



IoT in Action

#IoTinActionMS



Welcome

Henrik Gütle

GM Azure

Microsoft Canada

IoT in Action

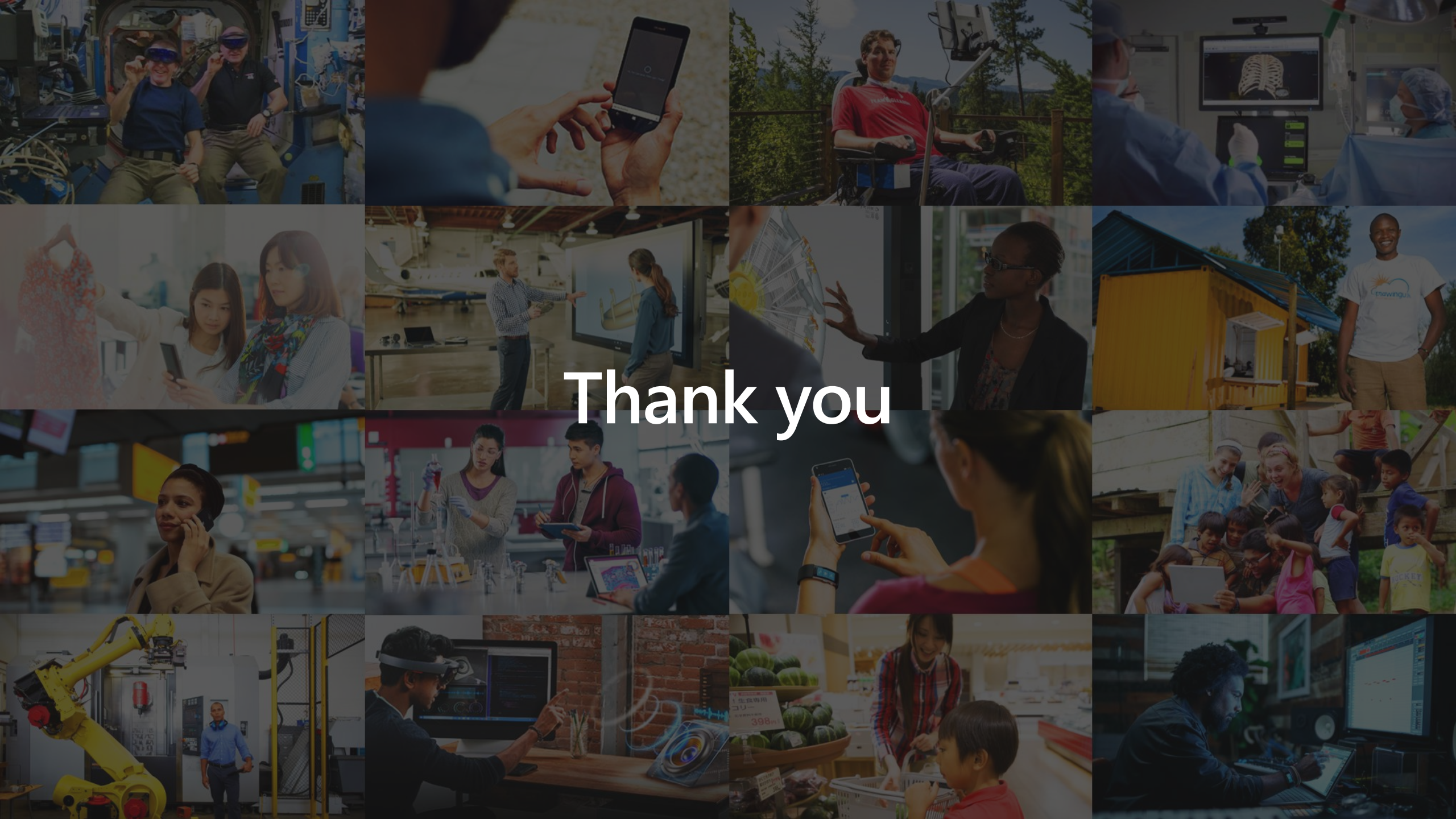


IoT Continuum: Evolving Business

Michael Kuptz

GM Americas Connected Device
Experiences, IoT
Microsoft

IoT in Action



Thank you

IoT in Action, Toronto, November 12—Event Agenda

Executive Keynote	9:45–10:45am
Business Transformation In Action	10:45–11:30am
Architecting the Intelligent Edge to Create Scalable Repeatable Solutions	11:30am–12:30pm
Lunch Networking Break	12:30–1:30pm
Unlocking IoT's Potential	1:30–2:15pm
Partner Case Study: Relogix	2:15–2:45pm
Partner Case Study: Avigilon	2:45–3:15pm
Afternoon Networking Break	2:30–3:00pm
Evolving IoT with AI, Mixed Realty and Automation	3:45–4:30pm
Activating Microsoft Resources & Programs to Accelerate Time to Market and Co-sell	4:30–5:00pm
Networking Reception	5:00–6:00pm
Partner-Customer Matchmaking & Sponsored Partner Solution Showcase	All day

