

THE NEXT 10 YEARS: TOTAL TRANSFORMATION...

...and what it all means for Supply Chains, Logistics and Transportation



Gerd Leonhard, Futurist

Made with ChatGPT4/Dalle and RunwayML



MODEx 2024
GEORGIA WORLD CONGRESS CENTER
ATLANTA | MARCH 11-14
[MODEXSHOW.COM](https://modexshow.com)

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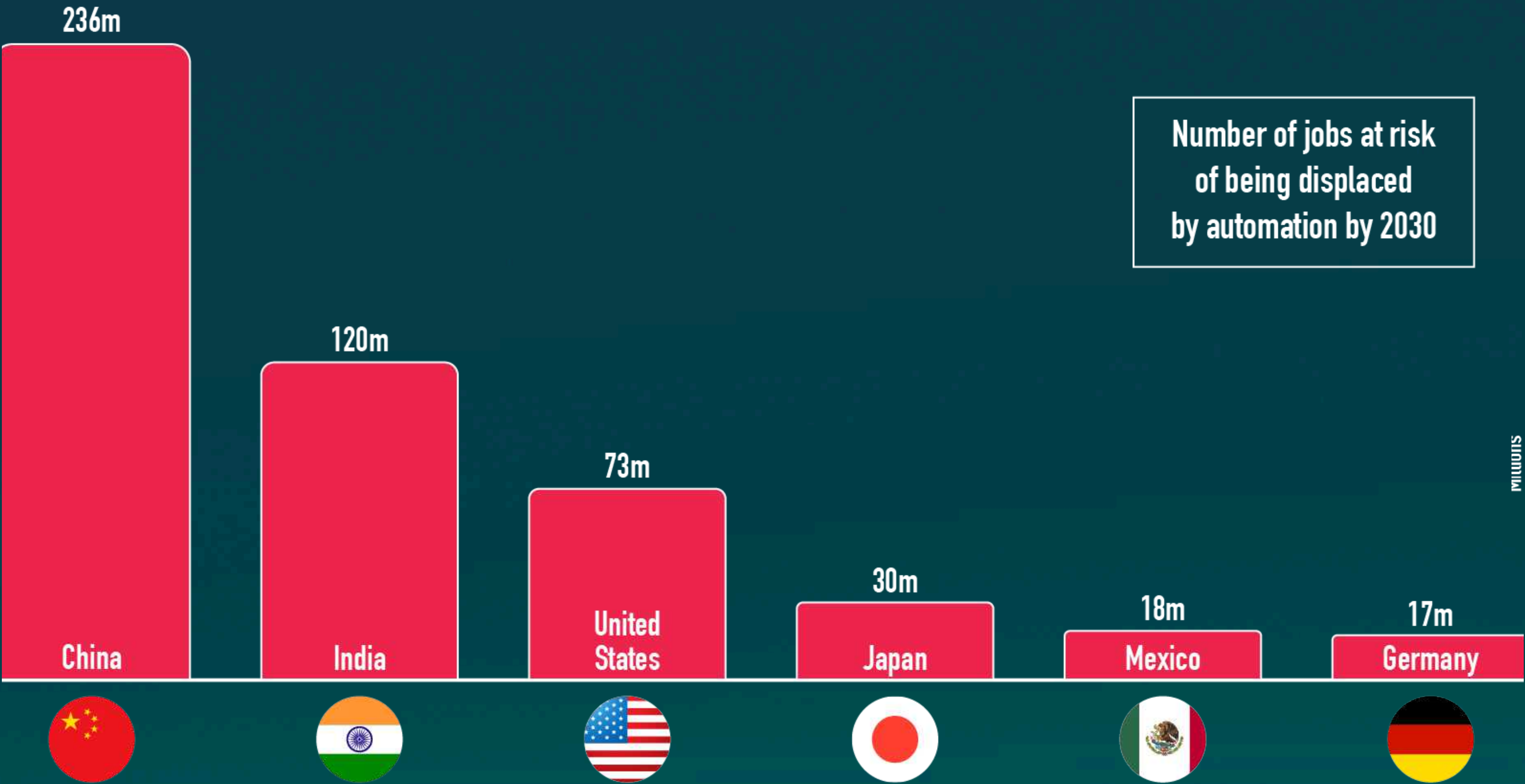
The doors aren't closing – they are OPENING



