

Technology innovation: Top down or bottom up?

When it comes to innovation around Asset Intelligence, should you drive change from the top, or let things bubble up from the front lines?



Executives love to talk about strategic innovation, but that doesn't mean they're good at making it happen. Especially when it comes to sweeping new opportunities like Asset Intelligence — technologies that can transform a business model almost overnight. Should you rely on applications engineers and designers to drive your Asset Intelligence agenda? Or is a mandate from executive leadership the right way to go? Put another way, would iTunes have transformed the world of digital media without Steve Jobs on point?

	Point	Counterpoint
Drive innovation from the top. <i>"Asset intelligence can transform almost any business model. The C-suite has to make it happen."</i>	Shifting to a services-based business model is a critical evolution for many companies. Individual operating units usually don't have the capacity to drive that transformation.	Services are over-rated. Focus instead on being the low-cost provider. Do that right in the short term, and everything else will take care of itself.
	A neutral operating platform is one of the only ways to exploit the real power of Asset Intelligence. Siloed technologies sprinkled across the business won't cut it.	People on the ground know best how to make innovation happen. There's no good reason for executives to get in the way of experts doing their jobs on the front lines.
	Many teams are too busy to worry about how their innovations connect — or don't connect — to one another.	Advanced Asset Intelligence solutions are still on the drawing boards. Better to plug in point solutions now. Who knows when the Holy Grail will arrive?

	Point	Counterpoint
<p>Let innovation bubble up.</p> <p><i>“Bottom-up point solutions are the right way to diffuse innovation across the enterprise.”</i></p>	The business case for sweeping innovation isn't there. Sustainable progress comes from taking small steps.	Small steps create a complex patchwork of solutions that probably won't deliver the benefits you really want.
	It's nearly impossible to get the cross-functional teams in place to take this on.	The network effect for distributed assets is a powerful force. But it requires cross-functional teaming. Take a look at the real upside. You'll see that it really is worth the trouble.
	There's too much risk — both institutional and personal. Who wants to go out on a limb to test bleeding-edge technologies?	Energy savings alone can fuel the business case for Asset Intelligence investments. But that's just the beginning. Moving to a neutral operating platform can drive sustainable competitive advantage, with very little risk.

My take



Doug Standley
Principal, Deloitte Consulting LLP, Technology Innovation Service Line Leader

With OEMs and other asset-heavy companies struggling to maintain their market positions, many are shifting toward services-based business models. For some, that requires building intelligence into their products — and the potential applications are limited only by the imagination. From automating the replenishment of a vending machine to managing the performance of a remote pumping station, Asset Intelligence is at the front line of innovation today.

Clearly, machines and physical assets need to communicate with one another. The magnitude of value to be gained from reducing human, asset and information failure is enormous. That said, there's plenty of disagreement about how to do it, resulting in a kind of decision paralysis that carries significant risks. Our view is clear: The winning innovation strategy requires a neutral operating platform perspective — anything-anywhere — that can drive a network effect for distributed assets. Siloed solutions for individual slices of the Asset Intelligence pie will not deliver the innovation value most companies want. Even worse, the piecemeal approach can actually increase operating costs.

Working across scores of industries to analyze root causes and demand, we've learned that it's possible to apply intelligence to almost any asset class. If it's important, it can become intelligent. And if it's intelligent, it can transform business models, shifting the value proposition from reactive to proactive to predictive. Products themselves become drivers of services and potential competitive disruption.

Many Asset Intelligence investments today focus on single elements such as location tracking. We all know there's a lot of buzz around GPS, which certainly has value. But in comparison to the broader potential, tracking the location of assets can seem almost trivial. Here's an example: Instead of simply knowing where a dumpster is located, why wouldn't a waste management company build real intelligence into every container and truck? Using a neutral operating system, the company would not only know where the dumpster is and confirm the customer status, it would also know when the dumpster gets emptied and how much garbage it contained. That knowledge would be used to automatically bill the customer, with no manual intervention. By combining weight, motion and location sensors, the waste management business model could fundamentally shift — in a direction that rewards conservation. Socially conscious businesses might quickly embrace this idea.

But keep in mind, Asset Intelligence is a strategic opportunity — not just a technology choice. Counting on applications engineers or product designers to evaluate its potential is a mistake too many companies make. That approach leads to the proliferation of point solutions that don't add up to sustainable enterprise value.

Capturing more data is not the goal of Asset Intelligence. The goal is to drive down costs; improve performance, quality, and safety; satisfy customers; and create new revenue streams. Big difference.

