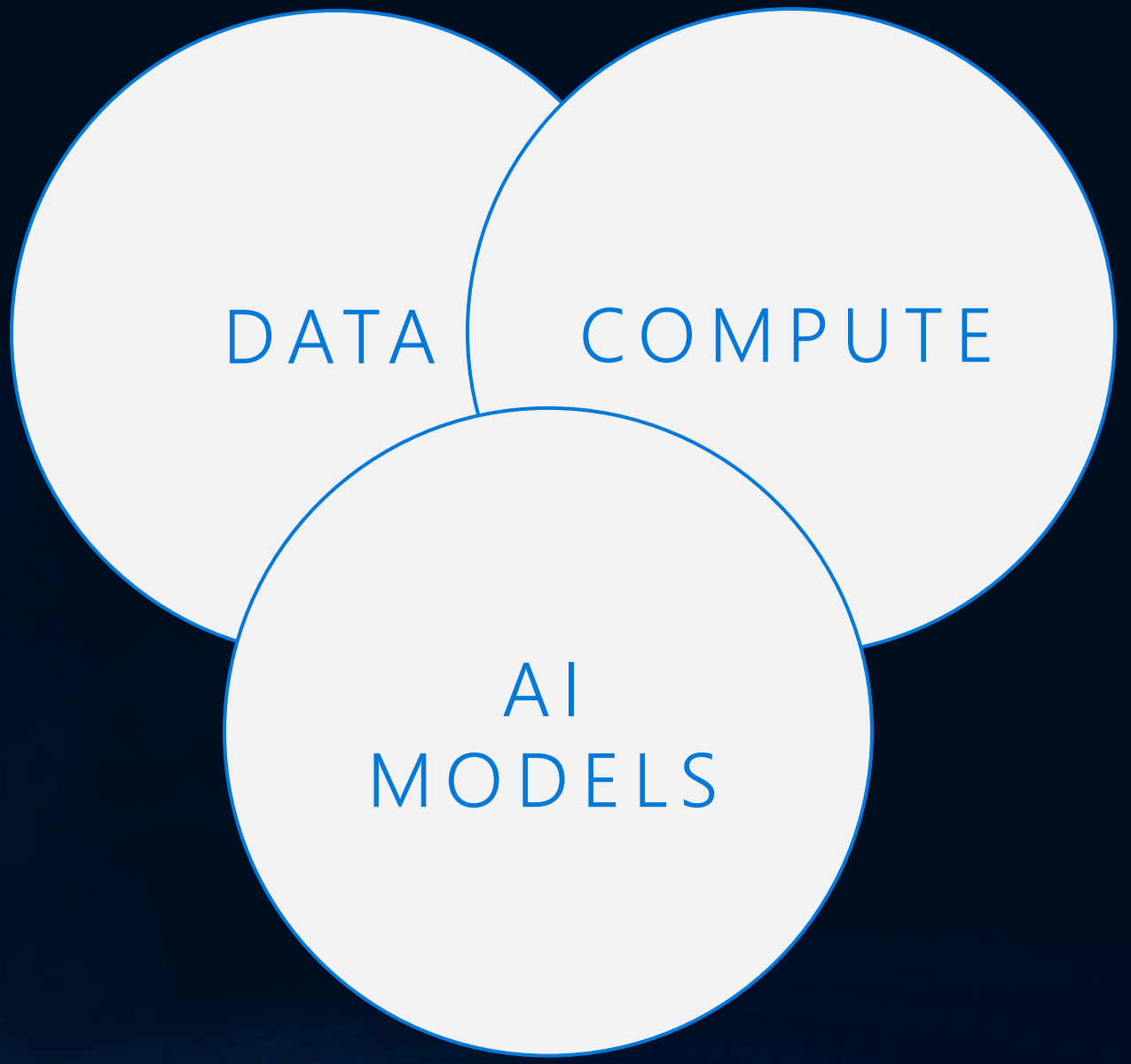
Applications & Possibilities of AI

