

ESG



Sustainability Research

CHEUVREUX'S ESG TEAM

Stéphane Voisin (coord.) France

(33) 1 41 89 74 69 (direct) svoisin@cheuvreux.com

Erwan Crehalet France

(33) 1 41 89 75 18 (direct) ecrehalet@cheuvreux.com

Sudip Hazra France

(33) 1 41 89 75 34 (direct) shazra@cheuvreux.com

Samuel Mary UK

(44) 207 621 7646 (direct) smary@cheuvreux.com

Catharina Saponar UK

(44) 207 621 5166 (direct) csaponar@cheuvreux.com

Robert Walker UK

(44) 207 621 5186 (direct) rwalker@cheuvreux.com

Conflict Minerals

Conflict politics, conflict metals... Investment conflicts

Companies using conflict minerals in their manufacturing processes have to fulfil new transparency obligations under Dodd-Frank Section 1502, passed in August 2012. This implies massive supply chain investigations and potential disruption for SEC-listed as well as European supply firms in a wide variety of sectors ranging from cap goods to telcos... and further consumer scrutiny.

■ Human rights abuses are material... when business ethics drive financial regulation

We put the transparency regulations considered under Dodd-Frank alongside provisions used by the SEC to enforce anti-corruption regulation and sanctions, and promote overall whistle blowing in order to illustrate the context of significant penalties and a geographical pattern of enforcement.

■ European companies appear unprepared for the indirect impact of Dodd-Frank Section 1502

The broad capital goods sector is the most affected by the new regulation. Although US firms have taken the lead with regard to transparency in tracing conflict minerals, Philips and Nokia are best positioned in Europe, with other affected European companies still largely not making any public declarations on minerals tracing. However, any sector with contracts to manufacture for SEC-listed buyers involving these metals is affected including auto parts, semi-conductors and aerospace and defence.

■ Less focus on mining and retail: they are exempt

Companies merely branding third-party goods with their own label, i.e. not specifically contracting the manufacturing need not report. Mining groups have not been required to comply with the new legislation either, although they are not exempt from the broader problems of operating in conflict regions.

■ Procurement as foreign policy: will it just drive sourcing away from the DRC?

Reports of a de facto boycott of conflict minerals in the Eastern DRC regions began soon after Dodd-Frank legislation was authorised, through a large drop in demand through fears of non compliance with the Act. Realistically there will be some continued sourcing shifts away from the region.

■ Regulators & consumers looking for more transparency

The Dodd-Frank amendments require the companies in question to publish their conflict minerals status online. But consumers are also slowly demanding greater disclosure, and search engine technology has begun the aggregation and delivery of such information. Transparency regulation will empower this trend.

Sudip Hazra

Research Analyst

shazra@cheuvreux.com

(33) 01 41 89 75 34

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■ CHEUVREUX'S ESG TEAM

Stéphane Voisin (Sector Head) France (33)-1-41 89 74 69 (Direct) svoisin@cheuvreux.com

Erwan Crehalet France (33)-1-41 89 75 18 (Direct) ecrehalet@cheuvreux.com

Sudip Hazra France (33)-1-41 89 75 34 (Direct) shazra@cheuvreux.com

Samuel Mary UK (44)-207-6217646 (Direct) smary@cheuvreux.com

Catharina Saponar UK (44)-207-621 51 66 (Direct) csaponar@cheuvreux.com

Robert Walker UK (44)-207-621 51 86 (Direct) rwalker@cheuvreux.com

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The motivation behind conflict minerals legislation is humanitarian

I—Executive summary

"Conflict Minerals" are defined by Dodd-Frank legislation as the tin, tungsten, tantalum and gold currently mined from regions in Eastern DRC and adjoining countries that are controlled by violent armed militia. Once mined and refined through the downstream supply chain they are widely used in everyday products, ranging from jewellery and consumer electronics to industrial machinery, semi-conductors and almost all forms of transport.

The SEC issued long-awaited disclosure requirements under the Dodd-Frank Act related to Conflict Minerals and Revenue Transparency on **22 August 2012**. In the preamble to the final rule document the SEC states the primary **humanitarian motivation** behind Dodd-Frank Section 1502. It notes the predominance of human rights abuse, gender violence, child labour, environmental damage, precarious work conditions, lack of health and safety, and rampant corruption in the Eastern regions around the **Democratic Republic of Congo** where four minerals (**tin, tantalum, tungsten and gold**) are mined under the control of armed militia perpetrating **systematic human rights abuses**.

Non SEC-listed companies that are part of the supply chain of SEC listed firms will be affected. Major consumer-facing players such as Intel, Ford, HP, Apple, Philips and Nokia have begun investigating their supply chains globally in order to be able to comply with the Act. **Any of their suppliers (either listed or private)**, which may source the conflict minerals in any form or intensity (there is **no official minimum** amount that triggers a declaration), face the possibility of being requested to verify their own supply chains, regardless of where they are based.

The first line of companies that have positioned themselves to comply with the act are **consumer facing**. The leaders in the area are predominantly SEC-listed consumer electronics providers (which have been targeted by NGOs). The **trickle down effect** will however likely **soon be seen by numerous non-consumer sectors**, particularly those that are Tier 1 suppliers including, for example, **semi-conductor and auto components** suppliers. (Note that retailers are mining companies are exempt from the regulation which focuses only on "contracts to manufacture".)

The first SEC conflict minerals reports will appear in **May 2014**. However companies will have two years out to 2016 in which they may opt to use a "conflict undeterminable" status. The reporting is to be done both through a new type of SEC filing "SD" (special declaration) and to be published on the internet. We expect this to empower both consumers and business purchasers through the increased facility for internet-driven applications that aggregate such information at product and company level.

The socio-political background of conflict minerals is multi layered and complex and the use of financial regulation to address it is controversial. The drawbacks to the legislation include the possibility of a **de facto boycott** (already begun according to some sources) of the region, which will lead to devastating consequences for local communities- even those unaffected by the conflict since their access to trade will be withdrawn. As the DRC's estimated share of global tantalum production stands at 14% but its global reserves amount to 64% or more of the world total, the other three metals are much easier to substitute with the production shares all below 4%.

Companies are increasingly incorporating sustainable supply chain policies as part of their CSR agenda. However for those that have signed the UN Global Compact we highlight that using conflict minerals directly violates over half the GC Principles.

**Promoting both
business ethics and
foreign policy**

**Supply chain social
issues increasingly
make the front page**

**Consumer-facing
companies should
fear reputational loss**

**Loss of position in
supply chain is a risk**

**Capital goods groups
are the most exposed**

**Companies with
strong sustainable
sourcing systems
have a head start**

**Tungsten, tin,
tantalum and gold are
the metals concerned**

**A variety of sectors
are affected**

■ The regulatory environment

Legislators have chosen financial regulation through the powers of the SEC in order to enforce corporate responsibility for what is simultaneously **a foreign policy matter and business ethics regulation**. Although this move is not without precedent, many are still somewhat shocked at this apparent deviation. Given the recent spree of eight-figure penalties enforced upon corporates with respect to global sanction violations and non domestic bribe payments, the latter via the FCPA (Foreign Corrupt Practices Act) we do not think they should be entirely surprised.

However, while there is legal risk for companies in terms of non-compliance with the new Dodd-Frank Section 1502 Conflict Minerals regulation, we note that the nature of transparency legislation will rely heavily on imposing very real **reputational** impact, especially for consumer-facing sectors: notably electronics companies, where there is gathering momentum for social, and labour issues within the supply chain. Companies are increasingly seeing themselves in the headlines on account of supplier issues, most conspicuously Apple, via Foxconn labour complaints in China.

All companies sourcing the metals, regardless of whether they are SEC listed or even unlisted, need to consider the risk of exclusion from supply chains if they are unavailable to verify conflict free status, as SEC listed companies will need to verify their entire supply chains to comply with the legislation.

As consumer interest in socially and ethically responsible companies grows, **the better positioned groups may be able to capitalise on this consumer trend** particularly those that go beyond the minimum scope of the reporting requirement before they begin. Dodd-Frank Regulation is strong on "transparency acts" – which in effect power the consumer through *greater visibility, clarity and accessibility of corporate reporting*.

Regulation affecting chemicals in the supply chain has included EU REACH and RoHS (on hazardous substances). Those companies who have already managed these and other sustainable sourcing systems will likely have a head start in implementing conflict minerals due diligence as management will already have started to become accustomed to the processes of supplier verification and databases used for tracking can potentially be leveraged.

■ Dodd-Frank Section 1502 in a nutshell

The Dodd-Frank Act requires any SEC listed company with "a contract to manufacture" to declare whether tantalum, tungsten, tin or gold (also known as "3TG") used in its supply chain originate from the conflict regions of DRC (the Democratic Republic of Congo).

The regulation can apply to a variety of sectors – primarily capital goods, in the broad sense of the term, and electronics in particular, as this sector uses the highest proportion of the metals. Therefore aerospace & defence, automotives, medical technology, and manufacturing are exposed.

The jewellery industry is concerned as it is a key user of gold accounting for 60% of demand. However, though the exports are of high value to the country, DRC produces less gold than it does the three "T" metals. Gold may be more difficult to trace compared to the other metals given greater recyclability and use of remelting.

How are foreign companies that list on the SEC affected?

Any foreign operator filing the 20-F (Foreign Issuer) declaration would also be required to submit the conflict minerals report known as "SD" (special declaration). ADRs at Level II and III would trigger such a filing.

Mining companies and retailers have exclusions

Does the "primary function" of the product need conflict minerals?

Non SEC-listed companies are adversely affected

Exemptions

Sectors that will avoid this legislation include critically – **mining companies** – potentially as they are not held to be as instrumental in the propagation of conflict minerals as the final users of their products further downstream. The metals in the conflict regions are by and large not sourced by listed companies with Eastern DRC operations but more informally by artisanal miners (a point that we address later in this report).

Another major exclusion are **retailers**, who have succeeded in obtaining an exemption under the new legislation, provided that they are merely re labelling/re branding third-party goods without specific contracts to manufacture.

It is important to note that the conflict minerals must be "necessary to the primary function of the product" – which will be the case for most electronics products – but **if they are used in the design or decoration only**, companies are **unlikely to be required to produce an SEC conflict minerals report**.

The domino effect for non-listed companies

Firms not listed on the SEC will also be affected, as they can often be part of a larger supply chain including major global manufacturers and thus be required to have greater visibility over sourcing so the SEC-listed buyers can approve their own supply chains.

Key requirements: Audits and timing

TIMELINE FOR DECLARATIONS

Key dates	Notes
Dodd-Frank 1502 effective date	13 November 2012
Compliance date	Must comply with final rule for the calendar year beginning 1 January 2013
First reports due	31 May 2014
DRC conflict "Undeterminable" exemption	Large companies may declare "Conflict Undeterminable" for the first two calendar years 2014 and 2015 Smaller companies have a four-year period in which they may use this declaration status

Source: SEC

DODD-FRANK 1502 AUDIT REQUIREMENTS

Conflict minerals audit
Obtain an independent private sector audit of its Conflict Minerals Report
Certify that it obtained such an audit
Include the audit report as part of the Conflict Minerals Report
Identify the auditor

Source: SEC

Two year "grace period" doesn't mean no scrutiny

The law only requires transparency *not* the an end to conflict minerals sourcing

The SEC has granted a two-year grace period, heavily contested by NGOs, to larger companies during which the latter may report a "conflict undeterminable" status thus avoiding full legal declaration of conflict status. However, any large listed company with consumer-facing products that uses this form of declaration is unlikely to go unnoticed by NGOs/media, posing ongoing reputation risks to the company in question.

The rationale

Companies are NOT required to stop sourcing from conflict regions. The idea is that the transparency itself will lead to companies no longer sourcing such minerals. This could happen for a variety of reasons including brand reputation effects, and the influence of major players downstream in the supply chain having a trickle down effect needed to impact the entire supply chain.

The SEC but not as we know it

Regulatory reach increased beyond financial risk...

Extra-territorial: The law applies well beyond the US

But non-domestic entities are less well prepared

II – Conflict politics, conflict metals....

■ Dodd-Frank Act - a tool for foreign policy now?

The passing of two amendments (Sections 1504 and 1502) to the Dodd-Frank Act on 22 August 2012 has important ramifications for the way financial regulation can be used to effect foreign policy within a business ethics framework. Reporting transparency for foreign policy mandates can now be seen as a fully-fledged tool of regulation.

The Dodd-Frank Act is now to be used not just for financial risk management and banking reform but: 1) as Section 1504 entails – stopping corruption in global deals in the extractives industry through the requirement to declare government payments right down to project level; and 2) under Section 1502, which we look at in detail – reducing the power of armed militia who perpetuate systematic human rights abuses in the DRC through funding from conflict minerals. As the preamble to the Act states *"the social benefits are quite different from the economic or investor protection benefits that our rules ordinarily strive to achieve."*

■ Politics of penalties: Non US-companies more at risk

We note two precedents where the US has legislated for globalised business ethics issues: 1) foreign sanctions and 2) anti-corruption. Both have seen **a tendency for non-US entities to bear the lion's share of large penalties**. This may be due to some amount of protectionism on the part of the US government. However governments may have much less political opposition in imposing penalties on foreign companies than their domestic counterparts. Furthermore there is also the issue of **extra territoriality** - or the application of the law beyond the domestic territory.

Recent US enforcement of sanction breaches - mainly in Iran – have shown a vocal and aggressive willingness to use financial regulation to support foreign policy. Though the application of legislative tools can be erratic they can readily be applied when the political necessity seems to demand it.

SANCTION VIOLATIONS: MAJORITY OF PENALTIES ADMINISTERED TO EUROPEAN ENTITIES

Bank	Country of domicile	Date	Main sanctioned countries	Total penalty (USD m)
HSBC	UK	N/A	Iran, North Korea, Burma, Sudan, Libya	Sanctions penalty not finalised but 700 provisions including money-laundering violations
ING	Netherlands	Jun. 2012	Cuba, Iran, Burma	619
Credit Suisse	Switzerland	Dec. 2009	Iran	536
ABN Amro	Netherlands	Oct. 2010	Iran, Libya, Sudan, Cuba	500
Lloyds	UK	Jan. 2009	Syria, Iran, Libya	350
Standard Chartered	UK	Aug. 2012	Iran, Sudan, Libya, Burma, Cuba	340 already agreed, potentially 700+
Barclays	UK	Aug. 2010	Cuba, Sudan	298
Australia and New Zealand Bank Group	Aus/New Zealand	Aug. 2009		5.75
JP Morgan	US	Aug. 2011	Cuba, Iran, Sudan	88.3

Source: Newswires

EIGHT OUT OF THE TEN LARGEST CORRUPTION VIOLATION FINES UNDER US FCPA ARE EUROPEAN (IN BOLD)

Company	Country	Sector	Year	FCPA settlements (USD m)
Siemens	Germany	Capital Goods	2008	800
KBR / Halliburton	US	Oil & Gas/ Engineering	2009	579
BAE Systems	UK	Defence	2010	400
Snamprogetti Netherlands B.V. / ENI S.p.A	Netherlands/Italy	Oil & Gas/ Engineering	2010	365
Technip SA	France	Oil & Gas	2010	338
JGC	Japan	Engineering	2011	219
Daimler AG	Germany	Auto	2010	185
Alcatel-Lucent	France	Telco	2010	137
Maygar Telecom/ Deutsche Telekom	Hungary/ Germany	Telco	2011	95
Panalpina	Switzerland	Transport Services	2010	81.8

Source: DoJ, SEC

A larger number of US companies show awareness of conflict minerals legislation

Until now it has been a handful of US companies (and Philips and Nokia in Europe) that have taken the lead on conflict minerals positioning. **We have found European companies, even those that are SEC listed and will be required to report their conflict minerals sourcing status, to be largely lacking in public information on their ability to track the use of the metals in their supply chain.**

In the long term therefore the pattern of European companies' exposure to US extra-territorial regulation may be set to continue with the advent of Dodd-Frank 1502.

Whistle blowing is a major information source of business ethics violations

An internal whistle blowing system protects companies

Transgressions in business ethics, including financial fraud, sanctions and corruption violations, often reach authorities as a result of information from "whistle blowers". Regarding Dodd-Frank Section 1502 if a company has declared a conflict free supply chain but has in fact sourced minerals from conflict areas the legal violation will be **a financial reporting violation**. Dodd-Frank Section 1502 does not outlaw the use of conflict minerals directly – it only requires companies to be transparent to all stakeholders about their use.

Whistle blowers are likely to be found amongst those with access to information within the supply chain (i.e. employees) and/ or an interest either in the outcomes of the legislation (i.e. local communities) or those that have not benefited from companies incorrect reporting such as competitors. Journalists and NGOs are also usually the major visible sources in uncovering transparency violations.

Whistle-blowing – a "rich" seam of information?

