Microsoft

IoT Continuum:
Evolving Business

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Microsoft Asia

IoT in Action, Taipei, November 20th —Event Agenda

Executive Keynote	9:30–10:15am
Business Transformation In Action	10:15–11:00am
Architecting the Intelligent Edge to Create Scalable Repeatable Solutions	11:00–12:00pm
Lunch Networking Break	12:00–1:00pm
Unlocking IoT's Potential	1:00–1:45pm
Developing an IoT Security Practice for Durable Innovation	1:45–2:15pm
Partner Case Study: Innodisk Corporation	2:15-2:45pm
Afternoon Networking Break	2:45-3:30pm
Evolving IoT with Mixed Reality, AI, Drone and Robotic Technology	3:30–4:00pm
Partner Case Study: AAEON Technology, Inc.	4:00-4:30pm
Activating Microsoft Resources & Programs to Accelerate Time to Market and Co-sell	4:30–5:00pm
Partner-Customer Networking & Sponsored Partner Solution Showcase	All day

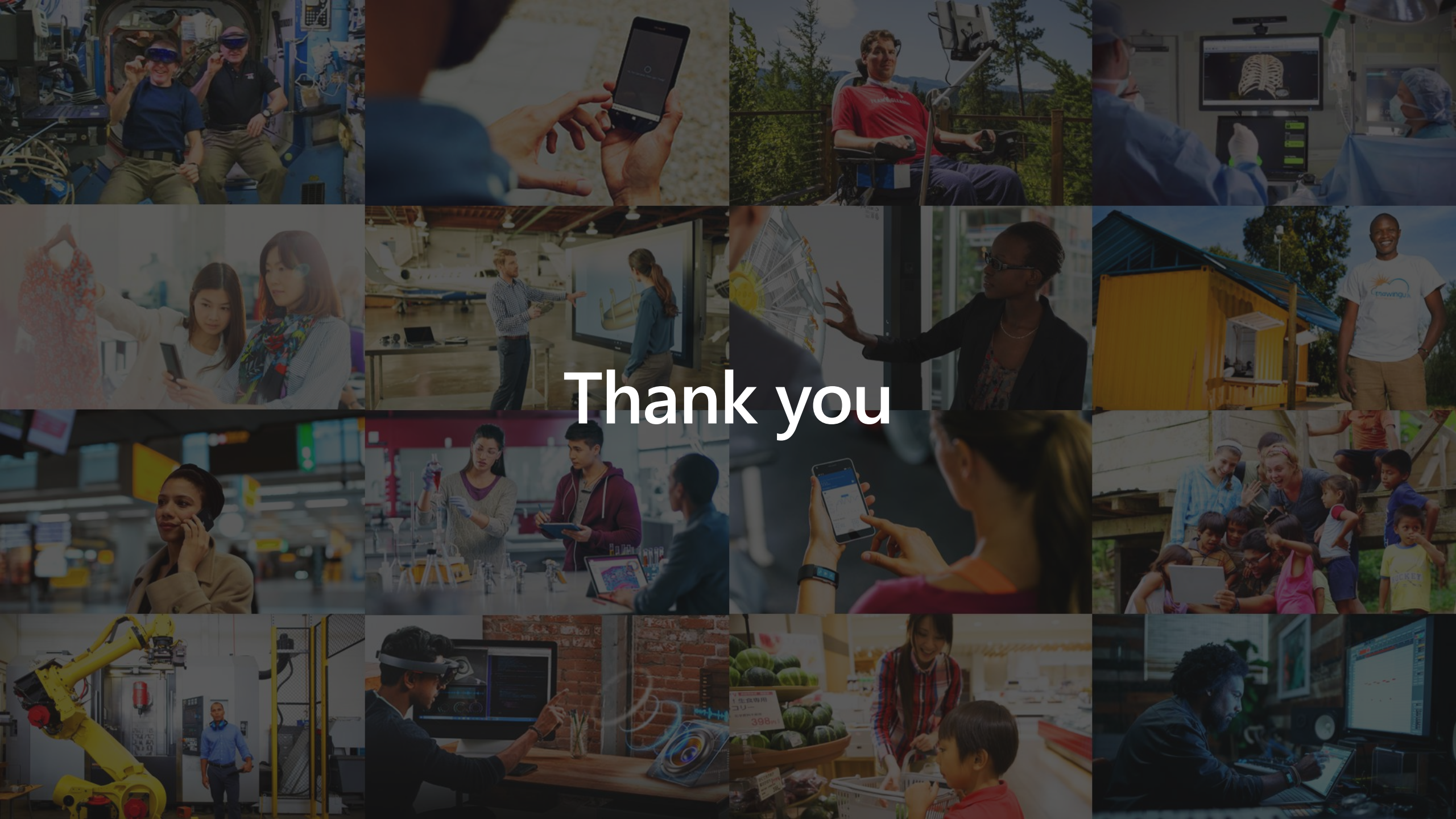
Our Goal

IoT Community

Partners

Technology

Our society & technology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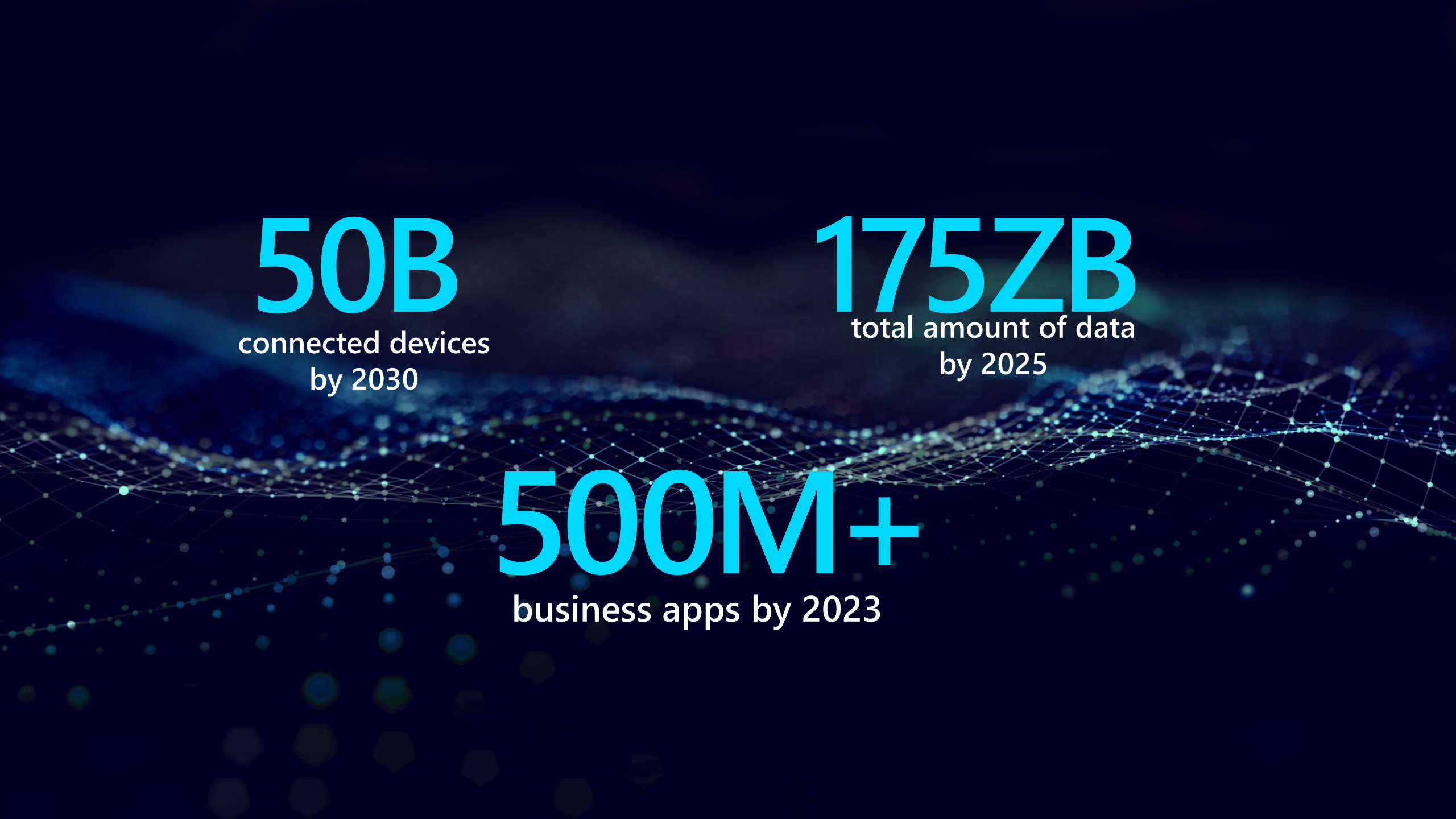
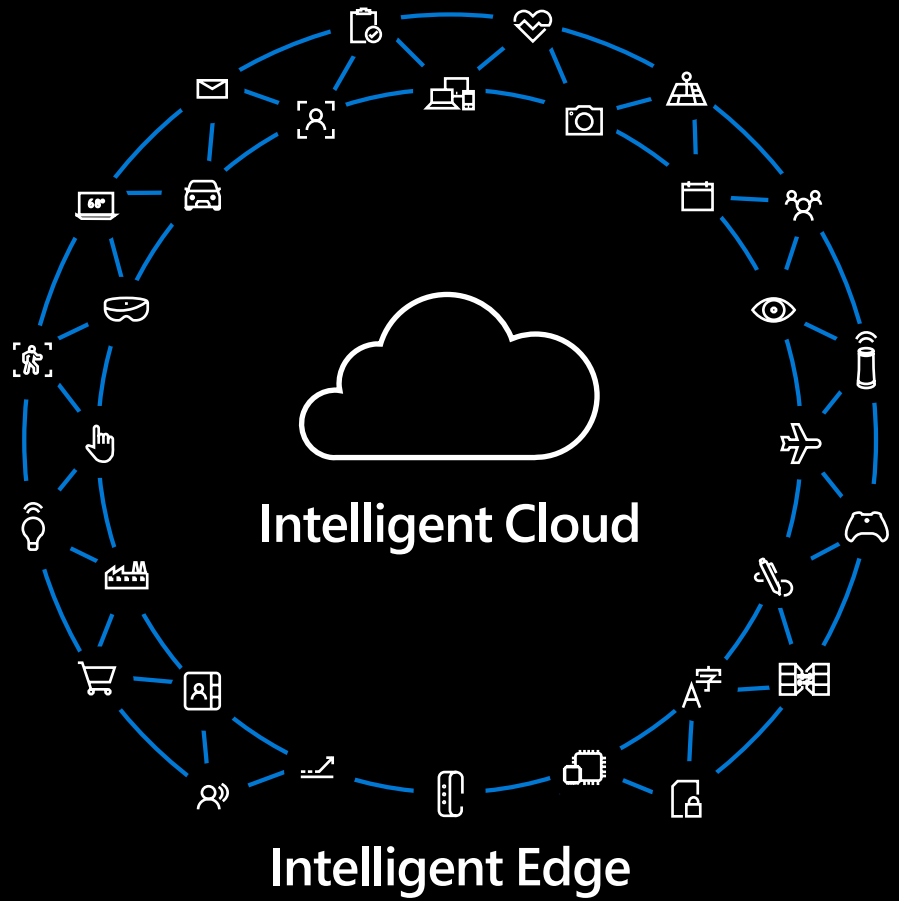