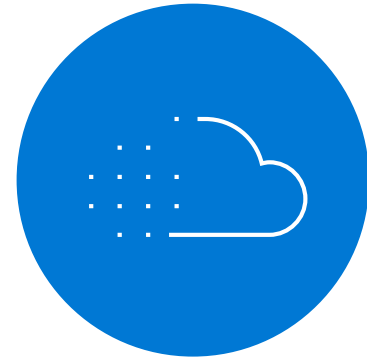
Our Goal



IoT Community



Partners



Technology



Our society & technology

Going digital

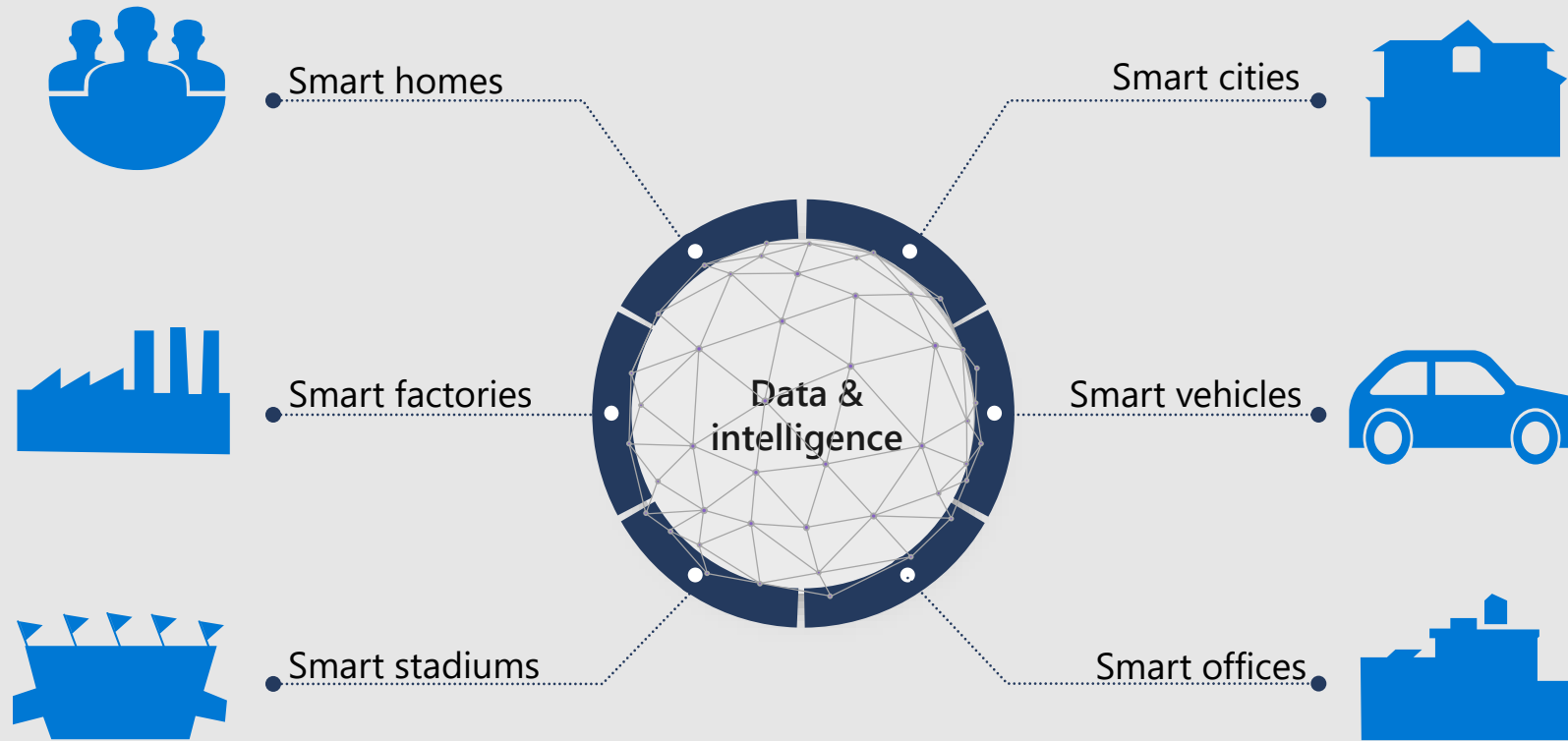
1 million/hour
new devices
coming online
by 2020

12 years
average age of S&P
500 corporations
by 2020

81% businesses
operating in a hybrid
environment
by 2021

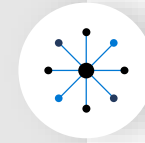


IoT is fueling digital transformation



20 billion connected devices by 2020

—Gartner



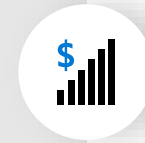
80B

Connected "things" by 2025
generating 180ZB of data



\$130B

New monetization avenues
due to IoT-related services



80%

Companies that increased
revenue as a result of IoT
implementation



\$100M

Average increase in
operating income (avg. 8%)
among the most digitally
transformed enterprises

"By 2020, 30 percent of G2000 companies will have allocated capital budget equal to at least 10 percent of revenue to fuel their digital strategies.

This shift toward capital funding is an important one as business executives come to recognize digital transformation as a long-term investment.

This commitment to funding digital transformation will continue to drive spending well into the next decade."

