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Grow through every
season with evergreen
operations

**Nurturing continuous value through a
new approach to managing AI and data**

August 2022



Introduction

Take a walk with us through a thriving, evergreen enterprise. Here you find veins of efficiency pulsing with energy and sustaining connections across people, processes and technologies. You find an ecosystem of supporting platforms and vendors, all fed by shared resources and striving toward common goals. You find constant evolution as sprouts of innovation take root and expand the edges of what's possible. And you find growth everywhere you look.

In an evergreen enterprise, all of this happens naturally, organically, *automatically*. It does so because the business and its ecosystem are fed by a liquid asset that flows everywhere and energizes everything: data. By designing systems and processes that constantly source and refresh new data and channel it to drive up-to-the-minute insights and actions, evergreen companies are able to flourish through every season, weather storms and foresee what's on the horizon. The DNA of these companies intertwines the best of people working with machines to make smarter, faster moves based on human knowledge *with* artificial intelligence, machine learning *with* creative inspiration, automation *with* intuition.

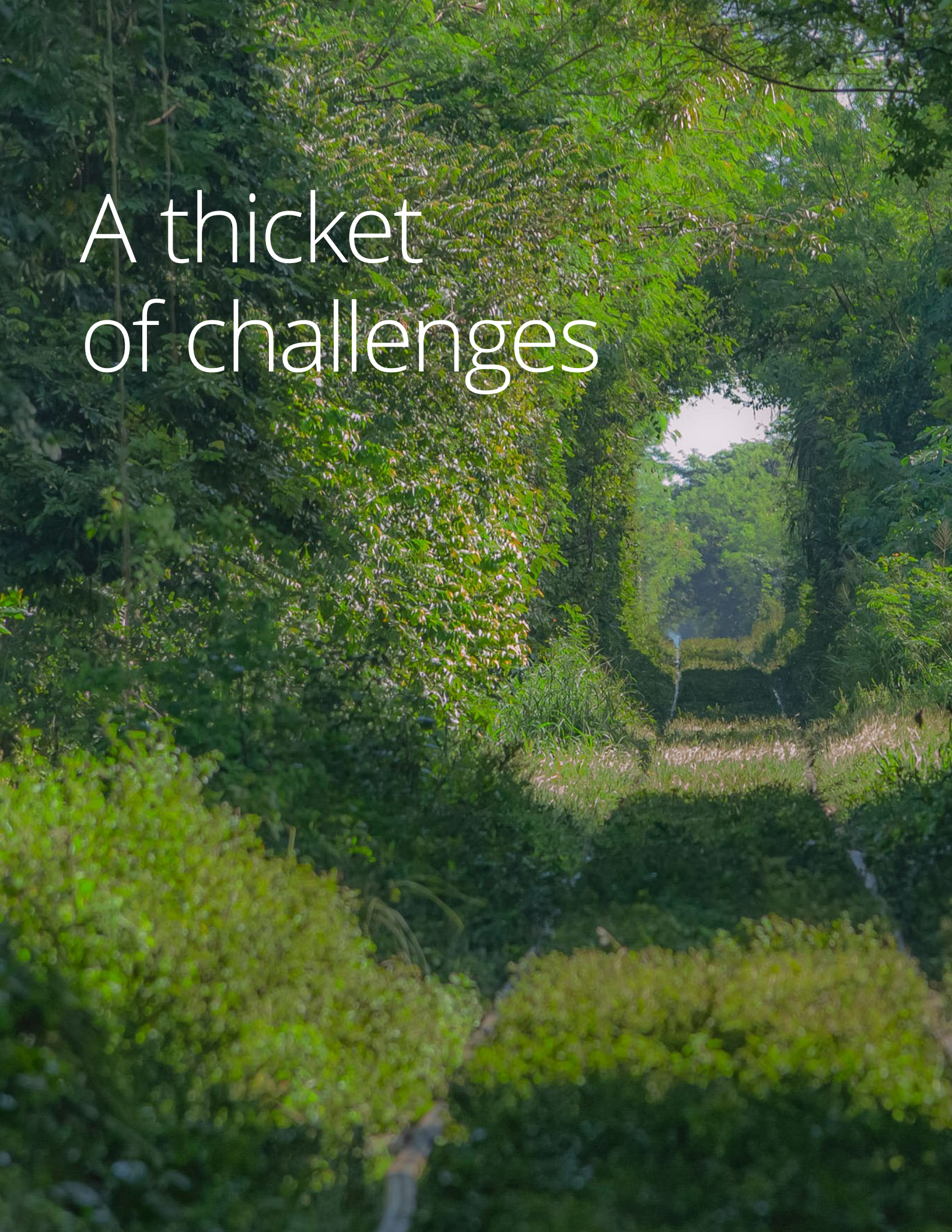
Every business leader aspires to cultivate an evergreen enterprise. Many are planting the seeds here and there—for example, by undertaking a customer data modernization project or launching an AI innovation lab focused on finance operations.

