

How Emerging Technology is Changing Supply Chain Management

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HASKAYNE
CASL
Canadian Centre for Advanced
Supply Chain Management and Logistics

pwc

Your Presenters



Nitish Bahl

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Profile Summary

- Nitish is an experienced supply chain leader with over 25 years of industry and consulting experience - across manufacturing, mining, power and utilities, oil and gas industries
- Supporting clients achieve business and performance improvements through supply chain transformation, cost reduction programs, category management practices, contract management improvements, supplier management programs, and continuous improvement



Jamie Siu

*Director, Operations,
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Profile Summary

- Jamie has over 13 years of blended consulting and industry experience in the areas of Supply Chain and Procurement transformation, operational excellence and Lean, business process improvement, and project management across multiple countries, sectors and categories.
- She leverages her Supply Chain and Procurement and Operational Excellence and Lean experience to help clients identify a focused area of improvement opportunities with sustainable benefits and savings.

Topics

	Topic
01.	Journey to Industry 4.0
02.	Digital Levers for Procurement
03.	Preparing for the Future

01. Journey to Industry 4.0

Progress from Industry 1.0 to 4.0



First Industrial Revolution

Introduction of mechanical production equipment using steam engine (late 1700s)



Third Industrial Revolution

Use of electronics and IT to automate production (1960s/1970s)



Second Industrial Revolution

Mass production based on division of labor, and use of electrical energy (early 1900s)

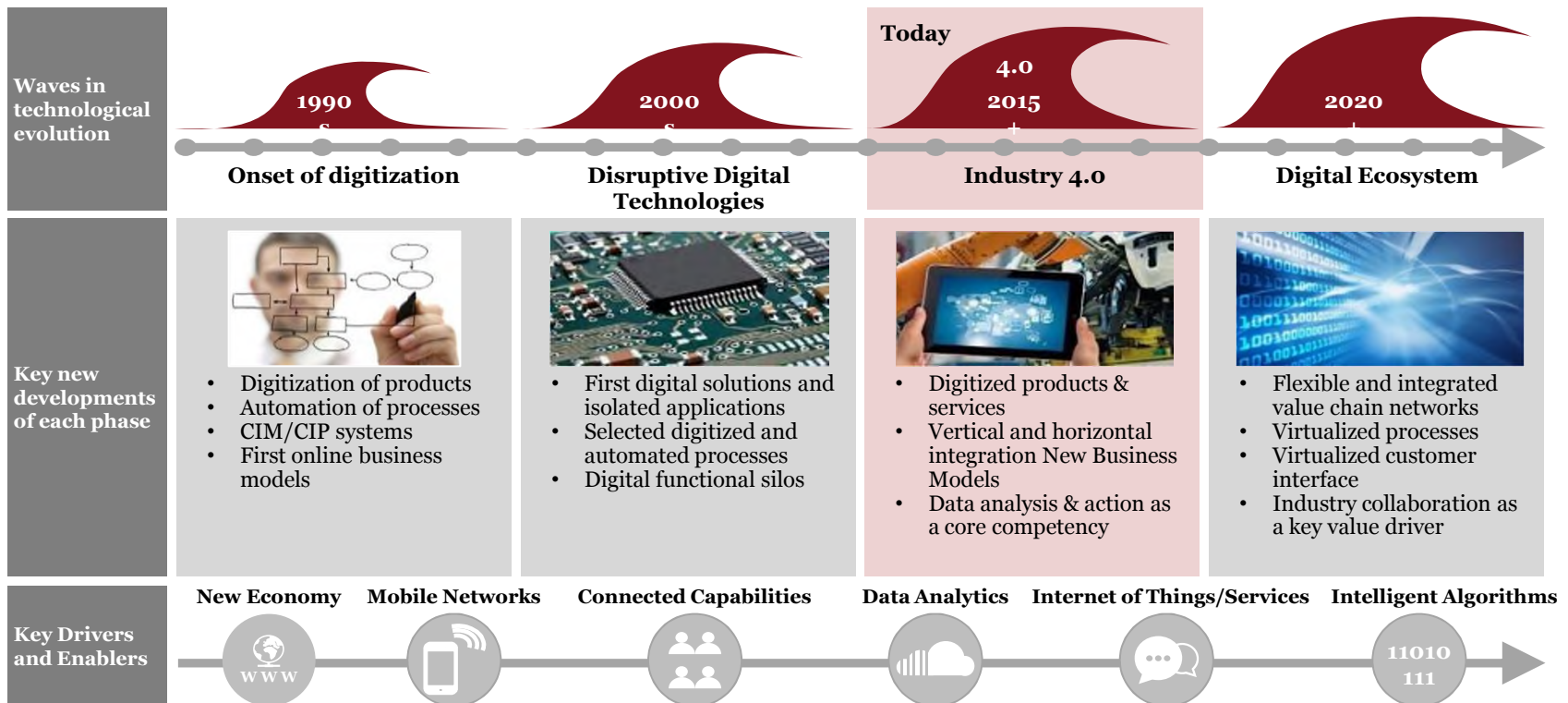


Fourth Industrial Revolution

Internet, mobile computing etc. (post 2000)