Point solutions rarely yield truly sustainable innovation. And in the area of Asset Intelligence, it's clear that a neutral operating platform model is essential for extracting maximum value. The only real question is how many proprietary systems companies will burn through before they reach that important conclusion.

A view from the energy sector

David J. Fornari

Principal, Deloitte Consulting LLP, National Managing Director, Energy & Resources

From the energy industry perspective, the business case for using Asset Intelligence to drive operational efficiency should be clear. Asset Intelligence effectively reduces the demand for energy, hence reduces costs by automating and streamlining communications and decision-making between physical assets (trucks, pumping stations, pipelines, transformers, even the grid itself) and the people who manage those assets. This kind of innovation can lower energy consumption, reduce unplanned equipment outages, more effectively leverage human resources, and improve overall operating performance.

Commercial customers are already investing in Asset Intelligence as they seek to reduce their own operating costs. Whether they're building sensors into HVAC systems to improve maintenance performance or transforming their business models by turning products into services, the outcome is the same: Asset Intelligence is the key to innovation in tomorrow's value chains.

But remember this. The transformative change needed to reshape business models will not come from isolated teams solving isolated problems with point solutions. What's needed is a strategic commitment to a neutral operating environment that can align with any Asset Intelligence requirement anywhere and anytime, across the entire enterprise.

As you move forward, don't make the mistake of confusing your ability to collect massive amounts of data with productive innovation. They aren't the same at all. Real Asset Intelligence doesn't overload human beings with extraneous information. Instead, it focuses on exceptions reporting, allowing routine data to be used by machines without people having to figure out what needs attention and why.

If there's one industry where executive leadership is driving innovation, it's the energy industry. Energy efficiency has been called the fifth fuel so as energy companies help their customers manage their complex energy needs, the strategic opportunities to create value through Asset Intelligence are compelling.

A view from the consumer/industrial products sector

Bruce Westbrook

Principal, Deloitte Consulting LLP, National Managing Director, Consumer and Industrial Products

Leaders in consumer and industrial products have long complained that they don't have the technology to truly innovate around asset management. That's not to say some improvements haven't been made — they have. Plenty of money has been spent on forecasting tools, new applications to manage innovation, and a never-ending stream of new products.

But have things actually improved? Have inventory turns accelerated? Not really. Is the success rate of new product innovation increasing? Nope. One could even argue that with the exception of Swiffer in 2000, most "new" consumer packaged goods are simply line extensions or resized packages.

Why aren't things getting better? The easy answer is technology — and oddly enough, the hard answer is technology, too.

Until recently, the technology used to improve decision-making relied on historical data and advanced analytics. That's like a wizard looking into a hundred crystal balls trying to predict the past, hoping it will mirror the future. The data that fed these tools was anchored in the past, and didn't facilitate real-time decision-making.

With Asset Intelligence, especially a live intelligence platform, we now have real-time decision-making. Which means supply chains can be synchronized — with true demand models put into place. Real-time reaction to products can be measured to determine market receptivity, unclouded by the homogenization of time and POS data. And that means no more excuses.

For more information, please visit: www.deloitte.com/us/debates/assetintelligence.

For further information about this debate, please contact:

Doug Standley

Principal
Technology Innovation
Service Line Leader
Deloitte Consulting LLP
dstandley@deloitte.com

David J. Fornari

Principal
National Managing Director
Energy & Resources
Deloitte Consulting LLP
dfornari@deloitte.com

Bruce Westbrook

Principal
National Managing Director
Consumer and Industrial
Products
Deloitte Consulting LLP
bwestbrook@deloitte.com

Related Insight:

[How to Make It New — Fostering a Culture of Innovation in Turbulent Times](#)

A discussion on why innovation is vitally important in these challenging economic times and how Deloitte is working to develop and encourage a culture of innovation among its people and clients throughout the world.

[Shaping Strategy in a World of Constant Disruption](#)

A road map for the daunting task of shaping strategy as technology-driven infrastructures constantly change.

Related Content:

Library: [Deloitte Debates](#)

Services: [Consulting](#)

Industries: [Consumer Products](#) and [Oil & Gas](#)

Overview: [Center For Innovation](#)

This publication contains general information only and is based on the experiences and research of Deloitte practitioners. Deloitte is not, by means of this publication, rendering business, financial, investment, or other professional advice or services. This publication is not a substitute for such professional advice or services, nor should it be used as a basis for any decision or action that may affect your business. Before making any decision or taking any action that may affect your business, you should consult a qualified professional advisor. Deloitte, its affiliates, and related entities shall not be responsible for any loss sustained by any person who relies on this publication.