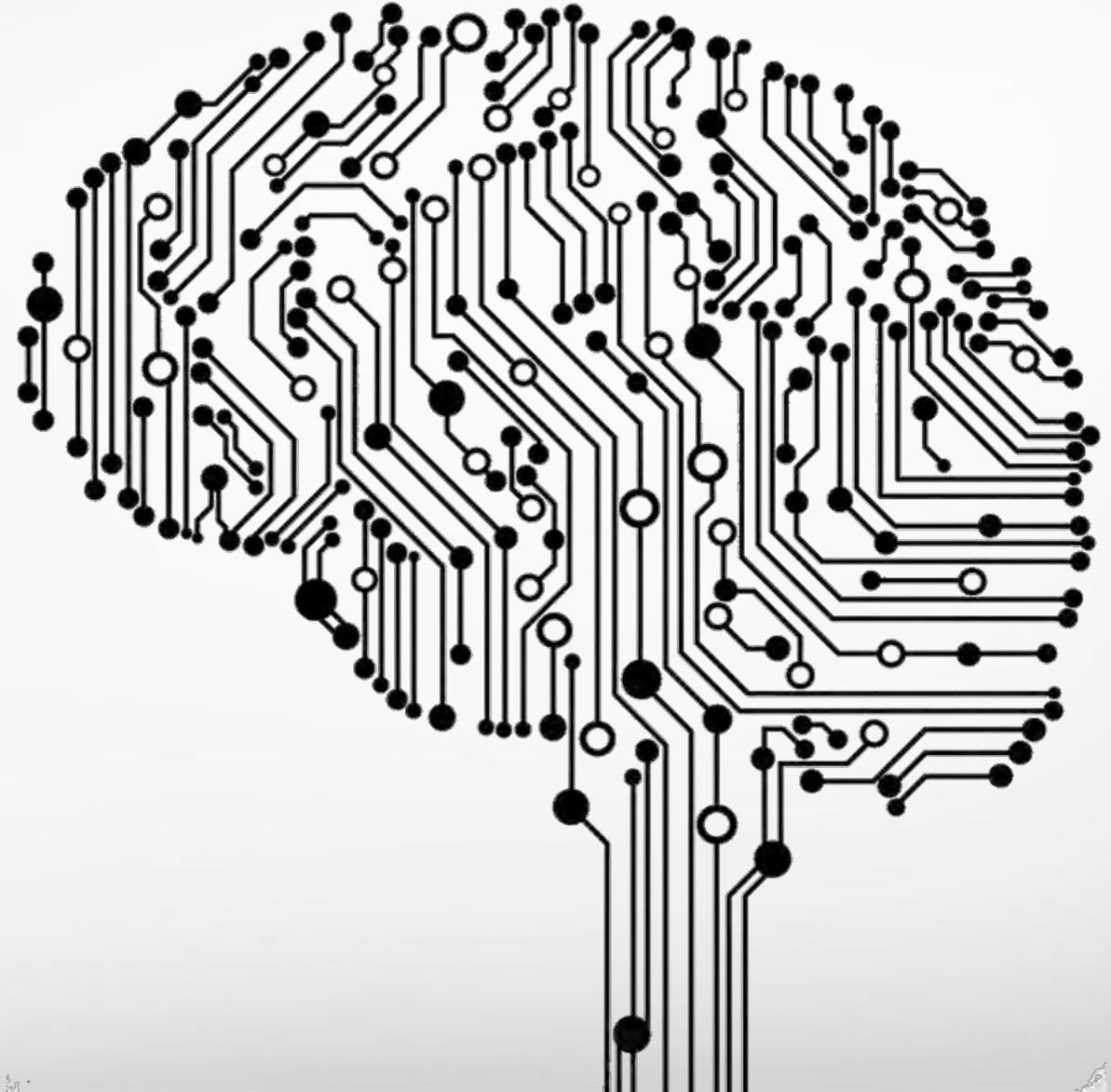


# Artificial Intelligence

Making AI real for  
every organization

Claudio Mirti  
*Advanced Analytics & AI Specialist EMEA*



[www.linkedin.com/in/claudio-mirti](https://www.linkedin.com/in/claudio-mirti)

WHY?



WHAT?



HOW?



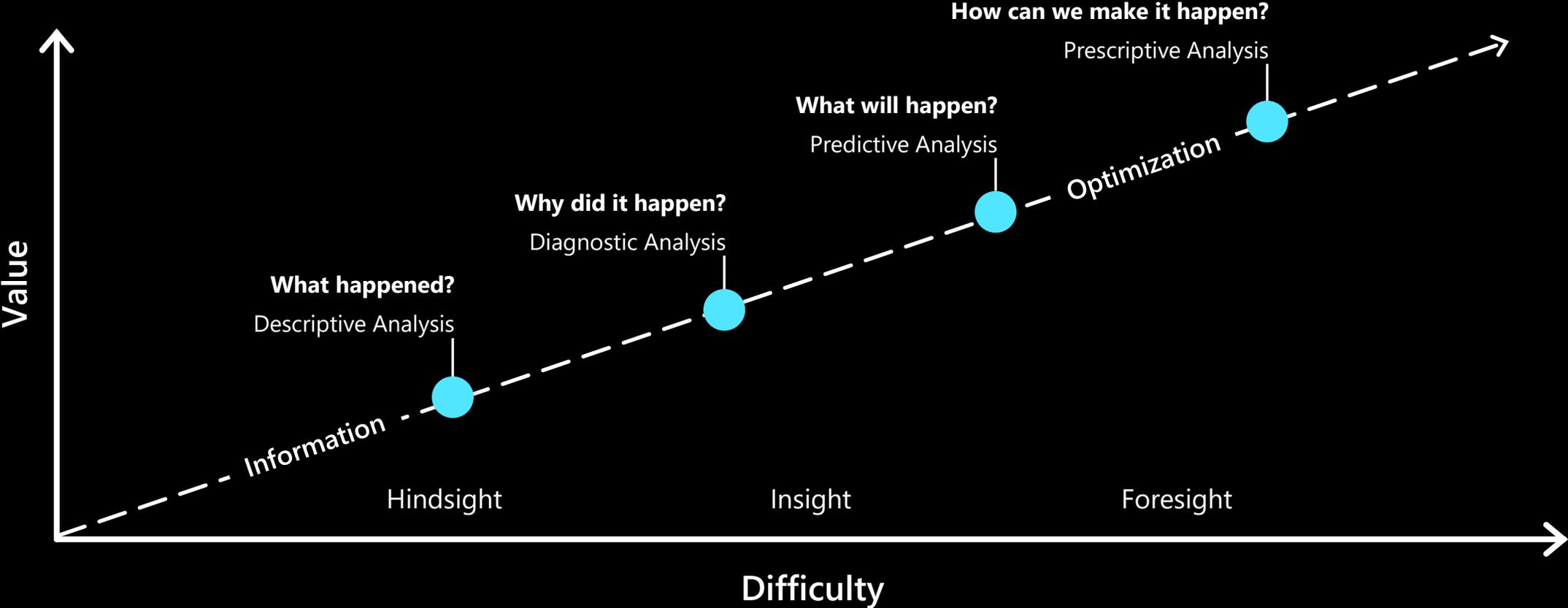
TOOLS



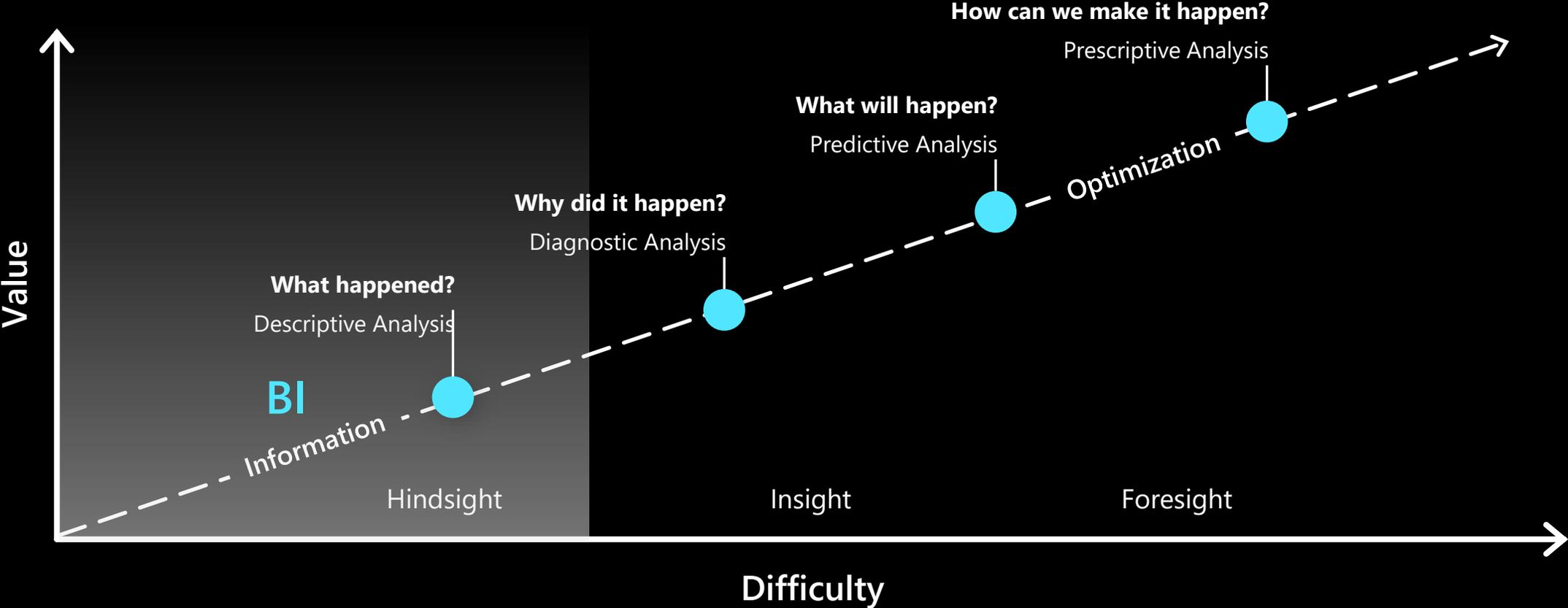
*WHY?*



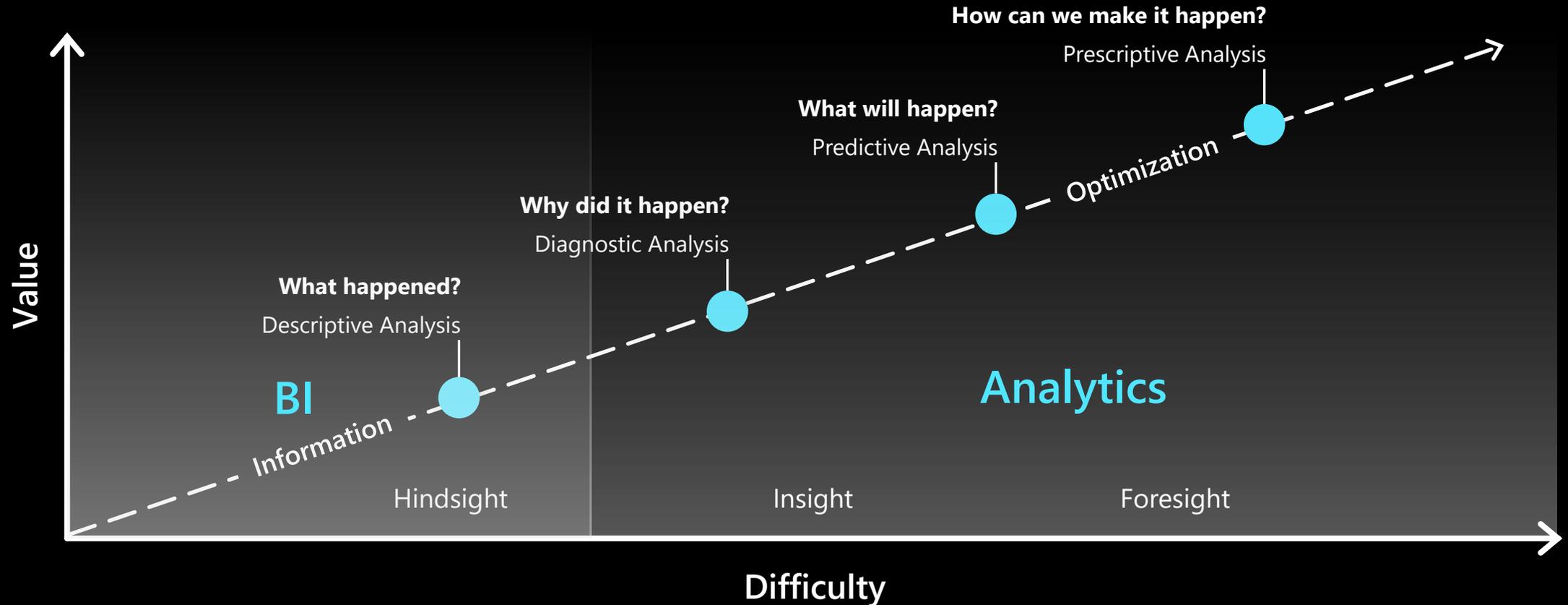
# Where do you find yourself on the curve?



