



IoT in Action

#IoTinActionMS

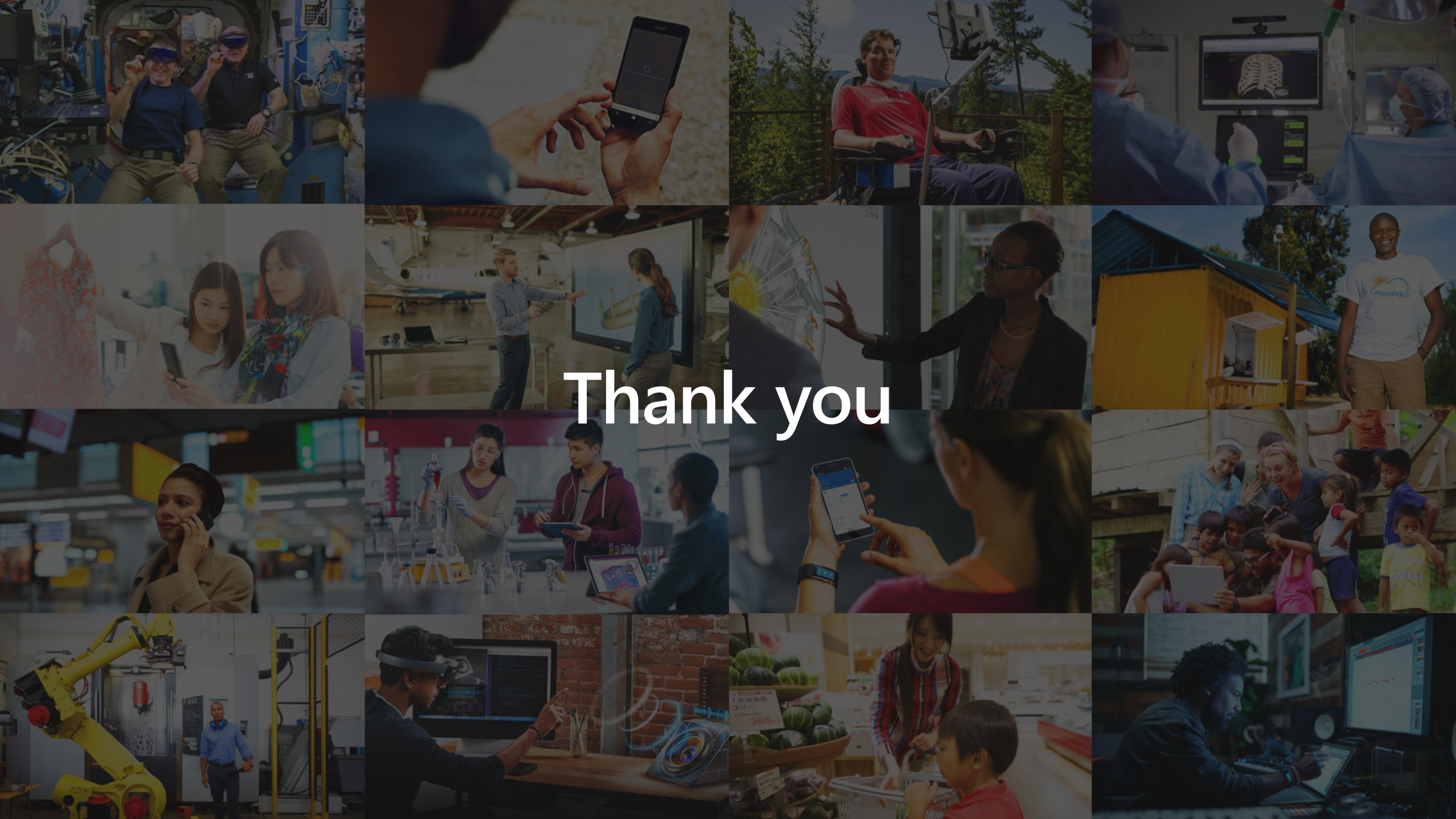


IoT Continuum: Evolving Business

Dr. Tomer Simon

National Technology Officer
Microsoft Israel





Thank you

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



Fueling opportunities



\$267 billion

Predicted USD spend on IoT by manufacturers by 2020¹

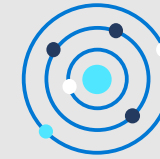
Boston Consulting Group, 2017



+\$100 million

Average increase operating income among the more digitally transformed enterprises²

