The service-driven enterprise
Putting digital disruption to work
The train has left the station
The urgency behind digital transformation

Let’s be very clear. When it comes to digital transformation, you have a choice: you can drive your own disruption, where you control the process, the pace, the outcome … or you can stay on the sidelines and let yourself be steamrolled by the tsunamis of change that are already well underway and outside your control.

Global digital disruption lends itself to this kind of hyperbole – except it’s not an exaggeration. We have entered what EY calls the Transformative Age, when constant upheaval – and quick-breaking windows of opportunity – are the new normal. New technological breakthroughs are emerging at a breathtaking pace, with innovation building on innovation. And the train is not going to slow down and wait for you to climb aboard.

This is why you need to start thinking, with serious and palpable intent, about digital transformation. Which means recognizing that this transformation is unlike any you have previously undertaken. It is not a software implementation. It’s not a supply chain makeover project – you aren’t just ripping out a part of your operations and replacing it with something newer, faster, shinier.

No, this is transformation in its purest, most fundamental form: changing your business from what it was into something entirely different.

The ripple effect will touch every corner of your operations … and your partners … and your customer base. It will change the way you design/build product… develop ecosystems … structure and staff your organization.

There are those who consider such claims to urgency to be excessive. But here is EY’s line in the sand: the digital transformation movement is bigger than e-commerce, bigger than social media, bigger than client-server and mainframe. You can’t avoid it. If you even hesitate any longer to take the first steps, your organization faces an existential threat.

Because there is no turning back the clock. You must go big or go home – transform or be left behind. And right now!

So, how do you do that?

“You aren’t selling products. You’re selling outcomes.”
– Jeff Liu
EY Global Leader, EY-GE Digital Alliance
In a perfect world, you would have started your planning several years ago. If you are reading this, however, you aren’t doing business in a perfect world. Here’s our roadmap for the real world in the Transformative Age.

- **Define a bedrock purpose.** This can’t be flavor-of-the-month. It must be seen as existential. Create a purpose and mission statement for the transformation, since it’s effectively the first major initiative of the new, post-transformation company.

- **Establish commitment and engagement, vertically and horizontally.** Digital disruption is not an IT initiative – it’s more strategic. It must start with your board and C-suite, and it demands their singular focus on vision development and advocacy across the entire enterprise.

- **Decide how you’ll develop strategy.** Outside help or grow your own? Your strategy must be agile and open to evolving – encompassing everything from prospective partners to alternative organization structures. If you bring in new in-house resources, make sure they tailor the strategy to you rather than repurpose the big triumph from their previous place.

- **Envision your business several years out.** Then work backward from the future. Create a progression of initiatives that increase in disruptiveness over time, which allows you to leverage early wins, evolving business-readiness and structural changes.

- **Identify your blind spots.** Operational issues are much more profound than most companies realize: one EY client had six different business units (BUs) approaching the same customers, selling related products. Black swans are not rare birds. A program may be tabled because a fundamental part is prohibitively expensive – but what if an R&D breakthrough leads to a sudden 90% reduction in price? You need the foresight and agility to launch quickly.

- **Define your portfolio.** And the framework for pursuing it. How will you fund the transformation? How will you project-manage it? Then design an organizational model specifically for the intended solution – what talent do you need? How do HR, supply chain, R&D and the sales organization need to change to align with the new purpose and portfolio?

- **Create a concrete action plan.** It must be comprehensive, involving all functions and operations. It must define your metrics, which will undoubtedly involve entirely new data points, from outcome levels that trigger pricing increases, to desired sales-organization behaviors linked to new incentives. This is absolutely essential for migrating through the disruption without second-thinking the initiative.

- **Find a workable starting point.** It needs to align with both an immediate need and the desired end state – without massive disruption. For instance, find areas of the supply chain that can be addressed in isolation but will be part of the targeted end state of a fully integrated, digitized supply chain. Or consider digitizing warehousing operations, which can deliver quick wins with cost reductions and customer responsiveness, thus enhancing customer relationships.

“Technology developments are so powerful, disruptive and fast-emerging that your strategy must be agile, innovative and open to evolving.”

