

IT Analysis – Emissions Auditing

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Just where does IT fit into the scheme of things as far as emissions? Are data centres responsible for 2% or 30% of a company's overall emissions? Should companies with large data centres work on reducing the energy consumed through keeping all that equipment cool, or should they swap out all that existing kit for a sexy new number that can run a bit of that green virtualised stuff?

To try to get to the bottom of all these questions, and more besides, Quocirca recently spent some time with an emissions auditing specialist, Best Foot Forward. With more than a decade of experience Best Foot Forward are an Oxford based consulting company, which has managed emissions reductions projects for customers as diverse as Volkswagen, [Ofcom](#) and Radiohead (yes *that* Radiohead). Most importantly from our point of view they have no data centre or hardware axe to grind, and have a real world view of the relative impacts of the emissions footprints of the various aspects of business operations.

Emissions auditing is fast emerging as an area of focus for niche, specialist vendors. Systems integrators with strong plays in the fields of performance measurement, auditing and change management are also natural potential movers in the space. Whilst they have existing strength in those areas the challenge for big generalists however is that they typically lack the depth of expertise in fields applicable to emissions auditing such as environmental science, building architecture, and energy generation techniques.

Standards have also been released that codify how emissions are calculated and reported, including the ISO1406-n range and the soon to be finalised PAS2050. Groups as diverse as the [British Computer Society](#) and [The Carbon Trust](#) are also busy working together on models to enable emissions measurement and reporting. Expect to see the emissions auditing and related change management sector as one of high growth, a continued focus for standards development, and one of potentially significant levels of merger and acquisition activity in the coming years.

Unsurprisingly, today the approach to auditing a company's emissions is a services-led one, as are the subsequent projects required to change manage a business to their targeted emissions levels. While there are commonalities to be found amongst businesses in the same sector and with similar go-to-market models, businesses vary enormously across sectors. In short, every business is different and the relative contribution of each of its departments, processes and sites will vary. However, over time we may expect that the collection of data relating to carbon emitting activities and energy usage will become increasingly automated. Smart metering, enabled by imbedded IT, will enable far more automated data collection in the future.

Emissions reporting and auditing is also an area that is a natural and fertile space for the next generation of executive dashboard and reporting software. Just as we have today dashboards for the CISO, the DBA, the CFO and the SOX auditor we will also have dashboards for the Chief Sustainability Officer of the future (though you'd almost like to see that job title be "The Big Green Cheese"). Best Foot Forward briefly demonstrated to Quocirca their Footprinter dashboard; an executive level emissions reporting tool delivered on a SaaS basis and licensed on subscription terms. The SaaS model is ideally suited to this sort of tool and in this case provides the flexibility to rapidly update data regarding device and activity emissions as new information and research comes to light – which is often, in the very rapidly moving field of climate change research.

And what of the question of where IT stands as an emitter? Perhaps unsurprisingly the answer is "It depends". Real life audits by Best Foot Forward have found IT to be responsible for anything from 5% to 25% of a business's emissions. Quocirca's advice to CIOs considering how to "green" their data centre, including whether to outsource to a service provider who claims emissions benefits, would be to have their own emissions as well as the outsourcer's claims thoroughly and independently examined by an

expert in the field rather than relying on "industry averages".

The real difficulty in reducing the data centre's contribution however is the complete absence of accurate data regarding the embodied carbon in IT equipment. The sheer number of components in a server for instance makes it impractical and extremely difficult to calculate embodied carbon once the device is on the market. Clearly device manufacturers carry the sole responsibility to accurately calculate and report on the relative embodied carbon in their various offerings. Until the nascent auditing industry has that data at hand it will continue to be difficult to say with absolute certainty that there is benefit to be had in replacing existing kit with the latest and more energy efficient model now or later, or perhaps never at all.

Emissions auditing is the "watch this space" sector for sustainability efforts. While emissions reporting is today voluntary, there is growing market and shareholder pressure on companies to provide transparency. Various governments, including the UK, at the EU level and internationally, are considering mandatory disclosure legislation, though no firm time line exists for regulation. The evidence suggests that this sector will drive significant innovation in the use of technology to streamline, automate, and make more accurate emissions reporting. We are only at the beginning of a specialist vendor emergence, aggregation and consolidation cycle that will likely run through the coming five years or more. For today's CIO the best strategy to reducing the data centre emissions footprint is one that goes forward in the context of overall business change, rather than going it alone and tackling it as a technology only project. Therefore look for an auditing vendor which can provide expertise beyond only the data centre.

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, Dell, T-Mobile, Vodafone, EMC, Symantec and Cisco, along with other large and medium sized vendors, service providers and more specialist firms.

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