



IoT in Action

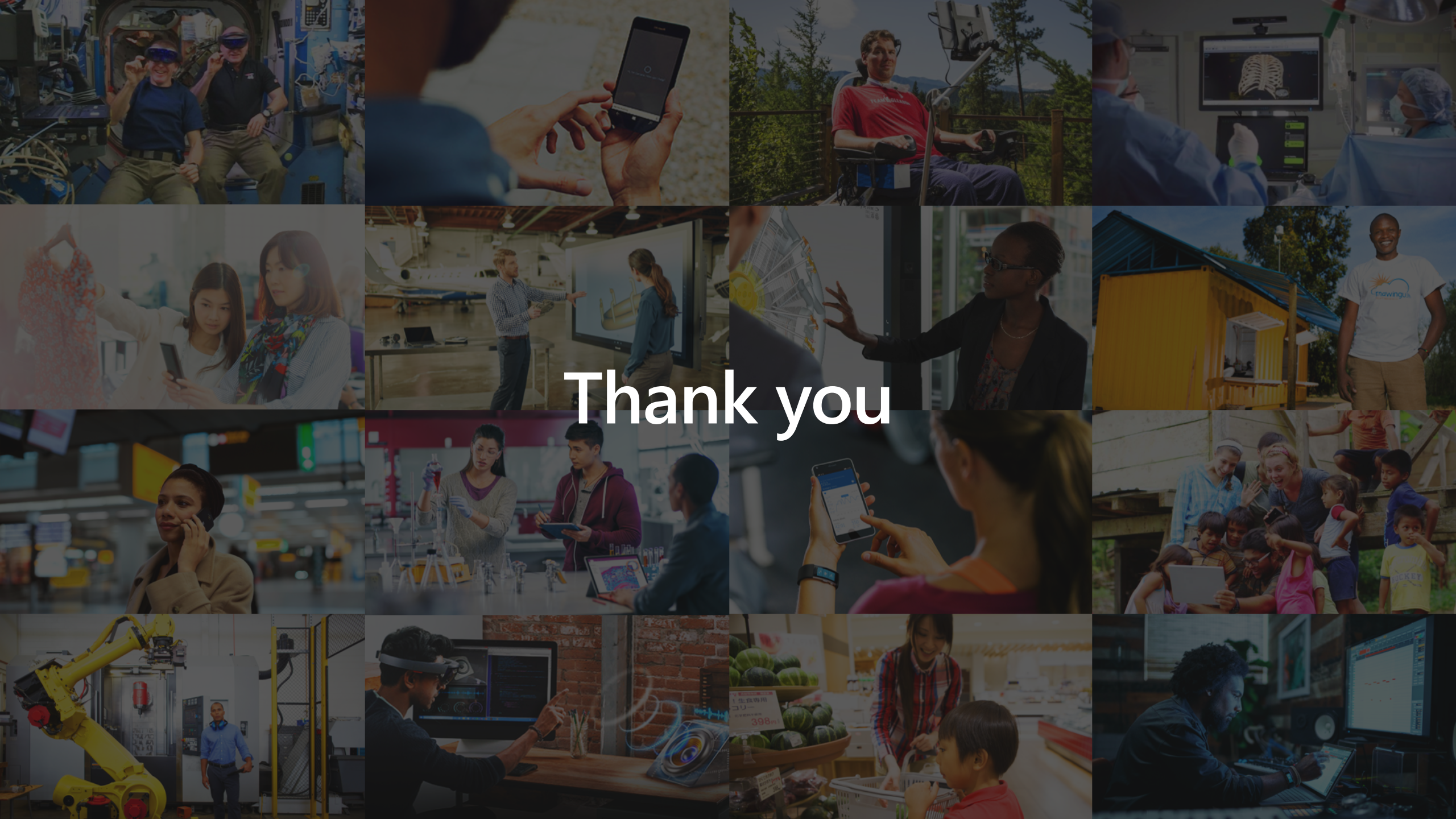
#IoTinActionMS



IoT Continuum: Evolving Business

Soren Lau
GM EMEA,
IoT Device Experience
Microsoft





Thank you

IoT in Action, Warsaw, November 13—Event Agenda

Executive Keynote	10:00–10:35am
Business Transformation In Action	10:35–11:10am
Architecting the Intelligent Edge to Create Scalable Repeatable Solutions	11:10–11:50am
Lunch Networking Break	11:50am–1:20pm
Unlocking IoT's Potential	1:20–2:00pm
Developing an IoT Security Practice for Durable Innovation	2:00–2:30pm
Afternoon Networking Break	2:30–3:15pm
Evolving IoT with AI, Mixed Realty and Automation	3:15–3:50pm
Customer Case Study: Bosch	3:50–4:15pm
Activating Microsoft Resources & Programs to Accelerate Time to Market and Co-sell	4:15–4:40pm
Executive Closing	4:40–4:45pm
Matchmaking	11:00am–4:55pm