Keystone Strategy, 2018



94%

Percentage of businesses projected to be using IoT by the end of 2021³

Hypothesis, 2019



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

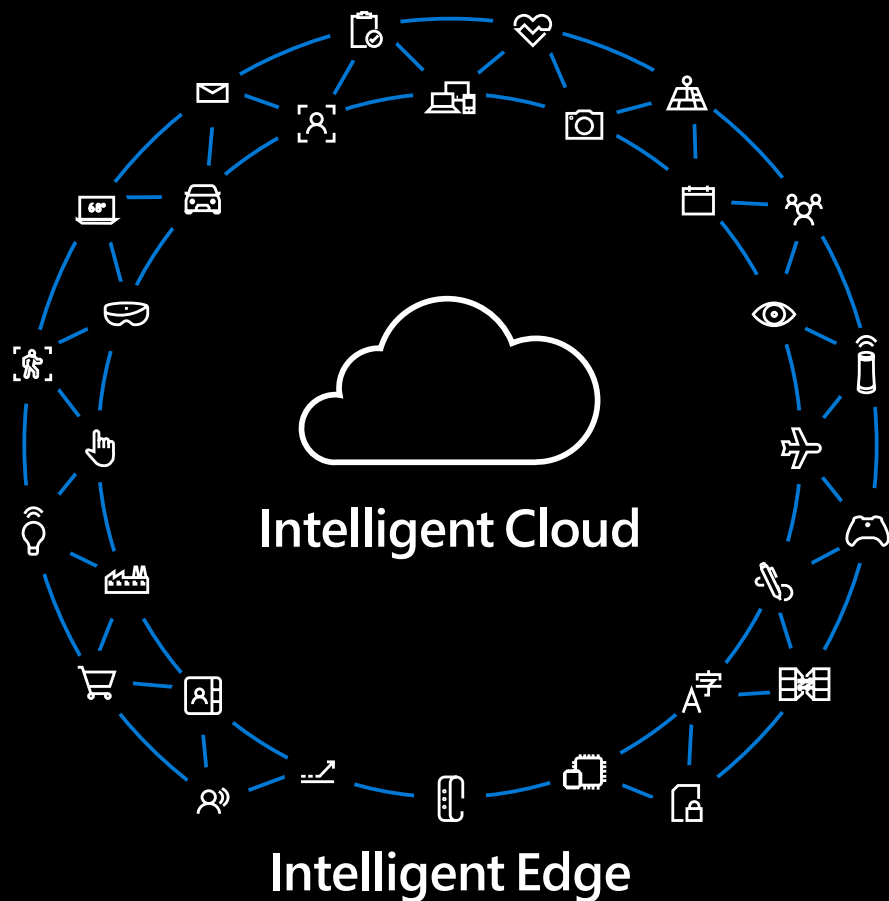
Average increase in operating income (average 8%) among the most digitally transformed enterprises

“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



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

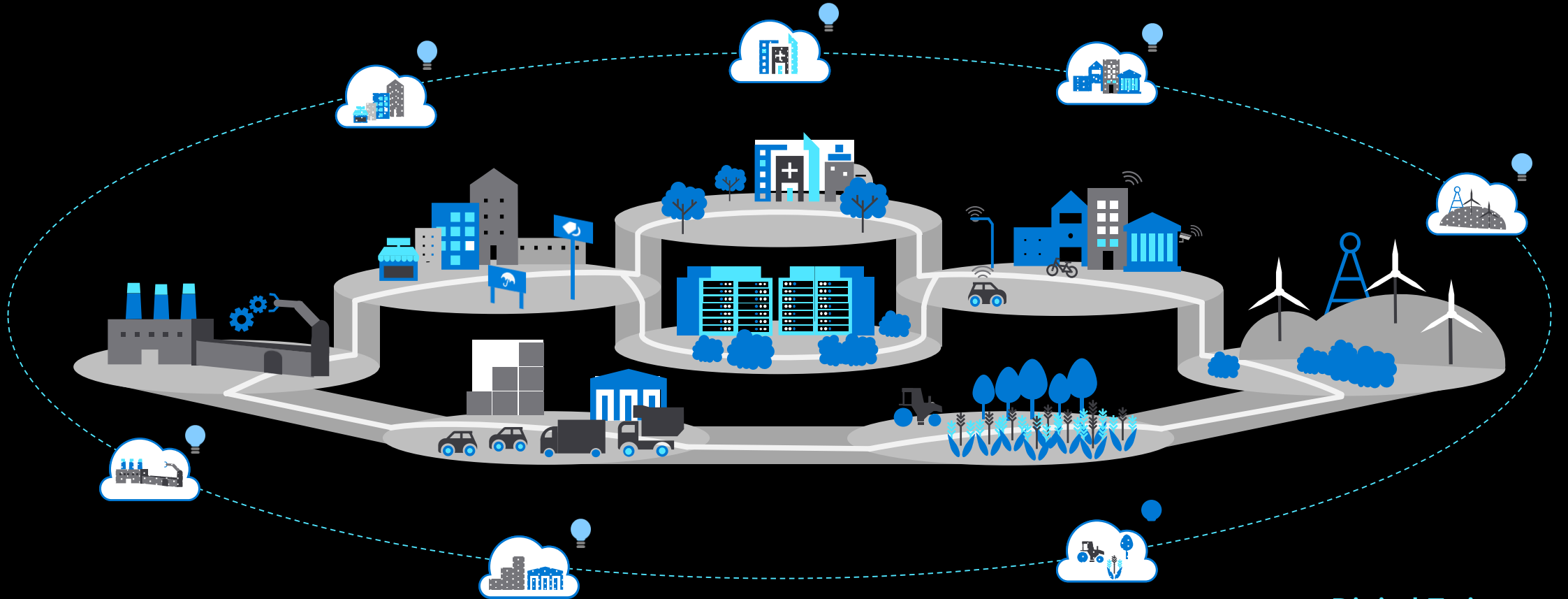
That's the motivation for bringing together all of our systems and people.

