

Azure Cognitive Services

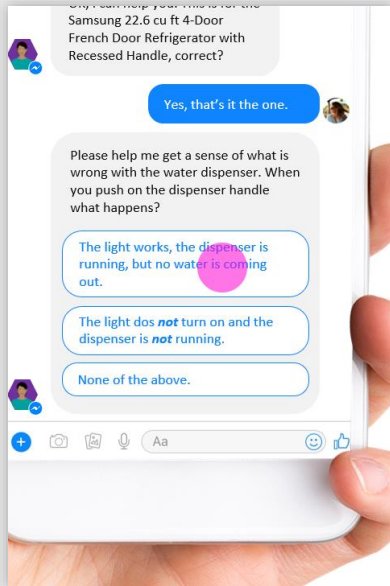
Tomasz Kozar, Microsoft



Patterns for AI solutions

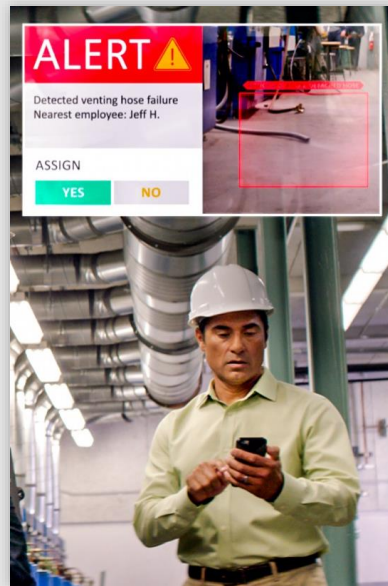
New generation of business agents

B2B, B2C, B2E



Person, object, and activity detection

Retail, manufacturing, security



AI assisted professionals

Marketing, legal, financial



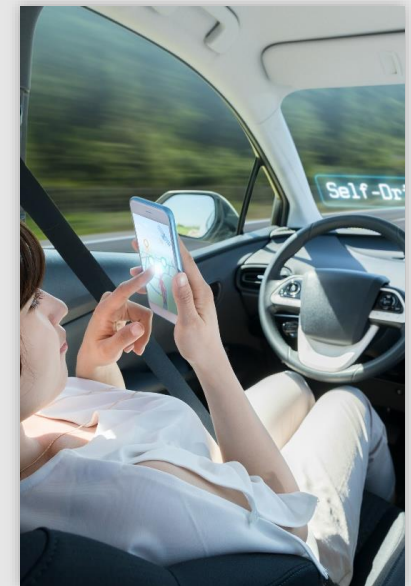
Knowledge mining

Documents, video



Autonomous systems

Vehicles, networks, RPA




Polska na mapie globalnej sieci Azure



Amsterdam




The Azure Big Data and AI landscape




Azure Data Factory




Azure Import/Export service




Azure CLI



Azure SDK




Azure SQL DB




Azure Cosmos DB




Azure SQL Data Warehouse




Azure Analysis Services




Power BI




Azure Blob Storage




Azure Data Lake Store



Azure Data Lake Analytics



Azure HDInsight



Azure Databricks




Azure ML




ML Server




Azure Databricks




Azure IoT Hub




Azure Event Hubs




Kafka on Azure HDInsight




Azure Search




