Digital transformation

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Digital transformation

Digital transformation is the integration of digital technology into all areas of a business, fundamentally changing how you operate and deliver value to customers. It's also a cultural change that requires organizations to continually challenge the status quo, experiment, and get comfortable with failure.

Disruptive technologies and digital transformation

- In business theory, a **disruptive innovation** creates a new market and value network and eventually disrupts an existing market and value network, displacing established market-leading firms, products, and alliances

- **Disruptive technology** significantly alters the way businesses or entire industries operate. It often forces companies to change the way they approach their business for fear of losing market share or becoming irrelevant

Disruptive information technolgies
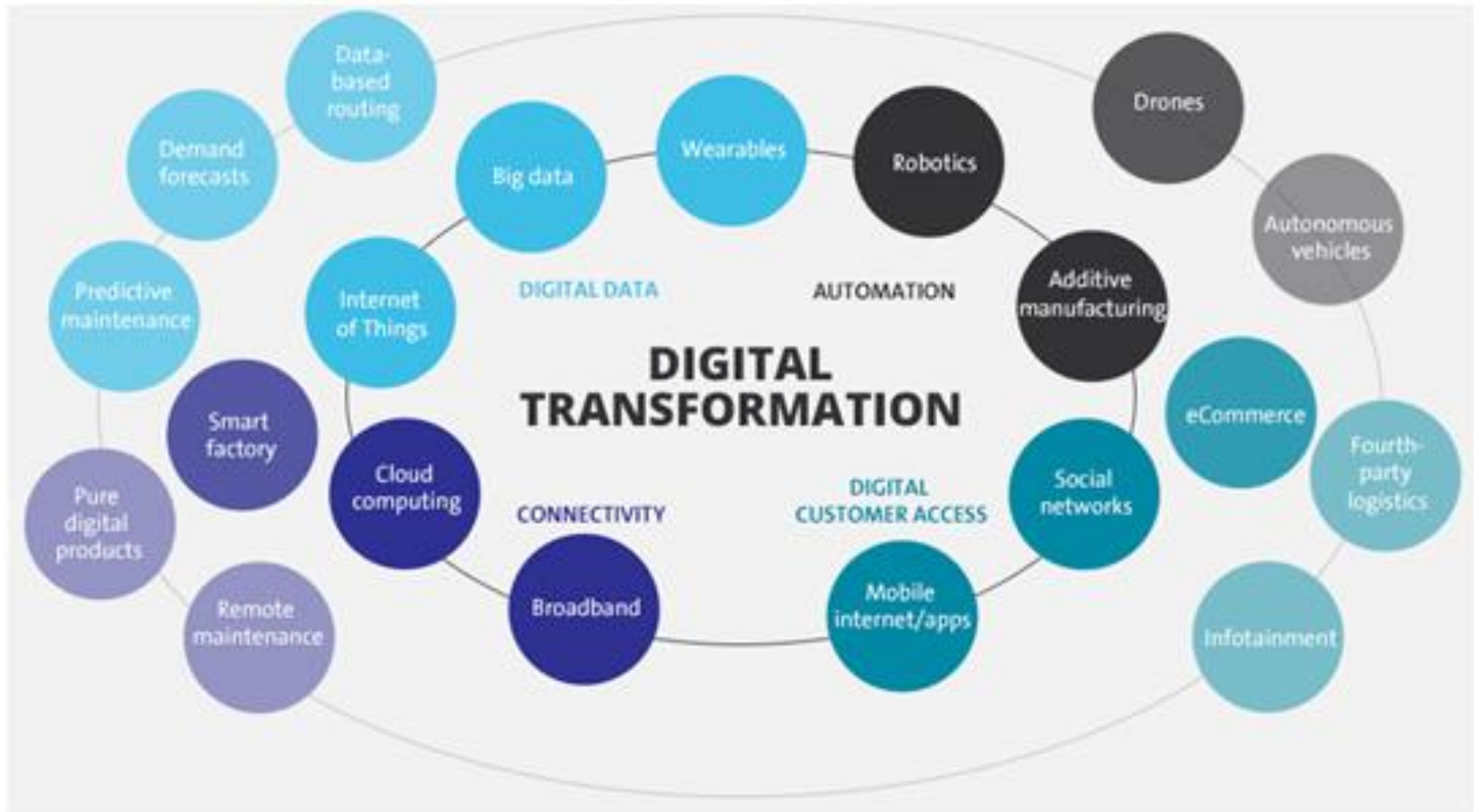
The 25 Biggest Technology Trends 2020 – 2030 (8 min)

https://www.youtube.com/watch?v=6JOhemCj5Cs

The new digital transformation web

The smart, mobile connected digital world is driving companies to build and support an entirely new technology infrastructure. This "technology web" is the interplay of leading edge Social media, Mobility, Analytics, Cloud and Internet of Everything (SMACi) technologies, which are empowering enterprises across critical digital dimensions including products and services, customer experience, operations and workforce

Key enablers of digital transformation

Social Media

Social channels are being leveraged by businesses to interact with their customers

Rapid digital transformation through SMACi is creating a smart, mobile and connected world

IoE

Internet of Everything (IoE) is opening significant opportunities by connecting everything to internet

Mobility

Mobility is shifting the focus of application development away from the traditional "desktop-based" approach to a "mobile-first" one

Analytics

Analytics is enabling enterprises to explore large volumes of data to gain insights and drive strategic decisions

Cloud

Cloud computing is reshaping the way software and services are sold and delivered

Digital transformation impact on businesses

Organisations are experiencing the following three core changes due to digital transformation:

- Augmented traditional business models, such as moving from selling products to providing solutions

- Emergence of wholly new types of business models

- Better customer experiences, streamlined operations and increased profitability