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

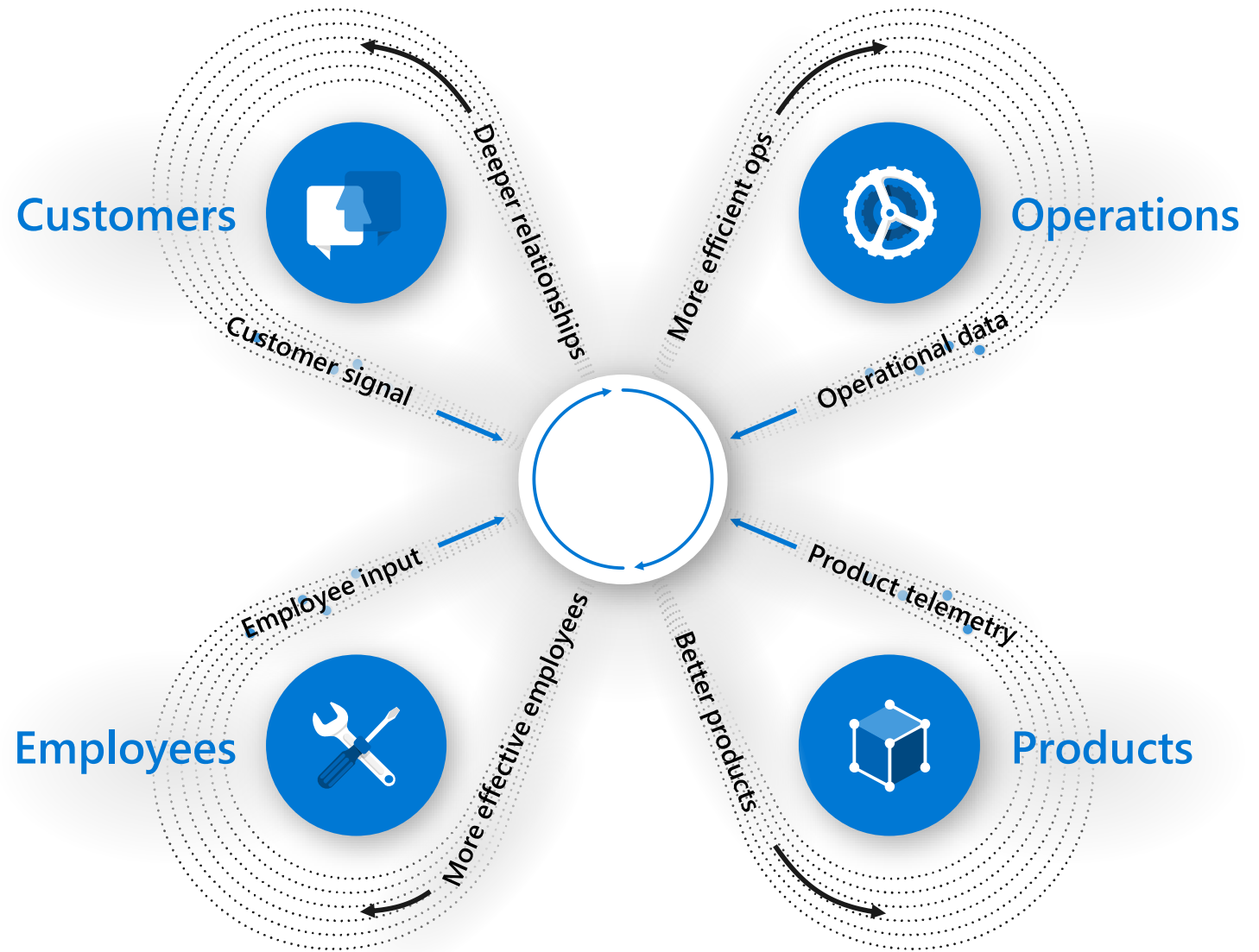
Breakthrough intelligence capabilities, in the cloud and on the edge

Digital Twins

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

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



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
- 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

