Microsoft AI

How to successfully implement AI in your organization
A practical approach

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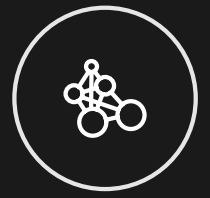
Amplifying human ingenuity with intelligent technology

Interacting

Interact with people in natural ways

Understanding

Interpret meaning of data including text, voice, images



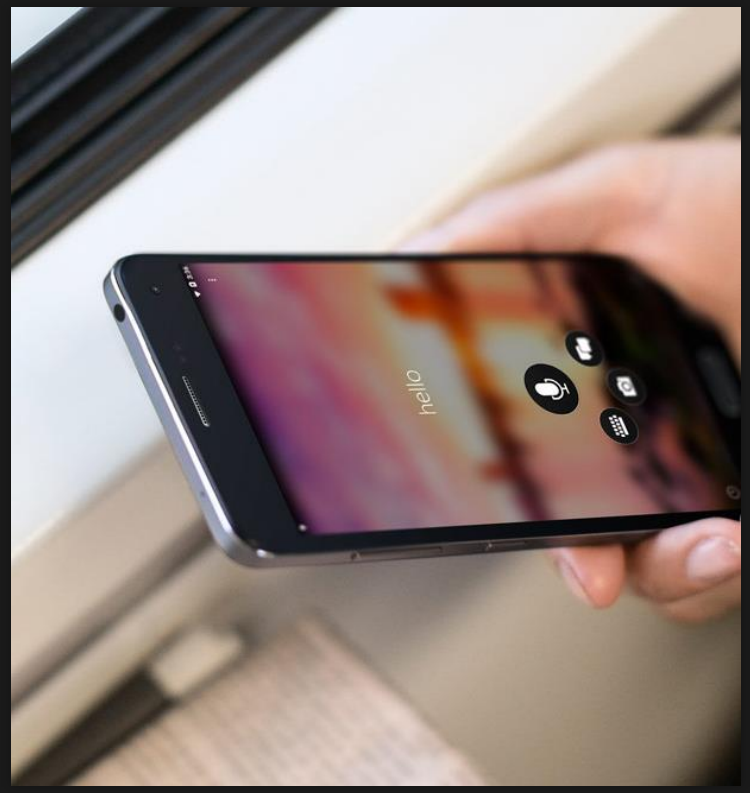
Reasoning

Learn and form conclusions with imperfect data

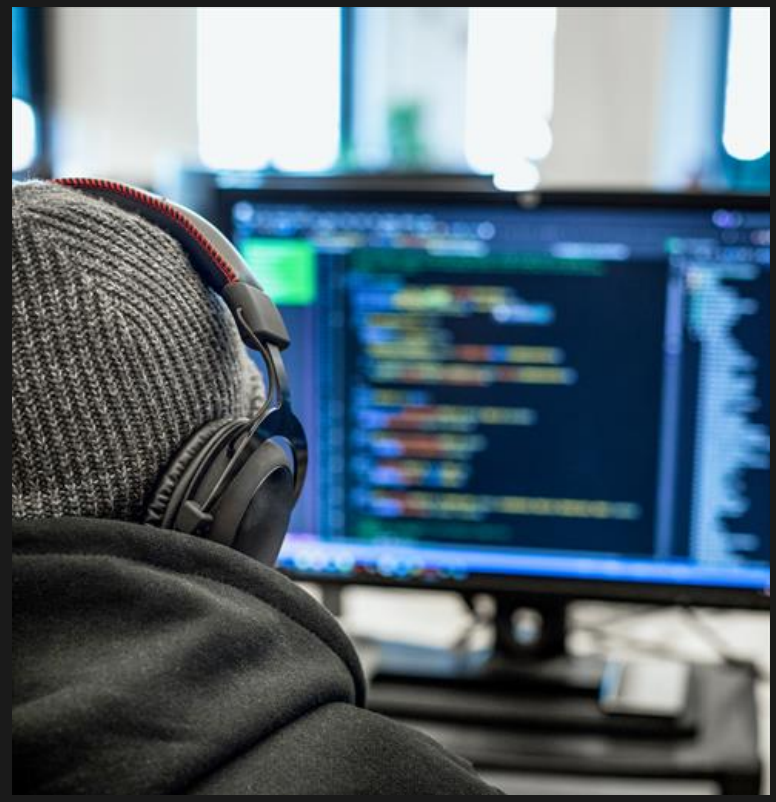
Why AI now?