—Shawn Fitzgerald: IDC, Research Director,
Worldwide Digital Transformation Strategies

Microsoft's \$5B IoT Investment



Ecosystem Acceleration

>1,000

Azure IoT certified devices

>10,000

IoT partners, Edge to cloud

>1,500

Co-sell IoT solutions build together



Microsoft IoT Platform Innovation

Priority Verticals



Azure IoT Solutions



Azure IoT Central (SaaS)



Solution Accelerators (PaaS)

Azure Services for IoT

- Azure IoT Hub
- Azure Digital Twin

- Azure Stream Analytics
- Azure AI,

IoT & Edge device support

- ThreadX
- Azure Sphere
- Windows IoT

- HoloLens
- Azure IoT Edge
- Data Box Edge

Silicon Partners



MEDIATEK



Azure Security Center for IoT



Market/Industry Transformation

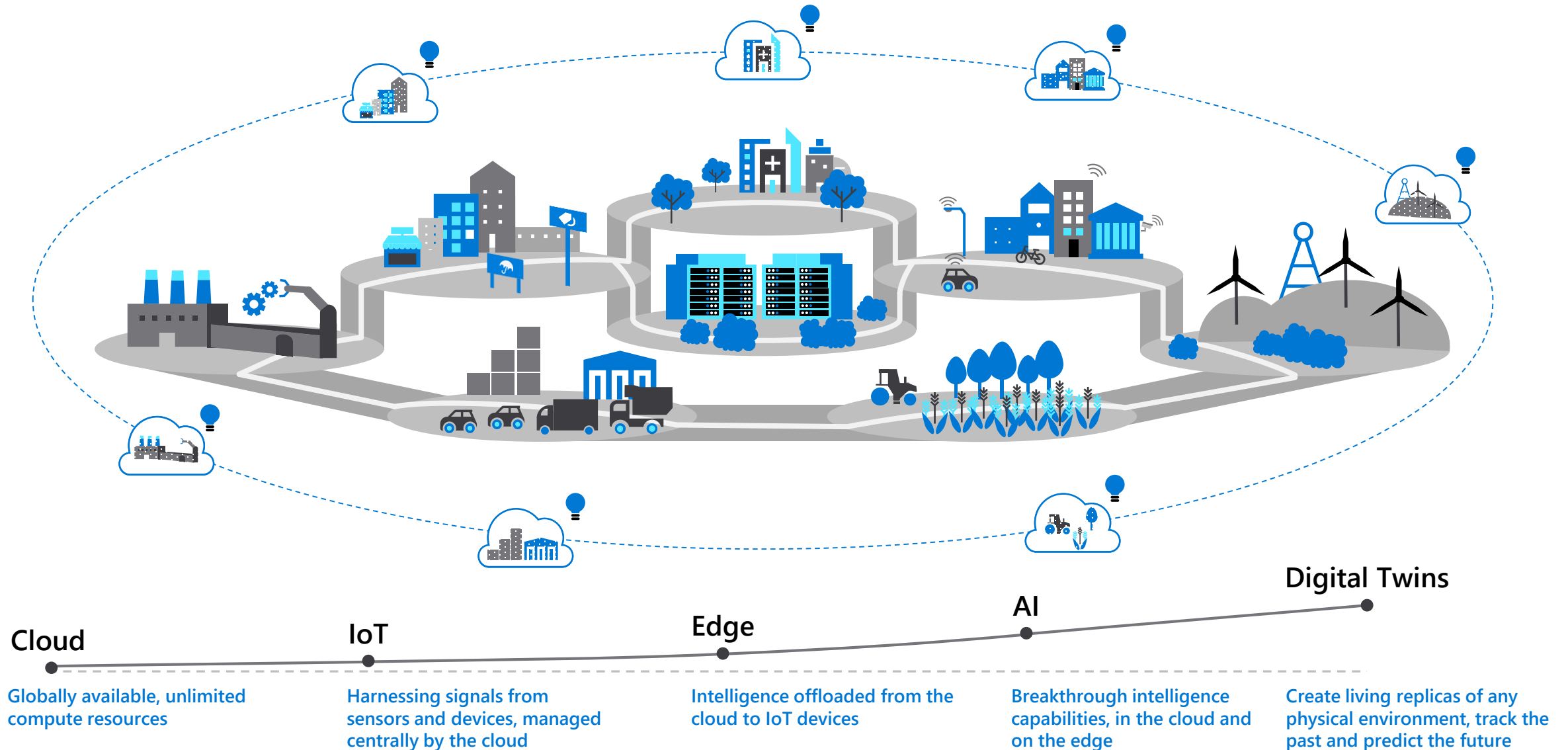
AI Innovation

Largest AI Patent Portfolio in the world

Azure Sphere

Highly secured devices

Innovations enabling new IoT opportunities



Three emerging patterns of digital transformation



Customers are on a journey with **different digital maturity levels**



Build digital capabilities

Build digital businesses

Modernization

Foundation for Digital Transformation

Common initiatives:

- Digital workplaces
- Digital customer experiences
- Transforming the infrastructure
- Product Transformation
- Application modernization

Industry & Horizontal

Solution-centric initiatives

Industry Solution examples:

- Predictive Maintenance, Customer Insights, Citizen Services

Horizontal Solution examples:

- Digital Marketing, Employee Self-Service, Smart Buildings, Security & Surveillance