In the broad area of business ethics and fraud reporting, new whistle blowing regulations were set up as part of the Dodd-Frank Act, with a reported budget of over USD450m. Whistle blowing has been regulated for some time in the US through various Acts including Sarbanes Oxley, but the new provisions provide further strength for the "business ethics" mandate in place within Dodd-Frank. The new whistle blowing regulation provide clear incentives for reporting under certain conditions (the final penalty must be over USD1m, if the whistle blower is innocent of charges related to the act reported she would automatically be considered for a 10-30% reward). The first reward was issued in 2012. Although this cannot be considered a "get rich quick" scheme due to intense pressure on informants both professionally and personally over large time frames the monetary reward clearly increases the incentive. **Bearing these financial rewards in mind, the possibility of the Dodd-Frank whistle blower provisions being used in relation to information on conflict minerals is thus stronger as ever.**

**Corporations are
people too**

**You thought Dodd-
Frank was just Wall
Street reform?**

**Look: The SEC is no
longer just a financial
regulator**

As a consequence we believe that it is critical that companies have adequate whistle blowing systems internally that allow both employees and external stakeholders within the supply chain to report information so the company is better informed and can better manage minimise the risks of elevated penalties if such information is provided by themselves to external authorities rather than an externally instigated prosecution.

What does "Human Rights" mean for corporations?

We believe that the Dodd-Frank focus on conflict minerals is also part of an increasing trend in an overall multi-stakeholder focus on corporate responsibility for human rights "due diligence". The UN recently introduced guidelines on the role of business in maintaining human rights around their operations. Prof. John Ruggie, who implemented the UN's Guiding Principles on Business and Human Rights has spoken specifically on the need for companies to use human rights risk assessments in their supply chains, not simply to act ethically but also to potentially to minimise disruption to sourcing flows and operations and the consequent costs.

This was felt early on with the emergence of the concept of "conflict minerals" by Sony in 2000 when the launch of the PlayStation 2 was delayed. Commentators have suggested this could have been due to the huge spike in coltan prices, which increased from USD49/lb in early 1999 to USD275/lb two years later due to a demand spike for the metal in electronic devices (including mobile phones).

As a more direct example of human rights challenges for companies in the DRC - Anvil Mining, an Australian-Canadian company, encountered legal challenges when a 2005 UN report found it to be complicit in human rights abuses by DRC armed forces. The company was accused of supplying transport and drivers to soldiers involved in human rights abuses and summary executions around its operating areas. Two Anvil staff were the subject of human rights charges but were subsequently acquitted.

The current case of Shell vs. Kiobel is also illustrative with respect to the complicated challenges faced by corporations in navigating terrain where they operate in quasi war zones and extreme political instability. Shell's operations in Nigeria are accused of complicity in the executions of protestors by the Nigerian military. In October 2012 the US courts are expected begin a judgement as to whether a corporate entity can be exonerated or not from human rights abuses (under its Alien Tort Statute Laws).

Traditionally it has been those companies operating in conflict terrains that have been charged directly with complicity in abuses. This landscape of human rights legal challenges applying primarily to the upstream companies "on the ground" has been extended with the advent of Dodd-Frank 1502. **Downstream recipients of the supply chain are now firmly under the microscope.**

■ Transparency - both consumers and regulators want it

DODD-FRANK SECTIONS 1502-4: TRANSPARENCY WITH SOCIAL REACH

Dodd-Frank Section	Nature	Applies to	Required transparency	Final rule adopted
1502	Conflict Minerals: DRC & Region	Any company with a "contract to manufacture"	Sourcing of tantalum, tin, tungsten and gold from conflict regions in DRC	Aug. 2012
1503	Mine Safety	Mining companies with US facilities	Mine safety disclosures regarding US sites only	Dec. 2011
1504	Revenue Transparency	Extractives companies only	Payments to governments	Aug. 2012

Source: SEC

Corporate transparency is increasingly a regulatory tool

"Sunshine is the best disinfectant"

These three Dodd-Frank Sections may be little known on Wall Street compared to other banking overhauls in the Act, but we note the trend for transparency to be used as a tool to enforce business ethics. The idea is that lack of transparency allows for a variety of illicit activity, **and, under Section 1502, supply chain visibility will limit the secrecy upon which the trade in conflict minerals depends.**

Section 1504 on extractive industries also uses transparency as its fundamental principle and goal of requiring payments to governments to be declared, the primary objective being to reduce *corruption*.

This "name and shame" principle is also applied in Section 1503 that requires mining companies that care about their reputation (most do) to declare their US mine safety records publicly.

The EU has also recently voted for (but not finalised) legislation requiring payments transparency from European extractives and forestry companies through its *Transparency and Accounting Directive* - who will like Dodd-Frank 1504 be required to report country and project level payments to governments. *Telco, Construction and Banking* sectors have been proposed to report *country level payments only*.

Other supply chain transparency reporting regimes

The California Transparency in Supply Chains Act of 2010, passed on 1 January 2012, requires businesses generating revenues of over USD100m and with government procurement contracts to declare a variety of factors including the conflict status of sourcing. The state reserves the right to rescind contracts for those that make unfavourable declarations. Such local state purchasing legislation can have a major effect on global corporations. Note the case of Apple, which decided to redesign features of its battery (having environmental impact) and reverse its decision not to comply with local environmental standards known as "EPEAT", once this became public knowledge, and after the clear statement that this step would have meant the precedent of a loss of state purchasing in the educational sector and the reputational damage that would ensue.

Other US states and cities that have implemented or proposed procurement policies with specific conflict minerals elements include Pittsburgh, St Petersburg, Maryland and Massachusetts.

CALIFORNIA TRANSPARENCY IN SUPPLY CHAINS ACT OF 2010

Companies with USD100m global revenues and with state contracts are required to report the following:	
1	Engages in verification of its supply chain to evaluate and address risks of human trafficking, and whether the verification was conducted by a third party
2	Conducts audits of its suppliers to evaluate their compliance with company policies against trafficking, and whether the audits are conducted by a third party
3	Requires direct suppliers to certify that their production comports with the human trafficking and slavery laws of the countries where they do business
4	Maintains internal accountability standards for employees and contractors to meet these requirements
5	Provides training for employees and managers on these policies and mitigation of risks of human trafficking and slavery in the supply chain

Source: California State

**Transparency: yes
consumers want it too**

**NGOs are most likely
to uncover
transparency
violations**

**Ethical shopping tools
in their infancy**

**Transparency of
information means
they are set to grow**

Open to the public: True transparency now means on-line disclosure

Behind Dodd-Frank Section 1502 there is the idea that the data related to conflict minerals status is not just available to the SEC to respond to, police and aggregate, but also to NGOs, local communities and anyone with an interest in it via open internet access. It is notable that the most vehement lobbying for the laws came from two NGOs, Enough Project and Global Witness and, to a lesser extent, from Oxfam and Amnesty. On an ongoing basis we expect that it will be these and other NGOs that monitor the effectiveness of the Dodd-Frank amendments and indeed corporate performance, as they have already begun to do.

The recent survey by Enough on conflict minerals policy and performance by electronics companies generated significant media interest both in highlighting industry leaders such as HP and Intel but also the laggards such as Nintendo.

As a very early phase trend, the requirement to make conflict mineral descriptions publicly available on a website (they must also provide the Internet address of the site in Form SD) is likely to facilitate third-party rankings. This will mean the data itself can be aggregated and disseminated with relative ease. Consumer applications tracking sustainability issues including specific conflict minerals policies already exist free of cost. The emergence and popularity of such sites is growing. We believe it can be only a matter of time before such information starts to be integrated with more mainstream retail websites and mobile applications.

"GOODGUIDE": A CONSUMER TRANSPARENCY TOOL FOR PURCHASING DECISIONS

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7.2 **Nokia C6 Cell Phone**
 Rank: 6 out of 707 cell phones • Company: Nokia Corporation

8.8 **Environment**
 This product clearly discloses meaningful product level environmental information.

5.7 **Society**
 This company's social policies, practices and performance are average.

- 6.9** Category-Specific Social Performance [-]
- 6.9** Conflict Minerals Policy and Practices
- 5.3** Core Company Social Performance [-]
 - 6.9** Transparency
 - 6.9** Community [+]
 - 4.9** Workers [+]
 - 4.5** Management [+]
 - 4.2** Consumers [+]

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Source: Good Guide

"RANKABRAND" – ANOTHER CONSUMER TOOL FOR ETHICAL PURCHASING

Questions about Labour Conditions/ Fair Trade  1 out of 7			
1. Does the brand (company) have a policy that excludes smelters of conflict minerals by only sourcing minerals from conflict free areas or by only sourcing minerals from conflict areas when human rights are respected and where contributing to conflict is avoided?		Siemens does not communicate any policy on conflict minerals on its website.	Source
2. Does the brand (company) have a Code of Conduct (CoC) for both its own factories and those of its suppliers, which includes the following standards: No forced or slave labor, no child labor, no discrimination of any kind and a safe and hygienic workplace?		All standards are mentioned in the Siemens Code of Conduct, which is also applicable for all its suppliers.	Source

Source: rankabrand.org

The screenshots above show two web application consumer-facing tools for "ethical and sustainable purchasing" (the concept can readily be extended to "B2B" sourcing applications). Both websites aim to take sustainability/ CSR information from publicly-available sources for each company and product, and aggregate the data into web/mobile user interfaces at company and product level. We note that **"Rankabrand.org" and "GoodGuide.com" already explicitly track conflict minerals policies**. Such applications increasingly launch toolbars on vendor websites such as Amazon.com so that their information can be better integrated into the purchasing decisions of consumers. Though such applications are still largely in their infancy, reporting transparency will empower the emergence and embedded nature of such online applications in purchasing decisions by both consumers and in B2B.

■ The costs of Dodd-Frank 1502

"We also note that these objectives of Section 1502 do not appear to be those that will necessarily generate measurable, direct economic benefits to investors or issuers." SEC

A cost-benefit analysis of the new regulation is considered almost impossible on the benefits side in monetary terms. The SEC states this quite directly (see above).

However, **companies will encounter a variety of significant costs, including audits, IT changes, supplier data gathering and management integration**. Even companies opting for the "conflict undeterminable" declaration during the two year "grace" period after 2013 will incur such costs in setting up adequate supplier systems.

The SEC noted a variety of costing parameters to produce its estimates. A critical element is the number of suppliers – particularly tier 1 suppliers as these will be instrumental in developing quality upstream information flow in tracing the supply chain.

Other parameters will include IT costs, which are integral in producing the transparency legally mandated, and management costs to oversee the entire process.

Companies with "responsible sourcing" already have the upper hand

We believe that companies with responsible supply chain policies in place, i.e., that have already engaged with suppliers on a variety of sustainability issues and required information from them will certainly be better prepared and potentially be able to act more quickly. Global Witness, an NGO that pushed for the Dodd-Frank 1502 legislation estimated that the cost could be halved for those with responsible sourcing systems already in place – as the highest costs are incurred in data gathering from external partners.

Corporates are implementing humanitarian benefits

Their own costs include:

Audits, IT, data gathering...

... and management

Responsible sourcers are already better positioned

REACH and RoHS experience can be leveraged

**Initial costs are
USD3bn-4bn in
aggregate according
to the SEC...**

**...but not everyone
agrees**

Companies that have implemented REACH and ROHS may also find the conflict-free verification less of a "culture shock", and lead to potential cost savings in this area. RoHS legislation has been used as a comparison for costing Dodd-Frank 1502 implementation. Consulting firm Technology Forecasters, Inc., estimated RoHS Directive costs for the electronics industry at USD2.64m per company to achieve initial RoHS compliance and another USD482,000 p.a. to maintain compliance.

According to the SEC, initial compliance costs on aggregate for all companies affected would total USD3bn-4bn (revised up sharply from first estimates), and ongoing compliance costs USD206m-609m annually. A University of Tulane study however put the total cost at USD7.93bn with the bulk coming from strengthening of internal systems.

COST ESTIMATES SUBMITTED TO SEC

(USD)	National Association of Manufacturers		Tulane University		Claigan Environmental Consultancy	
	One-off	Recurrent	One-off	Recurrent	One-off	Recurrent
Adjustment of supply chain processes	200 000		3 500-6 500		(compliance) 98 000	
IT costs	1m-25m				50 000	
Conflict minerals report audit		25 000-100 000	25 000-100 000	25 000	15 000	
Risk assessment systems (2,000 suppliers, USD50/ per hour)		50 000	1m		(data gathering) 80 000	
Annual report submission						(aggregated costs) 114 000
Increased cost of minerals			1m			
Maximum cost per company (large cap assumed)	25m	150 000 pa	1m+	25 000	813 000 for companies with USD10bn+ rev	114 000

Source: SEC submissions

**A maximum one off
implementation cost
of USD813k or
USD25m?**

**Pushing the costs
on...**

**... avoiding the costs
but not altogether**

**Companies complain
that sourcing from
conflict free mines
within the DRC is now
burdensome**

The lowest estimates come from "Claigan Environmental", which submitted estimates to the SEC that places the one-time compliance costs at between USD21,000 and USD813,000. At the other end of the spectrum, National Association of Manufacturers (a lobbying body) claims costs will vary between USD1.2m and USD25m.

Tier 1 suppliers may bear some of the costs of implementation. It is unlikely that these suppliers, could all continue a "business as usual" scenario with large SEC listed clients without some increased transparency over their own sourcing.

On the ground, the cost of building auditable infrastructure are significant and will also be partly borne by corporates. The SEC quotes that "funding requirements for the bag-and-tag scheme, including a 10% contingency, in Eastern DRC and Rwanda will be approximately USD38,971,000 from 2011 through 2015."

The SEC document also quotes compliance costs for a trading company, transporter, and concentrate treatment facility, due to greatly increased levels of administration and auditing, that "may amount to an additional man year," which is "approximately USD100,000 per year" (i.e., the cost of staying in the country). Conversely, the cost of withdrawing from these conflict countries is estimated at USD50,000 per year. The potential reduction in costs by avoiding DRC is thus one of the central issues of the regulation. Importantly not all the mines in the Eastern DRC region and adjoining areas have a "conflict status" but **the transparency costs of continuing to mine from the conflict-free areas of DRC are the major complaint of businesses faced with the**

decision to source from DRC or not. Some are clearly leaving the region as a result of the perceived costs.

Defining "Conflict free" opens the way for large increase in audit processes and certification

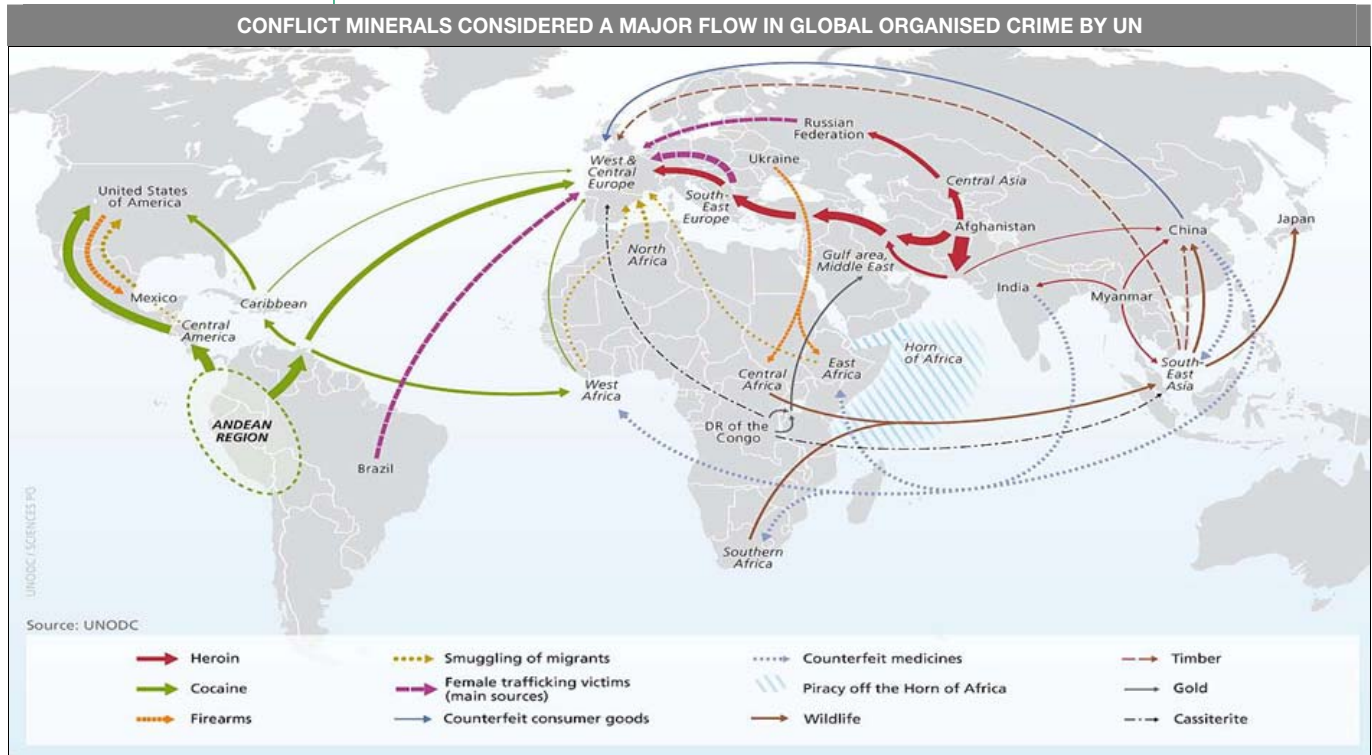
With IT systems costs estimated by the SEC to be in the region of USD2.56bn the broad ERP sector will benefit. Major supply chain solutions providers such as SAP and Oracle are likely to benefit as are a variety of smaller players.

