



Industry 4.0 Digital Supply Chain Management (SCM) For Enabling Growth

KPMG in Thailand

16 October 2019



With you today



Charoen Phosamritlert

Chief Executive Office
KPMG in Thailand,
Myanmar and Laos



Tidarat Chimluang

Partner, Management Consulting
Head of Industrial Market
KPMG in Thailand
Email : tidarat@kpmg.co.th
Tel : 0820057336



Natasak Rodjanapiches

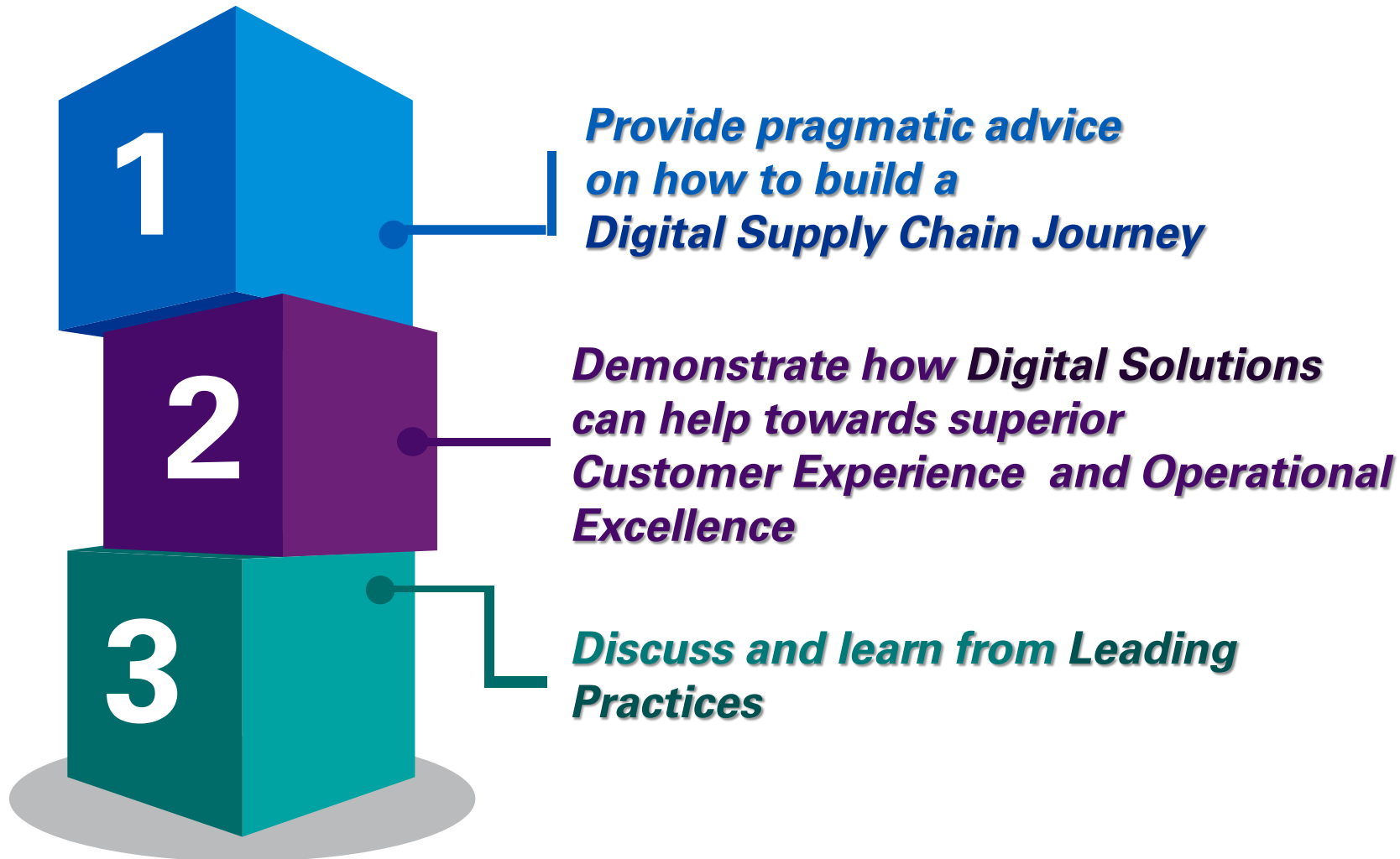
Advisory, Supply Chain Business
and Digital Solutions



Gaurav Bhardwaj

Supply Chain Business,
Asean Oracle Corporation

Briefing's objectives



Agenda

9.30



WELCOME AND 'INDUSTRY 4.0 – DIGITAL SCM' INTRODUCTION

9.50



PRACTICAL STEPS FOR BUILDING YOUR DIGITAL SUPPLY CHAIN ROADMAP

10.20



DIGITAL SCM SOLUTION TO SUPPORT YOUR INDUSTRY 4.0 JOURNEY

11.00



PANEL DISCUSSION

11.45



Q & A

12.00



SESSION ENDS

PLANNING

PRODUCTION & LOGISTICS

INDUSTRY 4.0

DEVELOPMENT

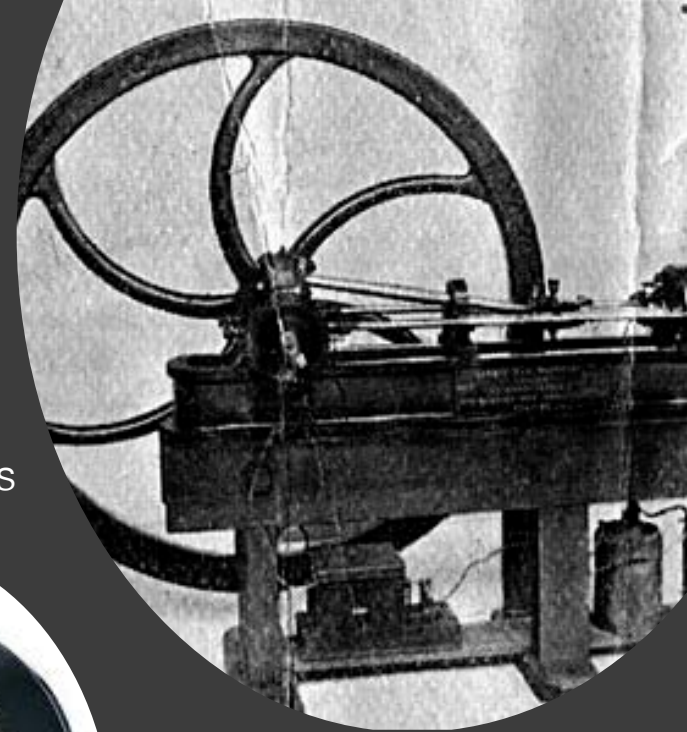


A hand is shown in the foreground, with fingers touching a digital interface. The interface displays various data visualizations, including a line graph with multiple colored lines (blue, green, red, orange) and a bar chart. The background is dark with blue and purple bokeh lights, suggesting a futuristic or digital environment.

