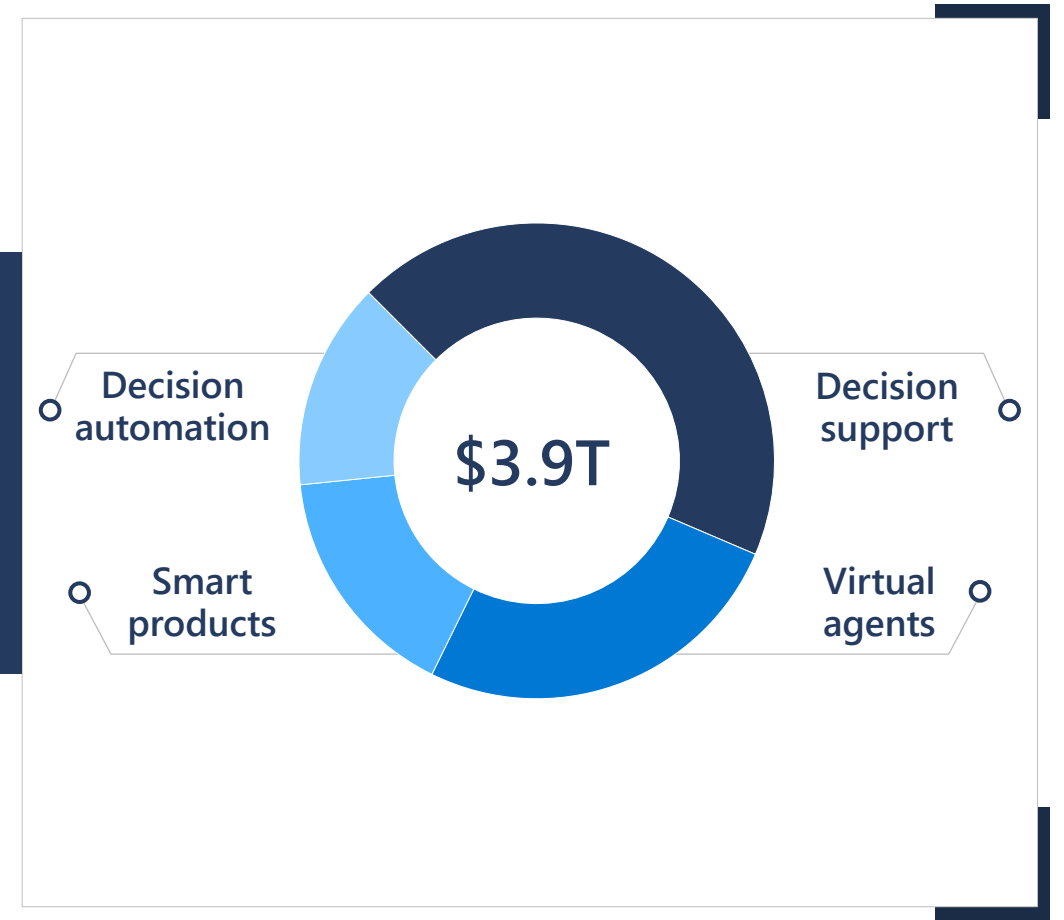Microsoft

KONICA MINOLTA

Analytics and AI

Transforming your business with artificial intelligence and data insights

Josef Zelinka
Azure Product Director

AI partnered with analytics represents a growing opportunity

Global business value derived from **AI in 2022** will reach

$3.9T

Decision automation

Decision support

Smart products

Virtual agents

"Forecast: The Business Value of Artificial Intelligence, Worldwide, 2017-2025", Gartner, April 2018.