Transformational

Reimagine their businesses

CXO sponsorship

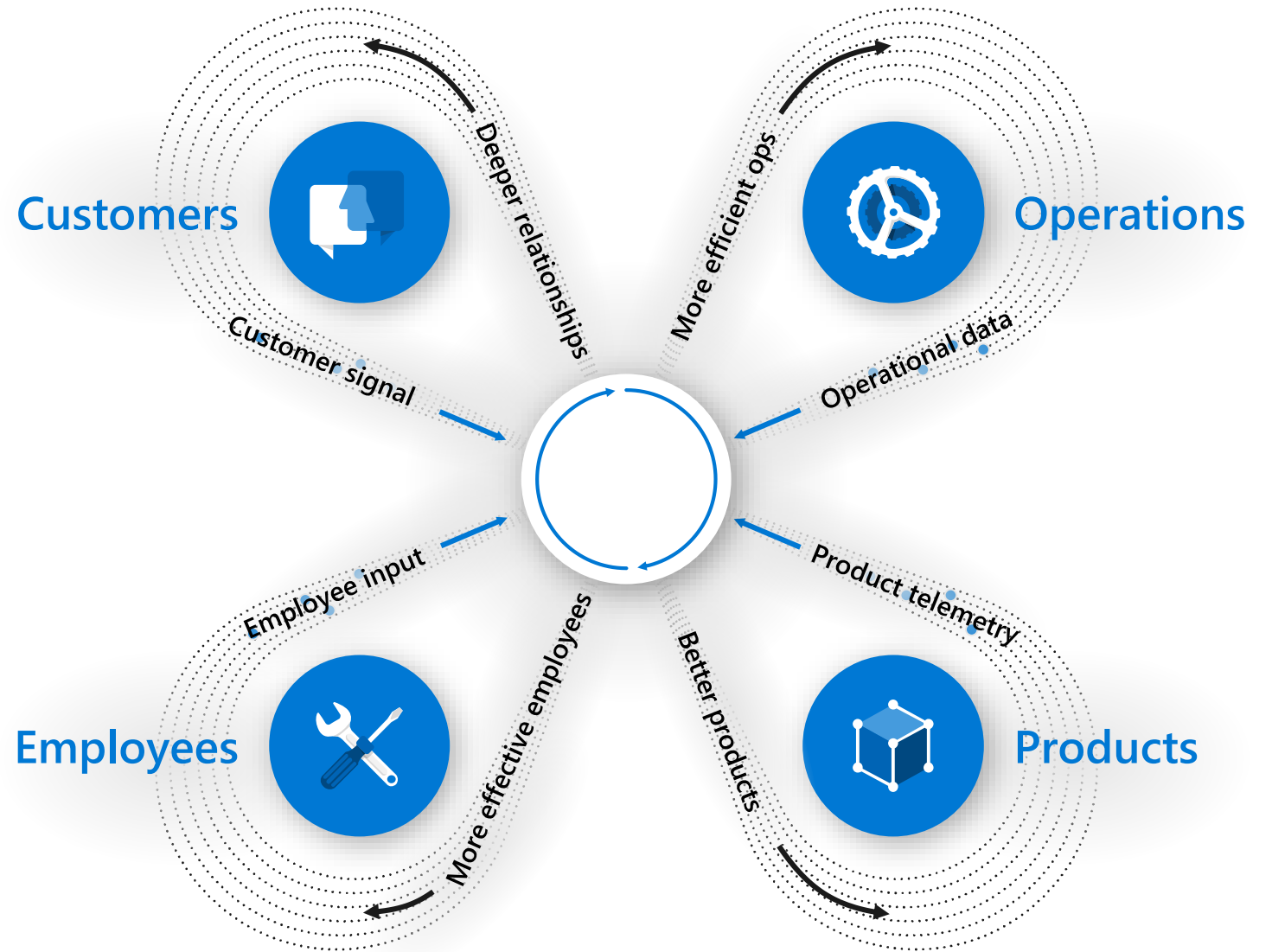
Digital Maturity Model assessment

Comprehensive **program of change**

Evolves into new **commercial business models**

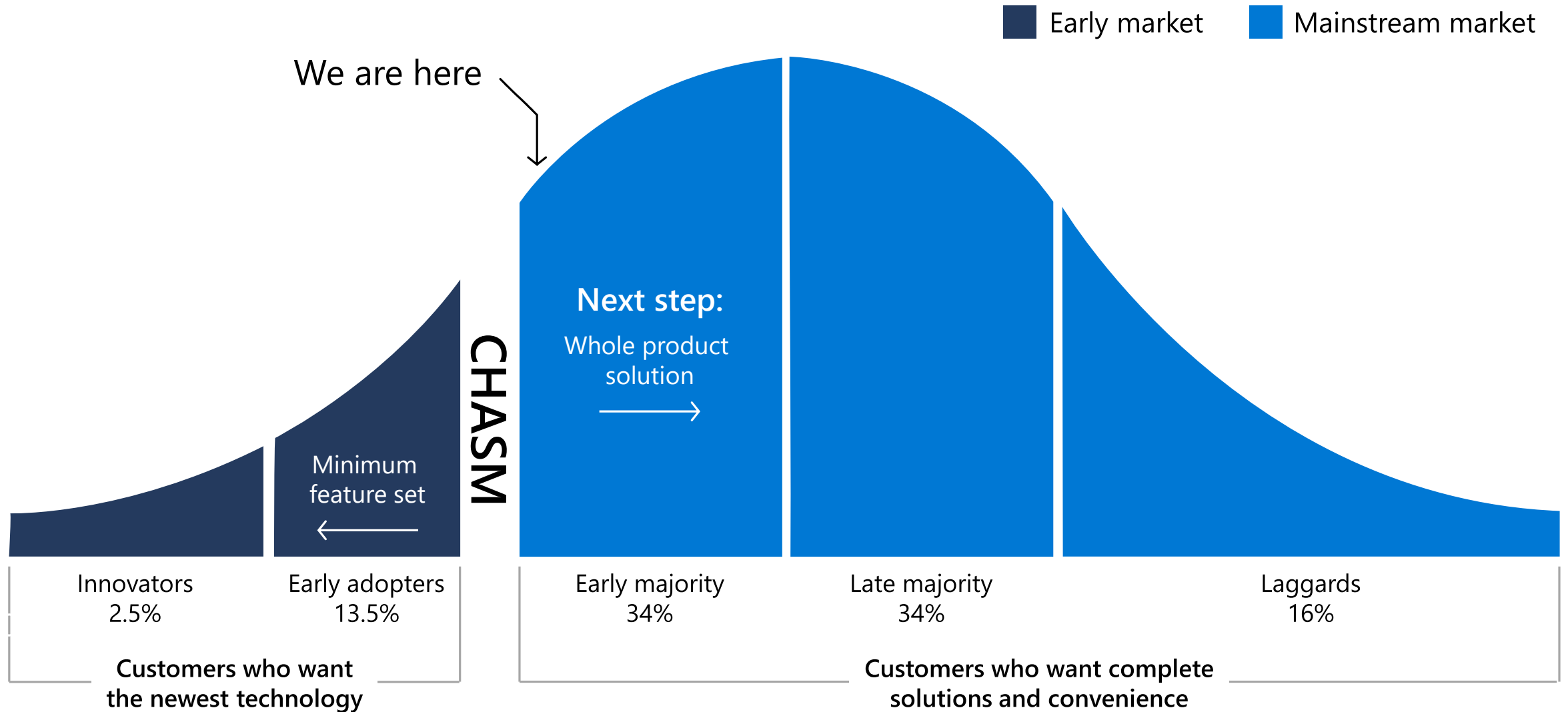
Catalytic innovations enable a Digital Feedback Loop