“Industry 4.0 – Digital SCM” introduction

Historical Review

1.0 – 1760-1840 the Steam Engine, steam power created the modern machines and the rise of industrial cities



2.0 – 1880-1920 Electric motors replace steam engines as power source of machines, with the electric grid. Factories and consumer products in mass production



3.0 – from 1960s PLCs later NC/CNC took more control over the machines; Internet; cellular; anytime; anyplace; connectivity



Macro and Micro-economic trends are transforming global supply chains



Globalization & Emerging Markets

Increasing global footprints and extending supply chain network drive complexity



Economic Volatility

Financial, Market, Network and Supply instability



New /Demanding Customers

Brand loyalty driven by experience, convenience, price, quality and sustainability factors



Supply Variability

Volatile commodity prices and broad supplier base is increasing variability in supplier lead time and costs



Policy and Regulations

Higher focus on consumer protection driving product traceability and sustainability requirements



Disruptive Events

Natural disaster and political disruptions



Product complexity and life cycle

Product and pack configurations and shorter product lifecycles



Digitization

Emerging digital business models e.g. Artificial Intelligence (AI) blockchain

A close-up, low-angle shot of a hand pointing at a laptop screen. The scene is bathed in a strong blue light, creating a futuristic and digital atmosphere. The hand is in the foreground, with the index finger pointing towards the screen. The laptop keyboard is visible in the lower part of the frame, also illuminated by the blue light. The background is blurred, showing the rest of the laptop and the hand's movement.

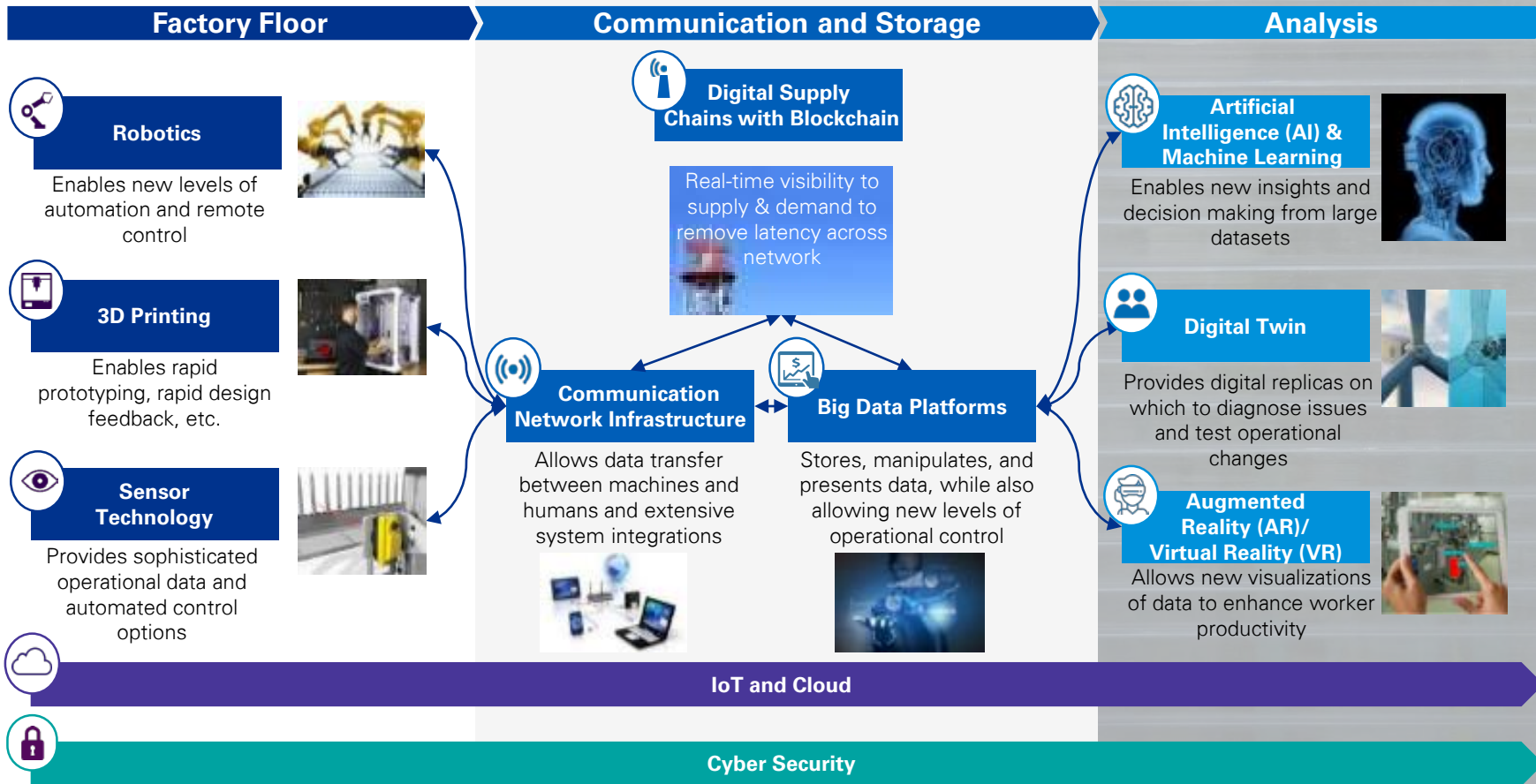
Practical steps for building your digital supply chain roadmap

Digital disruption is changing the world in which we live and work. This change is driving **increasing expectations with customers**, and the pace of change is unlikely to slow any time soon.