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

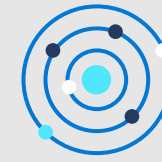
Boston Consulting Group, 2017



+\$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

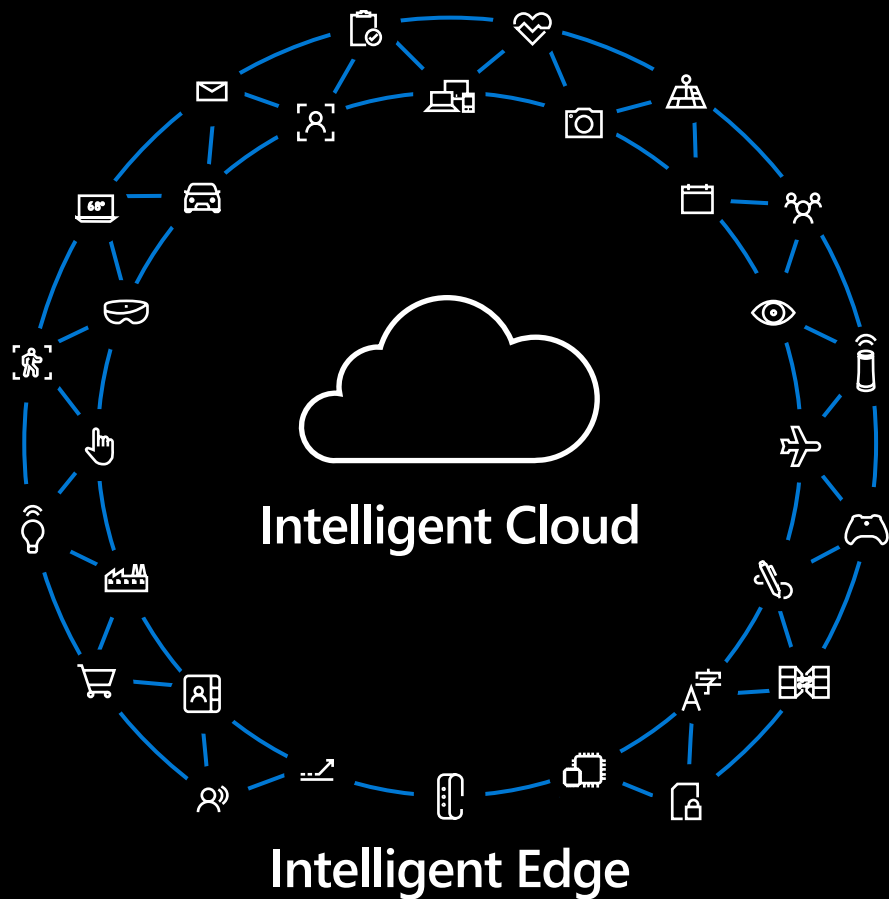
Average increase in operating income (average 8%) among the most digitally transformed enterprises

"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**.

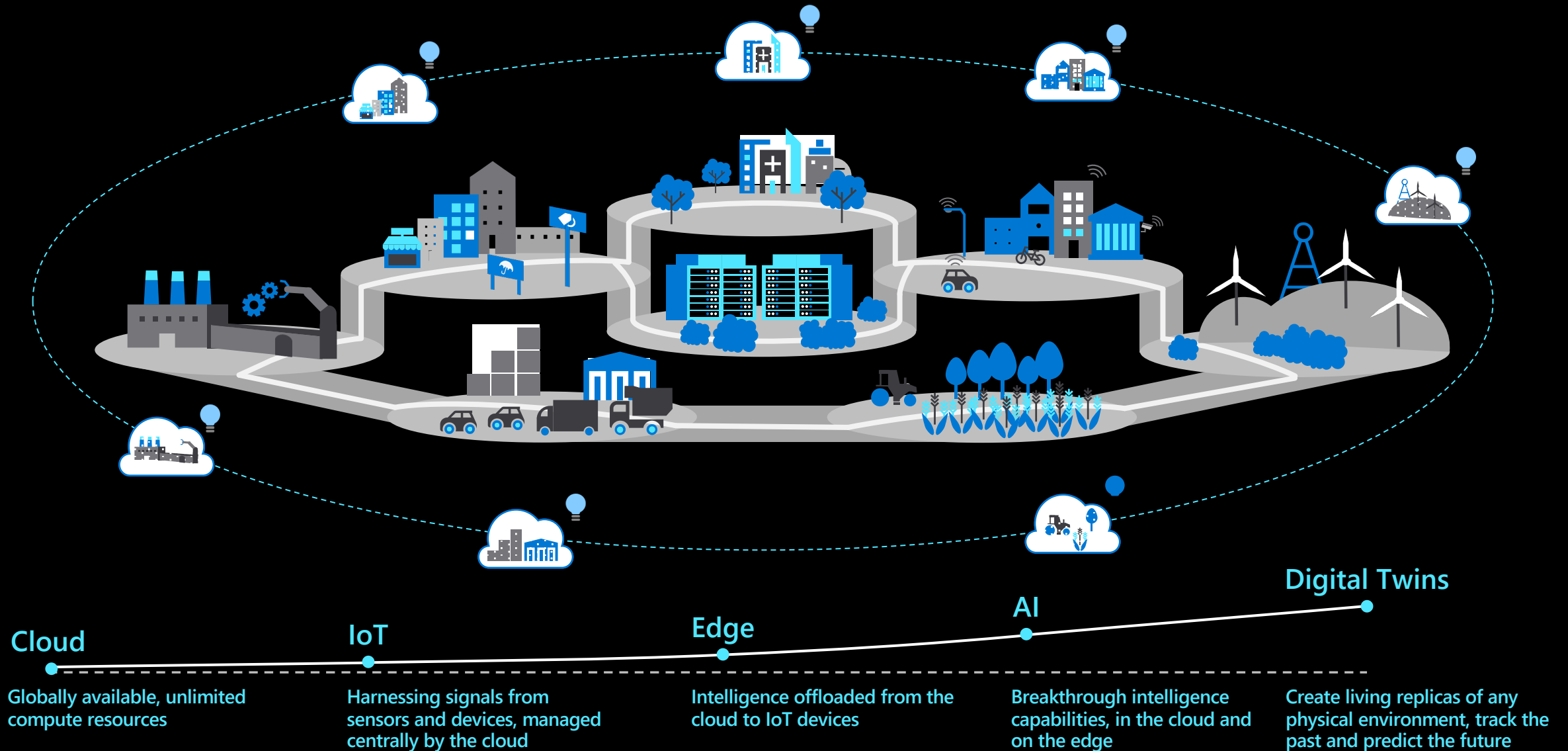
That's the motivation for bringing together all of our systems and people.