How companies are transforming through Data

Serving business users and end users with **intelligent** and **dynamic** applications, based upon an actionable **Data Strategy**
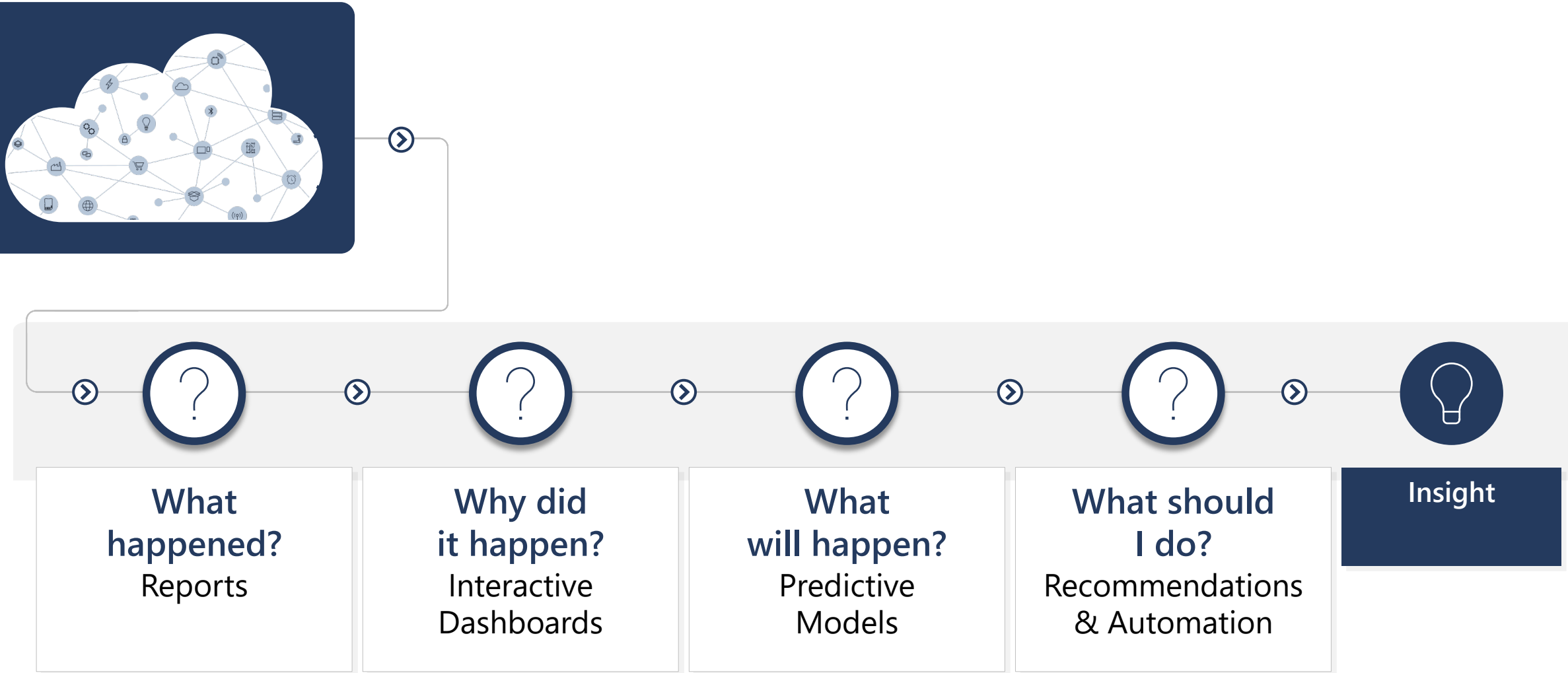
Build a unified and usable data pipeline

Train ML and DL models to derive insights

Operationalize models and distribute insights at scale

Insights is a journey

| **What happened?** Reports | **Why did it happen?** Interactive Dashboards | **What will happen?** Predictive Models | **What should I do?** Recommendations & Automation | **Insight** |

Intelligent solutions enable differentiation

Combine the power of analytics with the intelligence of AI

Personalized

Personalize customer interactions to deepen engagement

Insightful

Improve insights to better predict outcomes

Efficient

Optimize operational efficiency

Differentiation through personalized interactions
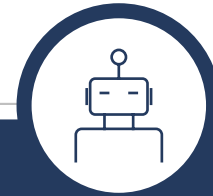
Personalize customer interactions to deepen engagement

