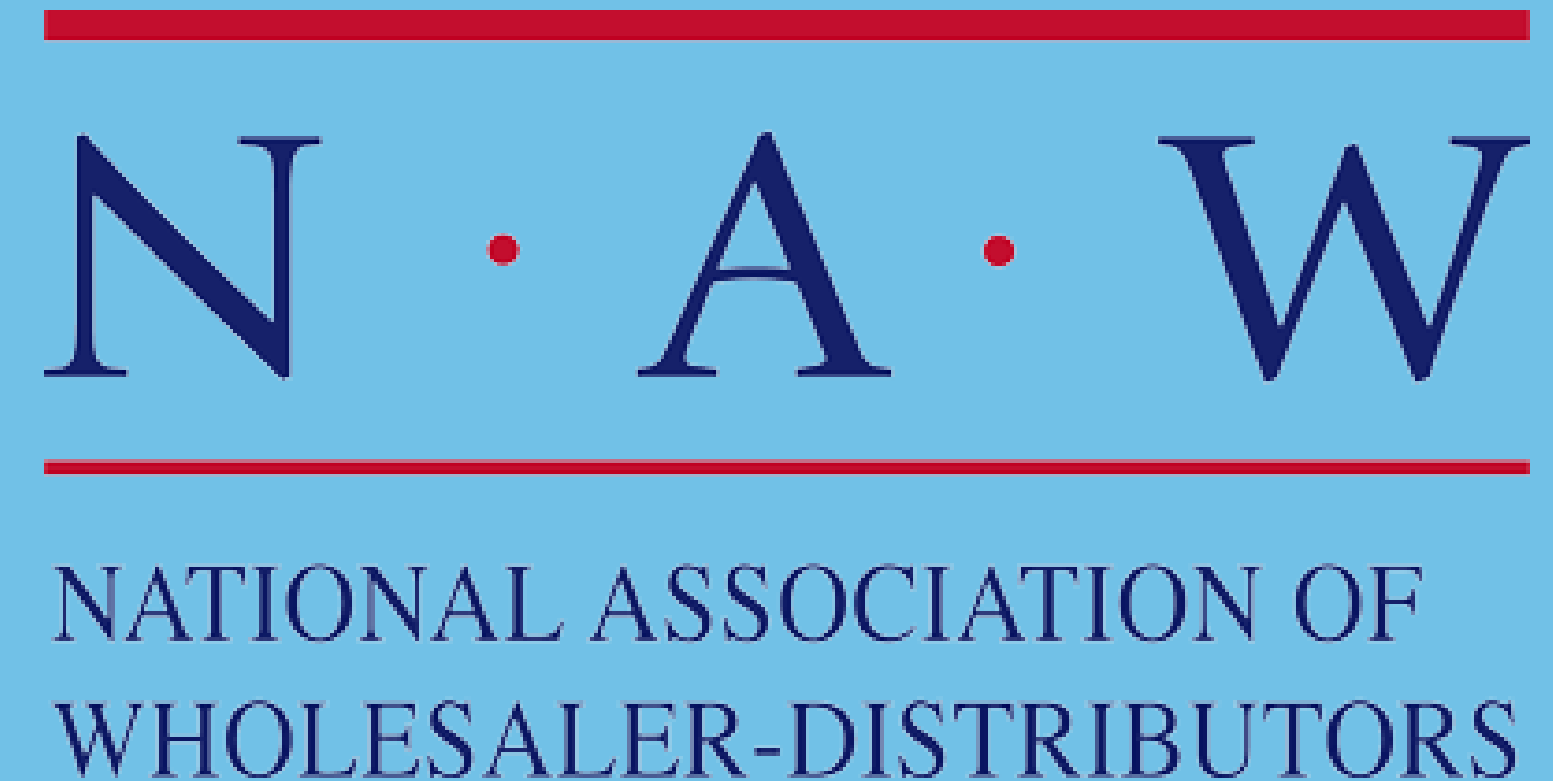


# Digitizing is the Future for Wholesaler-Distributors

Dane Poeske

December 6, 2017



# Digitalizing is the Future

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***Businesses must translate huge amounts of information and then digitize their entire end-to-end processes to be more flexible and nimble or they will not survive.***

***There are three disruptive technologies that are being tested and deployed across the globe to manage the rapidly growing demands from our customers. Watson is one new technology to help organizations manage information and make better informed decisions quickly. The second is Blockchain, which digitizes transactions between parties to create an unalterable system of record. Finally, the Internet of Things (IoT) can track the physical movement of goods and monitor the performance of these goods in new and exciting ways.***

***These three technologies can fundamentally change the way products and services are managed throughout the existing business ecosystem***

**Survival is Optional**



# Survival is Optional

THERE IS A SENSE OF URGENCY



Since 2000 over 50% of the Fortune 500 have disappeared in one way or another.

This is before the impact of digital technologies had truly taken hold. During that period there have been a series of breakthroughs in digital technologies giving birth to media giants such as Facebook, and transportation companies such as Uber

Disruption and digital transformation are the new games in town



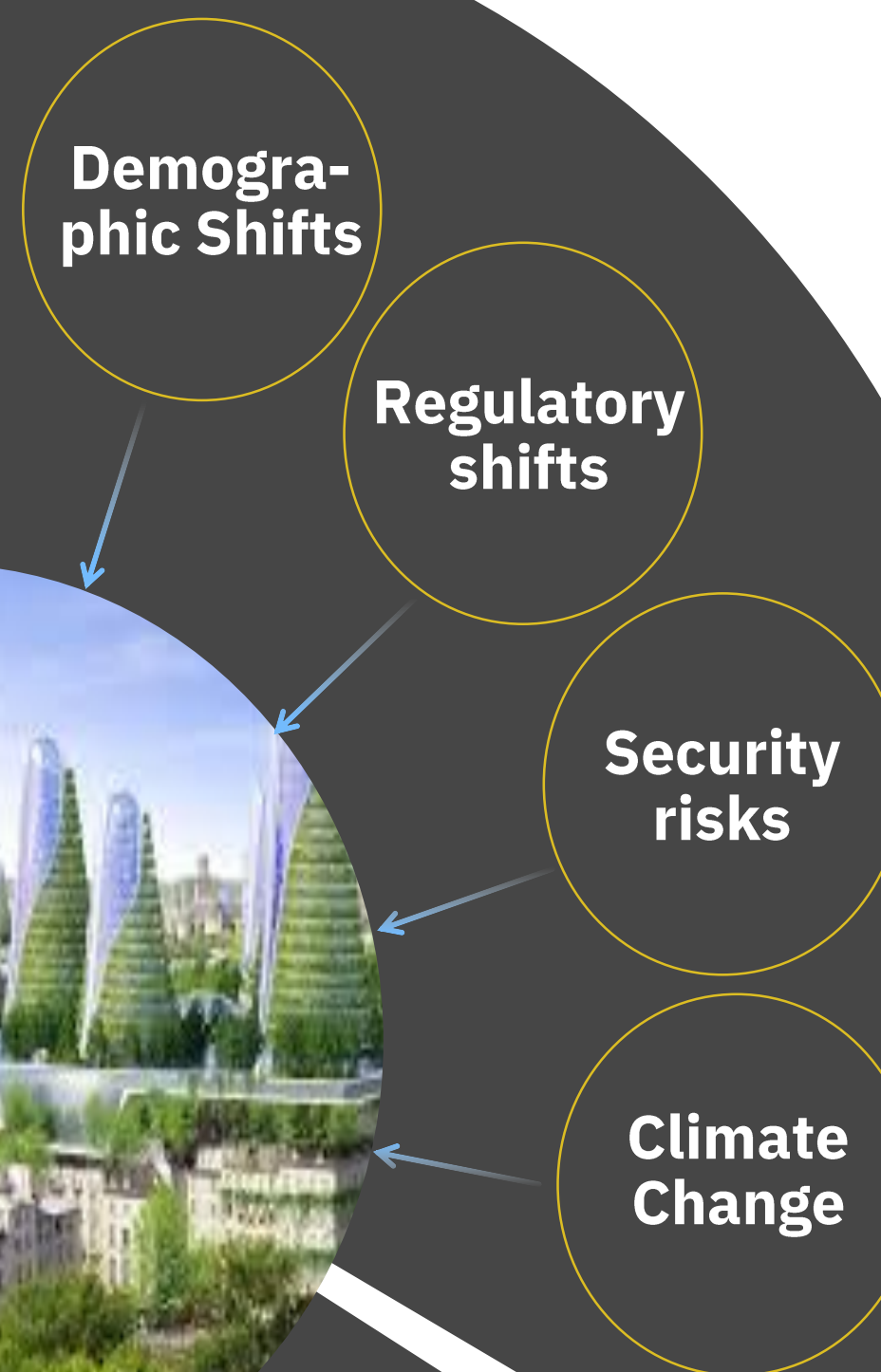
# Survival is Optional

THREE FORCES THAT ARE DRIVING DISRUPTION

## Technology Forces



## Macro Forces



## Competitive Forces

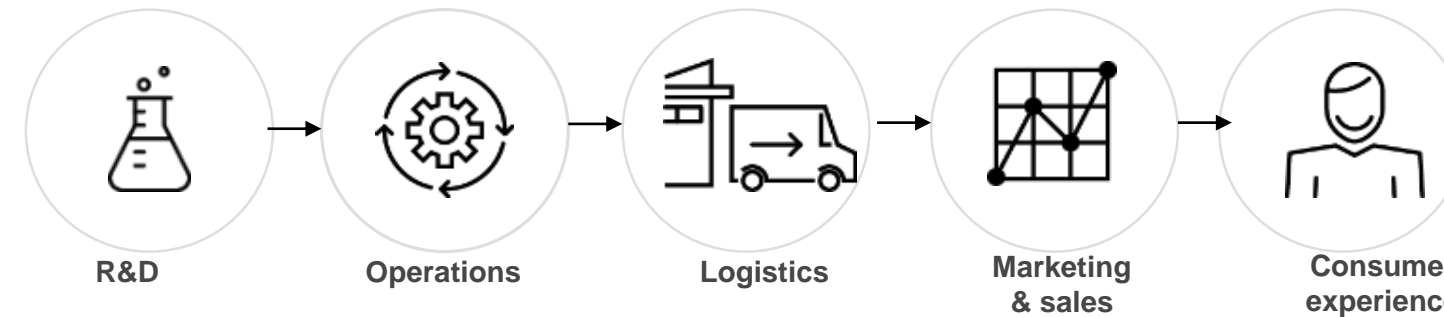


# Survival is Optional

THE SHAPE OF OUR INDUSTRY IS CHANGING

## Fragmentation of traditional value chains

New technologies create more transparent value chains that are easier to decompose by function