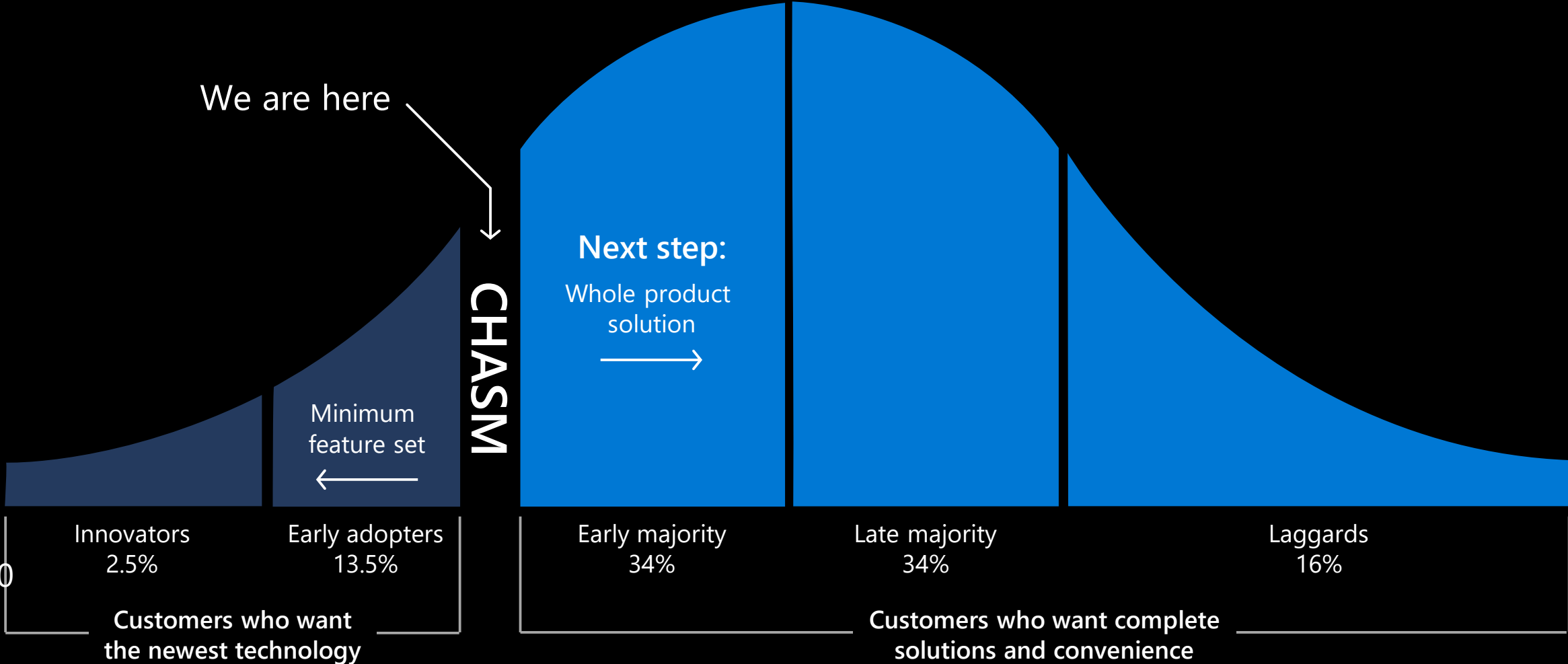
Comprehensive program of change

Evolves into new commercial business models

Preparing for mainstream market customer needs in IoT

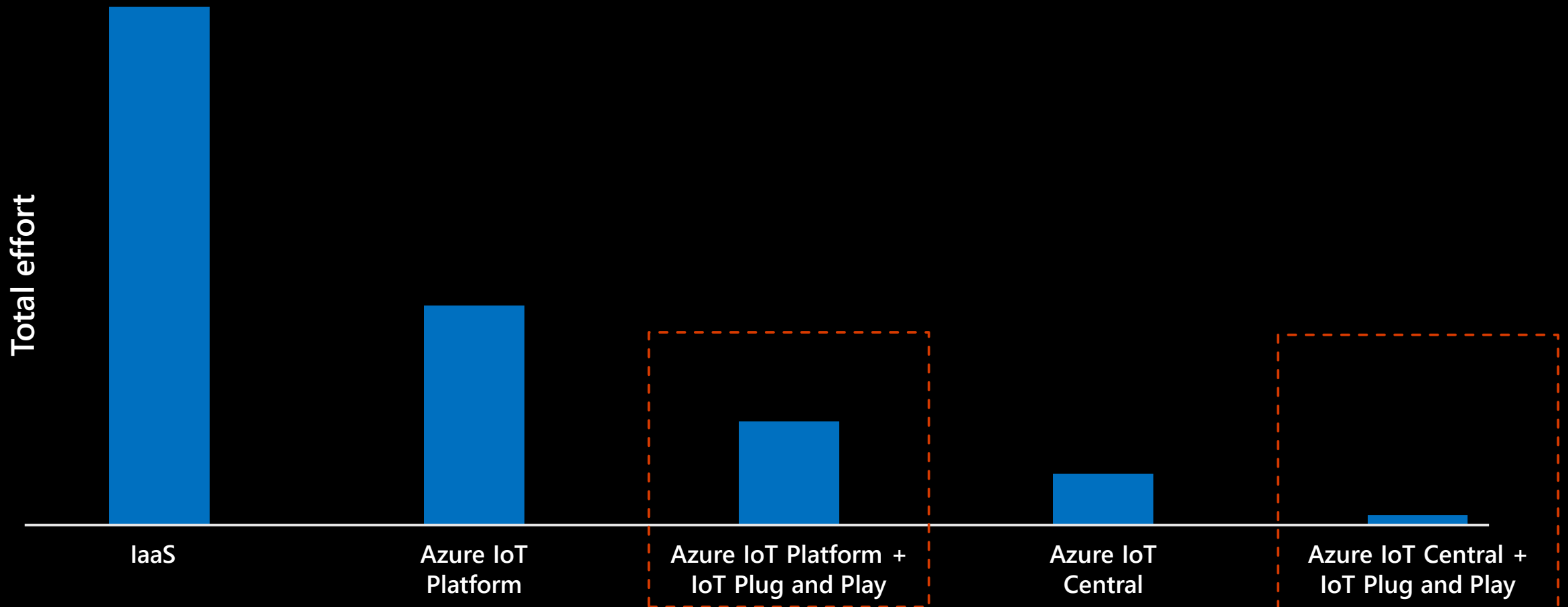
Technology adoption lifecycle

■ Early market ■ Mainstream market



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

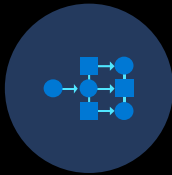
Gateway
Manufacturers

M2M Modules

Device
Manufacturers

Traditional OEMs

Device SIs



Security

Software

Hardware

Regulatory
experts

Privacy



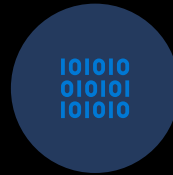