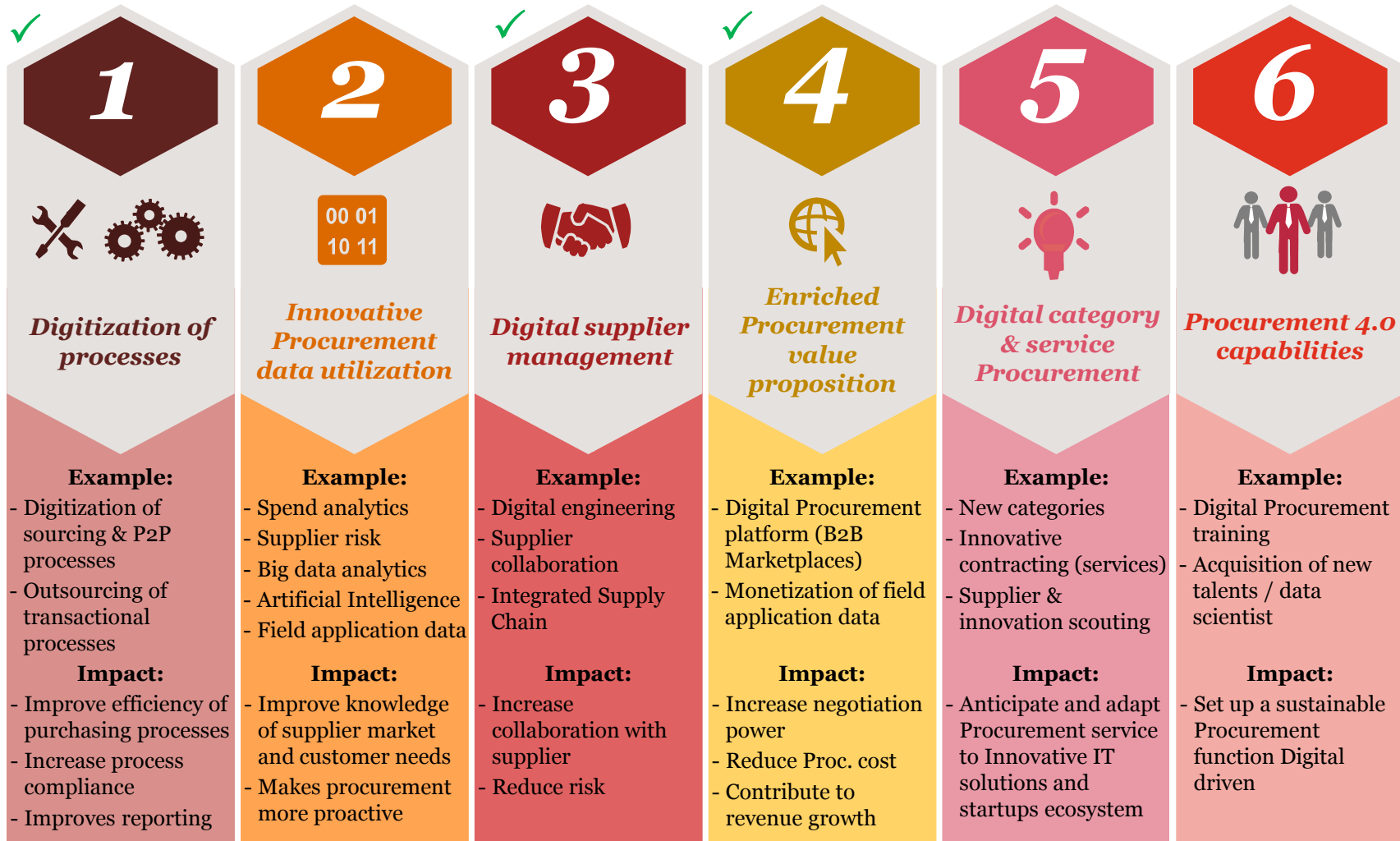
Industry 4.0 allows conventional industries to adopt digital technologies