The doors aren't closing – they are OPENING

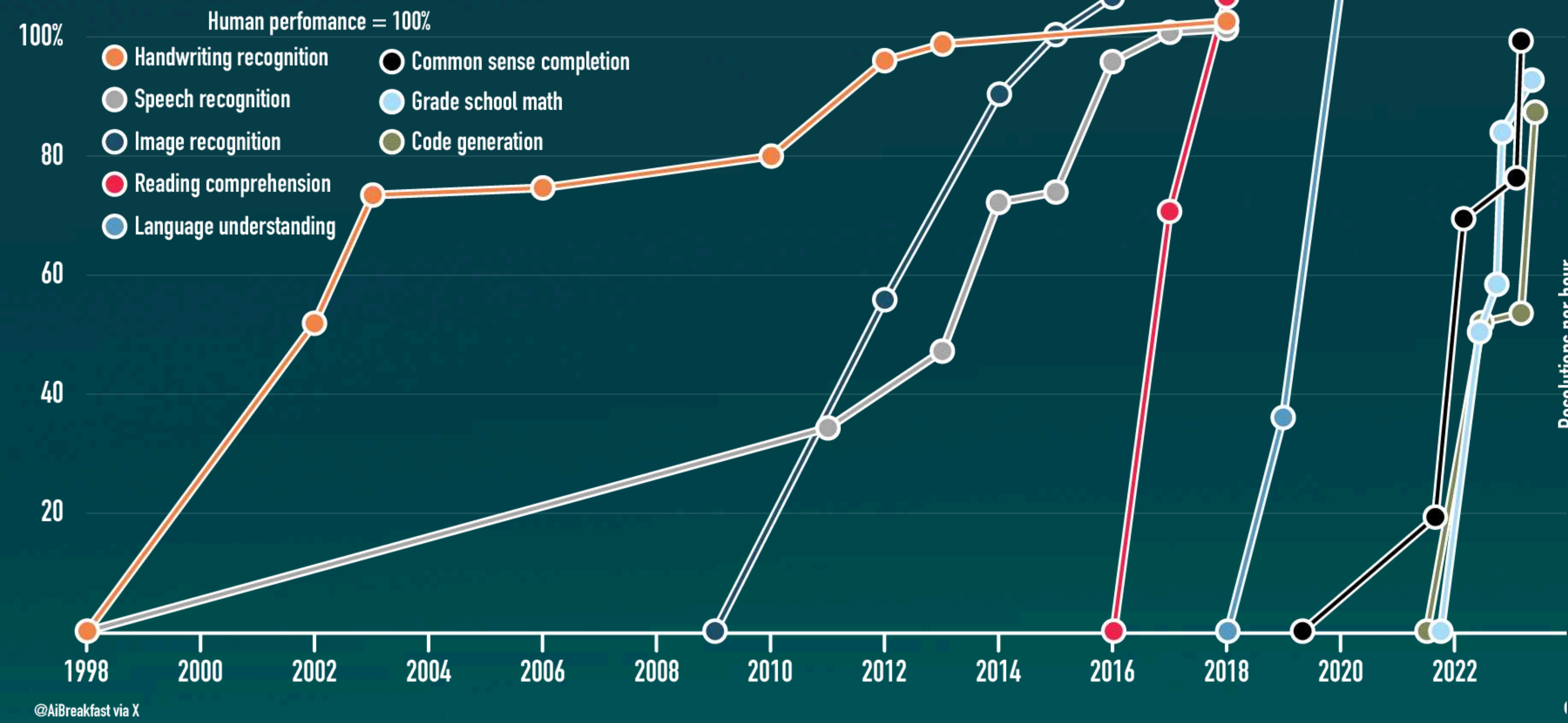


“We should be optimistic not because our problems are smaller than we thought, but because our capacity to solve them is larger than we thought” Kevin Kelly

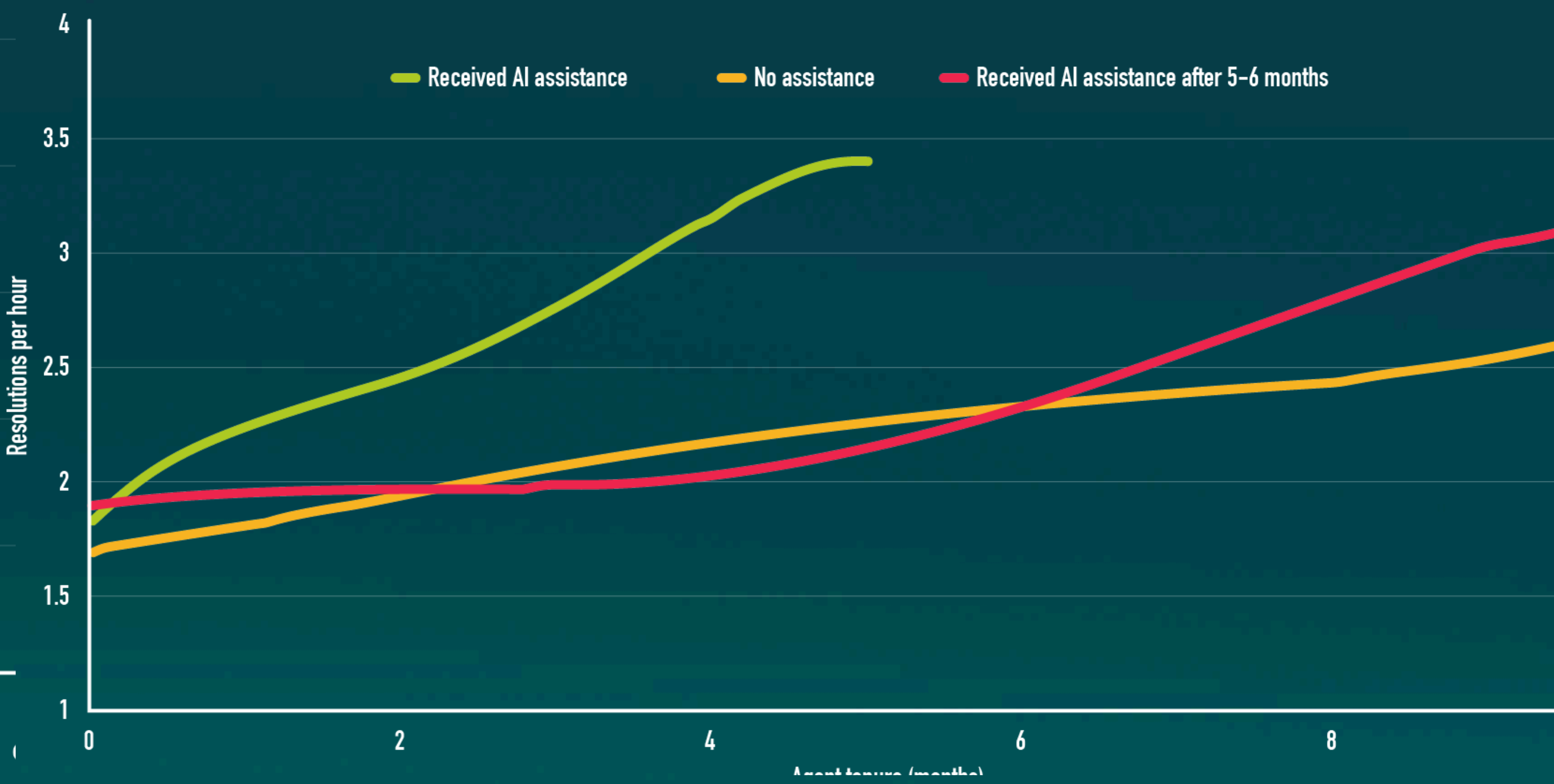


“We should be optimistic not because our problems are smaller than we thought, but because our capacity to solve them is larger than we thought” Kevin Kelly