Connectivity

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

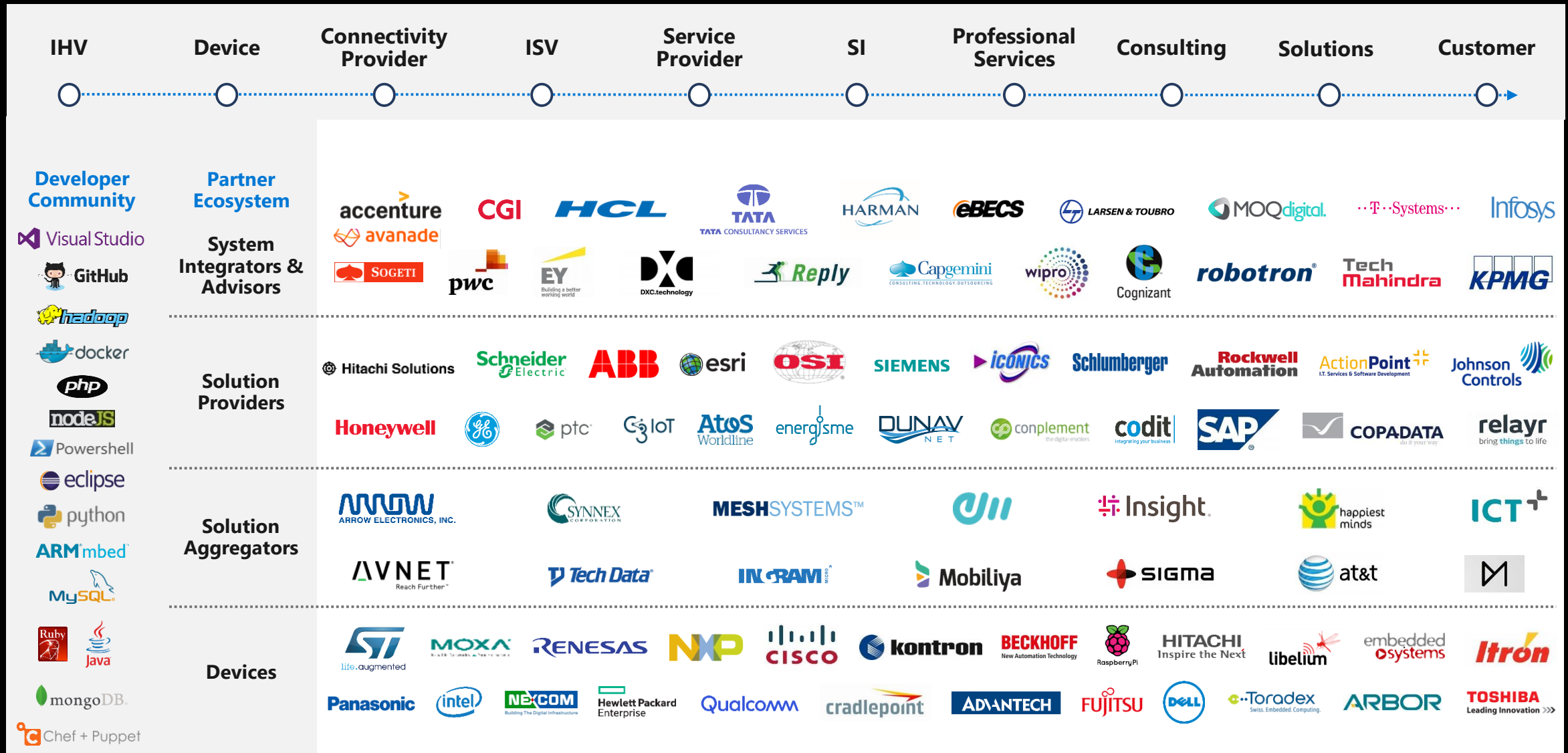
Standards
organizations

Industry Bodies

Accreditation
organizations

Auditors

IoT ecosystem momentum





Microsoft IoT platform
innovations last year

> 100



Partner provided co-sell
ready solutions

> 1,200



Ecosystem partners

> 10,000

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

Customer momentum

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IoT Solutions' Fast Lane With Azure & CodeValue