Industry 4.0 emerging technologies

Emerging tool sets form the basis of i4.0

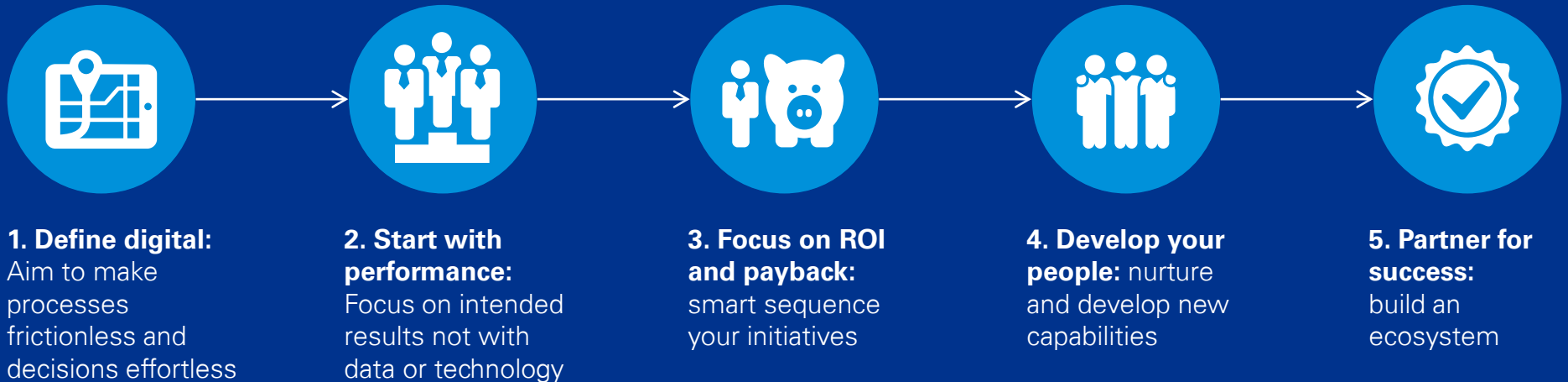


Source(s): KPMG analysis based on research from news articles and industry publications

Your digital journey

To deliver on changing customer expectations, every business needs a digital roadmap. The challenge is knowing where to start. A steadfast focus on core capabilities is vital.

Below are the five building blocks to a digital supply chain:





01

Define digital

What exactly is a digital strategy?

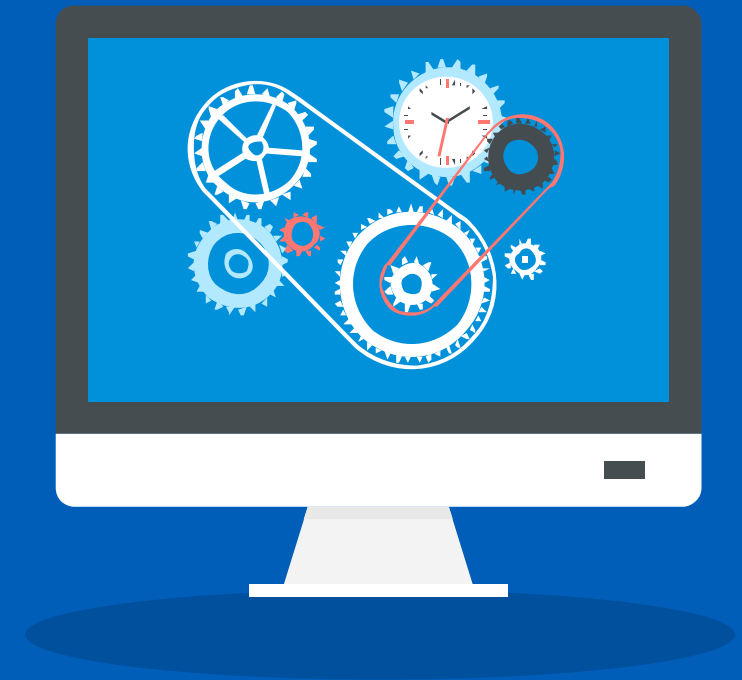
Building a market leading digital business is daunting. First, decide what digital means for you.



Starting your digital journey

Where to Start?

- There are a number of ways that digital technology can be applied across the value chain.
- Confusion, however, **accompanies endless opportunity. Software solutions?** Cloud-based technologies? Robotic innovations?
- It doesn't have to be complicated. When it comes to the performance of a supply chain, it's really just a function of two things; **how efficient the Processes are, and how effective the Decision Making is.**



The keys to getting started

No matter how well an organization streamlines its processes and optimizes its operating model, if it still makes bad decisions its performance will suffer.



Frictionless Processes

Effortless decisions

Companies need to define their **performance ambition**, before they look to the factors that hinder their ability to meet that ambition. The sole focus of any **digital strategy should be to improve performance.**



02

Start with performance not technology

Practical steps for building your digital roadmap

Start by designing a performance-led roadmap to identify where in the value chain offers the most performance gain by digital enhancement.



Steps to building a digital roadmap

New tech might seem like the convenient answer to many operational challenges, but it can be a distraction from the day-to-day performance of the core business.

Business leaders need to forget the hype surrounding the latest trends and innovations, and instead **concentrate on core capabilities, the market realities of their business, and the customers it serves.**

Digital roadmap

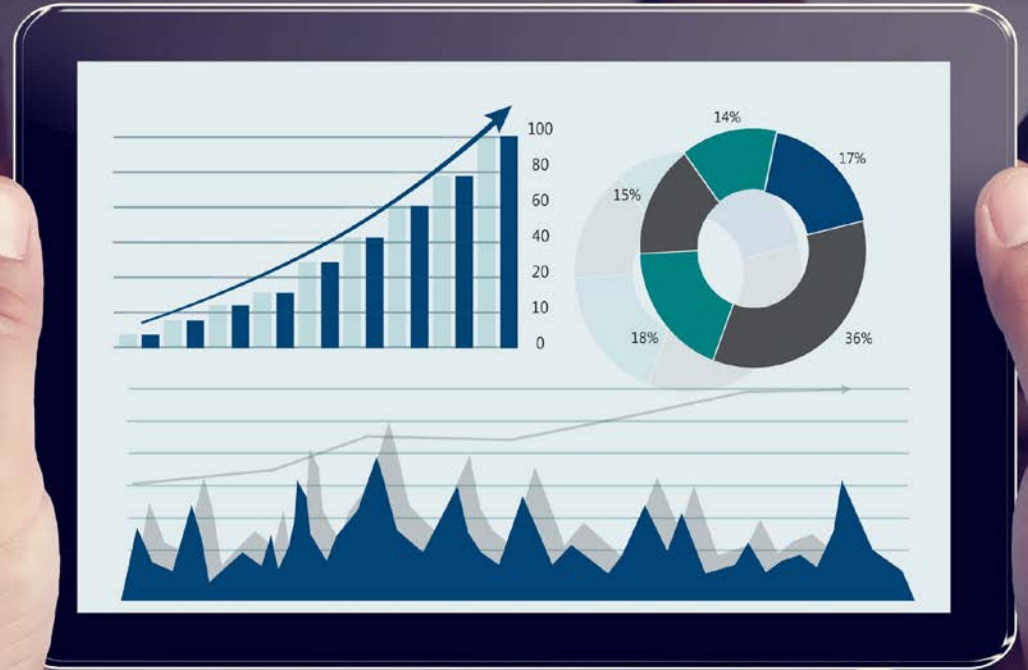
-  **Segment your customers by performance expectations.** It's not just about making great products. It's about delivering a **great overall experience.** ✓
-  Identify **where you're failing to meet performance expectations** in each customer segment. ✓
-  Identify **points of friction or poor decisions** that may be impacting performance. ✓
-  Look at **digital processes or technology options that can improve** these points (remove friction or improve decision making). ✓
-  **Smart sequence initiatives**, otherwise the roadmap risks becoming a collation of potentially conflicting digital ideas. ✓
-  **Review the current digital capability** of your team. ✓
-  **Align all areas of your business to the digital roadmap.** ✓