Data

Algorithms



Cloud Computing

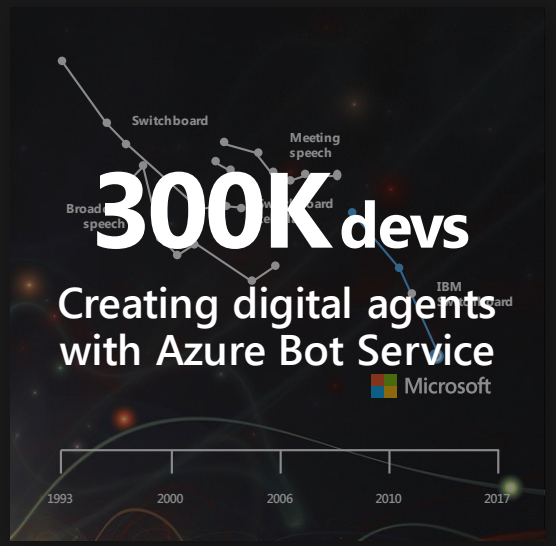


AI momentum

Vision

2016
Object recognition
Human parity

Speech



2017
Speech recognition
Human parity

March 2018
Machine translation
Human parity

Language

January 2018
Machine reading comprehension
Human parity

Responsible AI

Fairness
Inclusivity
Transparency
Reliability
Privacy
Accountability

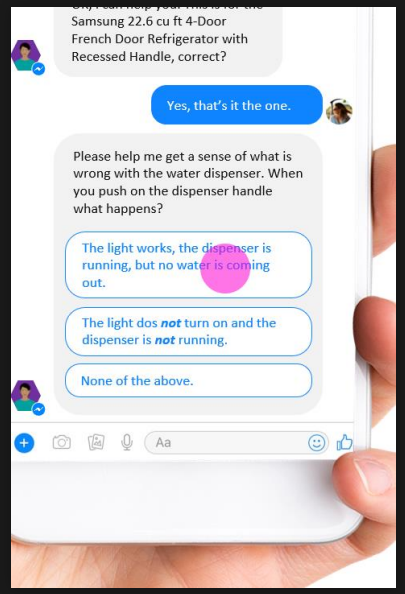
Three questions we should always ask:

1. System Purpose — Will the technology be used to augment the abilities of individuals and result in a positive impact on people and society?
2. Technology Capability — Are the AI technology and people capable of performing the tasks as expected?
3. Quality & Reliability — Will the technology be effectively designed, operated and maintained by a responsible party?

What are the opportunities?

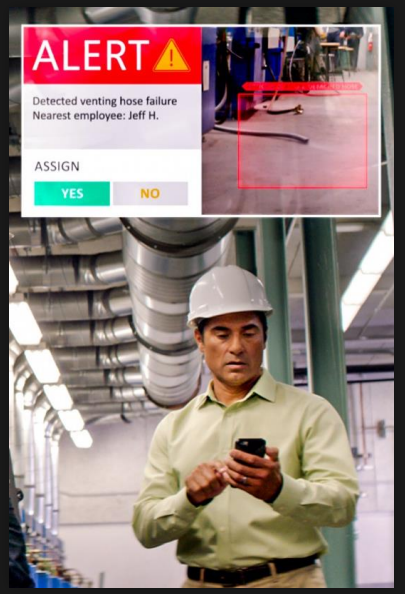
New generation of business agents

Employee, citizen, customer interaction



Person, object, and activity detection

Retail, manufacturing, security, safety



AI assisted professionals

Marketing, legal, medical, financial

Knowledge mining

Documents, audio, video

Autonomous systems

Vehicles, robotic process automation

What are the challenges?

POTENTIAL VALUE

71% of the companies respond that AI is considered *'an important topic' on the executive management level'*

Only 4% of the companies are actively using AI in *'many processes and to enable advanced tasks'*

61% of companies that are still only in the planning or piloting stages

– Artificial Intelligence in Europe, EY

REAL VALUE

"Despite this investment, senior executives tell us that their companies are struggling to capture real value. The reason: while they're eking out small gains from a few use cases, they're failing to embed analytics into all areas of the organization"

– McKinsey Analytics, McKinsey & Company, 2018

What are the challenges?