Environmental consequences: Recycled or scrap exemptions

Recycled and scrap metals have been exempted from the tracing requirements of the regulation. Increased pricing or an attempt to avoid conflict rules regulation may in some circumstances lead to increased use of such metals. The SEC notes that with reduced Chinese exports of tungsten, American manufacturers have increased usage of recycled tungsten to approximately 55% of apparent consumption of tungsten in all forms. Up to 40% of the world's gold supply is already from recycled or scrap sources.

The SEC rules may therefore lead to increased usage of recycled and scrap metals.

III – Where do the minerals and the conflict come from?



Source: UNODC

The sourcing of conflict minerals tests almost all areas of CSR policy

DRC, its neighbours and their "resource curse"

The issue of conflict minerals goes to the heart of social responsibility arguments, focusing on several major arenas where human rights are central: **child labour, child soldiers, corruption, forced labour, worker rights, employee health and safety, environmental damage, community & local infrastructure investment and the arms trade.**

■ Why the sourcing of conflict minerals violates the majority of UN Global Compact commitments

POTENTIAL UNGC VIOLATIONS IF SOURCING FROM DRC CONFLICT MINES

UNGC		Sourcing DRC conflict minerals
	Human Rights	
Principle 1	Businesses should support and respect the protection of internationally proclaimed human rights	X
Principle 2	Make sure that they are not complicit in human rights abuses.	X
	Labour	
Principle 3	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining	X
Principle 4	The elimination of all forms of forced and compulsory labour	X
Principle 5	The effective abolition of child labour	X
Principle 6	The elimination of discrimination in respect of employment and occupation	
	Environment	
Principle 7	Businesses should support a precautionary approach to environmental challenges	X
Principle 8	Undertake initiatives to promote greater environmental responsibility	X
Principle 9	Encourage the development and diffusion of environmentally friendly technologies	
	Anti-Corruption	
Principle 10	Businesses should work against corruption in all its forms, including extortion and bribery	X

Source: CA Cheuvreux, UNGC

The fighting in Eastern DRC has uprooted nearly half a million people over the first three quarters of 2012, with the number dead in the long-running civil war reaching well over five million. War crimes also relate to the recruitment of child soldiers, mass civilian executions and widespread systematic gender violence.

The John Ruggie UN Framework for Business and Human Rights states that companies should conduct business in a way that does not harm the rights of others; **due diligence** being the main means of preventing complicity in the abuse of human rights.

In terms of specific corporate involvement, attempts have been made to "name and shame" those involved in the trade. In October 2002, a UN report cited 85 OECD-based firms that were violating the voluntary OECD guidelines for Multinational Enterprises in their activity in the DRC.

Similarly, NGO Global Witness brought a complaint against trader Afrimex (with UK limited company status) to the OECD in 2008 regarding alleged **use of payments made to DRC rebel forces, insufficient supply chain due diligence that allowed for the sourcing from mines using child and forced labour, and unacceptable health and safety practices**. The National Contact Point for the OECD guidelines concluded that "the payment of taxation down the supply chain funded the conflict in which numerous human rights abuses have occurred" and that there was insufficient evidence that Afrimex had "encouraged business partners or suppliers to apply principles of corporate conduct compatible with the OECD Guidelines for Multinational Enterprises."

WHAT'S AT STAKE? ISSUES RELATED TO MINERAL MINING IN CONFLICT REGIONS: CORPORATE RESPONSIBILITY

CSR Issues		
Labour	Forced labour	Villagers forced to work in mines by militia groups
	Child labour	Under 16s working in mines (exact numbers impossible to calculate)
	Child soldiers	Children from villages recruited for militia groups during attacks
	Lack of health & safety	Mine shaft collapses regularly lead to deaths
Corruption	Precarious/exploitative pay and work conditions	Unregulated, non-contracted, and unrepresented by unions
	Bribery	Corruption involving armed groups fuels human rights abuses
	Extortion	Extortion of locals: e.g. regular "informal taxes" (sometimes 30% of miner's income), roadblocks, fees to enter and exit mines
Other human rights violations	Widespread gender violence	Sexual violence regularly committed by militia
	Extrajudicial killings and unlawful arrest and detention	Militia control and no rule of law
	Direct funding of militia	Inadequate formal flow of revenues back to state in minerals trade
	Displacement of locals due to war	Internally displaced people in region increased to over two million by May 2012
	Minimal investment in local infrastructure	Though the State and certain companies (incl. Chinese ones) have invested in building some roads and infrastructure, mining areas are sometimes void of established clinics, schools, roads and other forms of transport

Source: CA Cheuvreux

The geographical scope is larger than you might think

Geographical scope of sourcing includes adjoining countries

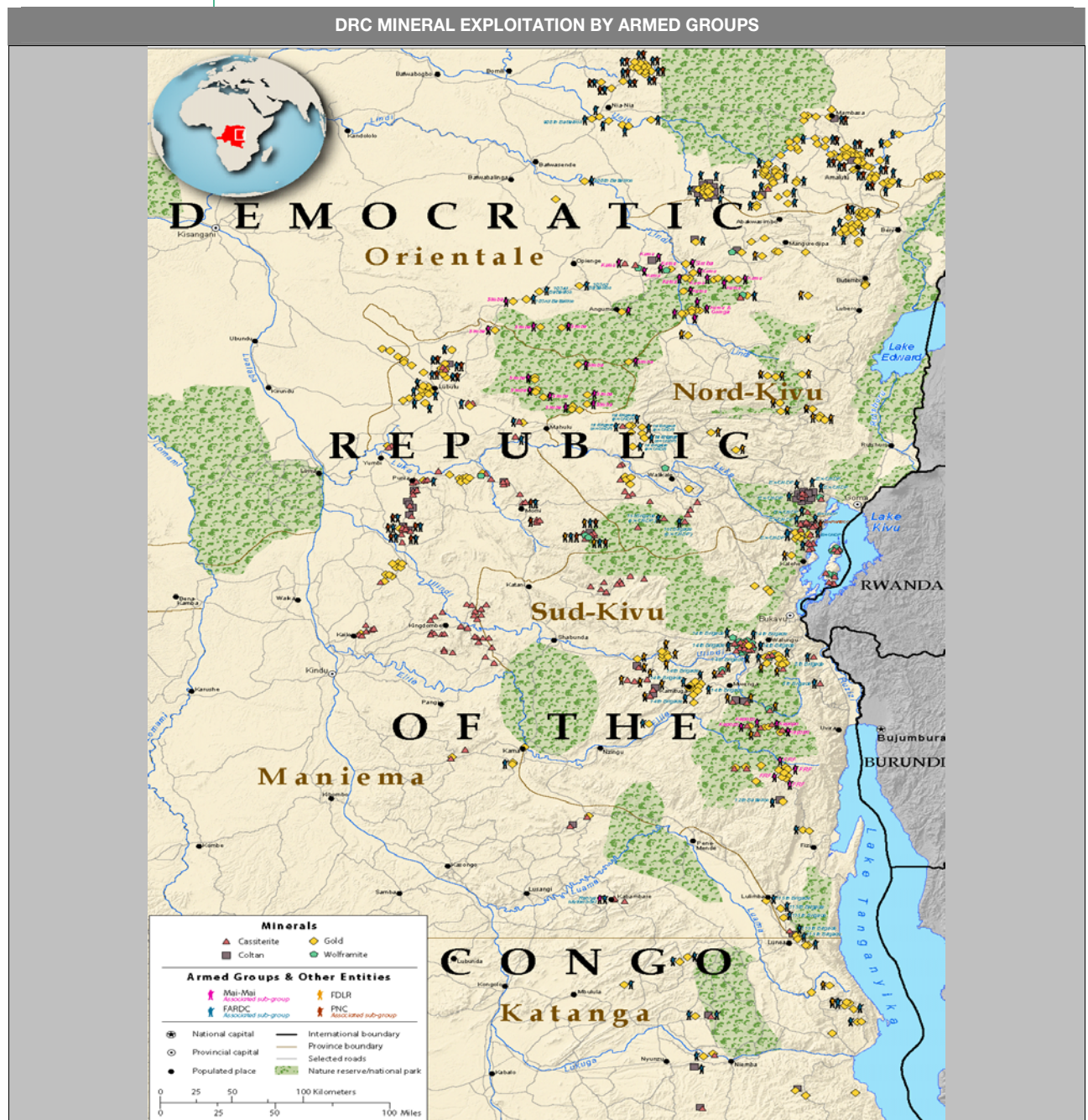
SEC legislation covers nine adjoining countries: Angola, Burundi, Central African Republic, Republic of Congo (a separate nation from the DRC), Rwanda, Sudan, Tanzania, Uganda and Zambia. It is the smuggling inherent in conflict minerals, with the ability to monetise the metals at each upstream stage in surrounding countries, that leads to this broad, cross-border geographical scope. Global Witness claims that 65% of all current minerals traded from Eastern DRC have involved some level of smuggling.



Source: Google Maps

Environmental consequences

While environmental issues have not been specifically legislated for, they include damage to large natural reserves that contain wildlife reserves for certain endangered species, for example, gorilla parks where illegal logging and the charcoal trade are a wider problem. The Congo Basin contains vast expanses of rainforest, areas of which are regularly cut down to make way for mines. As the world's second largest rainforest after Amazonia they are considered critical by the WWF in the fight against climate change. The mines themselves are often unregulated and lack remediation when disused.



Source: US Department of State

There are many practical obstacles to tracing minerals sources

Almost 20,000 UN troops provide the only infrastructure support in certain regions

The US State Department map above shows armed groups belong to at least four different factions. But it is **not only the rebel militia who are guilty of perpetrating violence** on local communities, government forces themselves are responsible, which increases the difficulty in mapping the mining sources of conflict minerals. Other considerable challenges of locating conflict regions include entering unmapped areas (e.g. rainforest) and confirming the activity status of mines. The fact that the area is home to a large peacekeeping force is evidence in itself of the many obstacles companies may face when trying to trace accurately the supply chain leading to the original upstream elements.

MONUSCO (THE UN PEACEKEEPING FORCE IN DRC)

Numbers as of 31 July 2012
19,102 total uniformed personnel
17,035 military personnel
691 military observers
1,376 police (including formed units)
952 international civilian personnel
2,815 local civilian staff
540 United Nations Volunteers

Source: United Nations

MAPPING CONFLICT REGIONS

Difficulties in gathering "conflict" data
Verifying exact location of mines
Confirming if mine is active or disused
Establishing whether an armed group is present or not at any given time
Determining whether an armed group has access to revenue stream

Source: US State Department, CA Cheuvreux

The UN's peacekeeping mission in DRC (MONUSCO) accounts for almost 20% of its global peacekeeping budget.

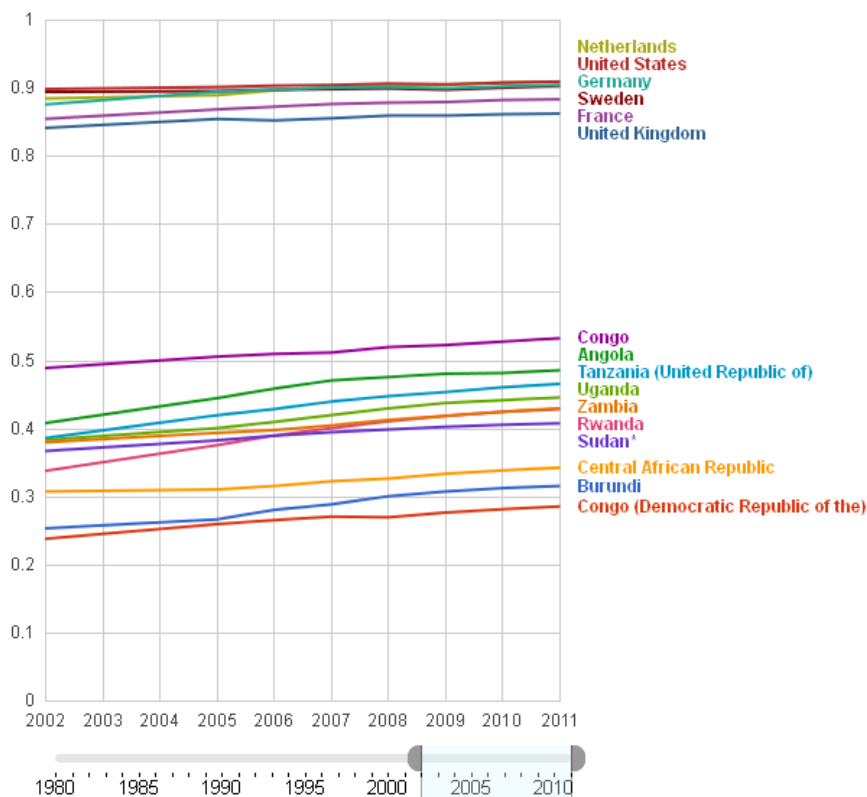
The DRC and many of its neighbours, though varied in economic output, have seen many years of conflict and are largely marked by poor economic and social development indicators. The DRC is at the bottom of the table, even for the region as a whole, based on human development indicators. In particular, corruption is prevalent and this places a stranglehold on the country in terms of economic development and the ability of foreign corporates to invest efficiently. With poor rates of even primary school completion there is a lack of skilled labour and large regions depend upon mining activities.

ECONOMIC AND SOCIAL INDICATORS FOR COUNTRIES THAT ARE COVERED UNDER DODD-FRANK 1502

Country	Population	GDP per capita (USD)	Main exports	Number of displaced people	Corruptions Perceptions Index - Ranking (Score)	% Primary School completion rate
Angola	18 056 072	6 000	USD65.69bn crude oil, diamonds, refined petroleum products, coffee, sisal, fish and fish products, timber, cotton	13 648 (DRC, 2010)	168 (2.0)	46.63%
Burundi	10 557 256	600	USD99.5m coffee, tea, sugar, cotton, hides	28 957 (DRC, 2010)	172 (1.9)	56.14%
Central African Republic	5 057 208	800	USD169.2m diamonds, timber, cotton, coffee, tobacco	15 300 (DRC, 2010)	154 (2.2)	42.98%
Congo Republic	4 366 266	4 600	USD12.38bn petroleum, lumber, plywood, sugar, cocoa, coffee, diamonds	124 244 (DRC); 7 775 (Rwanda) (2010)	154 (2.2)	70.84%
Rwanda	11 689 696	1 400	USD372.9m coffee, tea, hides, tin ore	55 027 (DRC, 2010)	49 (5.0)	69.63%
Tanzania	46 912 768	1 500	USD5.433bn gold, coffee, cashew nuts, manufactures, cotton	60 186 (DRC); 47 350 (Burundi) (2010)	100 (3.0)	89.89%
Uganda	33 640 833	1 300	USD2.581bn coffee, fish and fish products, tea, cotton, flowers, horticultural products; gold	81 840 (DRC); 21 899 (Somalia); 19 382 (Sudan); 12 590 (Rwanda) (2010)	143 (2.4)	57.18%
Zambia	13 817 479	1 600	USD9.201bn copper/cobalt 64%, cobalt, electricity; tobacco, flowers, cotton	25 265 (Angola); 12 342 (DRC); 5 736 (Rwanda) (2010)	91 (3.2)	103.25%
Sudan	34 206 710	2 800	USD8.798bn oil and petroleum products; cotton, sesame, livestock, groundnuts, acacia gum, sugar	103 798 (Eritrea); 39 578 (Chad); 5 600 (Ethiopia)	177 (1.6)	57.87%
Democratic Republic of Congo (DRC)	73 599 190	400	USD10.93bn diamonds, gold, copper, cobalt, wood products, crude oil, coffee	79 617 (Angola); 69 836 (Rwanda); 17 777 (Burundi); 12 845 (Uganda) (2010)	168 (2.0)	58.66%

Source: CIA Fact Book, World Bank, Transparency International

UN HUMAN DEVELOPMENT INDEX (POVERTY INDICATOR): DRC LOWEST



Source: UN HDI 2011

Artisanal mining is informal and largely unregulated

10 million artisanal miners in developing countries

■ Artisanal mining is at the core of conflict minerals trade

Artisanal mining – **small-scale mining by independent miners not officially employed by a mining company** – is a major global source of minerals but is particularly prevalent in conflict minerals and it is estimated that hundreds of thousands are involved in the trade in the DRC. The trade is marked by precarious work conditions, in particular lack of health and safety measures, a lack of regular income at times, exploitative compensation conditions and the marked use of underage labour. These features are exacerbated in the DRC conflict regions where militia control the mines, which leads to forced labour and extreme conditions of exploitation.

There are an estimated 10 million artisanal miners in Africa, Latin America and Asia. They are prominent in conflict minerals extraction but certainly not exclusive to it. Artisanal mining in global gold production, for example, was estimated to range from 20-30% or 500-800 tonnes annually.

