

# Enabling Technologies

**Anand Raman**  
Azure AI Platform



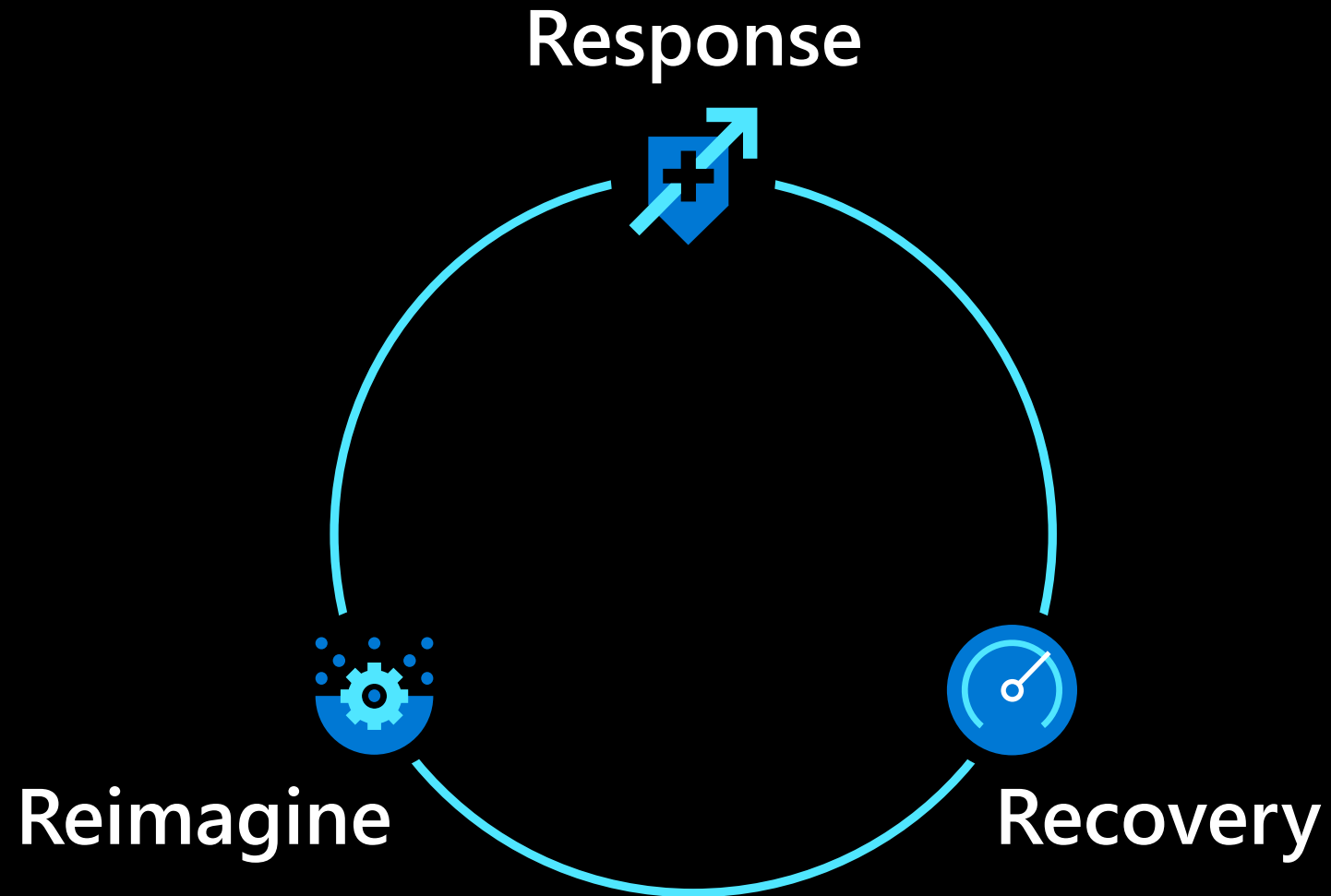
**Thank you**





It's an unprecedented time!









# Opportunity





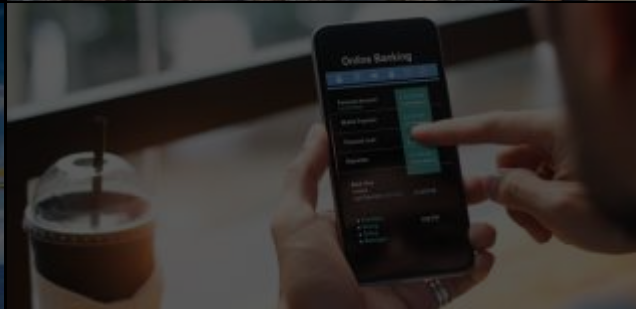


We have a role in making the world a **better place**





# Enabling Technologies









ment



Product



Person



Currency







**World is Full of Gaps**



# Disability

merely a mismatch between a person and their environment

**294 Million**

People Globally with Visual Impairment



**60%**

Visually Impaired Students entering college will not graduate

**70%**

Visually Impaired will be unemployed

**5-15%**

Have Access to Technology







# SCIENCE FAIR



One Week  
Hackathon



EMERGENCY

The Hacken Check in

Be  
pic.