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

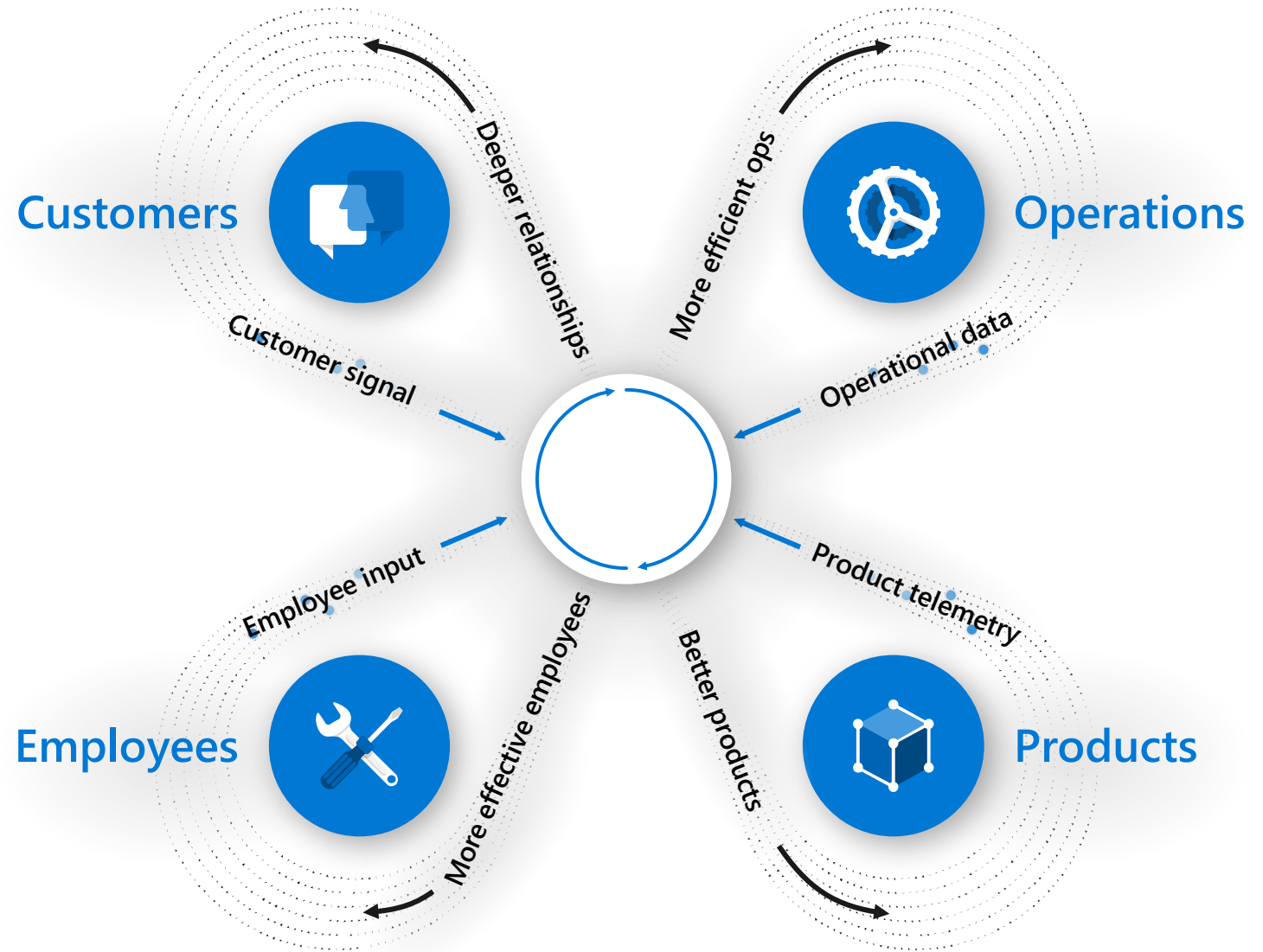


Innovations enabling new opportunities



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

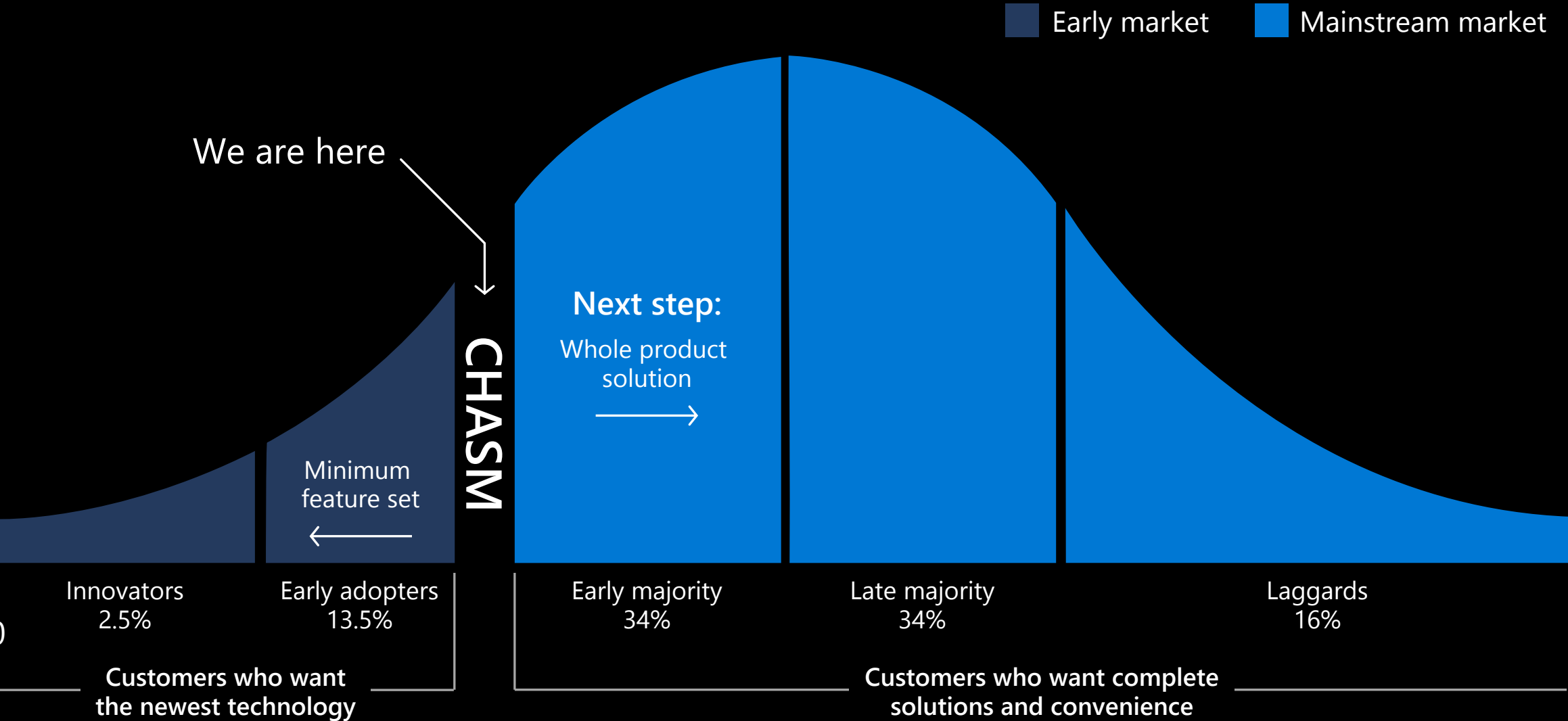