In South Kivu, a conflict region of Eastern DRC, there are **over 900 artisanal mining sites and 400,000 workers, out of the one million involved in artisanal mining within the whole of the DRC**. It is also estimated that over half of the mines in the Eastern DRC are controlled by armed factions.

Nonetheless, mining companies that operate in both conflict and former conflict areas cannot go unaffected, as exemplified by the experiences of AngloGold Ashanti this year when the company faced opposition to its mining project from 200,000 locals, who have begun artisanal operations in Ituri, DRC around the Anglo Gold owned site. The Joint Venture Partner "AGK" has moved 3,000 local miners but violent tensions are feared as many of the miners are former army personnel who reportedly have access to weapons in the region (mining here is a lucrative activity by local standards). Many companies that

operate in Central Africa (including Glencore for a copper mine in Katanga) have faced a variety of very public criticism for the perceived poor handling of artisanal mining challenges and the treatment of local communities in the region.

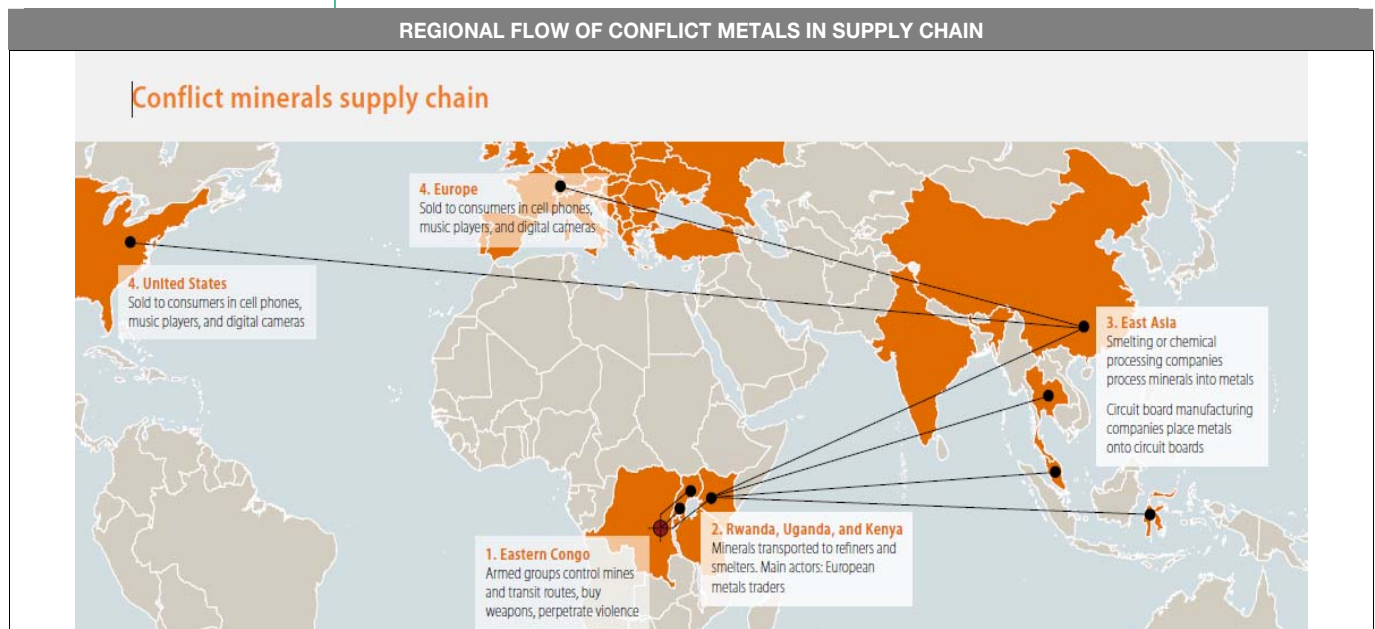
As an example of the routine human costs of artisanal mining, at least 60 were reported dead when an open pit mine collapsed in a militia-controlled region of the DRC in August 2012. This was greater than the death toll at the Marikana site of Lonmin, South Africa, in the same month. However media attention was minimal.

■ The supply chain: what does it look like?

The Dodd-Frank Act works on the supposition that transparency within the manufacturing process is a method of uncovering, and therefore dissuading and limiting, the global trade in conflict minerals. It is the downstream participants that bear the responsibility under the law.

In the upstream process the main players once the individual artisanal miners (or *creuseur*) have extracted the mineral ores are consolidators, *Negociants* who transport and sell to *Comptoirs* located away from the mine sites. Critically, once mineral ores have been extracted they are often **smuggled to neighbouring countries**, particularly neighbouring Rwanda across the border of Eastern DRC. The next step is the sale to metals traders. The latter, the major ones of which are based in the Netherlands and Belgium, sell to smelters – many major smelters are located in Asia.

The downstream process then begins: Original Equipment Manufacturers (**OEMs**) **throughout the US, Europe and Asia** buy the metals refined from the mineral ores indirectly, through further layers of supplier-manufacturer contracts. There are often **seven or eight layers in the supply chain** between the original artisanal mine and the final packaged good in the consumer sector.

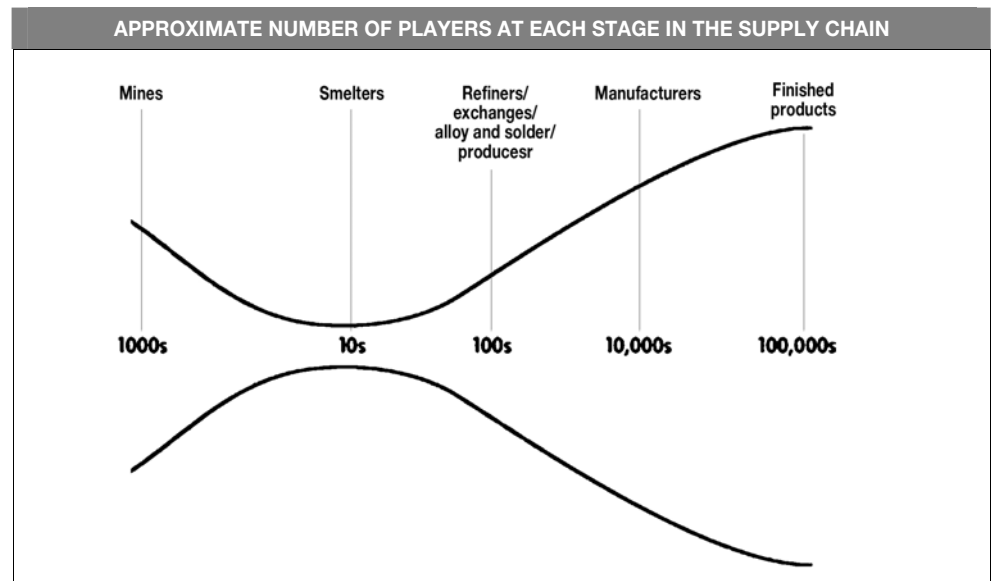


Source: Enough Project

A smelter melts and refines the metal

The smelter as "choke point" in supply chain

The most critical part within the transparency process is the "smelter", where the raw materials are amassed and processed before flowing upstream to OEMs and finally consumers. It is critical to focus on tracing at this point in the supply chain as there are only a few smelter companies in the supply chain with access to the minerals in their most identifiable form of origin so they can be in a position to reject the mineral ores if needed.



Source: GAO

NGOs consider "Best Practice" to be transparency of suppliers, i.e. public visibility of the supply chain itself. This is not required by the Dodd-Frank Act, the GeSi initiative or the OECD guidance. Opponents of such transparency claim usually that supplier information can be a competitive advantage, and similarly that some layers within the supply chain fear being bypassed (ie that the company may seek to access lower tiers of the chain directly – ie smelters) or be attempting vertical integration. However, companies such as HP have published a list of Tier 1 suppliers.

Conflict Free Smelters programme

The CFS (Conflict Free Smelters) programme aims to identify smelters accepting only conflict-free raw materials for processing. Though there was resistance to expanding the programme in April 2012, on the basis of cost, Intel, HP and the GE Foundation have initiated a funding scheme to encourage smelters to join the programme, offering to reimburse USD5,000 in audit costs for smelters in an "Early Adopters Fund".

Of the smelters that are operating as compliant under the CFS programme, few are located in the DRC or neighbouring countries at present.

Intel, HP and GE are subsidising smelter audit costs in order to bring more on line

CONFLICT FREE SMELTER PROGRAMME STATUS

Indicator (definitions)	Tantalum	Gold	Tungsten	Tin
Number of smelter/refiner companies currently active in the CFS process	22	23	5	10
1. Number currently on hold	1	6	0	2
2. Number in pre-NDA (nondisclosure agreement) discussions	0	4	0	0
3. Number in NDA negotiations	3	5	5	0
4. Number with completed NDAs waiting for a pre-audit check	0	0	0	4
5. Number of companies in the quotation process	0	0	0	0
6. Number of audits scheduled	0	0	0	0
7. Number of companies with completed smelter/refiner audit	18	8	0	4
Number of companies with compliant smelters/refiners	13	6	0	2
Number of companies implementing corrective actions	4	0	0	2
<i>After 1st audit</i>				
Number of completed audits in for Audit Review Committee review	1	2	0	0

Source: CFS 29 August 2012

Typically the major players in the consumer electronics sector will have the use of 100+ smelters in their supply chain (Philips has so far identified 115 and Intel over 130).

What to expect: Apple found 142 suppliers, 109 smelters

APPLE CONFLICT MINERALS SUPPLY CHAIN MAPPING

	Tantalum	Tin	Tungsten	Gold	Net total
Suppliers using metal in components	23	125	23	116	142
Smelters used by these Apple suppliers	12	43	13	41	109

Source: Apple, Supplier Responsibility Report 2010

This is a rare example of a company that publicly declares such information, **but this kind of transparency right down to smelter level is likely to become increasingly common and is already considered good practice by NGOs.**

The Democratic Republic of Congo and its minerals output

DRC CONFLICT MINERALS TRADE: RELATIVE FIGURES

Conflict mineral (ore)	Refined into	DRC & region: world output (%)	Estimated relative value of DRC exports
Columbite-tantalite (coltan)	Tantalum (Ta)	Approx 17%	4%
Cassiterite	Tin (Sn)	4%	40%
Wolframite	Tungsten (W)	3%	1%
Gold	Gold (Au)	2%	55%

Source: EICC

■ Tin, Tungsten, Tantalum: The first three conflict metals

Of key note is that although the legislation currently only covers the four metals mentioned, it reserves the right to extend the list in the future as required.

The militia "taxes" tin and other metals to raise revenue

Tin

The DRC is one of the world's largest producers of tin. The world's six largest refining companies (based in China, Thailand, Indonesia and Peru) account for 60% of output.

Local militia impose a "tax" on employees via minerals they mine and subsequently sell to traders. According to Global Witness in 2007 and the first part of 2008, the ruling party FARDC was collecting at least USD120,000 per month by taking a commission of USD0.15 on every kilogramme of cassiterite from a mine they had taken over at Bisle. The DRC is Africa's largest producer of tin and much of it comes from conflict regions.

The UK based ITRI (International Tin Research Institute) whose members account for 67% of global refined tin production sets out due diligence and chain of custody guidelines for tin via its **Tin Supply Chain Initiative (iTRCi)**. Also we note that the **conflict-free tin initiative (CFTI)**, which is aimed at creating a closed-pipe supply system from the South Kivu district of Eastern DRC, was launched in pilot form in September 2012. Among its corporate participants were **Royal Philips Electronics, Tata Steel, Motorola Solutions and Research in Motion**. The initiative is a critical one in that it is **multi-stakeholder**, unlike GeSI and EICC which are made up of corporate participants as an industry body. The Netherlands' Ministry of Foreign Affairs is the "neutral broker" bringing together the partners along the different levels of the supply chain, and the NGO Pact operates the traceability and due diligence mechanism in line with OECD guidance. The DRC government and local civil society are also involved. Such multi-stakeholder cooperative initiatives are essential in creating the traceability and auditable infrastructure needed to be able to avoid the sourcing of conflict minerals.

TIN PRODUCTION

(tonnes)	Mine production				Reserves	
Countries	2010	% of world total	2011	% of world total	2011	% of world total
Australia	7 000		8 000	3.2%	180 000	3.8%
Bolivia	20 200	7.6%	20 700	8.2%	400 000	8.3%
Brazil	11 000	4.2%	12 000	4.7%	590 000	12.3%
China	120 000	45.3%	110 000	43.5%	1 500 000	31.3%
DRC (Kinshasa)	6 700	2.5%	5 700	2.3%	N/A	
Indonesia	56 000	21.1%	51 000	20.2%	800 000	16.7%
Malaysia	1 770	0.7%	2 000	0.8%	250 000	5.2%
Peru	33 800	12.8%	34 600	13.7%	310 000	6.5%
Portugal	30	0.0%	100	0.0%	70 000	1.5%
Russia	1 100	0.4%	1 000	0.4%	350 000	7.3%
Thailand	150	0.1%	100	0.0%	170 000	3.5%
Vietnam	5 500	2.1%	6 000	2.4%	N/A	
Rest of the world	2 000	0.8%	2 000	0.8%	180 000	3.8%
World total (rounded)	265 000		253 000		4 800 000	

Source: UGCS

Tungsten

This mineral is used in a variety of industrial applications requiring hardness and heat resistance. The main sectors that consume it are electronics and defence. China is by far the biggest producer of the metal. **Tungsten currently has the fewest conflict free smelters amongst the minerals.**

TUNGSTEN: THE DRC IS RESPONSIBLE FOR 2-4% OF GLOBAL PRODUCTION ACCORDING TO ENOUGH PROJECT

(tonnes)	Mine production				Reserves	
Country	2010	% of world total	2011	% of world total	2011	% of world total
United States					140 000	4.5%
Austria	1 000	1.5%	1 100	1.5%	10 000	0.3%
Bolivia	1 200	1.7%	1 200	1.7%	53 000	1.7%
Canada	420	0.6%	2 000	2.8%	120 000	3.9%
China	59 000	85.8%	60 000	83.3%	1 900 000	61.3%
Portugal	1 200	1.7%	1 300	1.8%	4 200	0.1%
Russia	2 800	4.1%	3 100	4.3%	250 000	8.1%
DRC				2-4%		
World total (rounded)	68 800		72 000		3 100 000	

Source: USGS; Enough Project

Tantalum

Within the DRC, tantalum is the key mineral in terms of the country's contribution to global production volume; potentially suppliers have less leeway if they wish to switch out of the country in order to avoid regulatory expenses.

Around 60% of tantalum is used in electronics. An estimated 15–20% of the global supply of tantalum comes from mines in the DRC. **Relative to the other conflict minerals a large number of the world's tantalum smelters have been audited** by the EICC, and this is the conflict mineral for which companies could begin the tracing and due diligence of their supply the most effectively.

OFFICIAL EXPORTS FROM CONFLICT REGION OF NORTH KIVU

Year	Cassiterite (tonnes)	Coltan (tonnes)	Value in USD
			Cassiterite and Coltan
2003	938	26	815 400
2004	4,672	42	3 821 600
2005	3,599	26	6 774 200
2006	2,904	39	7 190 100
2007	10,175	74	28 098 181
2008	13,311	85	83 240 574
2009	10,543	280	79 514 538

Source: North Kivu Division of Mines

GLOBAL TANTALUM PRODUCTION

(tonnes)	Mine production				Reserves	
Country	2010	% of world total	2011	% of world total	2011	% of world total
DRC	Estimates vary from 15% to 20% of global production					
Australia			80	10.1%	51 000	42.5%
Brazil	180	26.4%	180	22.8%	65 000	54.2%
Canada		0.0%	25	3.2%	N/A	
Mozambique	120	17.6%	120	15.2%	3 200	2.7%
Rwanda	110	16.2%	110	13.9%	N/A	
Other countries	271	39.8%	270	34.2%	N/A	
World total (rounded)	681		790		120 000	

Source: USGS, BSR

CONCENTRATION OF PRODUCTION AND EU IMPORTS: TUNGSTEN/TANTALUM

Raw material	Main producers (2008/09)	Main sources of imports	Import dependency rate	Substitutability	Recycling rate
Tungsten	China 78%	Russia 76%	73%	0.77	37%
	Russia 5%	Bolivia 7%			
	Canada 4%	Rwanda 13%			
Tantalum	Australia 48%	China 46%	100%	0.4	4%
	Brazil 16%	Japan 40%			
	Rwanda 9%	Kazakhstan 14%			

Source: EC: "Critical Raw Materials for the EU"

■ Gold: The fourth conflict metal

Estimates vary as to the exact amount of gold produced in the DRC, but the figures used by GeSI put it at around 2%. Amongst the conflict minerals, gold has the smallest amount of supply from the region, and the DRC does not figure in the world's top ten supplier countries.

Gold is often seen **as the most difficult mineral to audit within the supply chains**. It is the material that is most often re-melted, and international smuggling makes the tracing of its origins extremely challenging. The reputational risk is heightened in the jewellery sector, however, many major global jewellers based in the EU and the US already have standards regarding the chain of custody.

The use of gold by electronics manufacturers, where supply chain tracing seems less developed in comparison, will be subject to risk in the coming years.

