

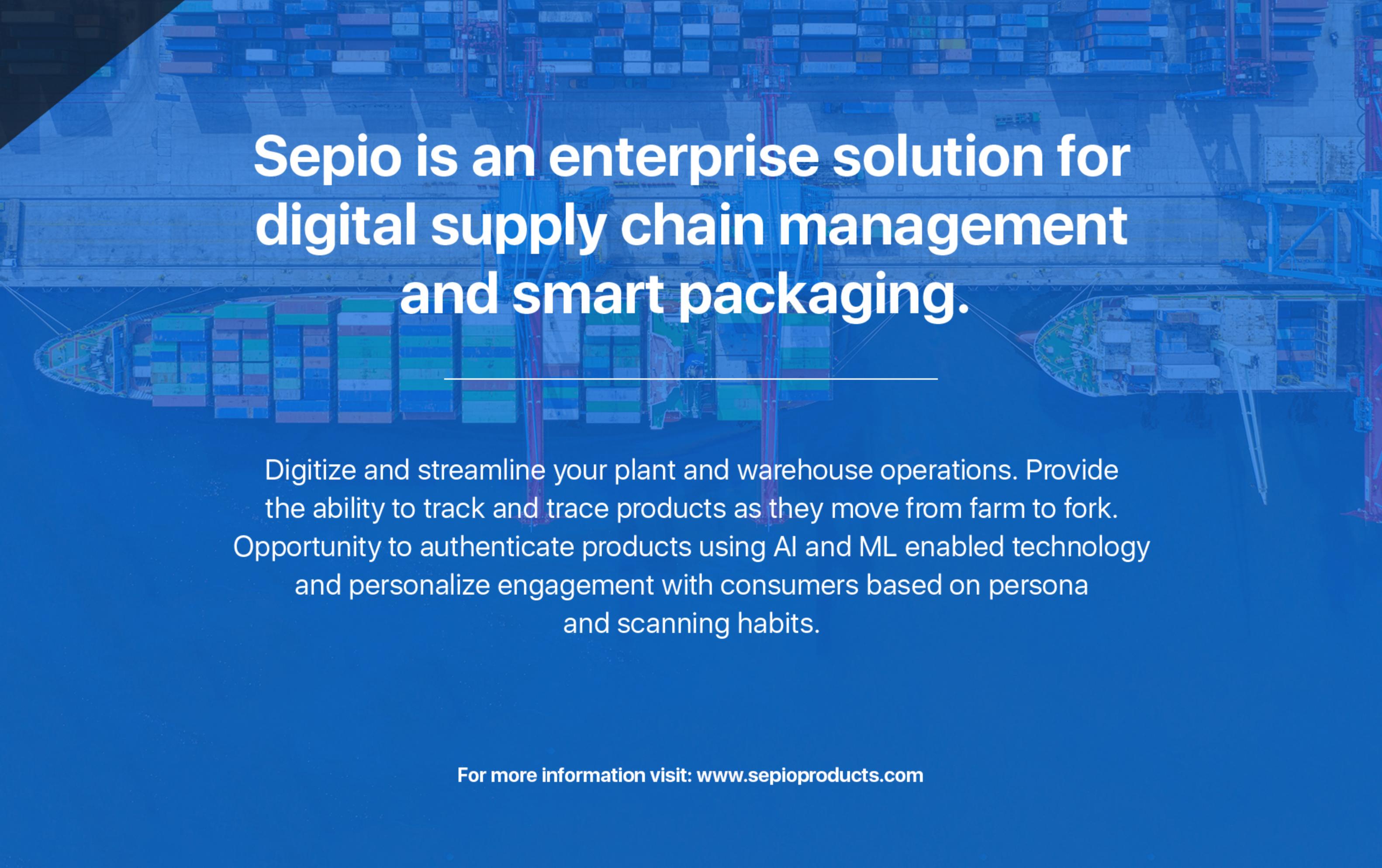


Reimagining the supply chain of tomorrow!

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 **SEPIO**
Sepio PRODUCTS

An aerial photograph of a port area, showing a large ship docked at a pier. The ship's deck is filled with numerous colorful shipping containers in shades of blue, green, and red. The pier and surrounding area are also filled with stacks of containers. The entire image is overlaid with a semi-transparent blue filter.

Sepio is an enterprise solution for digital supply chain management and smart packaging.

Digitize and streamline your plant and warehouse operations. Provide the ability to track and trace products as they move from farm to fork. Opportunity to authenticate products using AI and ML enabled technology and personalize engagement with consumers based on persona and scanning habits.

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Introduction

Traditionally, global shocks have presented moments of truth, lesson and opportunity for companies. Covid-19 is likely to be no different and will help bring about tectonic shifts in strategies and accelerate consumer behavior change driven by technology – For example, think of how you have attended meetings in the last one month or how you have had to order essential products. In this blog, we dissect the key aspects that are going to shape the supply chain of tomorrow and how supply chain leaders and managers can be prepared for it.