Those are important moves. But too often, many fail to harvest measurable business value due to legacy ways of working and measuring progress, siloed technologies and teams, a stagnant ecosystem of partnerships or other issues.

In this paper we dig into the common challenges that businesses face on the path to sustainable, value-driving AI and data operations; and map out an evolved—*and ever evolving*—ecosystem model for the evergreen enterprise.



A thicket
of challenges



Your ability to generate sustainable growth depends on mastering the interplay between people, data, automation and AI. This is a core operational challenge for many companies going forward—and also the most important opportunity across industries. Those that succeed will be positioned to not just drive business growth but set the trajectory of markets. Trouble is, if you plant the wrong seeds in the wrong places—or if you fail to carefully cultivate what you’ve planted—you may wind up stuck in a thicket.

Established companies face common struggles as they move along the path toward evergreen operations.

The ground—and the destination—keep shifting

Anyone can see that banking today is a totally different business than it was a generation ago. Digital disruptors now allow consumers to finance items as inexpensive as a pair of shoes at the tap of a screen. Others enable street vendors and other pop-up businesses to accept credit cards. Peer-to-peer payment platforms have changed the way that people manage and share their money. Some large banks don’t even have branches now. Traditional banks, meantime, are racing to keep up.

This is just one industry-specific example of the quickening pace of change. It’s happening across industries—from health care to fashion, across both B2C and B2B businesses. Abundant venture funding has fueled unprecedented disruption. New technologies are making it possible (though not always simple) to replace time-consuming processes with plug-and-play solutions across communications, transactions, service delivery and more.

And oftentimes, by the time you come out with your Next Big Thing ... the market (or

your competition) has already moved. The COVID-19 pandemic is the most obvious example of a market-changing event. Maybe those new in-store kiosks your brand spent months designing and producing suddenly didn’t seem so relevant to consumer needs. Or perhaps you were forced to completely revamp your selling process and toolkit when sales meetings and conventions went online. (We at Deloitte certainly had to.)

Hopefully such seismic upheaval in markets won’t happen again soon. But the reality is that minor quakes happen all the time—and many companies struggle to move with them. Throw in a merger or acquisition and the tangle of tech and data challenges can suddenly seem impenetrably dense.

A talent shortage stunts innovation—with no end in sight

Across industries and geographies, companies large and small are racing to build and expand data science teams in order to seize the potential of AI, automation and machine learning. The result? A massive shortage of skilled specialists. A 2020

study of leading employment websites and recruitment firms found there were three times as many job postings as there were job searches for data science positions.¹

The tight supply isn’t expected to loosen anytime soon. The same study forecast that by 2030, the global data science talent shortage would total 85 million positions unfilled.² Of those workers who are available, many are being snatched up by leading tech firms, which have long been at the forefront of attracting professionals with advanced analytical skills.³

This leaves companies in other industries facing a vexing challenge: They know they need to build out their AI, analytics and automation capabilities. Yet the investment needed to staff and sustain internal teams is significant—if not downright untenable.

Innovation and efficiency are hobbled as a result. External vendors hired under defined service level agreements often have little flexibility and even less incentive within their contracts to do more than help “keep the lights on.” Companies that do manage to build their own data science teams often find that they can’t keep employees fully utilized due to delays in sourcing and cleaning data, poorly scoped use cases and other issues. Those workers sometimes wind up diverted to tasks such as data hygiene rather than focusing on more strategic and challenging work, and eventually leave for greater challenges and better career-building opportunities elsewhere. The upshot? Important projects go unfinished or fail to achieve adoption at scale.



Old ways of working don't support new ways of growing

Once upon a time, established companies enjoyed myriad built-in advantages. They had dispersed stores and offices to serve their markets. They had the processes, relationships and equipment to keep their factories buzzing and supply chains humming. And they had the resources and scale to out-advertise, outprice, outpace and outlast smaller competitors.