Eran Stiller
CTO @CodeValue
Microsoft Regional Director

IoT in Action



About CodeValue

- Technology experts
- High quality software development solutions



Cloud Computing



Advanced Mobile Technologies



UI/UX & Graphic Design



Advanced Web Technologies



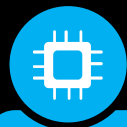
Cross Platform Development



ALM & DevOps



Software Architecture



IOT & Embedded Software



Training & Mentoring



Development Management & Methodology

Azure IoT @CodeValue

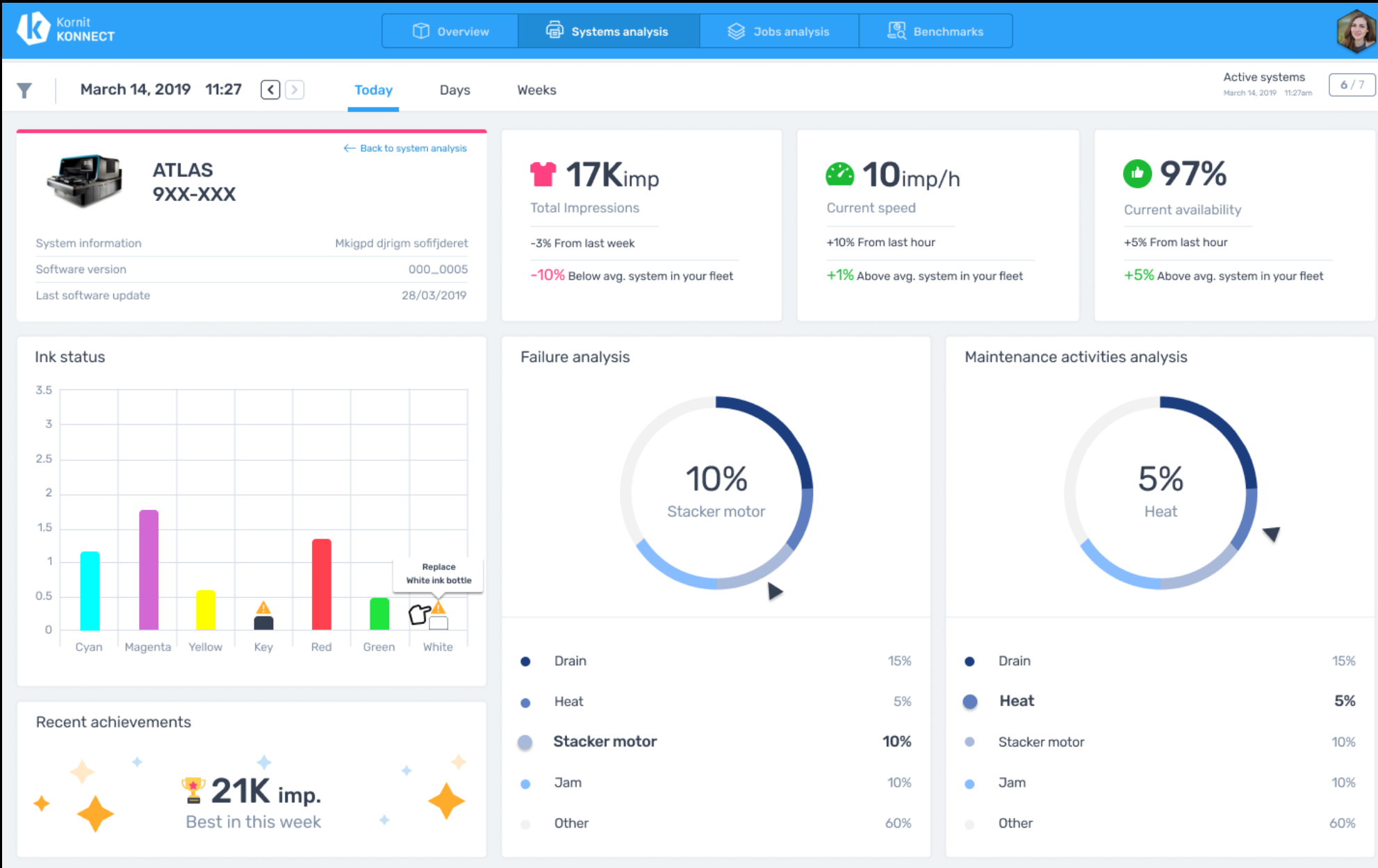


Kornit Digital

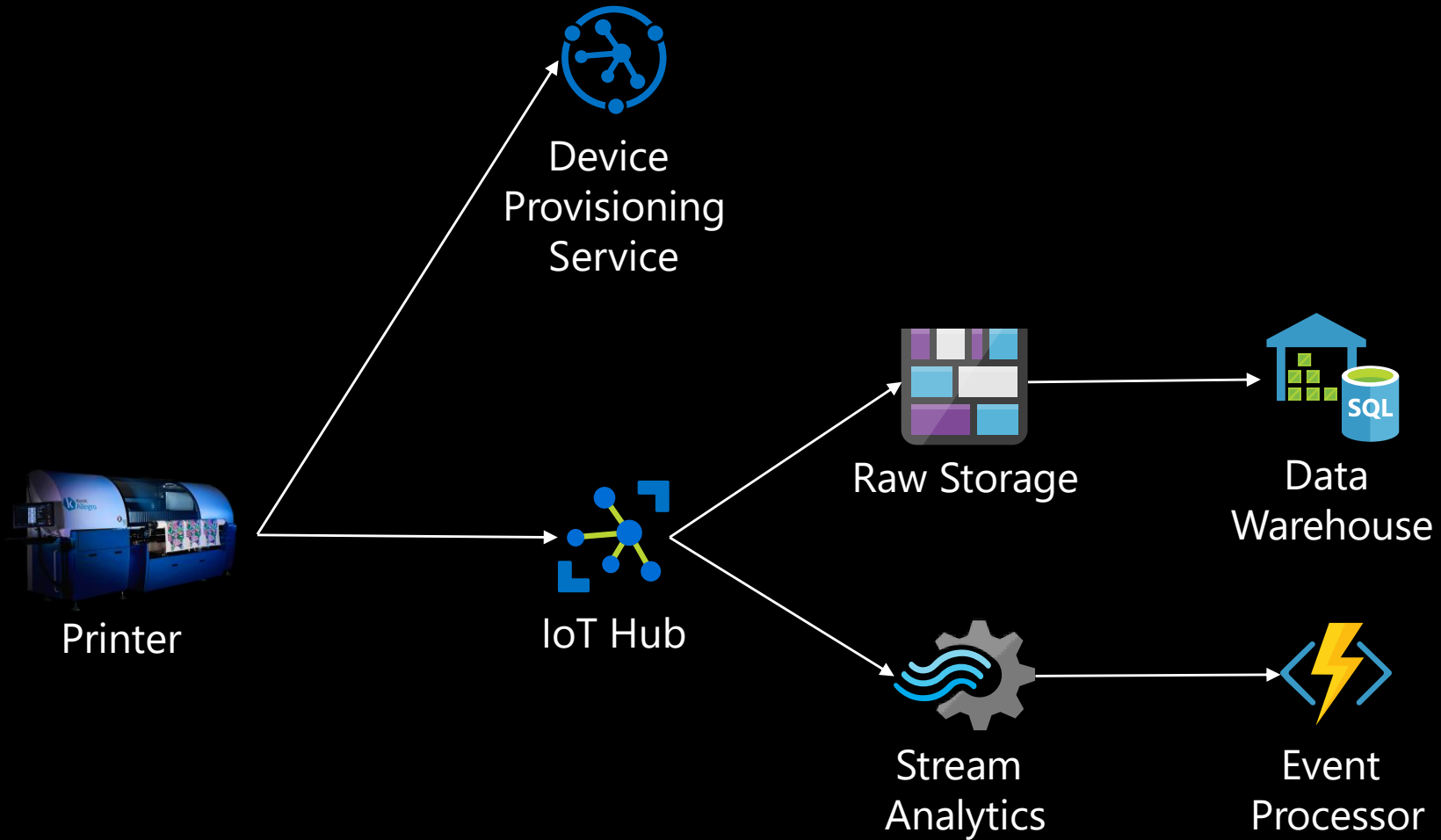
Cutting-edge direct to garment printing platforms



Kornit Konnect



Kornit Konnect & Azure IoT



Kornit Konnect & Azure IoT

50% Reduction in Operational Cost

60% Reduction in Time-to-Market



Feelit



Feelit



Facility Health: ! ⚙️ ✕

Valve 3 Type: Valve Cycles count: 9,528

Open %: 76%

CLOSE OPEN

Health

Overheating Pressure Spike Fractures Others

EVENTS (1) Events history ⋮

▶ ! 11:50 61 sec Overheating

Time: 17/9/19 11:09 Duration: 21 sec Property: Strain Value: 108% Clear Add Note

Realtime info of item

Pressure

10 mins ago 11:10:15

Temperature

10 mins ago 11:10:15

Event Analyzed Data

Wear %

11:08:45 11:09:45 11:08:45

Cycles (o/c)

11:08:45 11:09:45 11:08:45

Sensor Reading: 17/9/19 11:09 Wear exceeded threshold

Pressure

10 mins ago 11:10:15

Temperature

10 mins ago 11:10:15

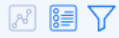
Event Analyzed Data

Wear %

11:08:45 11:09:45 11:08:45

Cycles (o/c)

11:08:45 11:09:45 11:08:45



Skid-A

Valve 3 !