50B
connected devices
by 2030
175ZB
total amount of data
by 2025
500M+
business apps by 2023



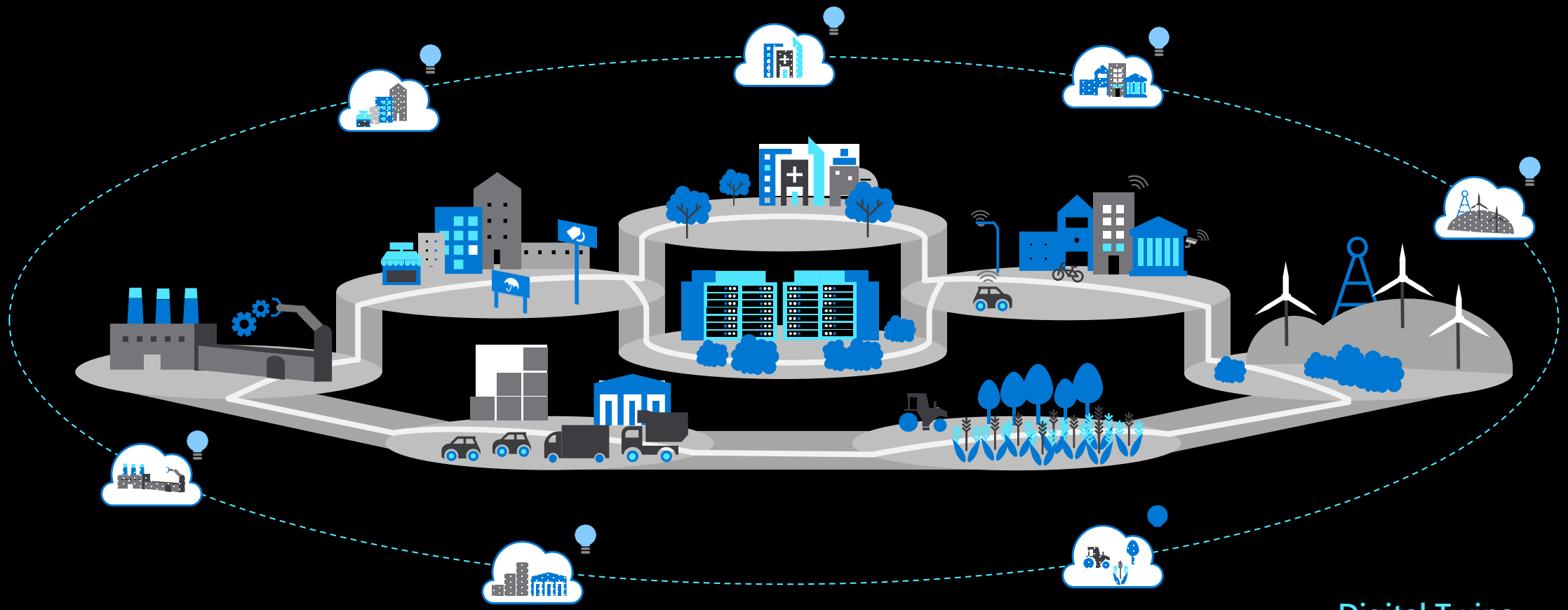
"Building applications for multi-device, multi-sense experiences is going to require a **very different form of computing architecture.**

That's the motivation for bringing together all of our systems and people.

Silicon in the edge to the silicon in the cloud architected as one workload that is distributed—that's the challenge in front of us."