WORLD GOLD PRODUCTION (ESTIMATES PUT DRC AT LESS THAN 1% OF GLOBAL PRODUCTION)

(tonnes)	Mine production				Reserves	
Country	2010	% of world total	2011	% of world total	2011	% of world total
United States	231	9.0%	237	8.8%	3 000	5.9%
Australia	261	10.2%	270	10.0%	7 400	14.5%
Brazil	58	2.3%	55	2.0%	2 400	4.7%
Canada	91	3.6%	110	4.1%	920	1.8%
Chile	38	1.5%	45	1.7%	3 400	6.7%
China	345	13.5%	355	13.1%	1 900	3.7%
Ghana	82	3.2%	100	3.7%	1 400	2.7%
Indonesia	120	4.7%	100	3.7%	3 000	5.9%
Mexico	73	2.9%	85	3.1%	1 400	2.7%
Papua New Guinea	68	2.7%	70	2.6%	1 200	2.4%
Peru	164	6.4%	150	5.6%	2 000	3.9%
Russia	192	7.5%	200	7.4%	5 000	9.8%
South Africa	189	7.4%	190	7.0%	6 000	11.8%
Uzbekistan	90	3.5%	90	3.3%	1 700	3.3%
Other countries	559	21.8%	630	23.3%	10 000	19.6%
World total (rounded)	2 560		2 700		51 000	

Source: USGS

Various standards exist to promote conflict-free gold. One of these is the RJC:

RJC

The Responsible Jewellery Council (RJC) is a non-profit organisation with a mission to "reinforce consumer confidence". It believes that the Section 1502 final rule does not need amending with respect to its voluntary **Chain-of-Custody Standard**, which requires conflict-free origins.

It has over 400 members (of which 208 are certified) from the entire precious metals supply chain, from producers and traders to refiners, hedgers, manufacturers and retailers.

Among the major certified RJC members are Christian Dior Couture, Rio Tinto, and Van Cleef & Arpels.

In addition, the **Fairtrade Fairmined Standard** carries many similarities with the above, except that it is aimed at smaller artisanal miners. The RJC recommends the endorsement of the Fairtrade Fairmined Standard in its own chain of Custody programme.

RESPONSIBLE JEWELLERY COUNCIL STANDARD (COC)

	Requirements for RJC (CoC) Certified Companies
1	Complaints mechanism in place for reporting concerns about CoC materials
2	Publicly available Conflict Materials Supply Chain Policy, communicated to suppliers
3	Consider the risks of non-compliance by its suppliers and take both mitigating & preventive actions

Source: Responsible Jewellery Council

RJC: MEMBERS AND CERTIFIED MEMBERS

Companies	Membership of RJC
LVMH	Bulgari* - Chaumet* - De Beers - Christian Dior - Fred* - Hublot - Tag Heuer* - Zenith*
PPR	Bottega Veneta* - Boucheron* - Girard-Perregaud - Gucci* - Jean Richard
Richemont	Baume et Mercier* - Cartier* - Jaeger Lecoultré* - Montblanc - Piaget* - Vacheron Constantin - Van Cleef & Arpels*
Swatch Group	Hamilton* - Tiffany & Co* (partnership ended Sept. 2011)

* Certified members

Source: Responsible Jewellery Council

The **OECD** adopted a specialist gold supplement to its due diligence guidelines on 17 July 2012. The **London Bullion Market Association (LBMA)** also issued "Responsible Gold Guidance" for refiners based on the OECD due diligence framework including the issues of security and in kind payments. It recognises RJC and EICC audits for its "Good Delivery" accreditation.

The World Gold Council has recently developed a draft Conflict Free Gold Standard, which includes detailed guidance for mining companies. WGC's members include some key upstream players in the industry such as AngloGold Ashanti, Gold Fields Limited, Newmont, and African Barrick Gold. **The LBMA, RJC, WGC and EICC are working to harmonise their audit standards so that they are recognised across the groups.**

According to the NGO Enough Project, the gold trade from the Kivus is worth an estimated USD300m per year (four to eight tonnes of gold smuggled p.a. from the region), with nearly 100% of Eastern DRC's gold being smuggled. Official statistics show that only 23kg of gold has been exported from the Kivus thus far in 2012, despite approximately four to eight tonnes going out unofficially, according to UN and industry estimates.

NGOs also report that adjoining countries such as Rwanda, which themselves produce little of the minerals, still report large exports of them, thereby potentially being a **transit route for smuggling to the next stop within the supply chain**.

Another issue related to this metal is that it can be easily smuggled, stolen and sold in the form of "Gold flakes" – which are reportedly trading freely and informally in the Eastern DRC before making their way downstream in the supply chain.

UNODC QUOTED THE VALUE OF SMUGGLED DRC GOLD AT USD1.24BN IN 2009 - PRICES HAVE RISEN SIGNIFICANTLY SINCE THEN



Source: Bloomberg

However, the aforementioned UNODC figure (see chart above) includes non-conflict smuggling i.e., money that would not go directly to armed militia - a more recent UN estimate just for the two conflict regions of North and South Kivu where a large number of mines are held by militia put the figure at USD160m for 2010. However the overall figure is relevant as an indication of the tax revenue leakage for the country.

IV – Tracing conflict minerals

"Yes. We require all of our suppliers to certify, in writing, that they use conflict-free materials. But honestly, there is no way for them to be sure. Until someone invents a way to chemically trace minerals from the source mine, it's a very difficult problem."

Steve Jobs, responding publicly from his iPhone to a customer query, 2010

Though Dodd-Frank Section 1502 **does not require companies to stop sourcing from conflict sources** (only to declare conflict status), in the medium term **the risk of losing a place in the supply chain** becomes far more significant, if a company is unable to declare conflict-free status. Likewise, for manufacturers with more retail visibility, there is an increased risk of damage to branding from negative media and NGO reports. Therefore it is understandable that many of the tracing schemes that have been implemented were initiated in the consumer electronics sector:

■ Industry initiatives and due diligence schemes

A variety of schemes exist, all of which are work in progress, aiming to enable the tracing, audit and certification of the conflict minerals supply chain. We expect the volume of involvement from end users, smelters and auditors to increase rapidly in the medium term.

GeSI & EICC

The Global e-Sustainability Initiative "GeSI" is an ICT industry collaboration to promote a variety of sustainability initiatives, including conflict minerals. The joint GeSI and EICC (Electronics Industry Citizenship Coalition) Extractives Working Group leads an initiative that involves a variety of leading global electronics companies in the tracing of minerals (also working with the Tin Supply Chain Initiative), identifying conflict-free smelters and supporting other relevant stakeholder efforts, including the PPA.

EICC GESI SCHEME: EICC TEMPLATE QUESTIONS FOR COMPANIES

A. Do you have a policy in place that includes DRC conflict-free sourcing?
B. Is this policy publicly available on your website?
C. Do you require your direct suppliers to be DRC conflict-free?
D. Do you require your direct suppliers to source from smelters validated as DRC conflict-free using the EICC-GeSI Conflict-Free Smelter list?
E. Have you implemented due diligence measures for the sourcing of conflict minerals?
F. Have you received completed conflict minerals reporting questionnaires from all your suppliers?
G. Do you request that your suppliers fill out this conflict minerals reporting questionnaire?
H. Do you ask for smelter names from your suppliers?
I. Do you verify your suppliers' responses to the conflict mineral questionnaire?
J. Does your verification process include corrective measures by management?
K. Are you subject to the SEC disclosure requirement rule?

Source: EICC GeSI

OECD due diligence guidance

The OECD guidance on conflict minerals is an essential, detailed guide for companies to follow when implementing a verifiable conflict-free supply chain. However, it is not a requirement under Dodd-Frank Section 1502 but is officially mentioned as a reference standard.

These questions form a widely-used template to initiate the due diligence process

FINDING CONFLICT MINERALS IN THE SUPPLY CHAIN: ACTIONS UNDER OECD GUIDANCE

	What should a company do when there is a risk of conflict sourcing?
1	A company should immediately suspend or discontinue engagement with specific (direct) upstream suppliers where it identifies a reasonable risk that the suppliers are sourcing from, or are linked to, any party providing direct or indirect support to non-state armed groups.
2	A company should immediately design, adopt and implement a risk management plan with upstream suppliers and other stakeholders to prevent or mitigate the risk of direct or indirect support of public or private security forces (as identified in paragraph 5, Annex II) that are not responsible for serious abuses where the company identifies that such a reasonable risk exists. In such cases, where the company has a business relationship with the supplier, it should suspend or discontinue engagement with that upstream supplier if the attempts to mitigate the risk have not succeeded six months after the adoption of the risk management plan.

Source: OECD Guidance

The clear guidance is that a company should suspend relationships with upstream suppliers where there is risk of conflict sourcing. The specific time frame for suspension after engagement with the supplier is **six months** after a risk management plan has been implemented and is not showing effective outcomes.

Key items in the due diligence guidance which are more easily missed in our view also include the **structuring of internal management to support due diligence** and the **implementation of a grievance procedure** to alert the company to potential issues.

The list of participants in the pilot due diligence programme shows that those that invested the most are mainly from the US tech and electronics sectors. Also included is the participation of three of the largest global defence players: **Boeing, Lockheed Martin and Northrop Grumman**. The European participants are **Philips, Nokia, Alcatel-Lucent and Siemens**.

OECD DUE DILIGENCE GUIDANCE

Step		OECD Five-step system
1	POLICY	A) Adopt and clearly communicate, to suppliers and to the public , a company policy for the supply chain of minerals originating from conflict-affected and high-risk areas . This policy should incorporate the standards against which due diligence is to be conducted, consistent with the standards set forth in the model supply chain policy in Annex II.
	MANAGEMENT SYSTEMS	B) Structure internal management to support supply chain due diligence.
	TRACEABILITY	C) Establish a system of controls and transparency over the mineral supply chain. This includes a chain of custody, or a traceability system , or the identification of upstream actors in the supply chain. This may be implemented through participation in industry-driven programs.
	SUPPLIER ENGAGEMENT	D) Strengthen company engagement with suppliers . A supply chain policy should be incorporated into contracts and/or agreements with suppliers. Where possible, assist suppliers in building capacities with a view to improving due diligence performance.
	GRIEVANCE SYSTEM	E) Establish a company-level or industry-wide grievance mechanism as an early-warning risk-awareness system.
2	RISK ASSESSMENT	Identify and assess risk in the supply chain.
3	RISK RESPONSE	Design and implement a strategy to respond to identified risks .
4	THIRD PARTY AUDIT	Carry out independent third-party audit of supply chain due diligence at identified points in the supply chain.
5	FINAL REPORTING	Report on supply chain due diligence.

Source: OECD

OECD DUE DILIGENCE PILOT PROGRAMME DOWNSTREAM CORPORATE PARTICIPANTS

Company	Country	ICB Sector
Alcatel Lucent	France	Technology Hardware & Equipment
Alpha Cookson	China	Industrial Metals & Mining
AMD	US	Technology Hardware & Equipment
Boeing Company	US	Aerospace & Defence
Circuit Connect	US	Electronic & Electrical Equipment
Epic Technologies	US	Electronic & Electrical Equipment
Flextronics	Singapore	Electronic & Electrical Equipment
Ford Motor Company	US	Automobiles & Parts
Foxconn	Taiwan	Electronic & Electrical Equipment
Freescale	US	Technology Hardware & Equipment
General Electric Company	US	General Industrials
Hewlett Packard Company	US	Technology Hardware & Equipment
Kemet	US	Electronic & Electrical Equipment
Lockheed Martin Corporation	US	Aerospace & Defence
Nokia	Finland	Technology Hardware & Equipment
Northrop Grumman	US	Aerospace & Defence
Oracle	US	Software & Computer Services
Panasonic Corporation	Japan	Leisure Goods
Research in Motion	Canada	Technology Hardware & Equipment
Royal Philips Electronics	Netherlands	General Retailers
Plansee Group Service GmBH	Austria	General Industrials
Siemens AG	Germany	General Industrials
Texas Instruments	US	Technology Hardware & Equipment
TriQuint	US	Technology Hardware & Equipment
UNISEM	Malaysia	Technology Hardware & Equipment
United Technologies Corporation	US	Aerospace & Defence

Source: OECD

PPA

The **PPA** (Public-Private Alliance) is a multi-stakeholder group involving governments, NGOs and companies (primarily large SEC consumer-facing companies that are influential in the supply chain), which aims to specifically address the trade of conflict minerals. The PPA is partially funded by the US government (USD3.2m) and by companies (the target is USD2m for 2012), and it supports pilot programmes for sourcing mechanisms. Critically, it supports the **harmonisation of the available validation and certification systems**.

Participants are also mainly US based and from the Technology and Electronics industries. As with the list of OECD due diligence participants all major companies that source metals and are part of the supply chain of PPA members are likely to be requested to make their tracing of conflict minerals transparent, and to begin to implement their own processes of due diligence.

PPA CORPORATE PARTICIPANTS

Company	Country	ICB Sector
Dell	US	Technology Hardware & Equipment
Ford Motor Company	US	Automobiles & Parts
General Electric	US	General Industrials
HC Starck (Unlisted)	UK	Support Services
Hewlett Packard Company	US	Technology Hardware & Equipment
Intel	US	Technology Hardware & Equipment
Microsoft	US	Software & Computer Services
Motorola Solutions	US	Technology Hardware & Equipment
Nokia	Finland	Technology Hardware & Equipment
Qualcomm	US	Technology Hardware & Equipment
Research in Motion	Canada	Technology Hardware & Equipment
Sony	Japan	Leisure Goods
Sprint	US	Mobile Telecommunications
Telefonica	Spain	Fixed Line Telecommunications
Toshiba	Japan	General Industrials
Verizon Communications	US	Fixed Line Telecommunications

Source: PPA

ITSCI

This initiative has existed since 2008, supporting upstream companies (from mine to smelter) to comply with the OECD process. It also works in tandem with the EICC GeSI Conflict Free Smelter Assessment Programme. The three major components are chain of **custody data (traceability), risk assessment, and independent third party audits** – all elements required by companies in order to comply of the Dodd-Frank Section 1502.

International Conference on the Great Lakes Region (ICGLR) Certification Mechanism

The African government coalition ICGLR aims to follow the OECD guidelines but provides a system of mineral tracing and certification via its database for member countries of the group. The ICGLR Certificate is intended to function like the Kimberly Process Certificates where mineral shipments that are demonstrated as conflict free in origin, transport and processing will be certified.

ICGLR TRACKING AND CERTIFICATION SYSTEM

Principal system elements	
1	Chain of Custody tracking from mine site to export
2	Regional tracking of mineral flows via ICGLR database
3	Regular independent third-party audits
4	Independent mineral chain auditor

Source: ICGLR

■ The Extractives Industry Transparency Initiative (EITI)

Corruption is intrinsic to the problematic of conflict minerals with systematic and extortive demands for payments along the upstream supply chain (of which the downstream players are indirectly bearing the costs) and collusion from military and government officials in propagating the corruption. Mobutu Sese Seko the former president of Zaïre (before the birth of "DRC") was estimated to have embezzled USD5bn in his 32-year rule of the country.

The EITI aims to uncover corruption in extractives industries through the use of payments reporting transparency by both companies and their recipient governments. After having been declared "Close to Compliant" in 2010, the **DRC is currently a candidate country** (as are neighbours Republic of Congo and Tanzania, also classified as conflict regions under DFA). Two countries in the region (Zambia and Central African Republic) have been certified as EITI compliant.

The EITI has an impact on the extractives companies that operate in the country as they will be pushed for greater payments reporting. In light of the Dodd-Frank Act 1504, whereby SEC-listed extractives companies will need to declare payments to governments on a project-by-project basis, we expect to see far more data about the fees reaching the governments of the DRC and adjoining countries. As a tool to uncover embezzlement, corruption and even pure mismanagement of funds this will be particularly valuable, in addition to the potential full EITI membership of the DRC, which will be required to officially reconcile payments from companies (several major ones are EITI supporters) and receipts by the government.

According to the NGO Revenue Watch, the DRC Mining Code stipulates that 25% of tax revenues from a mining project should be directed back to the province, and 15% back to the local region. The issue for the local communities is that without **project-by-project** transparency it can be nearly impossible to ascertain what share provincial budgets and local communities might be due. **Even at a county level the volume of illicit capital flows as a result of corruption is a major impediment to both community building and the installation of national institutions which would be better able to combat the conflict minerals trade and its root causes.**

Though the two sections of the Dodd-Frank Act - 1502 and 1504 - are separate, they require disclosure on the same "Special Disclosure" filing (type "SD").

■ From conflict diamonds to conflict minerals – comparison with the Kimberly Process (KPCS)

The Kimberly Process, established in 2003, aims to resolve a similar problem specifically in the diamond industry and its conflict regions. It has achieved some success, particularly through the improvements in countries involved in diamond mining with higher levels of institutional and governmental stability.

However, it has also been heavily criticised, with key NGO Global Witness pulling out at the end of 2011, on the grounds that the scheme does not provide the necessary assurance. The particular failure often cited is the lack of an expert, independent and periodic review system of all countries, so the overall process remains open to abuse.

As of May 2012, the geographic scope of the initiative was significant - incorporating 50 participants representing 76 countries (the EU is considered as a single participant).