Embedding of Industry 4.0 in the technological evolution



02. Digital Levers for Procurement

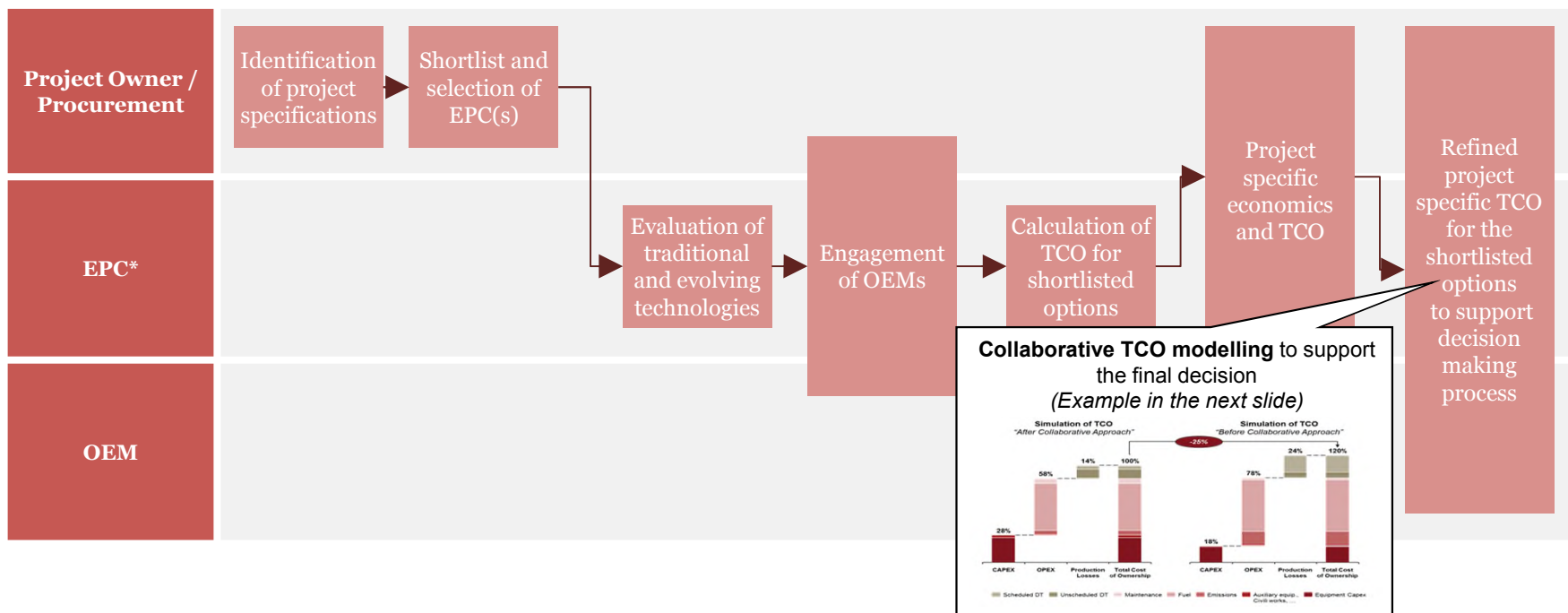
Six digital levers in the context of Procurement



✓ Included in this presentation

Digital technologies will boost Procurement's value creation mainly through collaboration & analytics

Example of "Collaborative Approach" Process: Procurement with OEMs and EPC

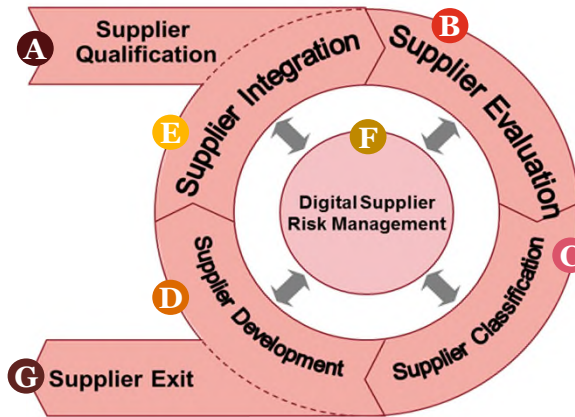


*Engineering, Procurement and Construction Management
Source: Strategy & Analysis

Digital supplier management will improve collaboration and efficiency while reducing risk