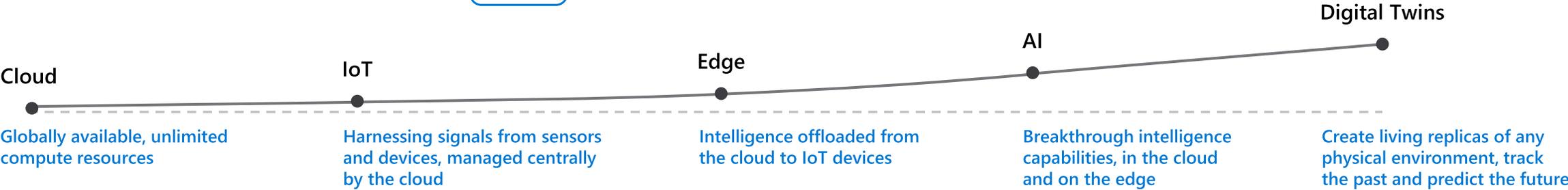
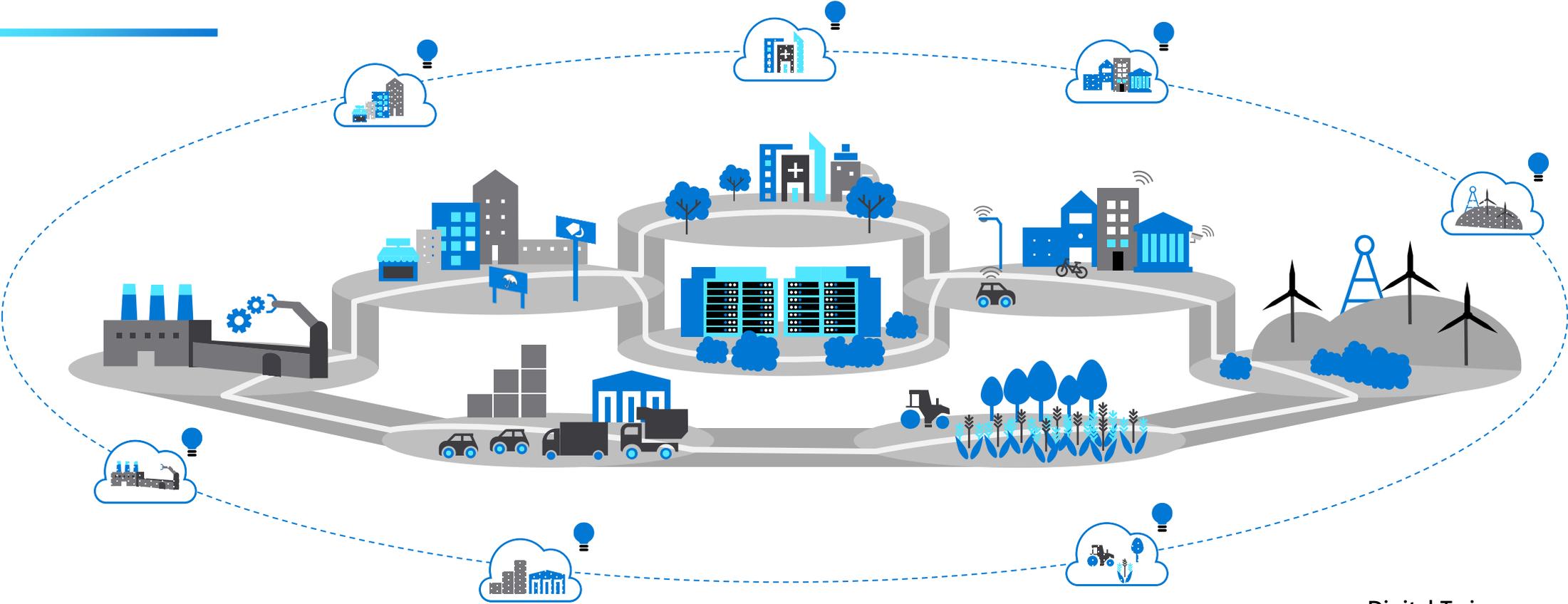
# Where do you find yourself on the curve?



# BI + Analytics unlock the door to AI, machine learning, and real-time insights



# Innovations enabling new opportunities



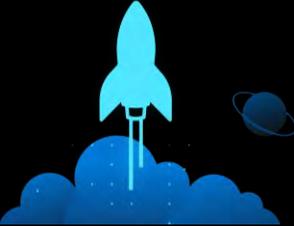
# Today's data realities



Volume



Variety



Velocity

What **data** do I have?

Break down silos

Is it **trustworthy**?

**Can people access the data**  
needed to make the right decisions?

Democratize access to insights

Upgrade legacy to cloud

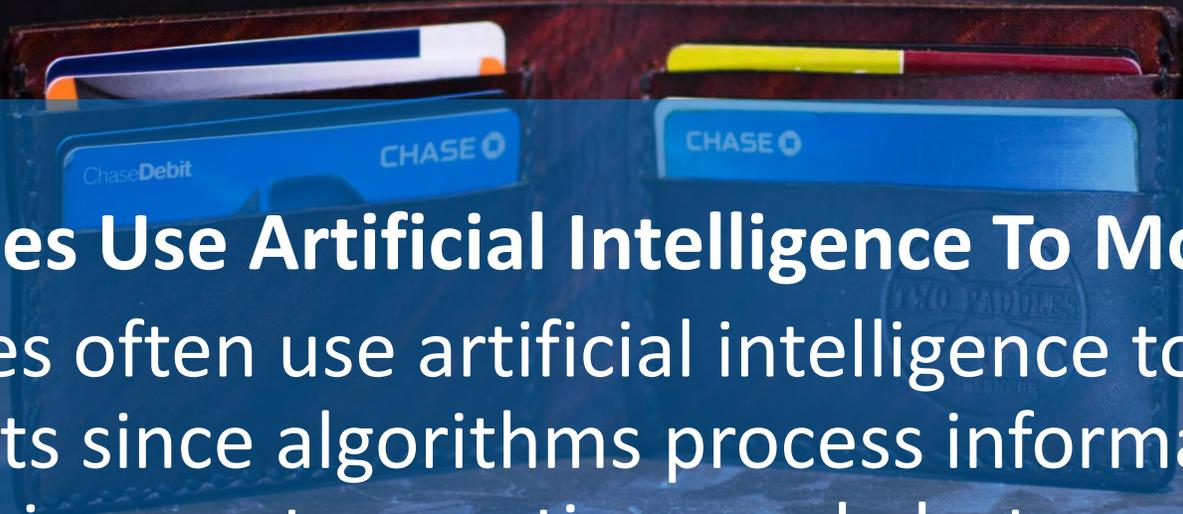
How can I  
**enable faster business insights?**

What's my **compliance exposure**?

Ensure data privacy and governance

**ARTIFICIAL  
INTELLIGENCE**

**TIPPA**



**Financial Companies Use Artificial Intelligence To Monitor For Fraud**  
Financial companies often use artificial intelligence to monitor transaction requests since algorithms process information so quickly. They spot patterns in your transactions and alert users to suspicious activity.



## Artificial Intelligence Powers Your Virtual Assistants

How often do you ask Siri or Cortana a question? Do you order an Uber through Alexa or plan appointments using the Google Assistant? Each time, you're interacting with artificial intelligence.

OrderTypeCategory

Multiple selections

# 35,731

Orders since 01.01.2018

# 142

Beverages Today

# 127

Coffees Today

# 15

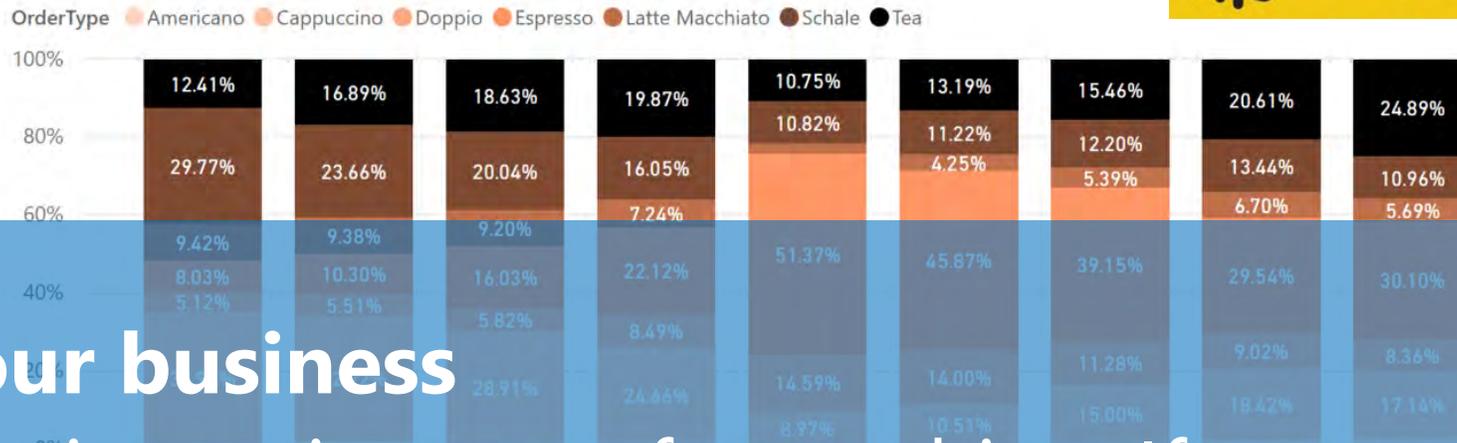
Tea Today



Count of OrderType by OrderType



Count of OrderType by HourRange and OrderType



# Data, the caffeine of your business

It all starts with data, data is coming out of everything. If you can harness that data, make intelligence out of it, and use it to improve your business processes, you're in a position to transform your company and industry.

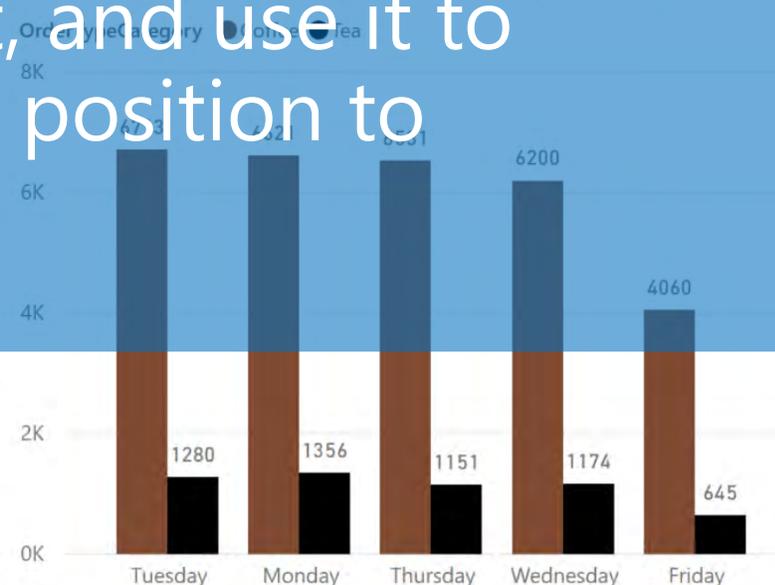
Count of OrderType by OrderType and Year