- 1 Data: Capture digital signal across business
- 2 Insight: Connect and synthesize data
- 3 Action: Improve business outcomes



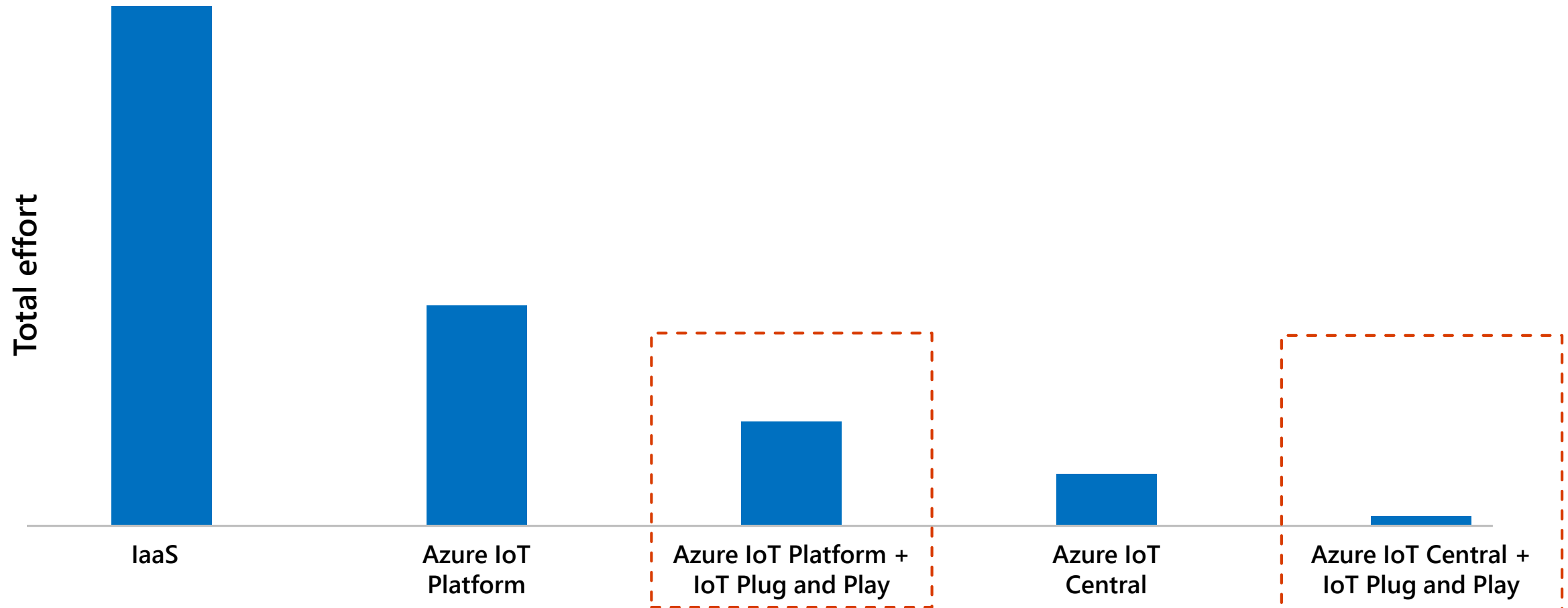
Preparing for mainstream market customer needs in IoT