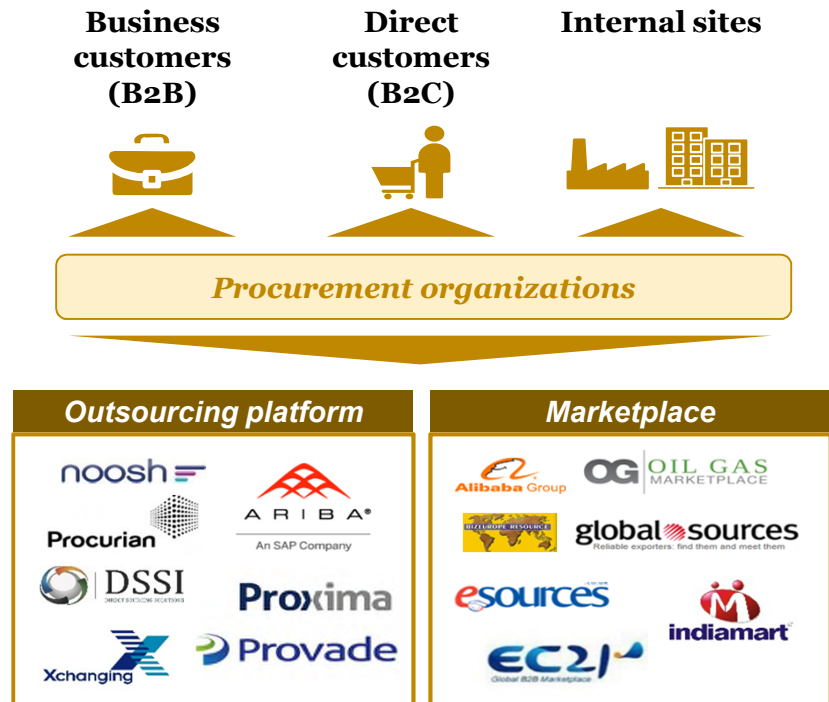


- A** > Automated update of supplier information in system
- B** > Digital KPI management to measure supplier performance
- > Real data exchange on quality, OTIF
- C** > Supplier classification status is integrated with supplier performance systems
- > Pro-active automated system suggestion for supplier status change based on performance data
- D** > Automated forwarding of supplier performance data to supplier
- > Integrated systems to communicate business development proposals/needs/progress



- E** > Integrated processes that are supported by an integrated system landscape
- > Joint IT/process roadmap
- > Big data analytics to forecast demand
- F** > Big Data Analytics to manage supplier risks
- > Integration of customer, finance, external data (e.g. weather, credit rating)
- > Analytics to predict changes in risk rating
- > Automated update of credit ratings
- G** > Automated update of supplier information in system
- > Supplier planned for phase-out is automatically blocked

A digital Procurement platform provides Procurement services to key suppliers and customers

