



HOW TO PRIME FOR SUSTAINABLE GROWTH IN THE MANUFACTURING INDUSTRY

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How to PRIME for Sustainable Growth in the Manufacturing Industry

Introduction

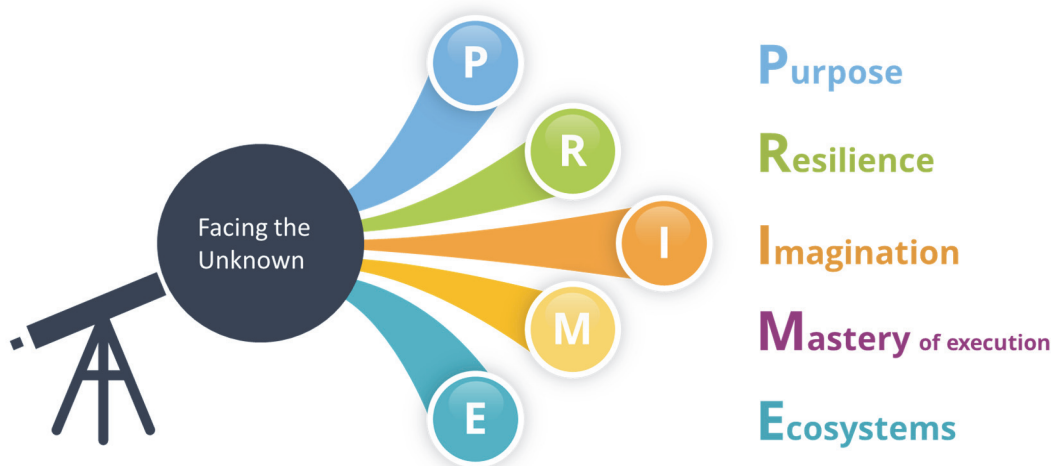
Manufacturing organizations today and in the future will have to operate in a business and market environment that will continue to be volatile, uncertain, and complex, while operating in an increasingly digital economy. At the same time, they will have to embed sustainability targets into their operations to comply with legal regulations and customer requirements (such as reducing CO₂ emissions).

To thrive, manufacturing organization CEOs and C-suites need to find the right formula to balance the need to fix the present and at the same time prepare for the future.

IDC Insights has designed a framework to help companies thrive and to "PRIME" them for profitable outcomes and sustainable long-term business growth.

This PRIME framework comprises five pillars — purpose, resilience, imagination, mastery, and ecosystems — that need to be addressed holistically by defining appropriate business priorities within each pillar.

FIGURE 1
The Five Pillars of PRIME



Source: IDC Insights, 2021

AT A GLANCE

To thrive in a volatile, uncertain, and complex business environment and in an economy that is increasingly digital and sustainable, manufacturers need to holistically transform their organization to ensure long-term shareholder value and profitable outcomes while being a positive force in society.