Technology adoption lifecycle



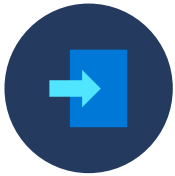
Accelerating IoT

The total effort to build and operate an IoT Solution is rapidly decreasing



IoT partner value chain

IoT presents a unique opportunity to bring together multi-disciplinary partners



End points

Silicon/Chip
Manufacturers

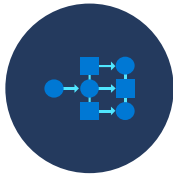
Gateway
Manufacturers

M2M Modules

Device
Manufacturers

Traditional OEMs

Device SIs



Security

Software

Hardware

Regulatory
experts

Privacy



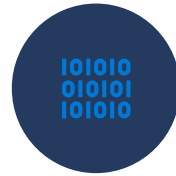
Connectivity

Mobile Network
Operators

Mobile Virtual
Network
Operators

Channel
Development
Providers

Application
Enablement
Platform ISVs



Services

Solution
Architecture

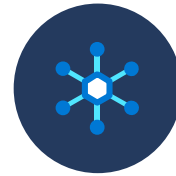
Solution
Integrators

Service Providers

Presentation

Dashboarding

Big Data



Business consultants

Consultants

Advisors

Professional
Services

Industry
Influencers



Distributors

Aggregators

Scale through
VARs



Developers

ISV

In-house



Regulators

Standards
organizations

Industry Bodies

Accreditation
organizations

Auditors



Microsoft IoT platform
innovations last year

> 100



Partner provided co-sell
ready solutions

> 1,200



Ecosystem partners

> 10,000

IoT ecosystem momentum



Developer Community	Partner Ecosystem	
Visual Studio GitHub hadoop docker php nodeJS Powershell eclipse python ARMimbed MySQL Ruby Java mongoDB Chef + Puppet	System Integrators & Advisors	Connectivity Provider accenture, avanade, SOGETI, CGI, pwc, EY, HCL, DXC technology, TATA CONSULTANCY SERVICES, Reply, Capgemini, HARMAN, eBECS, Hitachi Consulting, wipro, Cognizant, LARSEN & TOUBRO, MOQdigital, T-Systems, Infosys, robotron, Tech Mahindra, KPMG
	Solution Providers	Hitachi Solutions, Schneider Electric, ABB, esri, OSI, SIEMENS, ICONICS, Schlumberger, Rockwell Automation, ActionPoint, Johnson Controls, Honeywell, GE, ptc, IoT, AtoS Worldline, energisme, DUNAV NET, complement, codit, SAP, COPADATA, relayr
	Solution Aggregators	ARROW ELECTRONICS, INC., SYNnex CORPORATION, MESHSYSTEMS™, UI, Insight, happiest minds, ICT+, AVNET, Tech Data, INGRAM, Mobiliya, SIGMA, at&t, M
	Devices	life.augmented, MOXA, RENESAS, NXP, CISCO, kontron, BECKHOFF, Raspberry Pi, HITACHI Inspire the Next, libelium, embedded systems, Itron, Panasonic, intel, NEXCOM, Hewlett Packard Enterprise, Qualcomm, cradlepoint, ADVANTECH, FUJITSU, DELL, Toradex, ARBOR, TOSHIBA

IoT vertical focus



Manufacturing

Field Service
Safety & Security
Process & Quality
Factory Automation



Retail

Space & Assortment
Inventory Mgmt.
Personalization



Healthcare

Patient Monitoring
Research
Supply Chain
Operation Efficiency



Energy

Oil & Gas
Utilities
Power Plants
Environment Sensors



Smart City/ Buildings

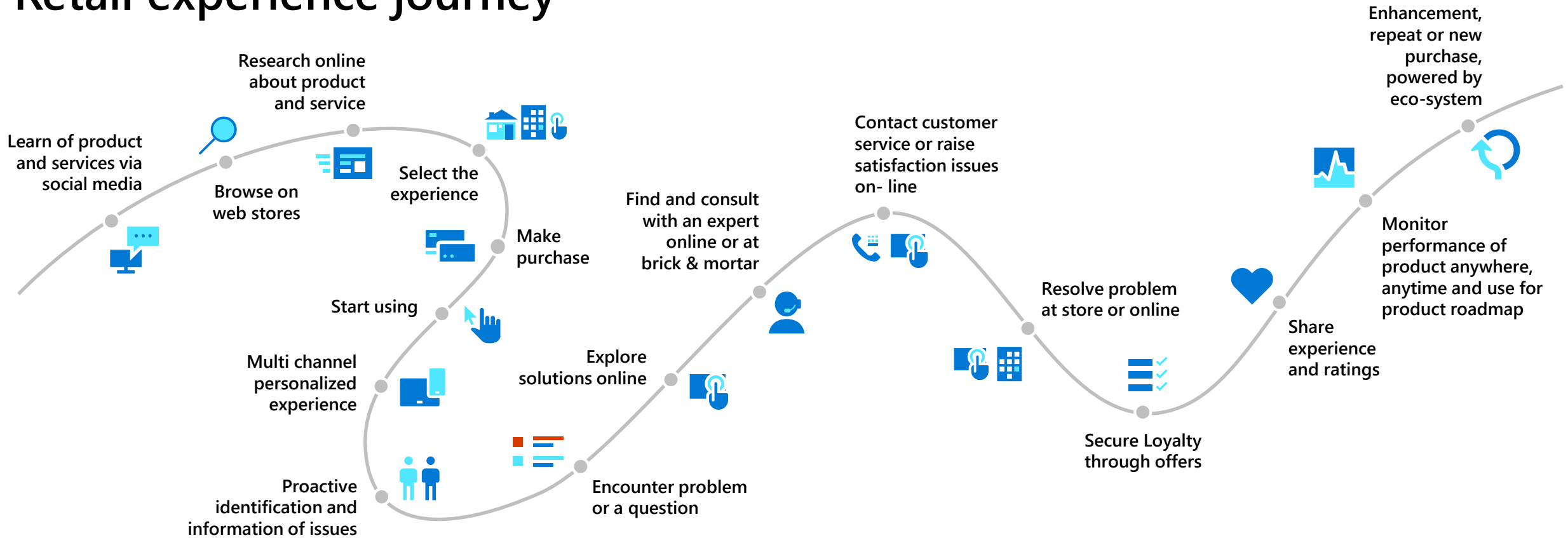
Security &
Surveillance
Monitoring & Safety
Energy Mgmt.