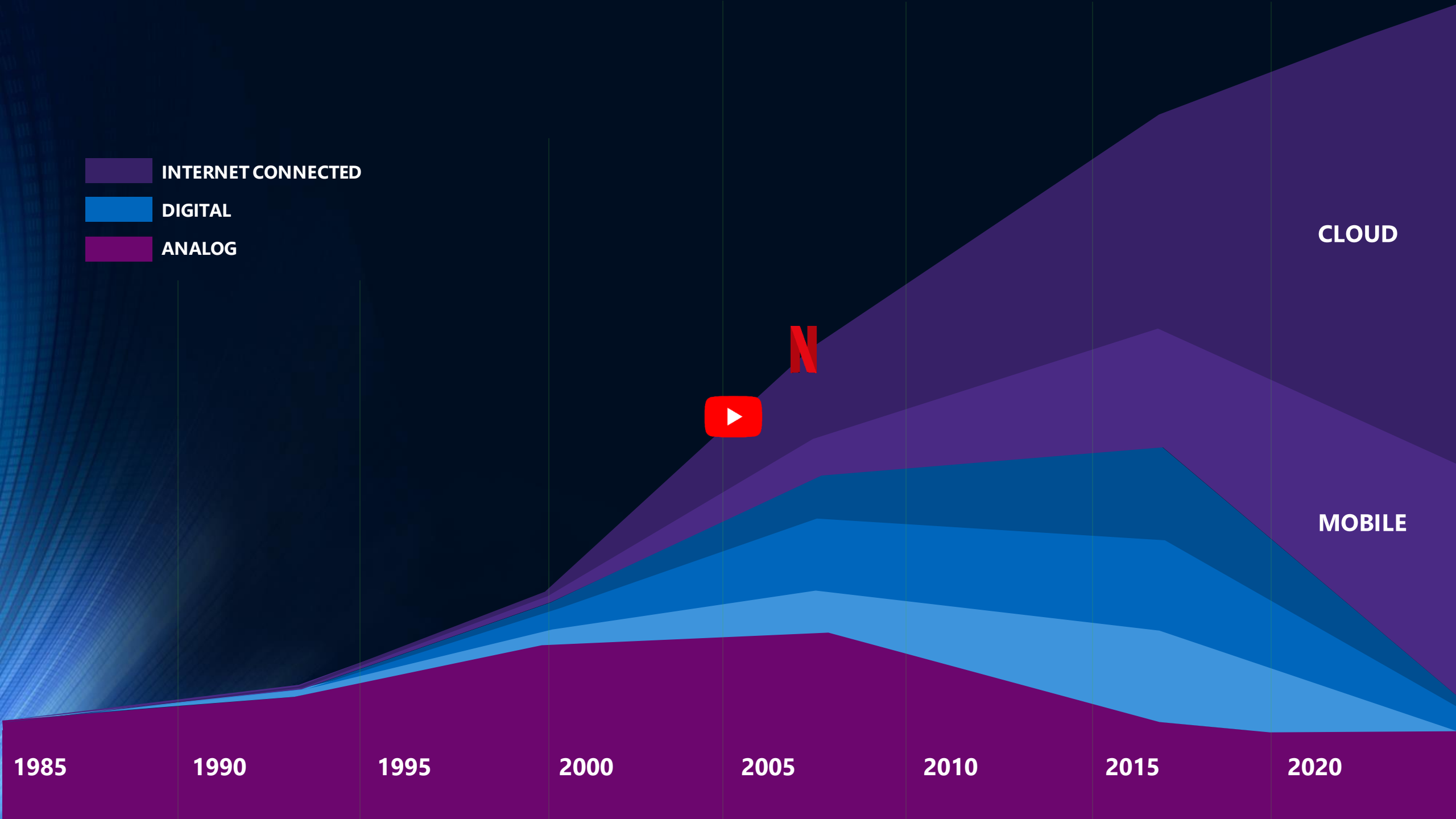
SEAN ALEXANDER

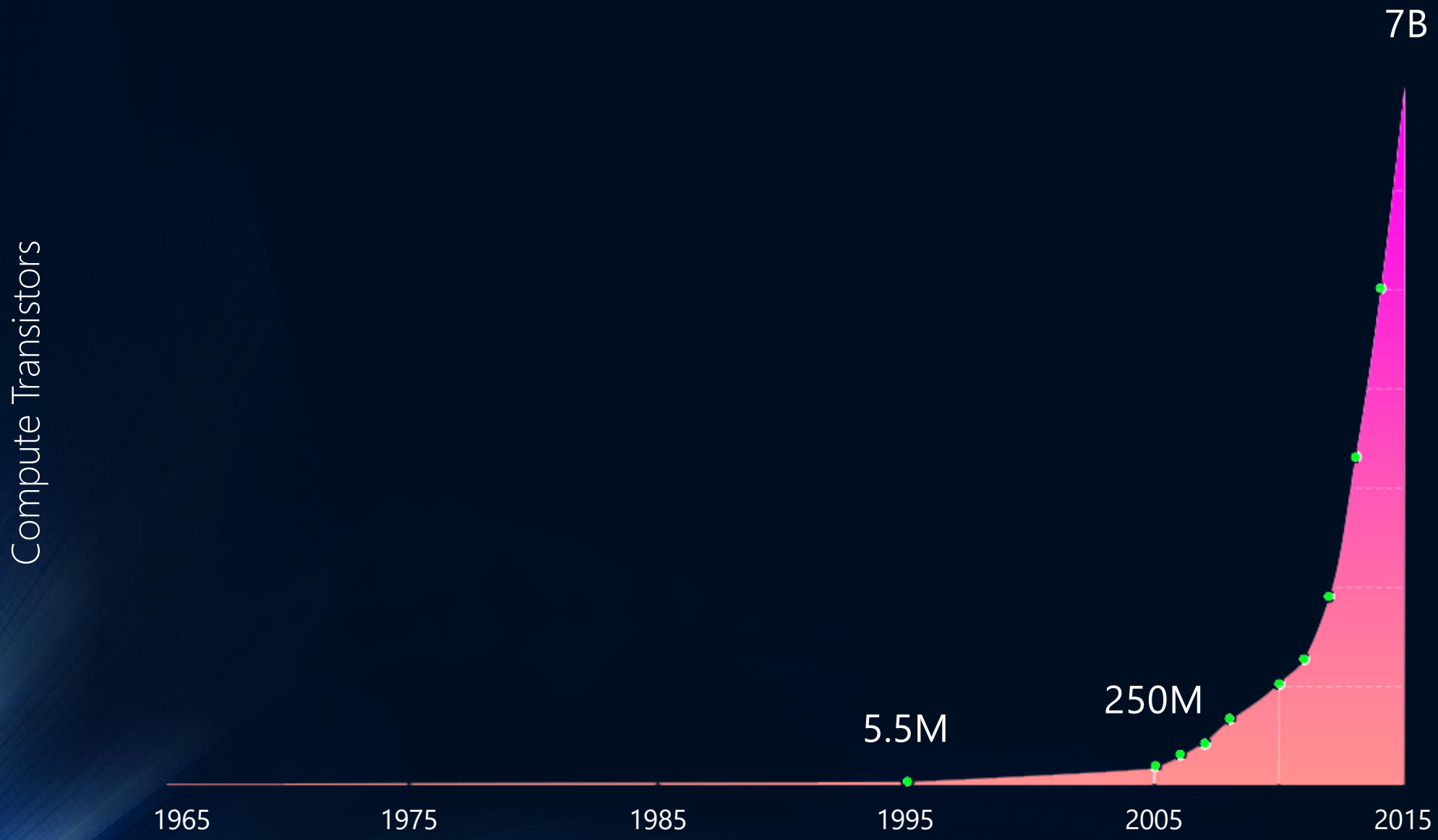
FORMER PRINCIPAL