Today, many of those same qualities are dragging down incumbents as they seek to keep up with digital upstarts. Established processes and ways of working—from how products are developed to how marketing campaigns are deployed—suddenly seem crippling slow in the face of agile competitors. Organizational silos create unnecessary barriers to insight-sharing and

collaboration. Custom-coded software takes forever to update and, in most cases, can't integrate with new, application programming interface-based microservices. And no number of regional warehouses and local stores can serve as many customers as one high-quality direct-to-consumer e-commerce website.

Nowhere are these challenges more evident than in the very capabilities that businesses need to develop in order to become evergreen.

Different organizations or departments within the same enterprise often have their own robotic process automation teams, which are separate from data analytics teams and artificial intelligence teams. Complex initiatives requiring a blend of those capabilities are extremely difficult to launch due to siloed teams, technologies, data and processes.

The pace of change can make it seem as if everything needs to be modernized at once. But given the interconnected requirements for data, AI and automation, many don't know where to start. The market is cluttered with systems integrators, hyperscalers, AI startups, boutique consultancies and compute vendors—all more than willing to offer help. But it's no easy feat to select and integrate the right platforms, applications and offerings into a connected ecosystem that actually drives value for *your* business, employees, customers and partners. Moreover, the internal changes in skills, team composition and processes that are required in order to drive adoption are sometimes difficult to plan and manage.



Operating principles of the evergreen enterprise



Being evergreen is about *adapting perpetually* and *growing sustainably*. In today's business world, that means nurturing dynamic, ever evolving digital operations that leverage the best of humans with machines to drive business value. It means looking beyond your legacy business and competitors and imagining how AI and automation can fundamentally transform what you do and how you do it—recognizing that the most disruptive potential of these advanced capabilities is likely still in the future for your industry. Your success is tied to five key principles.

Evergreen principles

1. Continuously cultivate data as an investible asset.
2. Automate with intelligence by putting AI in the hands of your people.
3. Embed continuous improvements.
4. Connect to innovate.
5. Scale and accelerate on demand.

1 Continuously cultivate data as an investible asset.

The data you have about customers, your business and your markets is the most critical resource and asset for understanding and remaining in sync with changes happening both within and around your company. But data is only as useful as it is accurate. In a time of rapid and accelerating change, having up-to-the-minute data is critical to accuracy. So too is having data that is clean, integrated, accessible and ready for both existing and emerging use cases.

That's why your enterprise should invest in active, ongoing management of data. It's not just about putting your existing data in the right place. It's also about collecting and activating new streams of data to expand what's possible for your business. And it's about imagining and activating new ways to organize, clean and activate data—continuously. For example, we helped one logistics company not only clean up its data for use, but also nurture better data by adding the ability to collect it directly from

sensors on delivery vehicles—making it more immediate, rich and actionable.

Of course, even the best-organized, freshest data has no intrinsic value. It's what you do with it and learn from it through your AI and machine learning models that produce business value. Turning data into an investible asset means continuously using it as a source of insights about where your business is, where it's going, and what you should do next.





2 Automate with intelligence by putting AI in the hands of your people.

The sheer range and complexity of demands on businesses have never been higher. You need to personalize customer experiences at scale across channels and touch points. You need just-in-time management of complex supply chains, inventories and deliveries. You need adaptable processes and platforms for employee and partner engagement and collaboration. And given the sheer volume of available data—from customers and business systems, from IoT devices and third-party sources—you need the ability to merge and sort unstructured data, identify patterns and self-heal inconsistencies without manual intervention.

It's too much for people alone to design, manage and optimize.

That's why today's enterprise needs AI and automation embedded across the business in ways that expand the capacity and strengths of people to deliver mission-critical outcomes. Some use cases require full autonomy while others will benefit from a combination of human and machine capabilities. Done strategically, this can help employees reimagine their work and world at the personal, department, domain and enterprise levels.

Here especially, ongoing data cultivation is crucial. All the automations in the world can't help if your data is stale, inaccurate, incomplete or unavailable. Yet many organizations treat data modernization as a one-time, "organize it and forget it" project. When that happens, AI and automation projects wither on the vine—and opportunities for new growth along with them.



3 Embed continuous improvements.

The cloud revolution of the past decade has brought agile and so-called DevOps methods into maturity and widespread adoption—not just in IT but across a range of business functions and processes. These methods enable you to connect development and operations into a constant cycle of improvements. It's about *running as you learn to run*—and continuously employing what you learn in the process. As a result, you can keep strategy, design, development and maintenance in

movement to respond to realities as they emerge.