Digital portfolio

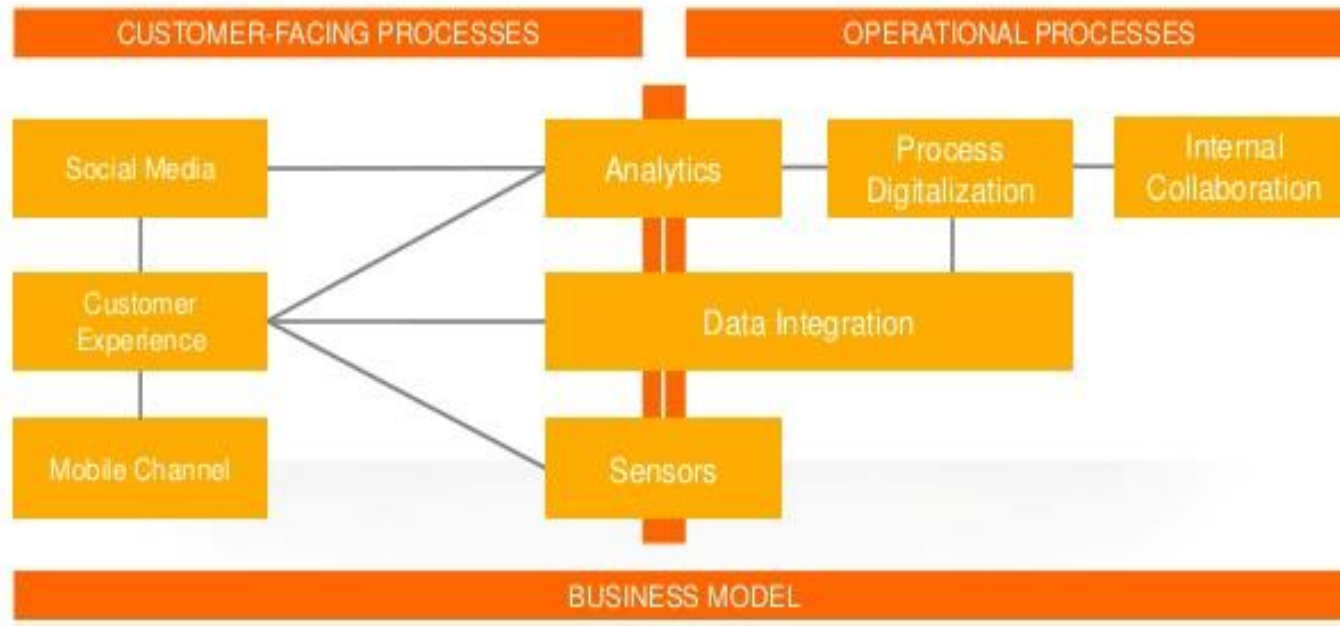| Digital products and services	Digital customer experience	Digital operations	Digital workforce
► New digital business models ► Digital enhanced businesses ► Digital R&D	► Digital commerce ► Digital marketing ► Digital service	► Digitally-enabled field-force ► Multi-channel integration ► Digital maintenance and support	► Digital HR ► Connected workforce
► Create **new revenue stream** through new businesses ► **Augment existing portfolio** by leveraging digital technologies ► Provide a **collaborative ecosystem** to ideate new products and services	► Generate **incremental revenue** by adopting **customer-centric** approach ► Prioritise **customer convenience** by selling products and services via **digital channels**	► **Improve bottom-line** by empowering sales force identify, pursue and close opportunities through channel of choice ► Achieve **business agility and automation** through better maintenance and support	► Develop an **efficient workforce** by using digital solutions to reach and recruit, identify and provision need based training, manage employee **performance and productivity**

There Are Clear Patterns In How And Where Digital Masters Invest In Digital Capabilities