– Aleksander Poniewierski

Partner, EY Global IoT Leader
Create the group that will drive it. You need an engine, but it is unlike any engine your organization has ever had. It's totally dedicated to realizing the post-transformation organization. It has multidisciplinary talent to jump-start innovative ideation. It's likely an "advanced technology" group, but it isn't part of IT. The group has its own CEO. It also has someone in the new role of chief digital officer. It is the seedbed of your post-transformation culture: embraces the wave of the future that's sweeping toward you ... isn't afraid to cannibalize a product or product line to deliver a better outcome for the customer ... gets to beta quickly, with fast-tracking ability to identify opportunity and create solutions to pilot. Most important, this group also focuses on how to scale ideas to deliver enterprise-wide change and results.

There are, of course, other constituent parts of the roadmap. In the process of launching your digital transformation, you will find yourself consolidating pre-existing pockets of innovation. You will make acquisitions to fill gaps identified by your transformation strategy. And there is a litany of cautionary tales from companies that got off track. For example, an EY client launched a line of sensor-enabled products with predictive maintenance, but its success was constrained by a lack of alignment across the company: the product group was innovating, but the maintenance group was not, which undercut the predictive-maintenance promise.

But keep in mind that, while full implementation and adoption is a quite possible outcome, it's not the objective. Increases in growth – that is your objective. What's more, your innovation group may prototype something that reveals a new opportunity or pricing model – which is how you might end up driving the change in circumstances that everyone else must chase.

You want to avoid:

- Starting several digital projects across the company just to show that you’re digital.
- Piloting something that won’t be a part of your optimal full solution if it succeeds.
- Filling the chief digital officer (CDO) position with someone with a chief information officer (CIO) background: while the duties of the two roles might overlap, a CIO’s primary context is leveraging existing investments, while the CDO will tend to focus on entirely new investment.
- Allowing BUs to do their own smaller digital initiatives: it may look like they’re buying into the corporate vision, but can be counterproductive to forming that single, enterprise-wide strategy.
- Assuming you will take a traditional strategy-development approach: if it takes several months, a new development in the marketplace or techno-landscape could make the strategy obsolete; start with short-term strategies that can deliver quick-win outcomes.

The battle for talent

Acquiring talent isn’t what you think it is. You will need to use different channels, alter your pitch and probably learn a new lexicon. Here’s what’s different:

- You’re looking for entirely new categories of talent, from emerging technologies you’ve never considered relevant to data analytics.
- You’re pitching new generations of talent, who learn differently and experience digital differently.
- It’s not just about hiring great résumés: you want your new innovation culture embodied by the new talent so they can be internal change agents.
- You must buy these skills and attitudes for the executive positions, then set up a process to train your young talent in-house.
- You need to reposition your organization to make it appealing to digital stars.
- You must protect your new talent with top-down support and roles throughout the organization; otherwise, your pre-existing culture will prevail.
Simply put, re-envisioning your business is not about how to improve it. It’s about invention and “capital I” innovation and creating a future-ready business. To that end, you need to ask yourself some fundamental questions, starting with:

- What am I really selling?
- How is the marketplace changing?
- How does my business model need to change?
- How is the role of technology evolving?

**What are you really selling?**

Industrial products used to be ruled by a “sell what we make” mentality. In the Transformative Age, that’s changing to “make what will sell” – and what will sell is moving away from simple products. In short, the future-ready industrial company is selling outcomes, not products.

In fact, in a digital world, you may sell less product because you’re delivering heightened productivity to your customers as a service. Importantly, as more of your competitors lead the way into this new “outcomes-driven” marketplace, customer outcomes are not only what will sell, they’re what your customers will come to expect – and if you can’t deliver, they’ll go somewhere else.

For that matter, the sophisticated data analytics that will support your decision-making might become a revenue stream of its own as the value of your data evolves in the eyes of the marketplace. For instance, EY helped one agriculture-sector client refine its data analytics to deliver analysis so insightful, it could sell its data analysis to farmers to help them increase yields.

**How is the marketplace changing?**

Markets are evolving much faster than before. You need to anticipate and make plans for what isn’t there yet. What’s more, you need to prepare for how the world will change, not just your business or sector.

How is the world changing? Digitally driven engagement with your customer transforms that relationship. When your analytics enables you to give your customers what they didn’t even realize they wanted, you provide both new levels and new areas of value.