03

Focus on ROI and payback

Smart sequence your initiatives to deliver optimum benefit

Effective strategies reduce payback and increase ROI using three simultaneous initiatives: smart sequencing, “off the shelf” implementation, and differentiating with breakthrough innovation.



Governance and focus on ROI

Too often, funds will be released to invest in small-scale digital pilots before anyone has actually identified which areas of business performance they will enhance and the ROI or payback. The companies that have established governing teams are the ones that have made the most progress on their digital transformation journeys.



Only **25%** of supply chain practitioners state their digital projects are aligned under a **single governance process**

Gaining buy-in from the board

As many off the shelf digital applications or analytical tools can be slow and expensive, projects are often stuck at pilot stage because the business case for rolling out is simply not convincing.

“

Gaining momentum early through great ROI, great payback, and great performance upticks as a result of deploying technology is what's going to get the interest from the exec team and the board.

”

– Dale Williams

Partner, Head of Operations Advisory,
KPMG in the UK



04 Develop your people

Nurture new skills and capabilities to stay ahead

Effectively operating digital tools requires a specific skill set. Businesses need to consider how to source an agile model that empowers its people with skills and a supportive and prurient culture.



Invest in re-defining skills

Advances in technology will mean fewer staff have the necessary skills to utilize new advances. Business leaders need to invest in different skills and develop new capabilities in order to stay ahead.



There is a challenge around aligning cultures and speeds of large companies with those of start-ups.



– Vinod Kumar
Managing Director and Group CEO,
Tata Communications



Invest in new techniques for **ideation, solution design, and implementation**



Establish **Digital Centers of Excellence (DCoEs)** to develop cross-functionally learning



05 Partner for SUCCESS

The winners will be those with the best ecosystems

No-one in the digital world is vertically integrated or possess a complete suite of in-house capability. Building an effective digital strategy with deep expertise relies on the ability to cultivate long-term partnerships and ecosystems.



Gaining buy-in from the board

“

Having an ecosystem of start-ups and industry experts has allowed us to try new ideas, experiment, and build on our reputation for innovation, with minimal constraints.

”

- Ed Gaze
Senior Manager, Lloyd's Lab Innovation

Ready for a culture shift?

Pioneering new digital projects with new partners will require a new approach. Businesses will have to adopt a forward-thinking outlook, and a culture that's searching for new ways of working.

Be ready to contract differently within the ecosystem

Be willing to experiment and fail

Change working culture and approach when working with new partners



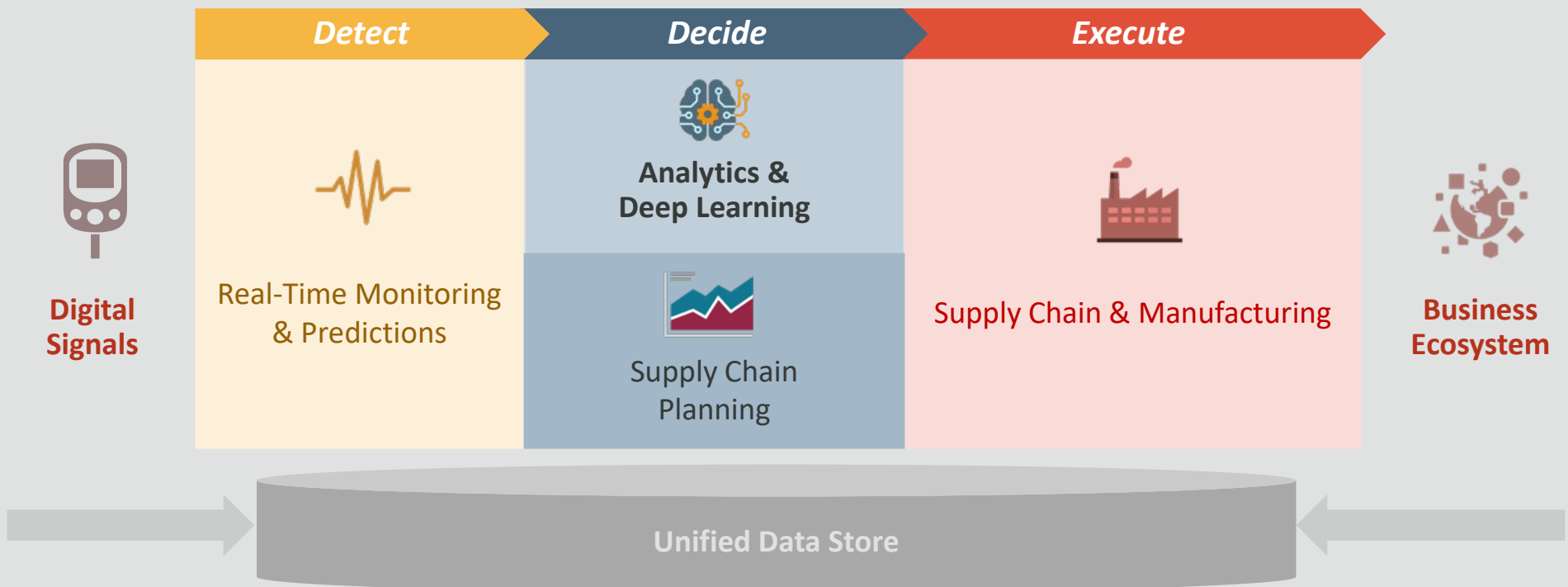
Digital SCM solution to
support your
industry 4.0 journey