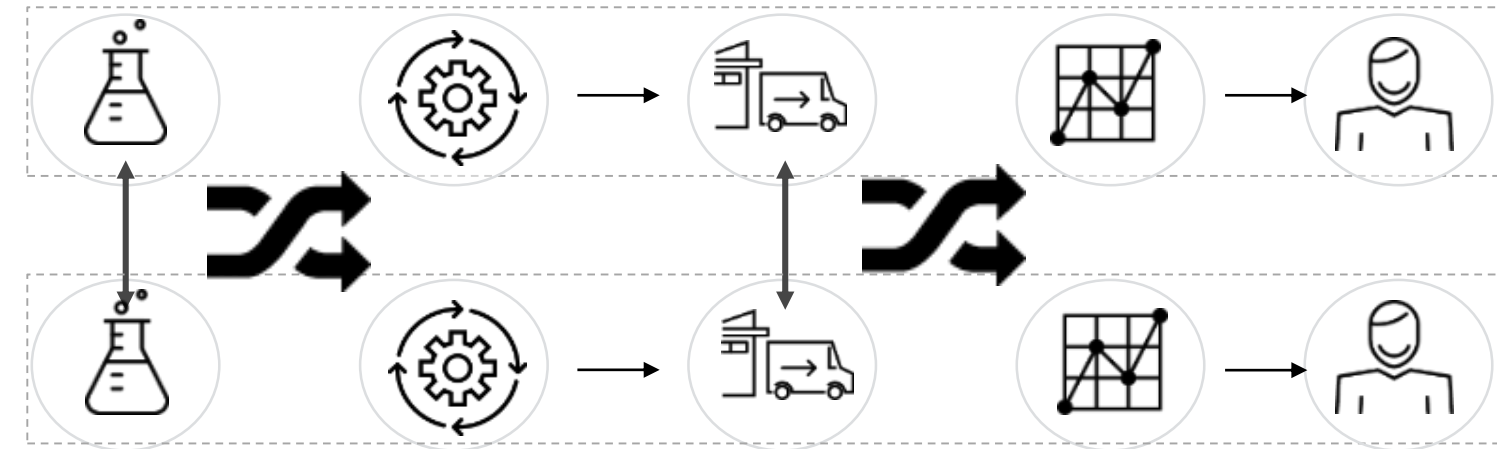


55%

Executives feel traditional value chains are being replaced<sup>1</sup>

## Convergence of industries

New competitors are emerging that compete in specific value chain functions across industries

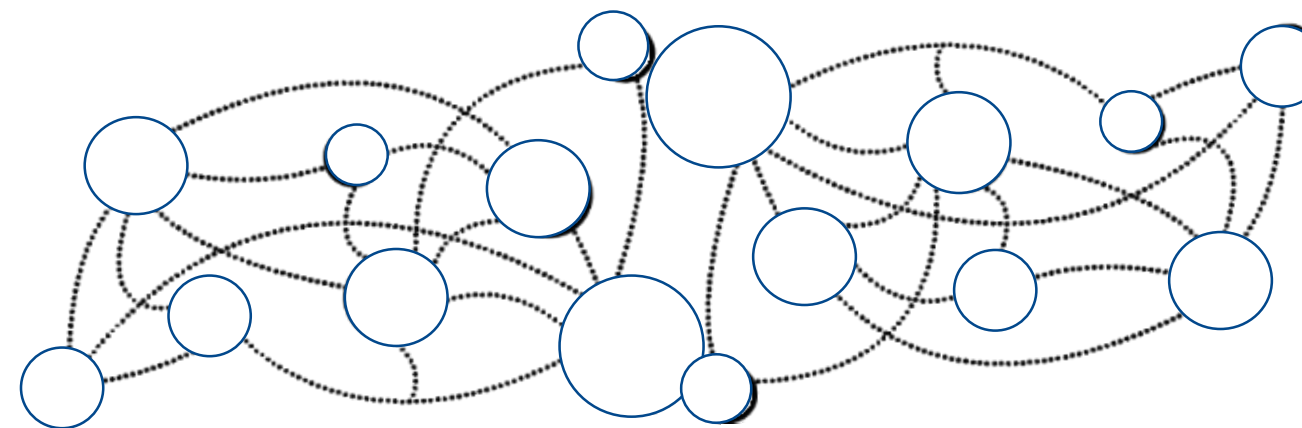


51%

Executives feel boundary between industries are blurring<sup>2</sup>

## Emergence of new ecosystems

New types of ecosystems emerge, displacing traditional industries



69%

CEOs rate ecosystems as the most impactful business trend<sup>3</sup>

Source[1],[2]: 'Global Ecosystem Survey', IBM Institute for Business Value, 2016, n=2156

Source[3]: 'Redefining Competition: Insights from the Global C-suite Study--The CEO perspective', IBM Institute for Business Value, 2016, Source: Q1.3.a Which of the following trends will impact your business most in 3 to 5 years? [Industry convergence. The merging of industries, as suppliers, distributors, customers and competitors increasingly cooperate in ecosystems created to deliver new products and services]; (n= 600)

# Survival is Optional

RECENT HEADLINES

## *Why Amazon May Want to Crush Walgreens and CVS By Selling Prescription Drugs*

Amazon Pharmacy could radically disrupt the generic drug business. Here is the opportunity for the e-commerce giant.

[By Annie Palmer](#) Oct 20, 2017 4:48 PM EDT

## *CVS reportedly in talks to buy Aetna*

The Wall Street Journal [reported Thursday](#) that CVS Health ([CVS](#)) is in talks to acquire the health insurer for \$66 billion.

