

# Prepare to be disrupted!

Whatever your opinion of the Copenhagen summit, the proceedings and media coverage has had a significant impact on the way the world perceives both climate change and the magnitude of the measures required to tackle it. With or without the hoped-for agreements, a new level of impetus has been reached that could mean that we will see an acceleration in the pace of legislation and also an increase in the market pull for new products and services.

So what will this mean for our businesses? Well, while the impact will depend on one's operational context, we cannot simply prepare for business as usual. If you look back in time as little as ten years and think of how we perceived the future, you will see a good number of unanticipated changes, even where the technologies were known. For example, even the most optimistic sages missed the massive growth in the wind industry, the fact that hybrid electric vehicles are gaining traction in the USA, and the mass deployment of smart metering and energy monitoring technologies in the home.

The dilemma facing many of our businesses is not if but when. Perhaps the answer is in the hands of the innovators who act now with new products and services rather than those who wait for direction from governments.

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For years, disruptive technology has been at the core of the innovations that have changed the products and services that we buy, the way we work and the way we live our lives. But in this post-Copenhagen era, are we about to see the technologies on which we have built our economies, and which are embedded in our very way of life themselves being disrupted?

# SCREAM if you wanna go faster (than advertised!)

Only a few years ago, you might have asked "why do I need broadband on my phone?" But today, you're more likely to ask why your iPhone or laptop dongle connection is so slow. The answer is to do with the 40 fold increase in data traffic on some networks, a trend that has driven up the cost to deliver services more quickly than revenues.

Cellular's Long Term Evolution (LTE) is a new broadband network technology that aims to address these two issues. It promises users higher speed and lower latency broadband connectivity that is more economically viable for operators. LTE is promoted by its 100 Mbit/s headline downlink data rate, followed by the caveat: "in perfect channel conditions", meaning 'when you are near the base station and moving very slowly'.

LTE uses a new transmission technique on the link from the handset to the base station (the uplink) that requires a complex receiver to decode. By using a text-book receiver in the base station, users will experience link performance that is much lower than the "perfect conditions" figures advertised, simply because few of us ever operate under 'perfect channel conditions'. With this in mind,

Cambridge Consultants has invented a new receiver called DUEL (Dual-domain, Uplink Equaliser for LTE) that has been shown to perform better in the 'real-channel conditions' than the text-book receiver for LTE. Meeting the standard is one thing, but satisfying users' ever-increasing expectations is another. Only by applying near-optimal solutions like DUEL can LTE fulfil all of its expectations.

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