Oracle

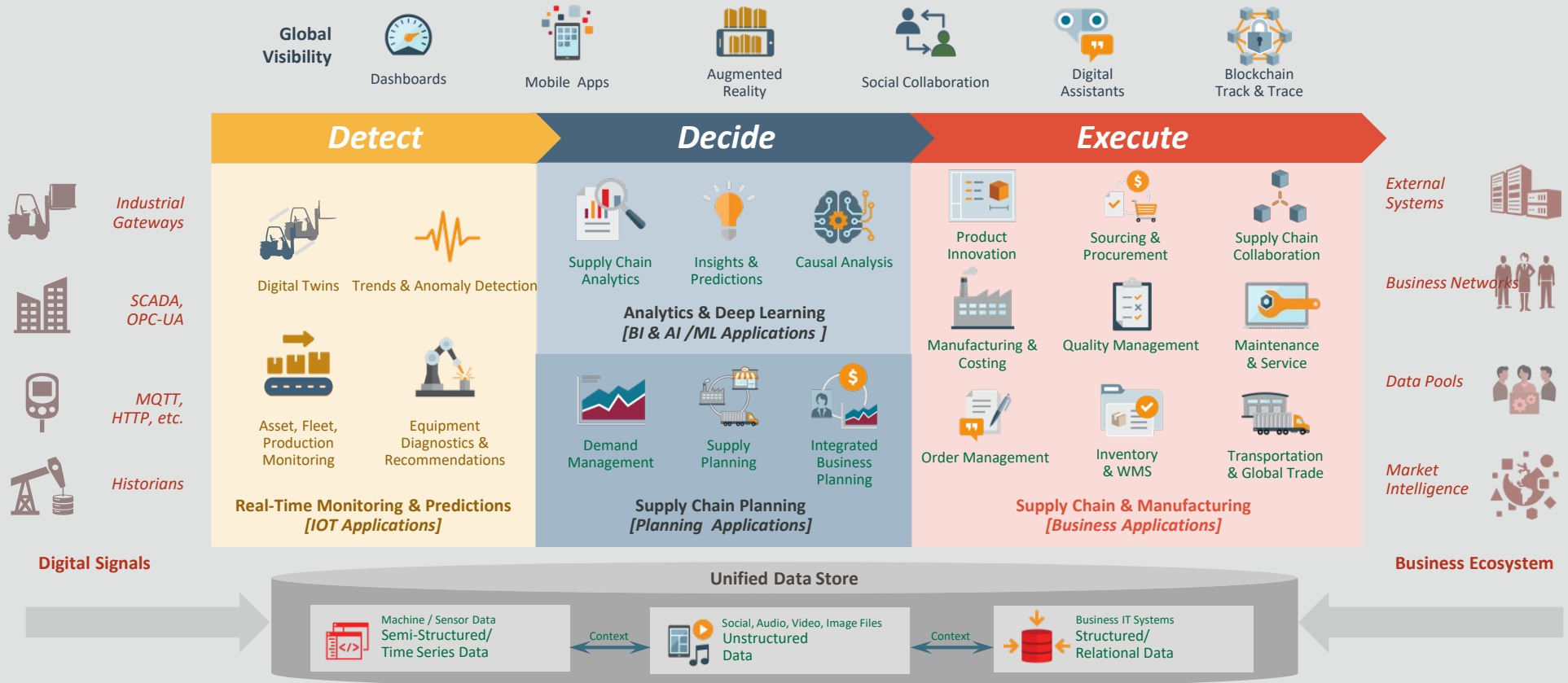
Intelligent Supply Chain Applications



Global Visibility & Deeper Insight

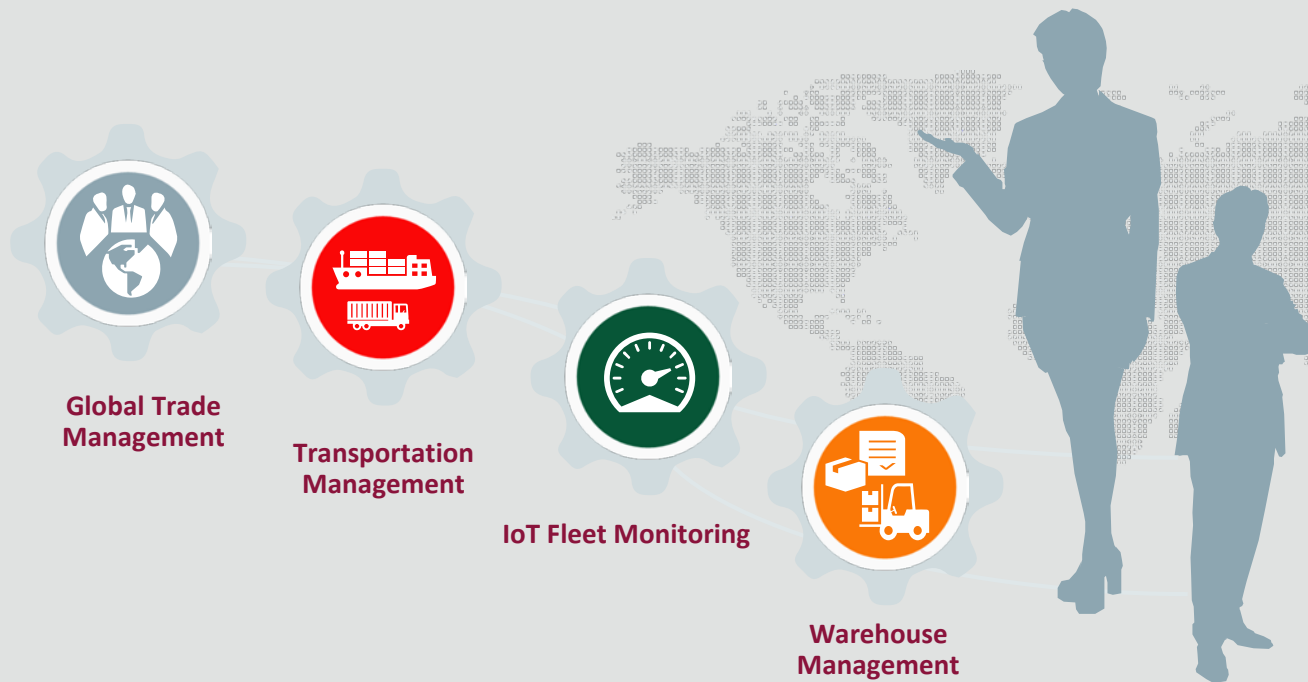


Digital Thread across Departments



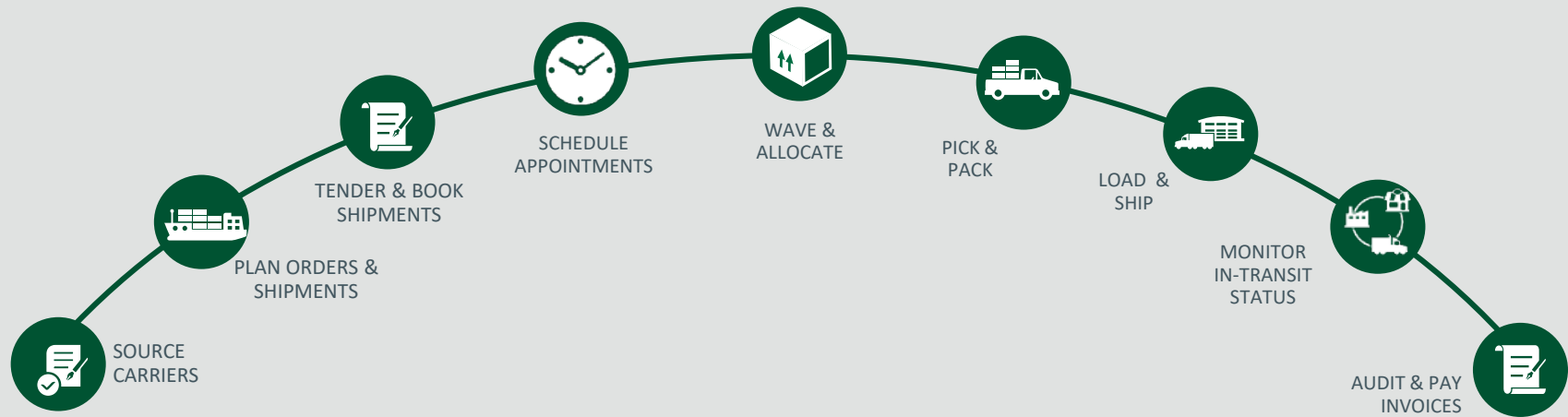
Unify Your Logistics Systems

Visibility, Optimization and Orchestration



- Improve communication and event sharing across systems
- Increase visibility and traceability of your goods
- Optimize your decision-making
- Respond rapidly to changing business conditions

Future-Ready Logistics



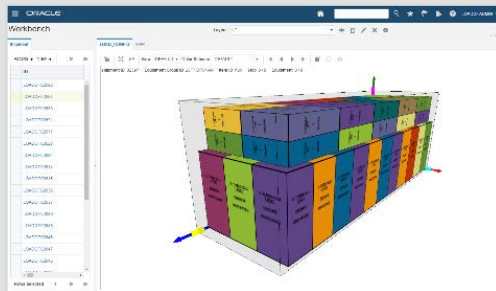
- | | | | | | | |
|-------------------------------|--------------------------------|-------------------------------------|-------------------------|----------------------|--------------------------|---------------------------------|
| Global Trade Management | Transportation Management | Transportation Operational Planning | IoT Fleet Management | Warehouse Management | WMS Workforce Management | Logistics Business Intelligence |
| ➤ Reduce logistics costs risk | ➤ Improve inventory visibility | ➤ Increase revenues | ➤ Mitigate supply chain | | | |



Oracle Transportation Cloud

Manage, optimize, and control transportation from source to destination

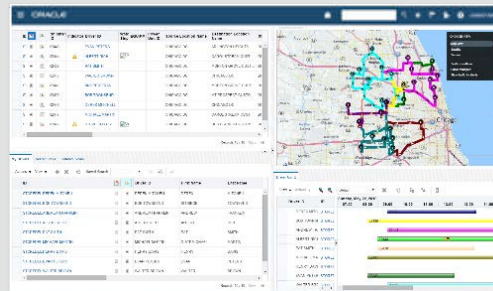
Plan



Optimize shipments: mode, carrier, route, equipment, and consolidation

Reduce freight costs and increase product margins

Execute



Collaborate with service providers and monitor in-transit shipments

Improve on-time delivery and supply chain reliability

Settle



Automate freight payment and customer billing

Minimize profit leakage and improve cost visibility

