CLOUD AND SUSTAINABILITY – AN ACTIONABLE APPROACH »

Expert Opinion by Giles Hutchins

Every day, Atos Origin engages with clients around the world. We talk business and technology at a strategic level. We work on the detail of project implementation and service delivery. In just about everything we do these days, for ourselves and our clients, sustainability hovers in our peripheral vision.

It's there, and everybody knows it's there, but all too often, it disappears off the agenda before we've even had the chance to bring it into focus.

This is a short paper. It's not an encyclopaedia of sustainability. All it does, is help bring sustainability into the foreground in a way which makes it easier for us all to make it part of our day-to-day thinking. It refers specifically to the cloud, as this becomes pivotal in the discussion – but this will not be an overly technical focus.

Sustainability must now become part of the business model for all of us – it doesn't matter where you are (in IT, operations, finance, HR or business development) – whatever your role – if you are interested in how business works, sustainability must become part of your professional vocabulary.

Contents

"SUSTAINABILITY HAS GROWN UP. GREEN TOKENISM IS BEING REPLACED BY THE AWARENESS THAT SOCIAL, ENVIRONMENTAL AND ECONOMIC SUSTAINABILITY ARE NOT ONLY INSEPARABLE, BUT ARE ALSO THE SPUR TO GROWTH IN ALL BUSINESS MODELS FROM NOW ON."

Giles Hutchins
Global Director of Sustainability Solutions, Atos Origin

ONE MISSION - THREE STRANDS

The first thing we need to do in order to bring sustainability into focus is to dispel any notion that it is a marginal green speciality. There are three inseparable strands to consider in the effective pursuit of sustainability:

CULTURE AND SOCIETY

Whatever we do in our professional roles, we need to understand how the success of our individual business contribution will ultimately depend on how others are prepared to accept it. Our actions and initiatives must therefore be culturally sustainable. This means making sure that we are in tune with how people behave; it means being aware of behavioural trends; and it means making sure that people are equipped and educated to benefit from whatever you are proposing. Carrots are generally better than sticks.

Example

If people resist smart metering because they see it as an invasion of their privacy, and their right to consume, then success will be more difficult to accomplish.

ENVIRONMENTAL

Regulation and compliance are an aid to achieving environmental sustainability, but in many ways they inhibit imagination and creativity. Carbon trading, for example, gives us the machinery for setting and achieving targets, but these activities are only a starting point. The real environmental reward will only begin to accrue when we use our personal and corporate experience with considerably more flair than is stipulated by regulation.

Example

If a furnishing company delivers one chair to a domestic client and 500 chairs to a commercial client, it's good if their distribution system is smart enough to ensure that the second order does not use 500 times more packaging than the first.

ECONOMIC

Everything costs, and in both the public and private sectors, the balance sheet will always determine continuity. So as we think about the impact of cultural and environmental sustainability, we always need to return to the economic. In sustainability, we can start by asking "can we afford to do it?" (or "can we afford not to do it?"). But the real skill comes in thinking about how embracing sustainability can create identifiable economic advantage.

Example

In manufacturing, companies which establish unified execution systems across multiple production facilities not only drive out cost and balance energy consumption, they are also able to reduce inventory and optimise logistics – driving out both cost and carbon. More sustainable production runs translate into higher customer value, and improved product differentiation and margin.

So, as we bring sustainability into focus, we need to keep these three completely interconnected questions foremost in our thinking:
1. How will people behave?
2. How will we minimise environmental impact?
3. How will we maximise business return?

WHY DOES SUSTAINABILITY MATTER TO ATOS ORIGIN?

Sustainability matters to Atos Origin for all of the reasons outlined above. But perhaps it's worth looking at our position a little more closely, simply because our own sustainability position has direct implications for the people and organisations we do business with.

Distribution and Collaboration

Just like many of the organisations we serve, Atos Origin is a massively distributed organisation. Our own direct presence covers around 20 countries across five continents, and within those individual geographies we have centres of extremely specialised expertise. In Grenoble, for example, in South Eastern France, we have a team of around 500 people working on advanced control systems for the energy and utility sectors.

Our business value proposition is increasingly focused on our ability to draw on professional competence as and when it is needed, irrespective of location. This means establishing processes and systems which allow agile and practical collaboration on a global scale.

Clearly, like everybody else, we want to minimise travel budgets and their associated carbon footprint – but that is not what this is really about. The ability to form and reform specialist virtual teams comprising not only our own people, but those of our clients and partners too, can only happen if we create a practicable digital communications space.

Operational Efficiency

Atos Origin is an IT and BPO service company. The nature of our business makes resource optimisation an absolute necessity. As Europe's leading provider of outsourced transaction processing services, for example, it is essential that our data centres satisfy stringent environmental and business requirements.