—Satya Nadella, Q&A Session, April 2018

Innovations enabling new opportunities



Cloud
Globally available, unlimited compute resources

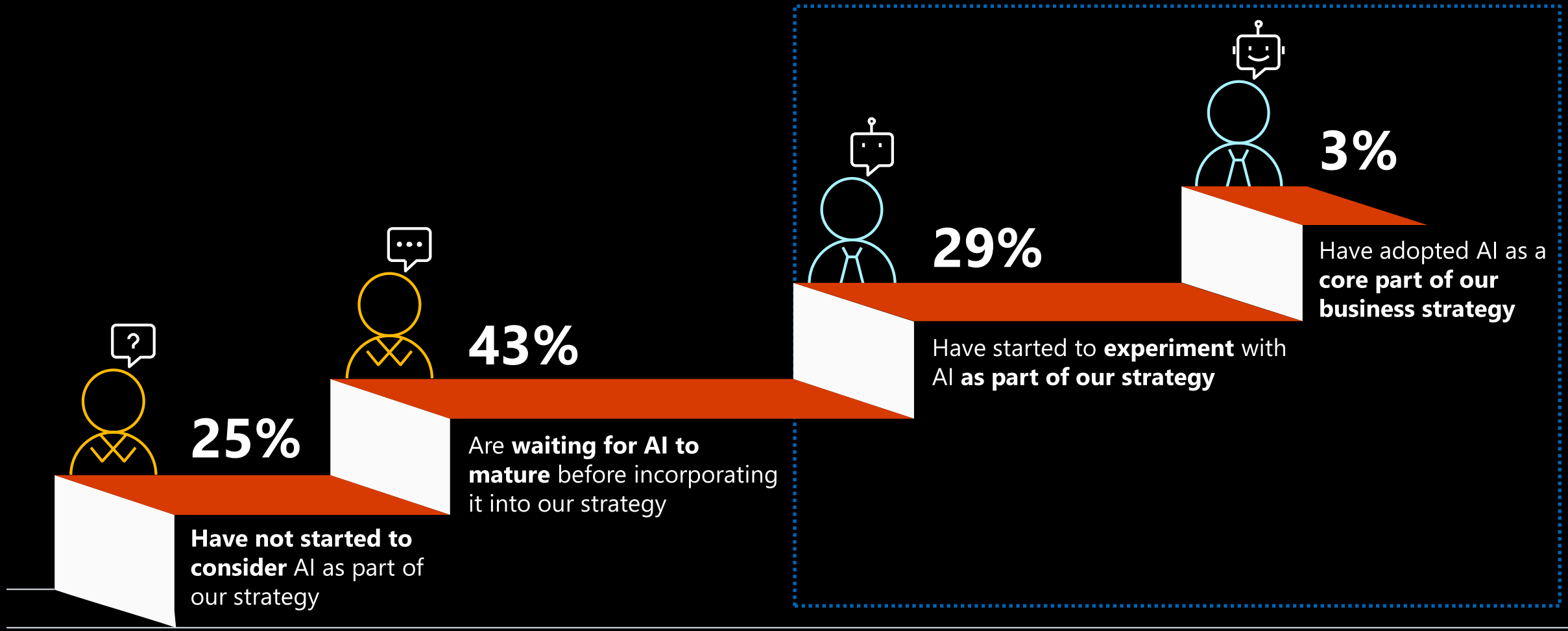
IoT
Harnessing signals from sensors and devices, managed centrally by the cloud

Edge
Intelligence offloaded from the cloud to IoT devices

AI
Breakthrough intelligence capabilities, in the cloud and on the edge

Digital Twins
Create living replicas of any physical environment, track the past and predict the future

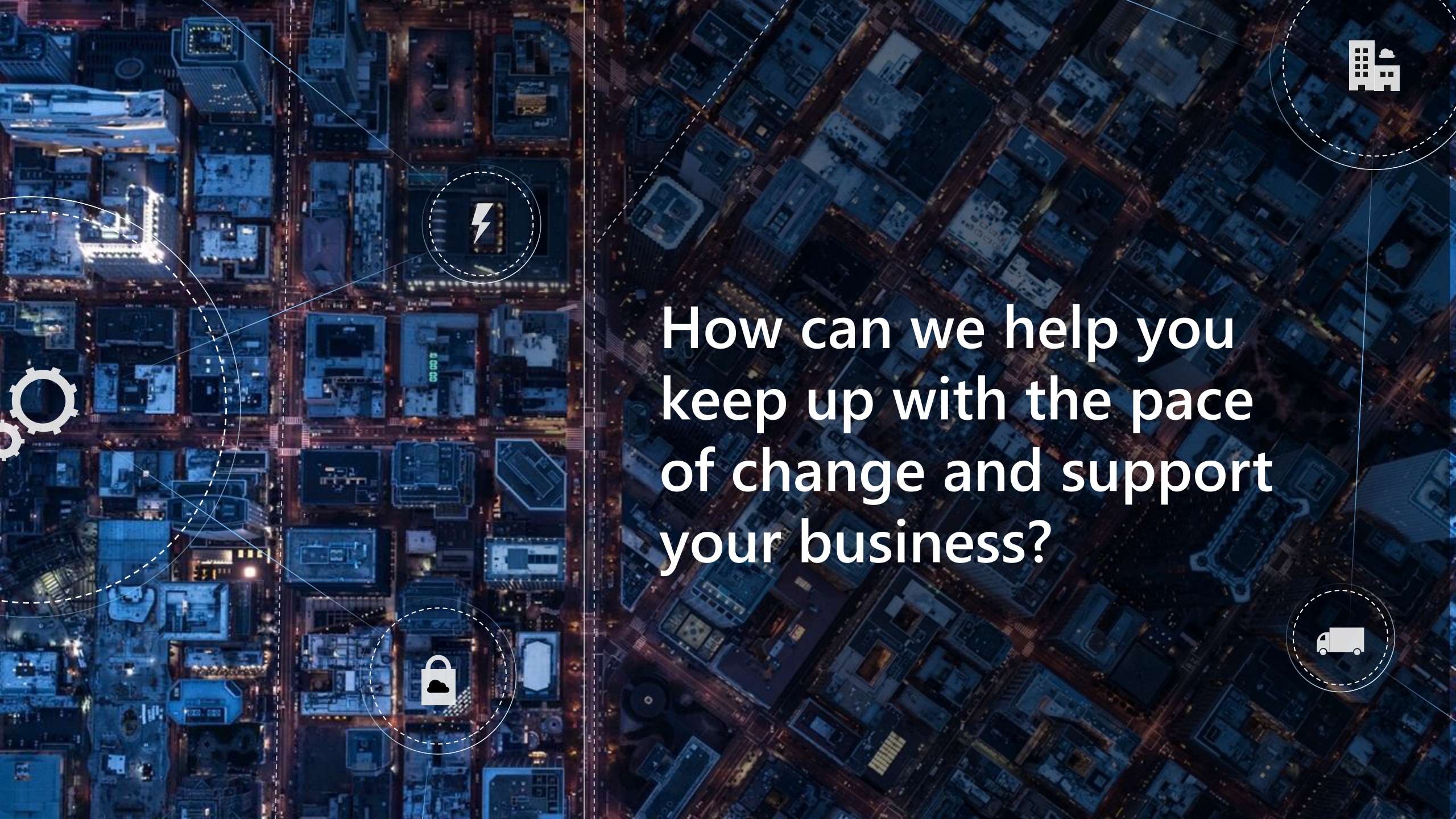
Close to a third of organizations in Taiwan have started on their AI journeys