In every past crisis, technology has presented companies with opportunities to disrupt the status quo. This time it is no different. Technology has been at the forefront of how countries are responding to tackling the virus and also how consumers are using technology to adapt their lives under lockdown. Technology enabled contact tracing emerged as the first line of defence against the spread of Covid-19. Identifying where a person has been in the last 14 days, who he or she has met etc. has helped to flatten the curve.

Replace people with products and you have product tracing! Knowing the end-to-end journey of each and every product unit – right from sourcing of raw materials, which raw materials came into contact with which finished product, manufacturing, packaging, distribution and consumption – can help companies unlock key insights and take informed decisions about improving their supply chain. It can also help build consumer confidence - After all, if Domino's customers can track their order from oven to doorstep, why shouldn't an FMCG company's customers expect the same level of transparency. According to **Greg Portell, Lead Partner, Global Consumer Practice at Kearney**, a leading management consulting firm, consumers will demand safety, transparency and accessibility from brands and product tracing enables just that.

According to a [Consumer Behaviour Survey](#) by Capgemini Research Institute, more than 50% of consumers will expect product information and details about product origin in the post-pandemic world. [Christian Titze, Supply Chain Research Vice President at Gartner](#) says supply chain traceability is

"a verification and risk management capability, allowing business partners, authorities and ultimately consumers to manage and respond to risks - occurred or potential - in a responsive and documented way. It is becoming a critical requirement for enabling product tracking, governance control and visibility across all stages of sourcing, production, distribution and consumption - the end-to-end supply chain."



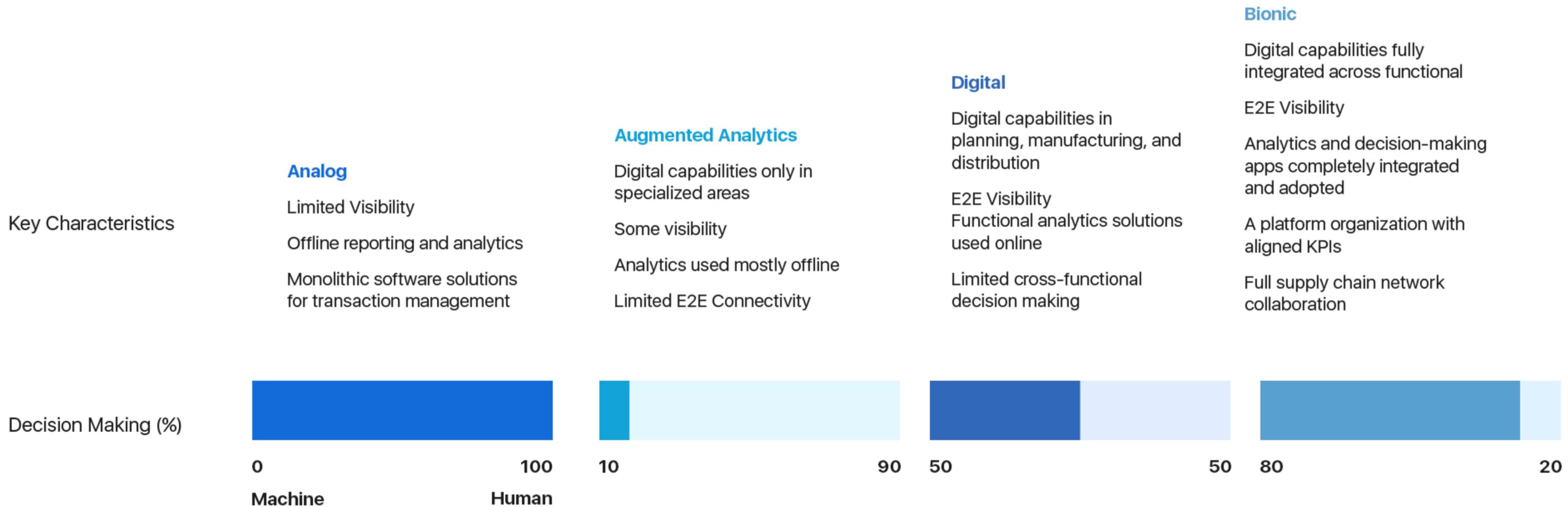
He also adds that traceability has gained significant momentum globally, driven by new laws and regulations, the growing concerns of consumers relative to product safety and integrity, and the need for companies to adopt greater levels of transparency and responsibility, both to consumers and supply chain stakeholders. Key trends driving the interest in and need for expanded traceability capability include, the following according to Gartner:



Traditionally, Titze says, the main focus of traceability has been on upstream supply networks, tracking the source and origin of raw materials and components. But the scope has now expanded to downstream capabilities, tracing goods along the multi-layer distribution networks through to the end consumer. The key to unlocking product traceability lies in digitizing the supply chain. McKinsey, in its article ["How technology is safeguarding health and livelihoods in Asia"](#) suggests that in the times of Covid, to "Go all-in on digitizing products and services". Digitizing individual product units is a key milestone in digitizing the supply chain. While digital supply chain has become a buzz-word lately, different companies are in different stages of this transformative journey.