KEY TAKEAWAYS

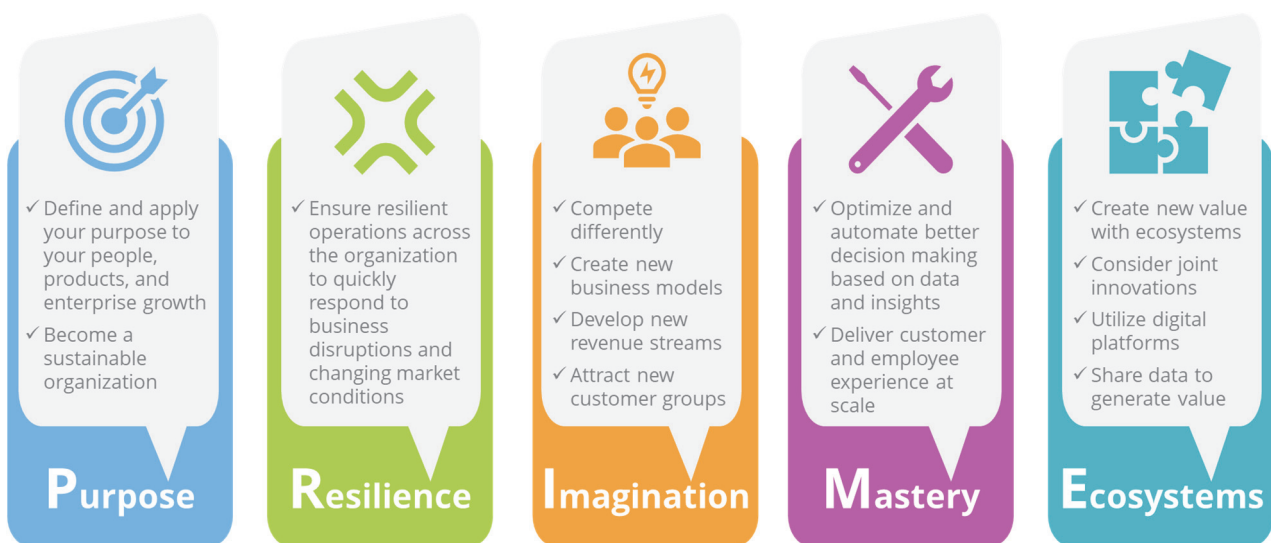
- » A holistic transformation approach should include the five pillars: purpose, resilience, imagination, mastery, and ecosystems (PRIME).
- » When applying this, the five pillars will be interconnected and can significantly impact each other.
- » Digital technologies are major enablers when it comes to executing PRIME, but they are not the only ones: closer integration and collaboration with internal and external stakeholders, as well as cultural changes, will be needed for sustainable growth in manufacturing.

This IDC Industry Spotlight provides actionable recommendations on how manufacturing companies can thrive by applying IDC Insights' PRIME framework. It also describes how Fujitsu's Sustainable Manufacturing approach can help manufacturing organizations to address the priorities and challenges when applying the PRIME framework.

Key Benefits and Priorities When Using PRIME

IDC Insights' PRIME framework enables manufacturers to holistically transform their organizations by addressing the key pillars that ensure long-term shareholder value and profitable outcomes and enable them to be a positive force in society. Figure 2 summarizes some of the key priorities within each pillar of the framework.

FIGURE 2
IDC Insights: Key Priorities in Each of the Five PRIME Pillars



Source: IDC Insights, 2021

The PRIME Pillars: Integrated and Interconnected

While the five pillars cover the areas that organizations should address holistically, they are at the same time interconnected and can have a significant impact on each other.

Purpose

To thrive in the future, manufacturers will have to redefine their purpose and set the right goals for their purpose-driven strategy. This type of strategy goes beyond financial gain and is socially and ethically responsible. With it, companies can build long-lasting connections and effectively engage with all their stakeholders, including customers, employees, investors, and partners.

Manufacturers' purpose-driven strategy should continue to be centered around why and how their products and services contribute to society, at the same time generating long-term value for shareholders. It should also include measurable goals that help manufacturers to not only become or stay commercially successful and achieve profitable outcomes, but also to be a positive force in society.

To apply such a strategy, which also embraces a positive contribution to a sustainable economy, manufacturers' operating models need to be realigned and based on the purpose-driven strategic objectives and targets that create value for the organization. Only then will there be a direct positive impact on the reputation of the organization.

Resilience

The future will continue to be volatile and uncertain. The most successful manufacturing organizations will be those that can anticipate and respond to changing market and customer requirements faster than before. They will need to build a culture that accelerates time to action by bringing together different perspectives on resilience from across the organization.

Manufacturers face a range of problems due to the COVID-19 pandemic. One of the key challenges has been supply chain disruptions, and manufacturers are expected to continue to invest to improve the resilience of their supply chains. This includes measures to increase visibility into suppliers, customers, and other partners, and to implement near-real-time supply chain planning and intelligence solutions.