**Saqib Shaikh, Seeing AI Tech Lead**

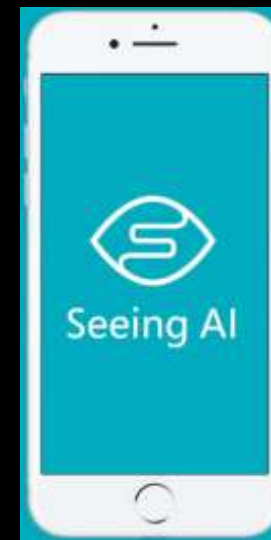




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Idea

**Talking  
Camera App**

# Seeing AI Narrating the world around you







probably a group of people with luggage at an airport



a bridge over a body of water with a city in the background



31 year old male with a moustache wearing glasses looking happy.





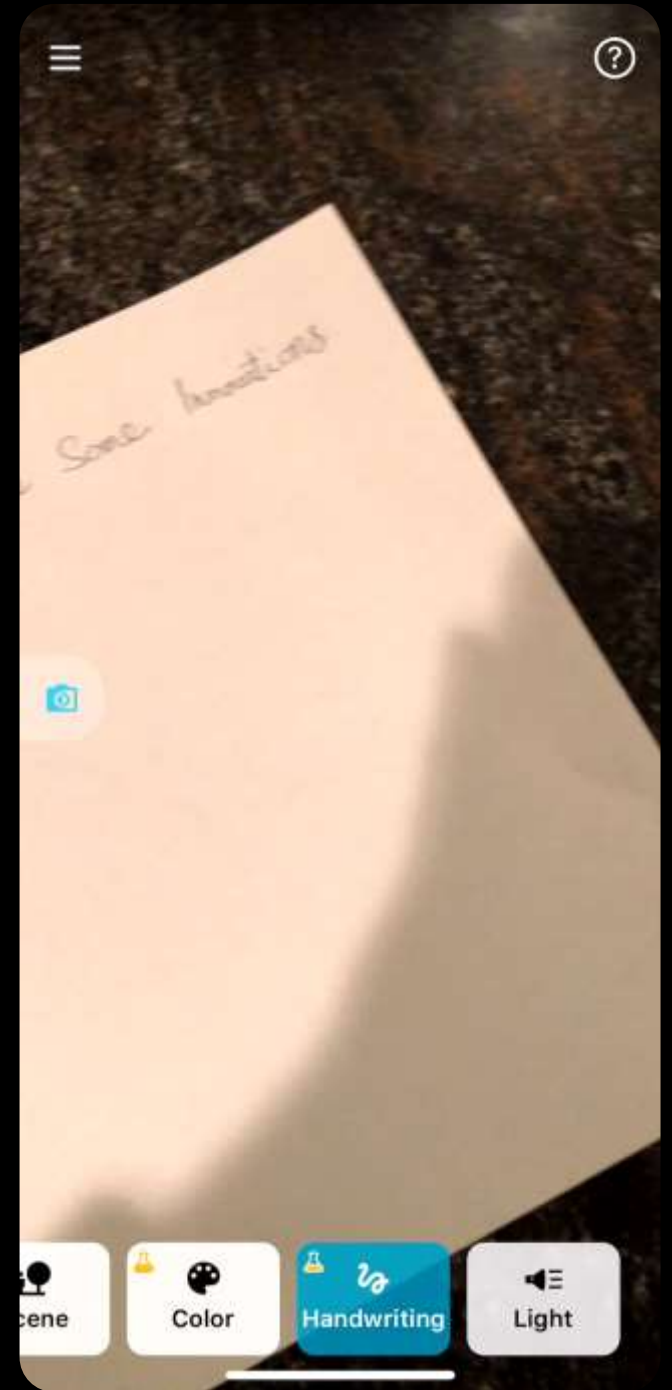
# Short Text

Identifies exit signs and door number



# Handwriting

Reads handwritten text



# Products

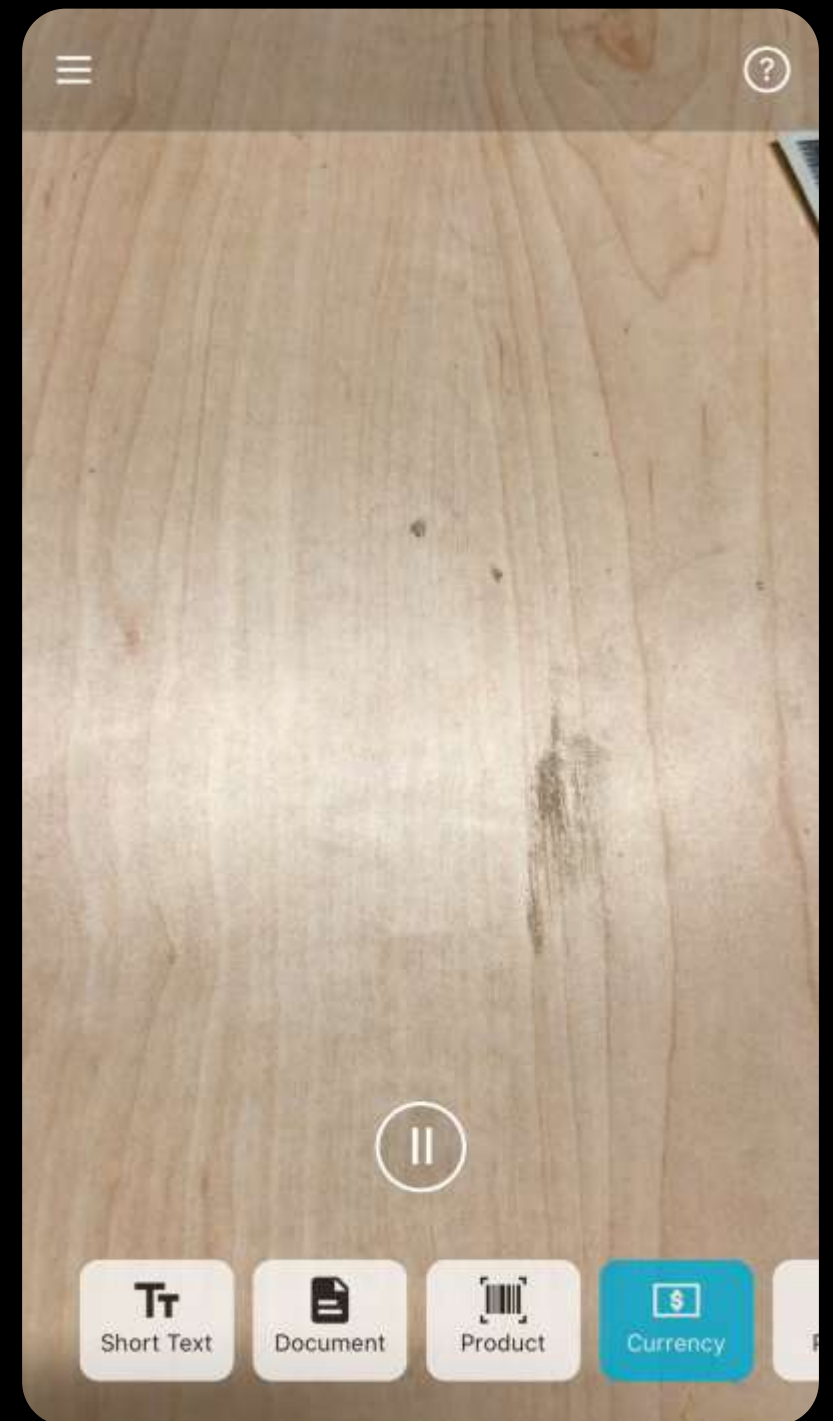
Gives audio beeps to help locate barcodes and then scans them to identify products