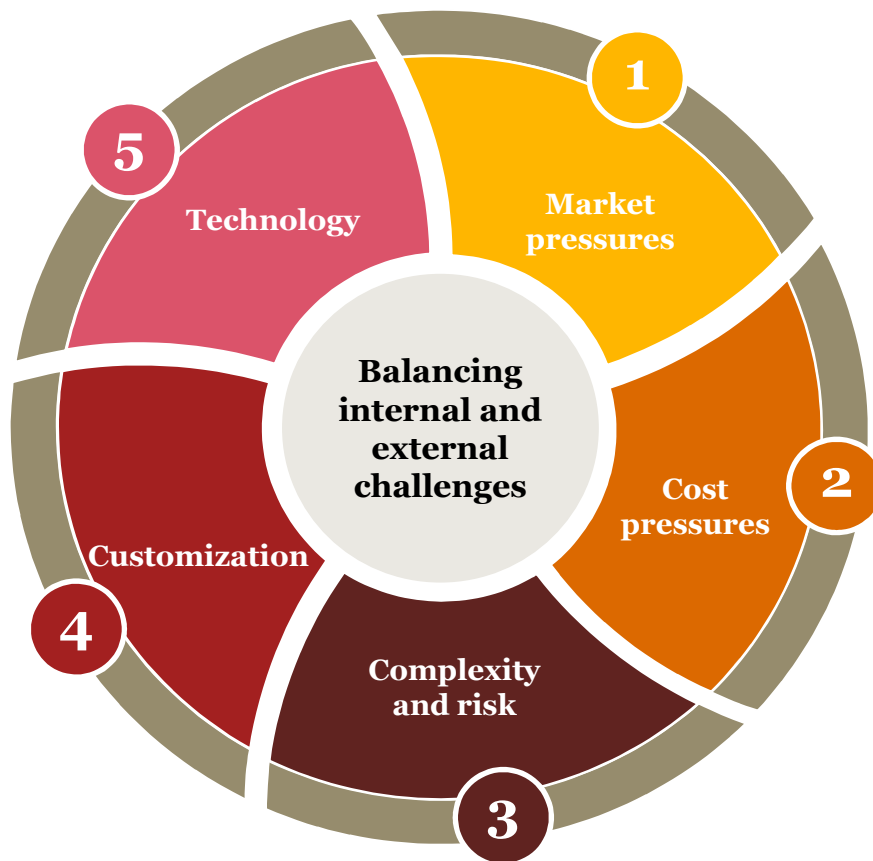


- ### Digital Procurement Platform
- Procurement platform to **provide service** to suppliers and customers (data, raw materials, services, etc.)
 - **Digital consolidation** of product requirements and data along the supply chain
 - Bundle effects by **higher purchasing volume**
 - Ensured high **quality and cost control**
 - Leveraged **buying power** through combined representation
 - **Digitized commission** model to provide supplier and sub-supplier as a customer
 - Purchaser as a Commission Agent of each supplier to provide products and services
 - Example: **Amazon Supply, Alibaba, Globalsources, Ariba, Xchanging...**

03. Preparing for the future

Addressing today's challenges

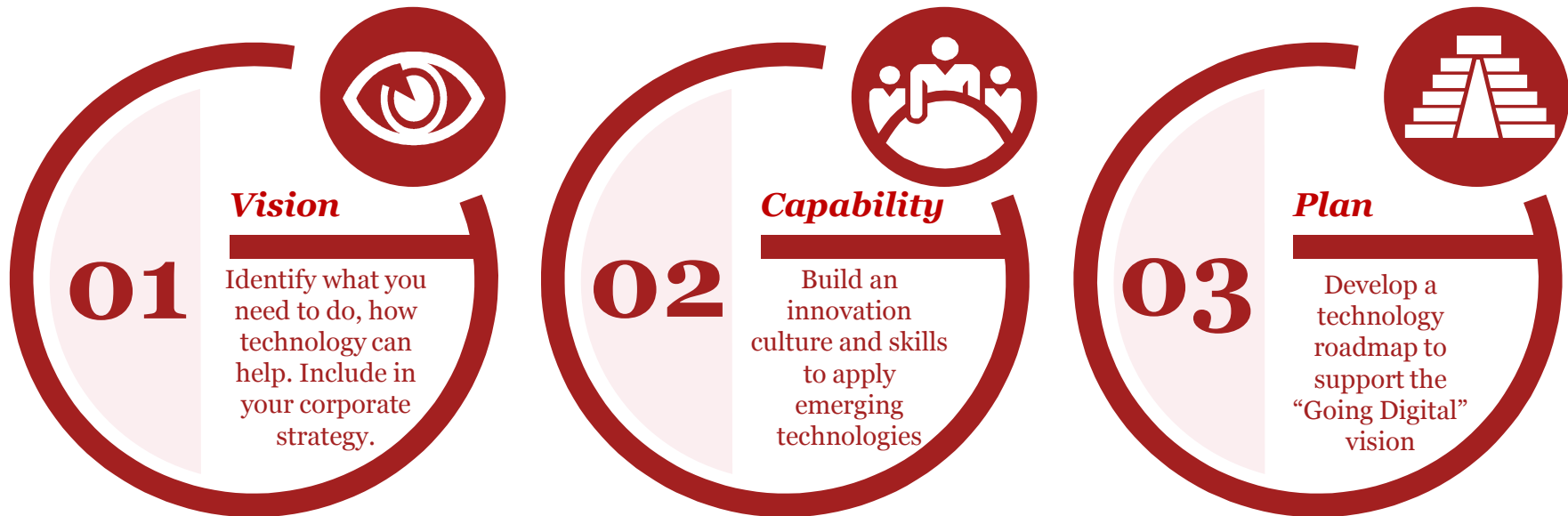
Today's Challenges



Looking forward, successful businesses will...

- **Go beyond just data, generate insights** – Use data analytics to understand customers, market trends, track usage patterns, predict failures etc.
- **Improve, standardize, and automate** processes to reduce internal cost to serve
- **Contract effectively** to get best value and manage risk in the changing digital landscape
- **Embrace technology to support business** e.g. application of sensors, drones, machine learning, 3D printing etc.
- **Develop right skills internally and explore partnerships** to meet new digital needs

What can you do to prepare for the future?



Thank You