Digital Maturity Model assessment

Comprehensive **program of change**

Evolves into new **commercial business models**

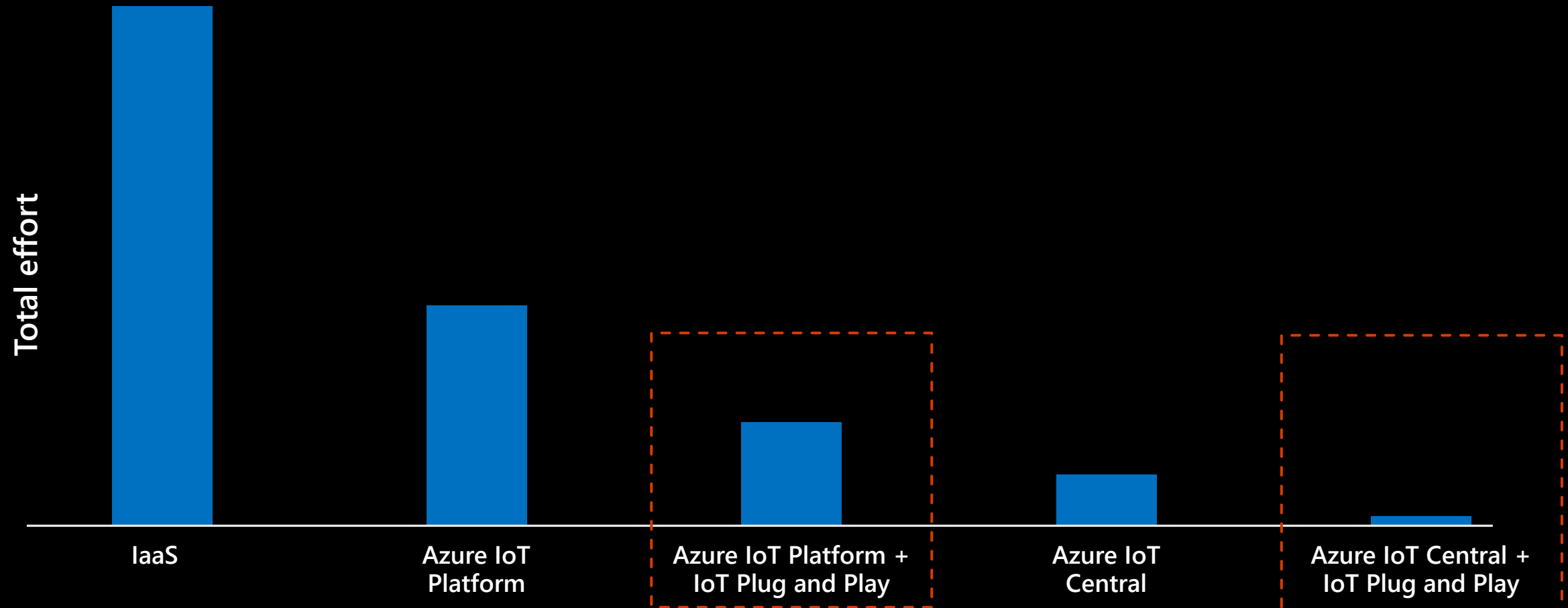
Preparing for mainstream market customer needs in IoT