Stages of Supply Chain Transformation

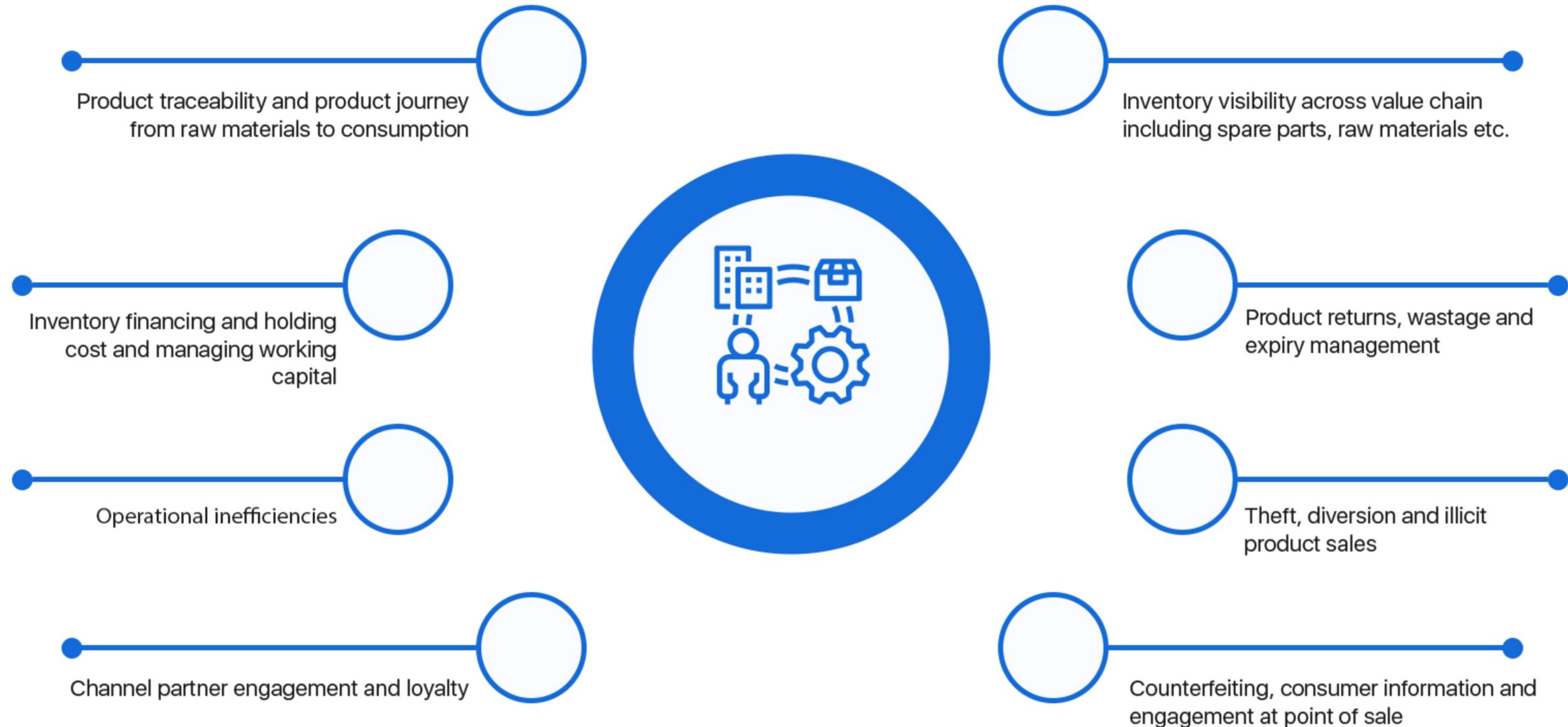
Bionic is the next stage in the evolution of the supply chain operating model



One example of an organization focusing on supply chain transparency in times of Covid is IRCTC (Indian Railway Catering and Tourism Corporation). By digitizing individual food packages, IRCTC has managed to allay passenger concerns of food safety by allowing them to interact with the food packages via a digital ID, know its origin and see live footage of their food being prepared and stored.

Another example is a company from the consumer packaged goods industry. The company is using advance analytics and big data to significantly increase the decision making ability by getting end to end supply chain visibility. By developing and deploying a performance-management engine that tracks supply chain performance—and supports better exception management and root-cause problem solving—the company was able to identify and deliver a [20 percent](#) inventory-reduction opportunity.

Key Challenges in today's supply chain



But, what is a digital supply chain and how does it help?