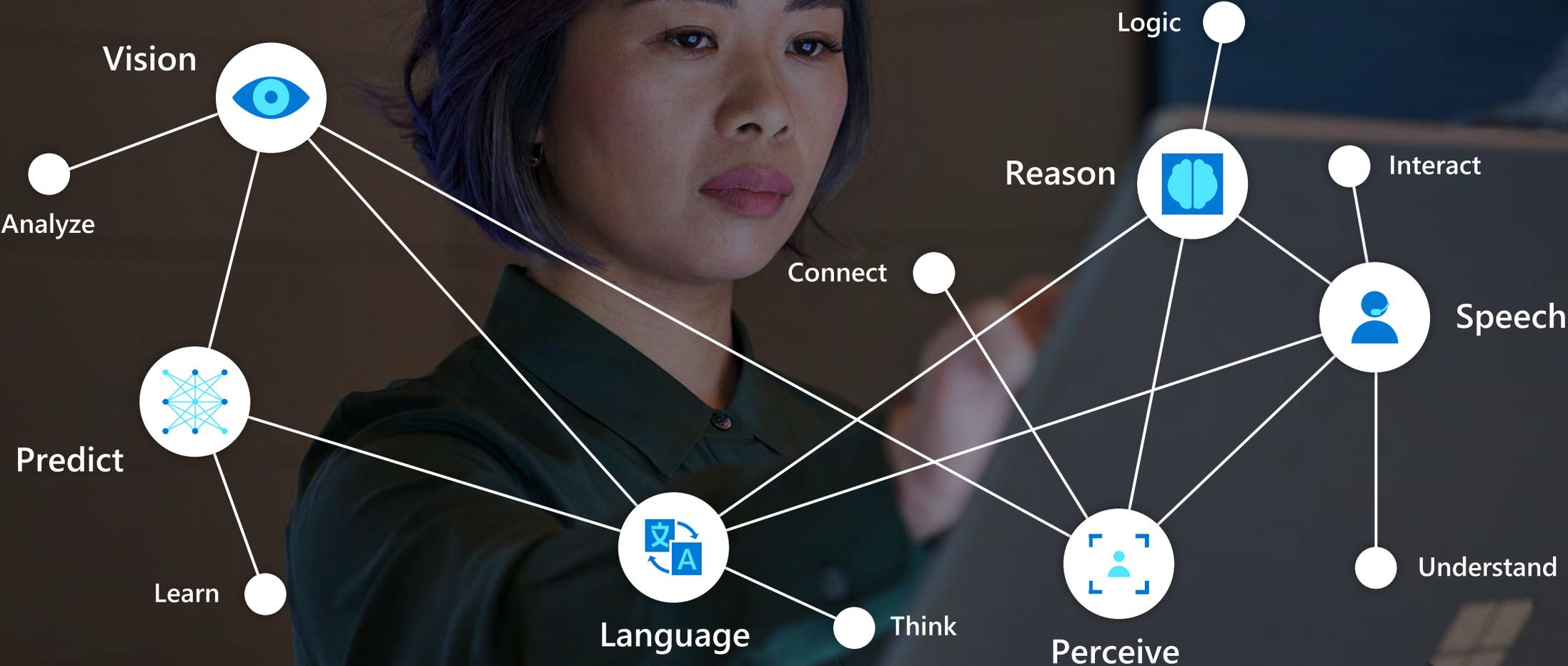
Count of OrderType by Week and Year



Count of OrderType by WeekdayName and OrderTypeCategory



# Humans + artificial intelligence

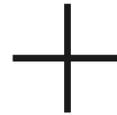


# Advances that make AI real

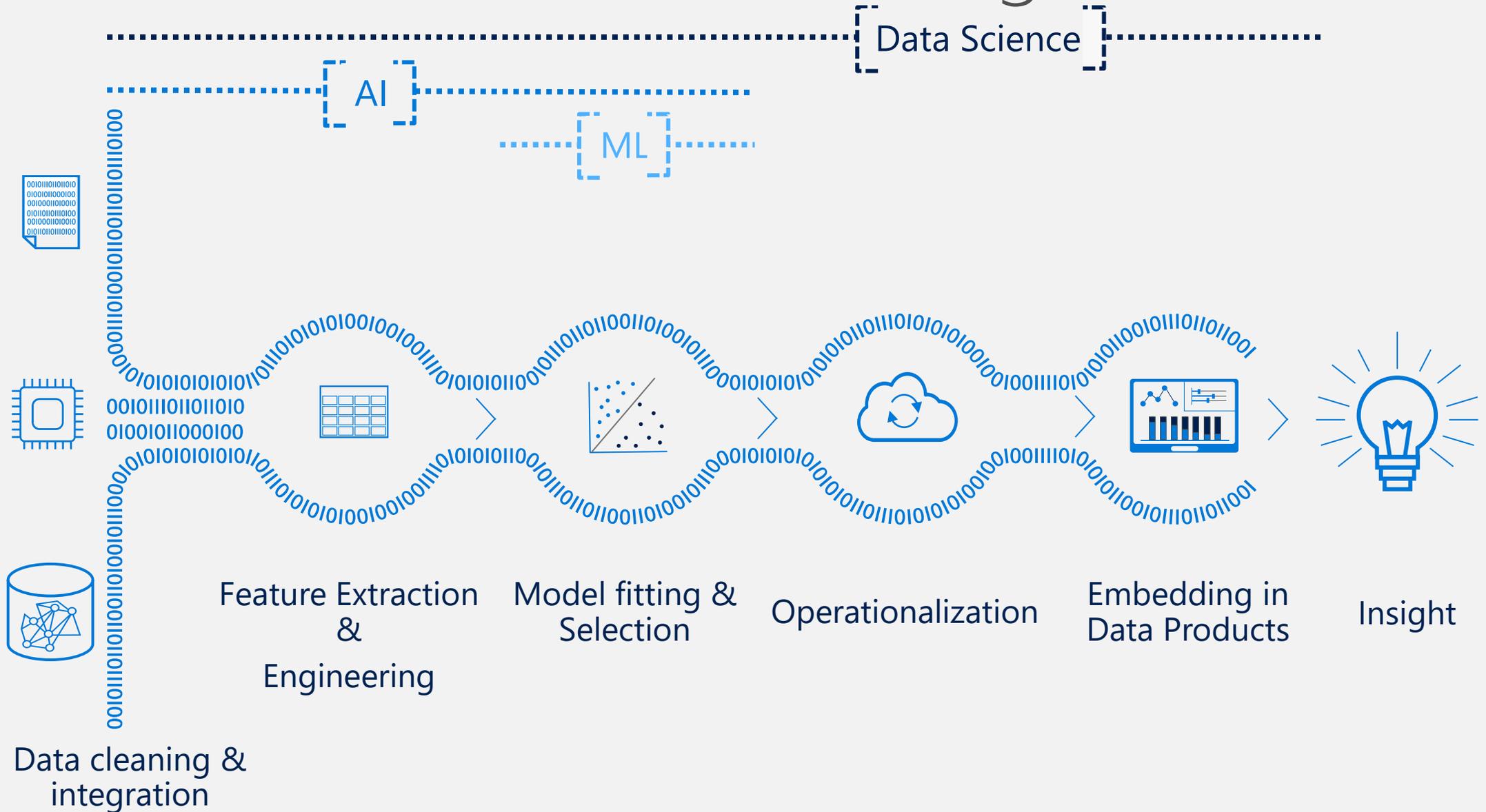
Vast amounts of data



Huge computational power



# Data Science, Machine Learning & AI



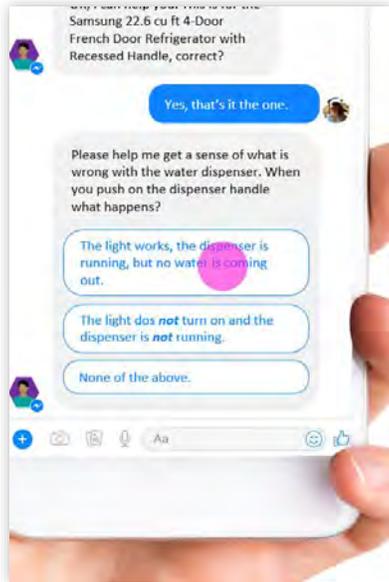
*WHAT?*



# Explore patterns for AI solutions

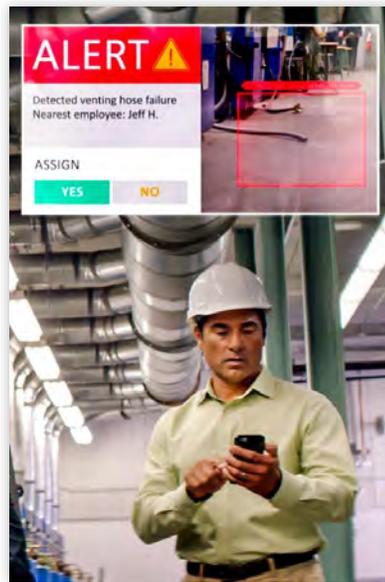
## New generation of business agents

B2B, B2C, B2E



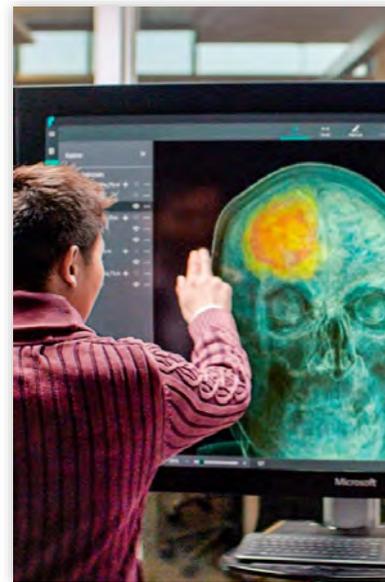
## Person, object, and activity detection

Retail, manufacturing, security



## AI assisted professionals

Marketing, legal, financial



## Knowledge mining

Documents, video



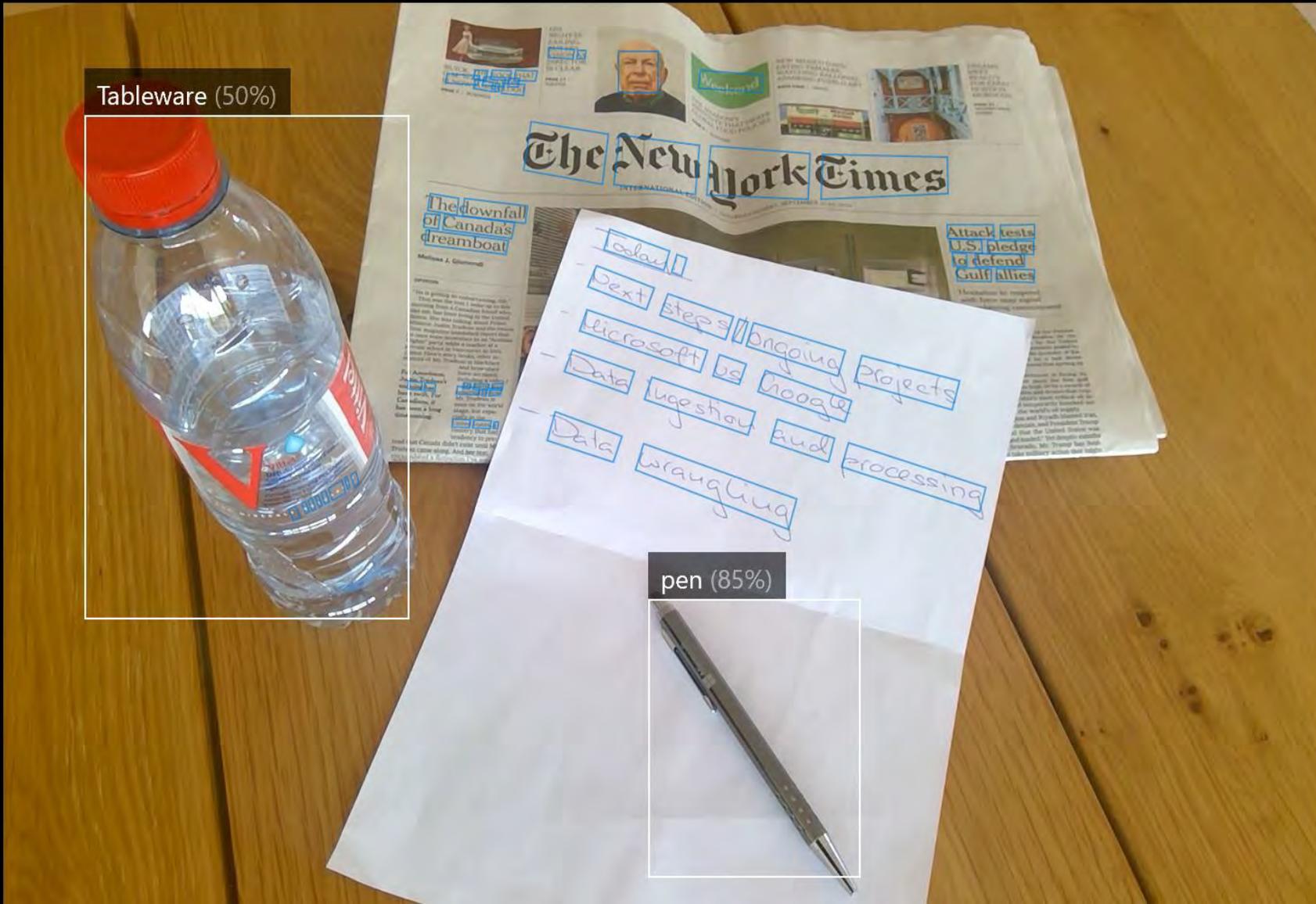
## Autonomous systems

Vehicles, networks, RPA





Try another image



Tableware (50%)



pen (85%)



Summary Faces Objects Text

### Objects

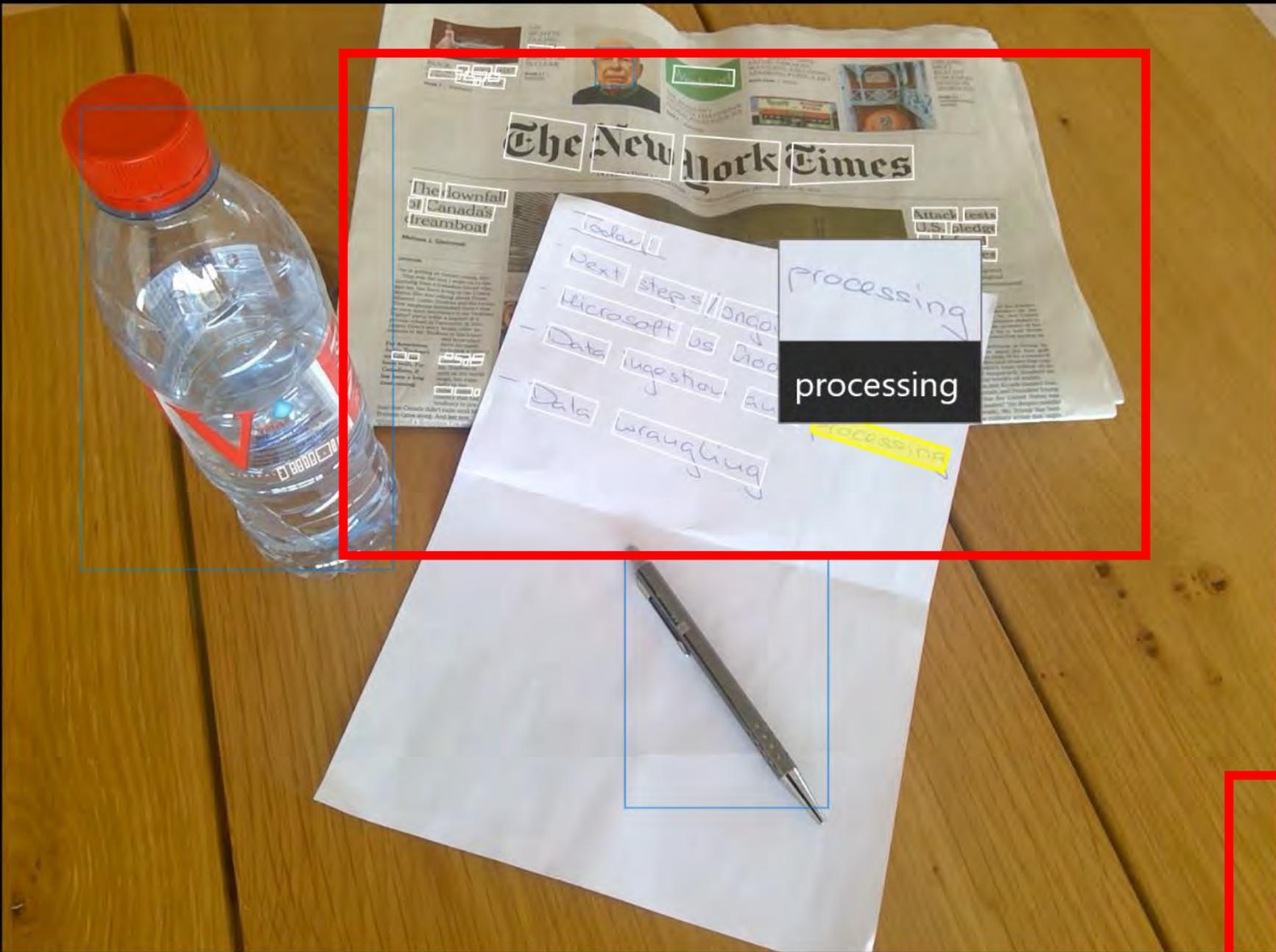


Tableware (50%)



pen (85%)

### Brands



Text extracted

SIMON AS  
THE HOCK THAT  
SNOWS BUILT ON  
Weekend  
JUST A LOGO  
The New york Times  
The downfall  
Attack tests  
U.S. pledge  
of Canada's  
to defend  
dreamboat  
Today !  
Gulf allies  
Next steps / ongoing projects  
Microsoft us Google  
during has  
My trend was  
redeering to hope  
United Suses, a  
Data ingestion and **processing**  
Data wrangling