Technology adoption lifecycle



Accelerating IoT

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



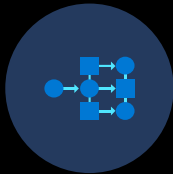
IoT partner value chain

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



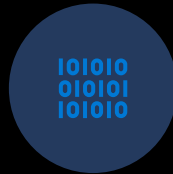
Security

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

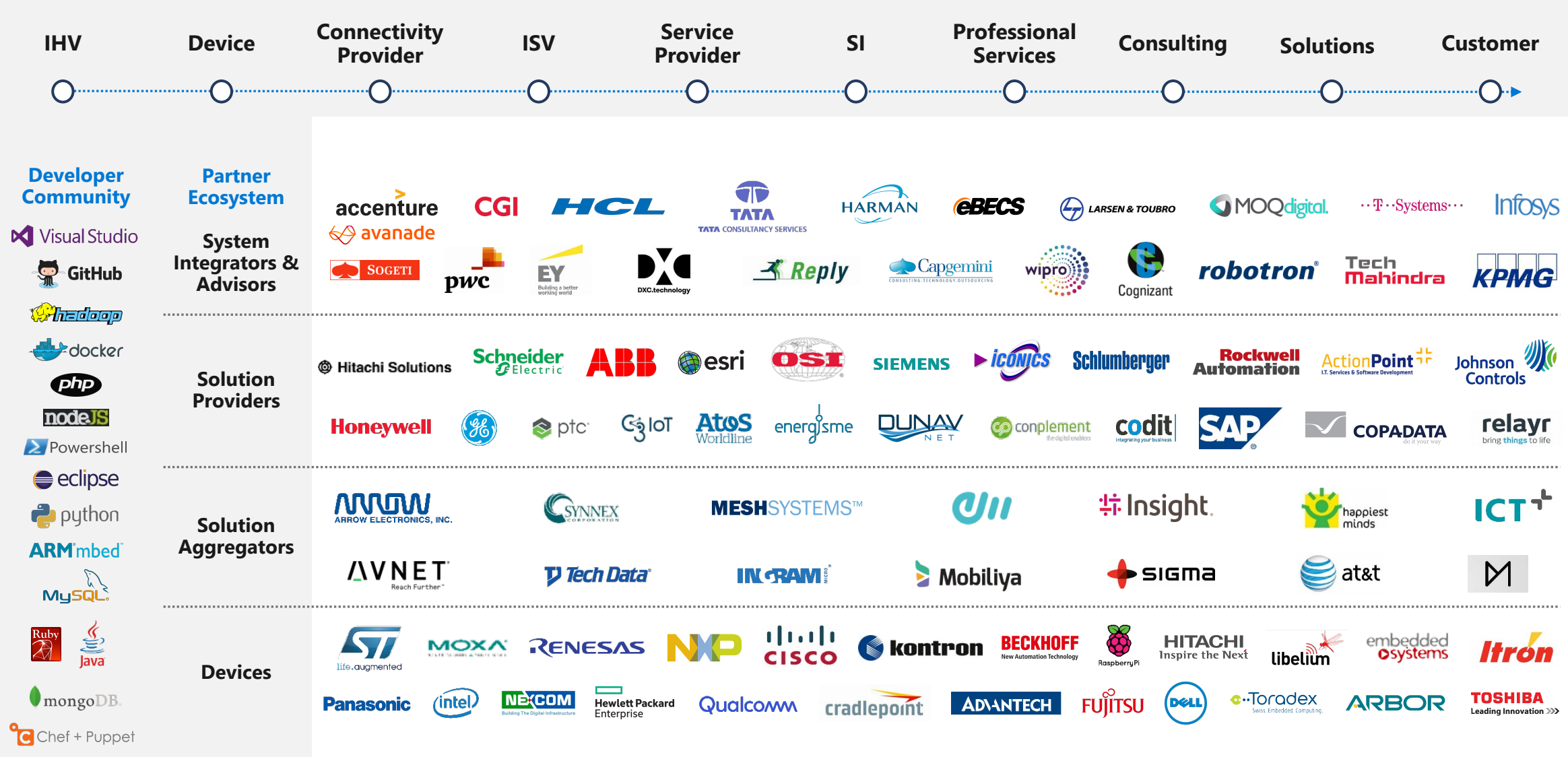
ISV
In-house



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



Customer momentum





A new approach to smart cities with IoT

Jon Lewis, Telensa

IoT in Action



Telensa

#1

in connected
street lighting

1.7

million streetlights
connected

90+

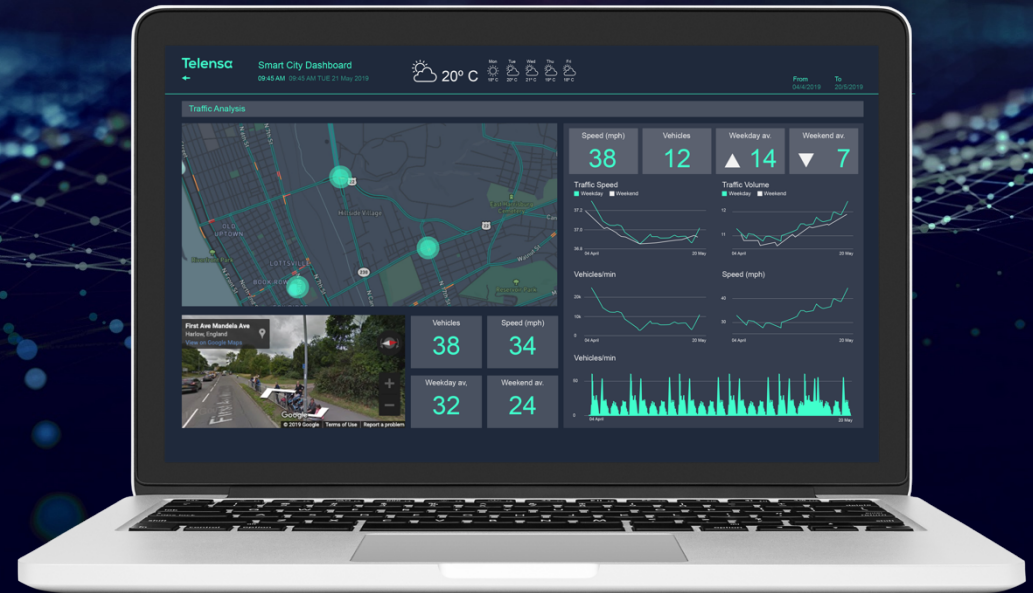
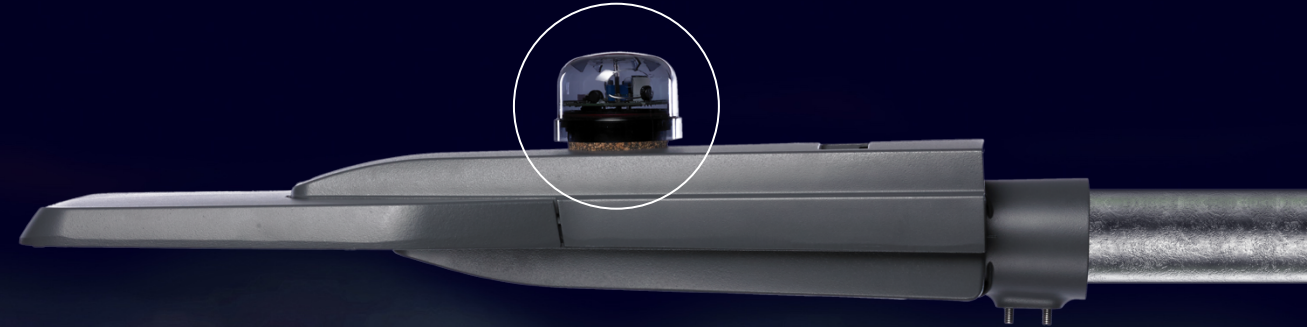
networks
built

