

WHITE PAPER

# Preparing for the Next Wave of Digital Transformation

The background of the page features a close-up of two hands with red nail polish, with the index fingers pointing towards each other. The background is a blurred bokeh of colorful lights in shades of red, blue, and yellow, suggesting a modern, digital environment.

# Table of Contents

- 03** The journey is about much more than technology
- 04** **The IMPETUS:** Pressure and Opportunity From Many Directions
- 05** **The CONSEQUENCES:** Disruption is the New Normal
- 06** **The FOCUS:** A pursuit of Value and Purpose
- 07** **The APPROACH:** Think Like a Software Company
- 08** **Getting STARTED:** Focus on Strategy, Not Technology
- 09** **Keep GOING:** Digital Transformation is a Repeating Cycle
- 10** **The CAPABILITIES:** Partnering For Success
- 11** **The FUTURE:** Society and Digital Transformation
- 12** **Working with HITACHI:** Taking a Holistic Approach to a Holistic Problem

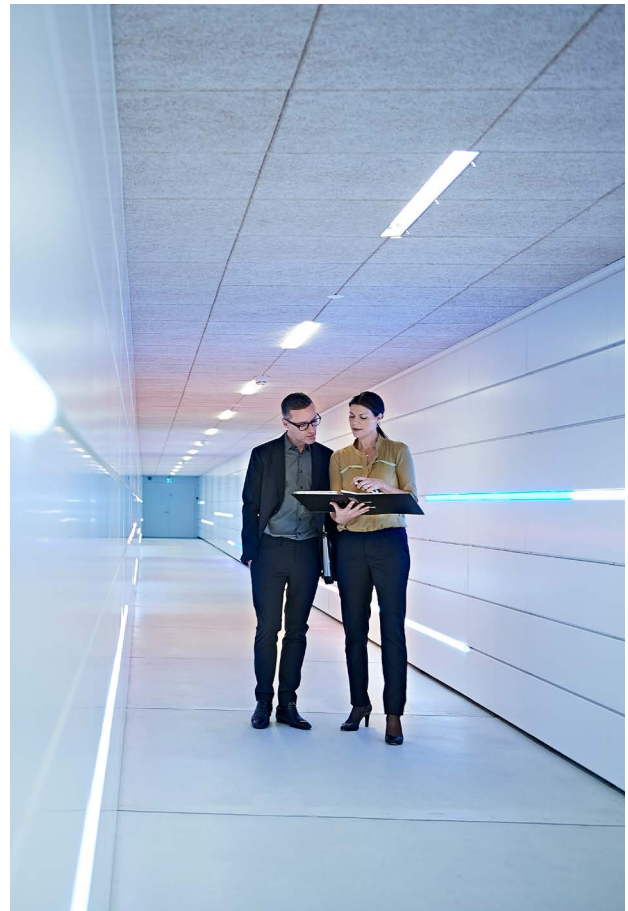
## The journey is about much more than technology

Too often, “digital transformation” (DX) is thought of solely as an IT project that revolves about putting the proper technology in place. In reality, DX is a never-ending journey that seeks to continuously provide innovation, new efficiencies, and better customer experiences. Technology, while a critical aspect of DX, is only one piece of the journey that impacts every aspect of an organization, from its processes to its products and services, from its talent strategy to its culture.

By taking a more expansive view of what DX is, companies can develop a sounder approach to implementing DX. For example, in the past, companies had a clear distinction between IT services and other functions, such as customer relationships and sales. Today, digital processes, workflows, and enablement capabilities are inseparable from core processes. Consequently, digital strategy is intertwined with business strategy, and cannot be viewed as a separate thing. Digital transformation must be a strategy-in view, not a technology-out view, including the culture and ways of working.