Data

- **No clear business outcome**
- **Unstructured, chaotic data estate**
- AI solution is **developed in isolation**
- The insights from the solution are **not used** in day-to-day processes

Algorithms

- **Ethics or compliance is not considered**. It is not explainable
- Solution is **blocked by compliance** because of (perceived) non-compliance
- Solution is **perceived as risky** by customers, partners or employees

Cloud Computing

- Lack of technical skills or domain knowledge
- The work is focused on **determining the best model** at the expense of bringing business value

- The **solution is not Enterprise ready or scalable** due to non-standard practices
- Architecture **constrains progress** instead of enabling a production solution

Business & Data

Tactics

- Value Modeling (NPV, NPS)
- AI Champions
- Data and Digital Culture
- Co-Creation

Risk & Compliance

Tactics

- AI Principles (FATE)
- Privacy by Design (GDPR)
- Security by Design

Data Science

Tactics

- Continuous Learning
- Enable Reproducibility
- Fail forward

Operationalization

Tactics

- DevOps for AI
- Model Repository

Your AI journey

http://aiready.microsoft.com

Data Intensity

BI and Apps

Data-driven Business analytics and reporting

Power BI
Power Apps + Flow
Azure Data Services
SQL Server

Considering AI:

- Using analytical capabilities
- Forming AI expectations

Applications with AI

Immediate actionable insights with AI

D365 AI for Sales
D365 AI for Marketing
D365 AI for Cust. Service
Workplace Analytics

Hopeful on AI and its promise:

- Optimizing processes
- Minimizing disruption

AI "Accelerators"

Solution specific AI Services and patterns

Azure Bot Service
Azure Cognitive Services
Azure Cognitive Search

Experimented and applied AI:

- Iterating new business models
- Building a digital and data culture

Custom AI

Data science and Deep AI capability

Azure Databricks
Azure AI Infrastructure
Azure ML
Open Frameworks
Azure Cognitive Services
Azure Cognitive Search

Emerging data science and operational capability:

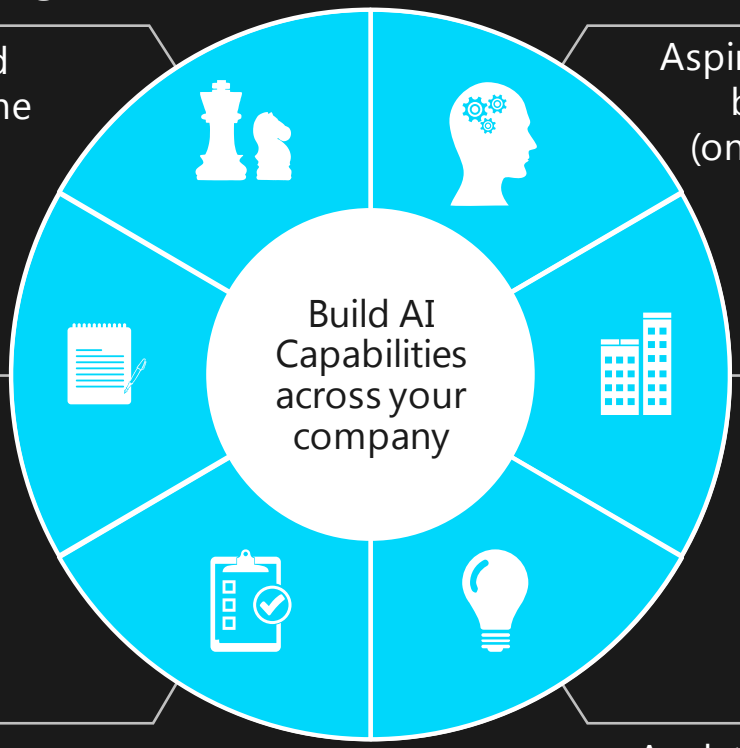
- Building a foundational data architecture
- Establishing AI model lifecycle and management

AI Expertise

Foundational + **Approaching** + **Aspirational** + **Mature**




Build AI capabilities across your company



AI CHAMPION - CULTURE

Cross-company adoption and change of AI to help overcome silo-based interests

BUSINESS SPONSOR

Aspirations to bring AI to tangible benefits – a mandate to bring (one or more) scenario's real live