400

cities

10

years deployment
experience



Telensa in Poland



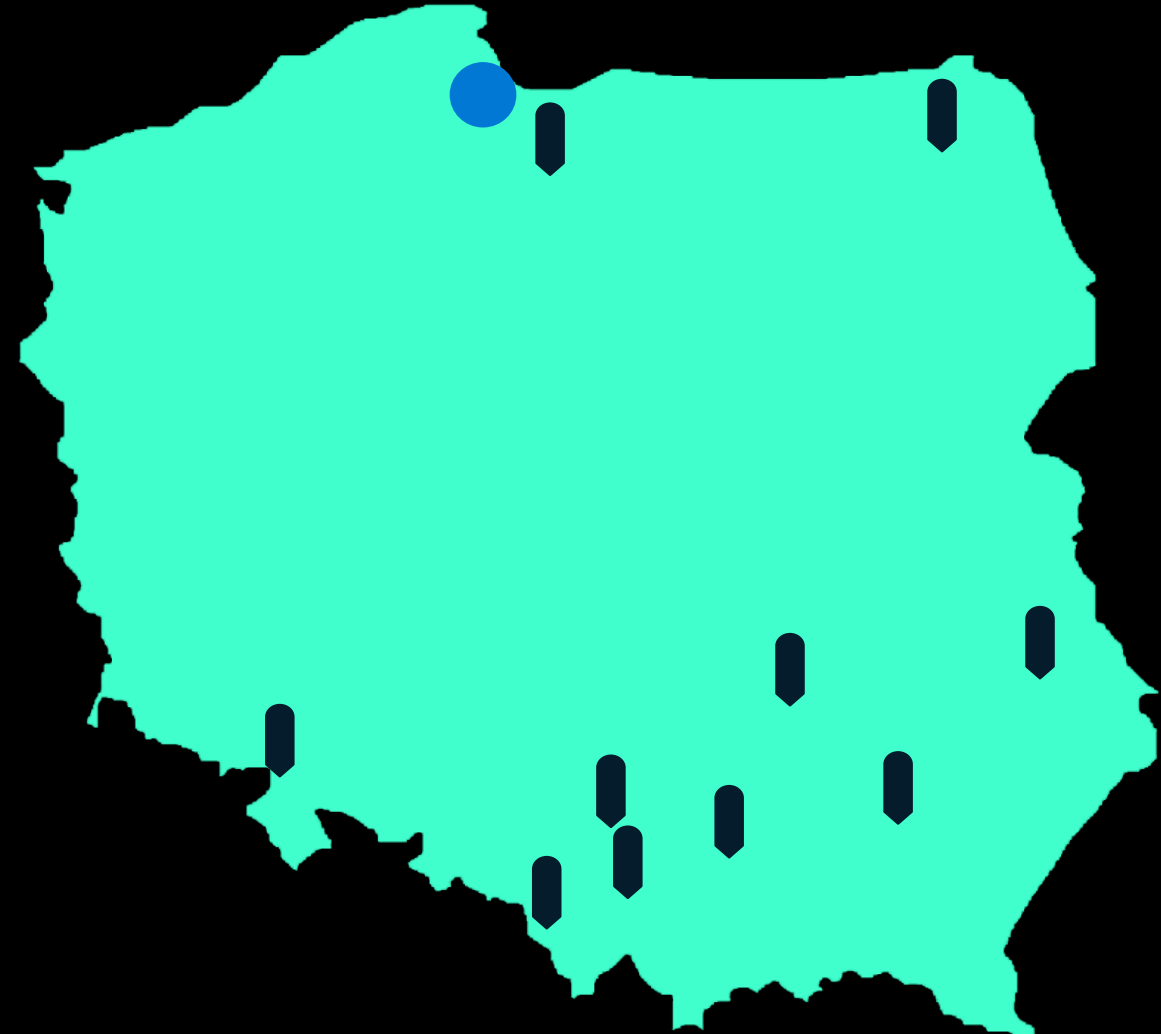
Enis, Telensa's local partner deploys a smart street lighting solution with in-country expertise.

- 11 towns in Poland
- 12,000 streetlights



Kainos, Telensa's system integrator partner provides expert support to develop enterprise grade applications built on Azure IOT

- Development centre in Gdansk

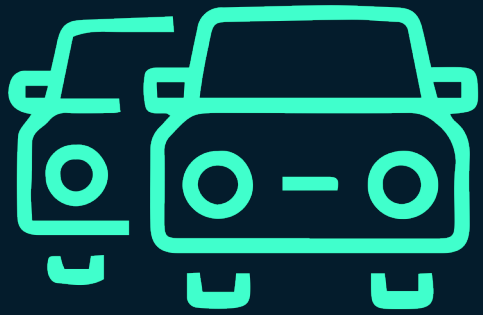


What if?



A smart phone on
every street lamp

What could you do?



Traffic



Air quality



Safety

How can we realise this vision?

- Cost of mass-scale data collection
- Data management and protection
- Citizen trust and transparency

Project objectives

- Cut the cost of data collection
- Make data insights easy to manage
- Protect urban data and make policies transparent

Key partners

- Microsoft: foundation technologies
- Qualcomm: device technology
- Samsung: system integration