**“Our CTO often says it doesn’t matter how good your software engineering is for your product, if it’s the wrong product,” says Arya Barirani, the chief marketing officer at Hitachi group company GlobalLogic, a leader in digital product engineering. “And so getting those first stages right around the customer journeys and design is really important.”**



Because digital transformation inherently touches and impacts so many aspects of an organization, the shift to a digital mindset can be complex and daunting. Having an intense focus on the reasons behind and need for DX can help add clarity. “The goal of digital transformation should not be to implement digital solutions,” says Kei Yamamoto, head of Hitachi Ltd.’s Lumada Center of Excellence, “The goal should be to solve business problems. Digital solutions are the method to do that, but they should not be your focus.”

This report will examine the current state of the digital transformation landscape and explore the steps companies should take to ensure their digital transformation initiatives enable their business strategy. Digital transformation should position a company to address the challenges and opportunities of today, and to uncover opportunities and predict challenges continuously from this point forward.

## The IMPETUS: Pressure and Opportunity From Many Directions

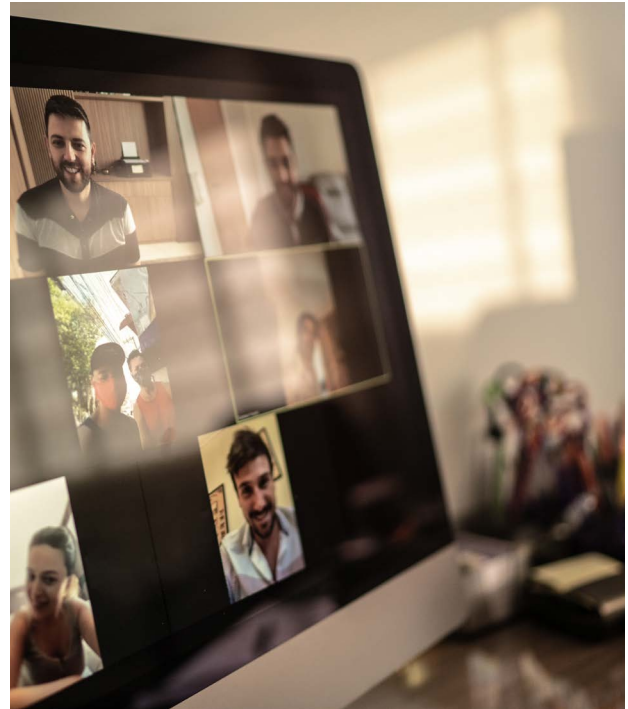
Digital transformation has become an imperative, with the impetus for transformation coming from multiple directions at once. DX reflects how people are interacting with information, with each other, and with the world. Digital business platforms now dominate our personal and professional lives. The ease and convenience provided by business platforms has become an expectation for any type of interaction.

For that reason, customers are demanding improvements that can only be attained through digital technologies. Labor shortages, and new ways of working, are forcing companies to revisit their processes and technology, providing a clarion call for digital transformation. The shift to remote and hybrid workforces have caused companies to give deep thought to exactly what they want their organizational culture to be like in order to meet changing needs and preferences.

Technology is another element in the changing landscape. Investments in IoT, AI, digital twins, and other technologies that propel digital transformation are soaring. This is layered on top of the advancements in compute power, connectivity, and usability (through software) that continue to speed the pace of IT development.

For companies to keep up, “they need to remove the friction that has built up for employees by improving clarity and alignment around goals and by giving them new workflows, data, and intelligence,” says the 2023 Trends in Workforce Productivity & Collaboration report from 451 Research, a global market research firm in New York.

The digital model can improve operational efficiency, allow better and faster decision-making, meet changing customer expectations, and improve product quality. New business platform entries like Amazon, Facebook, and Spotify have set a standard that employees and customers now apply to their work life and business relationships. Companies need to understand that their previous offerings – the products and services that built their reputation – may no longer reflect what customers actually want from them anymore.



**“In the past, many business models were simply based on selling products, but today, a vast number of products are connected digitally, and technologies are evolving on a daily basis,” says Jun Taniguchi, CEO of Hitachi Digital, “Digitalization connects products and makes the user experience more convenient and comfortable.”**

The pandemic spurred a need for more rapid innovation and new, digital-inspired business models. Covid exposed inherent business risks (e.g., a lack of organizational resiliency and agility) and motivated many companies to hit the accelerator on digital transformation efforts. That created a “digital divide” with companies that were surviving, and even thriving, versus those that were falling behind.