Deepen engagement by predicting outcomes and automating actions

Employ AI with cognitive understanding that deepens context and understanding over time

Automate routine problem solving by employing intelligent bots and personal digital assistants

Engage customers with predictive and personalized responses

Personalized   **Insightful**   **Efficient**

Differentiation through improved predictive insights

Powerful insights to better predict outcomes

Act proactively with insights that detect patterns from processing massive volumes of data

Drive innovation from insights to engage customers, empower employees, and transform business solutions

Accurately analyze customer behavior to recognize trends

Personalized　　　**Insightful**　　　**Efficient**

Differentiation through operational efficiency

Optimize operational efficiency through intelligence, trust, and flexibility

Improve performance by gleaning more from faster, more accurate insights and predictions

Ensure control over your data while meeting compliance requirements

Reduce time to value and maximize existing investments

Personalized

Insightful

Efficient

Innovate across your business

OPERATIONS	MARKETING	FINANCE	WORKFORCE	SERVICE	SALES
Predictive maintenance	Personalization	Finance forecasting	Employee insights	Intelligent contact center	Intelligent contact center
Demand forecasting	Customer insights	Fraud management	HR insights	Patient care and healthcare analytics	Patient care and healthcare analytics
Operational efficiency	Churn analytics	Rise management	Resource matching and planning		
Inventory optimization	Dynamic pricing				
Operations anomaly insights	Product innovation				
Quality assurance	Marketing optimization				
Connected devices and smart buildings	Product recommendation				
Supplier and spend insights					

Intelligent solutions in action

Retail & Consumer Goods

SAB Miller · Carlsberg · J&J Food Service · arçelik · ARCACONTINENTAL · Sprint · SONOS THE WIRELESS HiFi SYSTEM · TOTAL

Ziosk · allrecipes.com · Pier 1 imports · youboox · SUN BRANDING SOLUTIONS · HERSHEY'S · RIDGID · Walmart

Discrete Manufacturing

Johnson Controls · HEXCEL · Rolls Royce · MOJIO · Rockwell Automation · RIDGID · ECOLAB · Schneider Electric · eSmart SYSTEMS · SANDVIK Coromant

PURINA · iRobot · DIEBOLD · BOEING · Hafslund · FUJITSU · OSIsoft · JABIL · IGT · DAIMLER

Government & Education

Australian Government Australian Taxation Office · Ajuntament de Barcelona · TACOMA PUBLIC SCHOOLS · Kellogg · Carnegie Mellon University · KAPLAN UNIVERSITY · CDC CENTERS FOR DISEASE CONTROL AND PREVENTION · Virginia Tech VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY · OCP

Healthcare

MERCK · Aerocrine · optolexia · Cerner

Toronto Western Hospital · SANOFI · BAYER · FULLERTON HEALTH · The Leeds Teaching Hospitals NHS Trust · astellas

Banking & Financial Services

Tangerine · GENSCAPE · ect.or · quarterspot · Heungkuk Life Insurance

WELLS FARGO · Bank of America · HDFC BANK · AMERICAN EXPRESS · AIG · MasterCard · NOMURA

Professional Services

WASH · accenture High performance. Delivered. · MENDELEY · codit · Microsoft · RR DONNELLEY · gjirafa.com · NAVIGANT · JLL

DocuSign · Deloitte & Touche · acxiom · DIGITAL CRIMES UNIT · KYIVSTAR · Nationstar MORTGAGE · juwi · ULTRA TENDENCY · the Next Up

Microsoft Azure platform transforms how Rolls-Royce uses data

"Our goal is not data for the sake of data, but to embrace the cloud and analytical technologies to deliver more expert insights to the right stakeholders at the right time."

Nick Farrant
Senior Vice President
Rolls-Royce

Rolls-Royce and Microsoft collaborate to create new digital capabilities.

"With automated machine learning in Azure Machine Learning, we can focus our testing on the most accurate models and avoid testing a large range of less valuable models, because it retains only the ones we want. That saves months of time for us."