Azure Data Catalog




Azure Stream Analytics




Azure HDInsight




Azure Databricks




Bot service




Cognitive Services




Azure ExpressRoute




Azure Active Directory




Azure network security groups




Azure key management service



Operations Management Suite



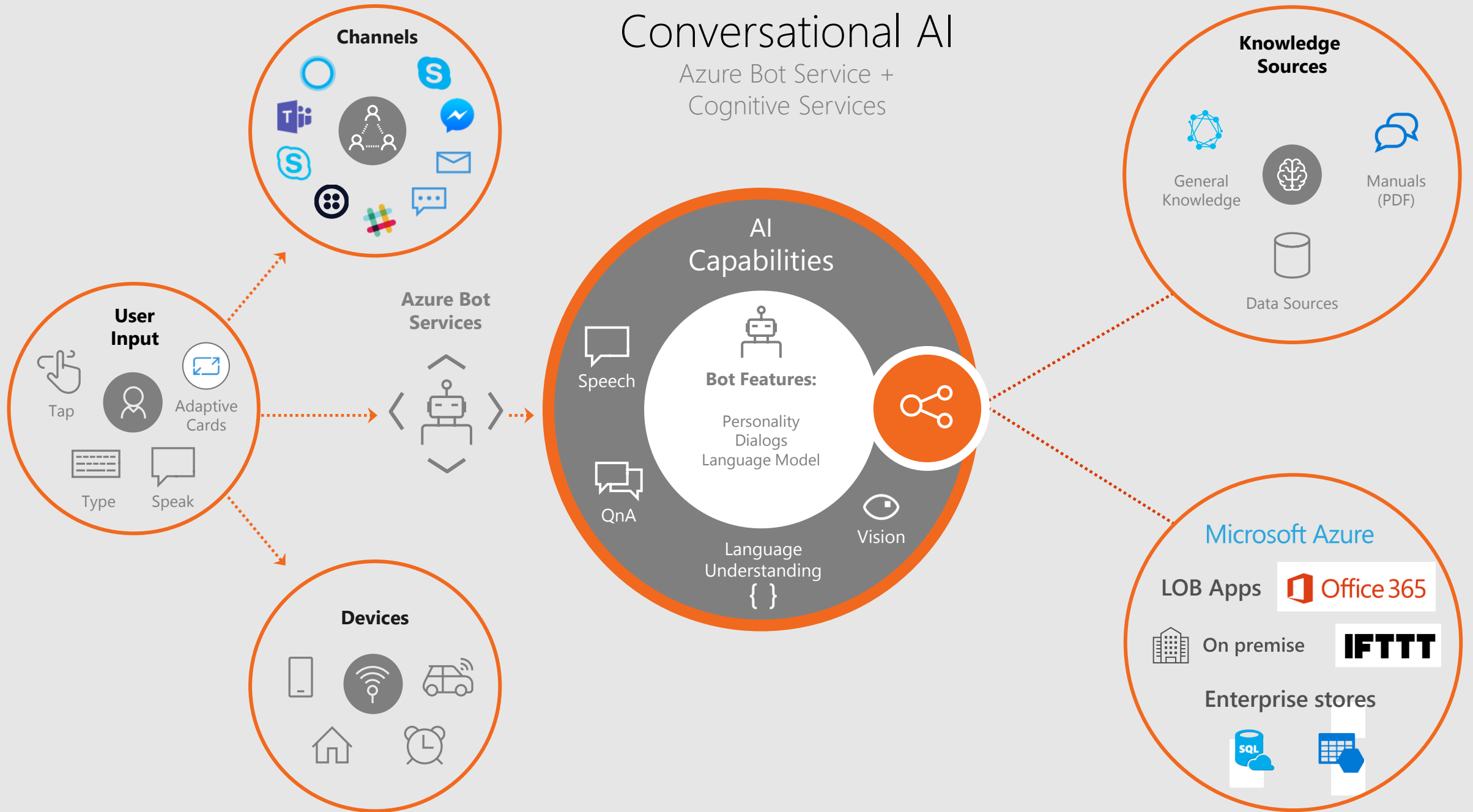
Azure Functions



Visual Studio

Conversational AI

Azure Bot Service +
Cognitive Services



Shell invests in safety with Azure, AI, and machine vision to better protect customers and service champions

In the energy industry, Shell manages everything from wells to retail gas stations—44,000 of them. The company works hard to ensure the safety of service champions and customers at its retail sites. Shell is piloting a new cloud-based, deep learning solution built on Microsoft Azure. The solution uses closed-circuit camera footage and Internet of Things technology to automatically identify safety hazards and alert service champions so they can quickly respond and eliminate potential problems.