Agility is critical not only in how you develop and fine-tune applications, AI-based automations and machine learning models, but also in how you manage your data itself. New sources of data and changes in the systems around the data are constantly influencing data quality—and if not proactively managed can turn fresh data stale, breaking relationships and more. You

should develop and implement processes that combat data entropy.

Beyond data and technology, the whole business should be managed for change. That means providing incentives and training that help people integrate new technologies and new processes into their work. It also means designing business processes that automatically self-improve by actively monitoring for breakdowns and new opportunities that may arise over time.

4 Connect to innovate.

Enterprises have long been viewed as a combination of front-, middle- and back-office functions. Today, most businesses are leveraging data, AI, machine learning and automation in pockets across these “offices”: Customer service chatbots have one natural language processing implementation; order management systems have another.

An evergreen enterprise is a connected enterprise. That means your NLP capabilities should be tuned to your business and your brand voice, and connected in ways that give everyone who interacts with them a consistently satisfying experience. The same goes for other advanced digital capabilities. Every part of the business benefits—and

the whole becomes stronger—when ever evolving, ever learning AI models are connected across the front, middle and back offices.

Data needs to be connected as well. The goal should be to develop and maintain single sources of truth about your customers and your business—and to find ways to connect across those domains in ways that generate new insights and value.

Moreover, the “office walls” that separate your people, partners and processes should be dissolved and replaced by portals of connection, collaboration and innovation. Employees across the business need the

ability to see and participate in customer value and revenue generation. Traditional management structures and skills-based teams should be reimagined in ways that spawn greater cross-discipline collaboration, creativity and insight-sharing. Partner and supplier relationships should be structured in ways that incent shared success and ongoing improvement.

The best place to start? That will depend on your industry and business realities. This level of enterprisewide interconnectedness takes time and effort. But quick wins can help you build both a case and a culture for deeper connections elsewhere—and ultimately everywhere.

5 Scale and accelerate on demand.

When you see an opportunity for breakthrough differentiation and value through new automations and new ways of utilizing your data, you need resources that can help you get there before the competition. But it is critical to be both strategic and realistic about what you can or should build on your own. After all, windows of opportunity rarely stay open for long.

Today's talent market means that hiring is rarely a solution to scale both rapidly and

exponentially. Moreover, the fleeting and shifting nature of opportunities means that the people and tools you need to build one capability are rarely the same needed for the next.

This is why *as-a-service relationships* have become core to today's digital enterprise. Usage-based, outcome-focused services can help get you where you need to go quickly with the flexibility to expand or contract the relationship based on your needs. They also

enable you to shift focus from building tools and technologies to generating the insights and strategies that matter for creating competitive advantage for your business. By leveraging capabilities that others have invested decades to build, you can seed your future growth.

Let's now look at the characteristics that are essential to help turn those relationships into growth for your business.



Growth as
a service





The tallest trees never stand alone. Their roots enmesh with those of other trees for stability. Birds spread their seeds and nest in their limbs. Ferns grow in their shade and nourish the soil beneath them.

Evergreen businesses thrive in similarly interdependent ways, as part of a dynamic ecosystem designed to evolve and self-sustain. Leaders of such businesses know that in order to stretch toward blue-sky opportunities they can't waste resources reinventing what others can provide. They also recognize that their success depends on the success of their partners—and vice versa.

Old models of technology development and data management are ill-suited to this purpose. Companies seeking differentiation and competitive advantage often turn to one vendor for strategy and design, another for implementation, and yet another for maintenance and management over time. This approach, which mirrors old

“waterfall”-style software development and deployment methods, typically results in siloed, disconnected solutions that are essentially “set in stone” almost from the get-go, rather than designed for ongoing change. Technology debt is an inescapable (and often fast-accumulating) consequence of this approach.

Becoming evergreen means cultivating a new ecosystem model for as-a-service relationships focused on mutual benefit, innovation and business outcomes. Such partnerships have a few common qualities.



Focus on value

Every leader recognizes that data, AI and automation projects need to produce business value. *When value is the goal, it should also be the measuring stick.* Leaders of evergreen businesses put this principle into action by centering relationships on the delivery of business outcomes rather than just the reduction of costs.