By [Julia Horowitz](#) October 26, 2017: 5:40 PM ET

# **THE 4<sup>TH</sup> INDUSTRIAL REVOLUTION IS HAPPENING NOW**

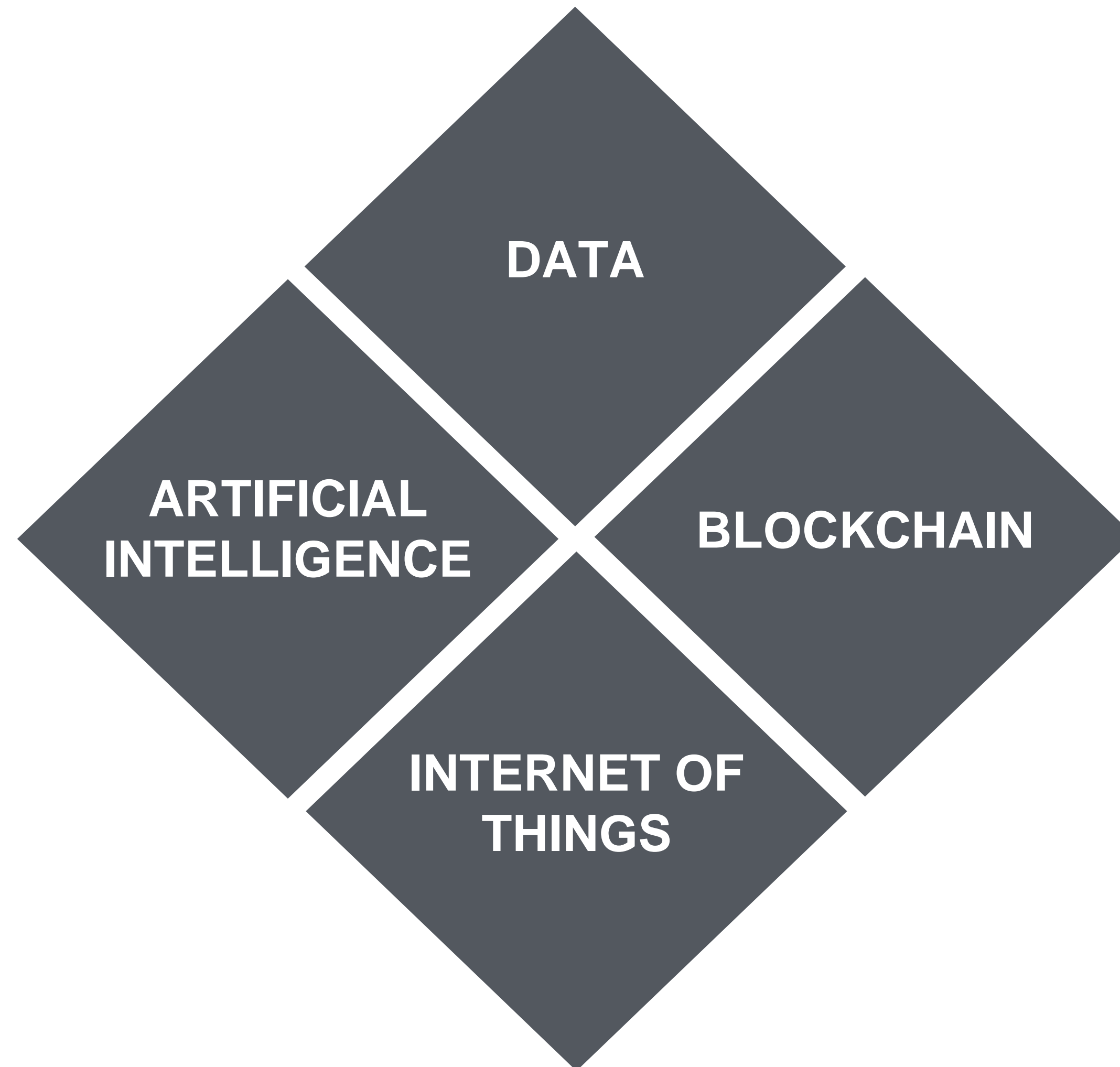


# The Fourth Industrial Revolution

ITS ALL ABOUT THE DATA

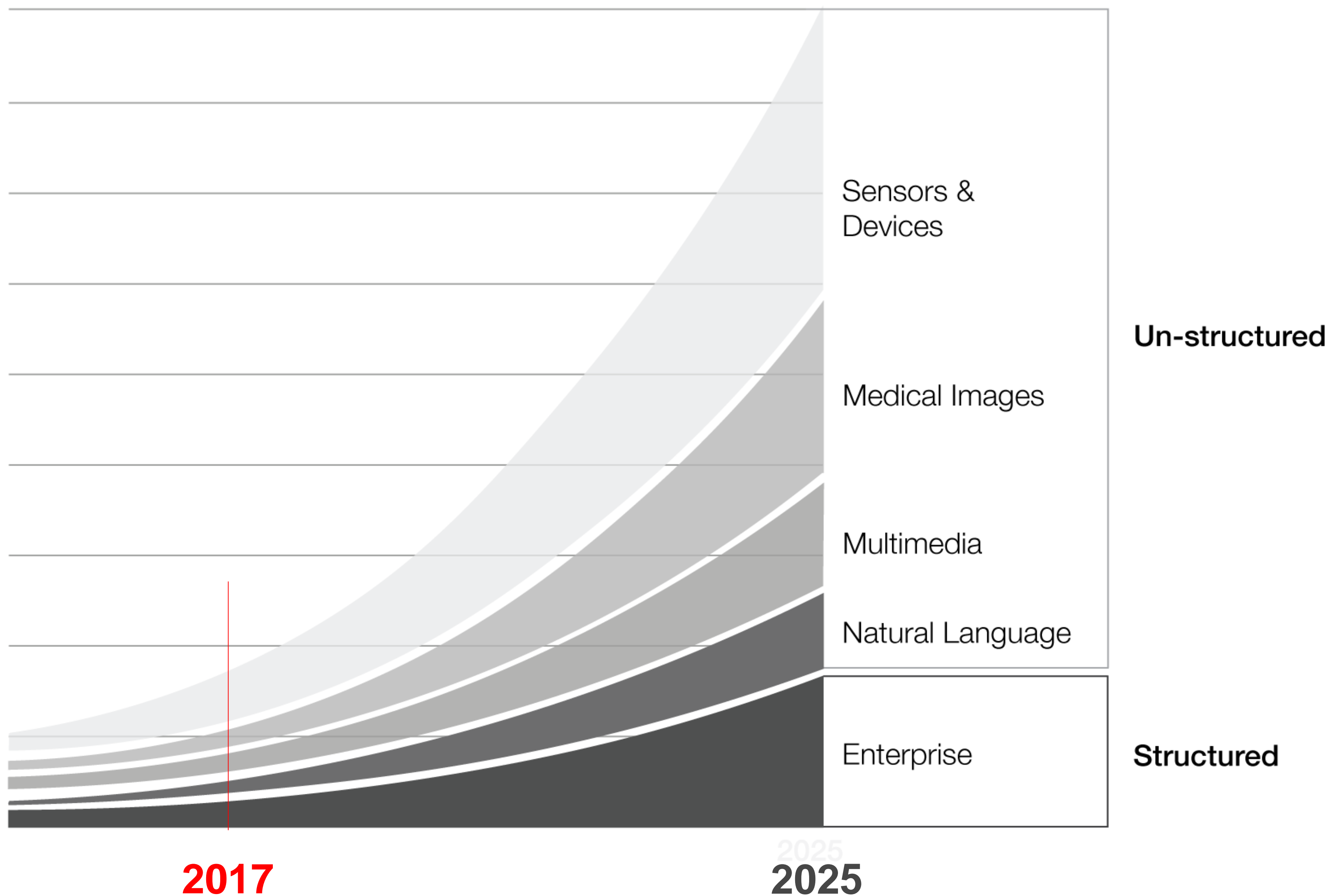
## What is it?

Convergence of new technologies that are fusing the physical, digital and biological worlds, and impacting all disciplines, economies, and industries



# The Fourth Industrial Revolution

UN-STRUCTURED DATA IS CHANGING THE WORLD WE KNOW TODAY



# The Fourth Industrial Revolution – The 5 Next Steps

WHAT WILL SUCCESS LOOK LIKE

1. **Build a new value chain strategic plan with digital initiatives**
2. **Invest in a transformational strategies with specific digital goals:**
  - Drive revenue growth with new business models
  - De-capitalize assets by adding third party ecosystem partners
  - Re-invest in new human capital
  - Increase investment substantially in **Big Data, AI, Internet of Things and Blockchain**
3. **Design new product and services that are consumer-centric and that customers will love**
  - Improve digital engagement by using new data including B2B and B2C
4. **Reinvent the end-to-end manufacturing and the supply chain**
  - Create smart factories and connected supply chains
  - Segment the supply chain to support “consumer as the channel”
5. **Drive productivity with extensive use of robotics and automation**

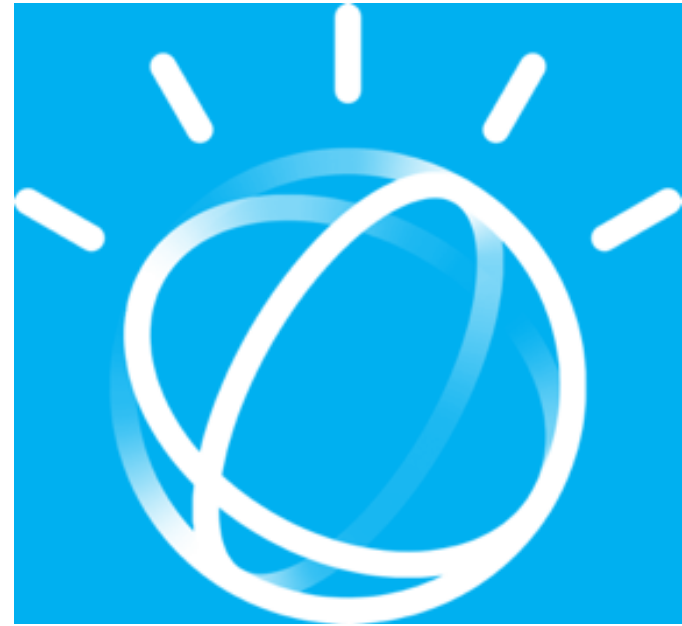
**Watson AI**





# What is Watson?

AUGMENTED INTELLIGENCE



**Watson is an artificial intelligence platform comprised of pre-trained cognitive services.**

*Watson mimics how humans learn and interact.*

## Cognitive Signals



**Talks**



**Listens**



**Reads**



**Chats**



**Sees**

## How does Watson work?

### UNDERSTANDS

Cognitive systems understand imagery, language and other unstructured data like humans do.

### REASONS

They can reason, grasp underlying concepts, form hypotheses, and infer and extract ideas.

### LEARNS

With each data point, interaction and outcome, they develop and sharpen expertise, so they never stop learning.

### INTERACTS

With abilities to see, talk and hear, cognitive systems interact with humans in a natural way.

# IBM Watson leverages multiple forms of AI

AUGMENTED INTELLIGENCE



## Computer Vision

How to recognize objects?



## Speech Recognition & Synthesis

How to turn sounds into words and vice versa?



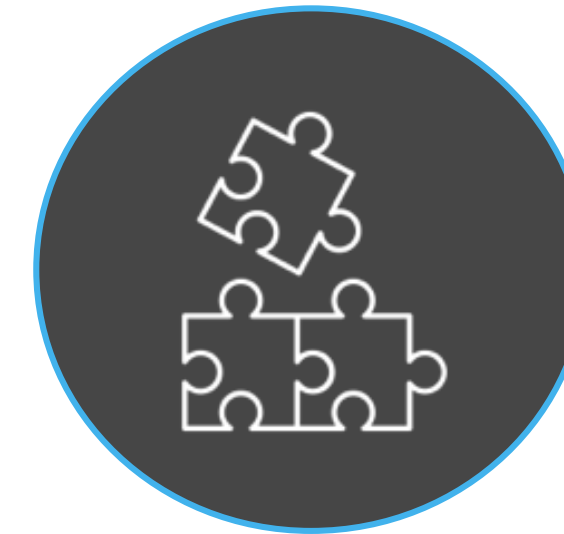
## Natural Language Processing & Generation

How to extract meaning from language, and convey meaning through generated sentences?



## Knowledge Representation

How to sort information in a practical way (hierarchies, semantic networks)?



## Reasoning

How to combine pieces of information to reach conclusions?



## Planning

How to schedule a sequence of actions to fulfill a given goal and make sure they are well executed?