For us to offer services at compelling cost, scale and agility, our physical data center resources (and all associated processes) must be tuned so that the energy required for cooling, processing and powering storage is optimally managed.

There are many similar examples of how operational efficiency and sustainable behaviour have become so closely joined for Atos Origin. This also translates directly into cost and performance benefits for our clients, who themselves, are seeking to make similar advances in their own specialist operations.

Corporate Social Responsibility

Corporate Social Responsibility is on the agenda for us all. This is not new for any of us: businesses that have been able to sustain long-term success in every sector, have always understood that good business is responsible business. What has changed in more recent years is the degree to which the CSR strategy, position and objectives have been formalised – and with that formalisation, comes the need to measure and report.

A company's overall sustainability position now becomes more than just a line item for the Annual Report. It gains profile - and as a result, becomes part of the measurable expectation of both shareholders and industry observers.

Atos Origin's own sustainability performance and targets, for example, are clearly set out and freely available.

Attraction and Retention

Our sustainability as a business rests on reputation, and our reputation is built on the quality of our people. We must attract and retain bright, collaborative and committed people to grow as we intend. The new professional generation are all digital natives – but even those of us who have been around for a bit longer are adept at using digital communications to help create a more fulfilling balance between our private and our professional lives.

The technologies needed to create professional, digitally-connected communities are easy. Process and culture can lag behind. It is not enough for old men in tweed suits to mutter "Facebook". The organisation must examine itself, asking what it needs to be and how it needs to work to create a genuinely sustainable workforce – and, incidentally, driving out travel and real estate cost and consumption at the same time.

Echoes, Echoes, Echoes, Echoes, Echoes

This brief summary gives you a feel for where we are coming from as a business in terms of sustainability. But this is not about us. How do these themes echo across your business? By asking how these four themes (and there are plenty more) play out in your own organisation, you soon begin to build up a picture of how, once you start to bring it into focus, sustainability places an indelible stamp on your own business thinking.

A company's overall sustainability position now becomes more than just a line item for the Annual Report.

AND ONTO THE CLOUD...

At the start of this paper, we said that cloud and sustainability sit side by side. At the crudest level, the implications of this relationship are purely mechanical and easy to calculate – but just because they are crude does not mean they are not important. We can summarise these in five categories.

1	**"End-User" devices**	Devices which rely on local processing, resident applications and storage require more power than simple cloud-based access devices. They have more components and shorter life-cycles – and that means higher maintenance and more end-of-life issues.
2	**Local/remote servers**	As above, in terms of energy consumption, financial and environmental costs across the life-cycle, and support overheads. In highly virtualised and cloud-based environments, this consumption drops to near-zero as local/remote server reliance can be all but eliminated.
3	**Centralised storage/ processing**	Whether private, shared or hybrid cloud models are adopted, the aggregate environmental impact can be minimised by resource-balancing and maximised utilisation. Low-impact environmental design also becomes a pre-requisite for all new data center development, driving out both cost and negative environmental impact.
4	**Real estate**	Cloud-based delivery models allow organisations to reduce real estate requirements. By facilitating more location-independent working styles, the cloud breaks the "one employee = one desk" model still in evidence particularly in service companies.
5	**Mobility (and immobility)**	Because cloud-based models make it easier to establish location-independence and virtual teaming, work can go to people instead of people going to work. Reduction in travel rapidly adds-up in terms of carbon savings (and makes people happier too).

Atos Origin has invested significantly in the development of its own Atos Sphere cloud-based portfolio of services. These have been developed in a way which satisfies the initial objectives outlined above. We make it easy for our clients to "do the math" with clear comparisons between current non-cloud practice and next generation cloud-based models for desktops and infrastructure.

But the real benefits (and the really exciting implications) go far beyond eliminating the need, for example, to put fans in PCs or to allow a proportion of your workforce to cut down on commuting. The real benefits correspond directly with the three interlinked strands of sustainability: society, environment and economics.

ONE, TWO, THREE IN THE CLOUD

In terms of technology, the cloud is a natural progression of the Internet and of the already well-established trend to virtualisation. We have outlined (perhaps a little unfairly) the "crude" benefits. But now let's take the three strands of sustainability and think about the implications of the cloud for each of them. Again, this is not an exhaustive or even a particularly methodical analysis - it is simply a starting point.

THE CLOUD AND SOCIAL SUSTAINABILITY

In most of our private life-styles, we have already become accustomed to the idea of anytime, anywhere access to digital information in multiple formats over multiple devices – our homes, our cars and our pockets are filled with set-top boxes, iPads, smart phones and BlackBerrys, GPRS systems and digital photograph frames.