# Currency

Identifies currency bills when paying with cash



**How is this AI Trained?**







Why is this  
**Revolutionary?**



November 14 at 8:13 AM · 🌐

First photo I have taken in 50+ years, hope it came out well. Just discovered my talent for blind photography with my friend Seeing AI. At least, now I can consider an alternate career option :)



**“First photo I have taken in 50+ years, hope it came out well. Just discovered my talent for blind photography with my friend Seeing AI. At least, *now* I can consider an alternate career option 😊”**







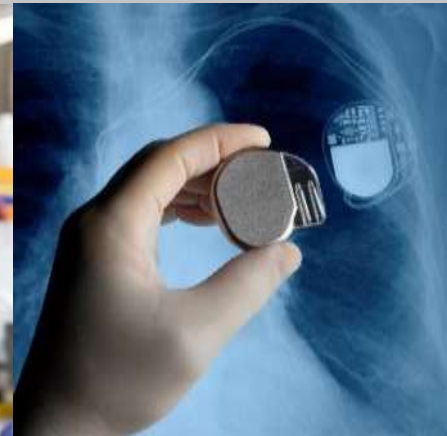
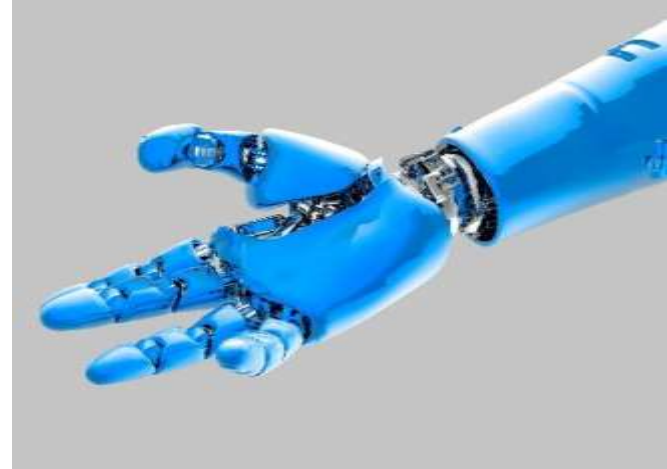