# Watson is a Platform of Services

LEVERAGE WATSON APIS AND REUSABLE MACHINE LEARNING ALGORITHMS

## Analyzes Unstructured Data

*Uses natural language processing to understand*

## Understands complex questions

*Evaluates all possible meanings and determines what is being asked*

## Presents answers and questions

*Based on supporting evidence and quality of information found*

**500+**  
Watson ecosystem partner companies...

**50,000+**  
Developers WW

**9,000+**  
Apps in test, beta or production

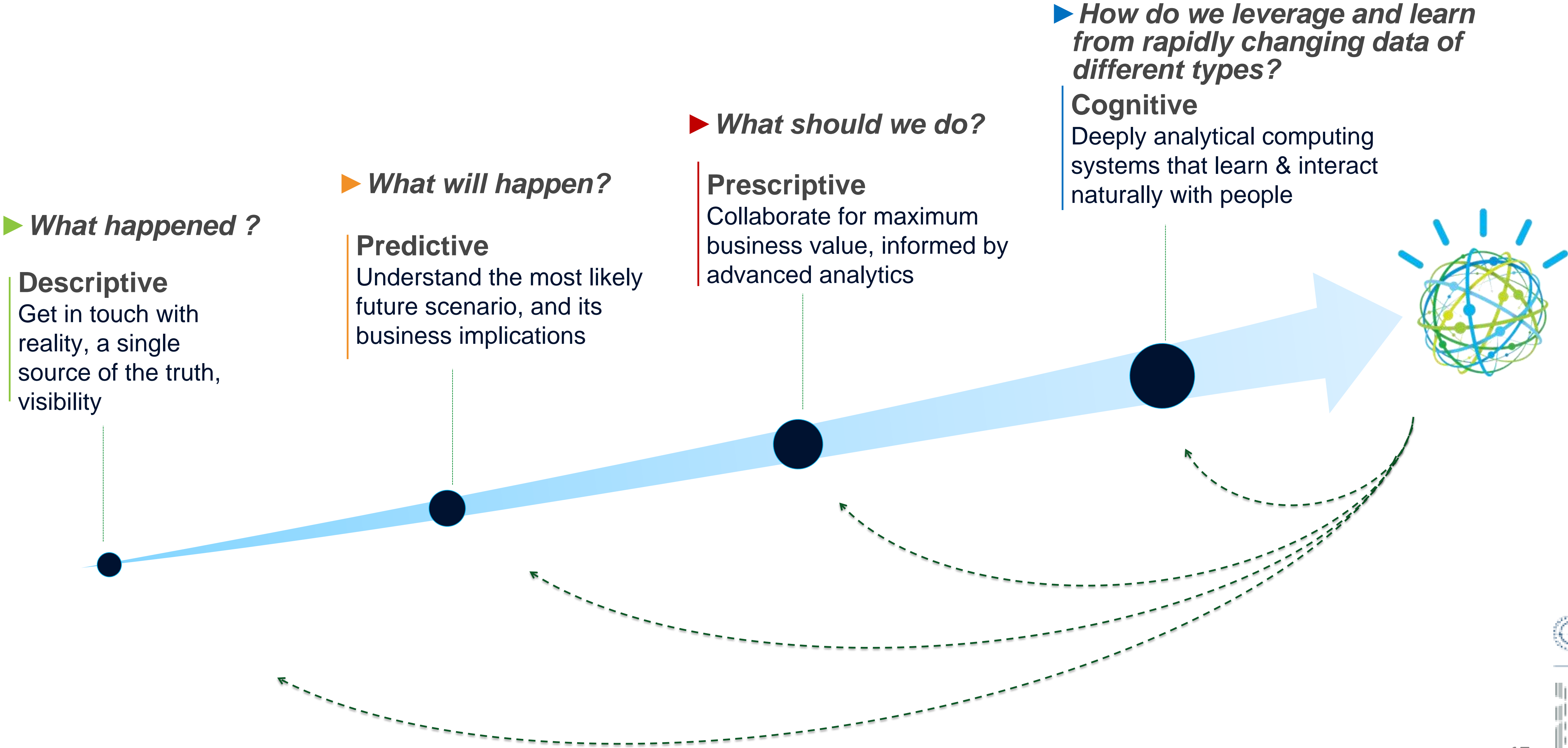
**3B+**  
Watson API calls a month and growing





# Watson adds the Power of Analytics

COMBINING WATSON WITH OTHER TECHNOLOGIES CREATES THE TRANSFORMATION



# IBM Watson Processes & Services – Cognitive Automation

IBM AUTOMATION WITH WATSON FOR SAP

Capability	Employee Assist	Agent Assist	Coding Assist	Automated Business Requests	Automated Service Requests
What is this?	The end user can talk to Watson about how to do things and get context sensitive advise	Watson accelerates issue resolution through interaction with the IBM support agent	Watson coaches the junior developer, making them more effective and freeing up senior resource time	The user can get help from Watson in a catalogue of business scenarios – with automations accelerating the process	The end user can request Watson to execute activities in a catalogue of standard service request automations
Example(s)	How do I cancel my purchase order?  How do I know which material group to select?	Agent requests information on how to fix a particular error code and receives information from another account which helps solve the problem	Developer requests guidance on how to efficiently structure an internal table in which to load transaction data	User is travelling and needs to correct a purchase order error – asks Watson who clarifies the change to be made and executes it when authorised	Technical help scenarios where the helpdesk is needed. E.g. password reset, unblocking a user, refreshing a training system



# IBM Watson Processes & Services – Cognitive Automation

IBM AUTOMATION WITH WATSON FOR SAP

Capability	Business Process Self Heal	Technical Self Heal	Cognitive Service Analytics	Dynamic Automation
What is this?	The monitoring solution is able to spot an issue with a business process and automatically execute resolution steps	Hands off automated issue resolution – our monitoring solution raises the ticket, analyses and resolves the problem	System, ticket and other analytics which gives proper insight into business and technical performance and tangible improvement steps	Catalogue of automations that are triggered by the support agent to do jobs faster and cheaper
Example(s)	Purchase order approval is slow (approver OOO) and is automatically re-routed. Deal with stock shortages. Prompt actions on incomplection logs.	The standard Solman alerts and subsequent actions. Repair broken connections between applications. Sort out table space issues.	Analysis spots a peak of tickets in Finance on a Friday – determines there is a shift of users that need to be trained as well as a process improvement	As part of our service we need to periodically refresh the regression test environment – we set up an automation to do that set up of technical monitoring



# IBM Watson Processes & Services – Cognitive Automation

IBM COGNITIVE AUTOMATION BENEFITS

In past engagements, IBM has delivered

<b>Up to 10x</b>	<b>30-60%</b>	<b>15-25%</b>	<b>80-90%</b>
ROI with source-to-pay collaboration	run-rate savings from operational cost baseline	improvement in working capital	purchasing and supplier compliance
<b>Up to 40%</b>	<b>5-10%</b>	<b>Up to 20%</b>	<b>3-7%</b>
reduction in training operational costs	improvements in cross-sell and up-sell rates	improvement in collections effectiveness	reduction in annual procurement spend





# IBM Watson – Cognitive Procurement in SAP Ariba

EMBEDDING IBM WATSON INTO SAP Ariba PROCUREMENT

## SAP Ariba and IBM Join Forces to Transform Procurement with SAP Leonardo and IBM Watson

Industry leaders to develop next-generation source-to-settle solutions; launch hub for Cognitive Procurement

### Select a topic or year

↓ News release

↓ Contact(s) information

↓ Related XML feeds

ORLANDO, FL. - 17 May 2017: Procurement is about to get smarter, faster and more efficient. SAP Ariba and IBM (NYSE: [IBM](#)) today announced a global strategic alliance to deliver cognitive procurement solutions that redefine the source-to-settle process. Leveraging SAP Leonardo, IBM Watson technologies and SAP Ariba, the solutions will bring intelligence from procurement data together with predictive insights from unstructured information to enable improved decision making across supplier management, contracts and sourcing activities.

IBM Global Business Services will provide consulting and services to build, implement and operate the new offerings using tailored roadmaps to help enterprises of all sizes lower costs and realize faster time to value. IBM will also work with SAP Ariba to bring new and existing IBM customers, including those using IBM Emptoris solutions, to the SAP Ariba platform where they can benefit from this expanded functionality and the comprehensive source-to-settle offerings that SAP Ariba provides.

Additionally, the companies will launch a Cognitive Procurement hub to further the development of intelligent procurement solutions and services, working side by side to explore applications of emerging technologies, including blockchain.

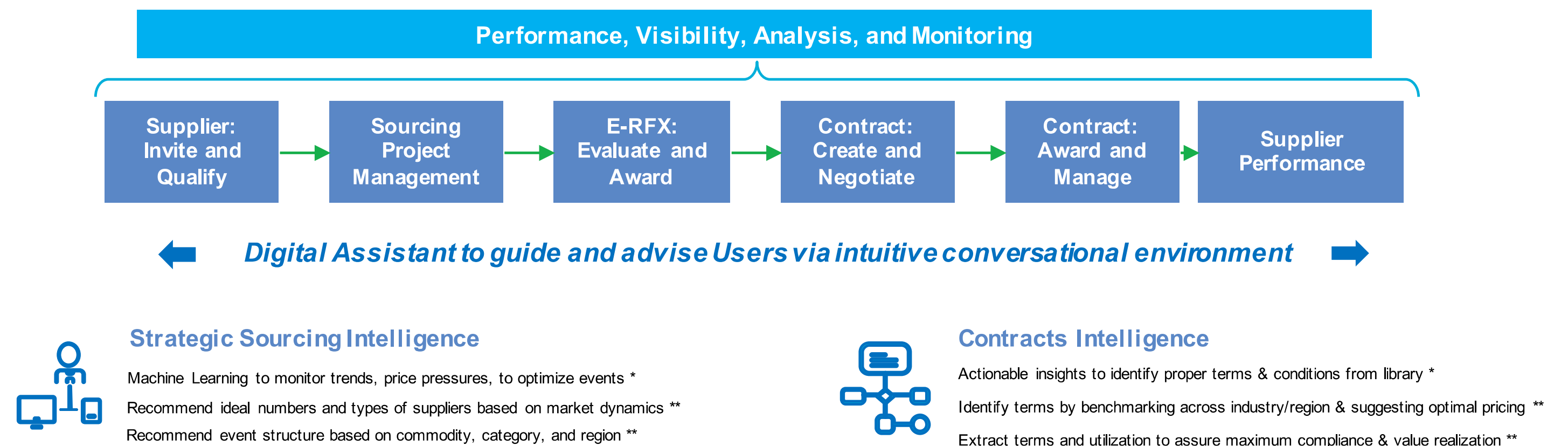
### Combining the Best of the Best to Transform Procurement

"We've built a cognitive procurement platform trained specifically to understand procurement transactions and unstructured data such as weather, non-standard part numbers in contracts and complex pricing structures," said Jesus Mantas, General Manager, Cognitive Process Transformation, IBM Global Business Services. "By combining the power of IBM Watson on the

## Cognitive Procurement Is the Game-Changer

Together, IBM and SAP Ariba will create solutions that will augment people so that people can work better

- User Experience: Natural Language (text or voice) to encourage greater engagement & faster results
- Fast Decision Making: aggregation of data, systematic insight and trends to fuel rapid decision support in real time of process
- Enhance Outcomes: self learning processes to uncover insights, automating tasks, driving efficiencies and increased savings



*Unlock value based on the power of the person and a superior, integrated platform backed by over 30 million users connected to IBM Watson*

\* Initial Release

\*\* Future Releases

[IBM-SAP Cognitive Procurement Press Release](#)



# Blockchain

# IBM Blockchain = Trust & Transparency

REDUCES COSTS AND COMPLEXITY



*Blockchain is a technology for a new generation of transactional applications that establishes trust, accountability and transparency while streamlining processes in business networks. Think of it as an operating system for interactions between participants in a business network. It has the potential to vastly reduce the cost and complexity of getting things done.*