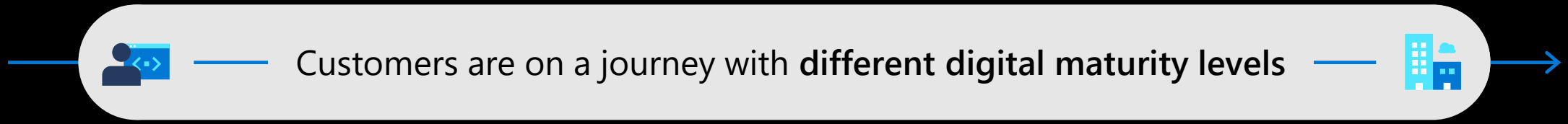
Q: Which of the following statements best describes your organization's view on AI?
Taiwan Business = N=100

IDC Analyze the Future

Microsoft


How can we help you keep up with the pace of change and support your business?

Three emerging patterns of digital transformation



Build digital capabilities

Build digital businesses

Modernization

Foundation for Digital Transformation

Common initiatives:
- Digital workplaces
- Digital customer experiences
- Transforming the infrastructure
- Application modernization

Industry & Horizontal

Solution-centric opportunities

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

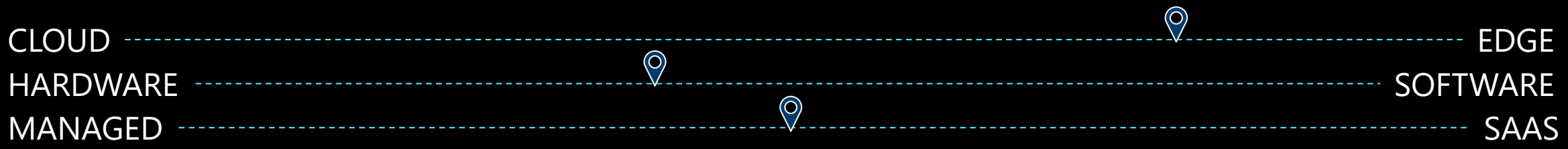
CXO sponsorship

Digital Maturity Model assessment

Comprehensive **program of change**

Evolves into new **commercial business models**

Wherever you are on the IoT journey:



Microsoft has developed a set of secure, scalable offerings to help companies take advantage of IoT's powerful capabilities.

- Grow securely and at scale with a trusted IoT leader
- Get started quickly by leveraging a fully managed solution or build with templates for common IoT scenarios
- Predictable costs to fit different needs and levels

Microsoft's comprehensive IoT product portfolio

Accelerating solution build and operate

Azure Security Center for IoT

Azure IoT priority verticals

Manufacturing | Retail | Agriculture | Energy | Smart Cities | Healthcare | Transportation

Azure IoT solutions

- Azure IoT Central (SaaS)
- Azure IoT reference architecture and accelerators (PaaS)
- Dynamics Connected Field Service (SaaS)