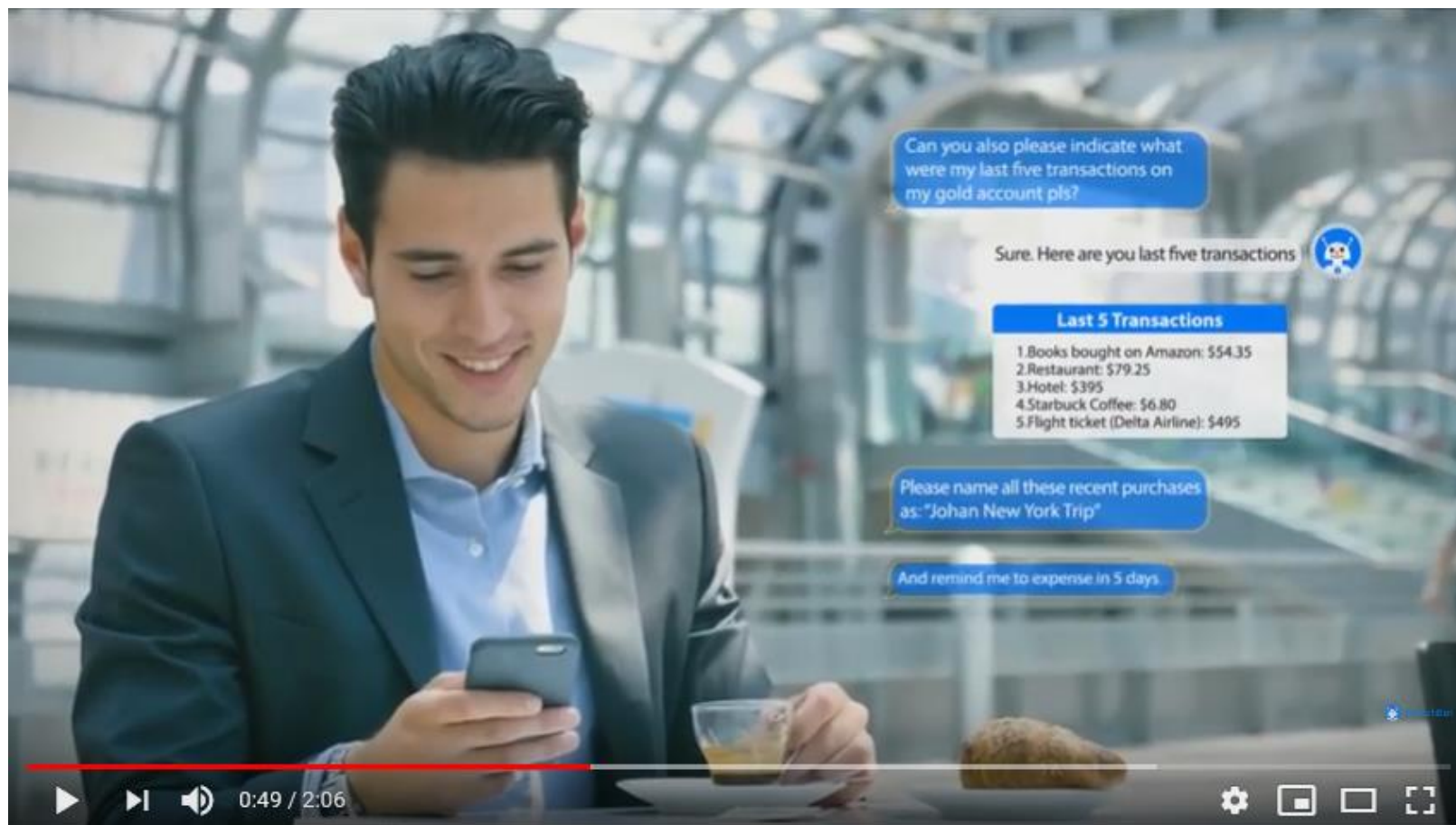# Digital transformation examples

https://www.youtube.com/watch?v=NrmMk1Myrxc

Digital transformation examples

https://www.youtube.com/watch?v=hOoQ7Aa5ApE

Industrie 4.0 - Bosch plant (4 min)

https://www.youtube.com/watch?v=GKhSTjraHIU

5 CHANGE BLOCKS OF DIGITAL TRANSFORMATION

STRATEGY & CULTURE + **STAFF & CUSTOMER ENGAGEMENT** + **PROCESS & INNOVATION** + **TECHNOLOGY** + **DATA & ANALYTICS**

= DIGITAL TRANSFORMATION

Digital transformation

- Digital transformation is not a project (once time action)

- Digital transformation is a strategic direction (a path) of using modern IT for changing the company

- Digital transformation readiness of a company matters

- Digital transformation stages / digital transformation maturity

What Digital Transformation Means (65 min)

The What: Where Digital Masters make smart investments to build digital capabilities?

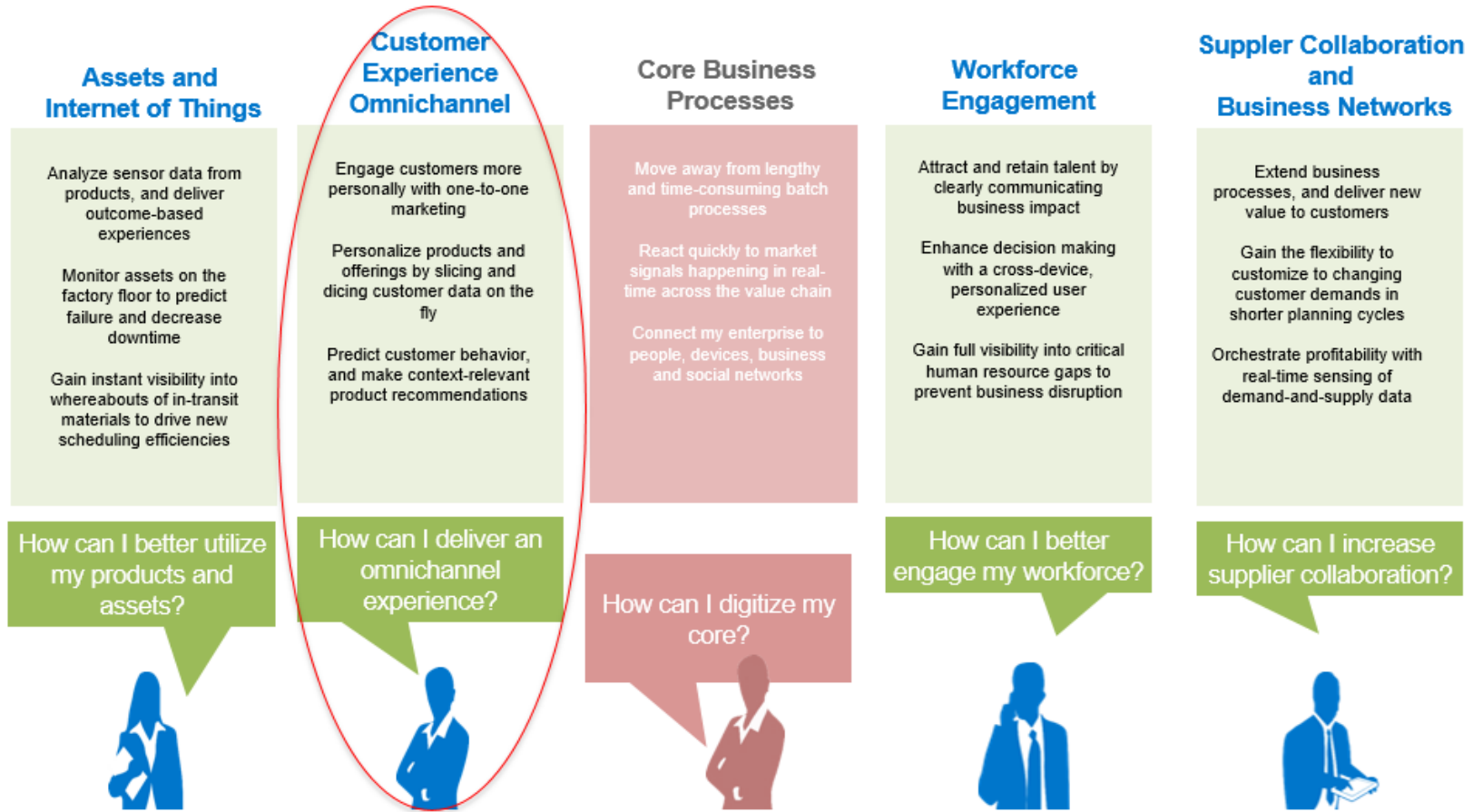| CUSTOMER EXPERIENCE	CONNECTED OPERATIONS	BUSINESS MODEL
Customer Understanding	Process digitization/automation	Digitally-modified business
Experience Design	Worker enablement	New digital business
Customer Touch Points	Performance management	Platform Economics

