

Background paper - Tackling conflict mineral content in the semiconductor supply chain



Source: Ethical Consumer

What are conflict minerals?

Tantalum, tin, tungsten, gold and cobalt (hereafter referred to collectively as conflict minerals) are vital materials and building blocks of the semiconductor industry¹. Over the last decade there has been a large shift in the sourcing of these minerals to central Africa, where many mines operate with poor labour and environmental standards. Poor traceability of these minerals along complex supply chains, including smelting and refining, can also obscure the provenance of these minerals. This can lead to the inadvertent financing of armed conflict and the abuse of human rights.

What can be done?

The issue of conflict minerals was widely reported in the 1990s and since then regulation on the topic has tightened. In 2010 the Dodd-Frank Act included legislation on the reporting of conflict minerals and at the start of 2021 the EU implemented regulations on the sourcing and reporting of minerals. Disclosure of conflict mineral content from companies within the semiconductor industry has improved, particularly in the USA. However, recent studies² underline the significant need for improvement from companies domiciled outside the US and operating at different stages of semiconductor supply chain.

The ubiquity of these minerals to electronic products means that this issue impacts all companies in the electronic supply chain. While the upstream (miners, traders and processors) are directly involved in the handling of minerals, the issue of provenance is also of relevance for all downstream constituents (trader, designer, component producer, contract manufacturer and end user). All companies operating downstream could individually and collectively improve standards on sourcing, tracking and reporting mineral content within the supply chain.

The aim of this initiative is to encourage individual companies from different geographies and from within different parts of the supply chain to become leaders in addressing the responsible sourcing of key minerals. This will require them to: develop and invest in technological solutions to improve the traceability (possibly block chain), increase transparency on minerals from mine to product, enhance

¹ It is estimated that over 50% of tantalum production is used in the manufacture of electronic capacitors and is thought to be contained in 75% of all electronic products.

² Conflict Metals in the Semiconductor Supply Chain, Signum Intel, March 2021; and Conflict Minerals Study for Stewart Investors, AB Bernstein, March 2021 – both studies were commissioned by Stewart Investors.

current industry practices, impose harsher sanctions on non-compliance and reduce demand for new minerals by improving recycling initiatives.

Which companies should we write to?

An initial selection of companies is outlined below. They have been chosen for their sector and geographical positions within the semiconductor supply chain. Such a list will always be incomplete and interested PRI signatories are encouraged to propose additional companies for this initiative. The letters will be sent to the CEO and Head of Sustainability at each Company and copied into Investor Relations.

Semiconductor Manufacturers (incl. IDM, Foundry & Memory)

Global Foundries
Intel
Infineon
Micron
Samsung Electronics
SK Hynix
SMIC
TSMC
Texas Instruments

Fabless

MediaTek
Silergy

Semiconductor Equipment & Material Suppliers

AMAT
ASML
ASM International
HOYA
Shi-Etsu
Tokyo Electron
System Companies
Apple
Huawei
Microsoft
Oppo
Xiaomi

EMS

Hon Hai
Pegatron

Attribution:

The background information in this paper has been sourced in part from two research studies commissioned by Stewart Investors: Conflict Metals in the Semiconductor Supply Chain, Signum Intel, March 2021; and Conflict Minerals Study for Stewart Investors, AB Bernstein, March 2021.