Interestingly, **the Republic of Congo was ejected from the KCPS in 2004 (until 2007), because it was unable to prove the origin of its gems, most of which were believed to have come from the DRC.**

Liberia and the conflict timber precedent

In addition to the conflict trade in diamonds, another precedent is timber. This was particularly the case in Liberia, where this resource was used to fund human rights violations by the country's former president Charles Taylor, who was later convicted of war crimes at the International Court of the Hague in 2011. In 2003 the UN Security Council imposed a ban on imported timber, partly due to the country's ongoing financing of the human rights atrocities in the civil war. The sanctions were not lifted until 2006. However, according to Global Witness and other NGO reports, there are still significant follow-up issues in the timber trade today, as corporations gain licences to log large areas of the country without proper oversight of environmental and social considerations (e.g. prior free and informed consent of local communities). Furthermore, Global Witness has pointed out the exploitative conditions of the contracts. The main allegations are around very low levels of taxation to local and national government.

As the DRC, home to the Congo basin, also has significant areas of forestation, it faces challenges managing the timber trade responsibly. This is notably the case in rainforest areas where the conflict mines are located. Logging would well be the next resource in line for exploitation – especially if the mines were to become depleted or disused.

New laws under proposal by the EC, specifically requiring companies engaged in the timber trade to declare government payments on a project-by-project basis, will go some way to increasing transparency, however, they only regulate companies listed in the EC or bigger European private companies, thus a large part of the trade, particularly with Asia, would not fall under their scope.

European initiatives include the EU Timber Regulation and the voluntary FLEGT (*Forest Law Enforcement, Governance and Trade*) programme in the EU – applied to illegal logging and conflict timber. The EU Timber regulation, set to start in 2013, requires operators in all 27 EU Member states to undertake due diligence to minimise the risk of the use of illegally harvested timber.

Although the European Parliament issued a statement in 2010 declaring that it considered "adoption of the new US 'Conflict Minerals' law a huge step forward" and that "it is the view that the Commission that it should come out with similar proposals to ensure traceability of imported minerals in the EU market while taking into account the Extractive Industries Transparency Initiative (EITI)" no legislation has been voted or finalised

The Australian government has also issued voluntary due diligence guidelines for DRC sourcing related to conflict minerals.

US aid to the DRC of USD950m since 2008

DRC government policies: Clear implications for foreign companies

The DRC government has begun to follow through on its own reforms regarding conflict minerals, both increasing the risk for non compliant business in the area and potentially aiding the process for those sourcing conflict free minerals.

RECENT DRC STATE MEASURES IN CONFLICT MINERALS ENFORCEMENT

May 2012 saw the suspension of two Chinese firms for conflict trading exports: TTT (CMM) and Huayei
A new price structure in which traced conflict-free minerals are sold at a 70% mark-up over untraced minerals
The first shipments of conflict-free materials being exported from 501 traceable mines in the areas bordering the war-torn Kivu region of eastern Congo
Progress in armed groups pulling out of "Three T" mines
The first ever validation of mines to check for the presence of armed groups and child labour
The upcoming launch of a regional government initiative to regularly monitor mines for the presence of armed groups, with US support

Source: Enough Project

It is important to reiterate that the situation in the DRC is considered a major humanitarian crisis, as evidenced by the massive UN forces present in the region, but also the large amounts of international aid making their way to the region. According to USAID, public funding to the DRC alone has totalled USD950m since 2008. From 2009-2010, the UK contributed bilateral aid of over GBP130m. From this point of view, one justification for the legislation against the trade in conflict minerals is that continued purchases by corporates of the metals funding the conflicts undermine the fundamental aims of the (tax funded) aid given to the region.

FOREIGN AID INFLOWS

Country	Net official development assistance and official aid received (USD m) - 2010
Angola	238.23
Burundi	631.99
Central African Republic	261.01
Congo Republic	1 312.25
Rwanda	1 032.2
Tanzania	2 958.18
Uganda	1 723.47
Zambia	914.37
Sudan	2 075.53
Democratic Republic of Congo	3 542.98

Source: World Bank

V – Driving conflict underground?

■ Will it work? *The Arguments against the Act*

**Will Dodd-Frank
change the situation
on the ground?**

According to NGO Centre for Global Development, in one key area of the minerals exportation trade, Goma in Eastern DRC, only three out of twenty five exporters were still operating in January of this year and the primary clients were Chinese. **DRC exports dropped by around 90% following the decision by firms not to accept minerals from the region, mining officials told Reuters earlier this year.**

**Armed militia have
alternative
commodities**

DRC President Joseph Kabila had attempted a six month closure of mines in the conflict regions, one reason for which may have been an attempt to demilitarise the activity. The idea is that the mining will be shifted to non-conflict areas. We are unable to ascertain if this is the case and some media reports claim the opposite effect has resulted with increased rebel control. Furthermore the implications for local government in the short term that have been noted by the SEC include a weakened governance capacity from the drop in local tax revenue.

As we can see from the DRC's exports, there are other resources including timber, which the armed militia could consider moving into in order to continue funding their conflict.

Corruption is a major burden on accurate traceability

**People along the
information chain can
be bribed**

The DRC and its neighbouring countries rank poorly for corruption (see indicators table). NGOs maintain that it pervades most levels of the community and government. In terms of conflict minerals audits, this poses a particular problem with regard to the reliability of local audits and the readiness of the metals to be mixed, misallocated or mislabelled as a result of corruption either before or after the audit. A further problem beyond the scope of Section 1502 of the Dodd-Frank Act, is that, even for movement or transportation within the DRC, militias often hold road blocks charging unofficial taxes, which are invariably paid under threat, meaning that even conflict-free metals may not be corruption free.

Discerning the country of origin: not as simple as it seems

**Some regions are
unmapped**

Not all of the DRC's mines are mapped, and they are also difficult to map because of the physical difficulties of entering a militia-controlled region. Moreover, control of militia can be transitory so any maps produced may rapidly be out-of-date. Likewise, the lack of transport infrastructure means that large amounts of minerals are carried manually by local communities through forest terrain with few roads, which makes tracking a complex task. The OECD's guidance suggests that if the risk entailed in conducting on-the-ground mapping looks too great, that in itself is enough evidence to deduce a conflict status.

A temptation to shift supply chains away from the DRC region?

**So will companies just
stay away from DRC
sourcing?**

Opponents of the amendment argue that mineral exports from the DRC already dropped in 2011 and will either drop further still with the introduction of the Act. The Malaysia Smelting Corporation (MSC) reportedly halted procurement from the DRC because it could not guarantee that all of its minerals would be ITRI-tagged (a new tin tracing scheme initiative). According to some sources, MSC used to buy 80% of Eastern DRC's tin, thus the impact of its departure was highly significant to the local economy. This is not an isolated case.

Security costs and political instability

Corporates working in areas of conflict incur costs related to the lack security. This is seen in a variety of ways: for example in supply chain disruption or increased costs from employees or suppliers feeling the need to make extorted informal payments. Companies themselves encounter direct costs of employing security and making arrangements with police. While it may never be their primary responsibility, the arguments for companies working to reduce conflict in their areas of operation are, we believe, substantial.

**The SEC itself may
face legal challenges
to Dodd-Frank 1502**

**"Conflict" minerals
always have one thing
in common...**

**...a poorly regulated
global arms trade**

Recent estimates of fees encountered by Shell --- which we note have not been confirmed by the company itself --- highlight heavy but ineffective spending on private security. A report by the Brookings Institute highlights Shell's issues in Nigeria, where at the beginning in 2005, the company lost approximately one-fifth of its production in the country - which it attributes primarily to political instability and a lack of transparency.

In the DRC region, Kemet Corp (US domiciled), the world's largest capacitor manufacturer and tantalum user is leading a vertically-integrated strategy to ensure conflict free products. Like most operators in the region it has had to employ "police" around the areas in which its closed-loop supply operates. As mentioned in relation to artisanal mining, the challenges of upstream operations by corporates in artisanal mining centres is not insignificant and the costs are partially borne by downstream customers.

In the short term, a legal challenge to Dodd-Frank Section 1502 cannot be ruled out. In October 2012, four US groups, including industrial lobbying bodies the Chamber of Commerce and the American Petroleum Institute, have already launched a suit against the SEC specifically targeting Dodd-Frank Section 1504 on grounds that the costs had not been adequately considered. (A new SEC proxy access rule had already been successfully challenged in 2011.)

The arms trade in the DRC and the propagation of "conflict" minerals

Despite the continued arms embargo against "non-integrated" troops in the DRC, i.e. those not working officially with the UN, we note the substantial criticisms of arms trade projects that are, according to NGOs, providing the basis for human rights abuse. Amnesty has stated concerns that a variety of arms providing nations (including the US and EC countries) are not implementing the necessary level of due diligence and tracking in the arms they sell in order to prevent the misuse of such weapons by the DRC government itself, and to prevent weapons from falling into the hands of the rebel leaders who use the munitions with devastating effects on local populations to gain control of mining output.

Both government-armed troops and rebels are accused of human rights abuses, and the arms used are inextricably linked to the very legislative effort to wipe out the human costs of conflict minerals.

We note the recent delay in the Arms Trade Treaty (ATT) being ratified. This treaty is aimed at increasing regulation of the conventional arms trade, with States required to undertake risk assessments, explicitly including the potential for weapons sold to be used in human rights abuses (i.e., upon civilian populations). **For an integrated investor stance towards conflict minerals greater due diligence not just of the supply chain within manufacturing companies but also of the end-use of armaments sold by defence companies in the region is clear common sense.**

Also although the EU Common Position declares that "Member States shall deny an export licence if there is a clear risk that the military technology or equipment to be exported might be used for internal repression [...] to countries where serious violations of human rights have been established by the competent bodies of the United Nations etc..." NGOs maintain that arms and military equipment deals from Europe end up being grossly misused.

We emphasise therefore that the lack of the rule of law and the limited effectiveness of DRC State institutions, alongside an arms trade that is poorly regulated, is a major factor in creating the conflict conditions surrounding the sourcing of the four metals in question.

VI – Sector and company risk

Sectors affected

Though many companies state that the quantities of the metals used are very small – legally under the Dodd-Frank Act there is no "de minimus" i.e. any use triggers the regulatory declaration no matter how small – for the company itself, if filing with the SEC, and potentially for the companies' suppliers if they are SEC-listed.

IDENTIFYING CONFLICT MINERALS INVESTMENT RISK

	Key risk factors	Type	Reason	Consequence
1	Company SEC listed (i.e. filing a 10-K or 20-F for foreign issuers/holding Level II or III ADR)	Legal & compliance	Filing will be required if user of metals	Lawsuits, non-compliance penalties
2	Manufactures for SEC-listed customers	Supply chain	Exclusion from supply chain of customers if unable to show acceptable transparency/ verifications	Revenue loss from supply chain exclusions
3	Consumer-facing sector	Reputational	Subject to more increased scrutiny from NGOs/media than B2B	Potential consumer boycotts/ brand damage

Source: CA Cheuvreux

The following sectors are all exposed on account of their sourcing of minerals and metals: *electronics & communications, aerospace & defence, automotives, jewellery, healthcare devices, industrial machinery and consumer packaging.*

SECTORS AND THEIR USE OF CONFLICT MINERALS

Sector	Tin	Tungsten	Tantalum	Gold
Telecoms	Solder	Relay equipment	Capacitors, micro processors	
Electronics	Solder for electronic circuits, superconducting magnets (magnetic fields) (sector accounts for 36% of world demand)	Electrical conductors for electrodes Mobile Phones Computers Copiers Printers	Electronic components – mobile phones, PCs, videogame consoles, cameras	Solder - electrical conductivity for computers, phones, Electrical wiring and corrosion resistance (sector accounts for 9% of world demand)
ICT (information & communication technology)	Solder	Metal wires	Computers	
Aerospace & Defence		Ball ammunitions, grenades, missiles	Missile parts, jet engine components including ignition systems, GPS and night vision equipment	Solar radiation protection for satellites and spacecraft, de-icing equipment for aircrafts
Autos	Electronics systems Hybrid & electric vehicles Auto parts	Ballasts for Formula 1 vehicles Pistons, crankshafts	Engine management modules and activation systems (anti-lock brakes, airbags)	Heat shielding
Jewellery		Rings, watches		Rings, chains, etc (sector accounts for 60% of world gold demand)
Healthcare devices	Dental care products		X-ray films, pacemakers, prosthetic devices and hearing aids Skull plates Surgical Instruments Rods Wire Meshes	Conducting-coating (lasers, etc.), treatment of arthritis and some intractable diseases
Industrial machinery	Solder for joining pipes	Tools (saws, mining drills, augers), welding applications, metal wires, electrodes Earth-moving vehicles/ tractors	Cutting tools, super alloys for jet engines Factory equipment	
Consumer packaging	Canned goods, toothpaste tubes			
Consumer goods	Decorative objects (plate jewellery, statuettes), negative electrodes in advanced Li-ion batteries PVC in soles of shoes Buckles, fasteners, zippers & buttons Fashion jewellery	Pens, strings for musical instruments, high-quality darts, lighting	Camera lenses, hard drives, LED lights, touch-screen technologies	
Chemicals			Processing equipment	Dissolution of alkaline solutions of potassium or sodium cyanide
Food & Beverages	Food packaging and preservation - tin cans and tin plating			Gold leaf, flake, sweets and drinks

Source: CA Cheuvreux, Responsible Sourcing Network, Enough Project, EICC

We note that, across all sectors, **any company with manufacturing activities within its supply chain could be affected by the legislation**. Although this regulation is for SEC-listed companies, we believe it will affect a variety of non-SEC-listed and even privately-owned companies globally as, in order for the SEC-listed vendor to comply with the transparency requirements of the legislation, it will need to conduct a full investigation into suppliers. Similarly, **pressure from NGOs and the media is not directed unilaterally at the US-listed players** hence, reputationally, the risks are significant, particularly for consumer facing companies.

As noted in the 10K Risk Disclosure extract below, the specific issue for the industries affected include the difficulty of securing conflict-free supply – although the objective of the legislation is to change this over the medium to long term. Similarly, as with all transparency legislation, information sharing risks are relevant, with confidentiality at stake. **Non-disclosure agreements will be heavily utilised** to comply with such regulations. Lastly, if purchasers avoid a company for compliance reasons or consumers avoid (or even boycott) a company, the immediate consequence will be excess inventory.

MICROCHIP TECHNOLOGY 10-K DISCLOSURE, 2011

	Area of risk	Explanation
1	Supply	As there may be only a limited number of suppliers offering “conflict-free” metals, we cannot be sure that we will be able to obtain necessary metals in sufficient quantities or at competitive prices.
2	Data gathering & confidentiality	Also, since our supply chain is complex and some suppliers will not share their confidential supplier information, we may face challenges with our customers and suppliers if we are unable to sufficiently verify that the metals used in our products are “conflict-free.”
3	Excess inventory	Some customers may choose to disqualify us as a supplier and we may have to write off inventory in the event that it becomes unsalable as a result of these evolving regulations.”