13:14 / 1:03:59

Digital Transformation
DIGITAL ECONOMY TRANSFORMATION REQUIREMENTS

Assets and Internet of Things

Analyze sensor data from products, and deliver outcome-based experiences

Monitor assets on the factory floor to predict failure and decrease downtime

Gain instant visibility into whereabouts of in-transit materials to drive new scheduling efficiencies

How can I better utilize my products and assets?

Customer Experience Omnichannel

Engage customers more personally with one-to-one marketing

Personalize products and offerings by slicing and dicing customer data on the fly

Predict customer behavior, and make context-relevant product recommendations

How can I deliver an omnichannel experience?

Core Business Processes

Move away from lengthy and time-consuming batch processes

React quickly to market signals happening in real-time across the value chain

Connect my enterprise to people, devices, business and social networks

How can I digitize my core?

Workforce Engagement

Attract and retain talent by clearly communicating business impact

Enhance decision making with a cross-device, personalized user experience

Gain full visibility into critical human resource gaps to prevent business disruption

How can I better engage my workforce?

Supplier Collaboration and Business Networks

Extend business processes, and deliver new value to customers

Gain the flexibility to customize to changing customer demands in shorter planning cycles

Orchestrate profitability with real-time sensing of demand-and-supply data

How can I increase supplier collaboration?

Digital Transformation on Foundational Platforms
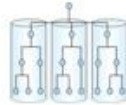
Legacy Enterprise IT

data center

waterfall

silos

COST

IT as overhead

process-driven

operations

Focus on

- Automation of Business
- Operations and Functional Silos
- Legacy Business Models
- Discrete, Separate Touchpoints
- Systems of Record
- Irregular, Periodic Change
- Emphasis on Service Delivery
- Centralized IT

change platform
and model

+

target IT platform(s)
for transformation

+

change agents
at center + edge

digital transformation

Digital Enterprise

cloud

agile + devops

ecosystem

IT for revenue

data-driven

change processes

Focus on

- Digitization Transformation of Business
- Customers, Products, and Data
- Digital Business Models
- Seamless Omnichannel
- Systems of Engagement
- Continuous Everything
- Emphasis on Digital Experience
- Decentralized IT (everyone is in IT)

From *http://zdnet.com/blog/hinchcliffe* on **ZD**Net. *by Dion Hinchcliffe*

Transformation Towards Digital Mastery
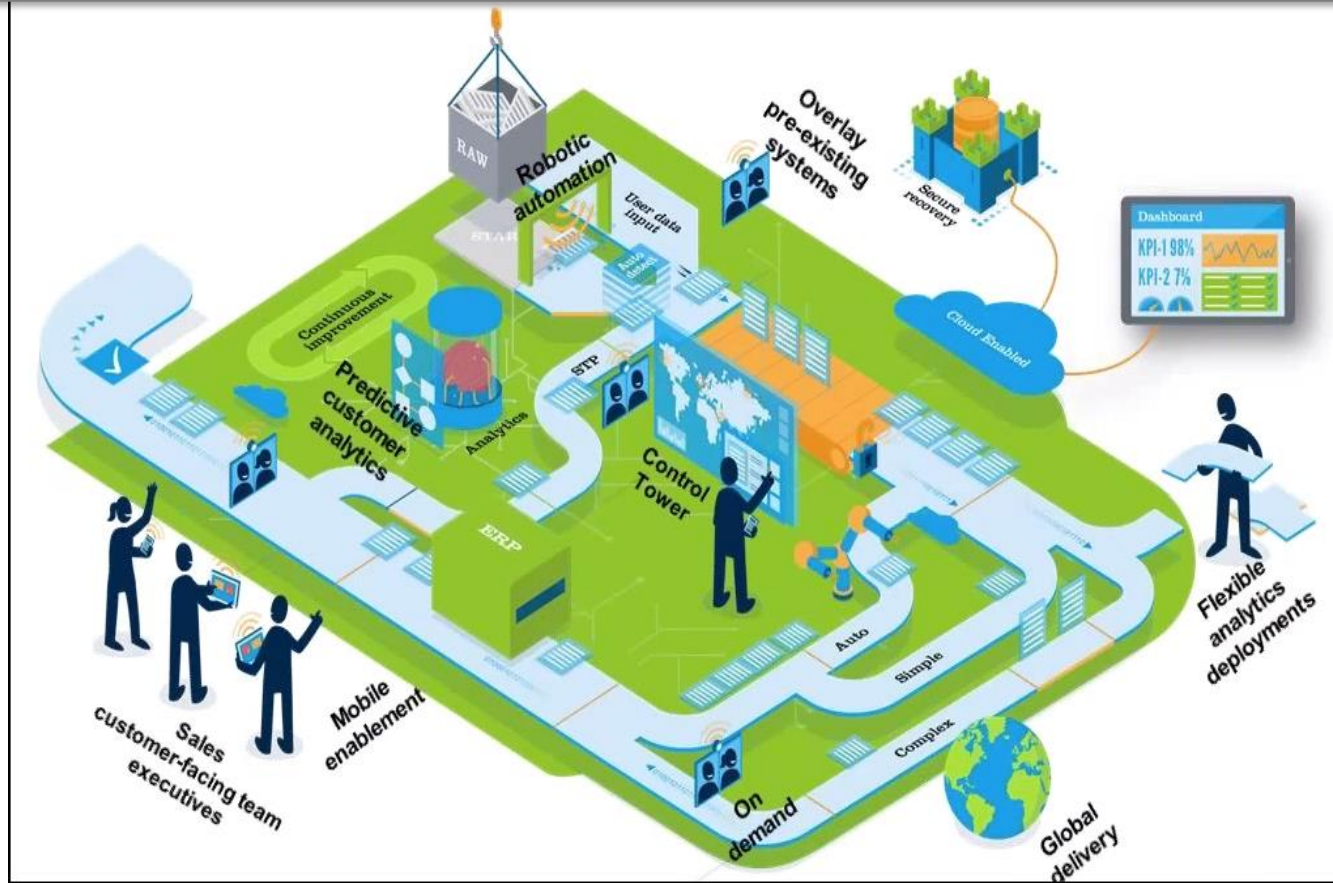
Digital transformation in automotive sector

