

eWeek - The tantalum supply chain

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Anyone who's ever attempted to avoid certain foodstuffs, whether for reasons of taste, allergy, diet, belief or morals, will know that it's the fine print in the ingredients list that is all important. The ingredients list, together with standardised disclosure labels such as the Soil Association's "Organic" symbol, the Fairtrade mark, and the Food Association's "traffic light" symbol help consumers make informed decisions over what they put in their mouths. It's worth noting that many foods have ingredients lists longer than the fine print in a mobile phone contract, which is an indicator that when required to by legislation, manufacturing companies can manage to track a complex set of base ingredients in a way that supports required disclosure.

It must be said that such disclosure requirements aren't always welcomed by industry, however there's a grudging acceptance of the need to label together with a strong desire to happily seek a stamp of approval if having one is suddenly recognised as being a positive brand differentiator. Disclosure, and informed choice, are after all powerful market shaping forces that have created new markets and enabled the phasing out of products, sources, and manufacturing methods newly considered undesirable or dangerous. There are many examples of these phenomena, but the two most powerful examples in the fast moving consumer goods (FMCG) food market in the last two decades are the Fairtrade and Organic Produce marks. There have also been notable "issues based" campaigns such as that conducted by Hugh Fearnley-Whittingstall in the UK against battery farmed chickens during 2008 and 2009. The power of such issues-based campaigns ought not to be downplayed especially when sufficient media attention gets behind one. Consumer preference can be extensively shaped when attention is drawn to the sourcing of produce tainted with the whiff of dubious morals or unsustainable practices.

Disclosure also supports one of the most basic and powerful tools of international diplomacy;

the application of economic pressure through sanctions and market control. Forcing companies to identify and disclose the use of materials sourced from a particular country allows for the enforcement of laws restricting trade between certain countries. The U.S.A's Export.gov site provides full information regarding international trade restrictions, as does the UK's Foreign and Commercial Office site. Such restrictions fundamentally shape market behaviour, and restrict everyday company actions such as selling to or sourcing from specific countries.

By now, you may be wondering what all this has to do with the ICT and consumer electronics industries; and the answer is Tantalum. Tantalum is a rare mineral with conductance properties that make it an essential ingredient in the capacitors inside every mobile phone (and many other ICT devices). Tantalum is sourced from only a few mines around the world, with the majority of supplies now coming from the Democratic Republic of Congo (DRC). The DRC has been in a state of guerrilla warfare for many years to the tune of around 6 million deaths, and Tantalum mining and export is to the conflict what opium poppy farming is to Afghanistan; providing a rich source of international trade that funds continued conflict. Tantalum's role in the DRC conflict has long been recognised, with the U.N. creating a panel to look at the issue back in 2001, at the direction of then UN secretary general Kofi Annan.

While the intervening years have seen little real change, Tantalum's presence in consumer and office electronics goods is facing renewed focus. In April, U.S. Senators Sam Brownback, Dick Durbin, and Russ Feingold drafted and introduced a new act called the Congo Conflict Minerals Act of 2009. Under the draft legislation, U.S.-registered companies selling products using columbite-tantalite (a source of tantalum), cassiterite, or wolframite, or derivatives of these minerals, would be required to annually disclose to the SEC the country of origin of those minerals. If the country of origin is the DRC or neighbouring countries, the company would need

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to also disclose the specific mine that the minerals are sourced from.

How significant that act might be in shaking up the electronic supply chain is perhaps indicated by the fact that meanwhile, the world's largest source of Tantalum outside of the DRC is busy shutting down operations. Australia's Talison Minerals, which previously enjoyed a 50% market share for supply of the mineral, mothballed its largest mine at the end of 2008, a move that reduced its active Tantalum mine operations from three to one. In announcing the action Talison cited unviable market prices related in part to cheap supply from the DRC. Perhaps the U.S's Congo Conflict Minerals Act will see a reversal in this market state in the coming years, as the restrictions and market pressures make electronics manufactures reconsider their supply chains. Right now, electronics manufacturers are unnecessarily and significantly exposed as far as the provenance of the Tantalum supply.

All of which is a good lesson as to why "sustainable IT" is more than a passing nod toward an energy efficient server or a refillable printer cartridge. While the newly drafted Congo Conflict Minerals Act has a way to go before being adopted (as is or amended) it is a sign that far more scrutiny can be expected into the ICT industry supply chain in the future. Such scrutiny no doubt introduces complexity in both adherence by manufacturers, as well as in the level of consideration a buyer might have to take in selecting a product and supplier. However scrutiny crucially enables informed decision making, which is never a bad thing. Meanwhile, take another look at your mobile phone, there's more inside it than just your contacts list and a battery that never lasts long enough.

About Quocirca

Quocirca is a primary research and analysis company specialising in the business impact of information technology and communications (ITC). With world-wide, native language reach, Quocirca provides in-depth insights into the views of buyers and influencers in large, mid-sized and small organisations. Its analyst team is made up of real-world practitioners with first hand experience of ITC delivery who continuously research and track the industry and its real usage in the markets.

Through researching perceptions, Quocirca uncovers the real hurdles to technology adoption – the personal and political aspects of an organisation’s environment and the pressures of the need for demonstrable business value in any implementation. This capability to uncover and report back on the end-user perceptions in the market enables Quocirca to advise on the realities of technology adoption, not the promises.

Quocirca research is always pragmatic, business orientated and conducted in the context of the bigger picture. ITC has the ability to transform businesses and the processes that drive them, but often fails to do so. Quocirca’s mission is to help organisations improve their success rate in process enablement through better levels of understanding and the adoption of the correct technologies at the correct time.

Quocirca has a pro-active primary research programme, regularly surveying users, purchasers and resellers of ITC products and services on emerging, evolving and maturing technologies. Over time, Quocirca has built a picture of long term investment trends, providing invaluable information for the whole of the ITC community.

Quocirca works with global and local providers of ITC products and services to help them deliver on the promise that ITC holds for business. Quocirca’s clients include Oracle, Microsoft, IBM, O2, T-Mobile, HP, Xerox, EMC, Symantec and Cisco, along with other large and medium sized vendors, service providers and more specialist firms.

Details of Quocirca’s work and the services it offers can be found at
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