An analog supply chain is one in which tasks are performed in a physical, non-electronic manner. A digital supply chain is the result of application of electronic and digital technologies to each aspect of the entire supply chain. Electronic connectivity and seamless exchange of data and information between various stakeholders is at the heart of a digital supply chain, which is being enabled by a plethora of disruptive, technologies including:



IoT



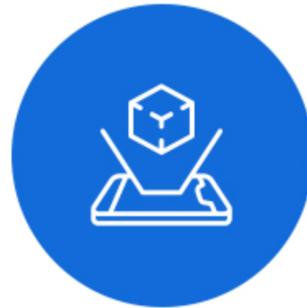
Software as a Service (SaaS)



Cloud Computing



Advanced Analytics



Augmented Reality



Blockchain



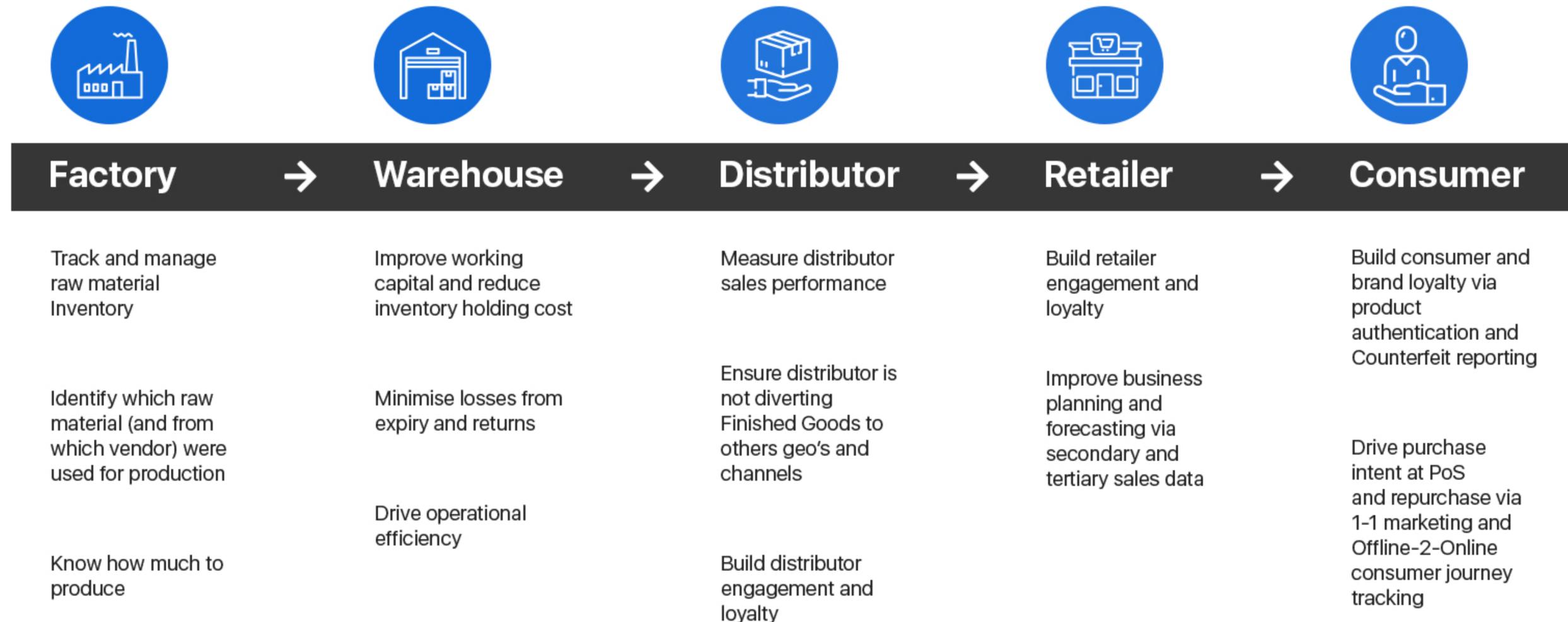
AI/ML

What do all of these technologies have in common? Electronics and electronic or digital communication. An end to end digital supply chain would replace all uses of paper, eliminate manual data entry and updates, and eliminate the need to request information because you would already have it at your fingertips. End-to-end electronic connectivity enables better business decisions, performance management and optimization of even the most complicated supply chains. By definition this end-to-end real time connectivity also means that a digital supply chain will be fully integrated all the way from the supplier to customer, inclusive of all functions, with transparency and visibility throughout the chain.

The advantage of moving to a digital supply chain includes end-to-end electronic connectivity across supply chain stakeholders even if they are in different geographies, improved productivity, lower cost, better service, heightened flexibility and adaptability, and improved asset management. Failure to make this progression will ultimately result in a lack of competitiveness and financial viability.

A senior operations leader at one of India's largest pharmaceutical company says "technology and supply chain are getting more and more intertwined and supply chain leaders need to create an ecosystem which brings out information and insights by exploiting data and visibility."

Benefits of a digital supply chain



What does a Digital Supply Chain look like?