DIRECTOR, MICROSOFT AI

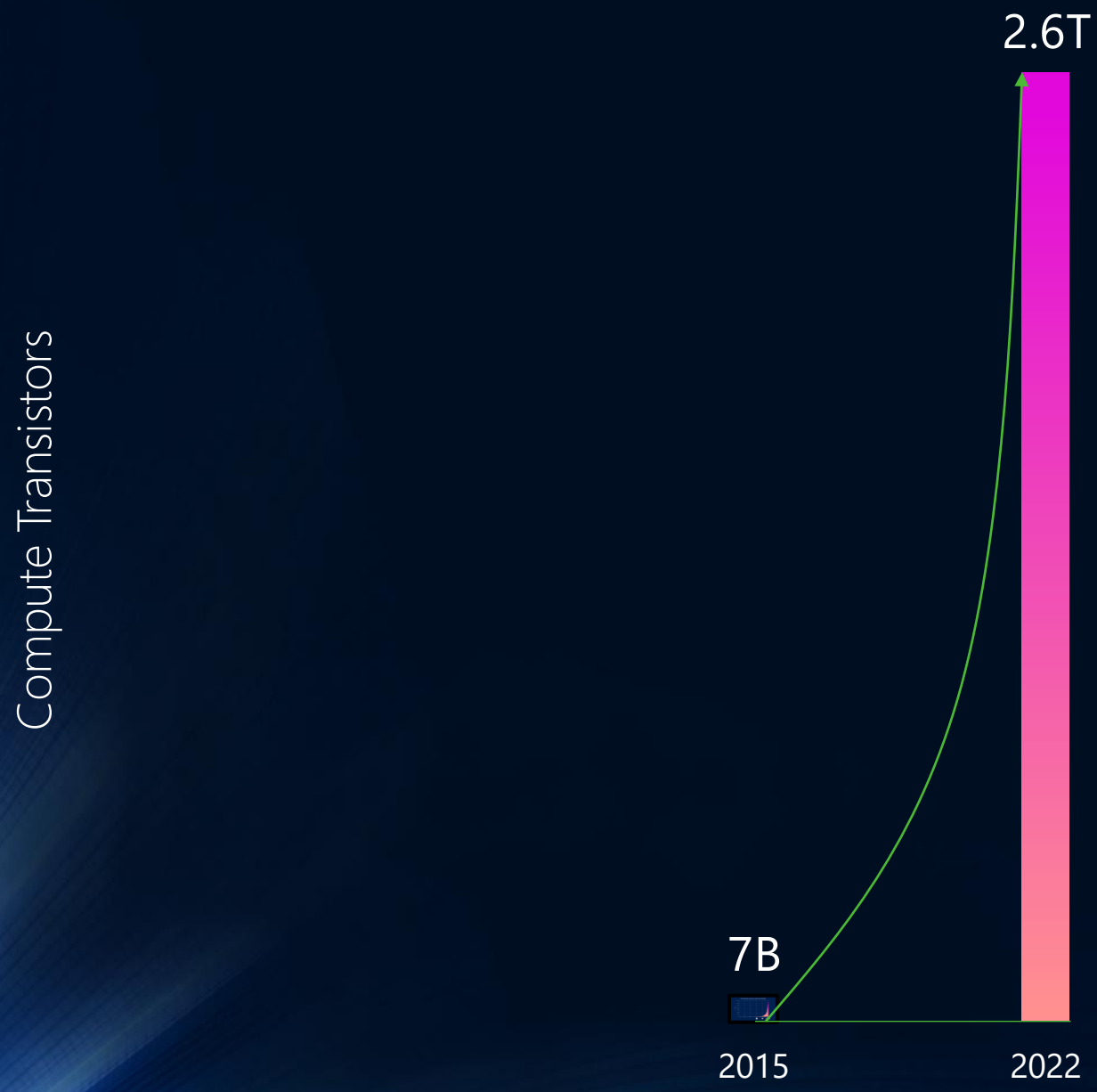
SeanAlex
in/SeanAlex

Why Now?