Digital transformation across the auto industry ecosystem

Evolution of products

► Increasing complexity and role of software
► Move towards providing connected vehicle services

Supply/value chain improvements

► Greater supply chain visibility and reduced risks
► Better component traceability and reduced warranty or recall costs

Product Innovation

Sales and marketing

Supply chain management

Enterprise Operations

New customer-OEM relationships

► Better customer engagement and higher retention
► Higher productivity through analytics and business intelligence

Evolution of processes

► Reduced product development time and costs
► Optimal capacity planning and production
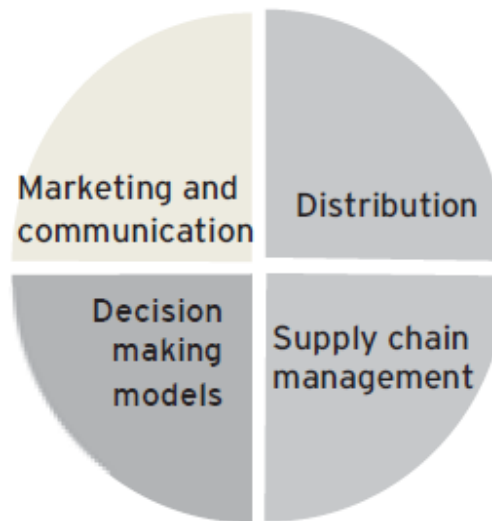
Consumer products and retail sector

Digital transformation is acting as a disruptive force across the entire value chain

Consumer-driven marketing
- ► Digital spend on the rise
- ► Changing medium for consumer engagement
- ► Consumer co-creation and collaborations with startups for new product development

Rise of disruptive channels
- ► Online distribution platforms for reduced costs and extensive consumer reach
- ► Faster delivery
- ► Innovative payment mechanisms

Smart organizations
- ► Digitally embedded organisational designs
- ► Improved store layouts, merchandising, assortment and shelf space
- ► Analytically driven CRM capabilities

Agile supply chains
- ► Better demand planning and inventory management
- ► Automated warehouses for improved customer service levels

Marketing and communication

Distribution

Decision making models

Supply chain management

Areas of digital transformation across the financial services sector:

Maximise customer lifetime value

► Easier customer acquisition and retention

► Targeted products and effective communication

► Differentiated branches

Drive productivity

► Remodelling of legacy systems and processes

► Efficient distribution of physical network

► Greater data quality and reduced costs
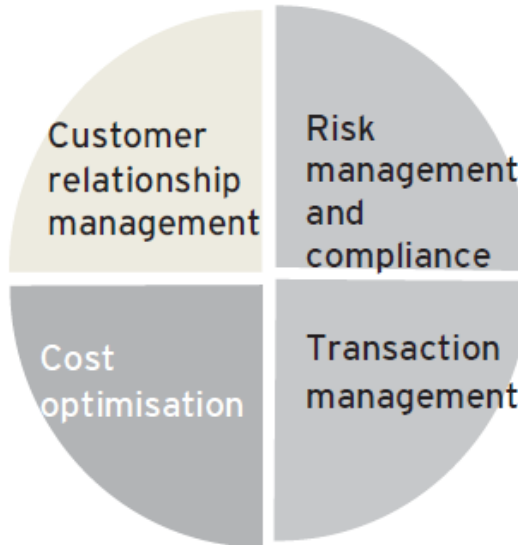
Mitigate risks and better reporting