OTM + IoT : Key Features and Capabilities



Connect



Track & Trace



Real time shipment in OTM



Connect Any Type of Vehicle

Wide range of connectivity options (OBD2, J1939, Telematics, etc.) allow connecting any type of vehicle over any type of network



Real-time in-transit Location

Get real-time location of vehicles. Easy to use dashboard for business-users for real-time visibility



Complete Visibility

Get a complete picture of vehicle location, route, health, driving behavior, fuel consumption and other important metrics



Shipment Tracking

Track shipments in real-time using a business-user friendly dashboard that highlights relevant shipment KPIs

Automatic geofences to get insights for shipment arrival, departure times, delays and ETA

Plan shipments in Oracle Transportation Management and automatically push shipments to IoT Fleet Monitoring Cloud

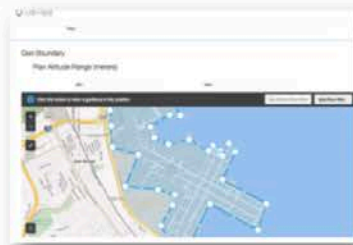
OTM + IoT : Key Features and Capabilities



Geofence

KPI's & Dashboard

Mobile App



Geofences to Monitor Usage

Quickly create geofences and use built-in geospatial analytics to monitor unauthorized movement, route-optimization, vehicle thefts, arrival and departure notifications



Real-time Fault Detection

Instant visibility into vehicle faults on dashboard with color coded indicators for faults



Incidents & Warnings Management

Built-in incidents and warnings management allows tracking issues that need attention



Mobile App for Carriers and Shippers

Drivers view assigned itinerary, start and complete trips and shipments, view past trips, trip and shipment summary.