5 Stages of a Digital Supply Chain

Smart Products
for a
Smart Supply Chain

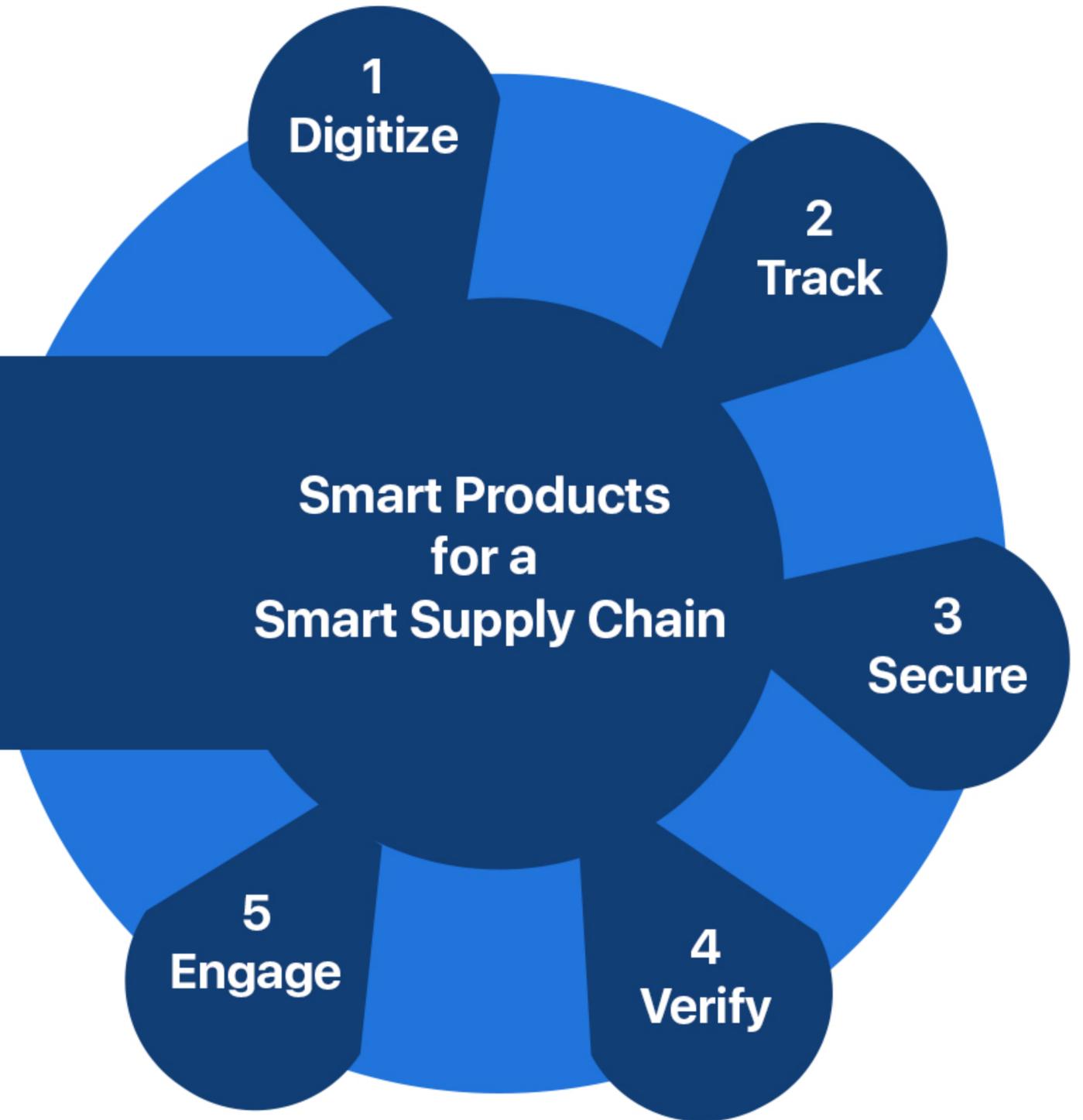
1
Digitize

2
Track

3
Secure

4
Verify

5
Engage



Supply chains today are the nerve centre of any organization and impact almost all other functions be it sales and marketing, customer service, finance, legal and compliance, procurement or packaging. We believe the 5 key pillars for a digital supply chain are as under:

1

Digitize

Products are the building blocks of any supply chain and digitization of the supply chain begins with digitization of individual product units. Unique digital IDs or serialization for each supply chain item – raw materials, finished products, shippers, bags, vehicles etc. makes these items smart and enables them to talk to stakeholders as they move along the supply chain.

Equally important is digitizing processes and information. Smart IDs generate crucial bits of data as they move and interact through the supply chain. This allows businesses to draw actionable insights from the vast data that is generated.

Digitizing the end-to-end value chain is a top priority at a 100 year old industrial and decorative paints company according to a senior executive.

2

Track

A digital supply chain enables product tracking right from sourcing of raw materials, linking them to finished products and storage and movement of products across warehousing, distribution and consumption.

This provides companies visibility and traceability in real-time across all stages of the supply chain and helps them to make better decisions on inventory, product diversions, returns, product freshness, and vendor and distributor relations.



3

Secure

Goods keep moving in a supply chain. Logistics is thus the wheels of an efficient supply chain. Tracking and securing (both physically and digitally) cargo when it is in transit helps companies reduce losses due to theft and pilferage with real time tracking and alerts. It also enables companies to optimize their operations and logistics as well as improve the management of their service providers.