This means, for example, structuring data management agreements around insights generated per hour rather than just data

uptime or availability. More broadly it means establishing expectations and key performance indicators that drive return on investment, speed to value and core business outcomes—and with a focus on total cost of ownership over simple cost. AI can change you and change your competitive landscape—so it's critical to reimagine desired outcomes and metrics in ways that drive toward a sustainable and thriving future state.

Skin in the game

This approach, by its nature, means that your partners will have skin in the game: They are only rewarded when you are. That should go both ways. By focusing on the goal rather than how you get there, you enable vendors to achieve incremental value for their own businesses through constantly improving processes, efficient resource utilization, the ability to leverage their own existing IP and technology resources, and effective automation. Your vendor partners should share risk in terms of execution, and through both financial incentives and disincentives.





End-to-end capability

The path to value doesn't start at the end—and neither should your partnerships. By choosing vendors that can serve your needs from strategy and design through implementation, change management and ongoing solution operation, you facilitate quick wins and ongoing improvements throughout the life cycle of your data and AI solutions.

For these reasons it's important to select vendors that understand not only the

technical requirements of what you seek to achieve, but also the business, domain and industry realities in which you operate.

Data isn't just data, so it is important that data and AI engineers understand your business environment and the data models that are specific to your industry. Vendors should also have a clear and developed understanding of your processes, governance and regulatory constraints.

Scale and control

Of course, capacity and capability still matter. You need vendors that can deliver the right skills at the right time to drive both rapid and long-term value through efficient and flexible resources. The right vendor will be ready to help you address any talent shortages that you face in your own internal teams while offloading complexity and allowing your people to focus on the most mission-critical work for your organization. You should also

be able to downshift or even sunset vendor dependence as your internal capacity grows.

This kind of expansion and contraction is only possible when ecosystem vendors work shoulder to shoulder with you. Vendors should not operate like distant islands cloaked in fog, separated from your operations and teams. Your relationships should be structured collaboratively and

with the right level of transparency to ensure that you not only achieve desired business outcomes but also understand and own the end result of the work.

The right collaborators will put you in the driver's seat and equip you with the knowledge and tools to take over and run what matters most when the time is right.





Ever ready. Ever smart. Evergreen.

In nature as in business, sustainable growth depends on efficiently using the resources at hand to extend your reach, tap new sources of energy and opportunity, and become stronger and more resilient.

Today, the *nature of business* is changing. Enterprise and customer data is proliferating. Technology is evolving rapidly. The need for agility and on-demand scalability has never been more urgent. As a result, old processes and systems become inefficient or even obsolete more quickly. Old outsourcing agreements fall out of sync with new realities. Meantime, customer and employee expectations—for personalized experiences, for smart solutions, for respectful collection and use of data—continue to mushroom.

The landscape today looks nothing like yesterday—and it will look different tomorrow.

Flourishing amid this complexity depends on your ability to turn the torrent of data that flows into and within your business into an ever available, ever fresh, ever ready wellspring for insights, collaboration and activation. It depends on channeling that data into ever smart, ever evolving AI and autonomous processes that expand and extend what your people are able to accomplish. And it depends on cultivating not just the strengths and capabilities within your business, but also an integrated ecosystem of support around you.

This is what it takes to drive evergreen value where it matters most: Everywhere.

In order to accelerate your business along the path, here are some questions to ask:

- Are we investing in the right ways to make data ready, fresh and available?
- Do we have the right governance, processes, security and operating model around data?
- Are people across the organization aware of the data we have? Have we broken down the silos that stand in the way of sharing data and insights?
- Is our talent productive? Are they working on the “what-matters-most” needs of the business?
- When was the last time we reviewed our service level agreements? Are those agreements driving clear business outcomes or are we simply “counting tickets”?
- Do we view our vendors as partners? Do our vendors view us as customers or as partners? What mindsets and agreements need to change in order to strengthen those connections?
- How are we assessing and addressing data and technology challenges that arise through mergers, acquisitions and/or divestitures?



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Endnotes

1. Jen DeBois, "The data scientist shortage in 2020," infographic, QuantHub, April 7, 2020, <https://quanthub.com/data-scientist-shortage-2020/>.
2. DeBois, "The data scientist shortage in 2020," QuantHub.
3. Magnimind Academy, "5 reasons to move to Silicon Valley for a data science job," January 14, 2019, <https://medium.com/writers-guild/5-reasons-to-move-to-silicon-valley-for-a-high-paid-data-science-job-84e3026bac3f>.

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