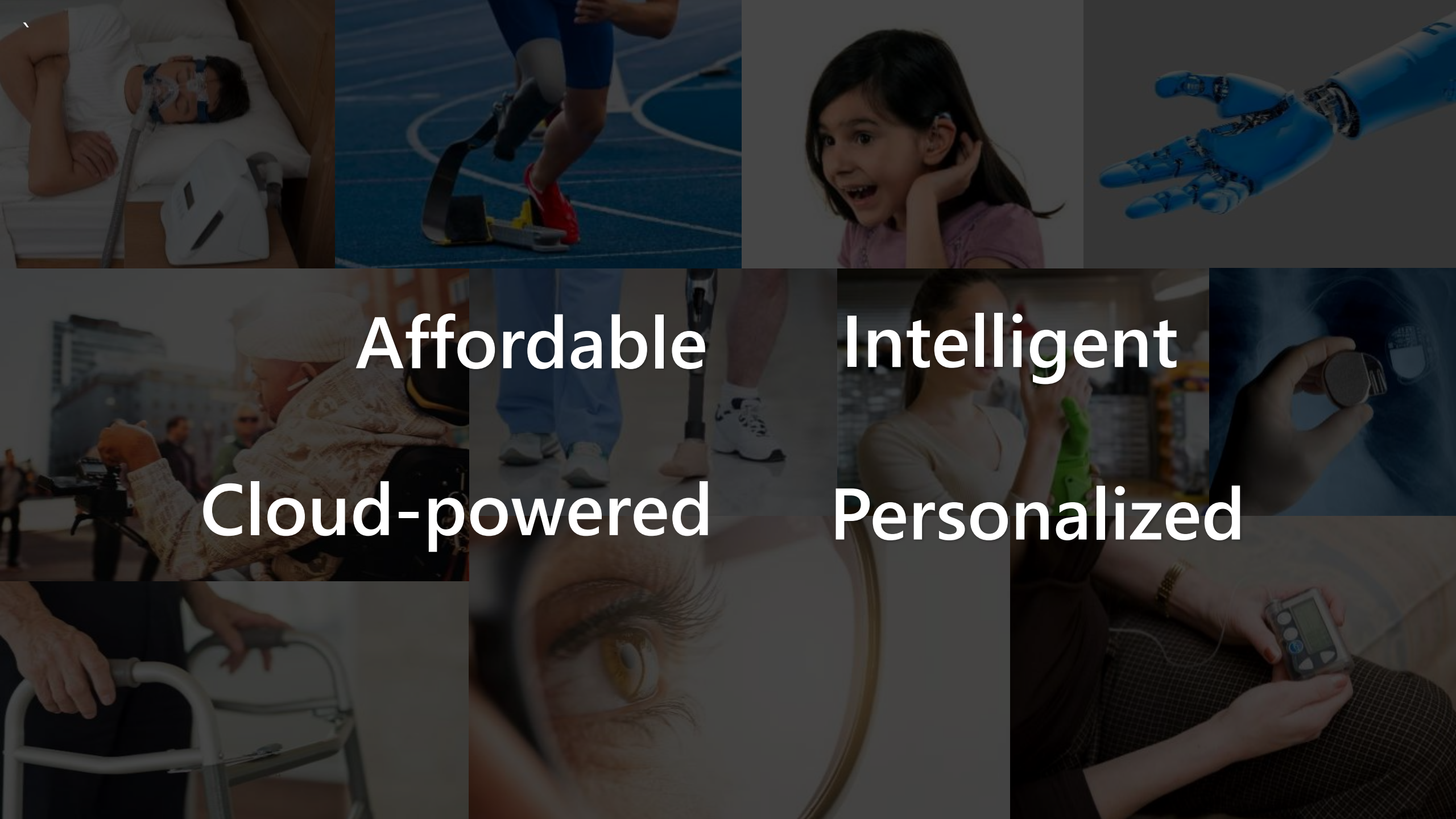












Affordable

Intelligent

Cloud-powered

Personalized

**Technology is the great equalizer.**

# 4 Key Ingredients



# 1.

# Compute

Great Technology Needs  
Great Compute

101010  
010101  
101010

Microsoft 365

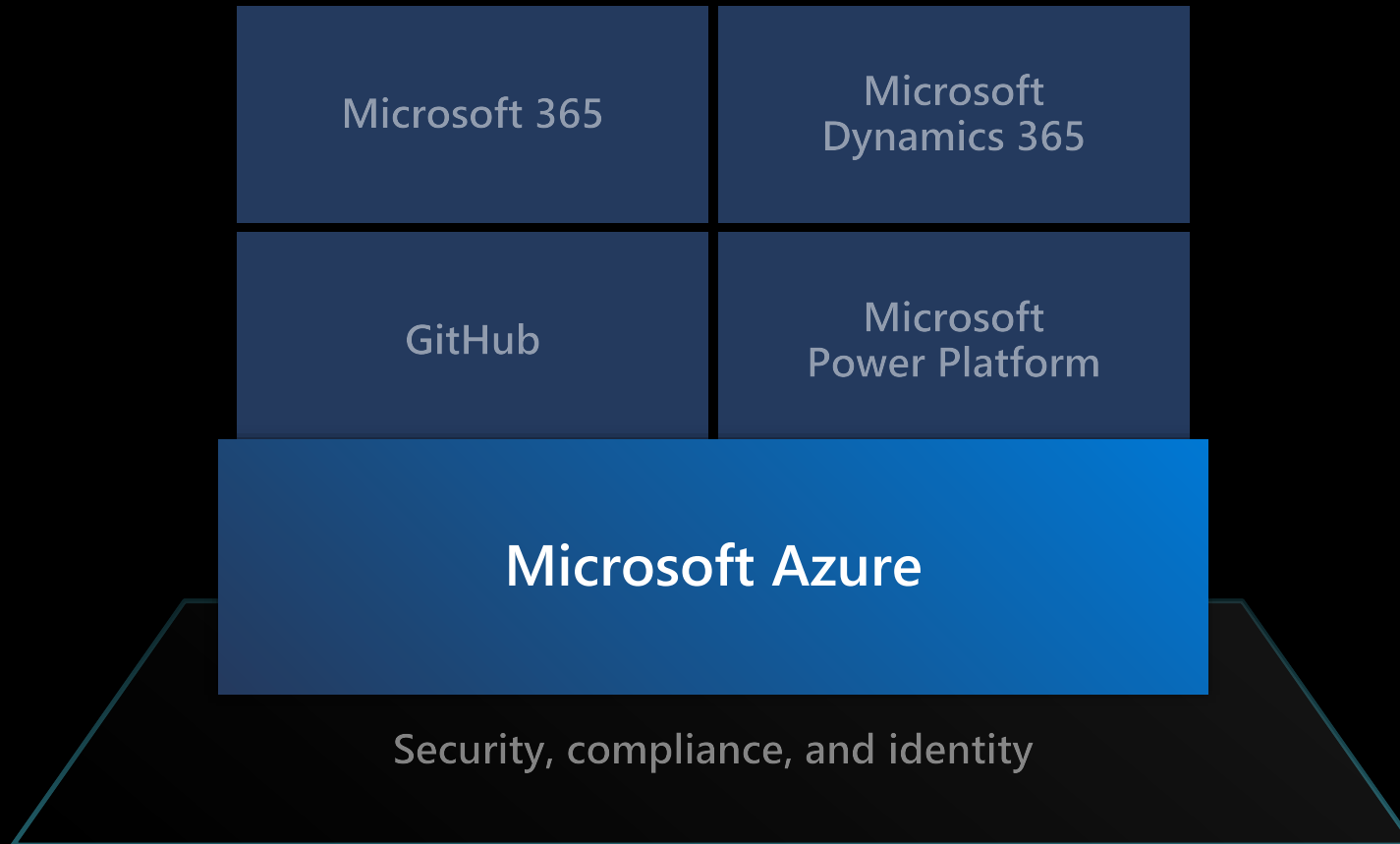
Microsoft  
Dynamics 365

GitHub

Microsoft  
Power Platform

**Microsoft Azure**

Security, compliance, and identity





**61+**

Azure regions  
worldwide

**>90**

Compliance  
certifications