 Copy text



## Example Use Case: Digital Signage



- Retail**
- Promotion / Upsell

**Office / Conference Center**

- Corporate Comms
- Begrüssung für Gäste



**NEW!**

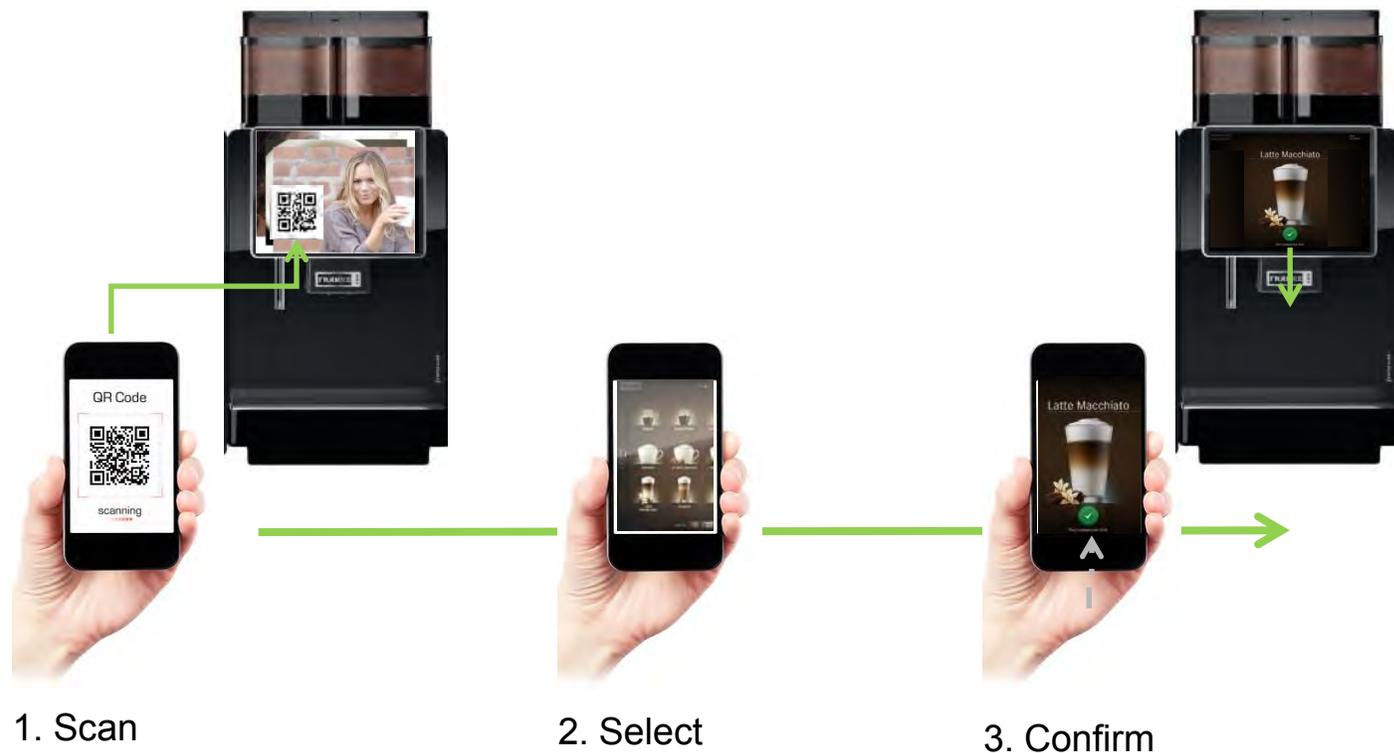
## Franke Touchless: no need to touch the display of the coffee machine

Franke Touchless offers the possibility to

- **Scan** QR code to open web app with your personal device (no installation needed)
- **Select** from available beverage menu and **confirm dispense** on your device

### Pre-requisites

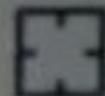
- Connected and centrally managed CM
- “Step-by-step” selection mode



**Your benefit:** Offer your customers the possibility to use your coffee machine without having to touch the display (e.g. COVID context)



Spanish to English



# Transactions

4094

Transaction Count

\$48.20

Average Size

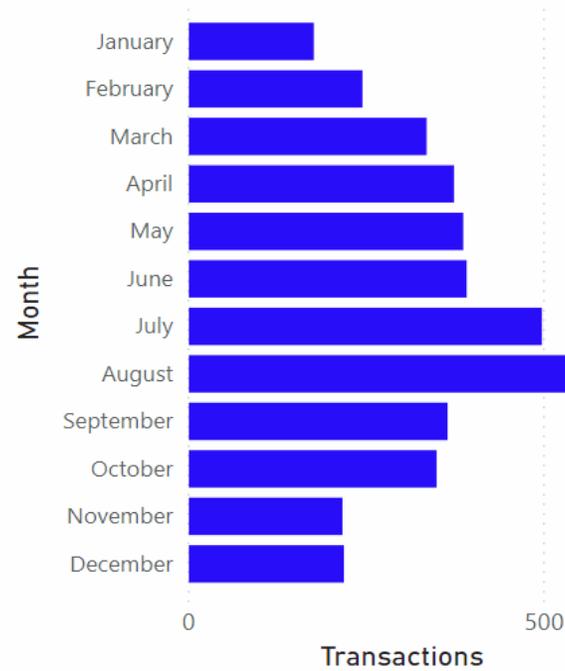
\$39.47K

Revenue

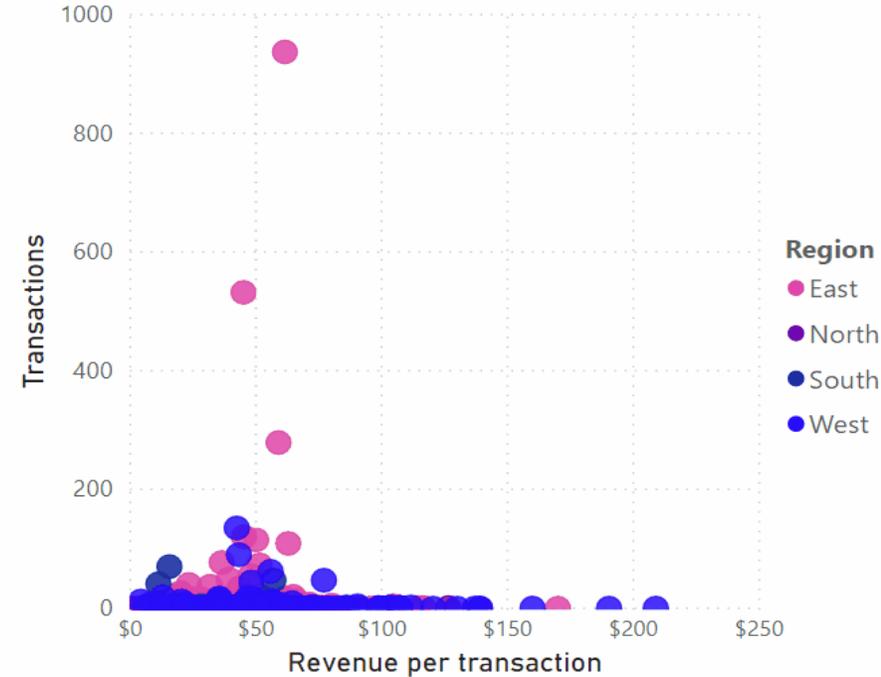
62.53%

Revenue YoY%

Transaction by Date



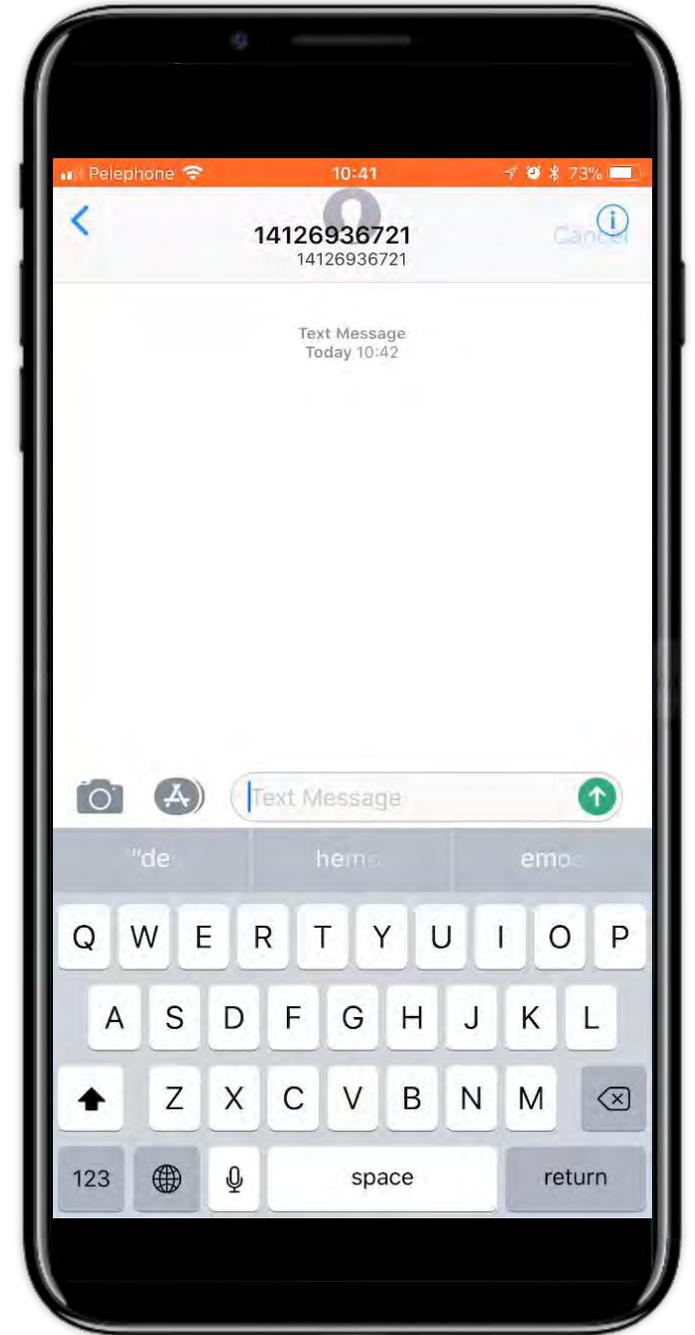
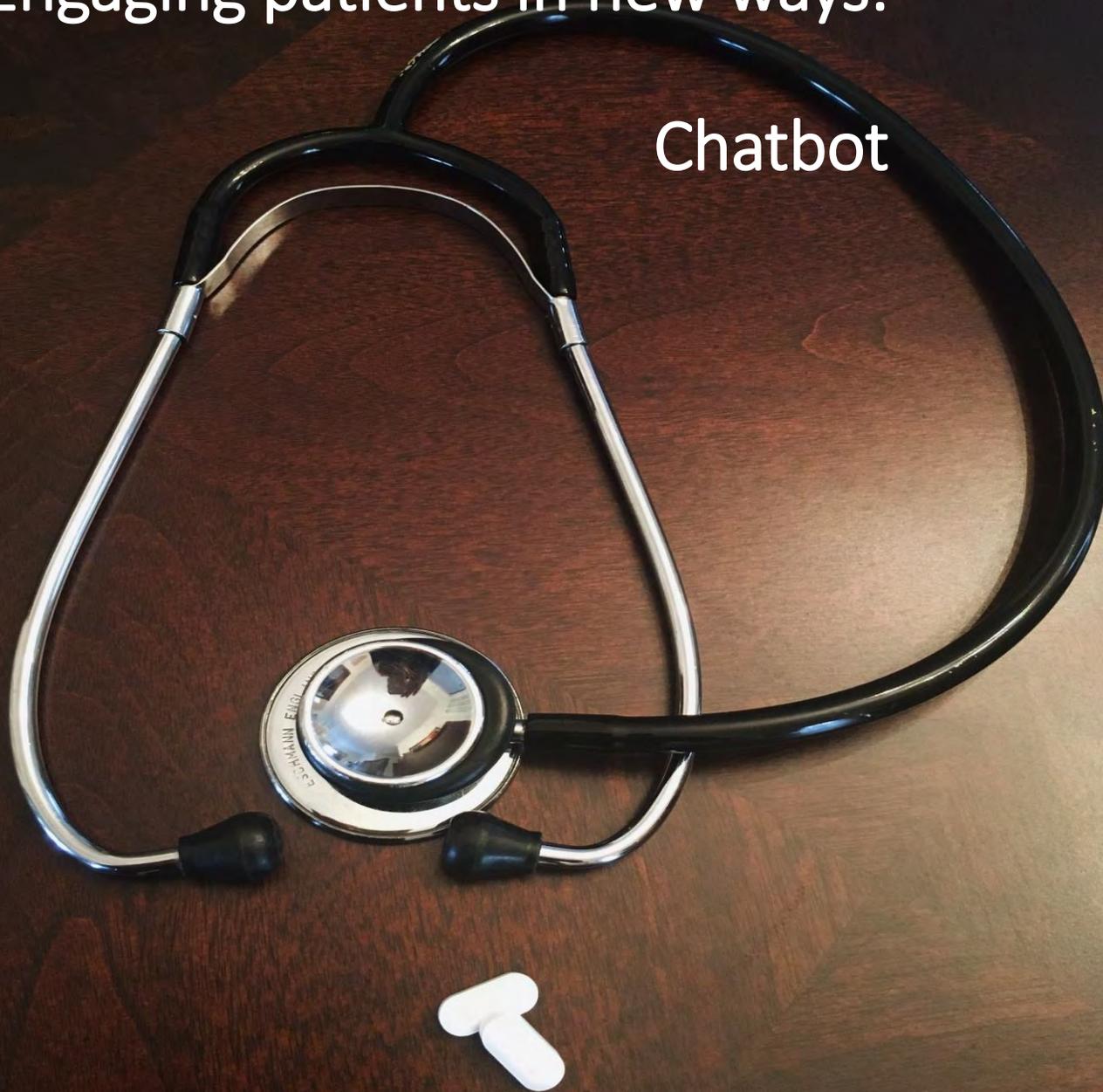
Transactions by Region and City



- Per visual or page-wide English summarizations of data
- Automatically updated when filtered

Engaging patients in new ways:

Chatbot





Simplifying Food Waste Management

KITRO bietet Restaurants und Kantinen eine innovative Lösung zur Reduzierung vermeidbarer Lebensmittelabfälle. Damit möchte KITRO dazu beitragen, das wachsende Problem des Lebensmittelmülls zu lösen und Restaurants dabei unterstützen, auf eine effiziente und mühelose Art nachhaltiger zu arbeiten. Die automatische Analyse relevanter Daten ermöglicht neue Erkenntnisse und hilft dabei, Lebensmittelabfälle zu reduzieren und dadurch Kosten zu sparen.