Agriculture

Soil Sensors
Livestock
Equipment
Supply Chain
Connectivity

Retail experience journey



Digital hot spots

Pre-purchase

Digital presence for products and store awareness
Omni channel purchase
Multi channel distribution and interactivity

Purchase

Omni channel, multi device solution for purchase
Customer support
Arranging payment
Tracking shipment

Post-purchase

Social network presence and management
Receiving customer service
Resolving problems anywhere
Continued the experience
Developing eco-system
Product life cycle and organizations interlocks

Patient experience journey



Digital hot spots

Prior to visit

Seeking healthcare information, remote triage
Choosing a physician or caregiving facility for treatment
Appointment scheduling and reminders

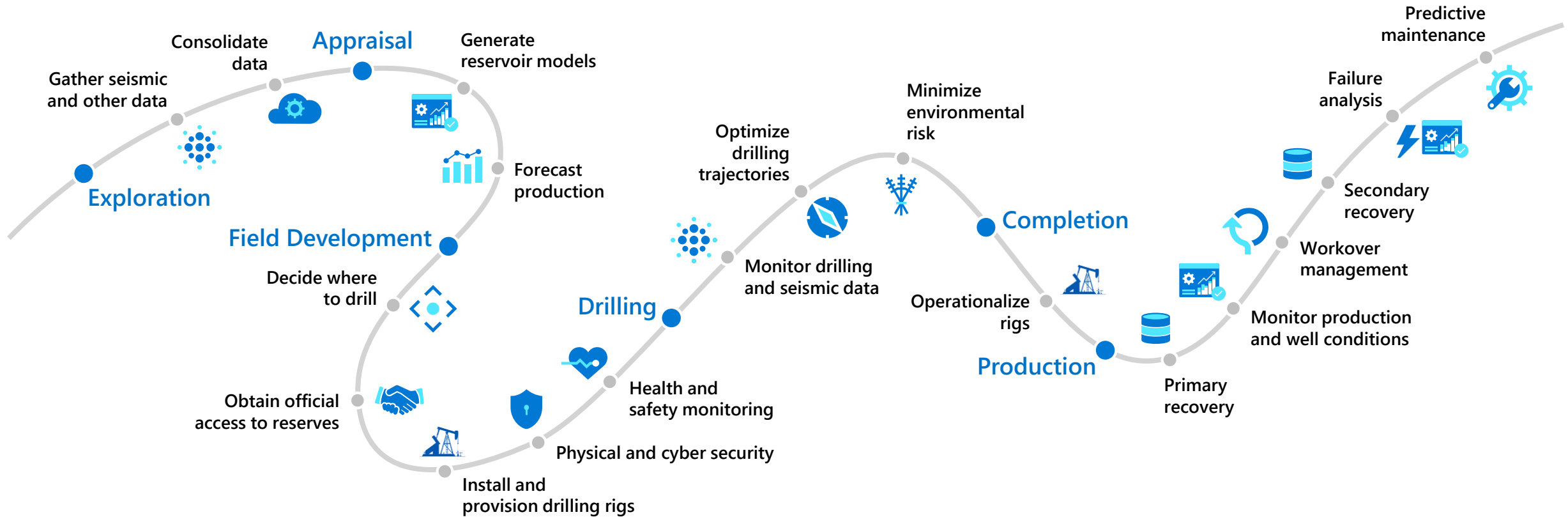
Diagnosis and treatment

Remote interactions with providers
Accessing and sharing electronic health records (EHR)
AI-based provider support
Care team collaboration

Follow-up care

Filling, refilling, and approving prescriptions
Remote health monitoring
Ongoing patient care and plan reminders

Oil & Gas upstream journey



Digital hot spots

Exploration

- Gather seismic and drilling data
- Consolidate data in the cloud
- Generate reservoir models
- Identify where to drill and optimize trajectories

Drilling

- Provision drilling rigs
- Monitor drilling and production data
- Monitor well conditions
- Analyze for environmental impact
- Failure analysis

Production

- Predictive maintenance
- Collaboration and decision making across the ecosystem
- Knowledge management

Customer momentum

Customer momentum

Customer momentum

Customer momentum

		 Volkswagen					
							
							
					 Ville d'Ottignies-Louvain-la-Neuve		

IoT Digital Operations at Maple Leaf Foods

Microsoft IoT in Action Toronto

Maple Leaf Foods and Hitachi Consulting
November 12th, 2019



Welcome and introductions



Dan Di Salvo
Vice President,
Infrastructure



Kerry Sims
Vice President
Americas IoT & Analytics
Practice Lead

HITACHI
Inspire the Next

Maple Leaf Foods - Raise the Good In Food

Up to 100 years of history, plants located across Canada and USA with 11500 employees.