According to a 2023 Deloitte analysis of 10 years of financial disclosures from more than 4,000 global organizations, the right combination of digital transformation actions can unlock as much as \$1.25 trillion in additional market capitalization across all Fortune 500 companies. However — the wrong combinations can erode market value, putting more than \$1.5 trillion at risk.

## The CONSEQUENCES: Disruption is the New Normal

Just as the opportunities provided by digital transformation are vast, the consequences of not engaging in digital transformation – or not engaging with it in the most impactful manner – can be dire.

Consider the disruptive power of generative AI, self-learning algorithms that can create code, text, video, and audio content. Open AI amassed 100 million users in less than 60 days. Instagram required more than two years to reach the same mark.

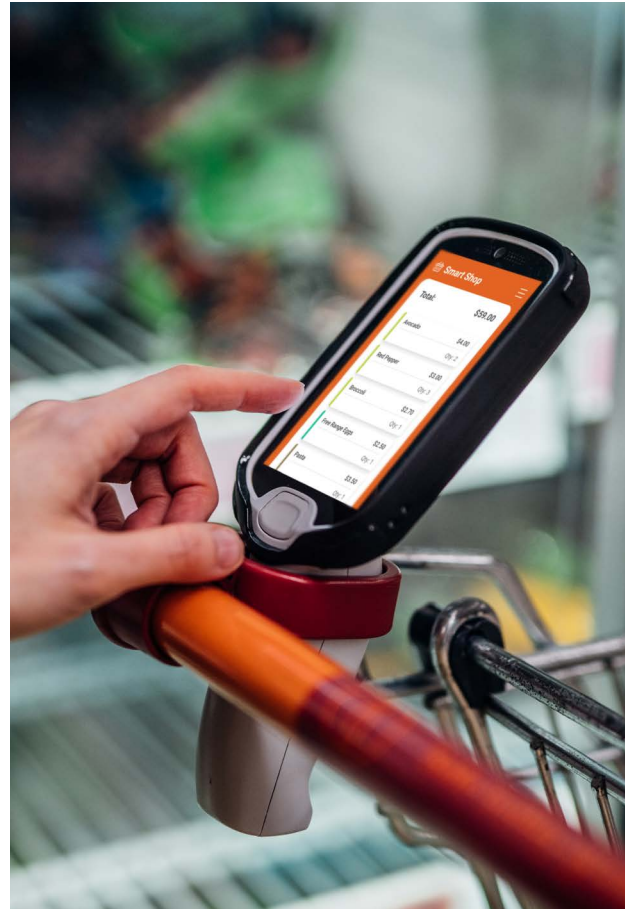
Ironically, ChatGPT disrupted our idea of how fast disruption can arrive. Every company is now looking at how generative AI can improve their offerings and lower their costs, even as they guard against competitors and new entries who are seeking to overtake them. Hitachi has announced creating a center for excellence in generative AI, taking a leading position in this huge “next” area of exploration and development in digital transformation.

Even as disruption takes on greater speed and new aspects, just 44% are prepared for the disruption, according to Deloitte.

**“Many companies have data in their hands, but they don’t know how to utilize the data to improve their business,” Yamamoto says. “They are aware they have the raw information to solve many problems, but they are unclear how to glean insights from that data to the benefit of the business.”**

The inability to fully leverage data to provide better products and services can lead quickly and directly to lost customers, who increasingly insist on state-of-the-art digital experiences. When the pandemic took hold around the world, banks that had lagged in digital transformation found themselves losing customers who suddenly wanted to interact with their banks virtually.

In contrast, consider the effective approach taken by Raiffeisen Bank International AG (RBI), a Hitachi Vantara customer, which operates 13 subsidiary banks in Central and Eastern Europe. One of RBI’s network banks determined that customers were uncomfortable queuing up in supermarkets. The bank created a mobile application that allows customers to scan products and pay for them immediately without lining up. This level of agility and flexibility was only possible because RBI had adopted modern cloud capabilities that provided the foundation for the bank to become a digital leader in its industry.