## WENIGER ABFALL

Reduzieren Sie ihre vermeidbaren Lebensmittelabfälle um 60%

## MEHR GEWINN

Profitieren Sie von einer Erhöhung der Lebensmittel Gewinnmarge von 2-8%



<https://www.kitro.ch/>

## WIE FUNKTIONIERT ES?

Das Produkt besteht aus einem Gerät mit Kamera, welches über dem Müll installiert wird. Die Waage darunter misst das Gewicht. Mit neuester Bilderkennungstechnologie können die Nahrungsmittel automatisch und ohne Zeitverlust gemessen und identifiziert werden.

Die Zutaten und Menus werden zusätzlich mit ihren jeweiligen Kosten verbunden und es wird zwischen vermeidbaren und unvermeidbaren Abfällen unterschieden.



## BERICHTE & EVALUIERUNG



Alle zwei Wochen sendet KITRO einen Bericht, welcher die Daten zusammenfasst und die Hauptquellen des Abfalls aufzeigt. Mittels relevanten Empfehlungen und neuen Erkenntnissen können Sie ihren Betrieb effizienter und ressourcenschonender betreiben.

**70%**

aller gemessenen Abfälle werden erkannt

## FALLSTUDIEN

**Luxus Hotel Bistro**  
**1 Monat**

↓ **41%**  
 vermeidbare Lebensmittelabfälle

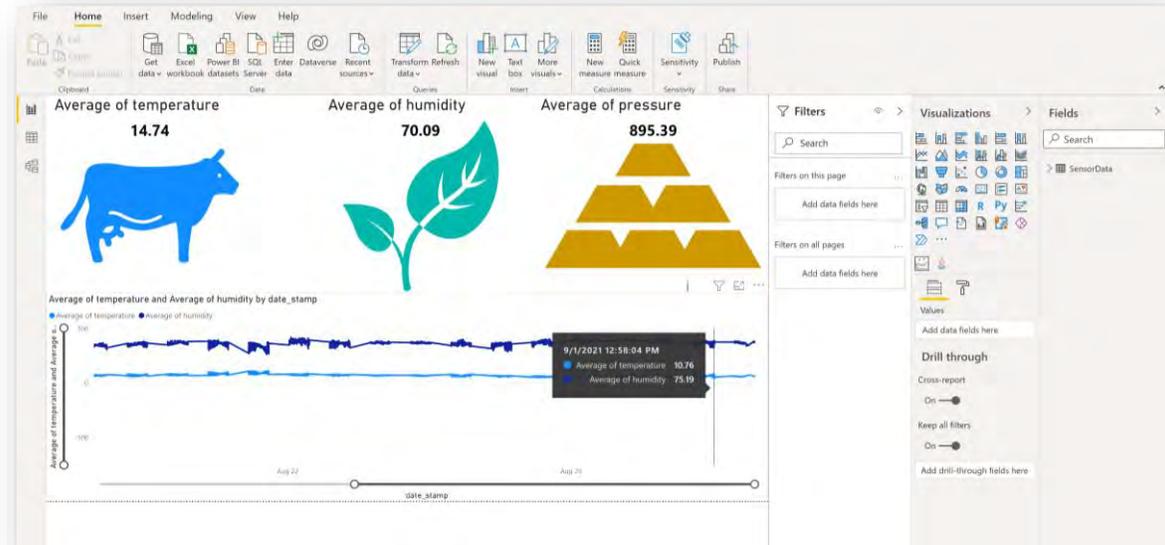
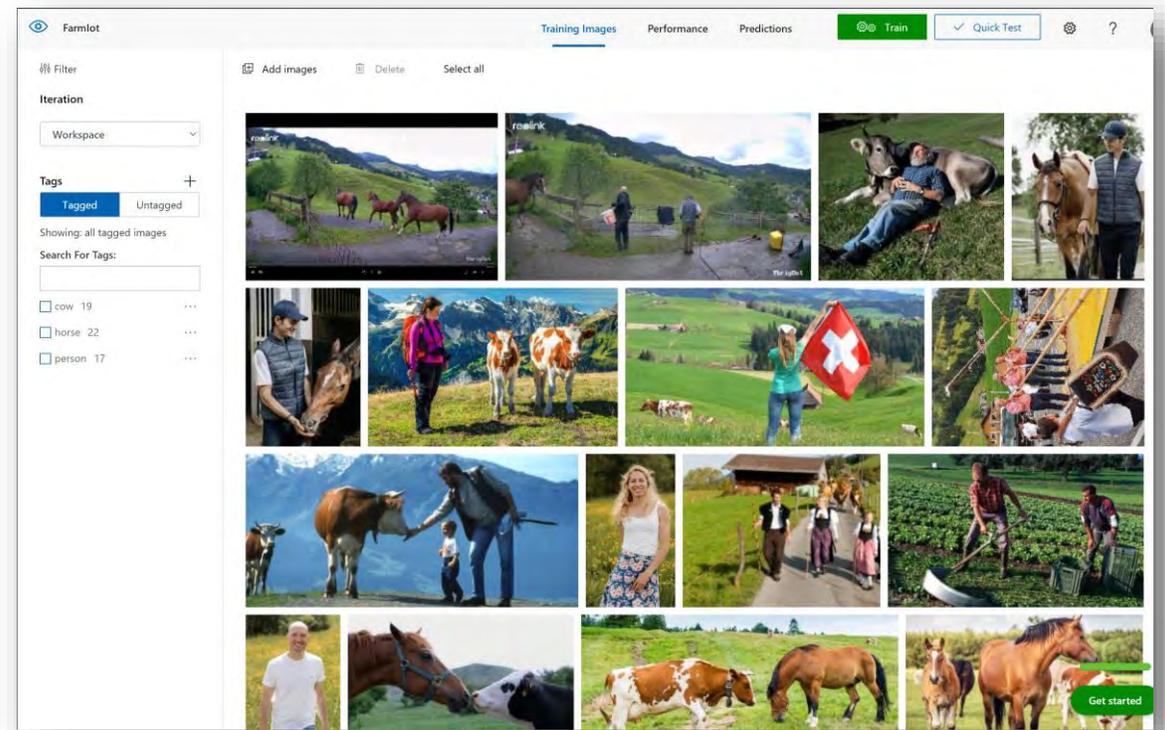
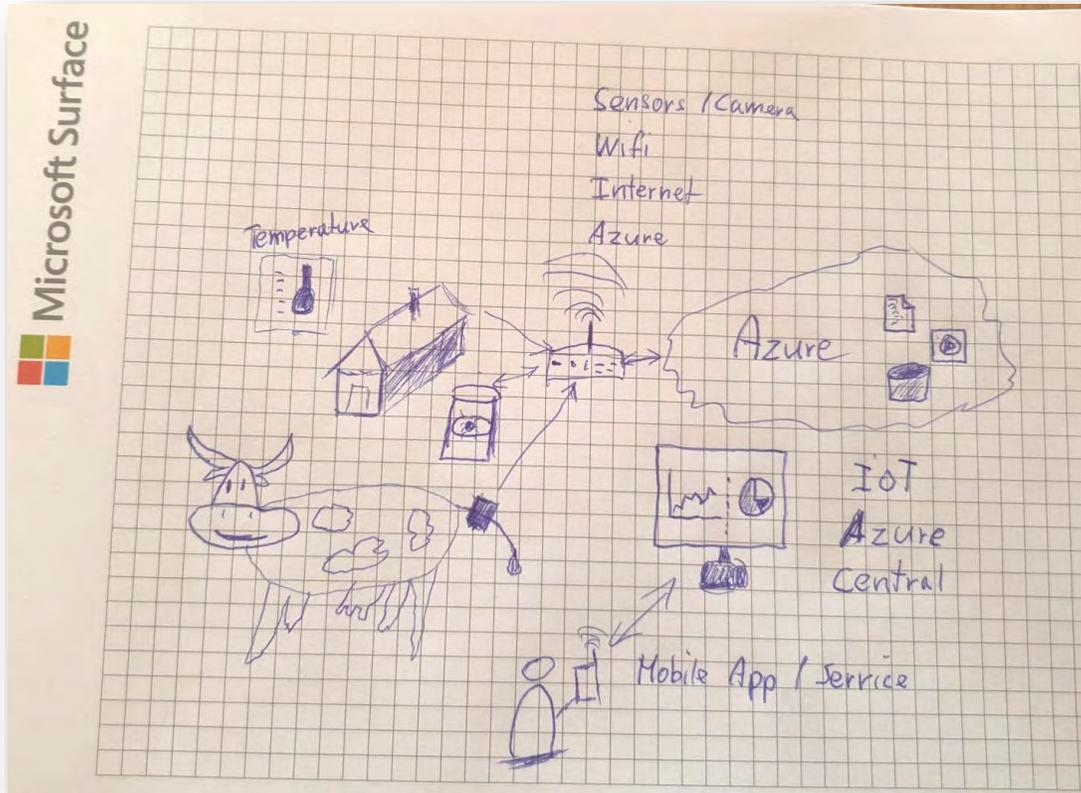
↓ **24%**  
 Kostenreduktion

**Universitätskantine**  
**3 Monate**

↓ **34%**  
 vermeidbare Lebensmittelabfälle

↓ **50%**  
 Kostenreduktion

# Data Analytics Dashboard IoT Machine Learning / AI



YbrigOne  
• Connected

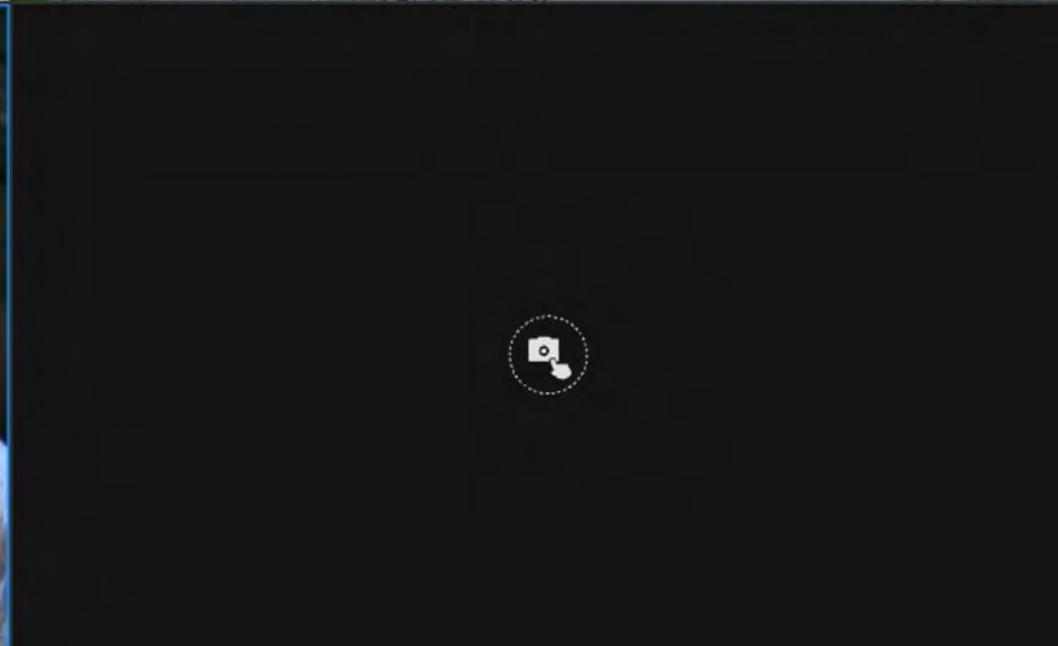
⚙️  
📶 🔋

YbrigOut  
• Connected

⚙️  
📶 🔋 ⚡

YbrigB  
• Connected

⚙️  
📶 🔋 🌿



## Iteration

Workspace

## Tags

Tagged

Showing: all untagged

## Suggested Tags

Quickly label your untagged items with suggested objects

Get suggested

## Suggested Objects

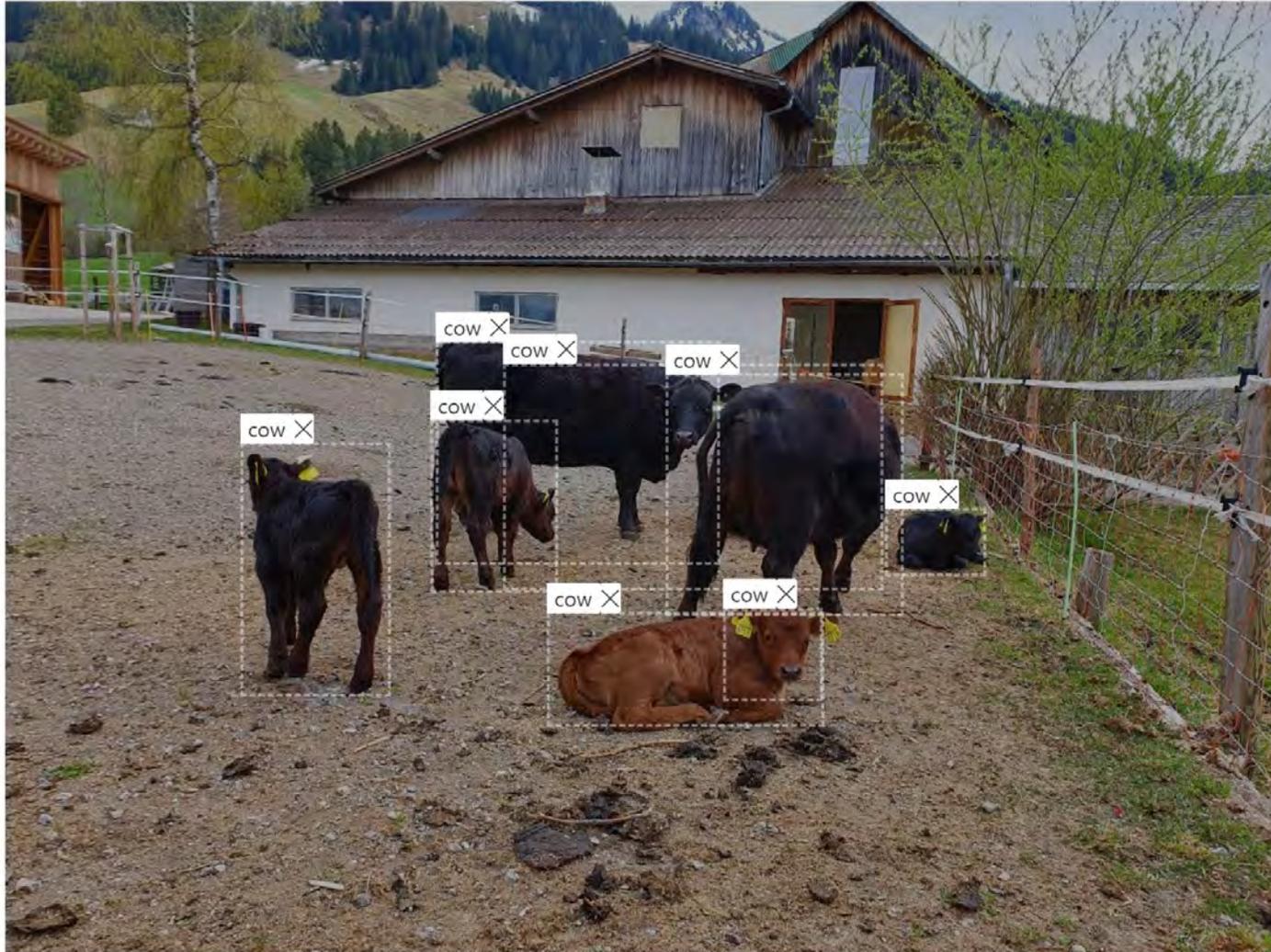
cow (1)

horse (0)

person (0)

## Image Detail

Undo Changes

 Regions Shown Suggested objects on

## My Objects



To create an object, hover and select the region in the image

## Suggested Objects

Based on your trained model, we've suggested objects in your images. Click on the objects to modify them.