Pipe 10 ✓

Valve 1 ✓

Pipe 2 ✓

Skid-B

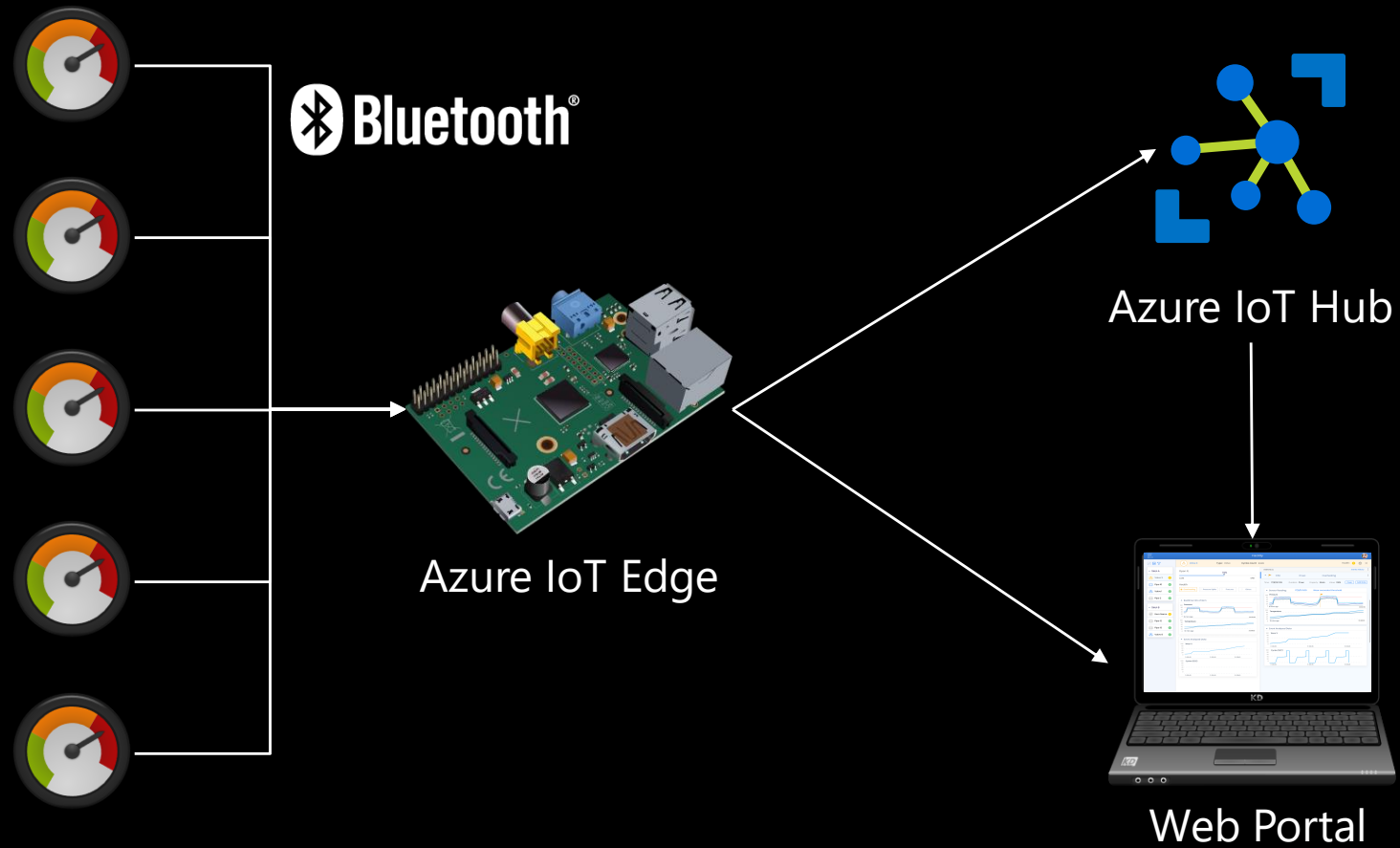
Item Name !

Pipe 12 ✓

Pipe 13 ✓

Valve 8 ✓

Azure IoT Edge @Feelit



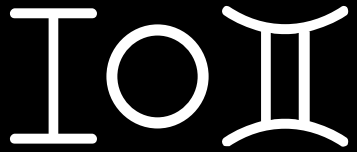
Azure IoT Edge @Feelit

50% Reduction in Operational Overhead

60% Reduction in Time-to-Market



ioTwo
by CodeValue



X-REACTOR Powered by: IOII

Home Alerts Setup Dashboard Reports

Wednesday, Aug 15 10:42 3

Home Template: Industry > Nuclear > Uranium Enrichment [Change](#) Reboot Plan: Cascade Every 24 hours

| Plants | Areas | Sensors |
|-------------------------------|----------------------------------|---------------------------------|
| No Redundancy | No Redundancy | Triple Redundancy |
| Plant 1 ● | Fuel Cycle ● | Temperature 1 ● |
| Plant 2 ● | Fission ● | Temperature 2 ● |
| | Heat ● | RPM D.3.1 ● |
| | Cooling ● | RPM D.3.2 ● |
| | Reactivity ● | RPM D.3.3 ● |
| | Power ● | RPM D.3.4 ● |
| | | RPM D.3.5 ● |
| | | RPM D.3.6 ● |
| | | RPM D.3.7 ● |

RPM D.3.3 Reboot

Sensor Data Real-time

Logical

205k RPM

High Alert
Today, 10:53:12 AM
4 alerts this month

Physical RPM

| Component | Status | Value |
|-----------|--------|-------|
| D.3.3A | OK | 200k |
| D.3.3B | OK | 210k |
| D.3.3C | FALSE | 100k |

Normal Speed

Accelerate Your Business with Azure IoT & CodeValue