Better Food

We are making real food with real ingredients - eliminating artificial colors, flavors, and unnecessary antibiotics.



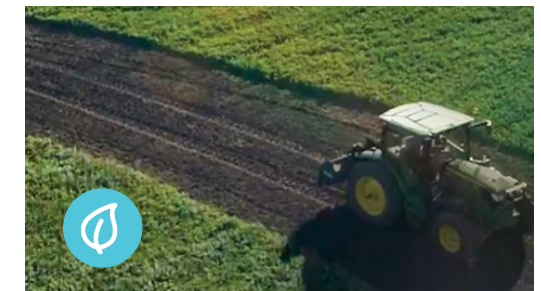
Better Care

We are building industry leadership in animal care through advances in husbandry, training, transparency, and accountability.



Better Communities

We are creating share value where we work and live.

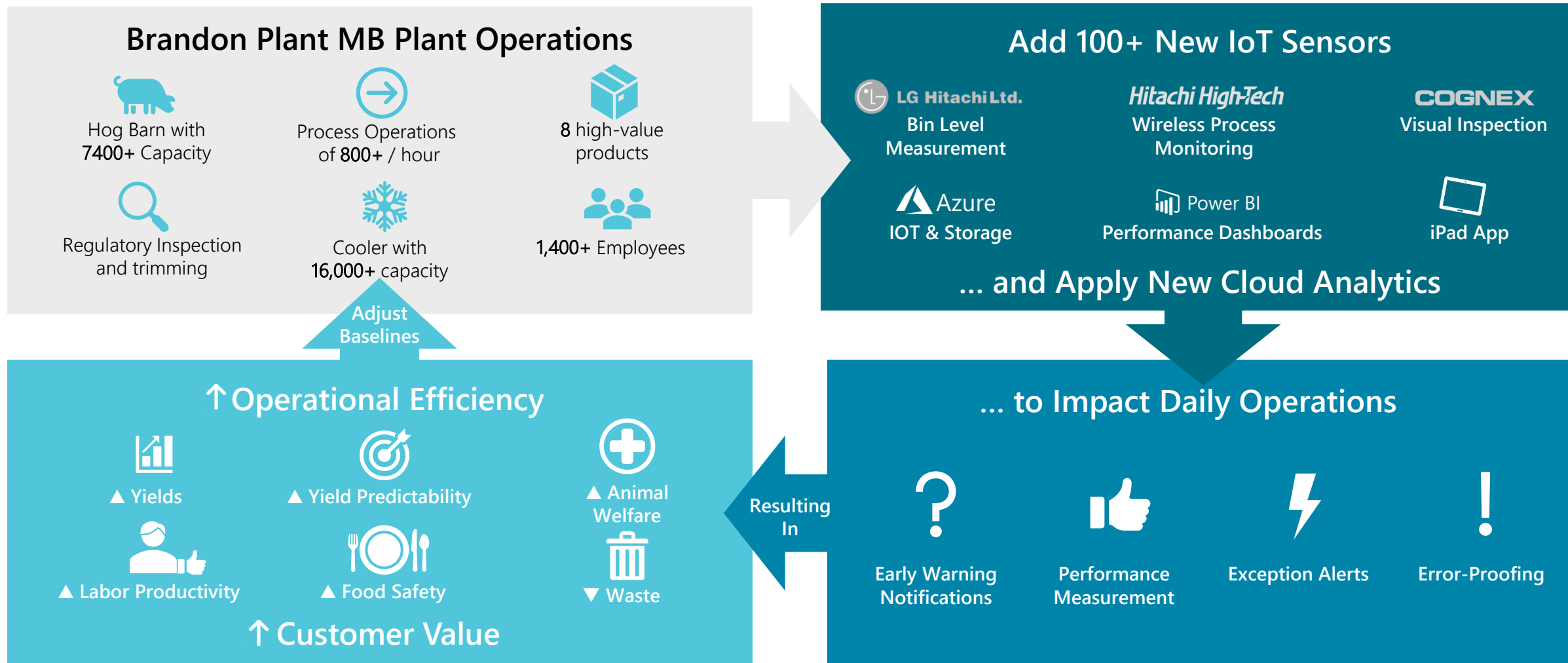


Better Planet

We are pursuing aggressive goals to reduce our environmental footprint by 50 percent by 2025.

Approach and results

Instrument Production Floor, then Leverage Data for Operational Results



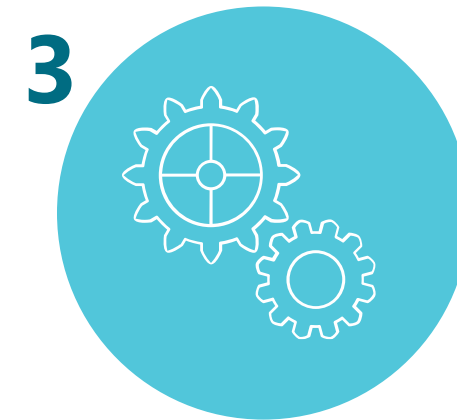
Key take-aways



Start with the hypotheses and
remove lenses that
view the corporation



Set priorities based
on the business
(not technology)



Consider outcomes, focus,
divide to conquer, and phase
financials around plan



Establish relationships in
other industries



Engage the right people
(sponsors, internal team,
partners)



HITACHI
Inspire the Next

Thank You!

▶ 12228 :ELEMENTS: 4