—Matthieu Boujonnier, Analytics Application Architect and Data Scientist, Schneider Electric

Customer: Schneider Electric

Industry: Power and Utilities

Size: 137,000 employees

Country: France

Products and services:
Microsoft Azure

Azure Databricks

Azure IoT Edge

Azure Machine Learning service

Situation

Industrial automation company Schneider Electric helps oil and gas sector customers the world over transform digitally. It wanted to provide them with a predictive maintenance solution to reduce costs and protect the environment.

Solution

Schneider Electric created a predictive IoT analytics solution based on Microsoft Azure Machine Learning servie and Azure IoT Edge. Its data scientists use data from the oil field to build the models that predict when and where maintenance is needed.

Impact

Oil and gas customers boost worker safety because they can limit visits to remote areas. They minimize maintenance costs and downtime. And with predictive models, local operators can proactively detect dangerous conditions before environmental harm occurs.

"If I have 200 models to train—I can just do this all at once. It can be farmed out to a huge compute cluster, and it can be done in minutes. So I'm not waiting for days or setting experiments to run over the weekend anymore."

—Naeem Khedarun, Principal Software Engineer, ASOS

Customer: ASOS

Industry: Retailers

Size: 4,300 employees

Country: U

Products and services:
Microsoft Azure AI

Microsoft Azure Machine

Learning service

Microsoft Azure Cosmos DB

[Read full story here](#)

Situation

Large retail pharmacy chain had vast amounts of data and needed a powerful process to translate the data from millions of daily point-of-sale transactions into propensity models to optimize promotions.

Solution

Used Azure Machine Learning to efficiently model the Advantage Card customer loyalty program data using automated machine learning propensity models, spinning up clusters for faster processing and time to insights.

Impact

Improved the speed and scalability of its existing machine learning platform and became better equipped to scale out campaigns, resulting in increased revenue, a better customer experience, and greater ROI for brand partners.

asos

Customer: ASOS

Industry: Retailers

Size: 4,300 employees

Country: UK

Products and services:
Microsoft Azure AI

Microsoft Azure Machine

Learning service

Microsoft Azure Cosmos DB

[Read full story here](#)

"By unifying our tech stack and bringing our engineers in Big Data and online software together with data scientists, we got our development time down from months to just a few weeks."

—Naeem Khedarun, Principal Software Engineer, ASOS

📍 Situation

Online fashion retailer ASOS had two intermeshed goals: to craft one data model solution where there'd been three, and to give its data science teams a satisfying, productivity-boosting collaboration model.

⚙️ Solution

ASOS standardized on Microsoft Azure Machine Learning to build the models that support its fashion recommender, publishing brand recommendations for its 19.2 million customers to Azure Cosmos DB for global scalability.

✓ Impact

The company has achieved an AI transformation that drives down model build times from months to weeks, and improves collaboration and the model-building experience for its data scientists and engineers.

Next steps
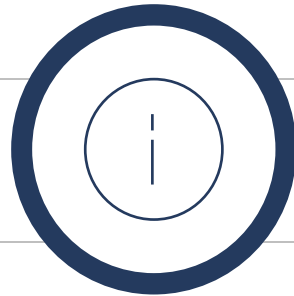
Learn more
Visit the Azure AI page

Get trained
Visit the Business Analytics and AI School page

Find or become a partner

https://azure.microsoft.com/en-us/overview/ai-platform/

https://aischool.microsoft.com/en-us/services/learning-paths/learn-ai-analytics-with-microsoft/microsoft-business-analytics-and-ai

https://www.microsoft.com/en-us/ai/partners

Appendix

Artificial Intelligence – Flavors

PRE-BUILT A.I.

CUSTOM A.I.

Cognitive Services

Transform your engagements with customers and employees:
Pre-trained deep learning cognitive capabilities ready to use
(Vision, speech, knowledge, translation, etc.)