Only show suggested objects if the probability is above the selected threshold.

Threshold Value: 60%

[Confirm suggested objects](#)

Filter

Add images

Delete

Select all

Iteration

Image Detail

Undo Changes

Regions Shown

Suggested objects on



Workspace

Tags

Tagged

Showing: all untagged

Suggested Tags

Quickly label your untagged images with suggested objects

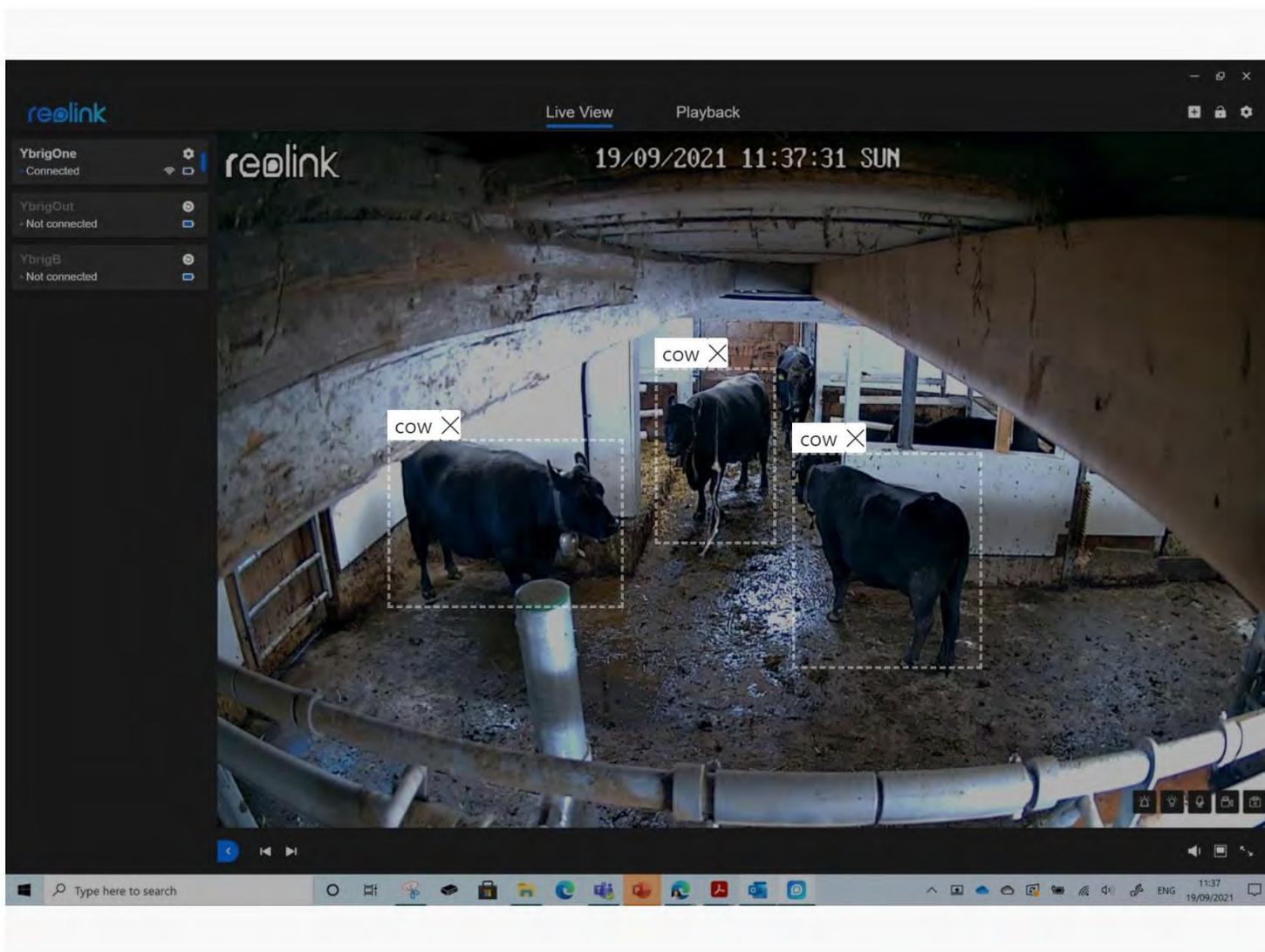
Get suggested

Suggested Objects

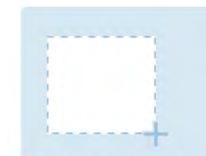
cow (1)

horse (0)

person (0)



### My Objects



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Confirm suggested objects

Workspace

Tags

Tagged

Showing: all untagged

Suggested Tags

Quickly label your untagged items with suggested objects

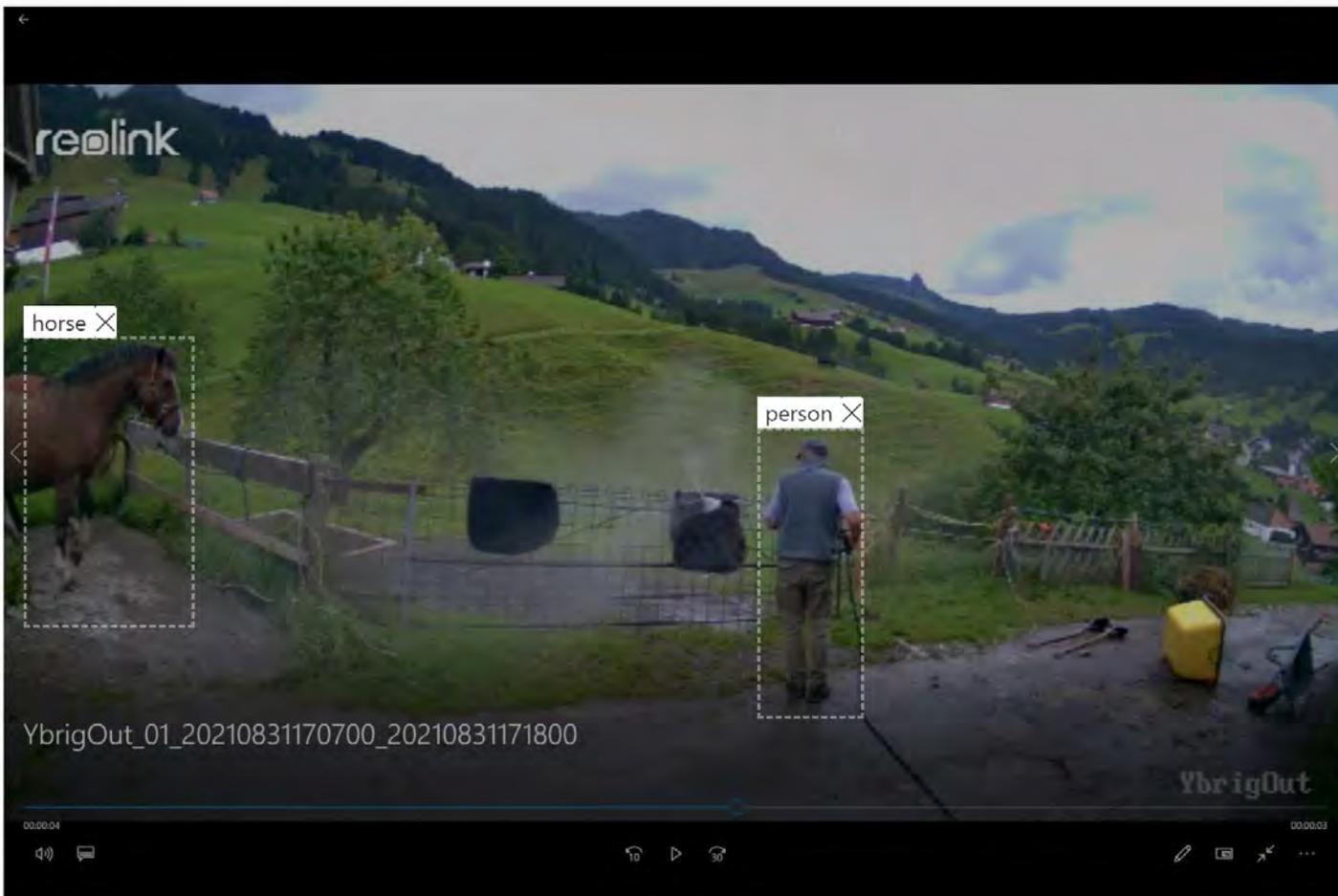
Get suggested

Suggested Objects

cow (1)

horse (1)

person (1)



### My Objects



To create an object, hover and select the region in the image

### Suggested Objects

Based on your trained model, we've suggested objects in your images. Click on the objects to modify them.

Only show suggested objects if the probability is above the selected threshold.

Threshold Value: 60%



Confirm suggested objects



# Wait a minute, AI, ML or Deep Learning?



# Data as a strategic asset

# Today's data realities



Volume



Variety



Velocity

What **data** do I have?

Break down silos

Is it **trustworthy**?