The RBI experience underscores many of the critical aspects of how to approach DX. While resiliency and mitigating business risk was the key focus of DX in the past, companies now want to enable working at digital speed and adaptability. DX is now a simple add-on to current processes, but requires a new organizational design and integration with the organization’s business goals.

In this manner, DX is a counterpoint and partner to sustainability. Just as generative AI is redefining disruption, sustainability is redefining DX. Digital technologies can play a huge role in enabling the era of “responsibility” towards the planet. Hitachi also has a solid ground to stand on here with our commitment to sustainability and to “contribute to society,” since the original mission statements more than a century ago.

## The FOCUS: A pursuit of Value and Purpose

Digital transformation itself has shifted in the minds of many organizations from a technology exercise to a pursuit of value and purpose. Gartner classifies this evolution in with three terms:

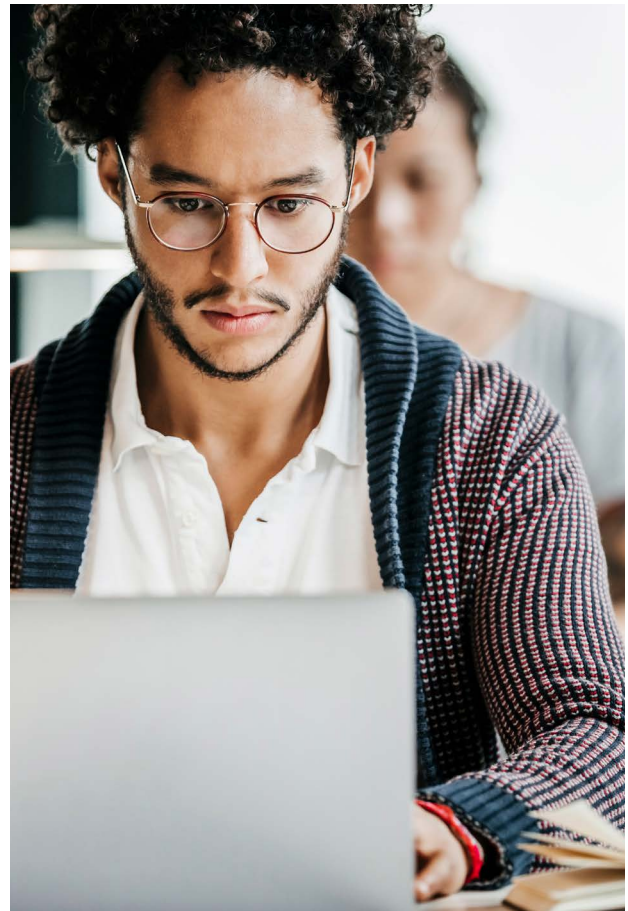
- First, “digitization” is a process of changing from analog to digital form, without any different-in-kind changes to the process itself.
- Second, “digitalization” is the use of digital technologies to change a business model and provide new revenue and value-producing opportunities.
- Third, “digital transformation” is anything from IT modernization (for example, cloud computing), to digital optimization, to the invention of new digital business models and it underpins the strategy.

Digital transformation is not simply about placing a digital layer on top of existing processes and practices. Digital transformation enables companies to provide entirely new services and experiences that were impossible before. They can identify new revenue streams, new ways to drive efficiencies in their internal operations, and new ways to engage with customers.

Consider Pearson Education, the world’s oldest and largest textbook publisher. Several years ago, the London-based company announced it was moving to a “digital first” publishing model that upended a business model that dated back a century. Historically, the publisher’s business model involved contracting a scholar to write a textbook; and encouraging course instructors to use the materials, and produce updated editions, for decades into the future.

In 2019, Pearson began transferring textbooks to digital e-readers. This was a “digitization” step. As the needs of teachers and students changed, Pearson started thinking about digitalization — i.e., how might they use this data to change ingrained ways of doing business. From there, Pearson shifted from thinking of itself as a company that produced and marketed textbooks to a company that provided “learning as a service” — a full transformation of their business model through digital technologies.