► Real-time risk monitoring

► Better prevention of fraudulent transactions

► Improved reporting and transition to new regulations

Evolution of alternate payment modes

► Emergence of mobile banking and digital wallets

► Precise, easier and more economical fund transfer mechanisms

Customer relationship management

Risk management and compliance

Cost optimisation

Transaction management

The path to intelligent process

The evolution from ad hoc to intelligent processes is not unlike the way experts in everything from chess to basketball develop mastery: from a hit-or-miss beginning, to the repetition of basic moves that lead to a greater sense of mastery, to the variations based on having absorbed the basic moves, to developing the ability to improvise and actively experiment—and, finally, to creating breakthrough innovation.
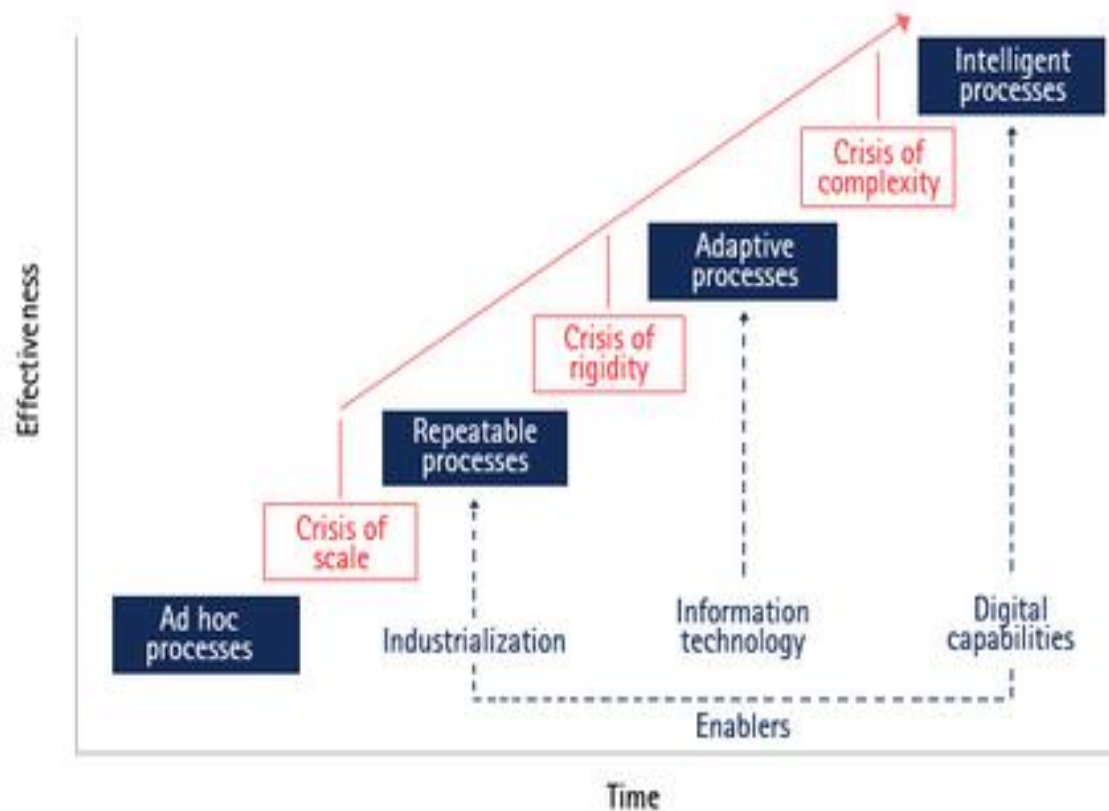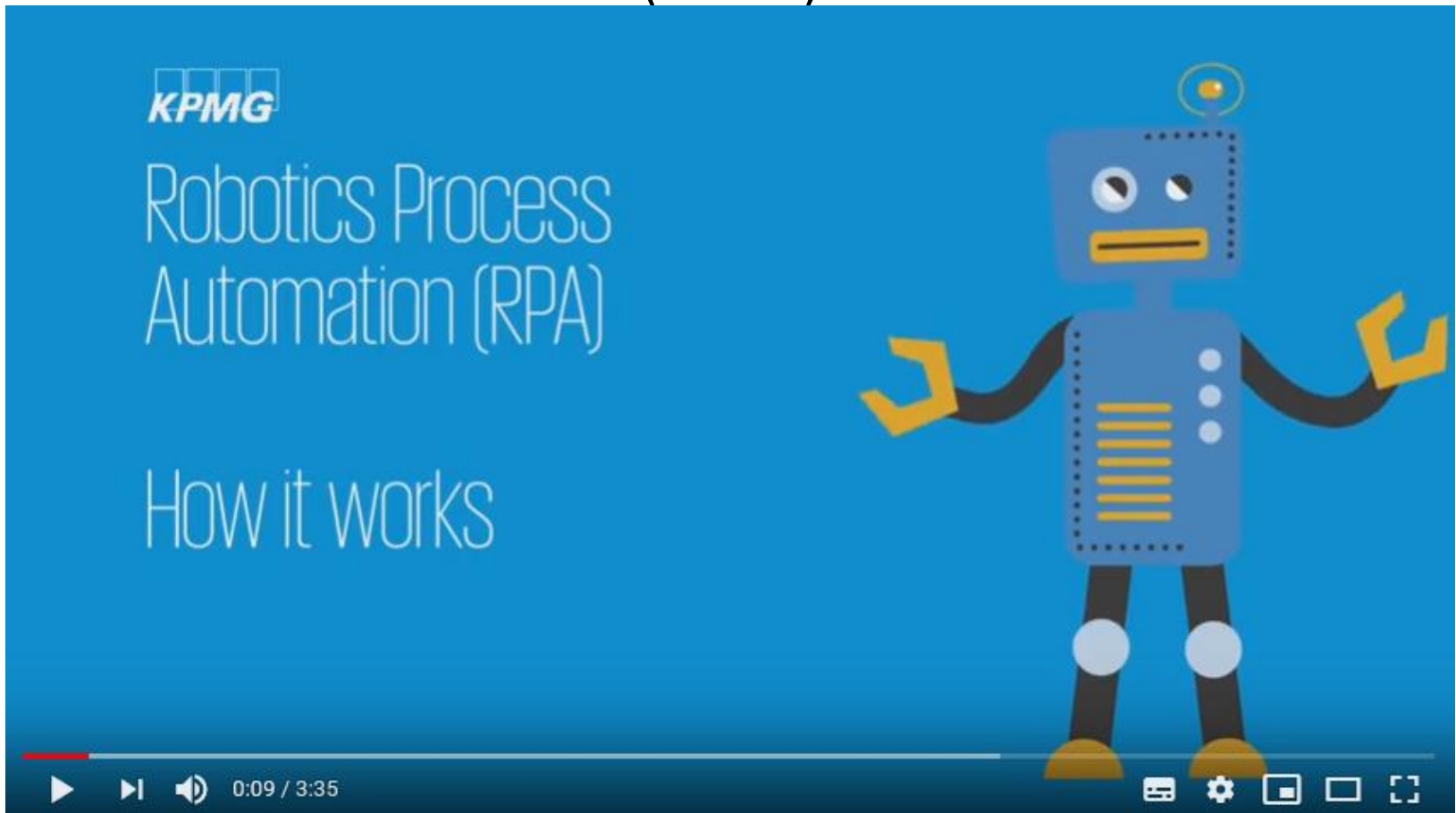
Robotic Process Automation (RPA): how does it work? (4 min)