STATE-OF-THE-ART AI PERFORMANCE
RELATIVE TO HUMAN PERFORMANCE

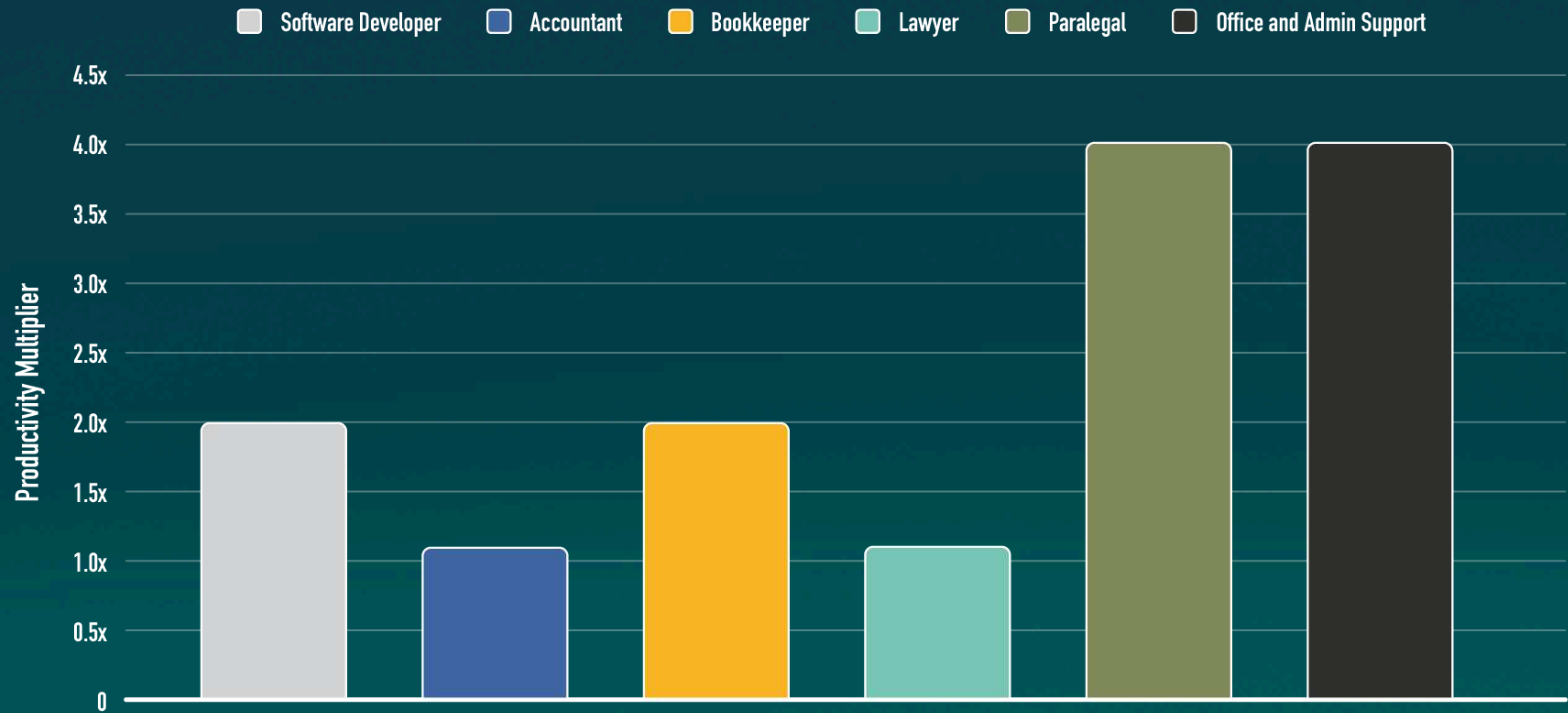


AI ALLOWS WORKERS TO GAIN SIX MONTHS OF EXPERIENCE
IN ONLY TWO MONTHS

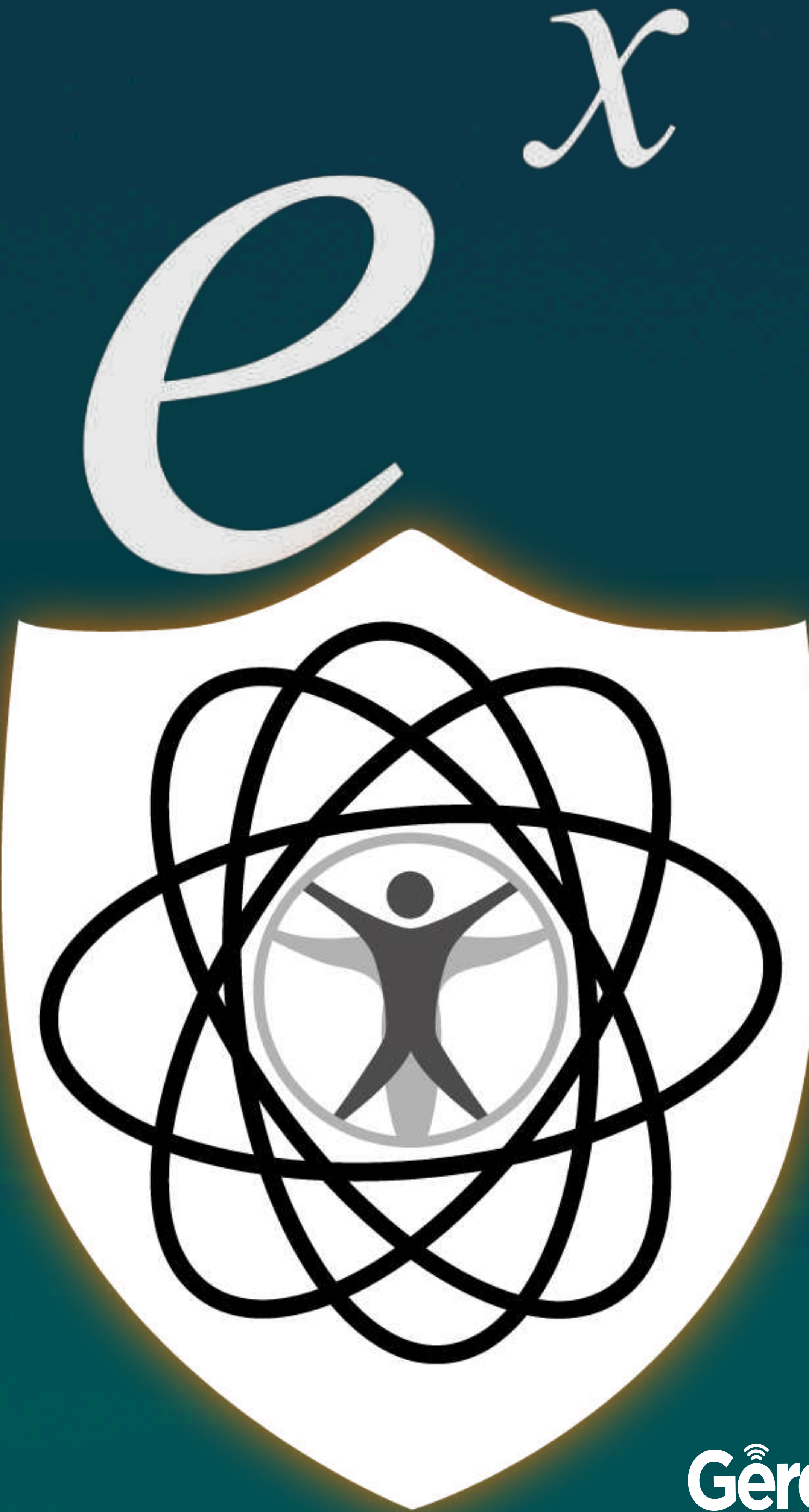