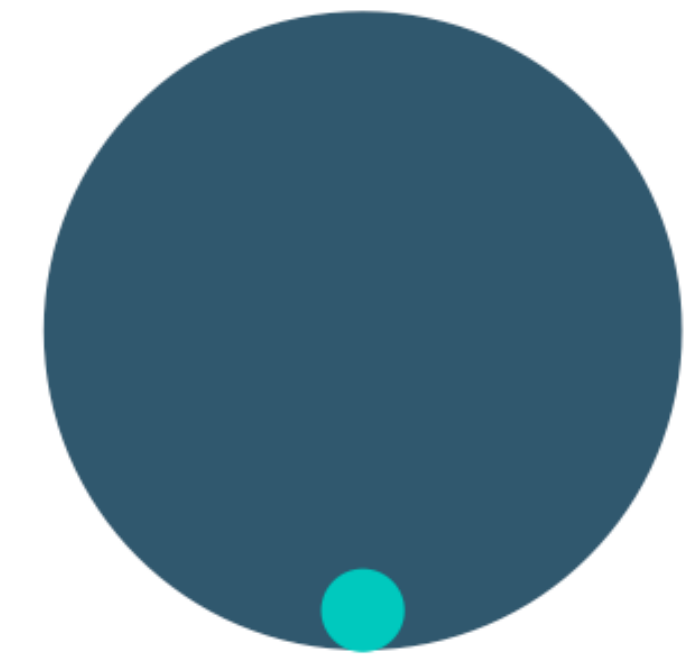


Blockchain is a design pattern that uses an shared ledger that is open for all participants



Blockchain can **reimagine** the world's most fundamental business interactions and open the door to invent new styles of digital interactions.

Total Blockchain opportunity



Total Bitcoin opportunity

IBM is applying Blockchain to a very **broad range** of business applications

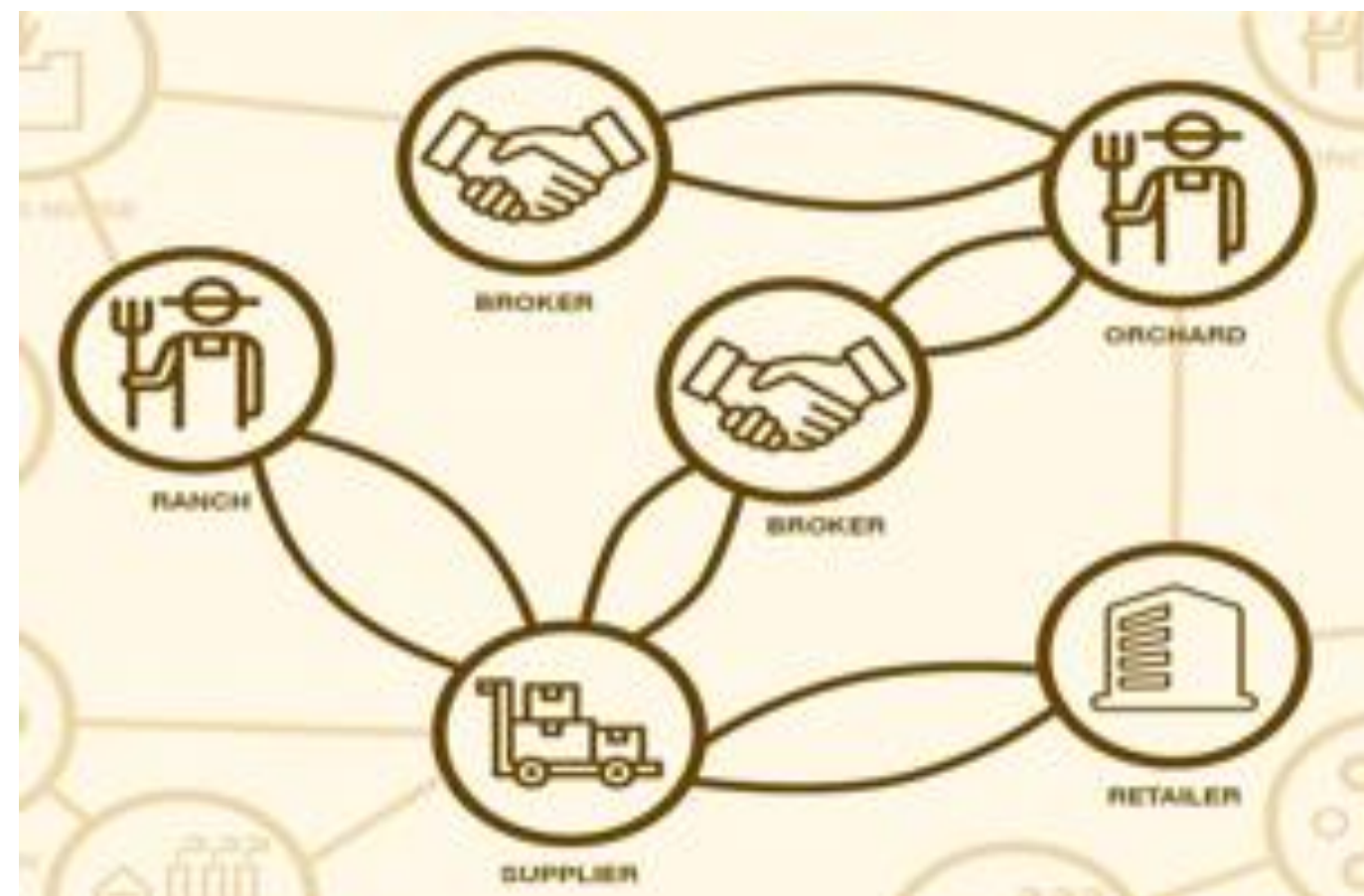




# IBM Blockchain addresses Current Industry Pain Points

BLOCKCHAIN DIGITALIZES DATA ON AN OPEN PLATFORM

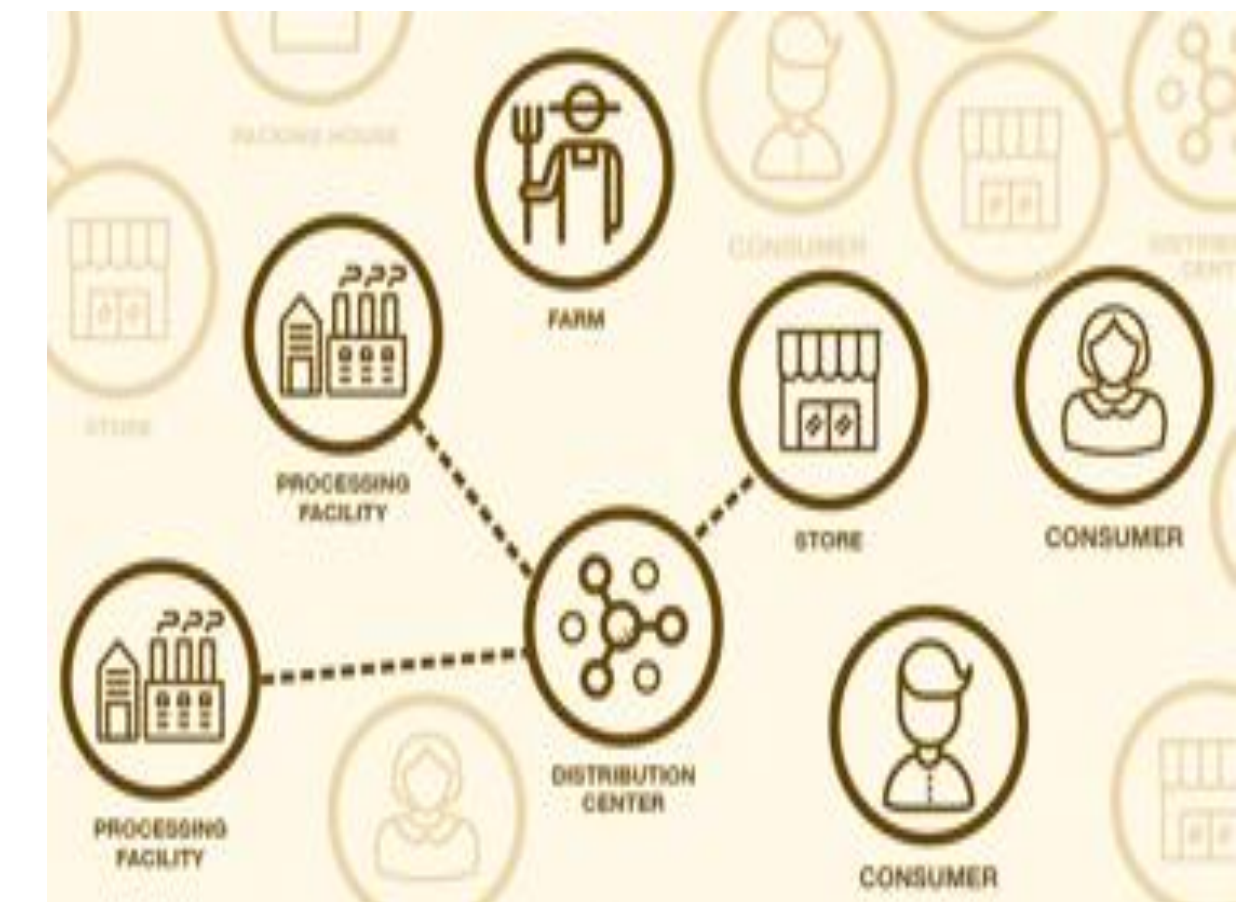
Data sharing limited to 'one up,  
one down' without end-to-end  
transparency