Vir: https://www.youtube.com/watch?v=xW95yb6J1eU

IoT and digital transformation
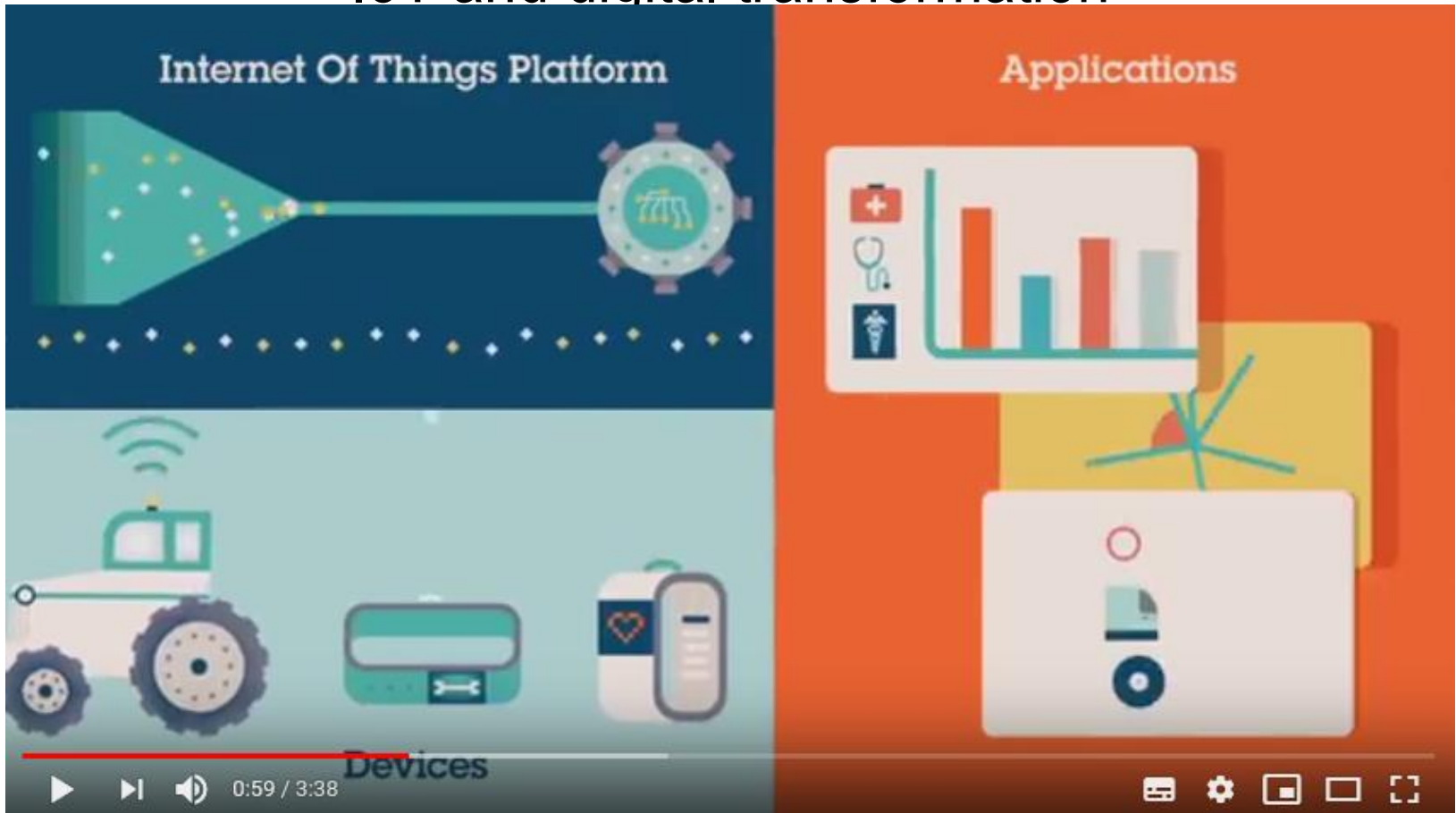
AI data analytics

Dimensions and stages of digital maturity

Three dimensions and five stages of digital maturity

	PEOPLE	PROCESS	TECHNOLOGY
OPTIMISED	Deep Knowledge Knowledge Sharing Agile and Innovative Cultur Pervasive Technology Capabilities	Interdisciplinary agility Cross-functional nimble teams Tolerance to errors Entrepreneurial environment Fast-moving environment	Customized dashboards Data and Technology sharing Cloud Scalability Omnichannel Strategy Digital and online/offline Integration Real-time decisions
DIGITAL	High Level of Collaboration Full proficiency in the use of new technologies Cross-functional Centres of Excellence/Digital Teams	SCRUM Test & Learn Agile processes and Development	Advanced Analytics and Predictive Modelling Internal Social Networks tools and/or Communication Platforms Multichannel Strategy Starting the process of different channels integration
MANAGED	Specialists and Generalists Tech skills Fluid Structure Collaborative Environment	Agile Development Fast releases Fast prototyping	SaaS Technologies Joining up data Multichannel Strategy Flexible workplace Technologies Mobile Technologies
TRADITIONAL	Tech Skills Independent teams with me- dium level of collaboration Periodic Training Shortage of Digital Talents	Waterfall processes and Project Management Irregular releases Presence of some redundancies	Traditional/Legacy systems Partial data process automation Partial data joining between BUs
EMERGENT	Isolated Knowledge Vertical Skillsets Poor Training Dispersed Team Structures	Inflexible and slow-moving structure Infrequent release cycle	Technological and legal restrictions Basic analytics Siloed data sources