Advanced Analytics/ML

Leverage AI to get actionable insight from your data:
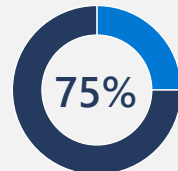Machine Learning capabilities to analyze data (clustering, regression, etc.)
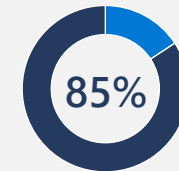
Deep Learning

Leverage AI to create the future of business applications:
Build and train Artificial neural network to address specific problems not covered by Cognitive Services
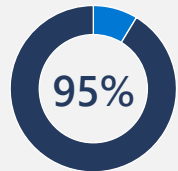
95% Of customer interactions powered by AI bots by 2025

75% Applications to include AI by the end of 2019

85% Of enterprises using AI by 2020

Gartner source

Microsoft AI Principles

Fair | Accountable | Transparent | Ethical

01 AI must maximize efficiencies without destroying the dignity of people

02 AI must guard against bias

03 AI needs accountability so humans can undo unintended harm

04 AI must be transparent

05 AI must be designed for intelligent privacy

06 AI must be designed to assist humanity

Microsoft AI portfolio

PEOPLE

Agent
Cortana

Applications
Office 365

Dynamics 365

SwiftKey

Pix

Customer Service and Support

Skype

Calendar.help

Services
Cortana Intelligence

Cognitive Services

Bot Framework

Cortana Devices SDK

Cognitive Toolkit

Infrastructure
Azure Machine Learning

Azure N Series

FPGA

Our approach

Solutions ⊙ Extensible applications

Cognitive services ⟨⟩ **Bot framework** ⊙ Easy to consume Artificial Intelligence

Data Science tools
Data preparation, modeling, and operationalization ⊙ Most comprehensive data science capabilities

Deep Learning– Cognitive Toolkit ⊙ Best of Microsoft research and open source

Analytics in Big Data Stores (cloud + on premise) ⊙ Flexible infrastructure support for analytics

Microsoft Cognitive Services

Give your apps a human side

Vision

From faces to feelings, allow your apps to understand images and video

Speech

Hear and speak to your users by filtering noise, identifying speakers, and understanding intent

Language

Process text and learn how to recognize what users want

Knowledge

Tap into rich knowledge amassed from the web, academia, or your own data

Search

Access billions of web pages, images, videos, and news with the power of Bing APIs

Labs

An early look at emerging Cognitive Services technologies : discover, try & give feedback on new technologies before general availability

Microsoft Cognitive Services

Give your apps a human side

Vision
Computer Vision | Content Moderator | Custom Vision Service | Emotion | Face | Video | Video Indexer

Speech
Bing Speech | Custom Speech Service | Speaker Recognition

Language
Bing Spell Check | Language Understanding | Linguistic Analysis | Text Analytics | Translator Text & Speech | Web Language Model