Multiple data format & sources  
Lack of trusted, easily auditable records



Incomplete information



# IBM Blockchain can Digitalize the Procure to Pay Process

REINVENT THE FINANCIAL PROCESSES

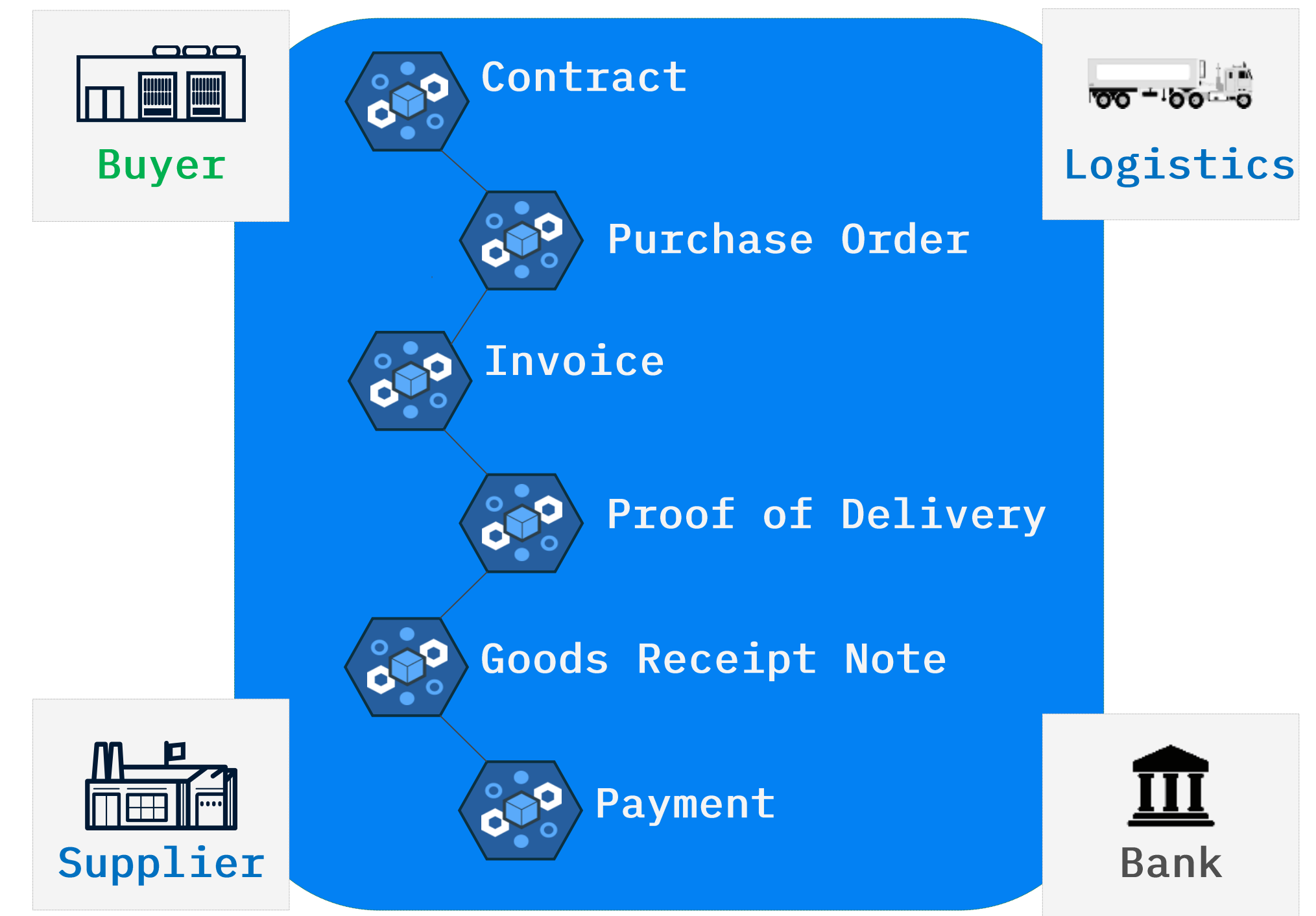
IBM has pioneered Blockchain for accounts payable leveraging it's shared ledger & permissions with our proprietary library of smart contracts to reduce operational costs, disputes & time to value

## 60-80%

Reduction in the cost per invoice to \$1 - \$2 using Blockchain – defining the new benchmark

## 60-70%

Faster time to value using IBM's library of smart contracts & reusable business rules to get up & running in 3 months



- Improvements in visibility, trust, and efficiency
- Avoidance of disputes, overhead, and cost intermediaries





# Food Transparency using IBM Blockchain

TRACE PRODUCT FROM FARM TO RETAIL SHELF IN SECONDS





# IBM Blockchain – Changing Global Transportation



<https://www.youtube.com/watch?v=tdhpYQCWnCw>

# Internet of Things (IoT)



# The IoT Platform

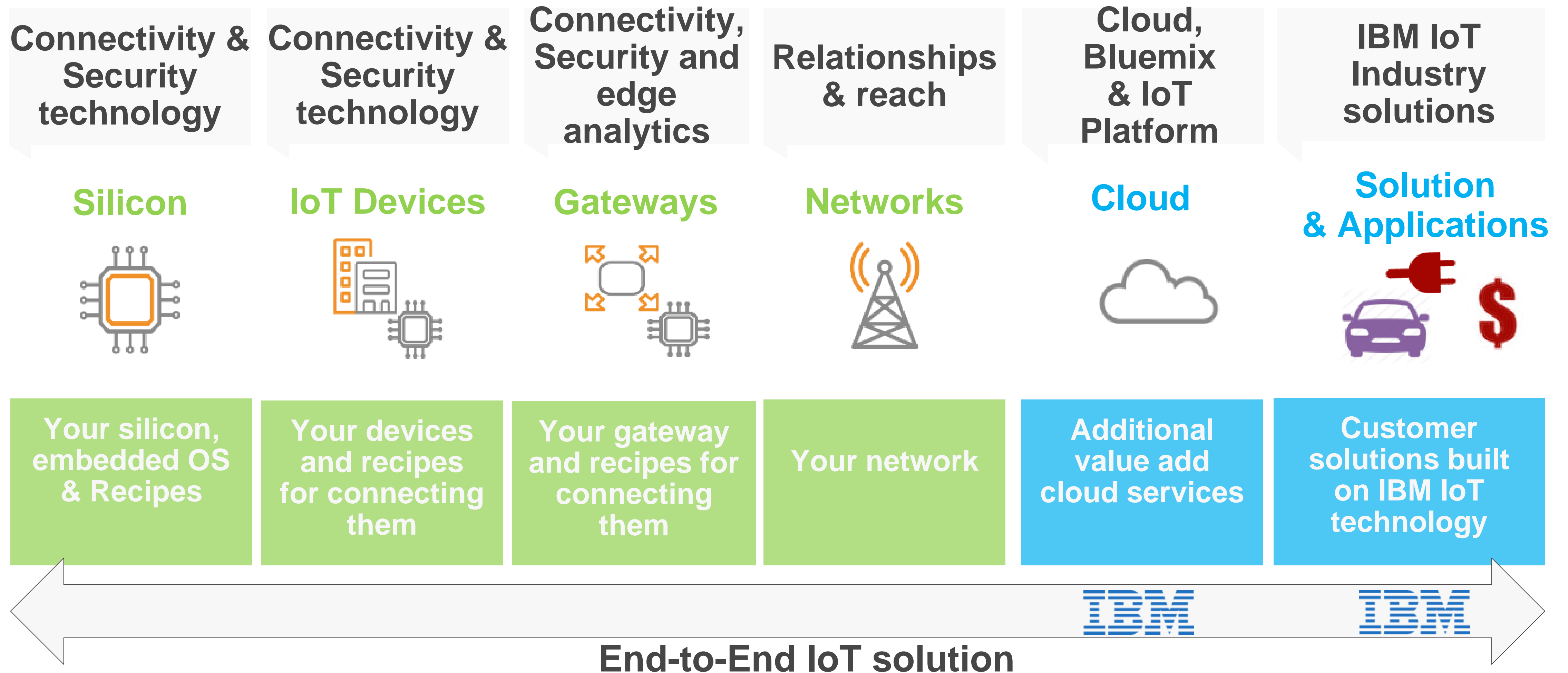
HOW IOT WORKS



<https://www.youtube.com/watch?v=QSIPNhOiMoE>  
© 2016 International Business Machines Corporation

# IoT is an Ecosystem of Data

COMBINING WATSON AND ANALYTICS TO MAKE SENSE OF ALL THE DATA



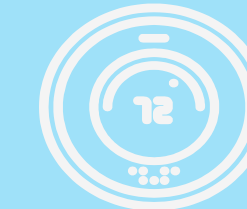
# IoT is Driving Digital Disruption of the Physical World

BUSINESS BENEFITS ARE BIG AND GROWING

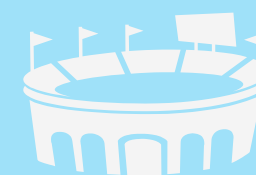
**Improving operations  
and lowering costs**



**Creating new products  
and business models**



**Driving engagement and  
customer experience**



# IoT allows Asset Management to be Automated

IBM MAXIMO IS SAVING MILLIONS

**Asset Management System** - is comprised of Strategies, Process and Systems that are closely integrated that can enable:

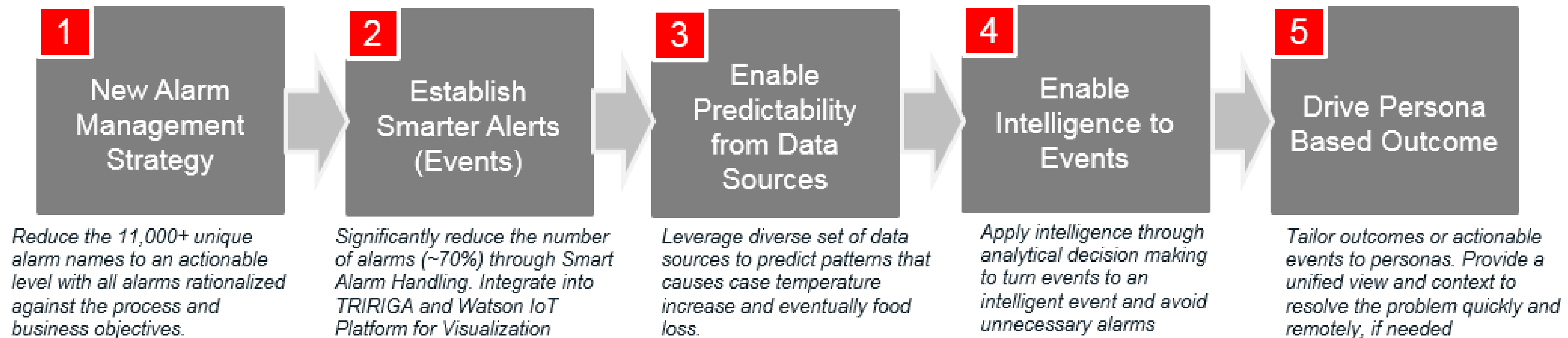
- Investing in assets when needed
- Extend asset life performance and quality
- Eliminate failures
- Prioritize Safety, Environment, Regulatory compliance
- Minimize TCO