Our capacity to work better – and differently – is increasing **EXPONENTIALLY** *

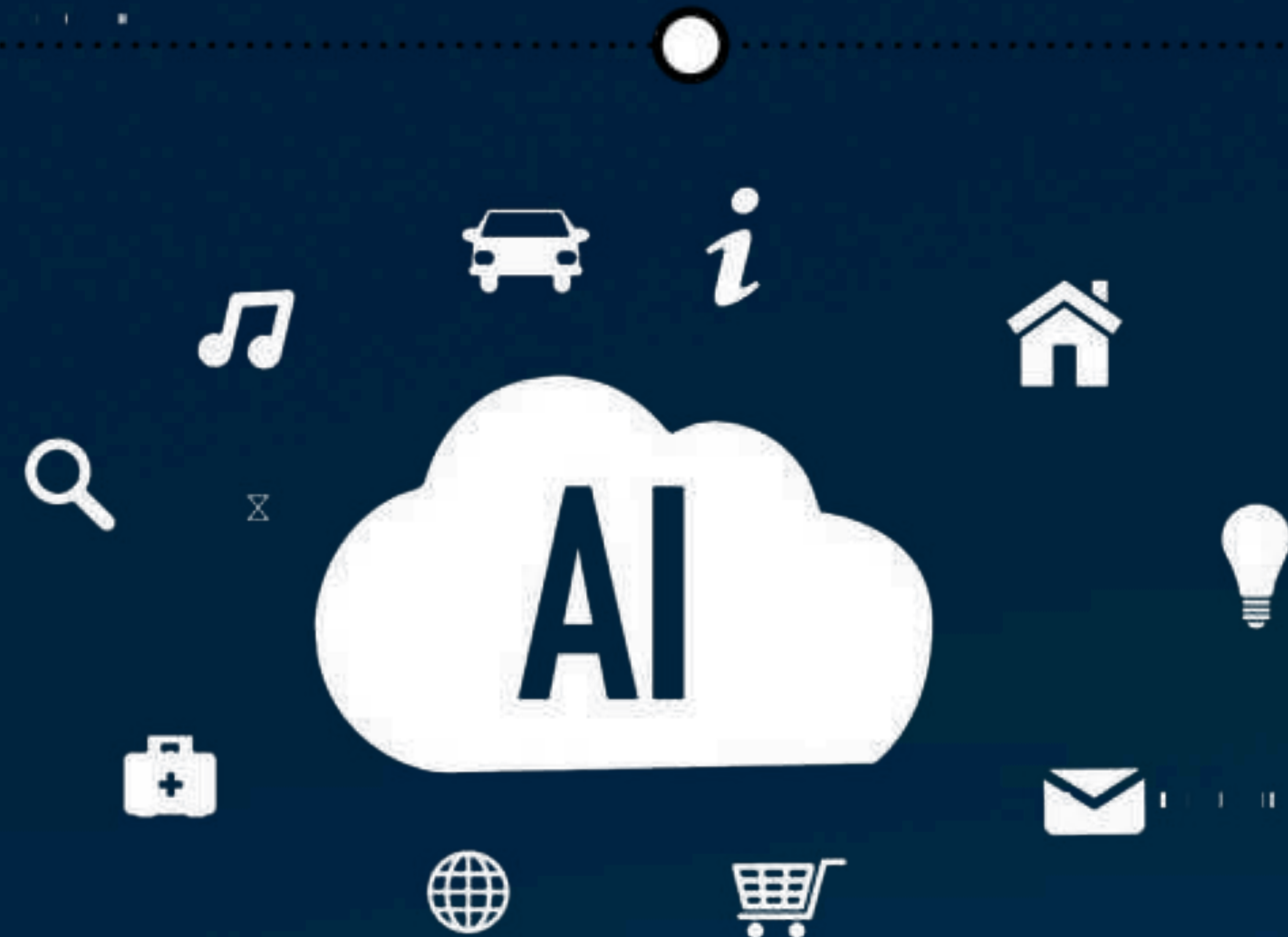
OUTPUT OF AI-ASSISTED KNOWLEDGE WORKERS 2021 TO 2030
BY 2030 AI WILL INCREASE THE OUTPUT OF KNOWLEDGE WORKERS BY 140%