# The world's leading brands run on Azure

## Retail and consumer packaged goods



## Health



## Media and entertainment

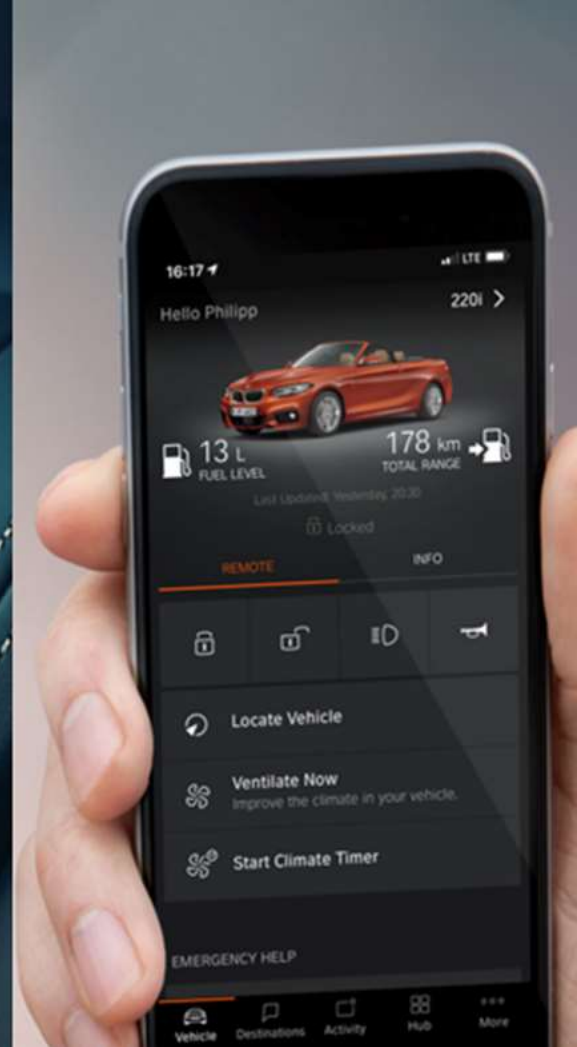


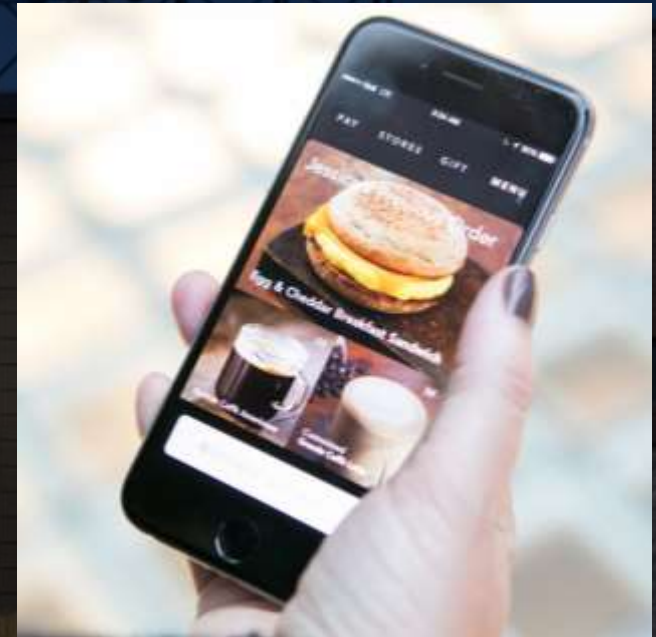
## Financial services



## Manufacturing and automotive







*"Just like their relationship with a barista, customers receive the same care and personalized recommendations when it comes from our digital platforms."*

Jon Francis, SVP Analytics and Market Research





Spotify





“

*Our digital innovation platform built on Microsoft Azure helps us deliver the best possible fan experiences for the world's best sports league.”*