# Cognitive IoT for Store Health

USA RETAILER

Understand and predict equipment data, from legacy platforms, if possible, that to transform production strategies, establish predictive failure solutions and minimize manufacturing downtime



**70%** of alarms don't result in a work order

**100%** reactive

**80%** of refrigeration alarm volume is spread across 11k unique alarm names

## Current State Facts

**7** different legacy control systems to learn and use across our stores

**85%** of initial alarms on this store did not result in a work order





# IoT is delivering Predictive Maintenance across Industries

PUBLIC SECTOR VIDEO EXPLAINS THE BENEFITS



<https://www.youtube.com/watch?v=mlaXbGuMV00>



# Digital Enterprise

# The Digital Enterprise

## Restless Talent

- Identifying, retaining and building the right talent for a digital organization
- Creating a culture of design thinking, agile working and experimentation

## Orchestrated Ecosystems

- Decapitalizing infrastructure and leveraging partner and full network strengths
- Developing novel relationships that unleash new sources of value

## Responsive Operations

- Digitization of products, services and processes is critical in redefining experiences with customers
- Leverage predictive analytics, cognitive computing, Internet of Things and automation

## Experience

- Creating differentiating experience for customers, employees and others
- Driving the way the organization works (people, process and technology)

## New Business Models

- Developing new ways of realizing and monetizing value
- Spawning new business models, financing and risk assessment

## Market Activation

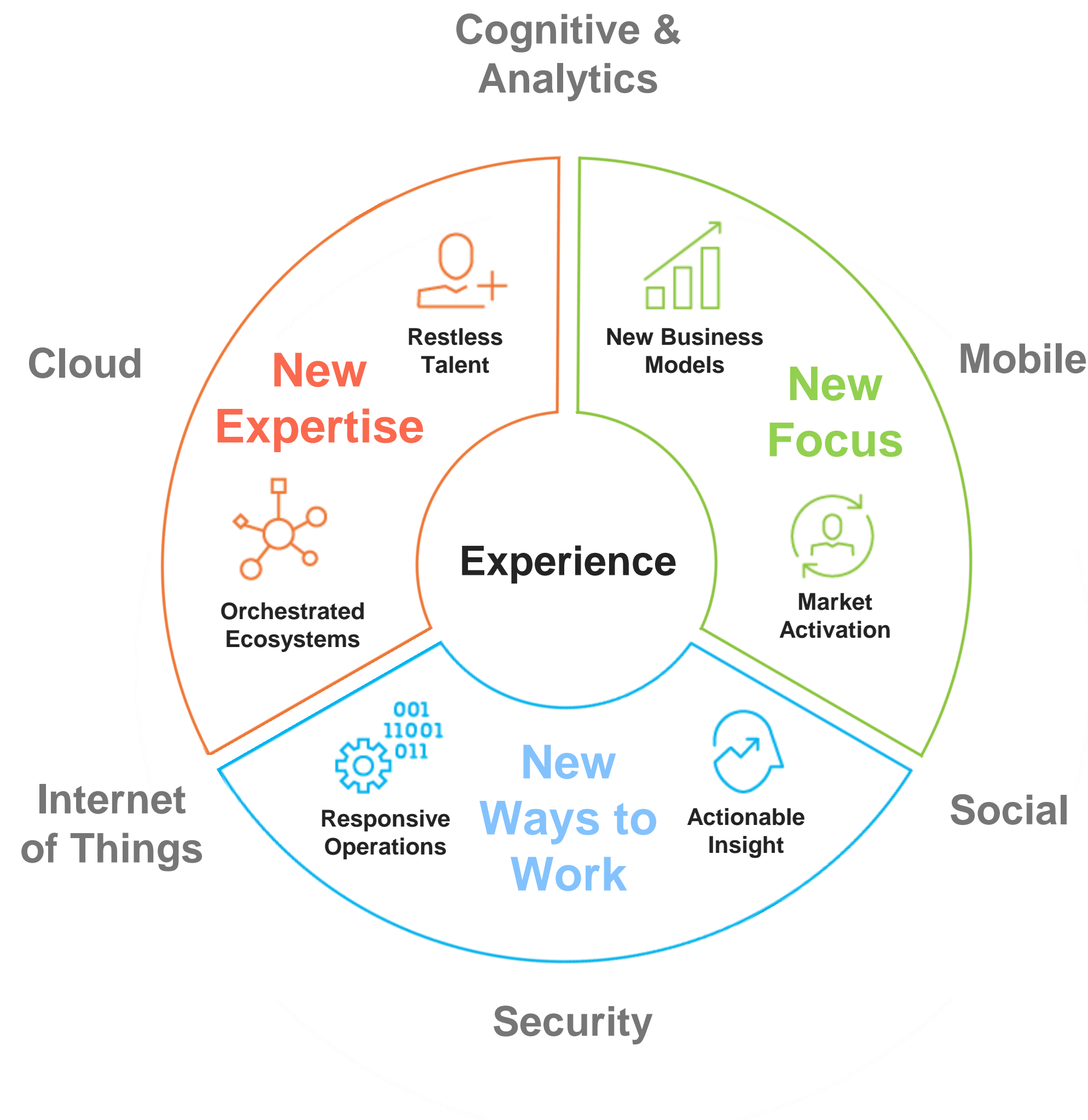
- Creating the strategy and execution plan for delivering experiences to the market
- Engaging and monetizing customer relationships

## Actionable Insights

- Employing Predictive, Optimizing, and Advanced analytics to both experience and operations
- Leveraging Cognitive Analytics to create deep and advanced competitive differentiation

## Enabling Technologies

- Fuel the industry transformation
- Creating exponential impact through technology combinations



# Digital Enterprise – IBM & SAP Partnership Solutions



IoT for Uptime



Find & Fix



Heads Up  
Weather Alerts



Cognitive  
Commerce



Claims Adjust



Blockchain



Smart Materials  
Planning



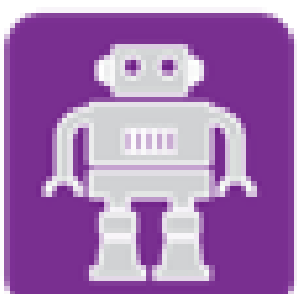
Predictive  
Maintenance



Talent Advisor



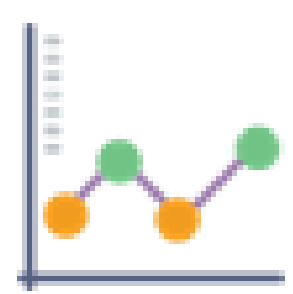
Parts Expert



SAP Chatbot



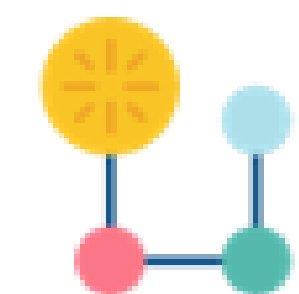
Truven on HANA



Visual Inspection  
with Predictive  
Quality



Cognitive  
Customer  
for Utilities



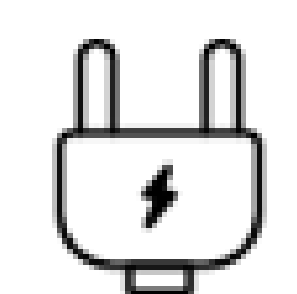
MetroPulse  
Integration to  
REX and IBP