But that's not the big deal. The big deal is the ease with which personal relationships form and are sustained in ways that just a few years ago would have been impossible to imagine …

» You buy a vintage car for a restoration project, and within seconds, you are in touch with enthusiasts from Havana to Hamburg with mechanical and wiring tips

» Groups of people who have never met before dance silently together in public places – for their own and everybody else's amusement

» Grandparents keep up with their grandchildren's gap year adventures with graphic detail ("I never realised Daniel/Danielle had a tattoo just there!")

And from a rather more mundane perspective, we shop, we bank and we pay our parking fines online. The reality is obvious. All we have is a device and a connection. It's cloud. So if this is how our private lives are being changed – what will this mean for our professional lives?

For our employees, our partners and suppliers - and most importantly for our customers - we must be able to willingly embrace these changes to build and sustain new relationships, and we can only do that with cloud-based models.

THE CLOUD AND ENVIRONMENTAL SUSTAINABILITY

We are all under continuous pressure to find means of managing our resources more efficiently. In macro that means planetary resources – and that's not just crude oil - it's also palm oil too. In micro that means fine tuning the way in which our businesses work right across the extended enterprise.

In every industry, the business information systems we use are absolutely central to this objective. The multiple ad hoc, custom-built information systems we used yesterday are no longer fit-for-purpose in a world in which we need to aggregate data from rapidly changing models of production and partnership.

We can only take control of resources across the extended enterprise if we learn to liberate access to data from the devices which manage and manipulate it – and again that means cloud. (If, for example, a company needs to combine data from the tachographs in the cabs of trucks, from GPRS systems and from bills-of-lading in order to profile part of the supply chain carbon footprint – it will only ever happen as an automated IP or cloud-based activity).

THE CLOUD AND ECONOMIC SUSTAINABILITY

Business has always been open, and has always depended on an extended array of partnerships to flourish. The big difference today is the speed and connectivity with which these form and re-form, and the extent to which ideas and actions happen in real-time.

The Internet has been absolutely instrumental here, and internet (or cloud-based) delivery models subsequently become the norm. This effectively transforms the "extended enterprise" into an enterprise without traditional limits. Take, for example, the National Health Service (NHS) in the UK. In 2004, with around 1.3 million employees, it was exceeded in numbers only by the Chinese army and the Indian railways.

With patient access to online services and an increasing pressure to operate with full "patient accountability", the organisation pretty much becomes an active association of around 60 million stakeholders. That is a direct consequence of the Internet coupled with social and political directives, and even though the NHS has a massive dependence on legacy systems – the future is, inevitably, cloud.

This is an extreme example, but it does point to the fact that no matter how complex an organisation, the Internet/cloud as a business channel will ultimately underpin sustainability for all.

SUSTAINABILITY AS A DRIVER

We have all been in the position when the weight of managing essential detail makes it impossible for us to engage with the big issues. This is dangerous. The opposite is dangerous too. Uninformed bold-brush decisions have mutilated some fabulous companies over the years.

In its own approach to sustainability, Atos Origin is particularly attentive to the need to get an effective working balance between the detail and the big picture. In this way – you can actually make something happen – and that is when understanding business drivers starts to make an impact.

Atos Origin is convinced of the importance of sustainability as a driver in business. We are also convinced of the durable impact of a shift to cloud-based delivery. We ourselves have invested time, energy and capital in developing our Atos Sphere cloud-based portfolio, which itself has grown directly from our experience in managing large scale hosted services .

We have also placed the three elements of sustainability at the centre of our business strategy. This is evident in our Corporate Social Responsibility positioning. But more importantly it is becoming an integral part of our proposition to our clients in every area of our business:

» In manufacturing, retail and transport, we are showing how by shifting process and product management to cloud-based models, you can achieve significant sustainability gains by engaging directly across the value chain
» In telecommunications and media, we are helping our clients promote and develop more agile, cloud-based client engagement models, which in turn encourage ever-expanding communities of digital communication.

» In financial services, we are expanding our already well-established loyalty and transaction processing services to ensure that resource-hungry storage and processing is optimised for lower-cost, lower environmental impact and better business performance.

The list goes on – and in each instance cloud and virtualisation are key.

It is early days. These attitudes and approaches to sustainability, for Atos Origin and for our clients, are only just beginning to take shape. The future, with apologies to Donald Rumsfeld, is one of those "unknown knowns" or "known unknowns" – basically, we are convinced that this is the right track, but cannot be certain where it will lead.

We are convinced, however that for ourselves and for our clients, sustainability will now begin to converge as the foundation of all successful approaches to business.