That transformation came to life via a new learning platform that provided flexible options for Pearson customers. Teachers were provided with easy-to-use curation tools so they could choose chapters and resources from Pearson’s vast catalogue, and add their own materials, to customize their



class resources. A host of attractive additions were provided, like online homework, tutorials, and assessment programs for students. Pearson fundamentally changed the way it viewed itself and the products it offered by taking a clear view of what customers fundamentally wanted.

If you think of digital transformation as simply digitization, you may gain some benefits and efficiencies. But if you want to disrupt your industry, or keep from being disrupted, you must go through the entire journey of digitization, digitalization and transformation, focusing on what is tremendously important to your customers, and how your products, processes and your fundamental business model can be transformed to serve them.

## The APPROACH: Think Like a Software Company

In the digital age, “thinking like a software company” has been embraced as a mantra by even the oldest and most tradition-bound industries.



Thinking like a software company starts with agility. Software companies measure release cycles in terms of days, weeks or months, while a traditional industrial manufacturer might not have significant changes to their core products for years.

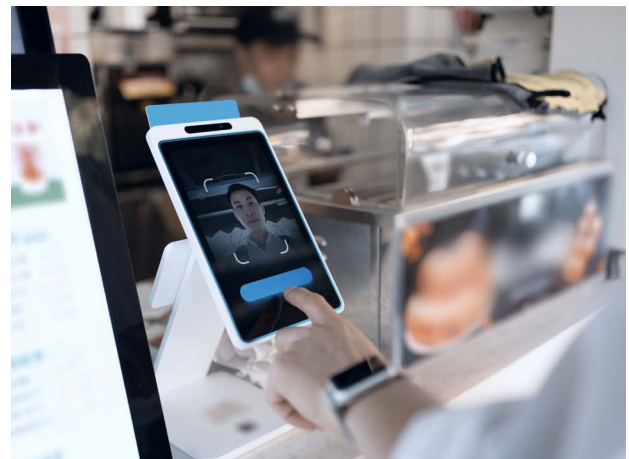
**“Social media companies are releasing features on a daily basis,” Barirani says. “They have 100,000 of their users try a feature, and if it works, they roll the feature out to the rest of their user base. If the feature doesn’t work, the company rolls it back and no one’s the wiser for it. There’s a mastery in being able to do iterative development, release and testing of features.”**

In the age of digital, companies must determine what approach they need to compete and thrive. With this understanding, they can work backwards and determine how their processes and thinking need to change to increase their agility. This will vary from company to company, and industry to industry, depending on their starting point, capabilities, culture, and regulatory guidelines.

This is not simply a technology matter. For example, if a manufacturer wants to shift its product mix to focus on service offerings within five years, it must rethink compensation models to incentivize sales staff to push those capabilities, rather than have them focus on the traditional business.

**“A lot of companies struggle with becoming software companies,” Barirani says. “Sometimes they go so hard into the technology, they forget there’s a user at the end. So user interfaces, service coherency, and things like that are often second in their thinking, when they should be top of mind.”**

Thinking like a software company isn’t a slogan. It is a commitment to embrace proven software development and release processes that technology (and digital native) companies have always understood and used naturally. This put them in an advantageous position when innovation came from software itself. Organizations must realize that that software isn’t simply a capability to bolt onto a company’s existing business. Rather, it requires a fundamental re-examination of every aspect of the business, from the organization’s structure to the business model to the workforce skills and the leadership style and messages that are provided to the workforce and the world.



## Getting STARTED: Focus on Strategy, Not Technology

Digital transformation requires companies to determine their digital maturity, which is an understanding of their digital capabilities, before undertaking digital transformation to avoid execution challenges.

**“There is no one-size-fits-all digital transformation,” says Frank Antonysamy, chief growth officer at Hitachi Digital and former chief digital solutions officer at Hitachi Vantara. “There are some companies that want to do a ‘big bang’ where they go all in from the beginning. With other companies, their combination of organizational culture and technology readiness might cause them to use a different approach.”**

Companies can hone their strategy by looking for examples not only within their industry, but outside it. Hitachi brings a unique perspective from its involvement in many industries, allowing us to assist customers who want to learn from other industries and cross-pollinate ideas that can provide breakthrough innovation.