Telensa

Microsoft

kainos®

smart
CAMBRIDGE

QUALCOMM®

SAMSUNG SDS

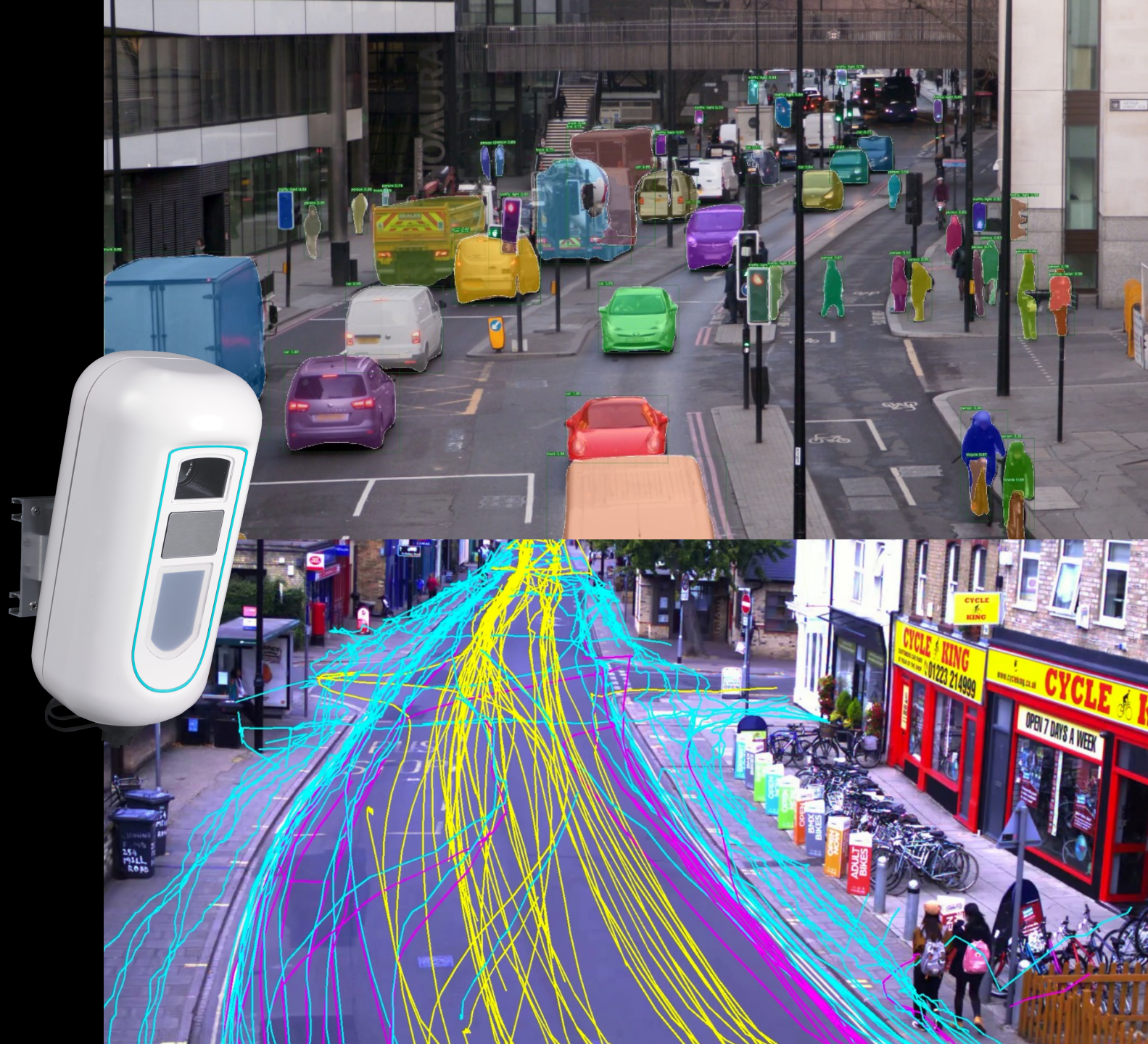


Urban Data Project

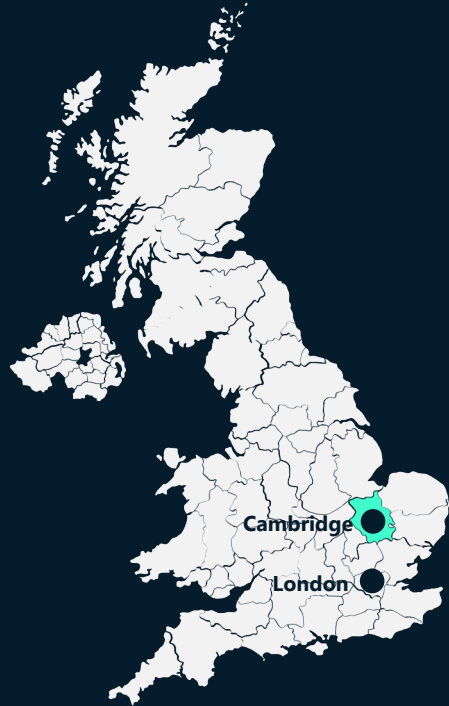


What kinds of data are we talking about?

- Classification of vehicle types:
 - pedestrians, bikes, cars, trucks
- Origin-destination information:
 - through vs local traffic
 - Uber patterns
 - last mile delivery patterns
- Service usage patterns
- Footfall
- Air quality



Cambridge

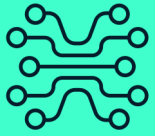


Cambridge is one of the fastest-growing cities in the UK, and while being a successful city offers many opportunities, it also brings significant challenges to be tackled including congestion and air pollution.

Telensa is doing a pilot project with Cambridge County Council and Smart Cambridge to measure the impact of a major infrastructure project in the city.