Source: Microchip Technology 10-K, 31 March, 2011

Supplier exclusion

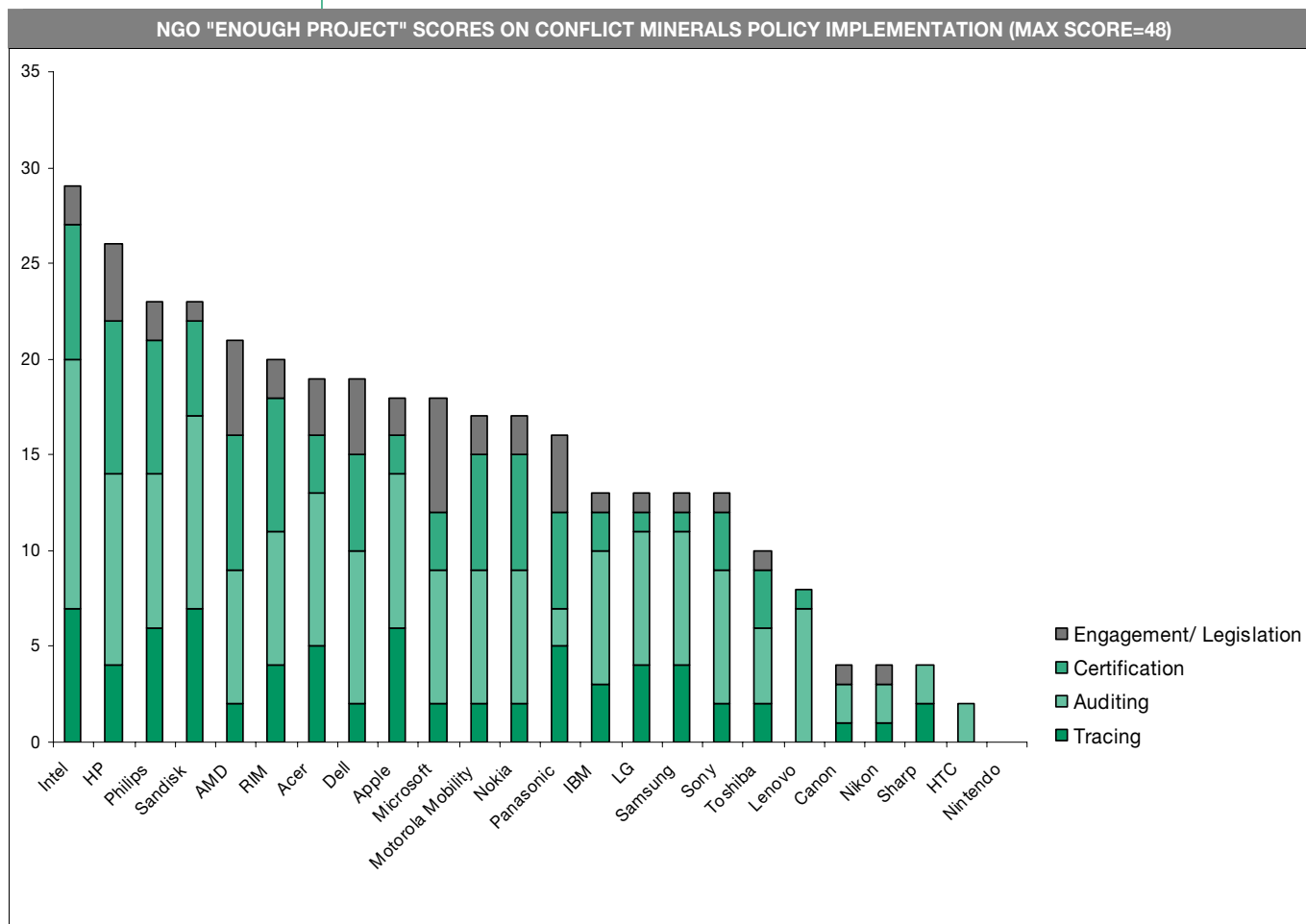
We view the major risk for European companies in the medium term to be exclusion from supply chains. The public policy of RIM best typifies what we expect to be a **knock-on effect to upstream suppliers**:

"In selecting and retaining Suppliers, RIM will take into consideration whether a Supplier can, in an open and objective manner, demonstrate its active pursuit of compliance with the (Conflict Minerals) Policy. Should a Supplier fail to demonstrate commitment to the Policy or fail to implement appropriate corrective actions to improve performance, RIM may choose to suspend making purchases from the Supplier, or, where appropriate, terminate its relationship with the Supplier."

RIM's policy is not isolated and we expect it to slowly become the norm amongst the largest SEC-listed companies

The risk of ejection from major supply chains

"Consumer electronics"



Source: Enough Project, 2012

The consumer electronics sector as a whole is the most exposed in the short term, due to additional reputational risks and public scrutiny by NGOs, over non consumer facing suppliers. The above chart ranks the worlds largest companies' performance on a variety of conflict minerals policies. Critically, those ranked in the top half in terms of performance are likely to make far greater demands on their own supply chains, and their audits and due diligence are likely to apply beyond the Tier 1 suppliers. Although generically **up to 36% of world tin output and up to 9% of gold is used in the electronics sector** as a whole, according to statistics used by the EICC, the procurement spend of **the Top 15 companies in this list alone could have significant ramifications for the entire multi-billion dollar supply chain** shared between them.

■ Telco Equipment

Telco Equipment encompasses a wide range of hardware and it is this sector that initially sparked public interest through media attention and such documentaries as "Blood in the Mobile" for the use of Coltan. SIM and other types of "chip" cards and security equipment will also require due diligence.

TELCO EQUIPMENT

Company	Position	Involvement with working groups	Supplier requirements	SEC Listed	Notes
Nokia	"At Nokia, we want to ensure that all materials used in our products come from socially and environmentally responsible sources"	GeSi/ EICC/PPA/ Member of OECD Pilot	"Since 2001, we've required written assurance from all of our tantalum capacitor suppliers that the tantalum (from coltan) does not originate from the illegal mines in the DRC, and we have also expanded this practice to certain other suppliers regarding tungsten (from wolframite) and tin solder suppliers (from cassiterite)." Smelters: "We will be only using CFS-validated smelters once more comprehensive smelter lists are available. This has already been communicated to suppliers" If we identify smelters not yet in the CFS, we plan to inform EICC GESi Auditing: "Our key suppliers are required to map their supply chains for the metals in their components back down to smelter and then to source where possible." "If we identify a reasonable risk that a supplier is violating our commitments [...] we require them to commit to implement a corrective action plan within a reasonable timeline. .Nokia follows up effectiveness of corrective actions and conducts on-site assessments as necessary" "In Feb 2012 Nokia joined the Solutions for Hope initiative to enable validated conflict-free tantalum from the Democratic Republic of the Congo (DRC) to be used in its products. From 2012, we will take into use the standardized EICC-GeSi Conflict Minerals Reporting Template to continue mapping and to monitor our suppliers' commitment and activities. More details are requested from suppliers as needed."	Yes	With a Level III ADR in the US Nokia is required to file with the SEC. Within the European peer group, Nokia is the leader in its sector, having publicly commenced integrated supply chain policies in this area.
Ericsson	"Ericsson is taking steps to avoid the sourcing of conflict minerals."	GeSi/ EICC OECD due diligence guidance endorsed but not part of pilot scheme	"We are undertaking measures to increase the awareness of this issue among our suppliers." "We will follow the OECD due diligence guidance for responsible supply chains of minerals from conflict-affected and high-risk areas were applicable. We support the development of the conflict-free smelter (CFS) programme."	Yes	As Ericsson is required to file for its Level II ADR with the SEC. AT&T, Sprint and Verizon (all have conflict minerals policies extending to supplies) are amongst Ericsson customers -the current first steps taken and the declaration to follow OECD due diligence are encouraging. Public disclosure of third party audits would be welcomed. Verification could be introduced within the supply chain – i.e. with an auditing process.

Company	Position	Involvement with working groups	Supplier requirements	SEC Listed	Notes
Sony Ericsson	"Sony Ericsson is fully aware of concerns that mining activities in the Democratic Republic of the Congo (DRC) and its neighbouring countries are fuelling conflicts and human rights abuses by financing armed groups."	GeSI/ EiCC	"We engage with suppliers whose components may contain the concerned materials originating from the Democratic Republic of the Congo (DRC) or its neighbouring countries. We have explicitly reminded them that Sony Ericsson does not accept components containing metals where child labour, violation of the basic human rights and/or illegal activities are taking place in any step of the value chain. Our suppliers have verified that they do not utilize such sources."	No	Further details on verification welcome. Reputational associations with both Sony and Ericsson at stake.
Alcatel Lucent	"Alcatel recognises its role to protect human rights and to take steps to avoid contributing to issues connected to conflict minerals."	GeSi	Alcatel maintains it is: "1) Raising suppliers' awareness + having them identify the smelters that process the minerals they purchase; 2) Determining if identified smelters are conflict-free by using reliable information from industry associations 3) Engaging in dialogue and requiring mitigation actions with suppliers inadvertently using conflict minerals or not knowing their origin".	Yes	As Alcatel is required to file with the SEC for its Level II ADR, and AT&T and Verizon (both currently have conflict minerals policies extending to supplies) are major customers the due diligence could be strengthened . Further verification could be introduced within the supply chain – i.e. with publicly disclosed audits.
Logitech	"Logitech does not source or buy metals directly, however, we are concerned by allegations illegally mined in the Democratic Republic of the Congo may be making their way into the electronics supply chain and that profits from this illegal mining may be fuelling human rights atrocities in the Eastern Region of the DRC."	No details found from public sources	"We believe it is our responsibility to raise awareness on the issue of conflict minerals and encourage accountability in our supply chain until a recognized certification programme is in place....We ask that "suppliers" positively support the process of bringing greater transparency to the supply chain by cooperating with our inquiries and proactively monitoring this issue."	Yes	Customers include Dell and HP; verification could be introduced within the supply chain – i.e. with an auditing process
Gemalto	No information from public sources	No details found from public sources	No details found from public sources	No	Though not SEC listed, with US customers such as Boeing, Pfizer and Dell further disclosure would be welcome for its production related to SIM, smart and bank cards, alongside USB dongles and other devices
Ingenico	No information from public sources	No details found from public sources	No details found from public sources	No	Though not SEC listed, with US customers such as McDonalds and Dell further disclosure would be welcome for its production related to electronic terminals and payment transaction products
Bull	No information from public sources	No details found from public sources	No details found from public sources	No	Though not SEC listed, disclosure would be welcome for production related to computer equipment manufacturing

Source: CA Cheuvreux, Companies mentioned, Bloomberg

■ Telecom Operators

Telcos are generally less exposed than their telecom equipment counterparts, however US-listed companies will still need to declare status for any manufacturing activity however small. Furthermore, as consumer facing entities, they are more under media and NGO scrutiny.

TELCO OPERATORS

Company	Position	Involvement with working groups	Supplier requirements	SEC Listed	Notes
Vodafone	"Mining activities that fuel conflict are unacceptable. We are working with our direct suppliers to ensure conflict minerals do not end up in our products."	GeSI	Includes an expectation for suppliers to have a conflict minerals policy and to demonstrate progress in developing systems to track and disclose sources of the four metals. Criteria included in Supplier Eco Rating 1) Full due diligence programme launched in March 2012 with all suppliers of Vodafone-branded devices and SIM cards 2) Extended 2012/3 to suppliers of other electronic equipment.	Yes	Due diligence programme launched for Vodafone branded devices and SIM cards is a good start . Further transparency on audits and progress welcomed in advance of SEC filings.
Telecom Italia	No information found from public sources.	GeSI	No details found from public sources	Yes	Required to file for its Level III ADR with the SEC but Telecom Italia manufacturing exposure is limited at 0.5% through its Olivetti subsidiary . A conflict minerals policy and transparency in due diligence and audits will be welcome.
France Telecom	No information found from public sources	GeSI	No details found from public sources	Yes	Required to file for its Level III ADR with the SEC but exposure to manufacturing estimated to be minimal. A collaborator in a joint procurement project with Deutsche Telekom, with some overall sustainable sourcing policies already in place at FT.
BT	"We are worried by continuing expert reports of a connection between the mining of certain minerals used in electronic products and human rights abuses."	GeSI	"Supports transparency" via GeSI EICC initiative but no specific details found from public sources	Yes	Required to file with the SEC. A more detailed policy, greater transparency on due diligence and audit information welcomed

Company	Position	Involvement with working groups	Supplier requirements	SEC Listed	Notes
Deutsche Telekom	"Deutsche Telekom intends to use whatever means it has to minimize and, in the long term prevent entirely, all damage caused to people and the environment in obtaining it."	GeSI	"1) We will obtain information from our relevant top suppliers about the policy they operate on coltan. If no such policy is in place, Deutsche Telekom will implement suitable development measures to ensure that this is given suitable consideration by top suppliers. 2) We encourage our suppliers to use alternatives 3) Use of environmentally friendly materials is a core feature of Deutsche Telekom's procurement policy. In this context, we encourage our suppliers to seek alternatives to tantalum as well and contribute to minimizing the coltan problem in doing so."	No	Some concrete procedures are in place, which positions Deutsche slightly ahead of many other European operators, however, further measures on due diligence welcome. Manufacturing exposure estimated to be minimal
KPN	"We do not want to use conflict minerals in our mobile phones, but we are still trying to decide exactly how and where to take action."	GeSI	Due diligence required from suppliers	No	Further development of a conflict minerals policy and supply chain due diligence will be welcome. Manufacturing exposure estimated to be minimal
Telefonica	"We are totally against the use of certain metals (tantalum, tin, tungsten and gold) obtained in areas of conflict where human rights are violated and the environment suffers."	GeSI/PPA/ITSCi	"We periodically request confirmation from our suppliers that they are not using metals that originate from these sources."	No	Though a policy statement exists, further credibility could be gained by a formal due diligence process with audits. Manufacturing exposure estimated to be minimal

Source: CA Cheuvreux, Companies mentioned, Bloomberg

The other sector companies under our coverage (*Telenor, TeliaSonera, TDC, Tele2, Elisa, and Millicom*) are not SEC listed and we estimate they have no manufacturing activity.

■ Electrical Equipment

SEC-LISTED ELECTRICAL EQUIPMENT SECTOR PLAYERS

Company	Position	Involvement with working groups	Supplier requirements	SEC Listed	Notes
Siemens	No information found from public sources	OECD Due Diligence Pilot	No details found from public sources	Yes	Though Siemens has a variety of declarations regarding sourcing sustainably no explicit conflict minerals policy was found from publicly disclosed sources. It is however an OECD Due Diligence Pilot participant which is an advance and potentially good positioning for the significant challenges it faces in its vast global supply chain verification.
Philips	"Philips has committed not to purchase raw materials, subassemblies, or supplies which we know contain conflict minerals that directly or indirectly finance or benefit armed groups in the DRC or an adjoining country."	EICC GeSI, CFTI (Conflict Free Tin Initiative), OECD Due Diligence Pilot Programme Participant, financing of iTSCi scheme	"We have requested our relevant suppliers to confirm that they provide only conflict-free minerals to Philips. 1) With the EICC-GeSI Work Group, we have developed a supplier survey tool to standardize the collection of information from the suppliers in our supply chain. 2) Support for Conflict Free Smelter Programme 3) Support for Regional Sourcing programs." No. of smelters identified: 115 Identified smelters invited to join the CFS audit program Plans to complete by end 2012	Yes	The leader in the sector and amongst all European companies as a whole regarding conflict minerals initiatives – through its detailed tracing programme and support for the recent CFTI closed loop supply multi stakeholder initiative for DRC tin.
ABB	No details found from public sources	No details found from public sources	No details found from public sources	Yes	ABB has broad sustainable suppliers policies in place together with elements of REACH and RoHS integrated into management systems where required for relevant units. It will need also to integrate conflict minerals verification as it is SEC listed via a Level II ADR

Source: CA Cheuvreux, Companies mentioned, Bloomberg

With the notable exception of Philips, at the time of writing we were unable to find any publicly-disclosed information on conflict minerals policies from the electrical equipment companies under our coverage, namely *ABB, Schneider Electric, Kone, Schindler, Legrand, Alstom, Areva, Rexel, Prysmian, Imtech, Kaba, Nexans, Vossloh AG, Ansaldo STS, Faively, Saft, Mersen* and *Zumtobel*.

The same applies to the Machinery companies under our coverage including Assa Abloy, Atlas Copco, Sandvik, Alfa Laval, Hexagon, Wartsila, GEA Group, Andritz, Sulzer, Aalberts Industries and SKF.

Of these however only Philips, Siemens (an OECD due diligence pilot participant) and ABB are required to file with the SEC. These firms may have revenues in the US that are also subject to regional state procurement laws (such as the California Supply Chains Act) requiring transparency if supplying to local government within the US.

■ Semiconductors

The semi-conductor companies under our coverage and involved in manufacturing activities directly include STMicroelectronics, Micronas, Infineon and ASML.

Key clients of the sector such as Dell, IBM, Intel and RIM have been ahead of the curve so far in beginning to implement supplier policies.

SEMI CONDUCTOR SECTOR

Company	Policy	Involvement with working groups	Supplier requirements	SEC Listed	Notes
ASML	ASML closely monitors developments around this issue.	Endorsed OECD Standards for due diligence but not part of pilot	No details found from public sources	Yes	The company has made a start, but with a SEC filing requirement from Level II ADR and clients such as Intel and IBM, the company is exposed
STMicro-electronics	STM has a high level of concern for the issue of "Conflict Minerals" and is "committed to take all appropriate actions to avoid illegal and unethical sourcing."	No details found from public sources	"Require our suppliers to respond in writing to confirm that no metals provided by them for inclusion in ST products originate in the identified conflict zones.. We are also leading a deeper investigation with targeted suppliers to map and trace the entire supply chain...back to the mine of origin"	Yes	Implementation of policy is more advanced within the peer group, but as a supplier to all the major SEC-listed consumer facing electronics behemoths such as Apple, Intel, HP, Dell further development in traceability and audit will position STM better
Dialog	"We are assessing and developing an all-suppliers policy related to conflict minerals."	GeSi/ EICC	No details found from public sources	No	Policy in development which is a welcome first step for a company with no SEC listing, it is however exposed to the issue with major customers who are vocal on conflict minerals such as Apple, Intel, RIM and Microsoft
Infineon	"None of our suppliers is using metals/minerals originating from the DR Congo."	No details found from public sources	No details found from public sources	No	A firm statement of non-use from the company but further details of due diligence and audits welcome since customers include HP, DE, Microsoft, Philips, GM
Micronas	No details found from public sources	No details found from public sources	No details found from public sources	No	Though not SEC listed implementation of conflict minerals policy would be a welcome first step

Source: CA Cheuvreux, Companies mentioned, Bloomberg

■ Auto Manufacturers

Information on conflict minerals policies is scarce amongst European carmakers, but VW, BMW, Daimler, Porsche and Volvo are not exposed to Level II or III ADRs, which would require SEC conflict minerals reporting. Nonetheless, we note that they will not be immune to future campaigns by NGOs or media reports if there is use of or lack of transparency on conflict minerals which may affect reputation.