Focus on use cases to determine the best areas to start and project the ROI from digital transformation projects. Use cases with the greatest expected growth in the next two years vary by industry, according to 451 Research. For example, manufacturing respondents most often cited assembly line creation and optimization. In contrast, transportation respondents chose predictive maintenance and energy respondents selected smart metering as their top use cases for digital transformation.





## Keep GOING: Digital Transformation is a Repeating Cycle

The starting point for digital transformation is tied to digital maturity, but then it becomes an ongoing cycle of evaluating needs and opportunities and designing and implementing solutions to address those needs and opportunities.

Companies must determine how digital underpins and enables the business strategy. Only at that point does the technology come into play. Modernizing your infrastructure, applications, and data together, so you can leverage distributed cloud environments, opens up capabilities in data analytics, machine learning, and the ability to handle larger amounts of data in real-time.

Modernization starts with clearly defined business strategies, objectives, and measures. It's essential to take an inventory of your existing portfolio and assess it for short-term and long-term requirements across various dimensions of risk, cost, performance, and efficiency.

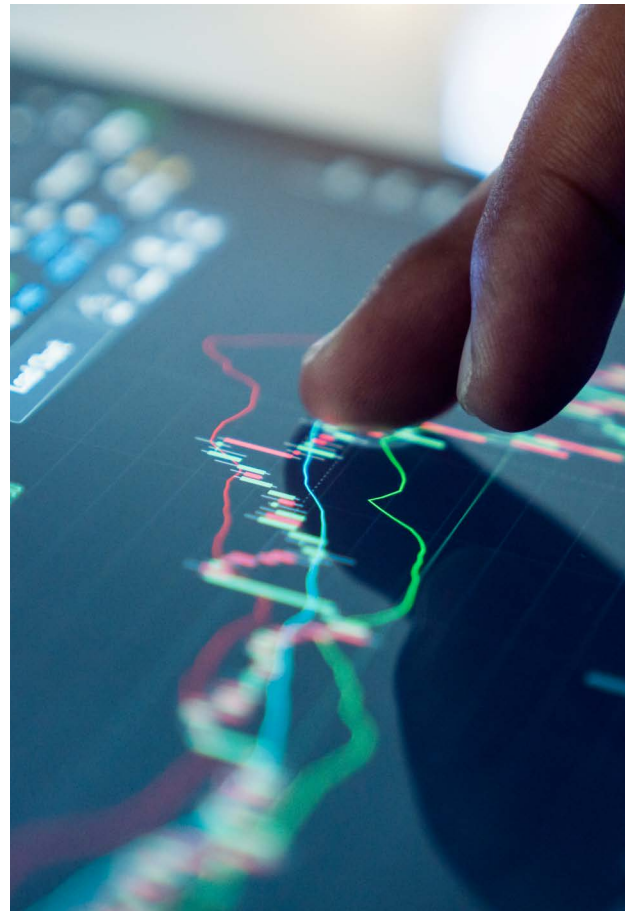
**“The journey starts with an understanding of your endpoint,” Antonyamy says. “You have to know what success looks like, not from a technology standpoint, but from business imperatives.”**

Companies must also identify issues through design thinking (a method of thinking to find valuable solutions from the user's or customer's point of view).

In the past, design has largely been focused on how products look. Design thinking is a systemic method of solving problems from the lens of the customer, giving companies the ability to respond quickly to rapidly changing conditions.

Design thinking is based on the notion of placing the user at the center of the experience and working backwards to the technology — providing products to customers quickly, and then iterating rapidly based on their feedback. Companies that embrace this approach don't worry about perfecting products before they are exposed to customers, understanding that the design process is not a destination but a never-ending journey. Having designers embedded in teams gives them the ability to gather and digest feedback, providing insights that often won't emerge in traditional product development models.

Given that these changes will affect how a business functions on a day-to-day basis, a digital transformation must include change-management approaches to employees and company culture.