Onboard 3rd Party drivers without any registration using shipment links, to allow tracking of shipment location via Mobile GPS (for the duration of shipment only)

IoT Applications



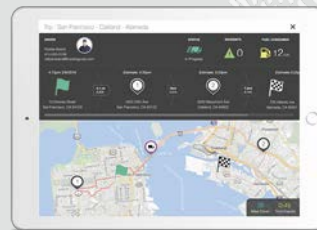
Asset Monitoring

Asset intelligence and performance monitoring



Production Monitoring

Factory performance and equipment prognostics



Fleet Monitoring

Cargo and fleet monitoring



Connected Worker

Worker health and safety



Service Monitoring

Differentiated service experience

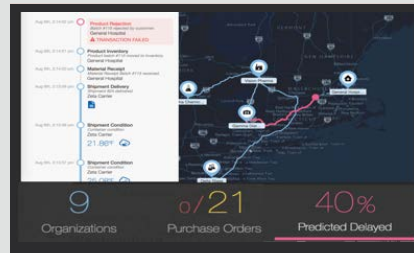
SCM Applications using Blockchain & IoT

Intelligent Track and Trace



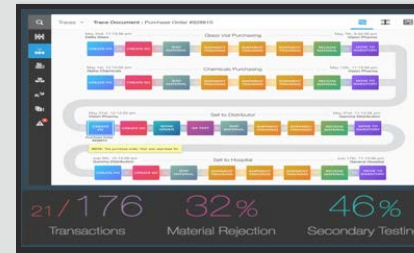
Monitor transactions and movement of assets or goods across organizations

Lot Lineage and Provenance



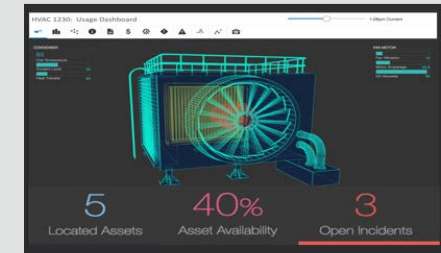
Pedigree, Serialization and Genealogy of product components

Intelligent Cold Chain



Comprehensive Track and Trace system for food and pharmaceuticals safety

Warranty and Usage Tracking



Product usage tracking for Rental, Warranty, Service, & Insurance for high-value assets

Smart Contracts, Distributed Ledger on Blockchain Platform

Shipment Notifications, Bill of Lading, Manufacturing work orders

Purchase order, Sales order

Service records, Warranty information

Assets, Equipment and cargo conditions, Predictive Insights



Supply Chain



ERP



HCM



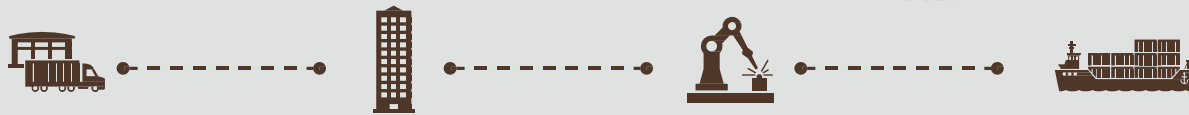
Customer Experience



Internet of Things



End-to-End Supply Chain Visibility: Tracking in Real Time



I receive raw material from my suppliers, I manufacture the product and ship it to my distributors.



I have a critical order that my customer deeply cares about.

I need to be able to track the progress of that order throughout my supply chain in real time.

End-to-End Supply Chain Visibility: Supply Chain Tracing



Receive raw material from my suppliers, manufacture the product and ship it to my distributors.



How do I resolve a dispute about a transaction between my partners?

Need to be able to trace a particular order or a particular transaction throughout my supply chain