Installed May 2019



Edge processing from multiple cameras



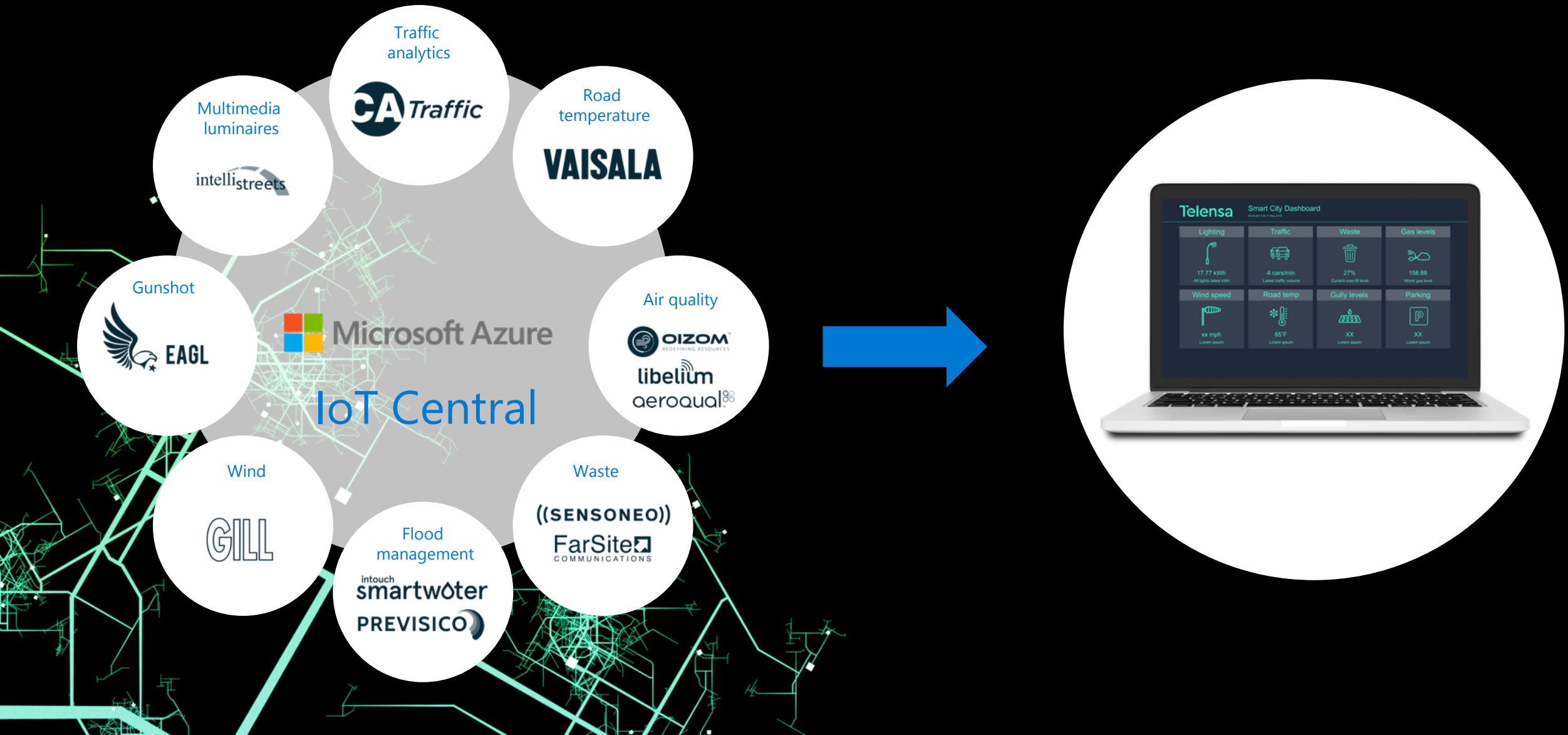
Meeting data protection regulations



Delivering real-time insights



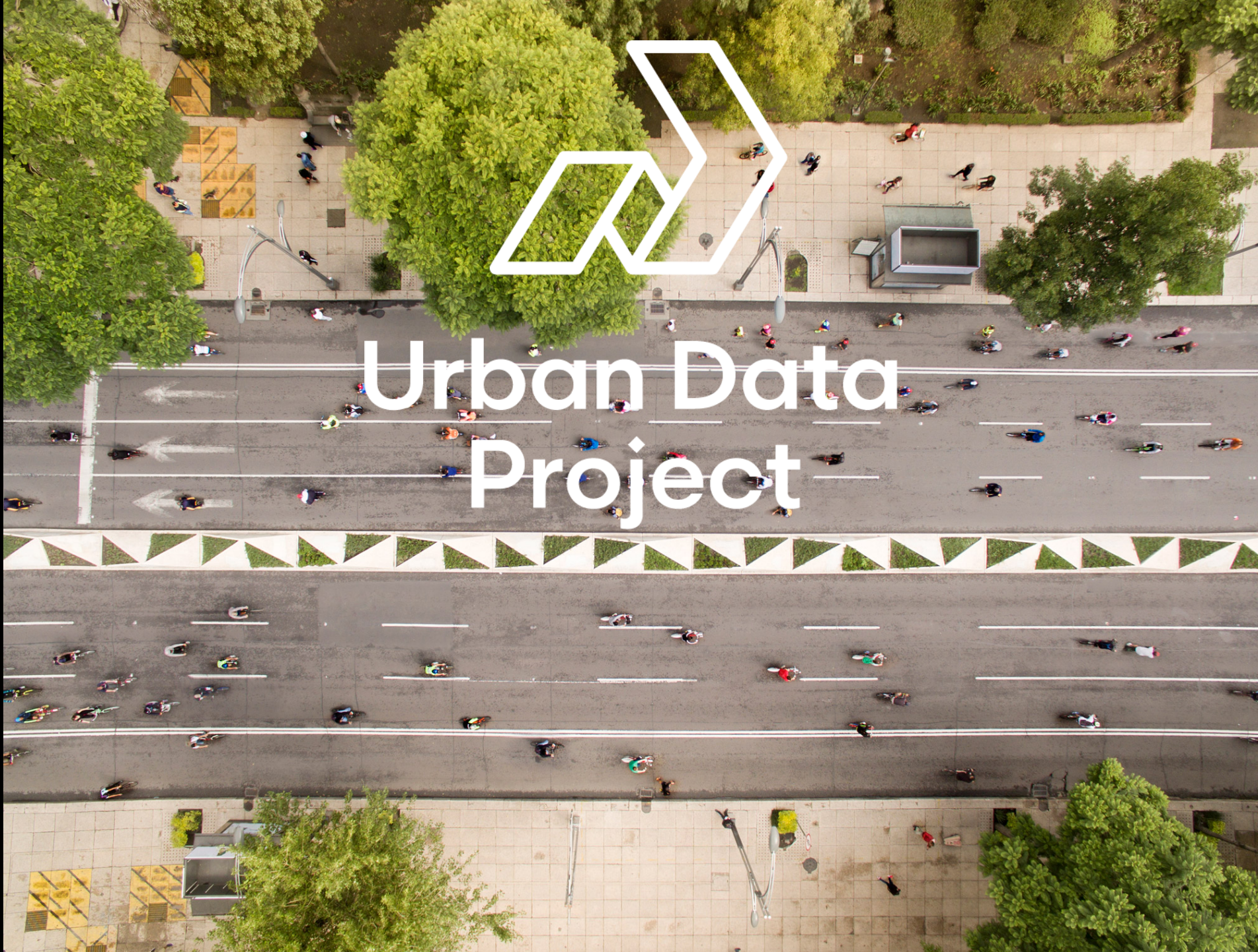
Partner ecosystem



Dzięki

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www.urbandataproject.org





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