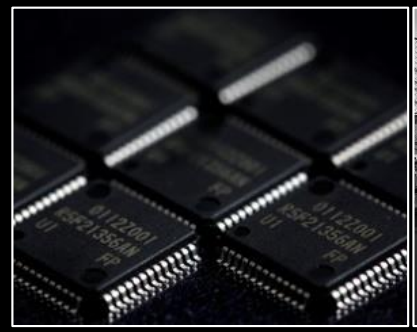
Azure Services for IoT

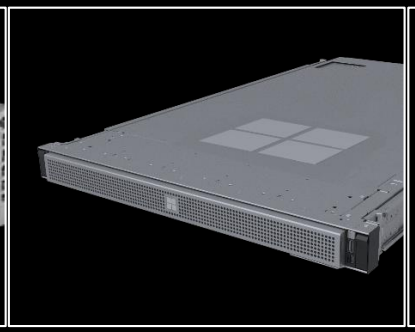
- Azure IoT Hub
- Azure IoT Hub Device Provisioning Service
- Azure Active Directory
- Azure AI
- Azure Cognitive Services
- Azure Cosmos DB
- Azure Data Share
- Azure DevOps
- Azure Digital Twins
- Azure Logic Apps
- Azure Maps
- Azure ML
- Azure Monitor
- Azure Spatial Anchors
- Azure Stream Analytics
- Azure Time Series Insights
- Power BI

IoT and Edge device support

- Azure IoT Device SDK
- Azure IoT Edge
- Azure Sphere
- Windows IoT
- Azure Certified for IoT device catalog
- Azure Cognitive Services
- Azure Functions
- Azure ML
- Azure SQL
- Azure Storage
- Azure Stream Analytics
- Data Box Edge

The most comprehensive IoT and Edge offerings in the market





Devices + Sensors | **Sensors to interactive** | **Integrated platform** | **Global scale processing**

IoT devices
Azure IoT Device SDK

Endpoint devices such as appliances, vehicles, or factory machines that connect, interact, and exchange data

1,300+ devices, 300+ partners—all certified to work great with Azure IoT Services

Cross-platform and open source: Windows IoT, Linux, RTOSs, ThreadX and more

Device security
Azure Sphere

Integrated hardware, software, and cloud services work seamlessly together to deliver security by default

Deployment options to securely connect existing equipment and build security into new edge devices

Over 10 Years of security and OS updates delivered directly to each device by Microsoft

Edge devices
Azure IoT Edge

Devices that aggregate, process, and provide gateway capabilities for IoT endpoints

Deploy and manage Azure Services in containers on any IoT device

AI, Azure ML, Azure Stream Analytics, and more

Cross-platform and open source: Windows IoT, Linux

Edge appliances
Azure Data Box Edge

Integrated appliances that provide a subset of cloud edge roles, such as ML-inferencing

Data Box Edge: AI-enabled, storage, and compute Azure Edge appliance

Data Box: Offline, ruggedized data transport, 100 TB–1 PB

On-premises platform
Azure Stack

Scalable solutions that provide a full cloud stack, including IaaS and PaaS capabilities

Edge and disconnected scenarios

Regulatory requirements

Cloud app model on-premises

Hyperscale cloud
Edge Regions

First-party cloud regions

Full range hyperscale cloud services

Tiered service availability: Heroes > Hubs > Satellites

Open source-based services and tools

Most specialization — Full spectrum of Cloud + Edge form factors — Fewest form factors

Fewest services — Intentional and appropriate Azure service availability — Most services

Three well-composed entry points for IoT solutions

Azure Security Center for IoT

Azure IoT Central

Fully managed IoT app platform

Azure Digital Twins

Model and interact with any physical environment, track the past and predict the future

Azure Services for IoT

- Azure IoT Hub
- Azure IoT Hub Device Provisioning Service
- Azure Digital Twins, Azure Maps
- Azure Time Series Insights

IoT & Edge Device Support

- Azure Sphere
- Azure IoT Device SDK
- Windows IoT, Data Box Edge
- Azure Certified for IoT—Device Catalog

- Azure Stream Analytics
- Azure Cosmos DB
- Azure AI
- Azure Cognitive Services
- Azure ML
- Azure IoT Edge
- Azure Stream Analytics
- Azure ML

- Azure Logic Apps
- Azure Active Directory
- Azure Monitor
- Azure DevOps, Power BI
- Azure SQL
- Azure Functions
- Azure Cognitive Services