Cognitive  
Digital Finance  
RPA



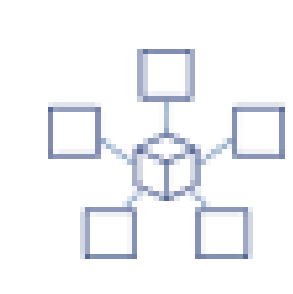
Revenue  
Management



Smart Meter  
Operations  
Center



Cognitive  
Procurement  
for Intelligence



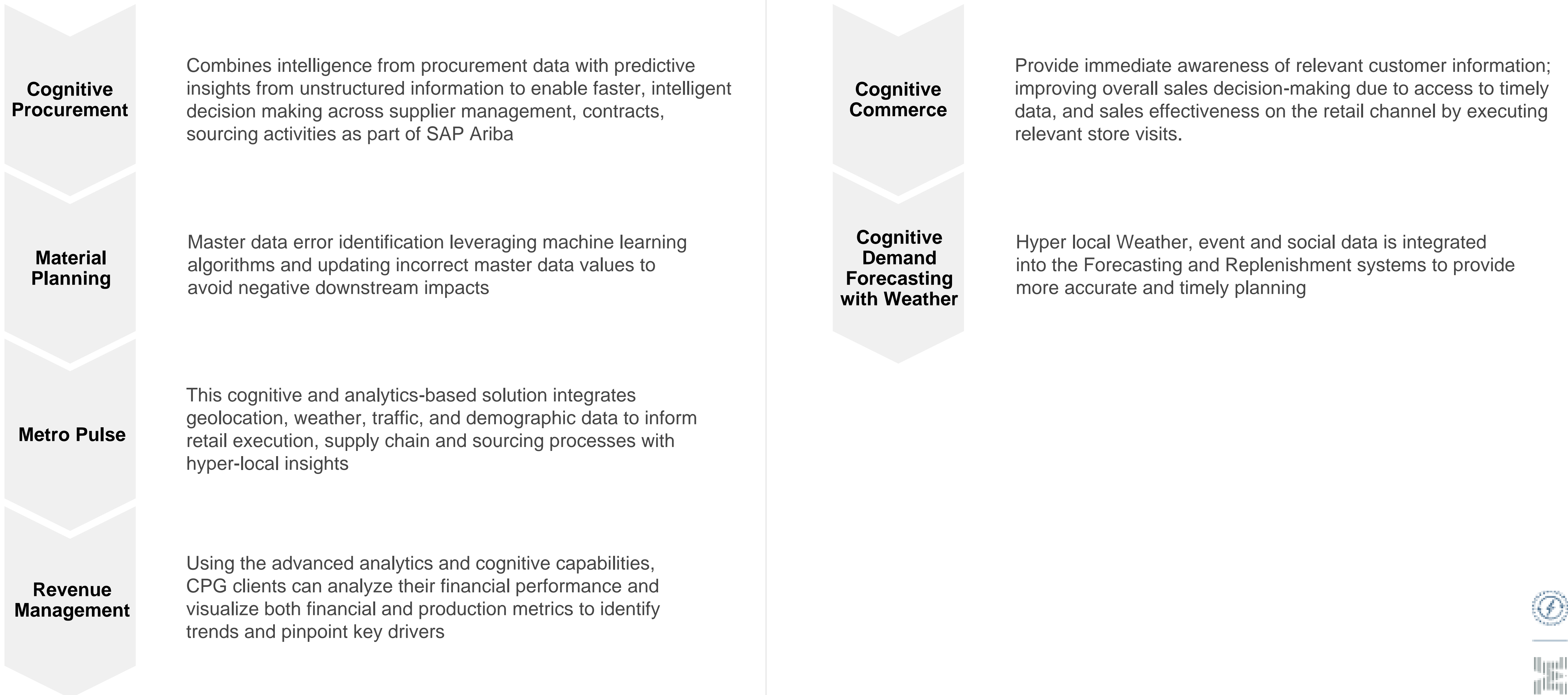
Coldchain  
Blockchain



Cognitive Buying  
Assistance



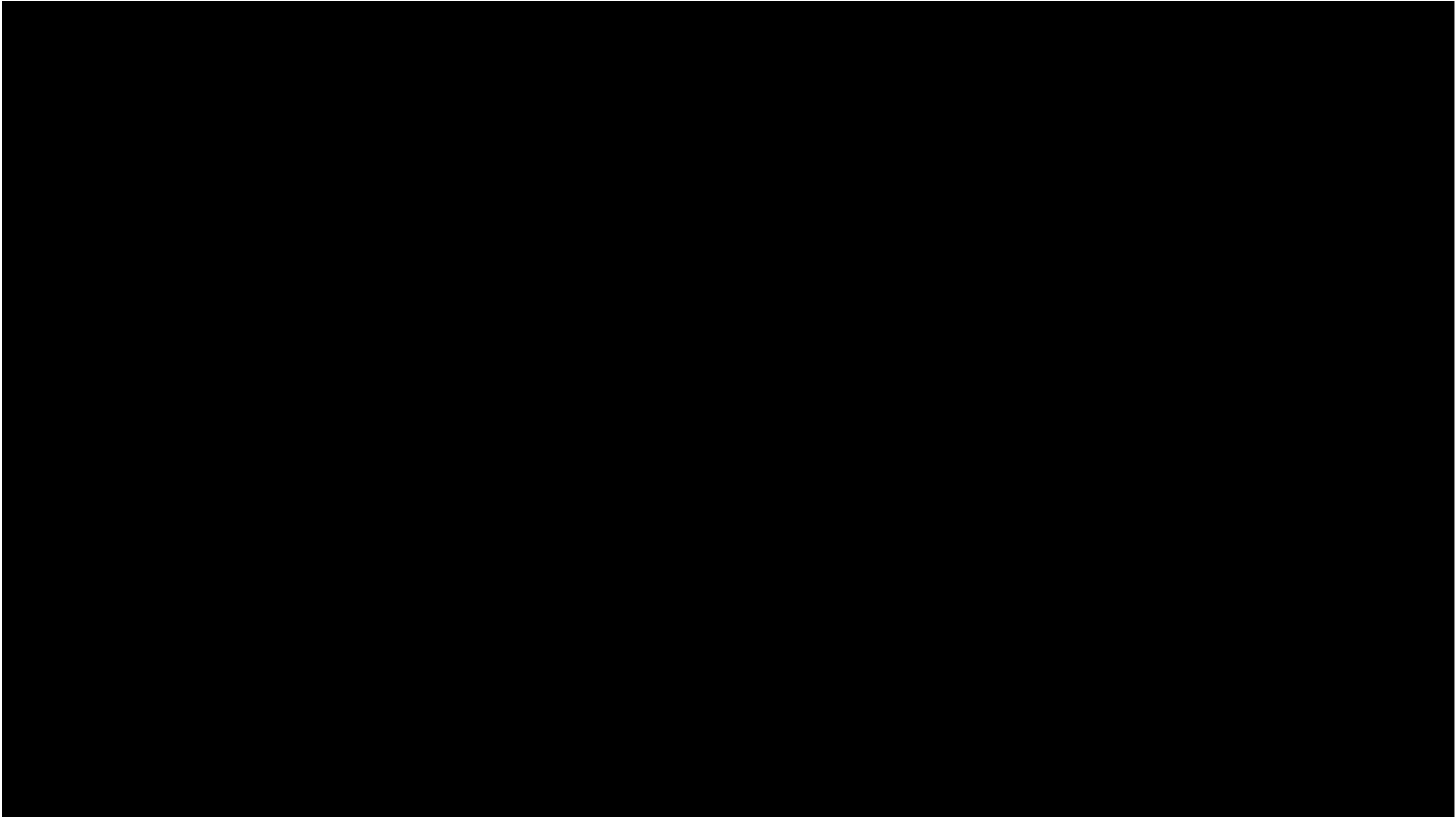
# Digital Enterprise – New IBM/SAP Industry Solutions





# Digital Enterprise – MetroPulse

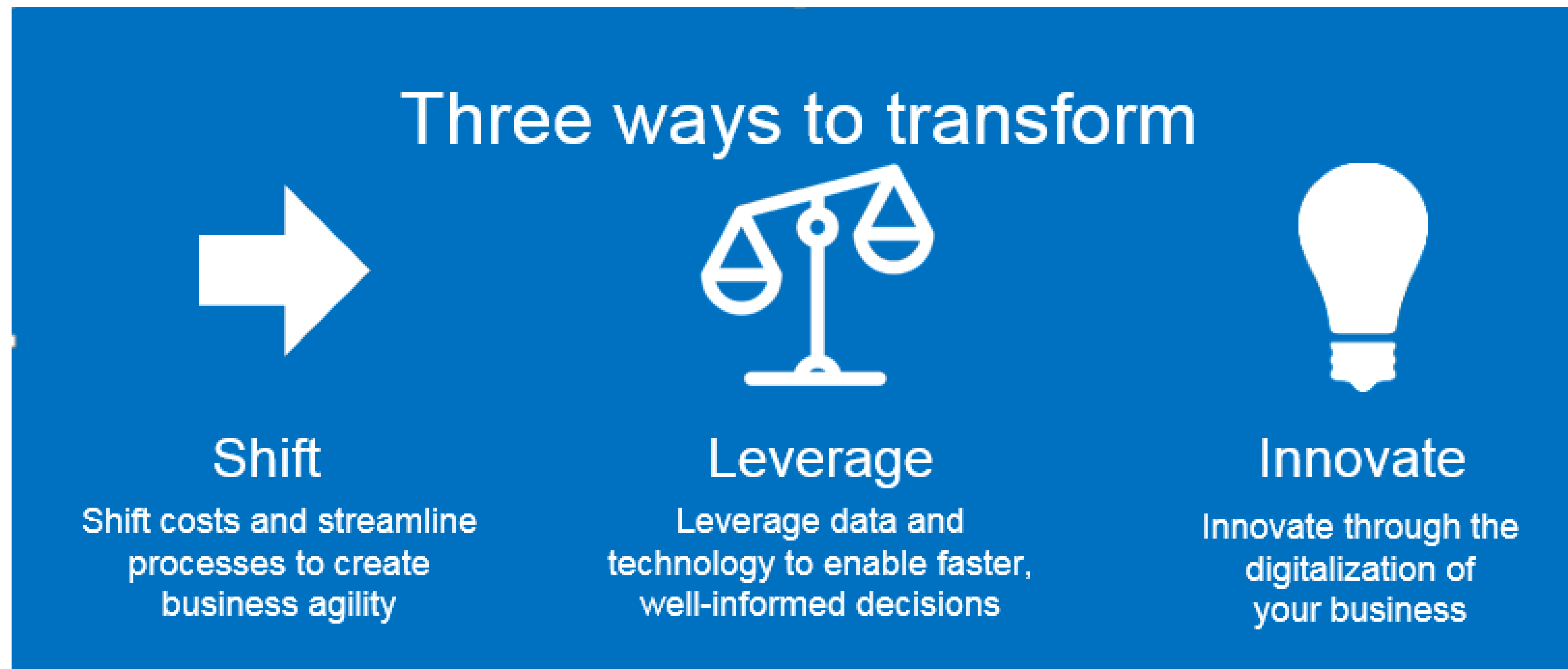
INNOVATIVE SOLUTIONS



# IBM Digital Transformation

DIGITAL TRANSFORMATION ROADMAP OPTIONS

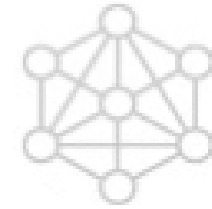
Organizational transformation will be a combination from these three areas



# IBM Digital Transformation

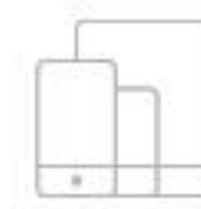
DIGITAL TRANSFORMATION WILL MERGE TECHNOLOGY WITH BUSINESS

## Key Digital Technologies that are redefining the Industry



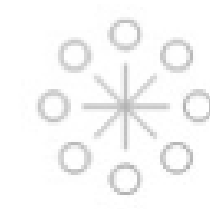
### Artificial Intelligence

Serves as engine for learning and personalization



### Mobile

Connects people with insights where they are



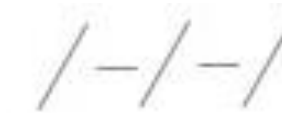
### APIs / Microservices

Enables ecosystem partners to collaboratively innovate



### Cloud

Enables the ecosystem to move beyond legacy



### Blockchain

Increases confidence in the system to enable new business models



### Internet of Things

Equips physical assets with digital data to optimize operations



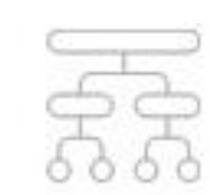
### Cybersecurity

Embeds safeguards into systems and surfaces treats



### Hyperlocal Geolocation

Provides a lens into micro-moments in proximity that spurs action



### Analytics

Surfaces patterns to improve decisions



**Thank You**