4

Verify

Digital IDs on product units enable consumers to check the product journey and authenticity using smart phones and report counterfeit products back to companies in real-time. In today's day and age when consumers demand more transparency and safety, allowing consumers to verify products goes a long way in building trust and confidence. In the [Capgemini Research Institute survey](#), 77% consumers said they would be more cautious about health and safety and nearly 62% of consumers said they will switch to brands that show higher levels of product safety.

5

Engage

One key advantage of digital products and a connected supply chain is that it allows companies to converse and engage with end consumers when it matters the most – at the point of sale. With digital IDs on smart packaging, companies can convert each product unit to a marketing platform and deliver customised video content depending on a consumer's geo-location, date and time, as well as a consumer's past purchase history.

According to a [McKinsey article on consumer decision journey](#), 'Up to 40% consumers change their minds because of their interaction with packaging. In skin care, for example, some brands that are unlikely to be in a consumer's initial-consideration set nonetheless win at the point of purchase with attractive packaging and on-shelf messaging.'

Digital products can now help companies to cross-sell and upsell to their target customers, drive re-purchase in both offline and online channels, educate consumers on product usage and much more – all using the smart packaging.

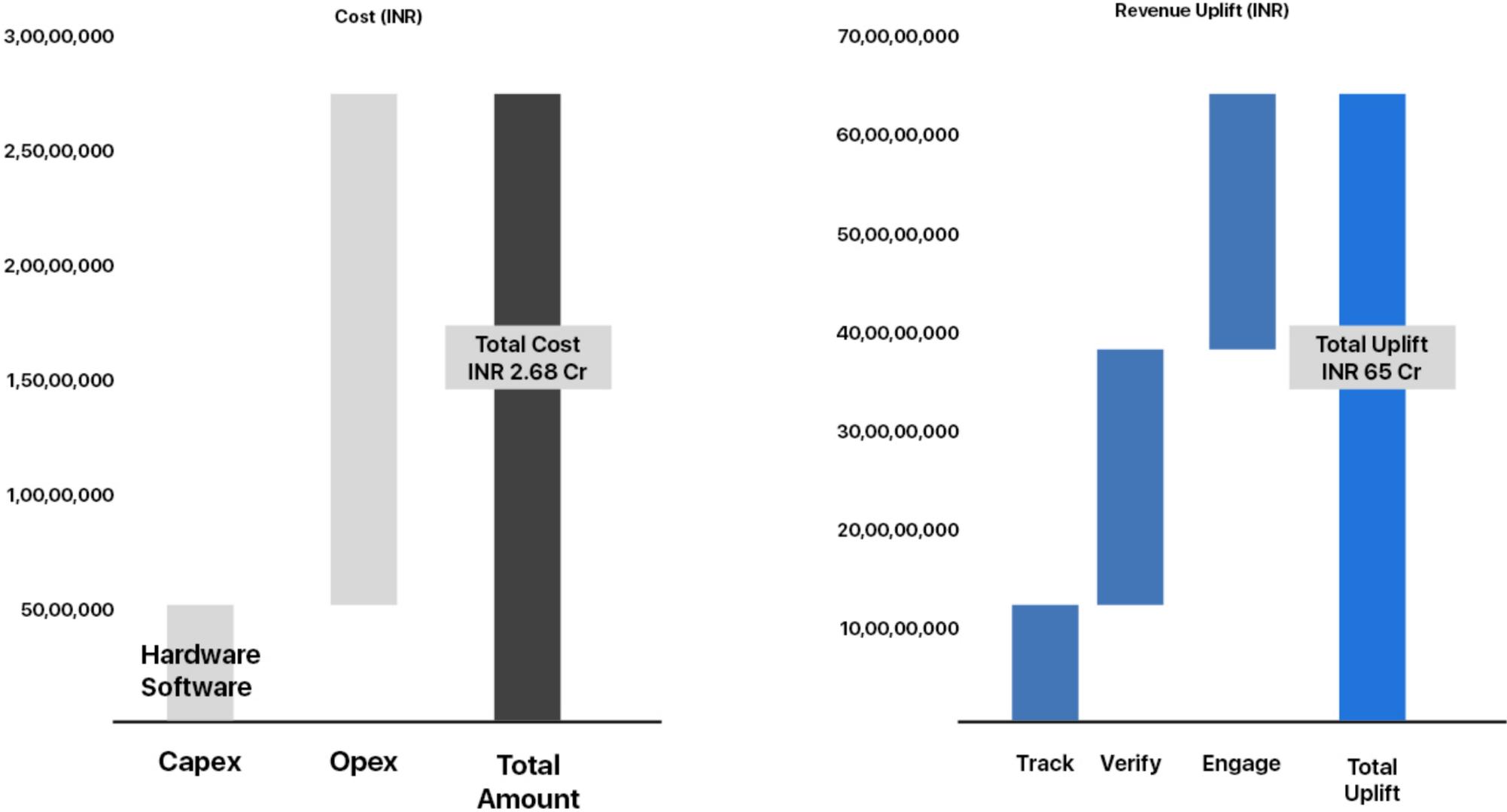


"Cloud-based supply chain applications and collaborative platforms and tools enhance information sharing. They also improve the quality and speed of decision making within an organization and with suppliers and other external partners in a secure environment. Amid the Covid-19 pandemic, manufacturers have demanded greater visibility into the supply chains of their suppliers—a practice worth continuing" – [Bain and Company](#)

Christian Titze from Gartner further says "Existing enterprise application suites such as ERP, dedicated logistics and transportation suites and quality management systems, do not offer the required multi-enterprise visibility and traceability capabilities. The current market for traceability solutions is immature but emerging with vendors enhancing and integrating offerings along a product roadmap."