IoT partner value chain

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

End points

Silicon/Chip Manufacturers

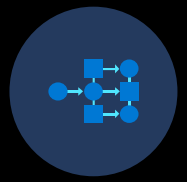
Gateway Manufacturers

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

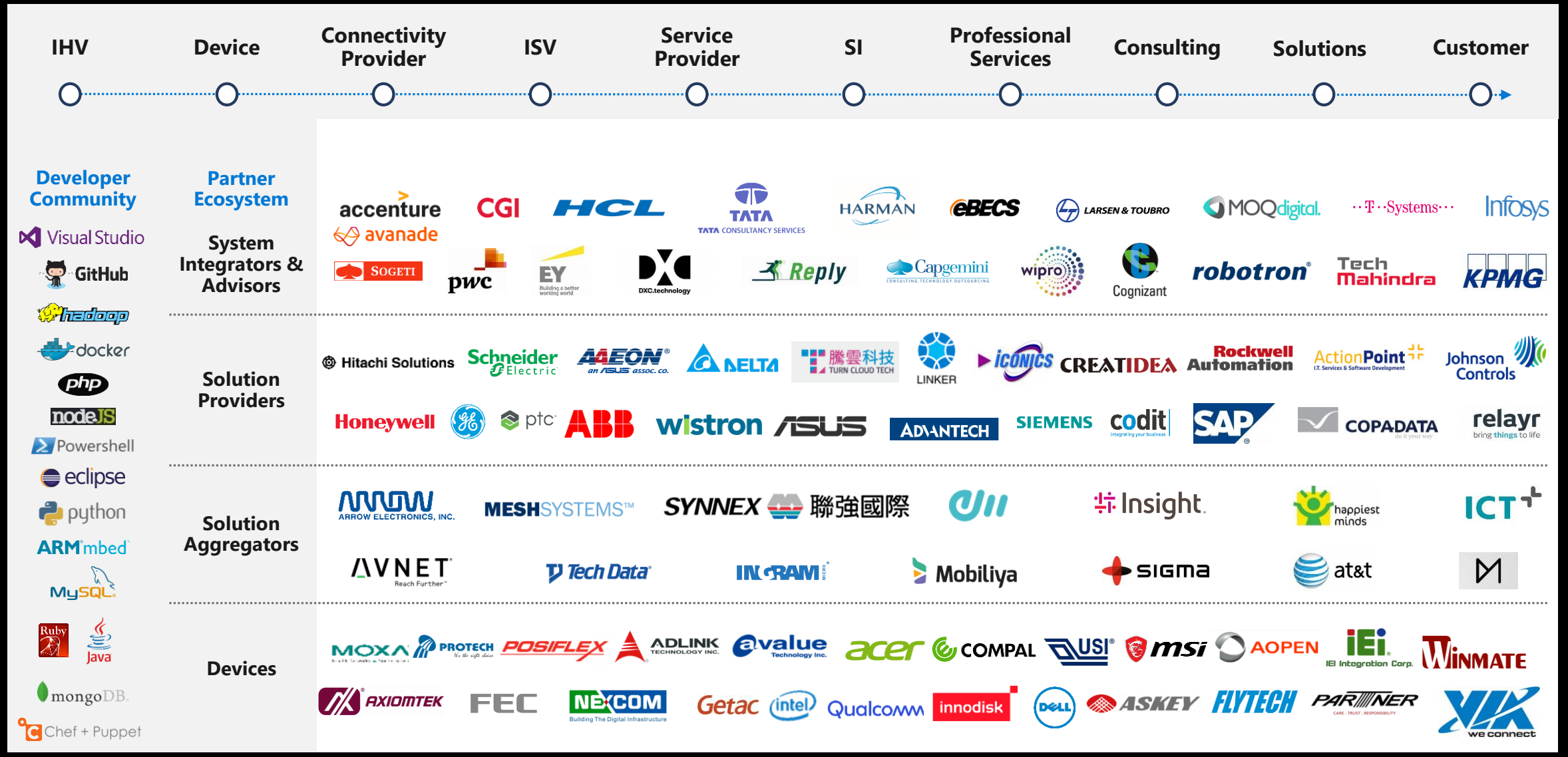
Standards organizations

Industry Bodies

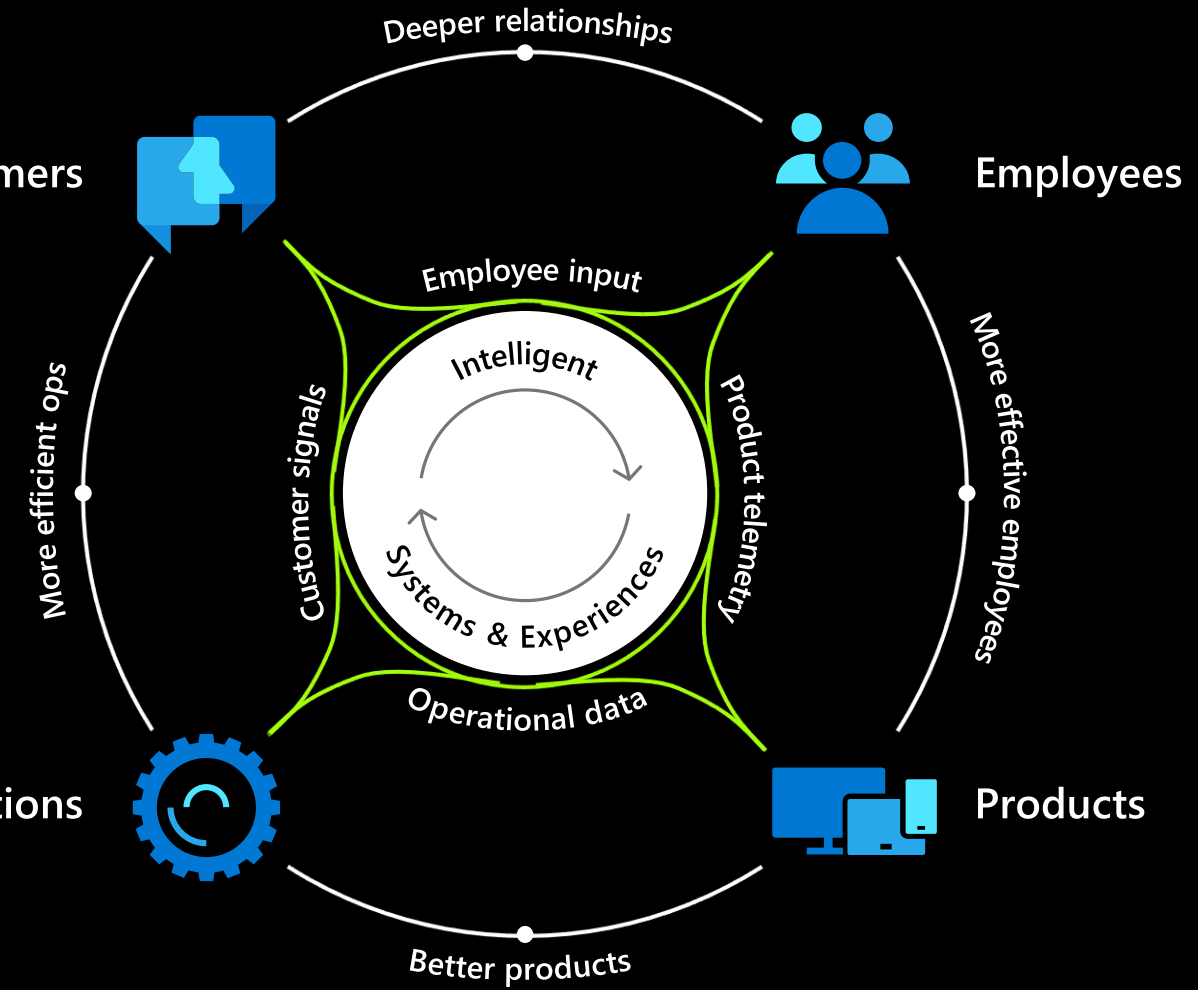
Accreditation organizations

Auditors

IoT ecosystem momentum



Making IoT smarter