**JOSE CARLOS FRANCO**

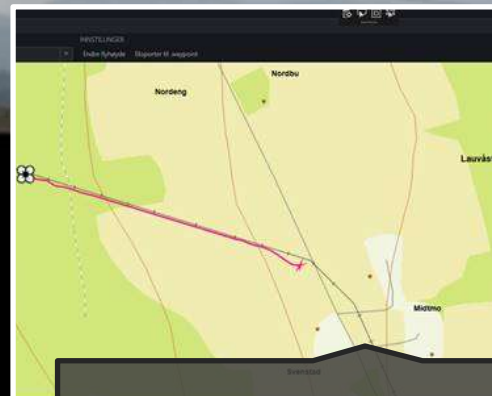
Head of Data and Analytics, LaLiga



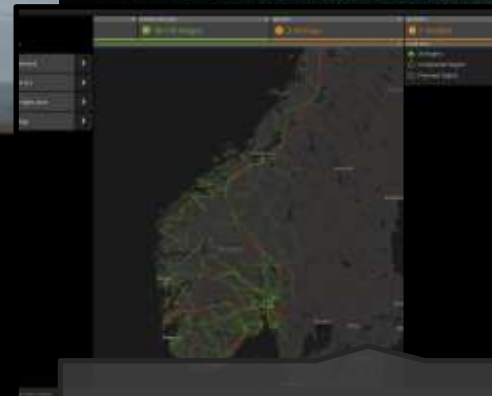




Plan



Execute



Monitor



Analyse



# 2.

# Data

Great Technology Needs  
Great Data



# 50B

connected  
devices by 2030

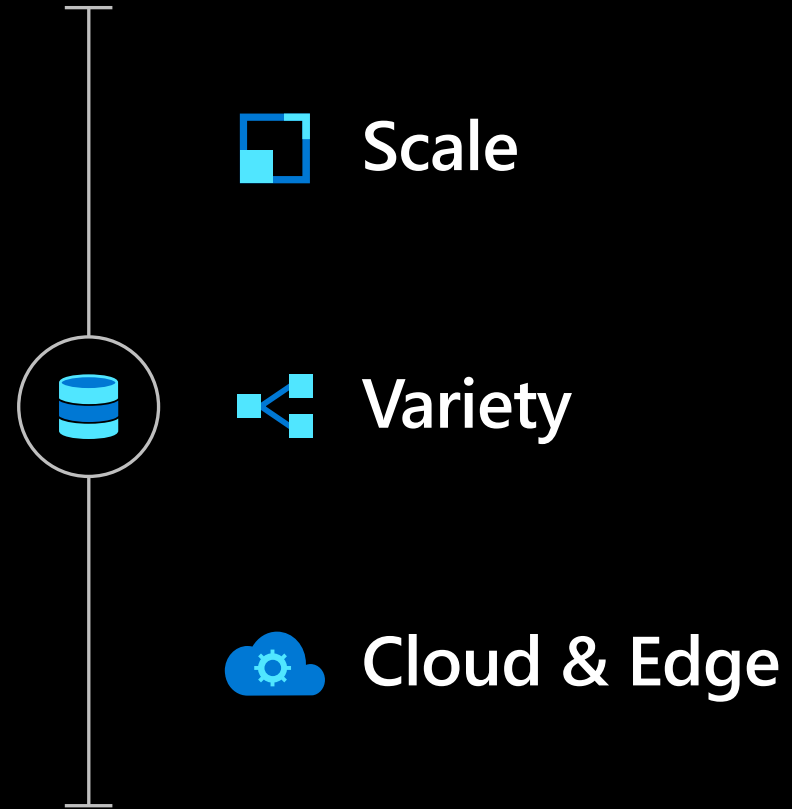
# 90%

of data created in  
the last two years



Azure databases  
& Azure analytics

# Limitless data estate



# 3. Algorithms

## Great Technology Needs Great Algorithms

# AI innovations

## Fueled by Microsoft breakthrough research

Vision



**2016**

Object recognition  
human parity

Speech  
Recognition



**2017**

Speech recognition  
human parity

Reading



**2018**

Reading comprehension  
human parity

Translation



**2018**

Machine translation  
human parity

Speech  
Synthesis



**2018**

Speech synthesis  
near-human parity

Language  
Understanding



**2019**

Conversational QnA  
human parity

Language  
Generation