COMPLIANCE

Automated compliance with regulatory requirements

DATA DISCIPLINE

Data strategy, privacy and governance

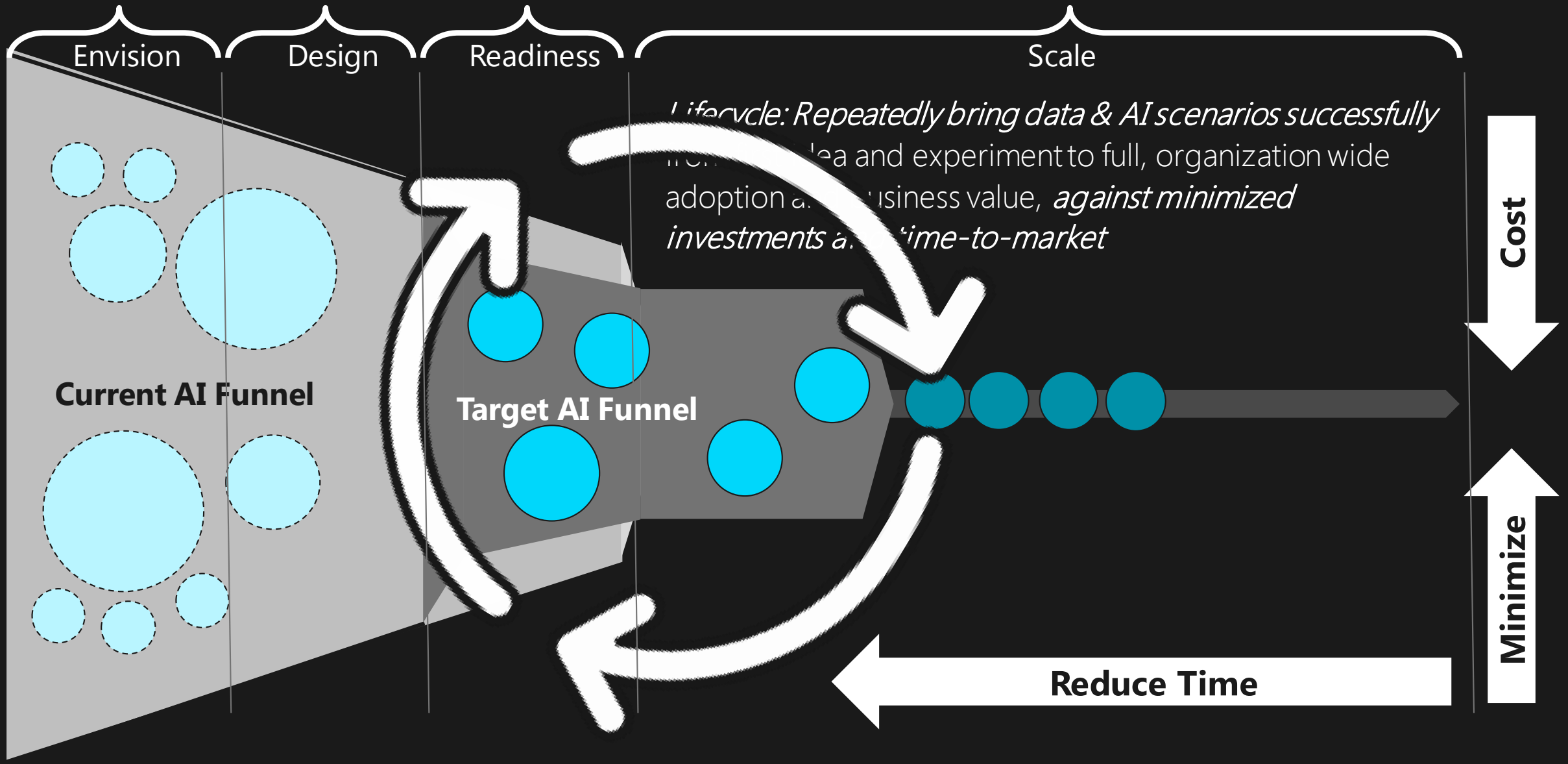
IT CUSTODIAN

Rethink and deliver Platform and Data & AI Service Catalog to scale to production

DATA SCIENCE AND VISUALIZATION

Analytics integrated into operations and decision making – drive AI as science in DevOps practices

AI innovation lifecycle



Customer
Telefonica

Industry
Media and Telecommunications

Country
Spain

Opportunity
Allow people to access the content they love, simply by using their voice.

Aura

"We used Microsoft Azure Bot Service and Cognitive Services to help cope with the complexity of launching Aura in six countries on four separate channels—and do it all seamlessly."