DATA
COMPUTE
AI
MODELS

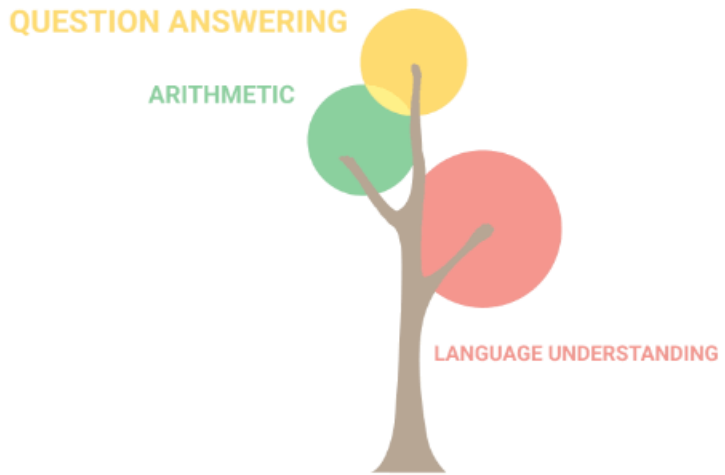

INTERNET CONNECTED
DIGITAL
ANALOG
CLOUD
MOBILE
1985
1990
1995
2000
2005
2010
2015
2020


Compute Transistors
7B
250M
5.5M
1965
1975
1985
1995
2005
2015



37
Million
Percent
Increase

Google



8 billion parameters

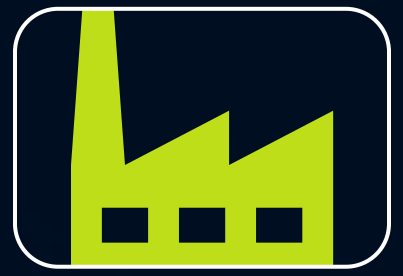
AI Applications

Oklahoma

Knowledge Workers

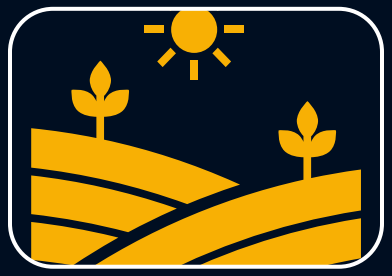
Energy

Cybersecurity



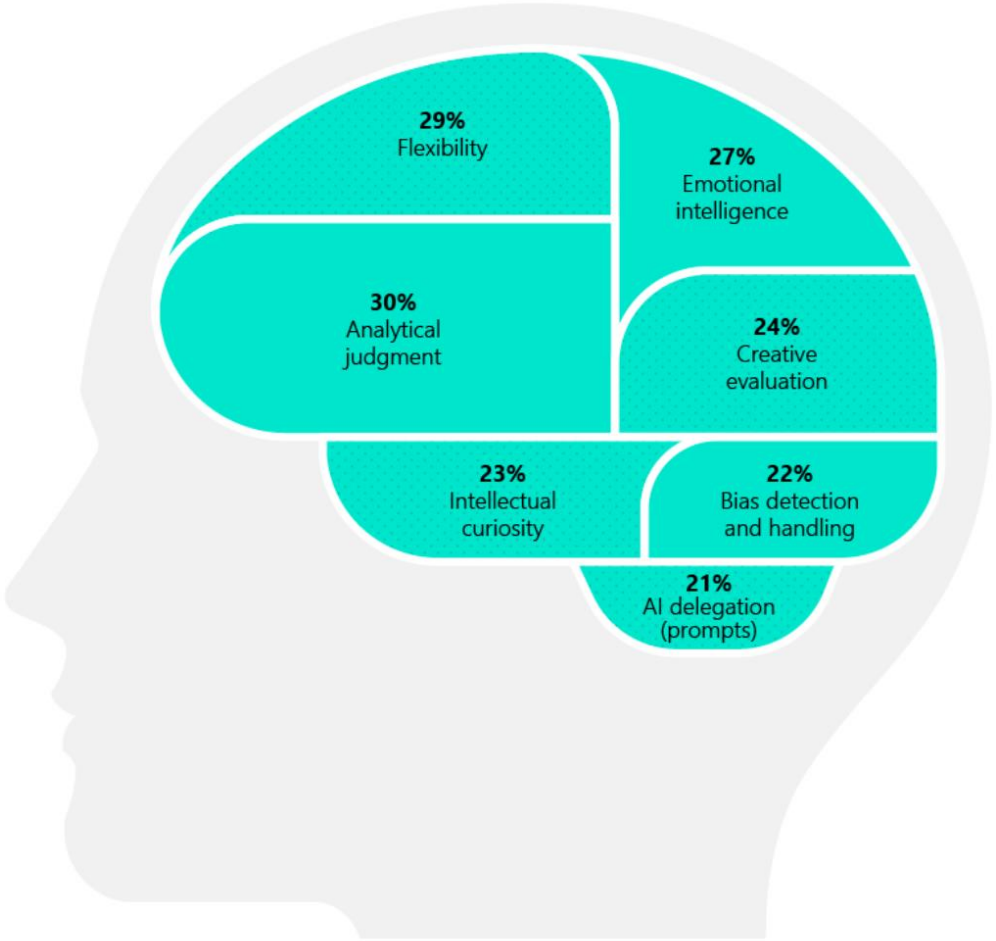
Manufacturing

Education



Agriculture

Developing AI Aptitude

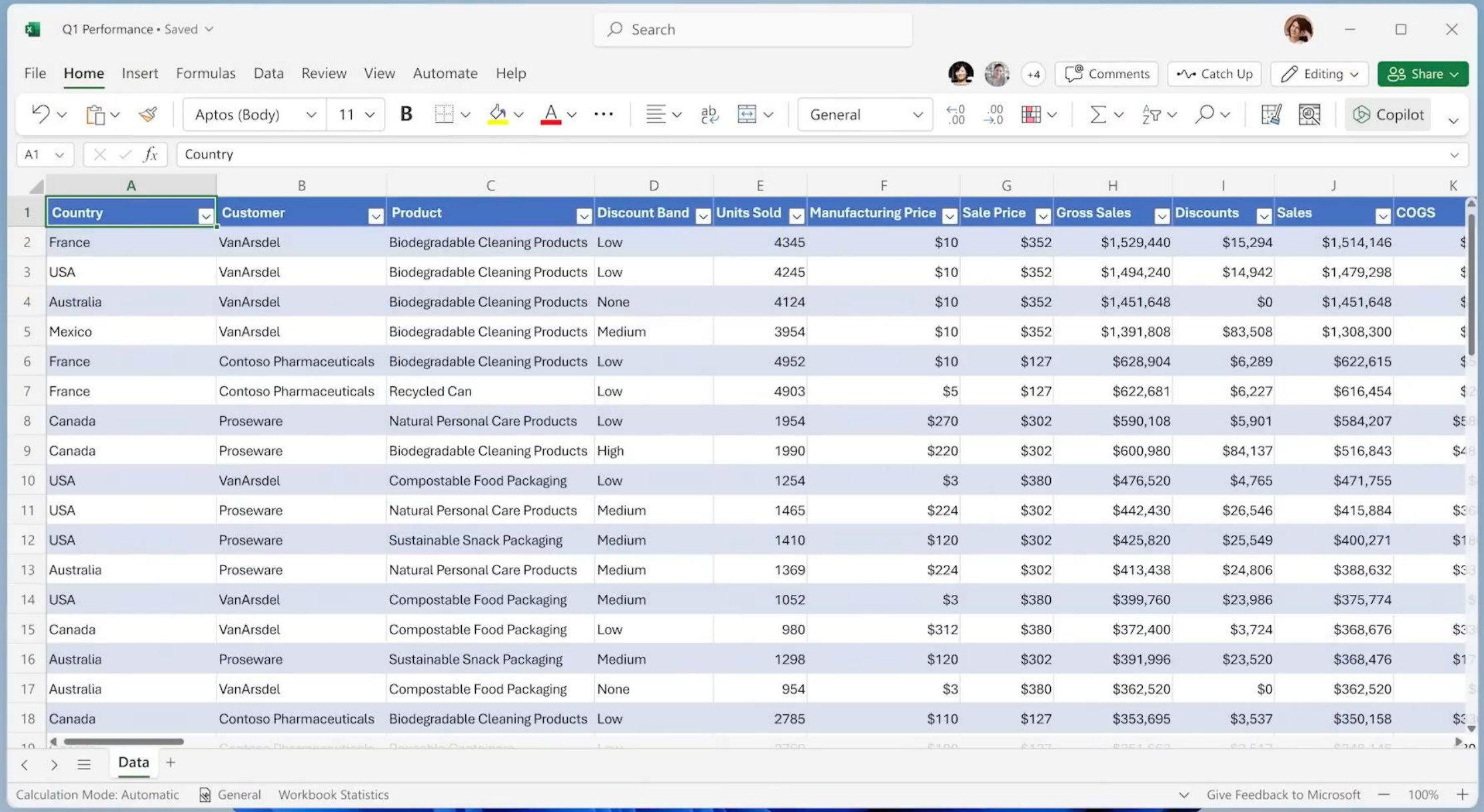


Source: 5/9/2023 - Work Trend Index Report 2023
Data visualizations by Manuel Bortoletti