**2020**

Document summary at  
human parity

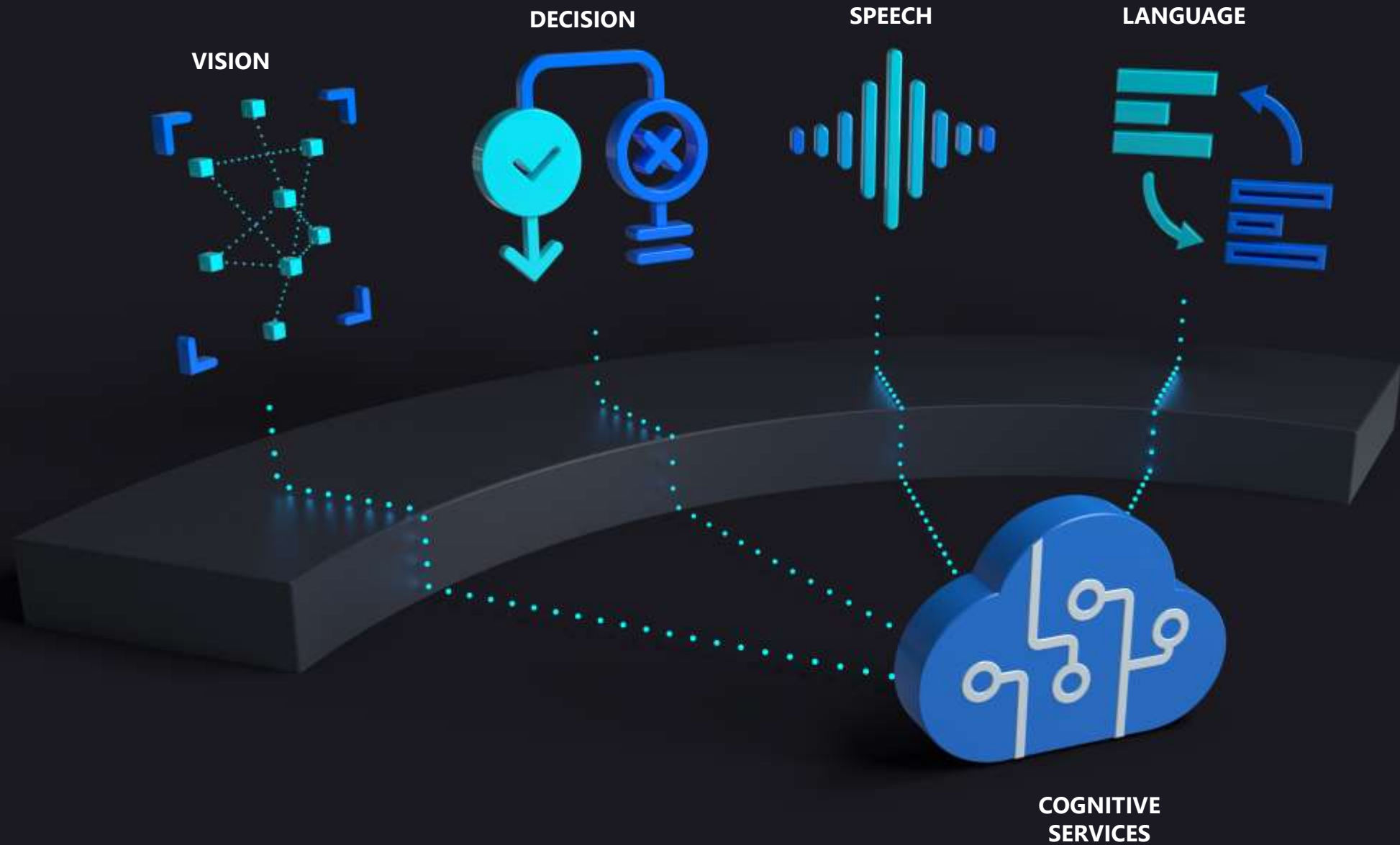


Novel object  
captioning achieves  
human parity – July  
2020

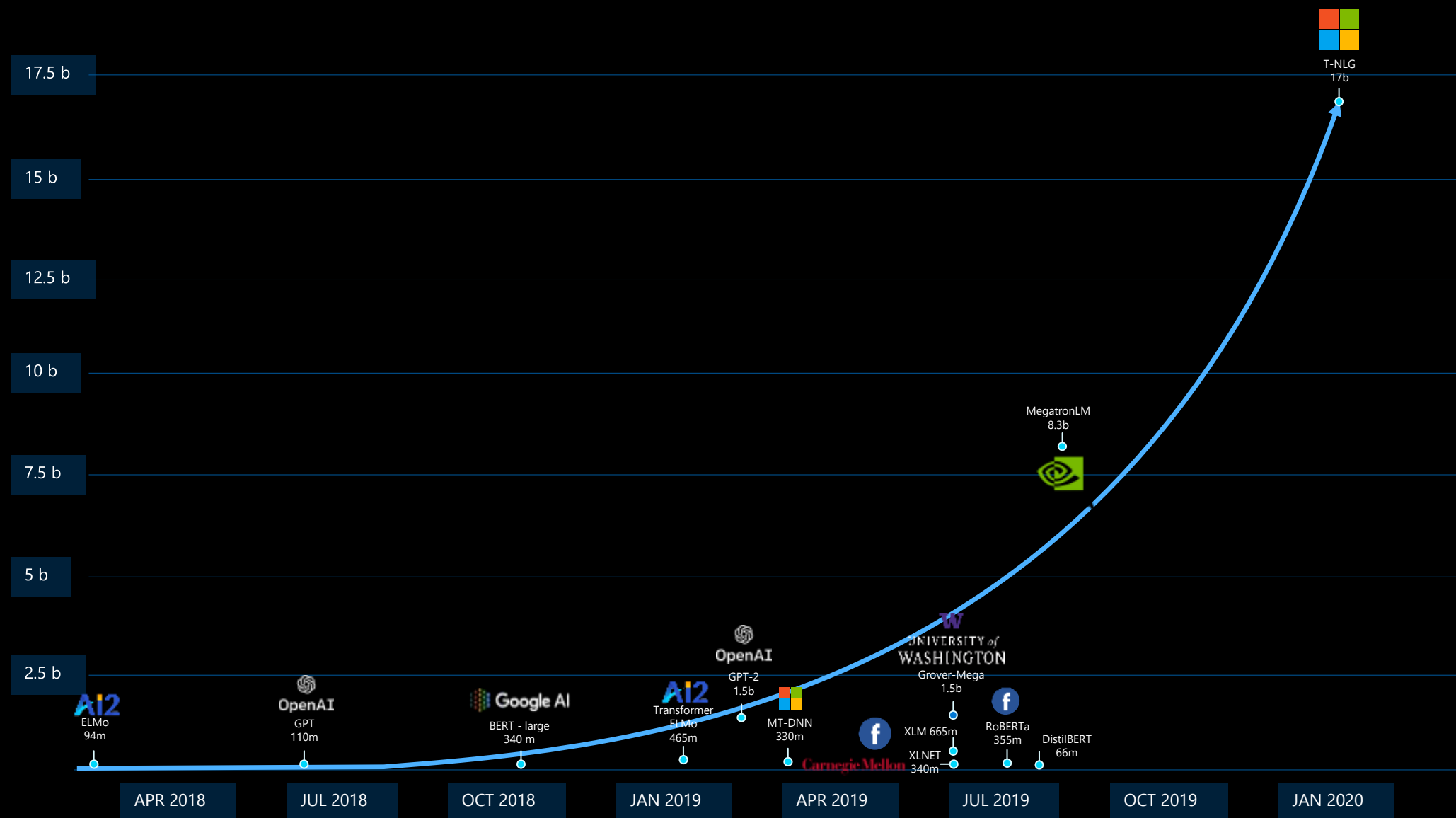


Our result on nocaps: a waffle with ice  
cream on top of a table

# Azure Cognitive Services

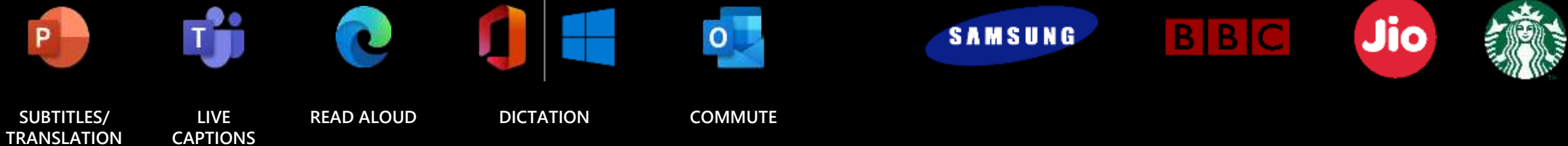


# Delivering Largest Language Model (aka.ms/AlatScale)





# Customer Delight



- Industry Leading Technologies
- Barrier-breaking Languages Coverage
- Unique Customization Capabilities
- Dominant Strategy Differentiation

# Everyday AI by the numbers

1  
BILLION

Slides designed with **Design Ideas** in PowerPoint

1  
BILLION

Images captioned by **Automatic Alt-Text** in PowerPoint and Word

5  
BILLION

Threats detected on devices every month

14  
MILLION

People worldwide are using **Learning Tools** across 45 languages

16  
HOURS

Annual savings from **Editor AutoCorrect** for 10 events per email and 20 emails per day

53%

More clicks on **Recommended Files in Office.com** upon leveraging machine learning





# 4. Values

## Great Technology Needs Great Values





Our  
approach

## Responsible AI

Fairness

Reliability

Inclusivity

Privacy

Transparency

Accountability



NITROGEN  
19ppm

Recommendation:  
25ppm

POPULATION  
18%  
121809

## AI for Good

AI for Earth

AI for Accessibility

AI for Humanitarian Action





Carbon negative  
by 2030

\$1 billion climate  
innovation fund  
Remove 1 billion  
historical carbon  
emissions by 2050



An aerial photograph of a large, diverse crowd of people crossing a wide zebra crossing. The people are seen from above, moving across the white stripes. The image has a dark, teal-blue tint. The text "Building A Better Future Together" is centered over the image in a white, sans-serif font.

Building A Better Future Together





# Enabling Technologies in a time of need





# Thank You

**Anand Raman**  
Azure AI Platform