Source: ARK Investment Management LLC



DIGITAL REVOLUTION



Big Blue

SUSTAINABILITY REVOLUTION



Big Green

PURPOSE REVOLUTION



Big Purple

The next 10 years will bring more change than the previous 100 years

INFO TECH



BIO TECH



ENERGY & CLIMATE TECH



**HUGE IMPACT ON:
SUPPLYCHAIN
LOGISTICS
TRANSPORTATION**

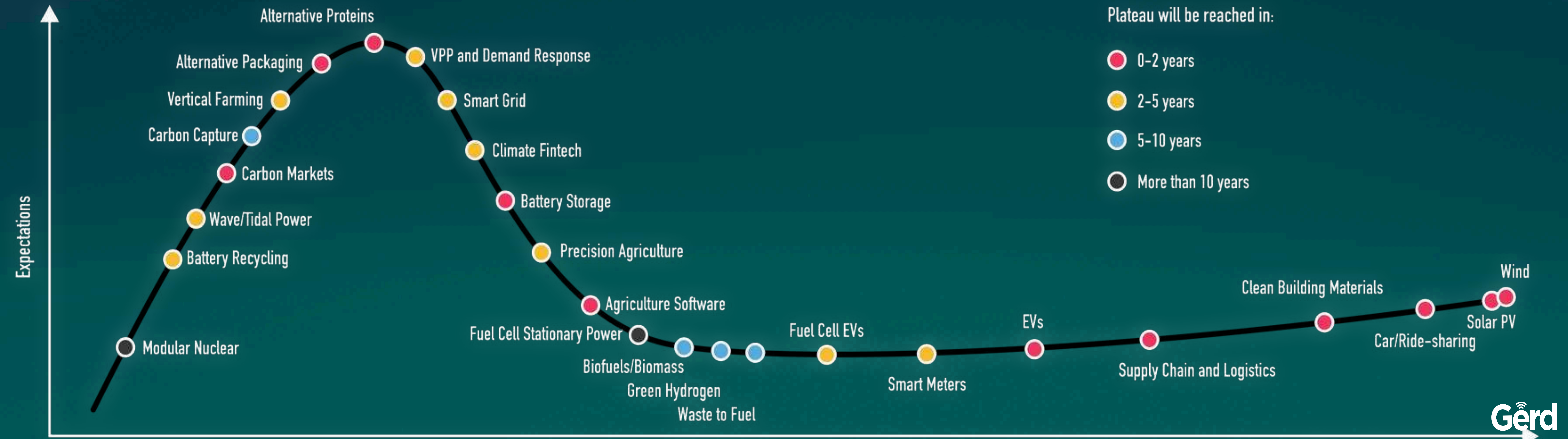
AI TECH



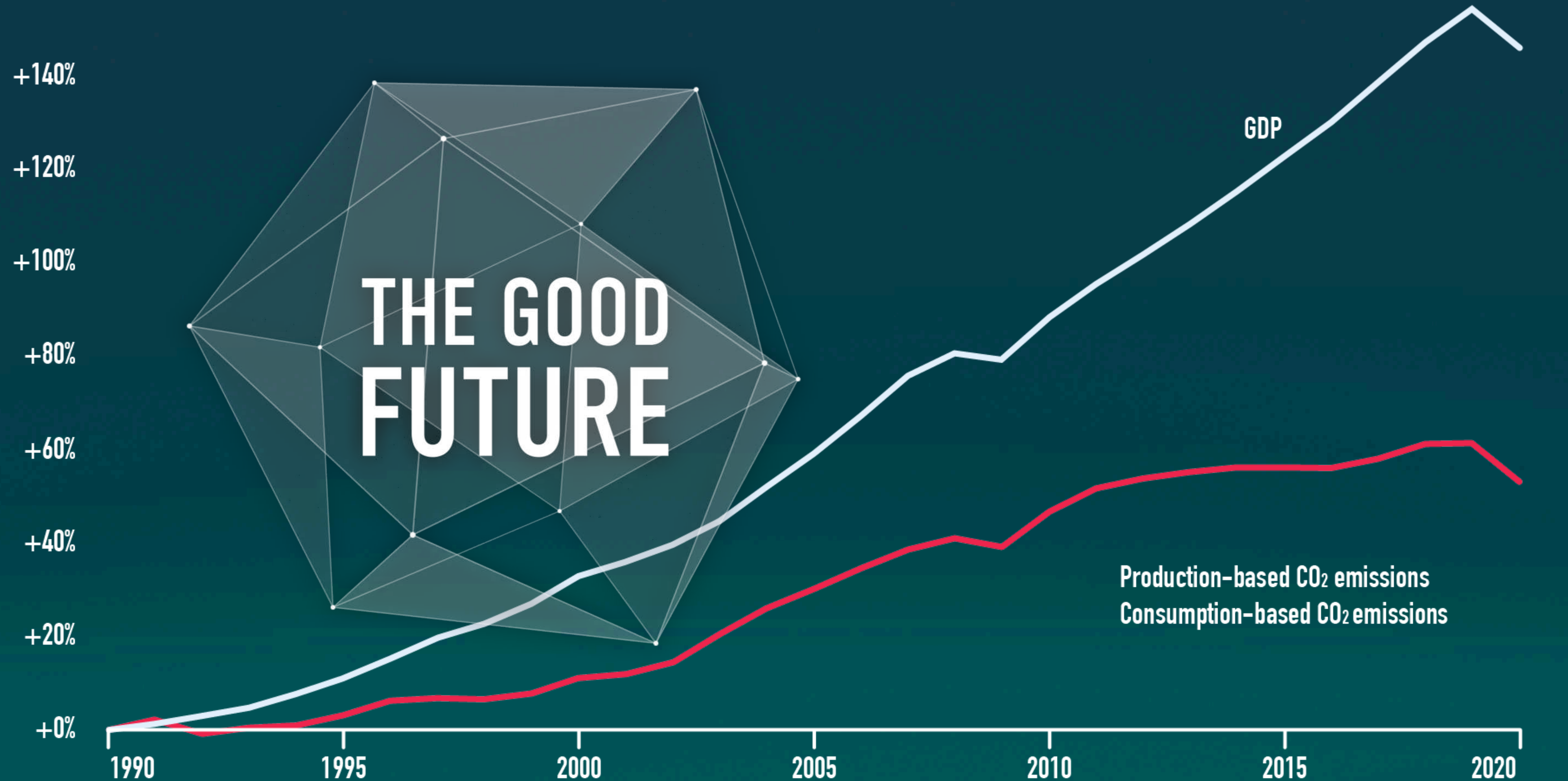
GREEN
IS THE NEW
DIGITAL