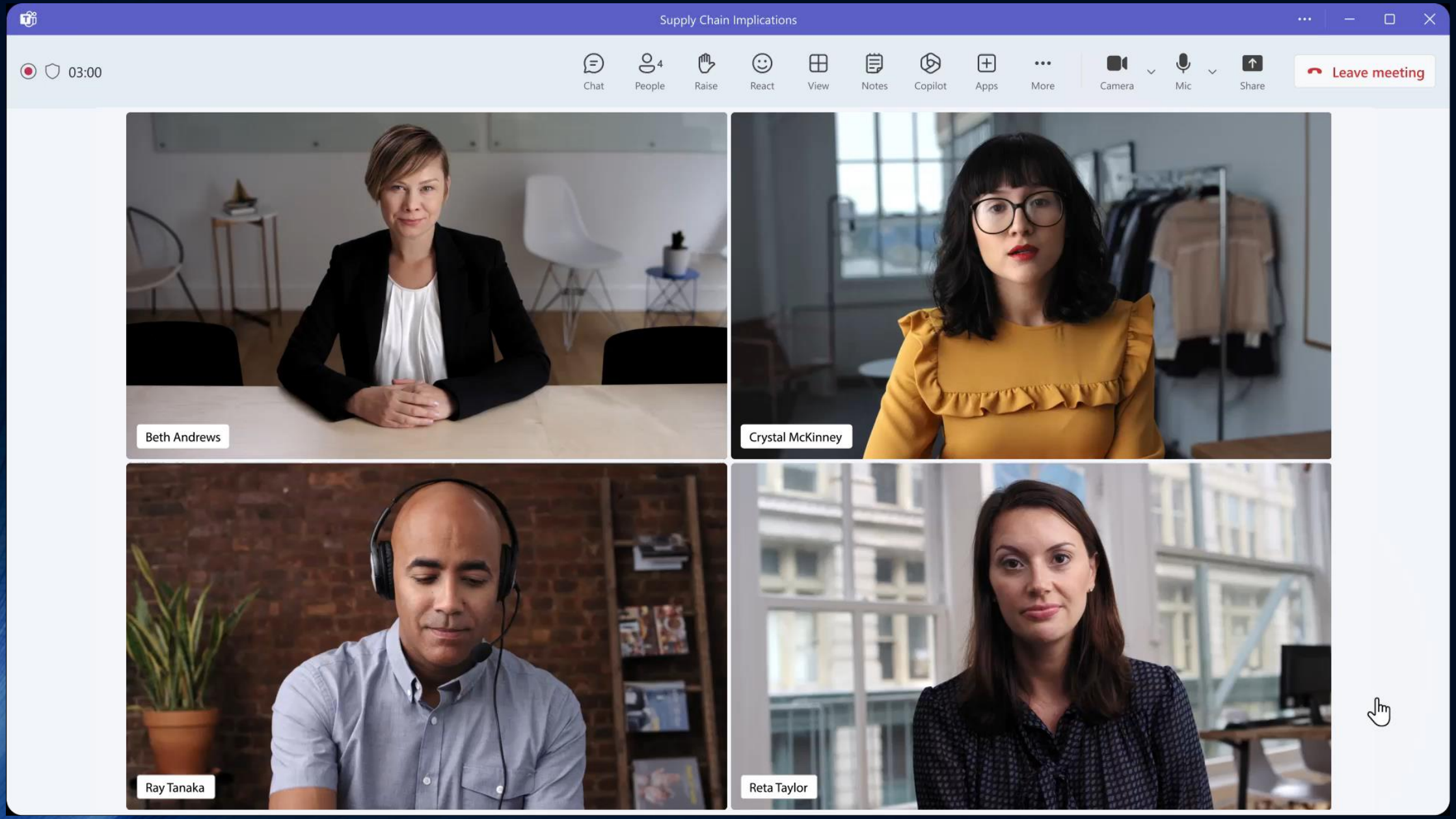
Traditional AI & Machine Learning

Generative AI

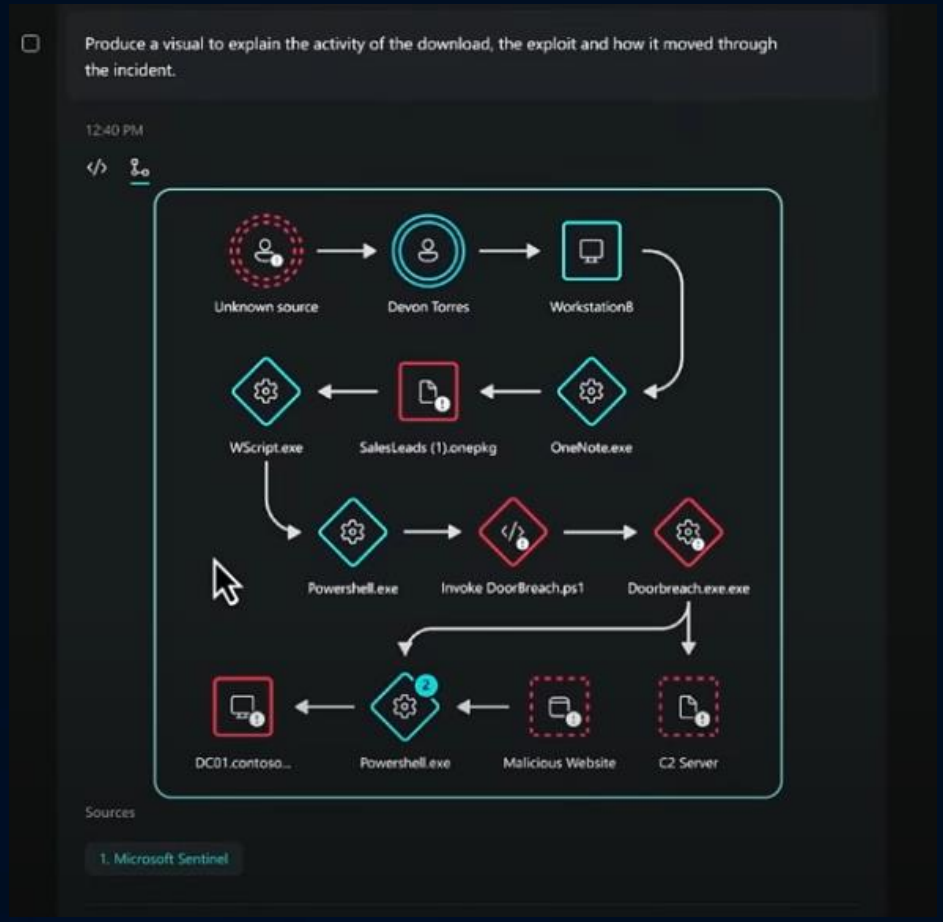
Copilots

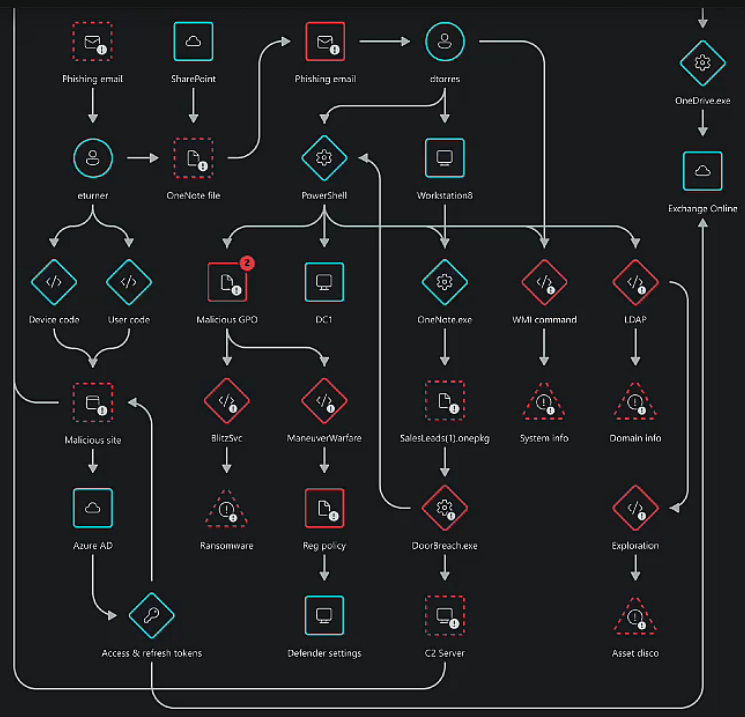


	A	B	C	D	E	F	G	H	I	J	K
1	Country	Customer	Product	Discount Band	Units Sold	Manufacturing Price	Sale Price	Gross Sales	Discounts	Sales	COGS
2	France	VanArsdel	Biodegradable Cleaning Products	Low	4345	$10	$352	$1,529,440	$15,294	$1,514,146	$
3	USA	VanArsdel	Biodegradable Cleaning Products	Low	4245	$10	$352	$1,494,240	$14,942	$1,479,298	$
4	Australia	VanArsdel	Biodegradable Cleaning Products	None	4124	$10	$352	$1,451,648	$0	$1,451,648	$
5	Mexico	VanArsdel	Biodegradable Cleaning Products	Medium	3954	$10	$352	$1,391,808	$83,508	$1,308,300	$
6	France	Contoso Pharmaceuticals	Biodegradable Cleaning Products	Low	4952	$10	$127	$628,904	$6,289	$622,615	$
7	France	Contoso Pharmaceuticals	Recycled Can	Low	4903	$5	$127	$622,681	$6,227	$616,454	$
8	Canada	Proseware	Natural Personal Care Products	Low	1954	$270	$302	$590,108	$5,901	$584,207	$
9	Canada	Proseware	Biodegradable Cleaning Products	High	1990	$220	$302	$600,980	$84,137	$516,843	$