Knowledge
Academic Knowledge | Custom Decision Service | Entity Linking | Knowledge Exploration | QnA Maker | Recommendations
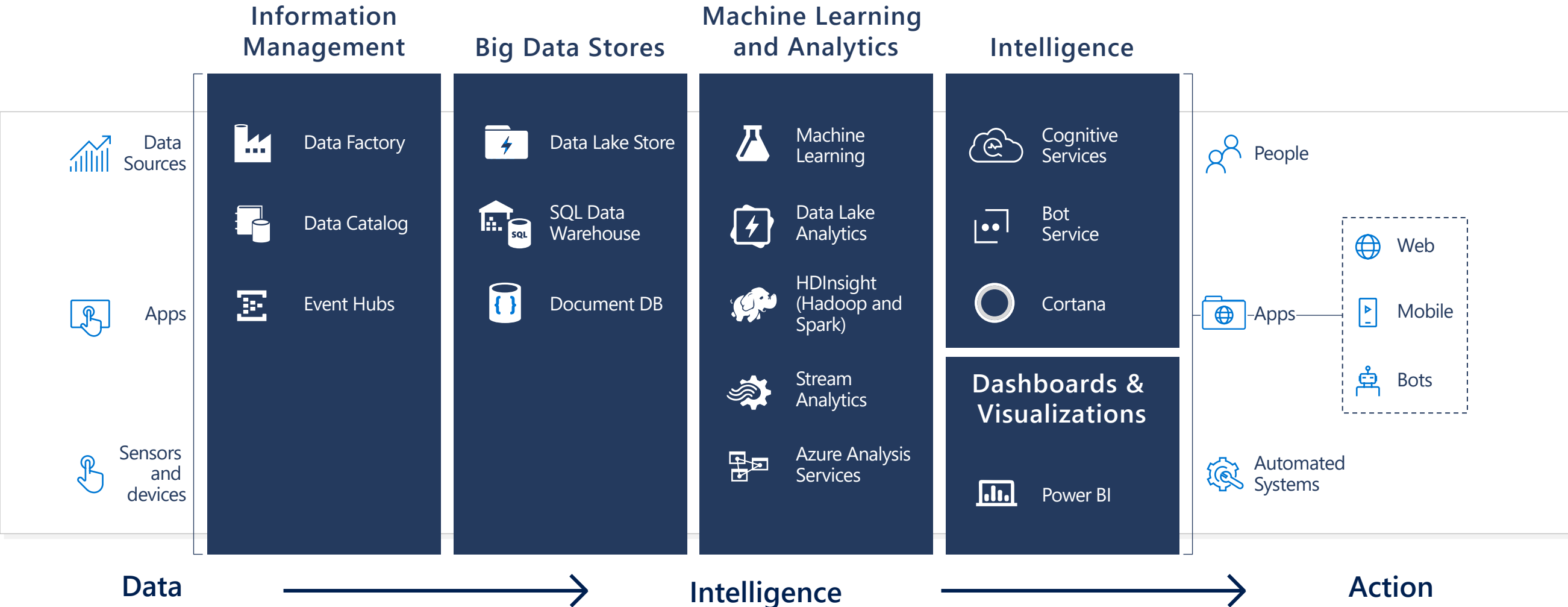
Search
Bing Autosuggest | Bing Custom Search | Bing Image Search | Bing News Search | Bing Video Search | Bing Web Search

Labs
Project Abu Dhabi | Project Cuzco | Project Johannesburg | Project Nanjing | Project Prague | Project Wollongong

Microsoft AI portfolio

Information Management

Big Data Stores

Machine Learning and Analytics

Intelligence

Data Sources

Apps

Sensors and devices

Information Management	Big Data Stores	Machine Learning and Analytics	Intelligence
Data Factory	Data Lake Store	Machine Learning	Cognitive Services
Data Catalog	SQL Data Warehouse	Data Lake Analytics	Bot Service
Event Hubs	Document DB	HDInsight (Hadoop and Spark)	Cortana
		Stream Analytics	**Dashboards & Visualizations**
		Azure Analysis Services	Power BI

People

Apps

Automated Systems

Web

Mobile

Bots

Data ⟶ **Intelligence** ⟶ **Action**

Some transformational scenarios ML addresses

Product recommendation

The average size of a single cart has decreased

Provide personalized digital content to shoppers

Increase cart size

asos

Drives down model build times from months to weeks, improves collaboration and the model-building experience for its data scientists and engineers.

Predictive maintenance

Unplanned downtime results in cost overruns

Predict when maintenance should be performed

Minimize downtime

Schneider Electric

Oil and gas customers boost worker safety, minimize maintenance costs, proactively detect dangerous conditions before environmental harm occurs.

Demand forecasting

Optimize manufacturing processes and labor hours

Forecast when processes are complete and manual intervention needed

Optimize operations

SHERWIN-WILLIAMS

Categorize chemical formulas and forecast the output of manufacturing processes, in order to create efficient resource utilization.

Next steps

Get a free trial: {Partner Offer URL}

Call for more information: {Partner Phone}

Ask a question via email: {Partner Email}

Learn more: {Partner URL}

Link to your Microsoft Commercial Marketplace offer