Why digitize your supply chain today?



Case studies have shown a ~25x return on investment on a digital supply chain

Key Assumptions

Company Turnover: INR 1,000 Cr, No. Of Digital IDs annually: 5 Cr, ID Scan rate (Engagement): 5%,
 ID Scan rate (Supply Chain): 125%, Lead Form Fill rate: 0.25%, Number of production lines: 10.

According to a Partner at one of the big four management consulting firms, “customers are becoming more digitally savvy and their expectations from service and product providers are changing. In view of this, organizations have no choice but to master digital technologies in supply chain to improve overall customer experience.”

Covid-19 is also playing a major role in expediting a company’s digital transformation. In one survey conducted by Digital Marketing Expo and Conference ([DMEXPO](#)), about 70 percent of executives said the pandemic is likely to accelerate the pace of their digital transformation. The quickening is already evident across sectors and geographies.



According to a McKinsey article, [Digital Strategy in a Time of Crisis](#), “The COVID-19 crisis seemingly provides a sudden glimpse into a future world, one in which digital has become imperative to all interactions which forces the organizations with people to take the appropriate steps within time. A world in which digital channels become the primary (and, in some cases, sole) customer-engagement model, and automated processes become a primary driver of productivity—and the basis of a flexible, transparent, and stable supply chain.”

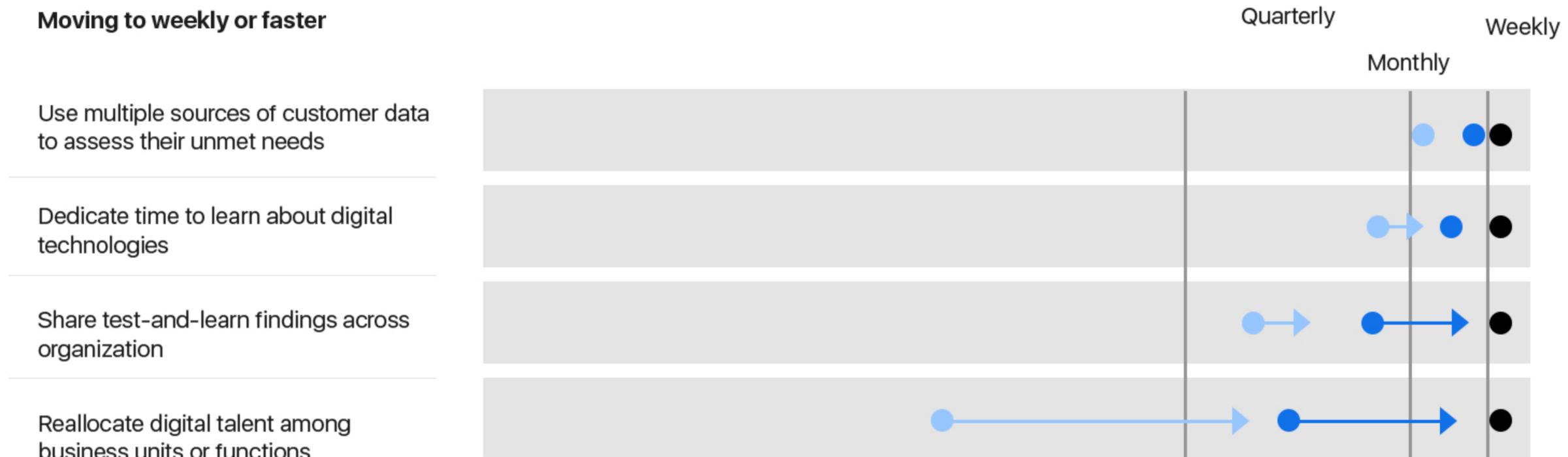


According to an industry veteran heading IT at one of India's oldest FMCG companies, "what will emerge out of the Covid-19 crisis is a digitally connected supply chain focused on consumer experience and convenience"

The COVID-19 crisis is causing a need for acceleration beyond what we had seen before going from three tiers of speed down to two.

● Respondents at top economic performers
 ● All Other respondents
 ● New COVID-19 requirements

The new pace that the COVID-19 crisis is driving, median frequency



Source: McKinsey

According to [BCG](#), 14% of companies were actually able to increase both sales growth and profit margins during the last 4 economic downturns. What was common across a majority of these companies? Well, they all leveraged technology to navigate tough times and were able to adapt to the changing paradigm of the time.