10	USA	VanArsdel	Compostable Food Packaging	Low	1254	$3	$380	$476,520	$4,765	$471,755	
11	USA	Proseware	Natural Personal Care Products	Medium	1465	$224	$302	$442,430	$26,546	$415,884	$
12	USA	Proseware	Sustainable Snack Packaging	Medium	1410	$120	$302	$425,820	$25,549	$400,271	$
13	Australia	Proseware	Natural Personal Care Products	Medium	1369	$224	$302	$413,438	$24,806	$388,632	$
14	USA	VanArsdel	Compostable Food Packaging	Medium	1052	$3	$380	$399,760	$23,986	$375,774	
15	Canada	VanArsdel	Compostable Food Packaging	Low	980	$312	$380	$372,400	$3,724	$368,676	$
16	Australia	Proseware	Sustainable Snack Packaging	Medium	1298	$120	$302	$391,996	$23,520	$368,476	$
17	Australia	VanArsdel	Compostable Food Packaging	None	954	$3	$380	$362,520	$0	$362,520	
18	Canada	Contoso Pharmaceuticals	Biodegradable Cleaning Products	Low	2785	$110	$127	$353,695	$3,537	$350,158	$


Supply Chain Implications
03:00
Chat
People
Raise
React
View
Notes
Copilot
Apps
More
Camera
Mic
Share
Leave meeting
Beth Andrews
Crystal McKinney
Ray Tanaka
Reta Taylor