**“The world is moving fast,” Antonyamy says. “Successful companies are changing their culture and technology in parallel, so this feels organic rather than something that is being thrust upon people. Leaders are setting the right goals, so the things that get recognized, rewarded, and celebrated within their organization are tied to organizational goals.”**

## The CAPABILITIES: Partnering For Success

The complexity and importance of DX makes selecting the partners in your DX journey a critical determinate of your success. Hitachi's view of an IT service provider extends far beyond technology to the people who are needed to make the best use of that technology. Dealing with talent is not a tangential element of digital transformation, but a fundamental aspect of DX. Hitachi positions itself as a powerful ally in the war for talent.

Across all industries, companies are struggling to find skilled workers in data science, IoT and emerging areas such as robotics. As with most elements of digital transformation, such issues must be addressed in a multi-pronged way. Upskilling and recruiting can be one part of the equation. However, most companies lack the resources to do digital transformation on their own. In selecting a partner for digital transformation, examine their capabilities from two aspects:

- (1) Core Capabilities such as Design, Technology and Data skills: can they envision the future state, design a customer-centric experience and have the skills to actually build it using modern technology and methods. Can they leverage data and algorithms to enhance the service on an ongoing basis?
- (2) Domain Knowledge about your company and your industry: a deep understanding of your industry and business domain is essential to build an effective digital solution.

Look for partners that have both horizontal and vertical expertise. A partner should be able to look five to 10 years into the future and guide you on what the bank of the future or the insurance company of the future will look like.

**“From automotive to finance, every industry has its own rules and languages,” Barirani says. “You need a partner who understands your unique context and speaks your language.”**

A partner who provides both dimensions can be an invaluable aid in collaborative creation, the practice of collaborating with other stakeholders to guide the design process. By understanding how customers and employees use processes, products, or services, companies can spot trends, co-create based on data and feedback, and build governance models that allow you to invest in the right areas.

Applying fundamental research to a real-world problem is the cutting edge of co-creation. For example, working with an American diversified transportation services company,



Hitachi is co-creating a digitally-enabled program to determine whether rental vehicles have suffered damage. A manual inspection might miss issues if the vehicle is covered with dirt or the damage is on hard-to-see areas, like the undercarriage of the vehicle.

Hitachi is contributing the knowledge it has gained from large investments in computer vision to identify defects and anomalies in equipment or products. Hitachi's deep expertise is allowing it to optimize computer vision's ability to perform vehicle inspections accurately on overcast or rainy days or in changing lighting conditions.

**“When you look at different potential partners, there is going to be very little differentiation between the number of AWS and Azure engineers they have,” Antonysamy says. “The differentiation is whether the partner understands your domain and has the agility to create a bespoke solution. Every organization is different, so every solution has to be different. A partner needs to have the willingness and cultural alignment to understand and listen to the customer requirements.”**

Global capabilities can be another critical component in choosing a partner. If a company has operations around the globe, they need a partner who can deploy solutions globally. For example, Penske Corporation is transitioning its vast fleet to electric vehicles. Hitachi is building a prototype network of fast charging depots in California as part of the initial efforts to transition to a fully electrified fleet. The next step is to scale this infrastructure across the entire organization and all business lines.

Deployment of these capabilities and technologies at scale requires the ability to capture value at each of these stages and make the right calibrations and changes that are needed. An equally important aspect is to make sure that your budget owners and other stakeholders see the value from these processes.

## The FUTURE: Society and Digital Transformation

Sustainability has become interwoven with DX. According to the World Economic Forum, the societal and industrial value of digital transformation could reach \$100 trillion by 2025. As digital transformation shifts from a buzzword to a standard business practice, the consequences for laggards will be even more pronounced.

**“We are at a pivotal moment where companies are asking existential questions that impact their internal operations, their business models, their customer engagement, and their revenue generation,”**  
**Antony says.**

According to 451 Research, environmental, social, and governance (ESG) outcomes from digital transformation do not appear to be extensively driven by regulation. Companies are seeking to achieve efficiency and sustainability primarily as a competitive necessity.