Chema Alonso: Chief Data Officer
Telefonica

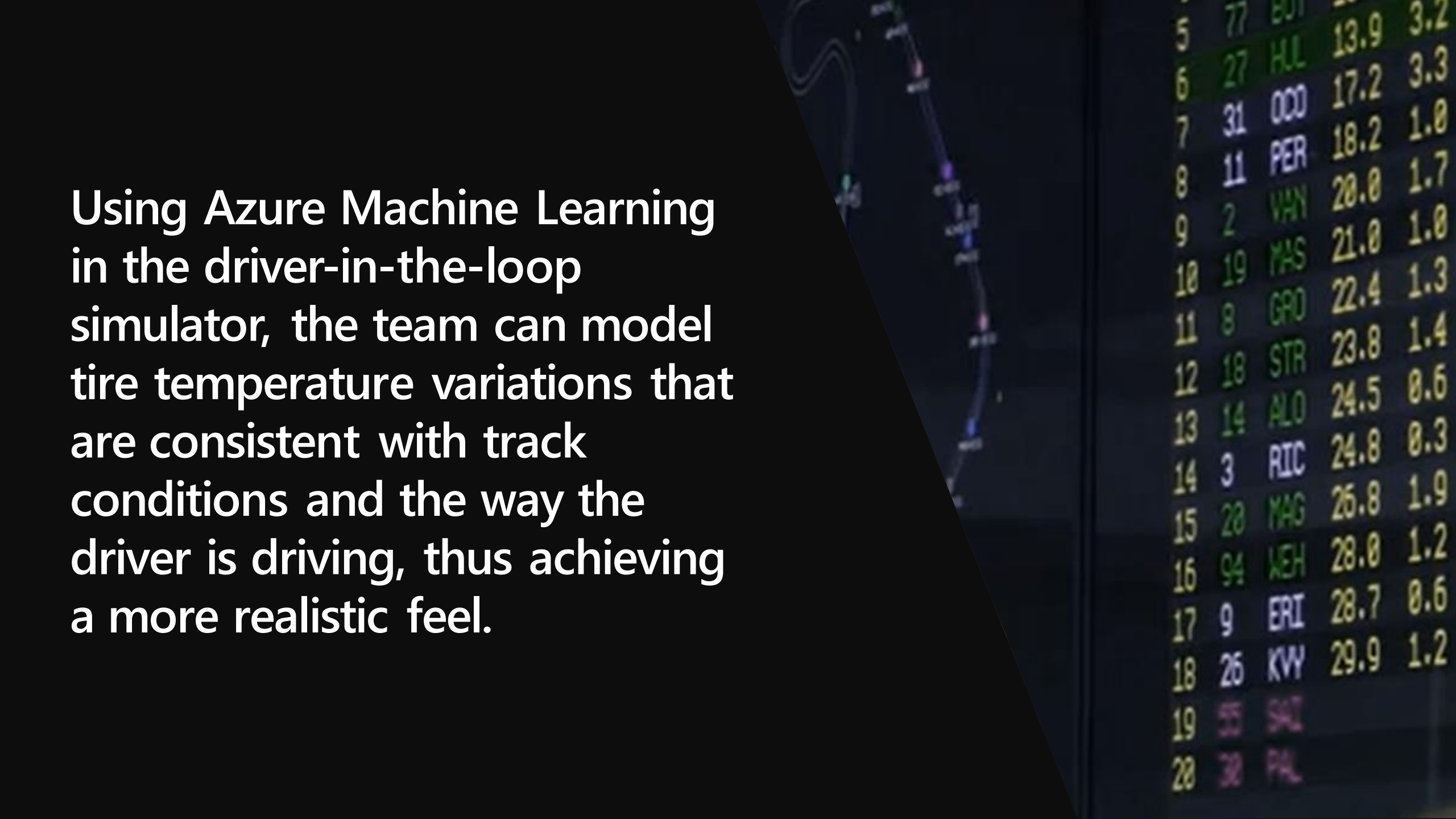
Customer
Renault Sport Formula One Team

Industry
Manufacturing

Country
France

Opportunity
Leverage 35 billion data points from a race weekend to improve performance.

Using Azure Machine Learning in the driver-in-the-loop simulator, the team can model tire temperature variations that are consistent with track conditions and the way the driver is driving, thus achieving a more realistic feel.



A practical approach

1. **Identify where you are in your AI journey**
   - Foundational, aspirational, approaching, mature
2. **Establish ethical AI principles**
3. **Iterate your innovation lifecycle**
   - *Amplify* with:
     - agents
     - object detection
     - AI assisted professionals
     - knowledge mining
     - autonomous systems
   - Lean into data, algorithms, and cloud
   - Shorten the time to feedback

Get the free
Forbes Report

"387 senior executives interviewed from retail to manufacturing to government and financial services"

aka.ms/connexion

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