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

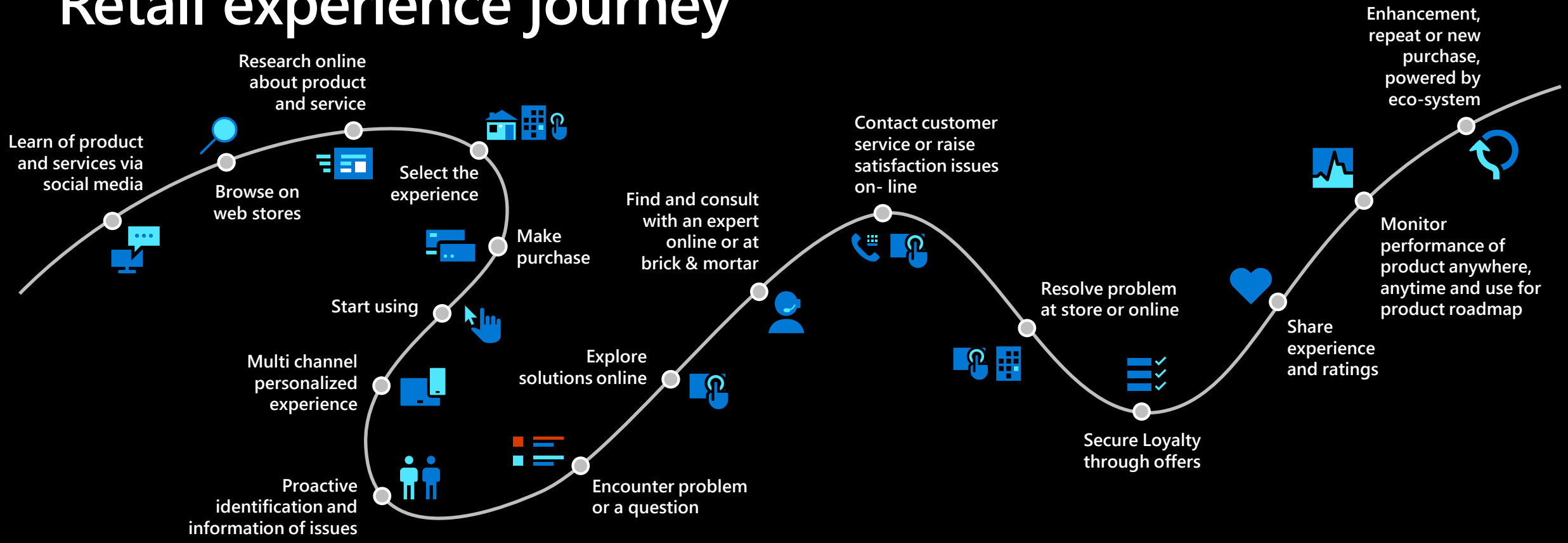
Livestock

Equipment

Supply Chain

Connectivity

Retail experience journey



Digital Transformation

Pre-purchase

Personalized Offers & Updates

Purchase

Enhance Customer Experience

Post-purchase

Create Brand Loyalty Learn & Act

Customer momentum

Microsoft Azure

So what's stopping you from making *things* happen?

Cally Ko

CIO, Delta Electronics

Microsoft

IoT in Action

#IoTinActionMS