Source: © NEXTVALUE, March 2016

Maturity matrix

Figure 8.
Maturity Matrix
– Overview

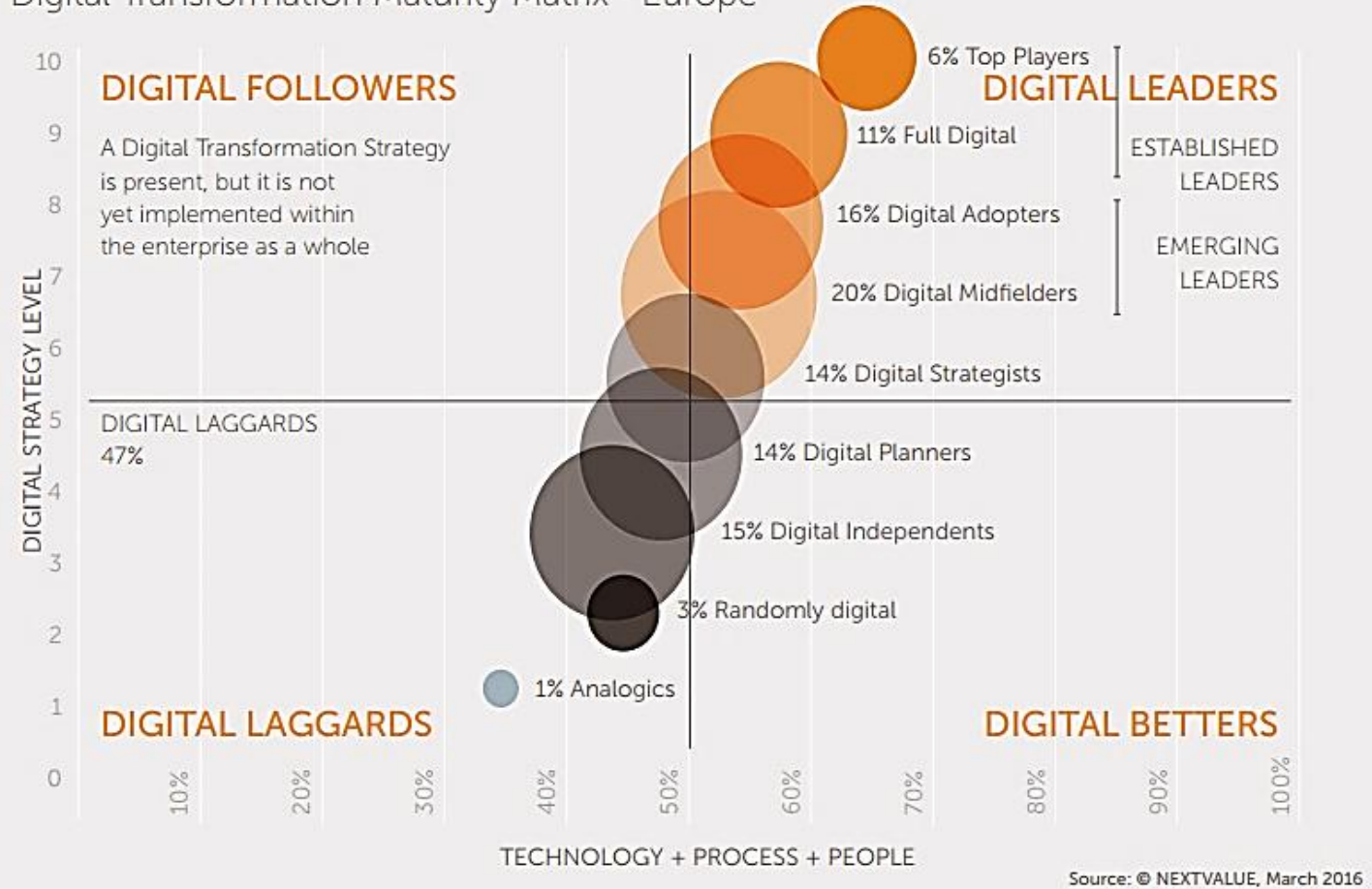|	DIGITAL FOLLOWERS	DIGITAL LEADERS
DIGITAL STRATEGY LEVEL ↑	**DIGITAL FOLLOWERS** Full developed digital strategy Still investing in right mix of digital tools and capability Digital culture may be present in silos	**DIGITAL LEADERS** Full developed digital strategy Right mixture of digital vision, governance and investments Strong digital culture
	DIGITAL LAGGARDS Lack of a digital strategy and vision Traditional processes and legacy systems and technologies Immature digital culture	**DIGITAL BETTERS** Lack of a clear Top-down digital strategy Digital governance may be present in silos Digital initiatives expression of single BUs

TECHNOLOGY + PROCESS + PEOPLE →

Source: © NEXTVALUE, March 2016

Digital Transformation Maturity Matrix - EU

Figure 9.
Digital Transformation Maturity Matrix - Europe

DIGITAL FOLLOWERS

A Digital Transformation Strategy is present, but it is not yet implemented within the enterprise as a whole

DIGITAL LEADERS

6% Top Players

11% Full Digital   ESTABLISHED LEADERS

16% Digital Adopters

20% Digital Midfielders   EMERGING LEADERS

14% Digital Strategists

DIGITAL LAGGARDS 47%

14% Digital Planners

15% Digital Independents

3% Randomly digital

1% Analogics

DIGITAL LAGGARDS

DIGITAL BETTERS

DIGITAL STRATEGY LEVEL

TECHNOLOGY + PROCESS + PEOPLE

Source: © NEXTVALUE, March 2016

Digital Transformation strategy

Table 4.
Digital transformation
strategy levers

Customer Experience	Customer Understanding (Market Sensing) Direct contact improvement Action on all the available points of contacts (Omni and Multichannel)
Operating processes	Digitalization (redesign/optimization to improve effectiveness and efficiency) Work virtualisation Process and performance management
Business models	Alignment of the traditional businesses to digital change Evaluation of new businesses Global level of action (Internalization)

Source: © NEXTVALUE, March 2016