**Can people access the data**  
needed to make the right decisions?

Democratize access to insights

How can I  
**enable faster business insights?**

Upgrade legacy to cloud

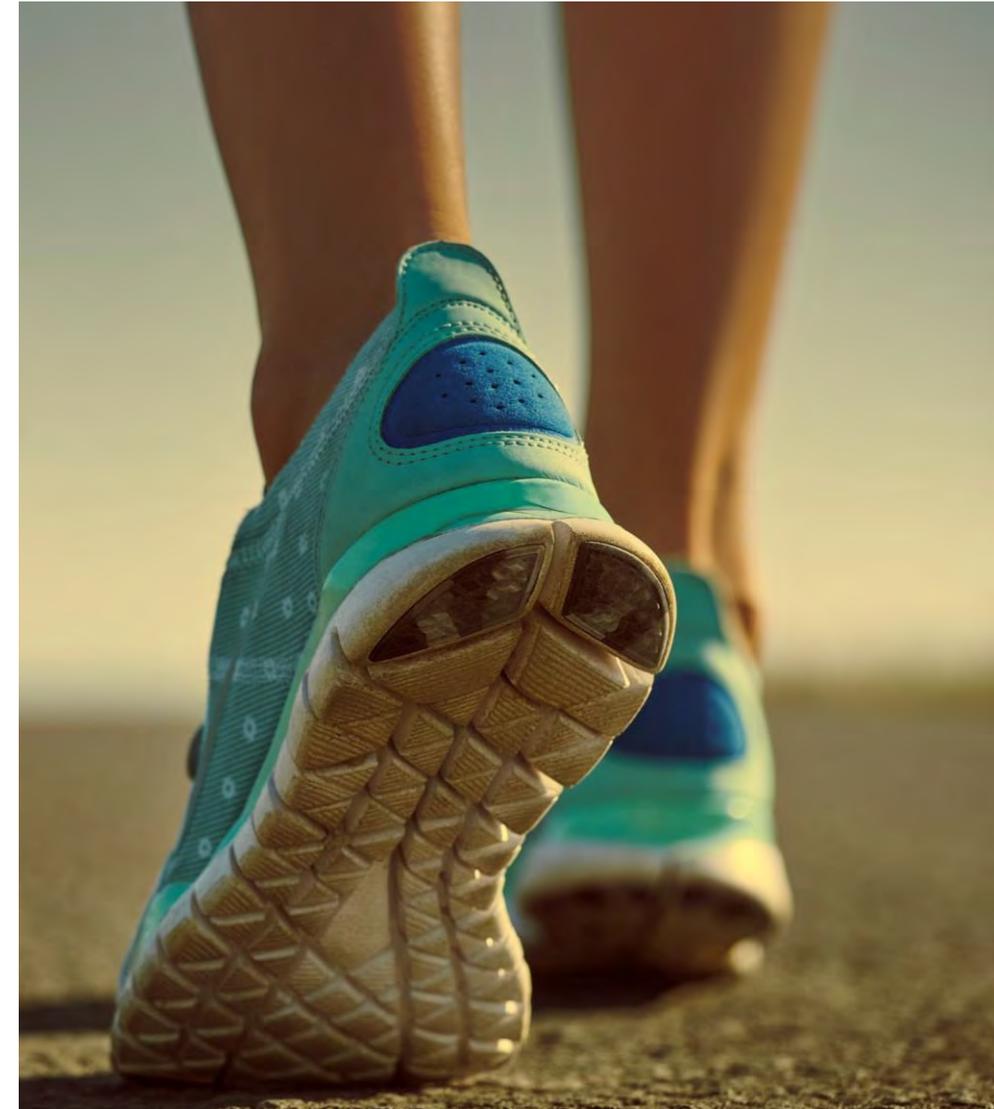
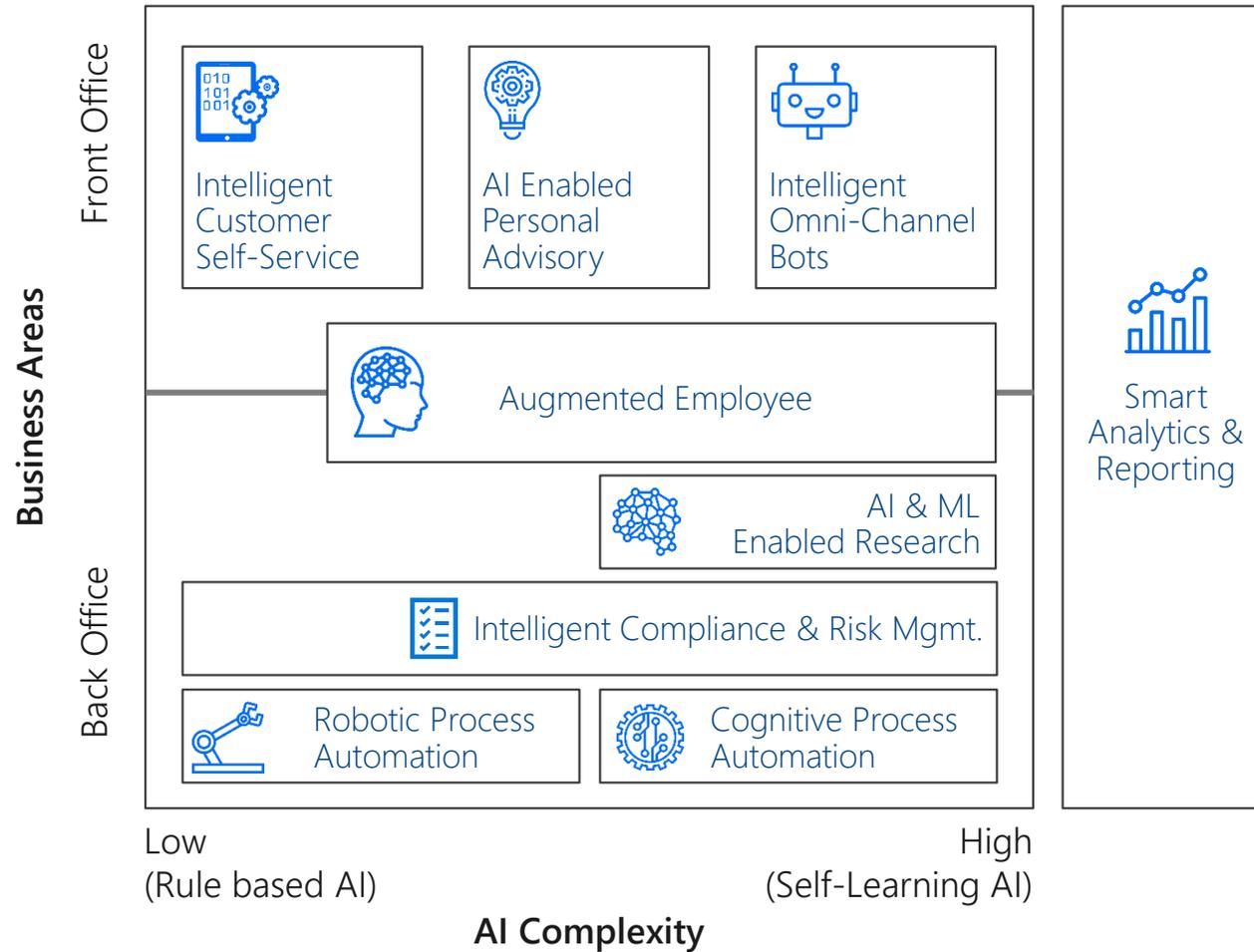
What's my **compliance exposure**?

Ensure data privacy and governance

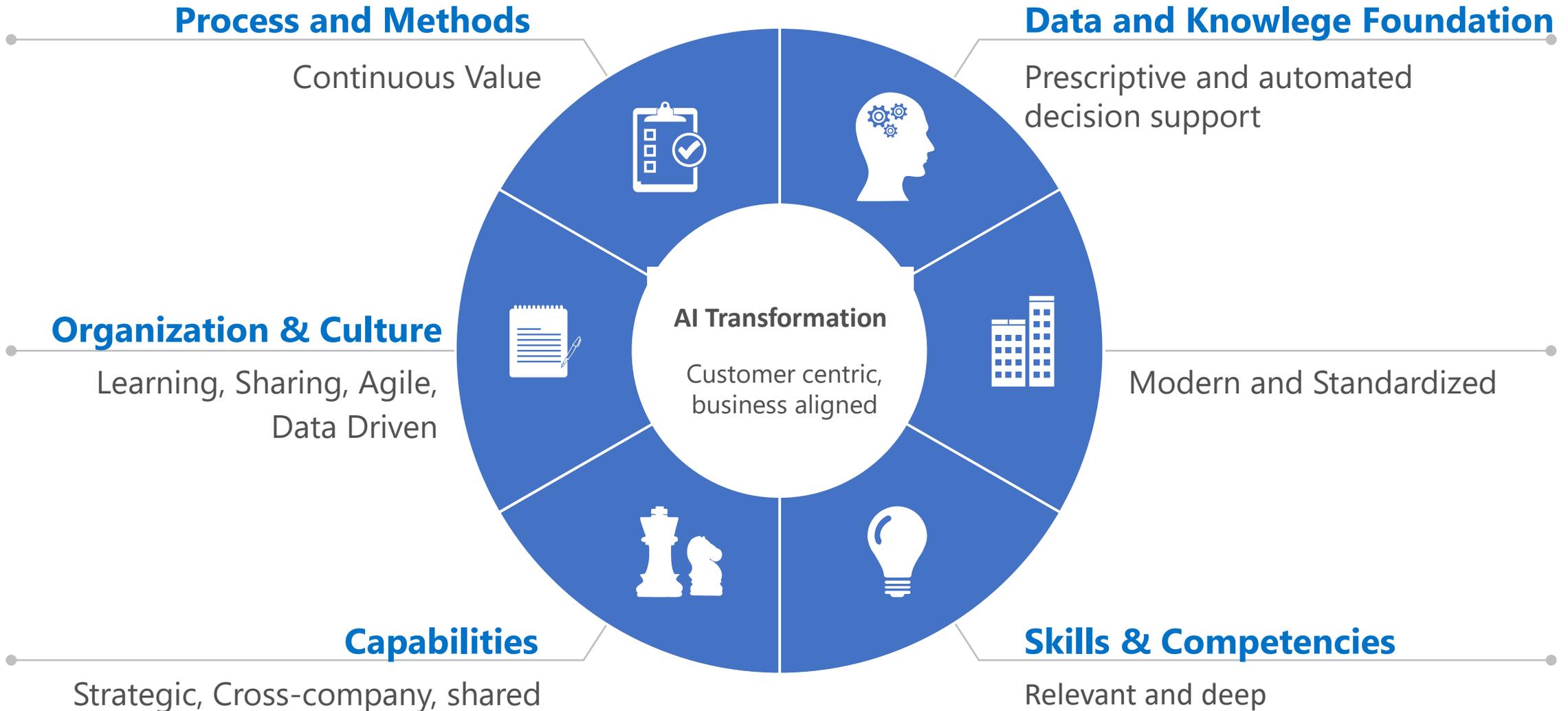
*HOW?*



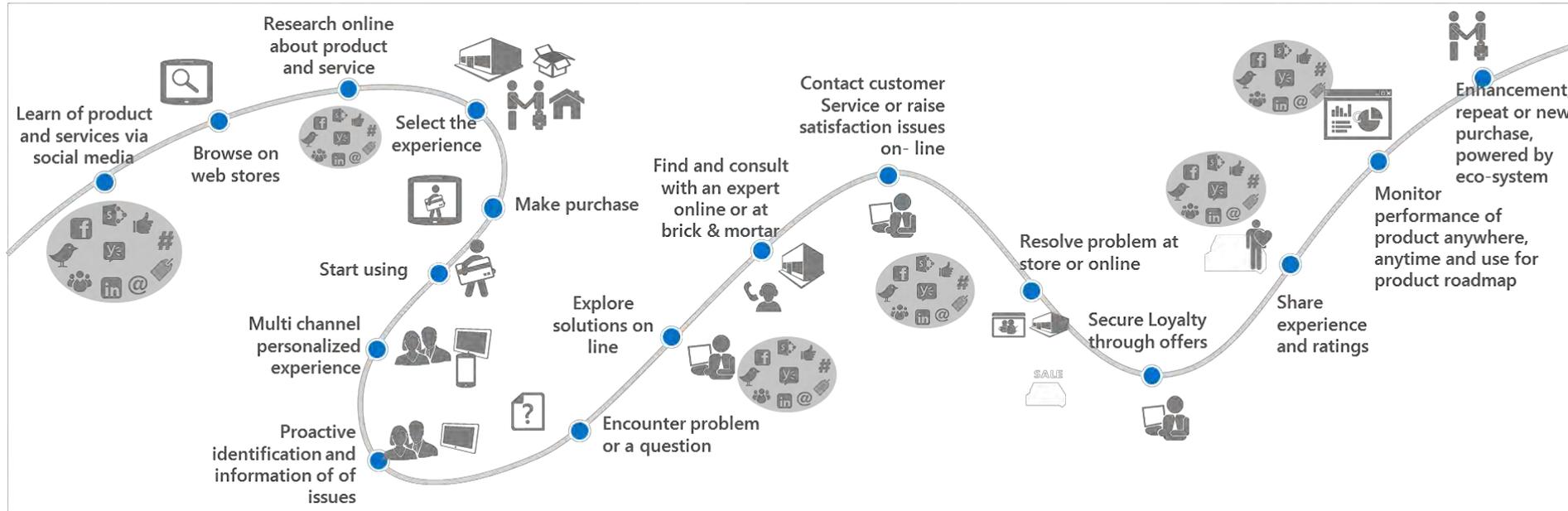
# Steps to a Data Driven Company (Example)



# Build AI Maturity Capabilities



# Customer Experience Journey Map



## Digital Hotspots

### 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

# Patient experience journey map



## 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



# Develop faster than ever before with the Microsoft Platform

Power Platform



Power BI



Power Apps /  
AI Builder



Power Automate



Power Virtual Agents

Design & Create  
(Low Code)

<https://powerapps.microsoft.com/en-us/>

## Sophisticated pretrained models

To simplify solution development



Vision



Speech



Language



Search

## Popular frameworks

To build advanced deep learning solutions



Pytorch



TensorFlow



Keras



Onnx

## Productive services

To empower data science and development teams



Azure  
Databricks



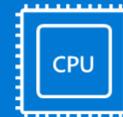
Azure  
Machine Learning



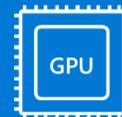
Machine Learning  
VMs

## Powerful infrastructure

To accelerate deep learning



CPU



GPU



FPGA

## Flexible deployment

To deploy and manage models on intelligent cloud and edge



On-premises



Cloud

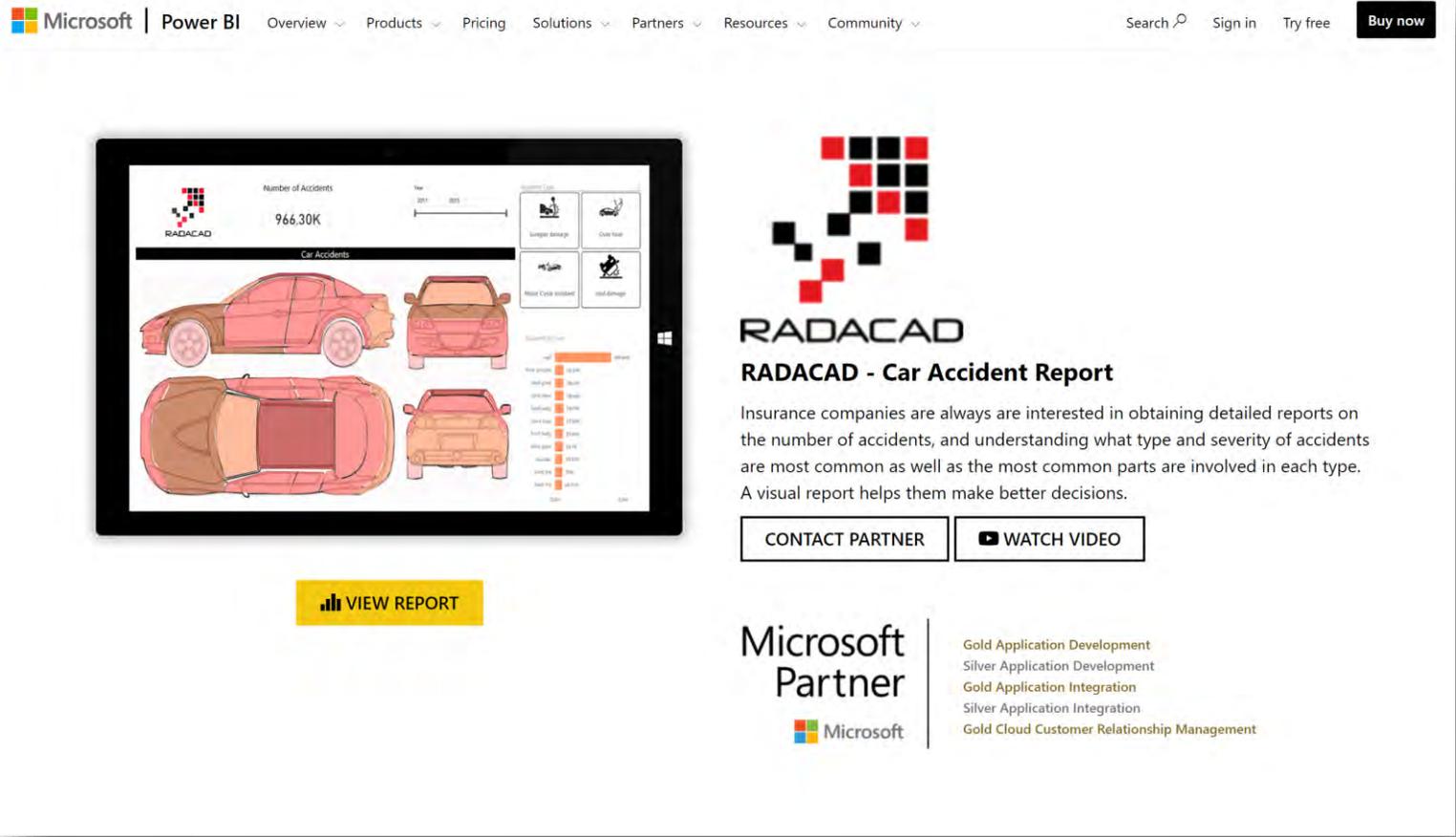


Edge

Pro Developer  
(Code First)

# Power BI

## Discovering the right BI Solution for your Business?



The screenshot shows a Microsoft Power BI dashboard for RADACAD. The top navigation bar includes 'Microsoft | Power BI' and various menu items like 'Overview', 'Products', 'Pricing', 'Solutions', 'Partners', 'Resources', and 'Community'. There are also links for 'Search', 'Sign in', 'Try free', and a 'Buy now' button.