Just as customers will judge companies by their sustainability strategies, companies' sustainability strategies will be determined by their digital transformation strategies.

“We’re seeing a lot of conversations now where organizations say they have figured out how to monetize more effectively through digital, and now want to apply these learnings and experiences for the power of good,” Barirani says. “Companies want to use digital transformation to track their carbon footprint, create a higher sustainability quotient for their business or make sure their product or service offerings are more inclusive and don’t have any kind of inherent biases built into them.”

To achieve these goals, companies must make sure they are structured operationally in a way that will enable them to meet the new realities and prioritize investments that will support new business models.



**“The idea of making life convenient and comfortable by destroying the global environment is no longer acceptable to society,”**  
**Taniguchi says. “I believe that Hitachi’s role should be to make people’s lives more comfortable, safe, and secure while conserving the global environment through digitalization.”**

## Working with HITACHI: Taking a Holistic Approach to a Holistic Problem

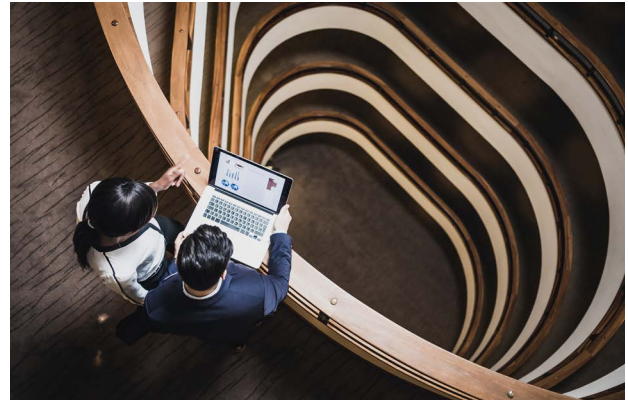
Hitachi brings a holistic approach to digital transformation, both in the capabilities it provides and how it views this emerging practice.

Hitachi is in a unique position to help companies realize their digital aspirations. Hitachi has more than a century of experience as a large industrial company in the physical world. Hitachi operates high-quality production lines in hundreds of factories around the world. The company is also an innovator and key driver of high-speed, environmentally friendly rail transportation. In addition, about 30% of the high voltage transformers in the worldwide electric grid are manufactured and managed by Hitachi. On top of this resume in the physical world, Hitachi also has more than half a century of experience as a leader in the cyber world.

**“Companies need more than having a consultancy which provides ideas that end with a PowerPoint presentation,” Yamamoto says. “When companies engage with us, we can take them from a proof of concept all the way to a full implementation and deployment at scale. We provide an A-to-Z process that ends in full operational deployment.”**

This starts with aligning with a company's strategy, or in some cases helping create that strategy, which will enable your business. Hitachi offers consulting capabilities to engage from the strategy creation through the whole cycle, from ideation to value.

Hitachi is committed to R&D, and continually looking for new solutions to critical world problems that can only be solved with the assistance of digital solutions. “We have the vision, willingness, and the ability to make deep investments in newer capabilities that are required for successful digital transformation,” Antonyamsay says.



Hitachi provides a unique perspective that is ideal for a unique transformational time. Hitachi is fundamentally different than other IT service providers in both philosophy and experience. We prioritize a deep level of partnership focused on co-creation and developing IP with our clients. This distinctiveness is born not just out from the needs of today, but from an approach that has been developed and perfected long before the modern technology to which it is now being applied was ever conceived.

Founded in 1910, Hitachi has been in business for over a century, embracing an ethos that contributing to society is as important as any other business outcome. Hitachi has survived through many transformational cycles, demonstrating agility and the ability to adapt to changing business conditions. Those attributes have been instrumental in Hitachi's ability to guide and assist companies that are now experiencing an unprecedented level of transformation that is occurring at an unprecedented speed.

**“Our focus is to address social issues with our accumulated knowledge and the power of digital technology and green technology,” Taniguchi says. “Working together with our customers, we want to create a safe and secure social infrastructure that enables everyone to lead a sustainable and prosperous life.”**

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