For instance, in the face of the Smart Buildings/Smart Cities movement, EY helped a building-controls client put an advanced-technology group under its pre-existing product group, driving major innovation in product development and giving it the agility to take on its new competitors – because everyone’s competition is changing. You’re not just up against traditional industrial-sector competitors but competing with the technology-first companies who will reinvent your sector – if you don’t do it first.

**How does your business model need to change?**

Your business used to be B2B: business-to-business. Now, it’s B2B2C, bringing the customer into the mix, which creates entirely different ways of looking at and serving the end customer. Which, in turn, affects everything from product development strategy to sales organization incentive structure. Your business model now needs to integrate customer input into R&D. It needs to create new avenues for communicating with and supporting the customer. It needs to reinvent the selling process.

B2B2C also affects how you make money, requiring a new set of metrics and a different view of business success. For instance, heavily discounted product sales with heavily marked-up service contracts may be your model now. But there is more opportunity for growth when you adopt outcomes pricing based on your customers’ increased yield and production numbers or reduced downtime from preventable breakdowns.

These are big bets, with big risks: selling predictive maintenance in a product reduces revenues from aftermarket servicing and extends duration of ownership before replacement. This is why one of the new metrics you must create is the measure of return on investment (ROI) on customer engagement. You also must gauge how long and deep a revenue dip you – and Wall Street – can tolerate before fully reaping the financial benefits in customer acquisition, cost reduction and higher margins.
How is the role of technology evolving?

When you re-envision your business, the tools for conducting your business get re-envisioned as well. The Industrial Internet of Things (IIoT) was initially about generating increased productivity, operational efficiency and accuracy, and energy conservation through connectivity. Now it’s about generating information, driving improved customer outcomes, enhancing customer responsiveness, and producing higher levels of product performance and new revenue streams.

Consider some of the new opportunities for growth. There is downstream revenue from add-on and subscription services. Entirely new businesses, like software engineering and licensable services, can make you a player in other businesses’ new ecosystems.

Most promising is that the growing import of technology as a strategic enabler has its own ripple effect, influencing decisions in unexpected areas for an industrial company. For instance, you may take a different perspective on M&A: industry consolidation is no longer the primary consideration — technology leadership is.

One of the greatest challenges for the pre-transformation company is letting what you don’t know blind you to the possibilities. It’s incumbent on executives at every level to invest in their own education by experiencing what’s possible. It’s why we recently introduced our EY wavespace™ global network of growth and innovation centers: to help clients achieve radical breakthroughs through disruptive growth strategies and technologies.

Ultimately, the primary shift in perspective is that it’s not about “being digital” but “living in a digital world.” You chased “continuous improvement” for 30 years, and “being digital” was an engine of those improvements — but “living in the digital world” demands “continuous innovation” and the disruptive thinking that drives the outsized change required to stay at the top of your industry. You have to think about innovation from the outside in — start with the customer, not your product — and work from the future backward.

Digital transformation cannot be a project. Instead, it must be a process — of continuously searching for new opportunities to disrupt. One of the mistakes to avoid, however, is being afraid to make mistakes. In fact, bringing a “fail fast” perspective to digital transformation is almost mandatory.

A changing perspective on customer relationship

One EY client was considering the opportunities in precision agriculture, an IIoT application involving in-ground sensors to measure soil moisture, and software to adjust for contours in the land. But the client was concerned that customers might learn that, in some circumstances, they could get the same yield from less-expensive seed.

We helped the client establish different customer-facing systems and a customer relationship management (CRM) program to build customer trust in its recommendations. We also aided the client in implementing outcome-based pricing based on yield rather than product volume sold, which further developed customer trust by sharing the risk. This led to broad-based change throughout the organization, preparing it for continued innovation.

A changing perspective on sales-organization incentives

An EY technology client was transitioning from product-based company to digitally enabled service-driven company, which required totally revising its compensation/incentive model. We co-developed a staged process with evolving hybrid models to bring the sales organization through the transition. For instance, service sales incentives were initially 10× the product sales incentives. Then, as the sales profiles evolved toward an emphasis on services, the service sales incentives were reduced to 5×, then 3×, and finally 1×. Thus, the new incentive strategy was successful in influencing behavioral change as well as sales volume.