Products and Services

Microsoft Azure
Azure Databricks
Azure IoT Edge
Azure IoT Hub

Organization Size

86,000 employees

Industry

Mining, Oil and Gas

Country

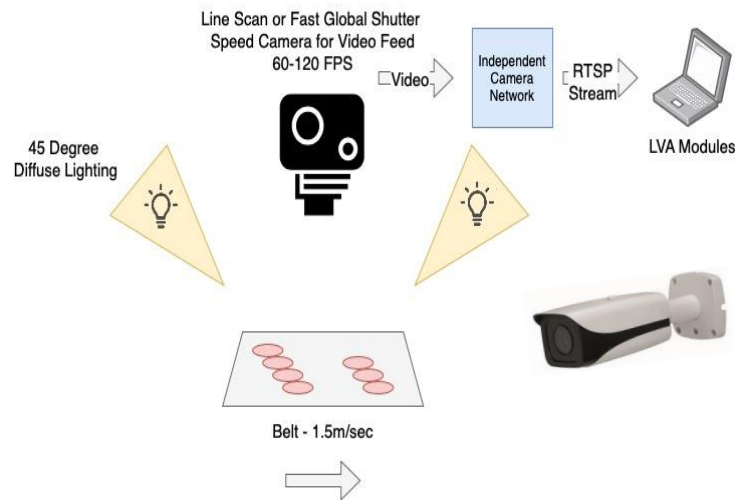
The Netherlands



Production quality monitoring with computer vision

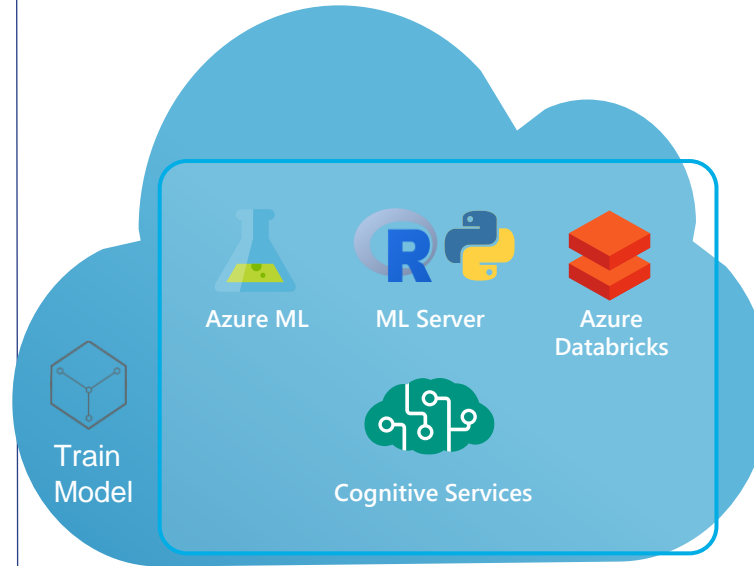
Deep Neural Network - Object detection, Live Video Analytics, Azure Video Analyzier

Data



RTSP cam

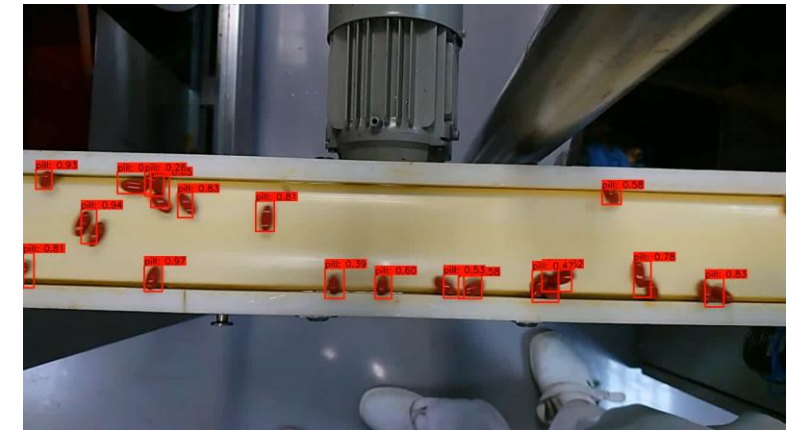
Training



Azure
Darknet YOLOv4, VoTT

Deployment

- results with Darknet YOLO v4 / Labeling / w VoTT 10 frames (mAP@0.50) = 94,6341%



Object detection, counting, tracking







AI apps & agents

Demo: Custom vision


Script + pitch [folder](#)
Demo script on [GitHub](#)

 Custom Vision

Projects



NEW PROJECT



CLASSIFICATION
Factory Safety
Limited trial

Why Microsoft Cognitive Services?

Easy

Available via Web APIs or embeddable containers.

Simple to add: just a few lines of code required



Flexible

Integrate into the language and platform of your choice

Breadth of offerings helps you find the right API for your app

Bring your own data for your custom experience



Tested

Built by experts in their field from Microsoft Research, Bing, and Azure Machine Learning

Quality documentation, sample code, and community support



Azure is the best place for AI

Accelerate time to value with agile tools and services



Pretrained AI services



Powerful tools



Comprehensive platform

Innovate with AI everywhere – in the cloud, at edge, and on-premises



Cloud



Edge



On-premises

Use any language, any development tool and any framework



Benefit from industry-leading security, privacy, compliance, transparency, and AI ethics standards

>90% of Fortune 500 companies use Microsoft Cloud

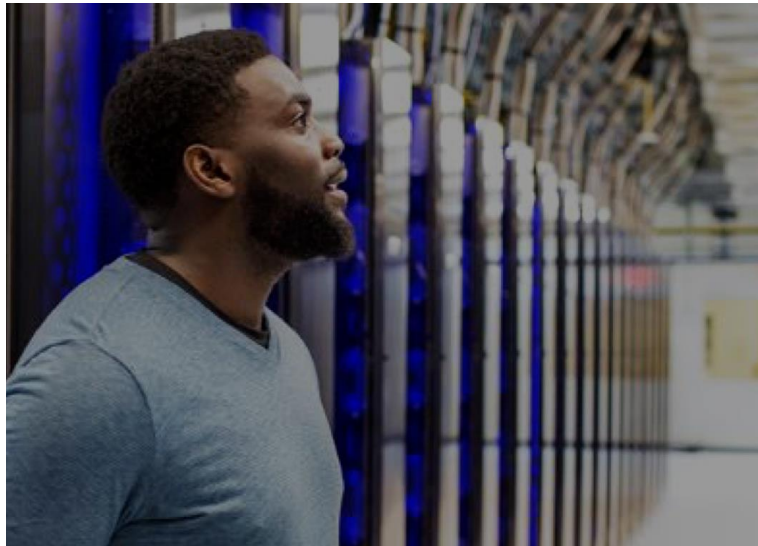
Foundation for AI

Data



Your data + Microsoft data

Cloud



Power of Azure

Models



Breakthrough advancements

Microsoft AI vision



Empower developers to
innovate

Empower organizations to
transform industries

Empower people to
transform society

Q & A