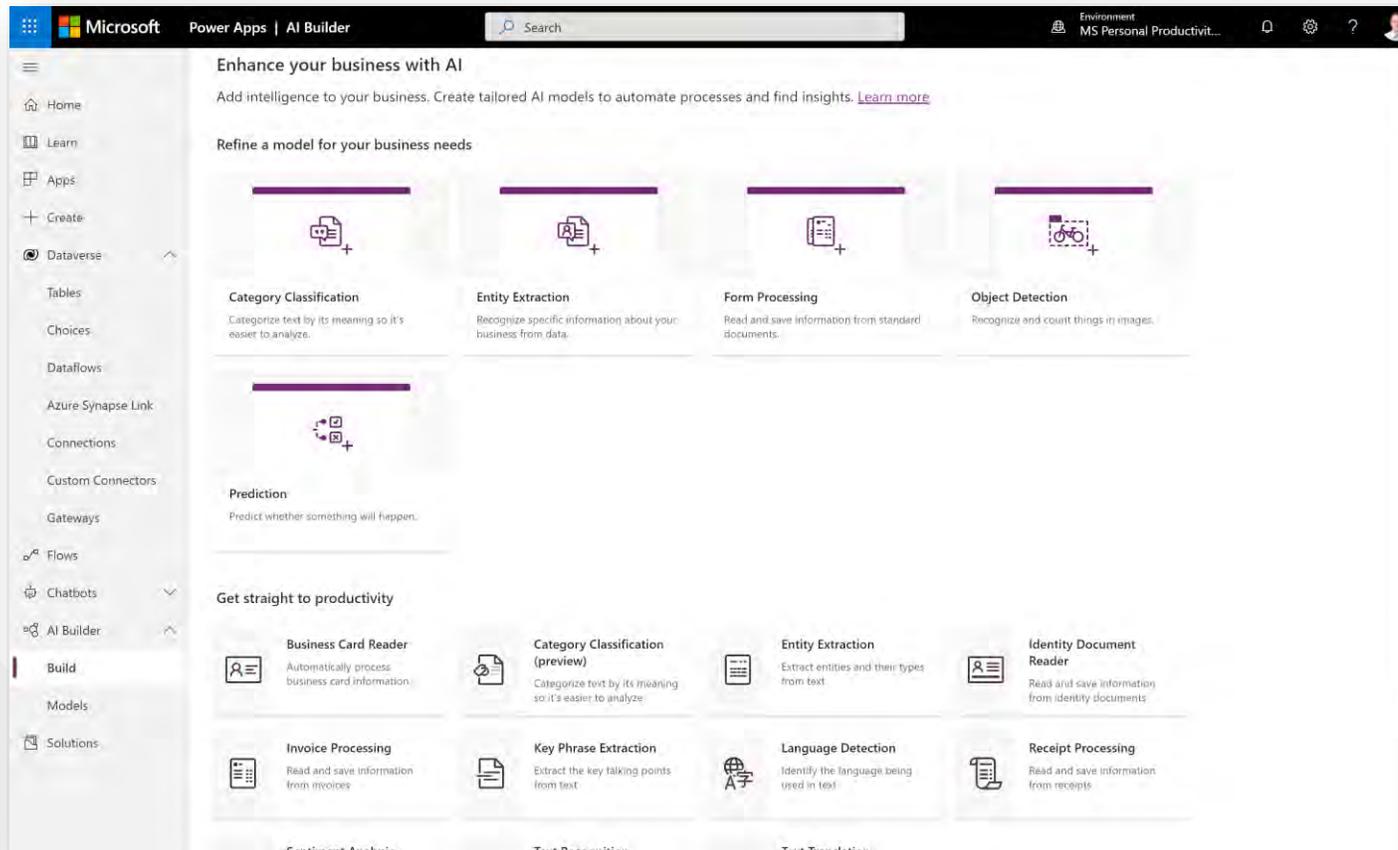
The main content area features a large dashboard preview on the left, a RADACAD logo and title 'RADACAD - Car Accident Report' in the center, and a list of services on the right. Below the dashboard preview is a yellow 'VIEW REPORT' button. Below the title are 'CONTACT PARTNER' and 'WATCH VIDEO' buttons.

**Microsoft Partner**

- Gold Application Development
- Silver Application Development
- Gold Application Integration
- Silver Application Integration
- Gold Cloud Customer Relationship Management

# Power Platform

Turn great ideas into impactful solutions



[Business Application Platform | Microsoft Power Platform](#)



A.I.

AI is changing how business works across all industries. We created AI Business School to share insights and practical guidance from top executives on how to strategically apply AI in your organization.

<https://www.microsoft.com/en-us/AI/AI-business-school>

# Some book recommendations

- [Inhaltsverzeichnis](#)
- [1 Einleitung](#)
- [2 Digital Business Development – Die Agilität des digitalen Zeitalters managen](#)
- [3 Start-ups und Unternehmen zu Zeiten der digitalen Disruption](#)
- [4 Digital Ecosystems](#)
- [5 Digital Business Innovation Culture – Der Mensch im Fokus](#)
- [6 Design Thinking – Ein Buzzword, oder steckt doch mehr dahinter?](#)
- [7 Daten als Treiber der digitalen Transformation](#)
- [8 Artificial Intelligence und der Einfluss auf das Business](#)**
- [9 Digitale Transformation – Transformation der Unternehmen im digitalen Zeitalter](#)
- [Stichwortverzeichnis](#)



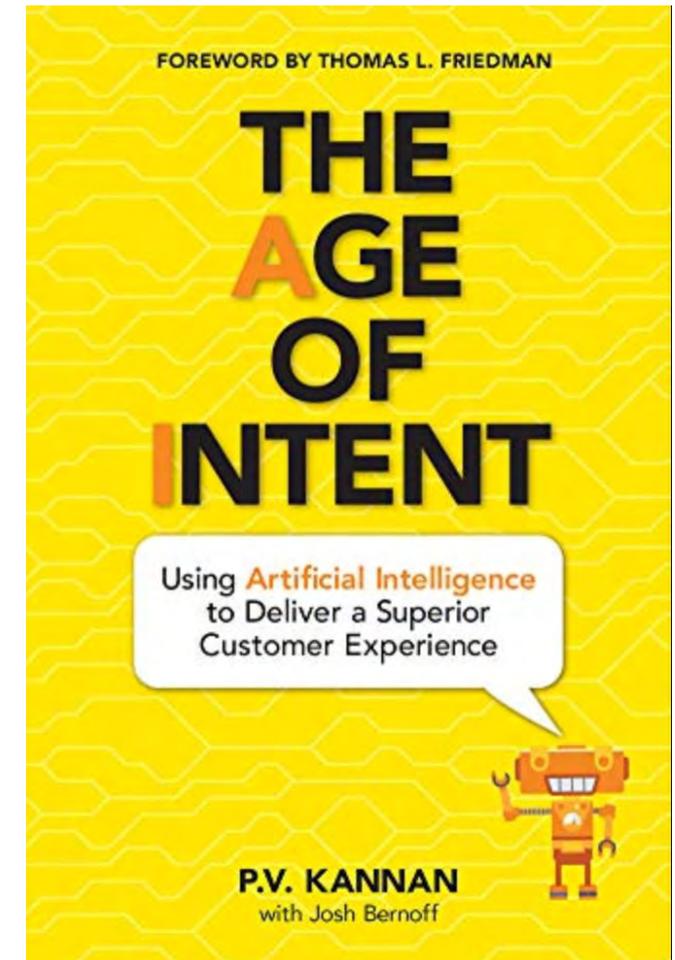
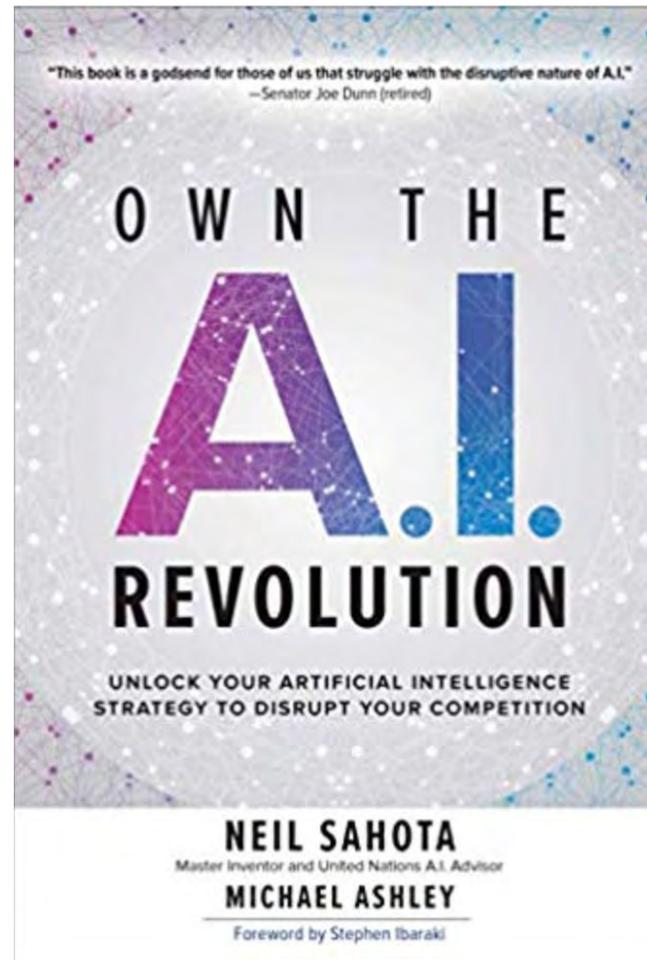
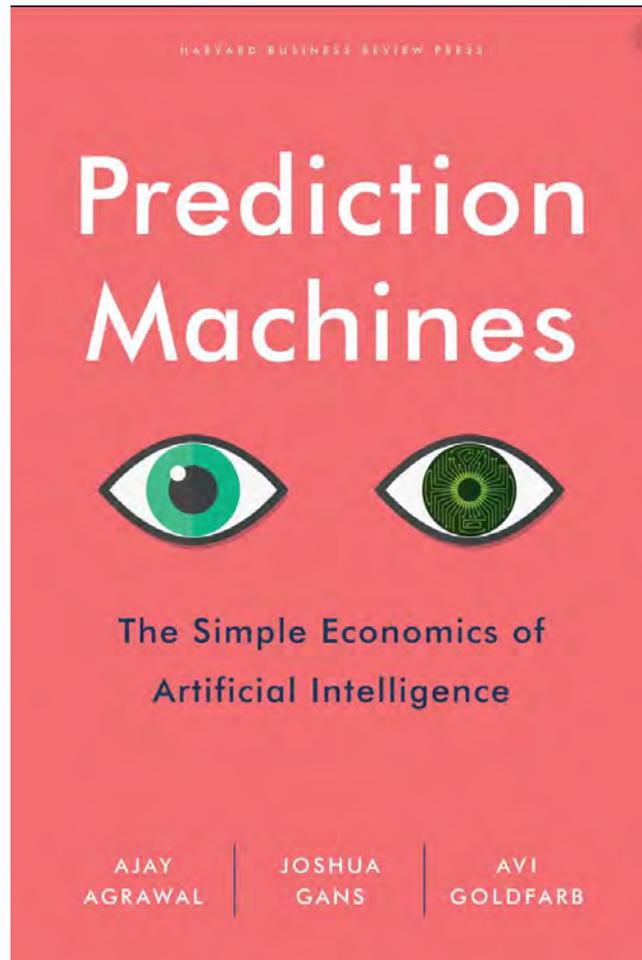
Claudio Mirti

**Zusammenfassung**

Von autonomen Robotern bis hin zu algorithmischen Nachrichten, von Produktempfehlungen bis hin zur Verarbeitung von Patientendaten, von virtuellen Assistenten bis hin zur Spracherkennung – Artificial Intelligence (AI) gilt weithin als einer der größten technologischen Umbrüche der Neuzeit (wenn nicht gar als der größte), vergleichbar mit vergangenen Veränderungen wie der industriellen Revolution, dem Computerzeitalter und dem Aufkommen des Smartphones. Deshalb ist es umso wichtiger, sich mit dieser Thematik auseinanderzusetzen, um die Anwendungsmöglichkeiten und Zusammenhänge zu verstehen. In diesem Kapitel werden zuerst die Grundlagen zu AI erläutert sowie geklärt, welche Bereiche schon mit dieser Technologie infiziert wurden. Weiter wird erklärt, wie sich AI zusammensetzt und wieso Machine Learning eigentlich die Weiterentwicklung von AI ist. Dies wird mit verschiedenen, bereits existierenden und bekannten Lösungen veranschaulicht. Da wir in einer Welt von Algorithmen leben, sind ethische sowie gesellschaftliche Aspekte im Umgang mit AI-Lösungen wichtig. Darauf wird ebenfalls eingegangen. Anschließend wird gezeigt, welcher Ansatz oder welche Vorgehensweise gewählt werden kann, um AI-Projekte im Unternehmen zu initiieren oder eine stufenweise Annäherung an AI zu ermöglichen.

C. Mirti (✉)  
Microsoft, Wallisellen, Schweiz

# Some book recommendations





Boston Dynamics



**THANK YOU.**

Claudio Mirti