“The way to think about innovation is from the outside in — start with the customer, not your product — and work from the future backward.”

— Michael Kanazawa
EY Americas Innovation Leader
There used to be a preliminary question when it came to digital transformation: build or buy? Do you ramp up R&D to create a proprietary solution, or do you install something off-the-shelf? This was a critical strategic question for industrial companies, particularly when it came to software applications, which were unlikely to be a core competency.

But it isn’t even up for debate anymore. At this point, you need to partner — there isn’t time to grow your own, particularly when you may need to invest in ecosystems-development and infrastructure for one to two years before the actual digital initiative can be launched.

How we think about ecosystems has undergone its own transformation. Ecosystems used to be a tactical consideration focused on supply chain and driven by goals of reducing costs and increasing speed to market. Now they are early-lifecycle strategic decisions, encompassing demand chain, and focused on how you can add value for your customers. That’s why the conversation has evolved from speed and cost benefits to what business traits you want your ecosystem to enable: agility, innovation acceleration, global footprint.

For that matter, an ecosystem can evolve into a new business, in and of itself. For instance, if you build electric-car batteries, are you going to leave the charging ecosystem to another battery maker? What happens if that battery maker changes its technology such that its charging system 2.0 no longer works with your batteries? Maybe you should invest in standing up an electric-car battery-charging network.

Here are two critical ways in which digital transformation is altering our relationship with ecosystems:

1. **Ecosystems are now elastic.** The nature of the contractual relationship is evolving. You may want to partner with someone just during the prototyping stage to get you through proof of concept — particularly if it’s to be a part of a bigger solution, with other partners taking over that function as you move toward beta and go-to-market. Or you may do a very small pilot as a learning exercise, needing just a short-term partnership to get through the pilot.

   For that matter, other members of your ecosystem may only want a short-term relationship with you to pilot something of their own. The Silicon Valley concepts of “frenemy” and “co-opetition” are migrating out of the tech industry into other sectors as companies find that they are collaborating with competitors in some arenas while competing with them in others.

2. **Your ecosystem will change you.** You may initiate the changes, but you’ll be on the receiving end as well. The ecosystems of digital transformation will:

   - **Change the way you operate** — because your objective is not about operating more efficiently, but in entirely different ways that defy competition. Imagine, for instance, your supply chain being configurable, so it can be customized by product — or even by customer.

   - **Change the way you are organized** — because you can’t leave your organization behind: you need to define a very succinct, standardized and transformation-enabling framework that your entire organization can align with. This is why digital transformation, by definition, is also a major change-management initiative: you will undoubtedly have entrenched-culture issues — particularly if you’re organized vertically. Digital transformation is like the ultimate shared-services initiative because it must be enterprise-wide, no matter how autonomous your BUs are used to operating.

   - **Change the way long-standing functions are carried out** — like with your sales organization, for instance. It’s more than just changing compensation and incentives — you need entirely new people with new skill sets because you are not only changing what you’re selling, but how you are selling it. You’ll need a chief sales officer, based primarily in corporate, who can define and communicate the big-picture perspective across all the BUs. You’ll need new sales teams, defined by deep customer-sector knowledge and featuring new capabilities like logistics, software engineering and customer support — with new roles, like sales engineers.

   - **Change the way you handle intellectual property (IP)** — because you will need to make strategic decisions on what to protect and what to put out as open source. This is another area requiring new metrics, since calculating the value of IP will vary with whether it’s held or shared. You’ll also need to weigh the value of the ecosystem against the value of the IP. Some digital transformations fail because the ecosystem fell apart after one of the players wouldn’t share critical IP.
• **Change your relationship with your customer** – and how you even think about your customer. Optimizing customer outcomes, on every level, requires new capabilities like customer-experience mapping and human-centered design. You need to understand what drives value from your customers’ perspective – and are they even the same customers as before? And you have to anticipate the potential fluctuations. For instance, creating more value for your customers drives greater “share of wallet” – but what happens to your business model if customers expect experience-related options for free? Or expect you to be as quick to change as they are? This is why we are seeing a paradigm shift in some of the most progressive industrial companies: from selling to customers to co-creating with customers. They are generating hybrid “mass-customizable” solutions that are a mix of standard and tailored components.

