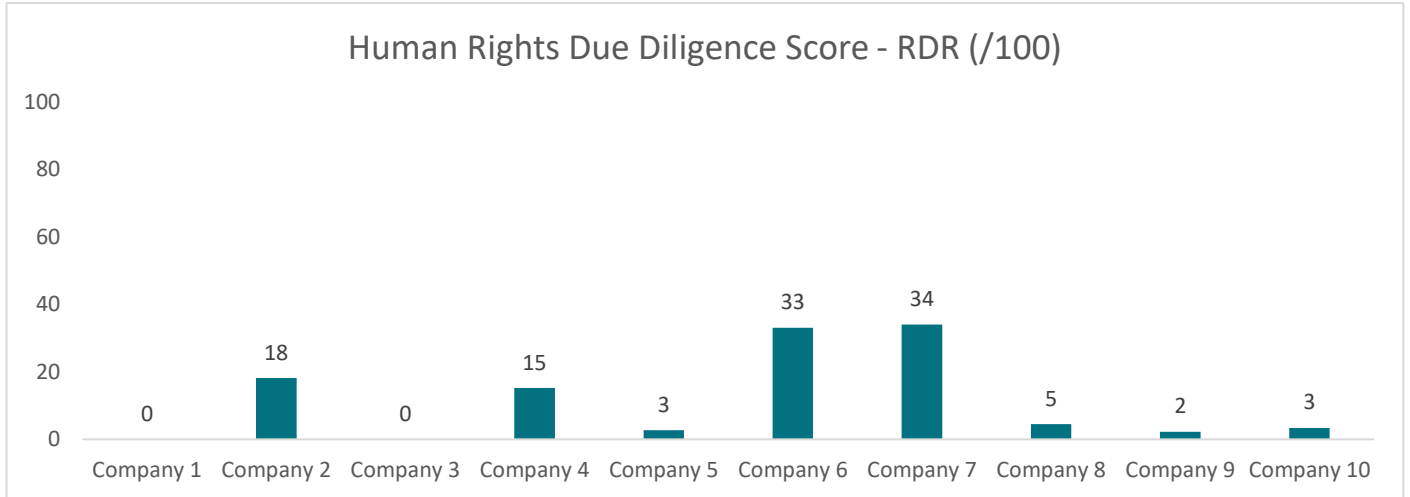


Figure 3 - Source: RDR, AXA IM – Companies 1-10 are the same in Figures 2 and 3

To us, these scores illustrate the idea that while some tech companies seem to be providing a certain level of information on how they address downstream human rights risks, existing policies and practices remain far from being as comprehensive and robust as they could be to properly mitigate end-use human rights risks.

Nine companies out of 10 in our sample received a score of 0 on at least one of the CSI indicators we looked at. Similarly, none of the companies here score higher than average on RDR’s HRDD score. Lastly, and taking Sustainalytics’ Global Human Rights Screening Assessment as a basis, four tech companies out of 10 are either non-compliant or under watchlist status for Principle 1 or 2 of the UNGP. Here again, it is clear to us that additional efforts are needed from companies and investors to address downstream human rights risks.

Investors’ engagement on tech and downstream human rights risks

“Investors should fully embrace their responsibility to integrate human rights considerations in all stages of investing, use their leverage to incentivize technology companies to conduct meaningful human rights due diligence, and influence investees’ business model choices.”

Office of the United Nations High Commissioner for Human Rights²⁴

Given the challenges highlighted above, AXA IM is highly committed to playing our part in mitigating these risks with tech companies. We believe it is critical to ensure that investors benefit from the value of the technology sector in the long run and in a sustainable way. Therefore, we have been engaging with tech companies on human rights risks to try and improve their approach in this area – both individually and through collaborative initiatives. We are convinced that investors have the potential to play a key role in encouraging tech companies to embed downstream human rights risks into the development of their products and services.

AXA IM joined the ICT (information and communication technology) and Human Rights working group of the Investor Alliance for Human Rights²⁵ in 2022 and signed the Investor Statement on Corporate Accountability for Digital Rights²⁶. We are also an active member of the Big Tech and Human Rights collaborative engagement initiative.²⁷ Its primary goal is to encourage tech companies to take concrete measures to strengthen their approach to operational and systemic human rights risks and impacts pertaining to their products and services and report on the related challenges and activities more transparently.

We believe that both upstream and downstream human rights risks are critical for investors in the tech industry and for people involved in its entire supply chain, from the miner of raw materials to the user of smartphones and social media platforms – especially as the regulatory requirements are likely to become more stringent. At AXA IM, we are committed to better addressing these risks through our engagement and stewardship activities with tech companies.

- ¹ https://www.ohchr.org/sites/default/files/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf
- ² Addressing Business Model Related Human Rights Risks, A B-Tech Foundational paper, September 2023
- ³ <https://www.axa-im.com/document/6144/view>
- ⁴ [Discussing the practical application of the United Nations Guiding Principles on Business and Human Rights to the activities of technology companies, United Nations Human Rights Office of the High Commissioner, March 2022](#)
- ⁵ <https://www.nms.ac.uk/explore-our-collections/resources/from-minerals-to-your-mobile/>
- ⁶ <https://www.oecd.org/daf/inv/mne/mining.htm>
- ⁷ <https://rmis.jrc.ec.europa.eu/employment-ebfea3>
- ⁸ <https://www.igfmining.org/resource/>
- ⁹ <https://stateofthesector.delvedatabase.org/#:~:text=Collectively%2C%20ASM%20makes%20up%20the,estimated%2044.75%20million%20people%20globally>
- ¹⁰ <https://www.responsiblemineralsinitiative.org/about/faq/general-questions/what-are-conflict-minerals/>
- ¹¹ https://policy.trade.ec.europa.eu/development-and-sustainability/conflict-minerals-regulation/regulation-explained_en
- ¹² <https://www.oecd.org/daf/inv/mne/OECD-Guidance-and-Dodd-Frank-Act.pdf>
- ¹³ <https://www.riotinto.com/en/news/trending-topics/juukan-gorge>
- ¹⁴ <https://www.glencore.com/sustainability/esg-a-z/artisanal-and-small-scale-mining>
- ¹⁵ <https://www.riotinto.com/-/media/Content/Documents/Sustainability/Corporate-policies/RT-Communities-social-performance-standard.pdf>
- ¹⁶ <https://rmis.jrc.ec.europa.eu/employment-ebfea3>
- ¹⁷ <https://www.faircobaltalliance.org/>
- ¹⁸ <https://www.responsiblemineralsinitiative.org/asm-cobalt/>
- ¹⁹ Findings on the Worst Forms of Child Labor - Democratic Republic of the Congo | U.S. Department of Labor (dol.gov)
- ²⁰ <https://www.apple.com/newsroom/2023/04/apple-will-use-100-percent-recycled-cobalt-in-batteries-by-2025/>
- ²¹ <https://www.cnn.com/2023/02/15/how-conflict-minerals-make-it-into-our-phones.html>
- ²² <https://www.axa-im.com/championing-sustainability/stewardship-and-engagement/responsible-technology-active-engagement-meta-and-alphabet>
- ²³ Estimated by AXA IM based on 2023 AGM results
- ²⁴ [The practical application of the Guiding Principles on Business and Human Rights to the activities of technology companies, OHCHR, March 2022](#)
- ²⁵ <https://investorsforhumanrights.org/issues/digital-rights>
- ²⁶ <https://investorsforhumanrights.org/investor-statement-corporate-accountability-digital-rights-0>
- ²⁷ <https://etikradet.se/en/press-releasemarch-23-2023/>

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