Imagination

To thrive in an increasingly digital and sustainable economy and at the same time achieve long-term value and growth, manufacturers need to think about how to compete differently. Imagination goes beyond innovation. It's about creating a mindset that looks at "business as unusual" — creating new business models, new products, and services, or looking to a complete reinvention of operations.

For manufacturing organizations this can mean building new business models that go beyond selling physical products and traditional services. Many manufacturing organizations are evaluating how they can move from a product-only business to a services-oriented business. On one hand, this would create new revenue streams and attract new customer groups; on the other hand, it would increase customer value and customer experience, securing global competitiveness and long-term revenue growth.

Mastery of Execution

Mastery of operations using data and digital technologies will be another key pillar to thrive in a future digital and sustainable economy. Manufacturing organizations will have to use not just internal but also external data much better than in the past to improve the quality and timing of decision making. Data from multiple, siloed applications needs to be turned into actionable insights using digital technologies such as cloud, IoT, data analytics, and AI/ML.

Augmenting employees with actionable insights based on relevant data can not only help to improve employee experience but also improve customer experience. Utilizing data and automation technologies can also help to automate decision making. Faster decision making improves competitiveness by speeding up reaction times, enhancing customer satisfaction, and enabling greater product innovation success rates.

Ecosystems

Industry ecosystems will help manufacturers to increase customer value and drive innovation. Manufacturers increasingly realize they can improve customer value by working more closely with partners in their ecosystem, leading to a shift from "egosystems" to ecosystems. Besides improving innovation rates through closer collaboration with partners in the ecosystem or customers (e.g., enabling feedback loops from usage back to design), better alignment of demand and supply will be a key driver of tighter integration with suppliers and customers.

PRIME Challenges

Digital technologies are major enablers for manufacturers' PRIME strategies, but initiatives that focus on using technology only will likely not be completely successful or scalable. It's not just about technologies. Primarily it's about solving business challenges and developing use cases that have a business need, such as improving KPIs that measure efficiency or effectiveness of factory operations or the reduction of energy consumption or waste.

Ensuring enterprisewide rollout and scalability of digital transformation initiatives is often a challenge, and PoCs often get stuck. To scale initiatives, stakeholders need to work together early in the development process to ensure end-user acceptance and adoption. Stakeholders include lines of business (such as R&D, engineering, and supply chain/procurement), IT, and operations technology (OT). To develop and implement scalable solutions, closer cross-domain collaboration and a data-driven culture will be key.

To enable closer collaboration within the ecosystem, manufacturers need to build up trust and address concerns related to security and IP protection. To move from "egosystems" to ecosystems, organizations need to transform culture, which is about embracing ecosystem collaboration as a value add rather than as competition.

Fujitsu's Sustainable Manufacturing Approach

In October 2021 Fujitsu announced a new global business focus — Fujitsu Uvance, which is about helping organizations to connect people, technologies, and ideas, and creating a more sustainable world by leveraging Fujitsu's technological capabilities and business consulting expertise.

"Sustainable Manufacturing" is a key vertical focus area within Uvance. Sustainable Manufacturing is about bringing physical value chains into the future by making them more resilient, sustainable, automated, and digitized, with the ultimate goal of achieving sustainable human lives and a sustainable global environment. Key change drivers such as climate change policy, the VUCA (volatility, uncertainty, complexity, ambiguity) economy, and geopolitical shifts are forcing producers of finished goods, raw materials, and energy to redesign their processes. This impacts all aspects of the value chain, from managing supply, to augmenting human workers with technology, to energy strategy and the creation of new business models driven by data.

Fujitsu's Sustainable Manufacturing approach will focus on:

- **Enterprise visualization:** Enabling manufacturers to make faster, better decisions based on data analytics and utilizing integrated, visual-first datasets by providing infrastructure to visualize and connect operations in and beyond the enterprise. This can be considered a first step and a foundation to executing on specific use cases.
- **Carbon neutrality:** Enabling manufacturers to optimize energy use to decarbonize operations and accurately visualize and report CO₂ emissions, while keeping high levels of productivity in shopfloor operations and through the supply chain.
- **Value chain optimization:** Enabling manufacturers to gain more from the value chain by better balancing supply and demand, moving from linear supply chains to ecosystems and enabling new business models.
- **Resilient supply chain:** Enabling manufacturers to minimize supply chain risks in a VUCA world and improve resilience of supply chains to recover quickly from unpredicted risks.
- **People enablement:** Enabling manufacturers to increase human productivity in manufacturing processes through skill management and digital augmentation of workers.