• **Change your relationship with your internal customers** – by bringing them along through the cultural change. EY works with clients to help them create “digital fluency” throughout their organization, so everyone understands what’s at stake and can contribute to reaching the company’s goals.

The solution you decide to provide to your customers defines the ecosystem you need to create. Ultimately, you must decide on what your role is in that ecosystem, because all your possible partners are looking for ways to expand the boundaries of their own businesses, which can lead to pecking-order issues within the ecosystem. But even the creation of your ecosystems can benefit from an outsider’s perspective with deep industry knowledge like EY’s. You will want our light-speed agility and innovation.

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**Redefining ecosystems – and purpose – in the Transformative Age**

It used to be, for an EY elevator-OEM client, that it simply made elevators to the building developer’s specifications. But now, in an era of smart buildings, with integrated systems and controls, our client was no longer building elevators. It was creating “people flow” solutions.

This required, first, defining its value network. This in turn informed the creation of a new type of ecosystem with other organizations involved in the secure, efficient movement of people within the building, as well as leveraging the building’s IIoT. Now, our client was working with user-experience resources, cloud- and internet service providers and building-data analytics from multiple sources – and it was creating a new market for new services with those very collaborators in its new ecosystem.

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**Reinventing distribution dynamics in the Transformative Age ecosystem**

It used to be that distributor inventory was based on historical sales numbers. Sales goals were set for raising the year-over-year bar. But data have changed all that.

For a major techno-industrial client, EY designed a a comprehensive data-driven approach that produced competitive-edge insights based on future trends, market behavior, profitability factors and customer lifecycle, to name but a few.

With a single source of truth for distributor management, the client was able to drive personalized strategies and new, data-driven conversations between sales managers and distributors, elevate the role of the distributor in the selling process – and ultimately provide new arenas of loyalty-building value for the end customer.

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“Your success depends on how quickly you migrate to dynamic, flexible and customer-centric operating models. There’s no middle ground.”

*Leonard Frey*

*EY Americas Growth Leader, Industrial Products*
Your digital transformation
The road ahead

Many industrial companies are masters at ignoring the writing on the wall. They have well-reasoned arguments for delaying the big bet on digital transformation. Very well-reasoned. But they are the rationales of old, sclerotic companies that are incapable of competing in the Transformative Age.

Digital transformation is not simply a sound strategic decision, with results that will ultimately warrant the investment and disruption. It is a lifeline to the future that’s to be embraced with passion and unfettered commitment. Its ripple effect will cascade through your organization, providing “the rising tide that lifts all boats.”

But you can’t simply “buy” a digital transformation. There is no off-the-shelf, transformation-in-a-box kit. And it’s definitely not painless: there’s a reason we call this moment in time the era of digital disruption. But even when the stars are in alignment, everyone is on board, you have expert guidance, and you are implementing a digital transformation that is perfectly customized to both your immediate and visionary needs … the available technology may evolve in mid-transformation … or your depiction of new business models and markets and an innovative culture may not be sufficiently visionary to support the scale of intended transformation … or any of a hundred other obstacles may rise up and “disrupt” the progress of your transformation.

That is when your passion … and commitment … and full-throated support of the transformation is most critical. That is when your vision of continuous innovation and uncommonly competitive advantages is so vital.

Because digital transformation will be a struggle. Even when all the pieces are in place and you head up a new industrial company that you barely recognize, the pursuit of the new, the emergent, the unprecedented will continually challenge you to stay the course.

But your company’s very survival may depend on the strength of your commitment to the transformation. Be bold. Forge ahead.

“Digital transformation changes the fundamental question from ‘how do we do it better?’ to ‘how do we do it differently?’”

— Lisa Caldwell
EY Americas Sector Leader, Industrial Products
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### About EY

EY is a global leader in assurance, tax, transaction and advisory services. The insights and quality services we deliver help build trust and confidence in the capital markets and in economies the world over. We develop outstanding leaders who team to deliver on our promises to all of our stakeholders. In so doing, we play a critical role in building a better working world for our people, for our clients and for our communities.

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