As we move towards modes of operation in which the three stands of sustainability are brought ever closer together, clear differences will emerge between those organisations that embrace this approach to sustainability pro-actively, and those who are nudged in that direction by market pressure and regulatory compliance.

For the former (and this is already happening for some of us), sustainability is being considered in terms of its contribution to profitability – to extending current revenue streams and creating entirely new ones. For the latter, the benefits are still there, but perhaps remain more focused on shaving cost.
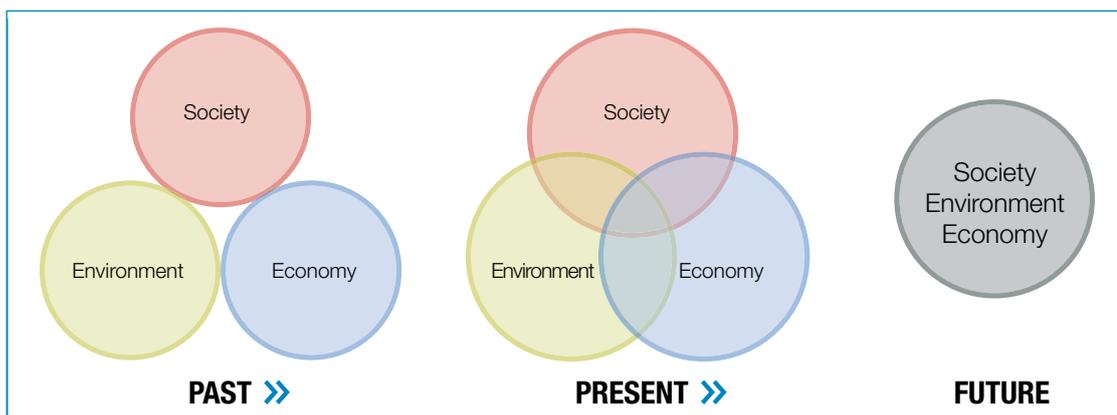

Figure 1: Convergence of the elements of sustainability

WHAT NEXT?

We want to adopt cloud-based approaches as an accelerator for forward-looking sustainability. We want this to be a collaborative effort, and need to pursue this goal together with our clients. We cannot succeed without our clients' success.

Atos Origin does offer a series of focused sustainability services, which are available on a project basis and which are already benefitting our clients. Interest is high and we will continue to develop these specialities.

But even more importantly, we would like to urge you to take a little time out with us to consider the big picture. Atos Origin is admittedly, obsessive about establishing practical avenues for immediate engagement – every company has to be. But that does not lessen our desire to share the critical business themes with our peers among our client community. In pursuit of shared sustainability, Atos Origin has been collaborating intensively with partners, suppliers, think-tanks, NGOs and clients for a number of years.

We understand that the success of transformational initiatives focused on sustainability and cloud hinges on the quality of communication with our clients. We hold workshops with our clients to explore the drivers for change, and to examine the implications of sustainability and cloud in relation to their business. If you would like, as a first step, to participate in one of these stimulating workshop sessions, either in a dedicated group or amongst a wider number of industry peers, please contact either Giles Hutchins or Stephen Holmes.

Some Atos Origin links you may find interesting
www.atosorigin.com/sustainability
www.atossphere.com
www.atosworldline.com

Some books you may find worth looking out for
» *The State of the World 2010*,
   by The Worldwatch Institute
» *Capitalism as if the World Matters*,
   by Jonathon Porritt
» *The Upside of Turbulence: Seizing Opportunity in an Uncertain World*,
   by Don Sull
» *Cradle to Cradle*,
   by William McDonough and Michael Braungart
» *Upsizing*,
   by Gunter Pauli
» *Biomimicry*,
   by Janine Benyus

ABOUT GILES HUTCHINS

As Global Director of Sustainability Solutions at Atos Origin, Giles Hutchins balances educational and operational responsibilities. His goal is to bring sustainability into the mainstream of all business behaviour and to develop focused and practicable sustainability initiatives for Atos Origin and its clients.

With over a decade of business and IT transformation experience, Giles is focused on helping organisations evolve to become more sustainable. He is particularly interested in how business models can mimic those found in nature to create resilience under volatile conditions.

ABOUT ATOS ORIGIN

Atos Origin is a leading international information technology (IT) services company, providing hi-tech transactional services, consulting, systems integration and managed operations to deliver business outcomes globally. The company's annual revenues are EUR 5.1 billion and it employs 49,000 people. Atos Origin is the Worldwide Information Technology Partner for the Olympic Games and has a client base of international companies across all sectors. Atos Origin is quoted on the Paris Eurolist Market and trades as Atos Origin, Atos Worldline and Atos Consulting.

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