Ford is the clear leader globally in the auto sector in terms of integrating conflict minerals due diligence in its supply chain. However, Ford's suppliers in Europe include *Schneider Electric, Faurecia, ThyssenKrupp, GKN Plc, Dassault Systèmes, Pirelli, BASF* and *Alfa Laval*, according to Bloomberg data. None of these companies have disclosed conflict minerals policies at the time of writing except *BASF* which states that they "plan in 2012 to trace the source of minerals purchased all the way back to the original mine".

AUTO MAKERS: CONFLICT MINERALS POLICIES

Company	Position
GM	"General Motors supports this goal and is preparing for the significant task of identifying and eliminating conflict minerals that may inadvertently have found their way into our supply chain."
Ford	"In 2011, Ford issued new reporting requirements to suppliers asking for full content reporting of the four conflict minerals so as to achieve a more complete assessment of risk in our supply base of 1,400+ companies. This will give us a starting point for further supply chain inquiries, which should in turn enable the tracing of metals to the point of processing (i.e., the smelter)."
Volvo	No information found from public sources
VW	Participant in the AIAG Conflict Minerals Work Group
Renault	No information found from public sources
Peugeot	No information found from public sources
Nissan	Our CSR and purchasing departments are now preparing for investigation, in cooperation with the industry association.
Daimler	No information found from public sources
Fiat	In 2012, Fiat Group plans to develop a template for its suppliers to report their source(s) for these minerals. The group will also begin to promote the sourcing of parts and components utilising conflict-free minerals.
Porsche	No information found from public sources
Honda	Participant in the AIAG Conflict Minerals Work Group
Chrysler Group	In 2011, Chrysler Group worked through the Automotive Industry Action Group (AIAG) to develop training on global working conditions and formulate strategies to address the Dodd-Frank legislation aimed at tracing the sources of certain minerals that may originate from the Democratic Republic of Congo and surrounding countries.

Source: CA Cheuvreux, Company Sources, Bloomberg

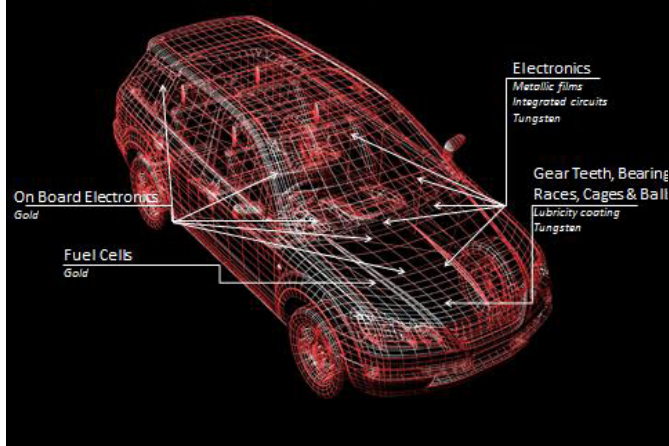
■ Auto Parts

In our view the greater impact may be felt by European auto part manufacturers exposed to US supply chains than the auto makers themselves.

Below are schematic diagrams of conflict minerals within a standard car. The auto parts sector is therefore potentially more exposed, if within the supply chains of US car makers, (particularly those of Ford which has been proactive on a conflict minerals supplier policy). For example, Leoni AG has significant revenues from GM (6%+ according to Bloomberg estimates) that are subject to Dodd-Frank 1502 reporting. Of the six companies classed as part of the auto components sector under our coverage (*Leoni, SAF-Holland, Pirelli, Piaggio, Hognas, and Elringklinger*) none have conflict minerals policies.

AUTOS: TUNGSTEN/ GOLD USE

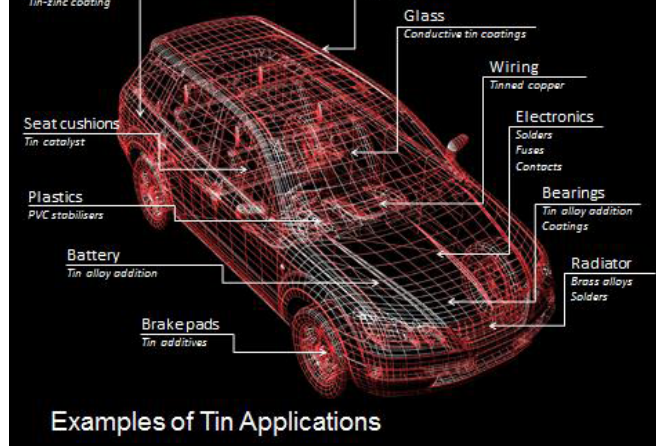
Examples of Tungsten & Gold Applications



Source: AIAG

AUTOS: TIN USE

Examples of Tin Applications



Source: AIAG

AUTOS: TANTALUM USE

Examples of Tantalum Applications



Source: AIAG

The AIAG – the US based Automotive Industry Action Group hosts a conflict mineral working group body – the participants give a good indication of those companies that take the lead in adopting conflict minerals policies. It is particularly important as it includes participation across relevant stakeholders – including automotive technology providers and crucially support services firms that will be instrumental in producing the final audits and indeed the SEC "SD" (special disclosure) conflict minerals reports.

AIAG CONFLICT MINERALS WORKING GROUP PARTICIPANTS

Company	Country	Sector
American Mitsuba Corporation	US	Automobiles & Parts
BorgWarner	US	Automobiles & Parts
Chrysler Group LLC	US	Automobiles & Parts
Delphi Corporation	Britain	Automobiles & Parts
DENSO Corporation	Japan	Automobiles & Parts
DENSO International America, Inc.	US	Automobiles & Parts
Federal-Mogul Corporation	US	Automobiles & Parts
Ford Motor Company	US	Automobiles & Parts
General Motors Company	US	Automobiles & Parts
Honda of America Mfg., Inc.	Japan	Automobiles & Parts
Inteva Products LLC	US	Automobiles & Parts
Johnson Controls, Inc.	US	Automobiles & Parts
Lear Corporation	US	Automobiles & Parts
Magna International Inc.	Canada	Automobiles & Parts
Nissan North America	US	Automobiles & Parts
Robert Bosch LLC	Germany	Automobiles & Parts
Tenneco, Inc.	US	Automobiles & Parts
Toyota Motor Engineering & Manufacturing North America, Inc.	Japan	Automobiles & Parts
Visteon Corporation	US	Automobiles & Parts
Volkswagen	Germany	Automobiles & Parts
Yazaki North America, Inc.	Japan	Automobiles & Parts
Freudenberg-NOK General Partnership	US	General Industrials
GE Fanuc Automation NA Inc.	US	Industrial Engineering
Navistar	US	Industrial Engineering
Tetra Tech	US	Oil Equipment, Services & Dist
PTC - Parametric Technology Corporation	US	Software & Computer Services
Deloitte & Touche LLP	US	Support Services
Dykema Gossett Law Offices	US	Support Services
IPoint-Systems GmbH	Germany	Support Services
KPMG LLP	US	Support Services
Oxender Consulting	US	Support Services
PwC	US	Support Services
RSJ Technical Consulting	US	Support Services
Cisco Systems	US	Technology Hardware & Equipment
Hewlett-Packard Co	US	Technology Hardware & Equipment
Hewlett-Packard GmbH	US	Technology Hardware & Equipment

Source: AIAG

■ Aerospace & Defence

Conflict minerals are used in the sector for their durability, conductivity and heat resistance and are found in a multitude of electronics and direction guidance equipment but also specifically in missiles, grenades and ammunition, jet engine parts and night vision equipment. Aerospace uses gold for de-icing equipment.

Overall the sector has been absent until now on public disclosure on conflict minerals initiatives. BAE Systems has been the major global player within Europe to declare such a policy.

In the US **Northrop Grumman, Lockheed Martin, United Technologies and Boeing** are involved with the OECD Due Diligence Pilot but have not yet declared policies publicly.

As an indicator of the supply chains of these companies in Europe we note *Rolls-Royce, GKN, Zodiac Aerospace, Dassault Systèmes, Cobham, and Safran* are suppliers to **United Technologies**.

Furthermore the largest company in the sector is US based **Boeing** - its supply chain is sizeable and its task under Dodd-Frank may include some amount of due diligence with almost all of the largest European players within the aerospace and defence sector - *Thales, BAE Systems, Safran, GKN, Finmeccanica, Latecoère, Rolls-Royce, Zodiac Aerospace, Meggitt Plc, and Cobham*.

Boeing's suppliers in Europe outside the A&D sector include *ThyssenKrupp, Skanska, Schneider Electric, Saint-Gobain, Nexans, SKF, Smiths Group, Serco Group, SAAB, Eramet, Volvo, Mersen, MTU Aero Engines, Dassault Systèmes, Gemalto and Saft Group*. Therefore the knock-on effects in terms of influence on European companies has the potential to be substantial.

COMPANY POLICY ON CONFLICT MINERALS: AEROSPACE & DEFENCE

Company	Position	Supplier requirements
BAE	"We provide guidance for procurement professionals to help them identify the sources of metals such as tantalum, tin, tungsten and gold, which could come from minerals mined in conflict regions such as the eastern provinces of the Democratic Republic of Congo". "We do not buy such minerals directly"	"We have developed clauses on conflict minerals that can be used in contracts with major subcontractors. These require suppliers to ensure, and provide evidence, that any items or materials have been purchased from legitimate and responsible sources which are in compliance with United Nations resolutions and not in any way involved in funding conflict."

Source: CA Cheuvreux, BAE Systems

■ Healthcare & Medtech

In terms of metals use the sector has wide-ranging exposure to tantalum in particular through its use in dental products, X-rays, hearing aids, coatings, pacemakers, suture clips, skull plates, surgical instruments, wire meshes, prosthetic devices and metal rods.

Within our coverage the companies that hold an SEC listing are **Fresenius Medical Care, Fresenius and Grifols**. Though we cannot confirm if they explicitly use the specific metals in their devices, clarification from the companies would be welcome.

The other companies in the healthcare equipment sector and under our coverage do not declare conflict minerals policies either but they are not SEC listed: *Coloplast, Getinge, Sonova, William Demant, Qiagen, Elekta, Biomerieux, Carl Zeiss Meditec, Safilo (eyewear & protection), Straumann, Drägerwerk, Gerresheimer, Nobel Biocare AG, and Stratec Biomedical*. However, overall, the regulatory exposure for these companies is minimal as they are selling on their own branded products rather than manufacturing for customers.

Could "Conflict Gold" be the sequel to "Blood Diamond"?

■ Luxury Goods

The main exposure in this sector is via gold sourcing and jewellery (accounting for 60% of global gold demand). However, tin and tungsten are also used in the sector.

Amongst the stocks under our luxury goods coverage (*LVMH, Richemont, Hermès, Swatch Group, Hugo Boss, Adidas and PPR*) no companies have a group-wide policy on conflict minerals yet. **However, the direct legal impact on these companies is minimal as none have SEC listings requiring conflict minerals reporting.** Furthermore the indirect supply chain impact may be minimal as the business model in this sector is one of branded products and end customers of luxury goods companies that are SEC listed retailers are exempt from the regulation.

As the sector has already come under scrutiny through sales of "blood diamonds" **it still remains highly exposed reputationally.** It may be only a matter of time before attention focuses on "Conflict Gold" within the sector.

■ Retailers and miners stay invisible

Retailers and other sectors that simply badge third-party goods with their own label will be exempt. It is therefore the level of control within the manufacturing process of a product which will be the key factor in deciding whether SEC reporting is triggered. There is still some level of ambiguity herein and we would in the medium term expect test cases and potentially further guidance to clarify this.

SEC "CONTRACT TO MANUFACTURE" EXEMPTIONS

	Conditions for exemption
1	Affixes its brand, marks, logo, or label to a generic product manufactured by a third party.
2	Services, maintains, or repairs a product manufactured by a third party.
3	Specifies or negotiates contractual terms with a manufacturer that do not directly relate to the manufacturing of the product.

Source: SEC

Miners are outside the scope of Dodd-Frank 1502 legislation. They are not covered primarily as the bulk of conflict minerals are from artisanal sources.

■ Questions for engagement

QUESTIONS FOR CORPORATES

Question	Notes	Level	Reasoning
Is there a publicly declared conflict minerals policy?		Basic	This is the first step in moving toward a conflict-free supply chain
			Public Transparency will begin to signal to all stakeholders that the company has awareness of the importance of the issue and potentially some commitment to resolving it
Do supplier contracts contain the conflict minerals policy?		Basic	Specific contractual recommendation are a significant signal to suppliers
Is the policy not just a recommendation but a requirement?		Intermediate	
Is the supply chain being traced to find the usage and source of conflict minerals?	Supplier self assessment questionnaires are sometimes a starting point	Basic	Tracing is the first concrete supply chain action required in order to begin assessing the risk of conflict minerals exposure
Are there supplementary audits to ensure this process is effective?	Company audits are needed to ensure the process, with remediation measures clearly laid out and taken if needed	Intermediate	
Do these audits include a third-party verification?	External audits are required under Dodd-Frank 1504	Advanced	
Are smelters being identified?	Target date, public disclosure, site visits	Intermediate	As the key point in the supply chain where conflict minerals can be accepted before being refined, the smelter is the crucial "choke point" at which conflict minerals can be identified and rejected
Are smelters being audited?	Internal	Intermediate	Smelter verification is still in its early stages and outside the tantalum metal in its infancy. However, this is expected to change quickly now that Dodd-Frank 1502 has been passed
Are the audits third party verified?	External	Advanced	
Are suppliers required to buy from conflict-free smelters only once enough are available?		Intermediate	Suppliers receiving this requirement in advanced are likely to change their own sourcing behaviours in readiness
Does the company use specific guidelines for conflict minerals due diligence such as GeSI EICC, or OECD?		Intermediate	These are industry standards in development
Is there commitment to a conflict free product?		Advanced	A clear demonstration of commitment to the issue is the development of a conflict-free product
Is there participation in roundtables and legislative activity to push for conflict minerals sourcing?		Advanced	Policy support from corporates is critical

Source: CA Cheuvreux

RESEARCH & DISTRIBUTION CENTRES

BENELUX

CRÉDIT AGRICOLE CHEUVREUX – AMSTERDAM BRANCH
 JOHANNES VERMEERSTRAAT 9
 1071 DK AMSTERDAM
 TEL. : +31 20 573 06 66 — FAX : +31 20 573 06 90

FRANCE

CRÉDIT AGRICOLE CHEUVREUX S.A.
 9, QUAI PAUL DOUMER
 92400 COURBEVOIE
 TEL: +33 1 41 89 70 00 — FAX: +33 1 41 89 70 05

GERMANY

CRÉDIT AGRICOLE CHEUVREUX – FRANKFURT BRANCH
 TAUNUSANLAGE 14
 D-60325 FRANKFURT AM MAIN
 TEL: +49 69 47 897 100 — FAX: +49 69 47 897 530

ITALY

CRÉDIT AGRICOLE CHEUVREUX – MILAN BRANCH
 PIAZZA CAVOUR 2
 20121 MILAN
 TEL: +39 02 80 62 83 00 — FAX: +39 02 86 46 15 70

SPAIN

CRÉDIT AGRICOLE CHEUVREUX ESPAÑA S.V. S.A.
 PASEO DE LA CASTELLANA 1
 28046 MADRID
 TEL: +34 91 495 16 48 — FAX: +34 91 495 16 60

SWEDEN

CRÉDIT AGRICOLE CHEUVREUX NORDIC AB
 REGERINGSGATAN 38
 10393 STOCKHOLM
 TEL: +468 723 5100 — FAX: +468 723 5101

SWITZERLAND

CRÉDIT AGRICOLE CHEUVREUX – ZÜRICH BRANCH
 BAHNHOFSTRASSE 18
 8001 ZÜRICH
 TEL: +41 44 218 17 17 — FAX: +41 44 218 17 87

UNITED KINGDOM

CRÉDIT AGRICOLE CHEUVREUX INTERNATIONAL LIMITED
 12TH FLOOR
 MOORHOUSE - 120 LONDON WALL
 LONDON EC2Y 5ET
 TEL: +44 207 621 5100 — FAX: +44 207 621 5101

DISTRIBUTION CENTRES

JAPAN

CHEUVREUX
 CRÉDIT AGRICOLE SECURITIES ASIA B.V., TOKYO BRANCH
 SHIODOME SUMITOMO BUILDING, 15TH FLOOR
 1-9-2 HIGASHI-SHIMBASHI
 MINATO-KU
 TOKYO 105-0021
 TEL: +81 3 4580 8522 — FAX: +81 3 4580 5534

UNITED STATES

CRÉDIT AGRICOLE CHEUVREUX NORTH AMERICA, INC.

BOSTON

99 SUMMER STREET, SUITE 220
 BOSTON, MA 02110
 TEL: +1 (617) 295 01009

NEW YORK

1301 AVENUE OF THE AMERICAS 15TH FLOOR
 NEW YORK, NY 10019
 TEL: +1 (212) 492 8800 — FAX: +1 (212) 492 8801

SAN FRANCISCO

50 CALIFORNIA STREET, SUITE 860
 SAN FRANCISCO, CA 94111
 TEL: +1 (415) 255 9802 — FAX: +1 (415) 956 9940

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