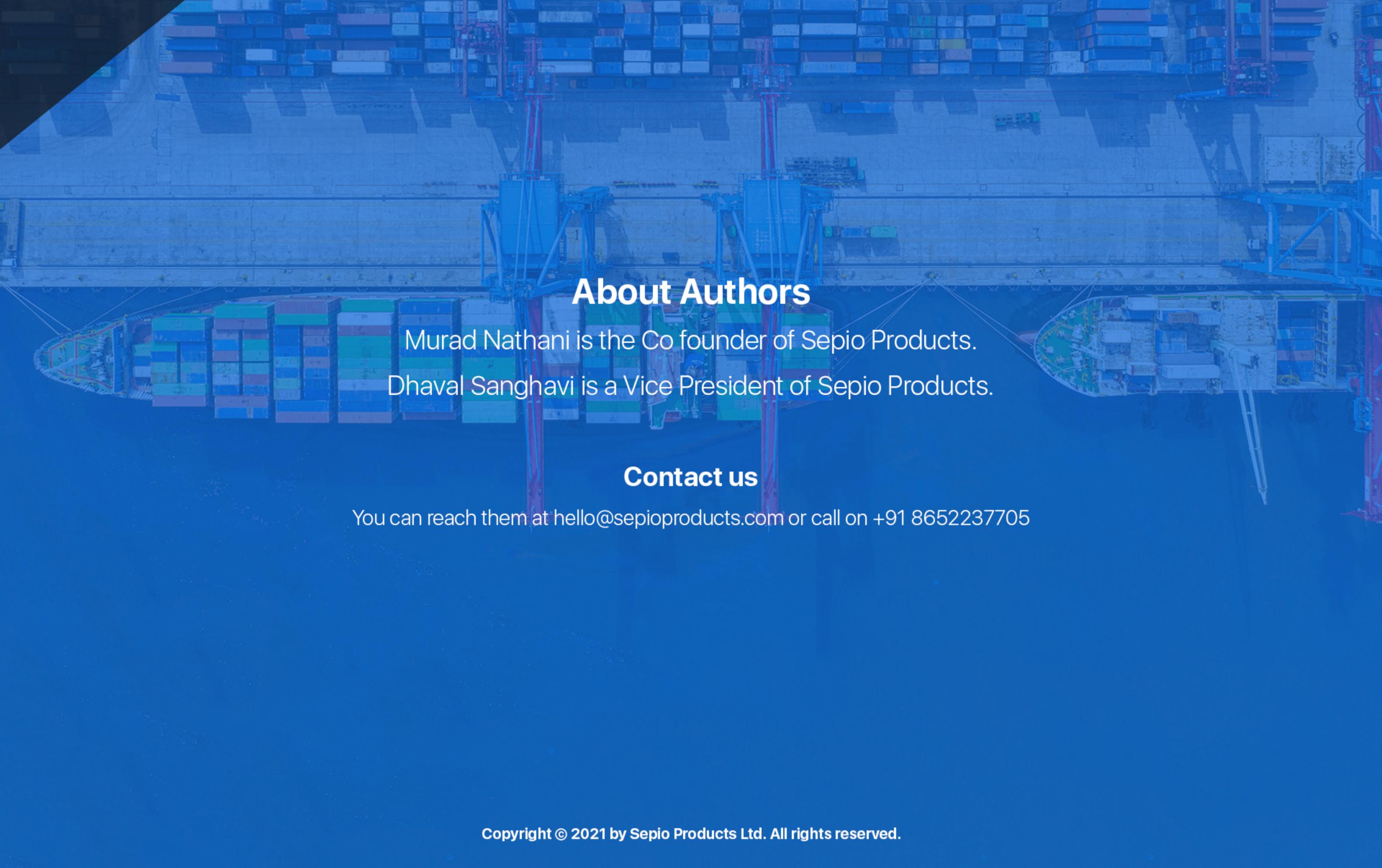
“Every company needs to think globally about their business, and strategically about technology.” – Daniel Stanton (supply chain expert fondly known as Mr. Supply Chain)

Covid-19 is not an isolated event. Disruptions are increasing both in frequency and magnitude - be it geo-political events, natural disasters or public health crises - Brexit and US-China trade war being a few other recent examples. This trend is forcing supply chain leaders and managers to think about the future and invest in technologies that can help them build a digital, robust and a resilient supply chain. According to Bain and Company, investments in such a supply chain can deliver a

15% to 25%
improvement in plant output

20% to 30%
rise in customer satisfaction

“As with all journeys, sometimes the first step is the most difficult: as you begin incorporating digital to your supply chain, deciding where to focus your efforts can seem overwhelming. Get it right, however, and you can see real impact across your organization: Opportunities to use your supply chain for differentiation, showed how a typical \$10bn organization can expect to see a \$70m earnings before tax (EBT) improvement, and a potential \$85m cost reduction.” – McKinsey

An aerial photograph of a port area, showing a large ship docked at a pier. The ship's deck is covered with stacks of colorful shipping containers. Several large gantry cranes are positioned along the pier, ready for loading and unloading. The background shows more stacks of containers and the port's infrastructure. The entire image is overlaid with a semi-transparent blue filter.

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