"Produce a visual to explain the activity of the download, the exploit and how it moved through the incident"





Sources

1. Microsoft Defender
2. Sentinel

Confirm | Off-target | Report | Pin

Type "/" or ask anything about security

Pin board | Share | Export

Alert on compromised account and device on Contoso.com

OneNote | WMI | PowerShell | AMSI | Kinsing | Muhstic | Sabsik | Wacatac

Summary | Pinned items (5)

Alert Summary

This alert indicates that a device belonging to Devon Torres, a user of the contoso.com domain, was targeted by an emerging, financially motivated activity group that uses OneNote attachments to deliver remote access malware. The alert provides details about the suspicious process (ONENOTE.EXE) that was launched from a downloaded file (SalesLeads (1).onepkg) and its parent process (explorer.exe), as well as the device's hostname (workstation8), OS version (Windows 21H2), and risk score (High). The alert also shows the device's last seen time, external and internal IP addresses, and antivirus status. The device has a user-defined tag (ContosoDemo) and is onboarded to Microsoft Defender for Endpoint (MDATP).

Attack Steps

The account dtorres@contoso.com was involved in a series of suspicious actions on the workstation8 host, indicating a possible compromise by a malware campaign.

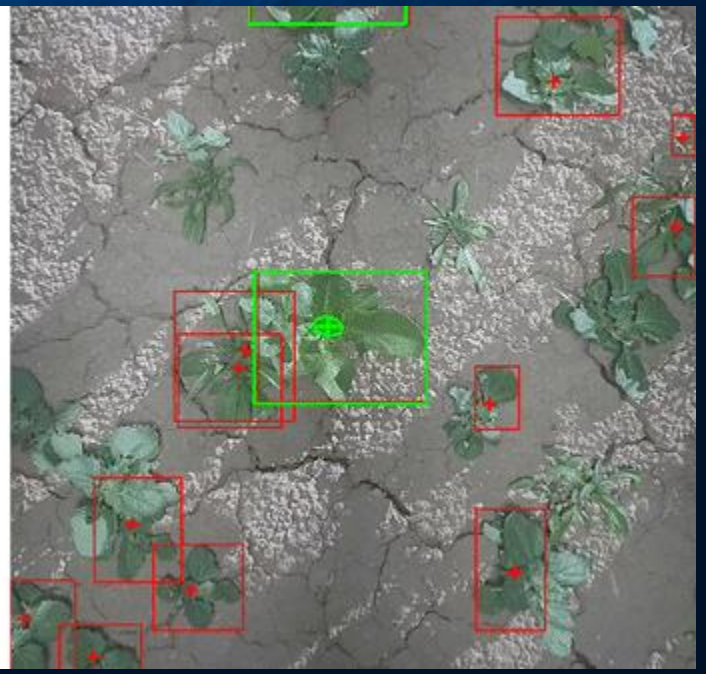
The following attack steps were observed:

- Malicious OneNote package file downloaded
- Malicious scripts executed via WScript.exe
- Attempted AMSI tampering and process injection
- Suspicious Microsoft Defender Antivirus exclusion and startup folder addition
- Suspicious LDAP query and process discovery
- Suspicious WMI process creation
- Suspicious PowerShell command line and script execution

Attack Details

Malicious OneNote package file downloaded

FarmWise



40% Higher quality results

25% Completed more quickly

12% More tasks completed

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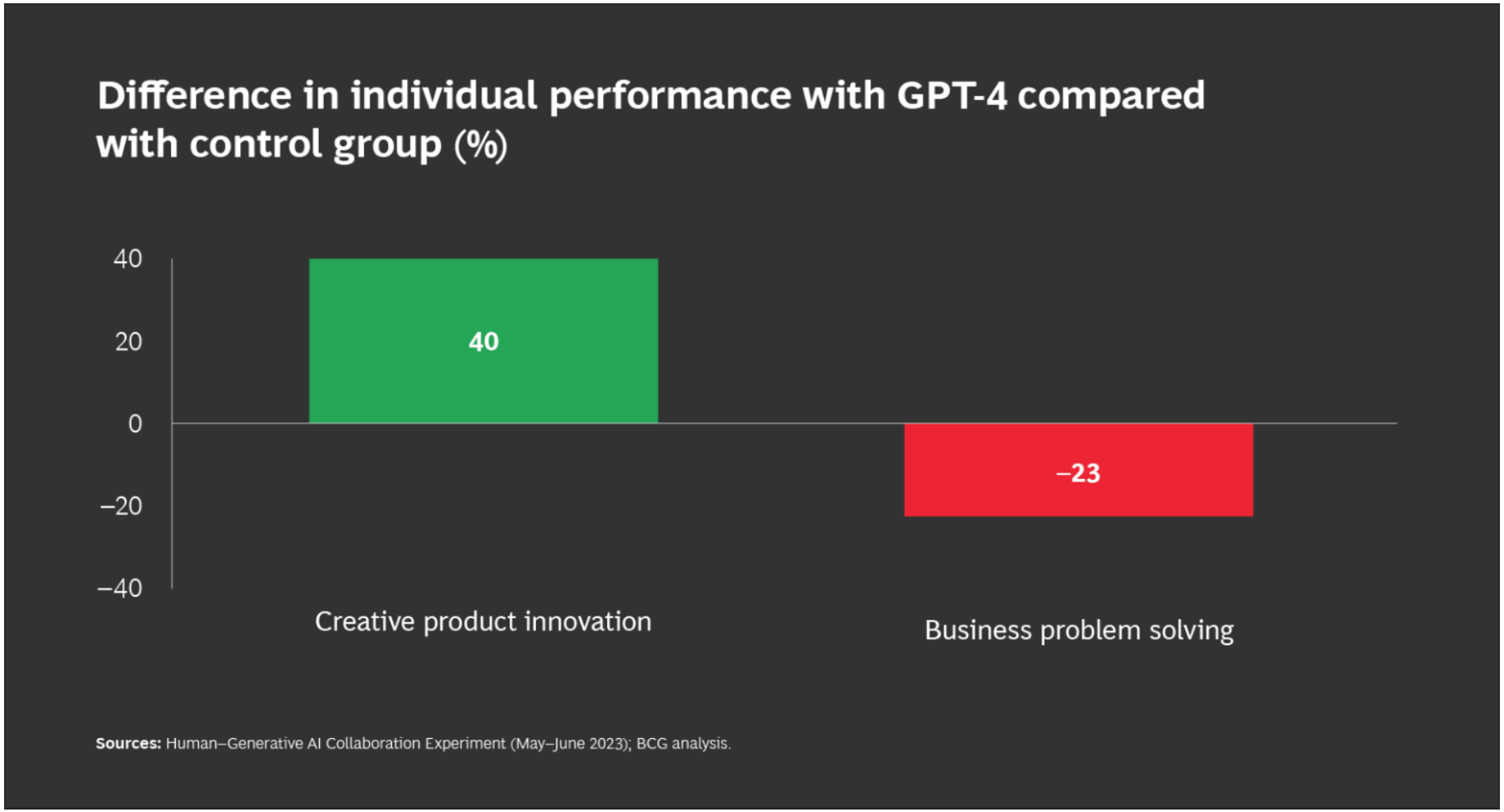
HBS