Fujitsu helps manufacturing organizations to address their key challenges with its technological capabilities and business consulting expertise:

- Technological capabilities are based on being a trusted provider of ICT technologies such as high-performance computing (HPC), artificial intelligence (AI), and connecting the entire supply chain with security and traceability solutions including distributed ledger technologies (DLTs) such as blockchain.
- Business consulting expertise and related industry domain know-how is based on Fujitsu's own DNA as a manufacturing company.

Considering Fujitsu

With its Sustainable Manufacturing approach, Fujitsu can help manufacturing organizations address their priorities and overcome the challenges of operating in the current volatile, uncertain, and complex business environment while also aiming to achieve their sustainability targets. Fujitsu's holistic approach addresses all the pillars in IDC's PRIME framework:

- **Purpose:** Fujitsu addresses this by inspiring sustainable and environmentally friendly lifestyles by building impactful and flexible ecosystems across industries and countries, including circular and traceable manufacturing concepts, to become a sustainable and carbon-neutral manufacturing organization that considers both the environment and people.
- **Imagination and ecosystems:** Fujitsu has proven project experience on how to help manufacturing clients enable new business models by optimizing value chains across the entire ecosystem. Examples are projects with Botanical Water Technologies and the Rice Exchange.
- **Resilience:** Fujitsu addresses this with its capabilities related to data visualization and technologies to ensure traceability in secure and resilient supply chains.

- **Mastery of execution:** As a trusted provider of infrastructure and technologies, Fujitsu can help manufacturers to visualize data and operations in and beyond enterprise borders. Its people-enablement solutions address the need to augment employees with actionable insights to improve quality and speed of decision making.

Fujitsu continues to build global awareness for its solutions in the manufacturing industry. With its business consulting know-how and capabilities, and its industry domain expertise from being a manufacturing company itself, Fujitsu can advise manufacturing organizations on the selection and use of technologies. Based on its broad ecosystem of technology partnerships, it can also help to solve business challenges end to end and support ecosystem-enabled business.

MESSAGE FROM THE SPONSOR

Fujitsu Sustainable Manufacturing

In the world of manufacturing, we see the impact of disasters such as pandemics, political crises, and labor imbalances. We need to adapt to the unpredictable and act flexibly to continuously provide products and services that enhance people's lives.

We aim to inspire sustainable and environmentally friendly lifestyles by building impactful and flexible ecosystems across industries and countries and by creating secure and resilient supply chains and a circular economy to achieve carbon neutrality.

We empower your people by combining our consulting capabilities with advanced technology, building on our strong experience in automation and IT/OT integration.

With over 129,000 employees supporting our customers in 180 countries and more than 80 years of experience as a technology manufacturer, we've learnt this: digital transformation is a journey and that journey is best made one change at a time.

Plan big, but start small and start now: www.fujitsu.com/manufacturing.

About the Analysts

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Stefanie Naujoks has more than 20 years' industry experience, from both the analyst and IT vendor sides, and is based in Munich, Germany. She works with manufacturing organizations, IT vendors, and technology providers to help them understand how digital technologies such as IoT, robotics, AI, and cloud will impact traditional operations and disrupt manufacturers' traditional business models.

[Gunjan Bassi](#), Research Manager, IDC Manufacturing Insights



Gunjan Bassi has been an industry analyst for more than 12 years, and is based in London. She works with manufacturing organizations, IT vendors, and technology providers in Europe. Her research is focused on supply chains, logistics, and sustainability, and more broadly on manufacturing industry transformation.

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