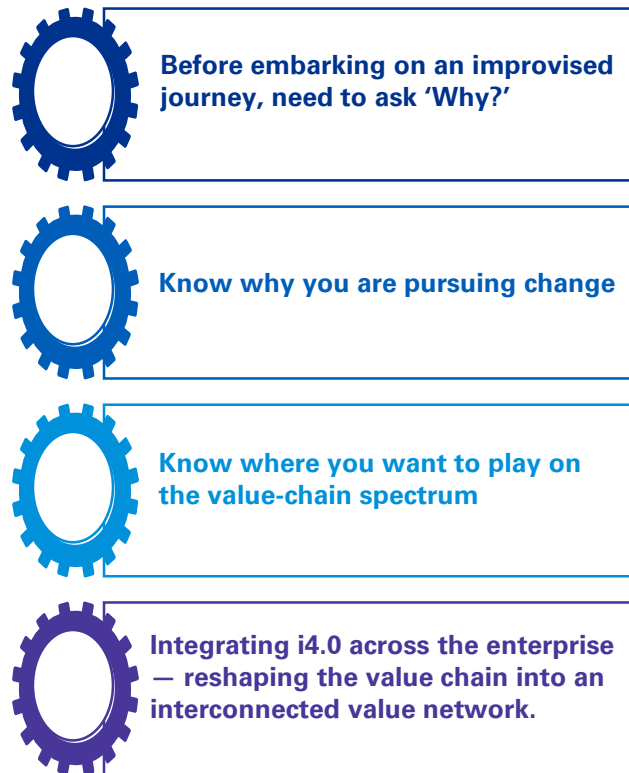
Panel discussion



Starting point of SCM transformation in Industry 4.0

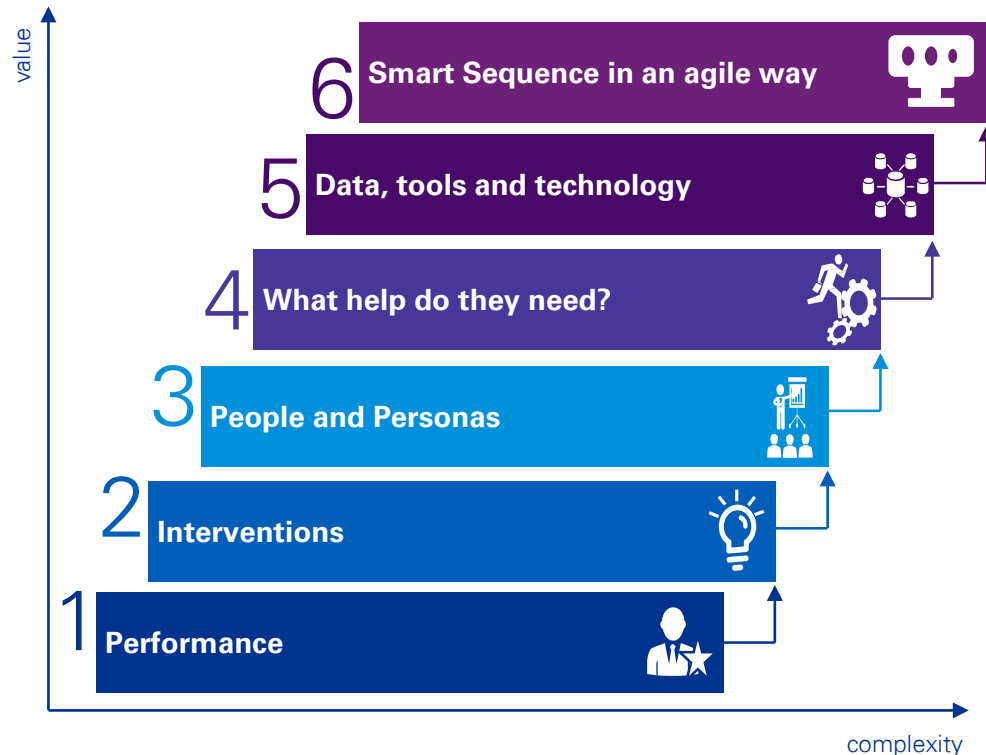
The journey to value starts with one critical question - Why?

Do you know why the journey should begin?



What does a performance-led approach look like?

Starting with performance ensures that all digital activities and projects are driven by strategy — not by technology or data.



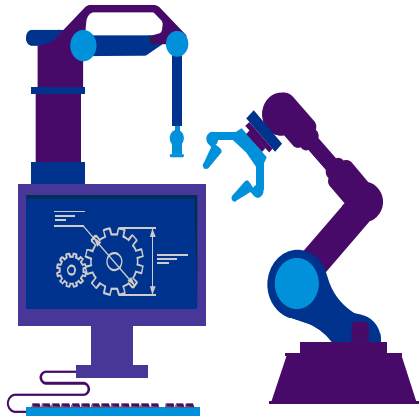
Organization/ people context

The i4.0 enablers that are crucial to success



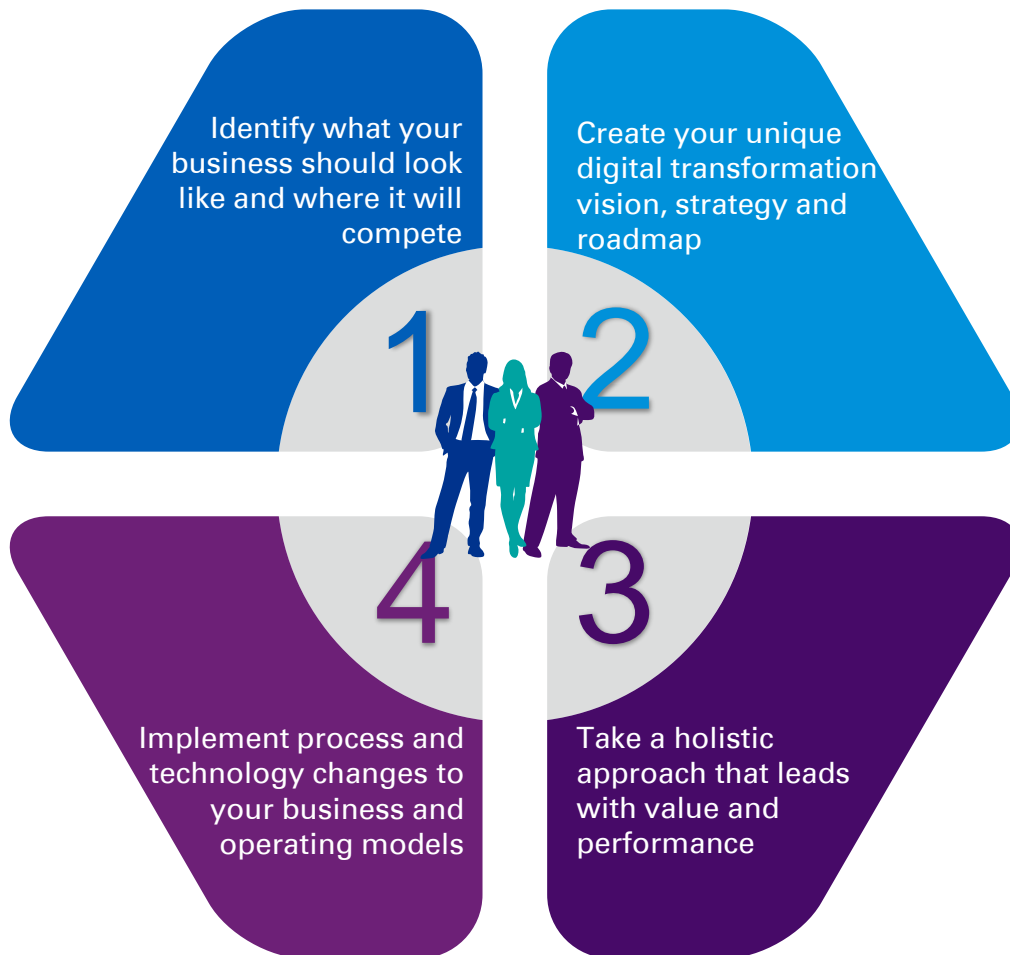
Intelligent and modern change management

Key take-aways



- 1** Be bold. The i4.0 leaders are closing the gap between their i4.0 ambition and their activity
- 2** Think big. Driving enterprise value from i4.0 requires scale and cross-functional integration through lifecycle integration.
- 3** Start and end with performance. Profound value is available from i4.0-driven performance improvements.
- 4** Plan ahead. You can't buy excellence in i4.0; it takes work and a smart strategic roadmap.
- 5** Assess yourself. Understand where you stand versus your competitors.

How KPMG can help



“

With deep leadership in key areas such as strategy, data and analytics, cybersecurity, intelligent automation, change and risk management, and supply chain/operational excellence, we cover all the elements of Digital Supply Chain Transformation journey from strategy through implementation.

”



Tidarat Chimluang

Partner, Management Consulting
Head of Industrial Market
KPMG in Thailand
Email : tidarat@kpmg.co.th
Tel : 0820057336



home.kpmg/th



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KPMG Phoomchai Business Advisory Ltd.

48th Floor, Empire Tower
1 South Sathorn Road, Yannawa,
Bangkok 10120
T: +662 677 2000

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