MIT MANAGEMENT SLOAN SCHOOL

Wharton UNIVERSITY of PENNSYLVANIA

WARWICK THE UNIVERSITY OF WARWICK

Source: 9/16/2023 – Harvard Business School & Prof. Ethan Mollick (oneusefulthing.org)



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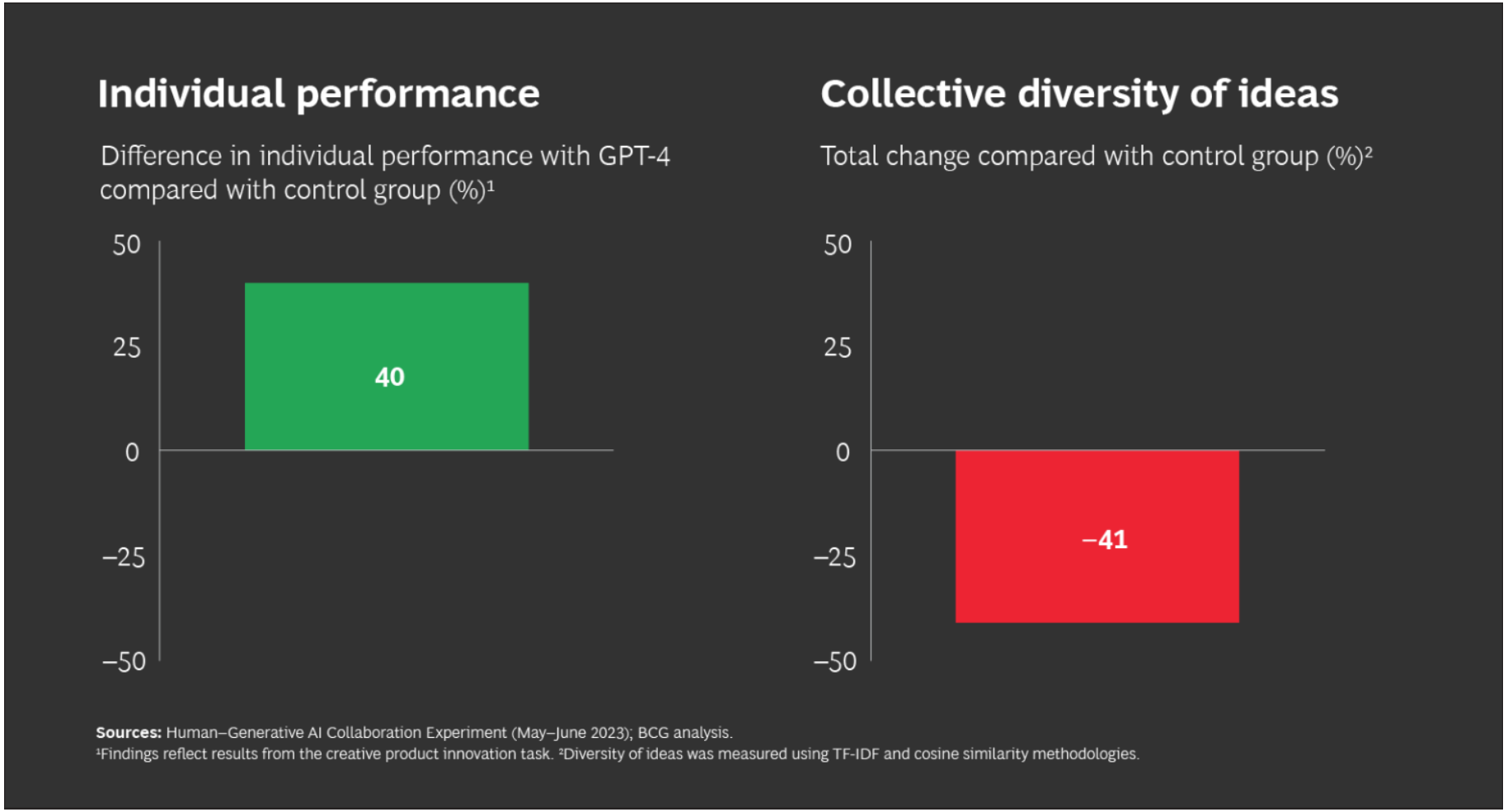

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Possibilities

Responsible AI

Framework

- Fairness
- Reliability & Safety
- Privacy & Security
- Transparency
- Human Accountability

Source: Microsoft Responsible_AI Framework

AI Governance
Healthcare Transformation
AI Datacenter Growth
AI for Oklahoma
Energy & Mfg Co-Innovation
AI Aptitude Training
R&D in Cyber + AI

"Superintelligent AI has the potential to shape the cosmos. If directed wisely, it could be a force for immeasurable good."

- Nick Bostrom
AI Leader

Thank You

Workforce Readiness