~~IMPOSSIBLE:~~ NEW NORMAL

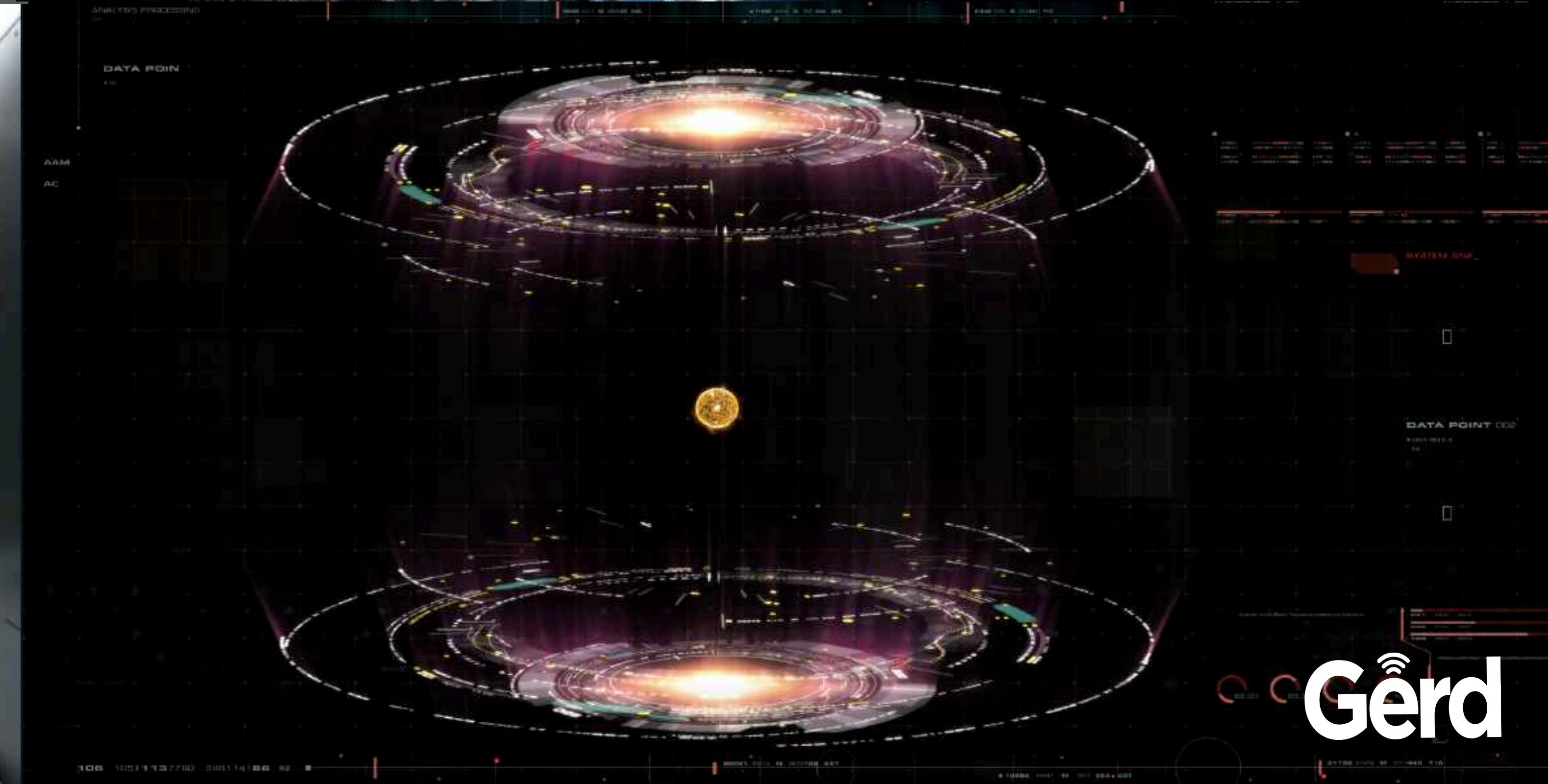
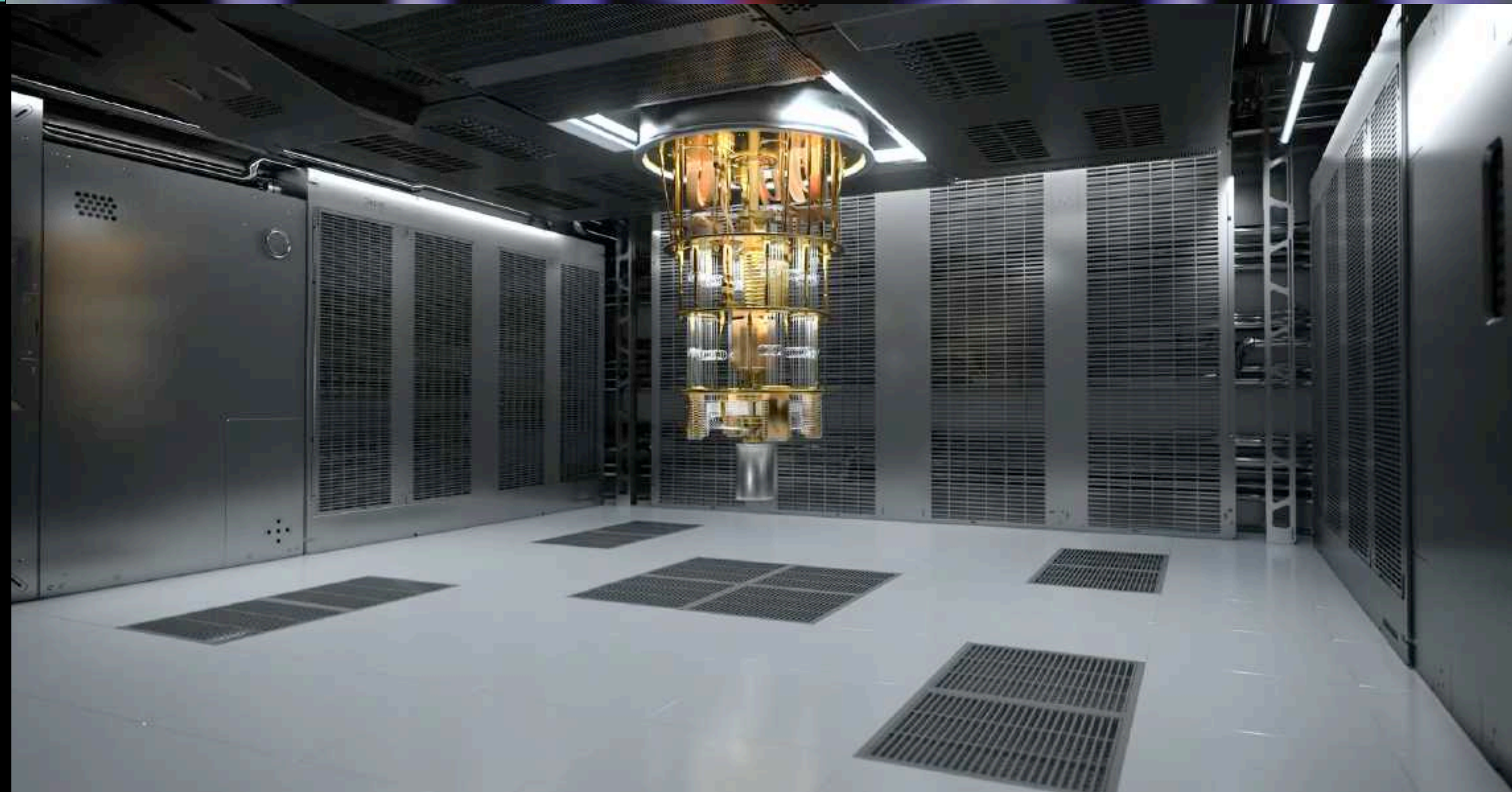
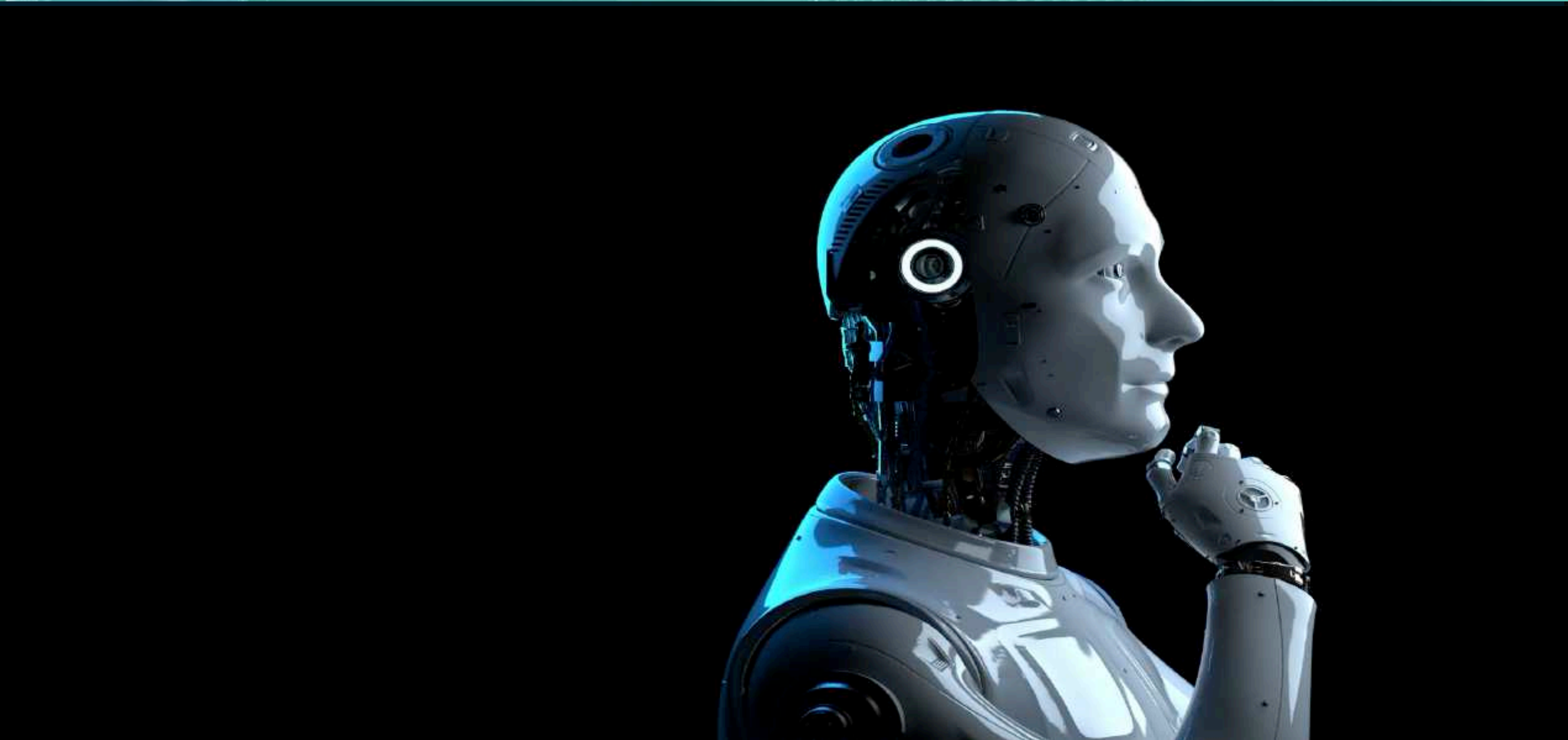
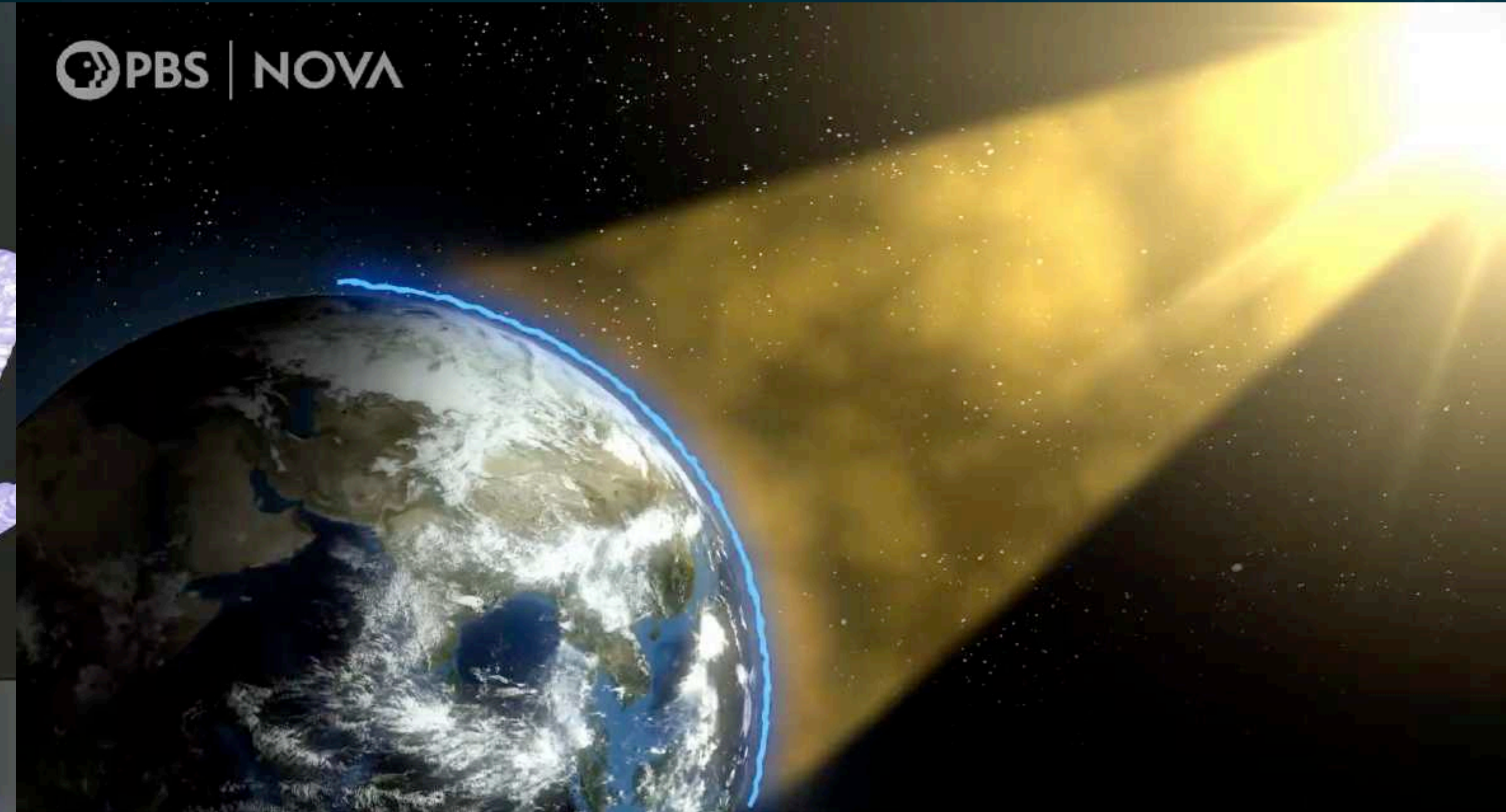
SELECT CLIMATE TECH INNOVATION HYPE CURVE



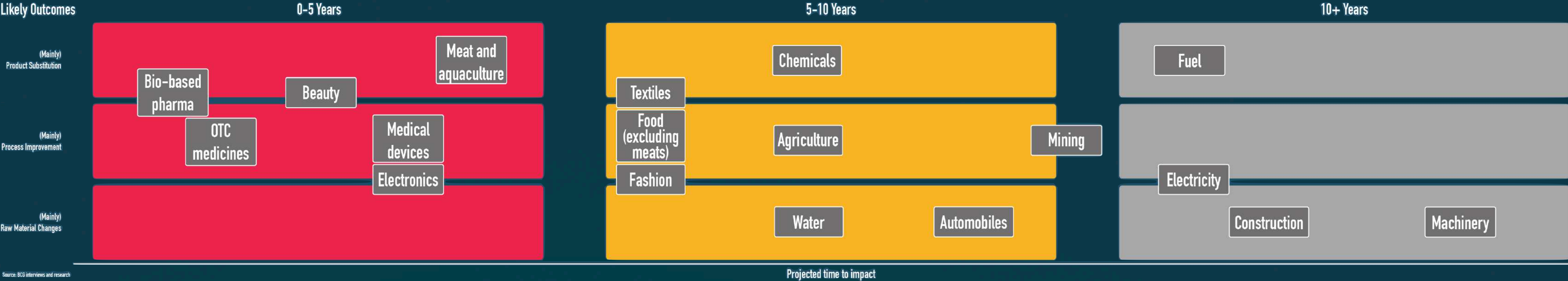
YES WE CAN: Decouple Growth from Emissions!



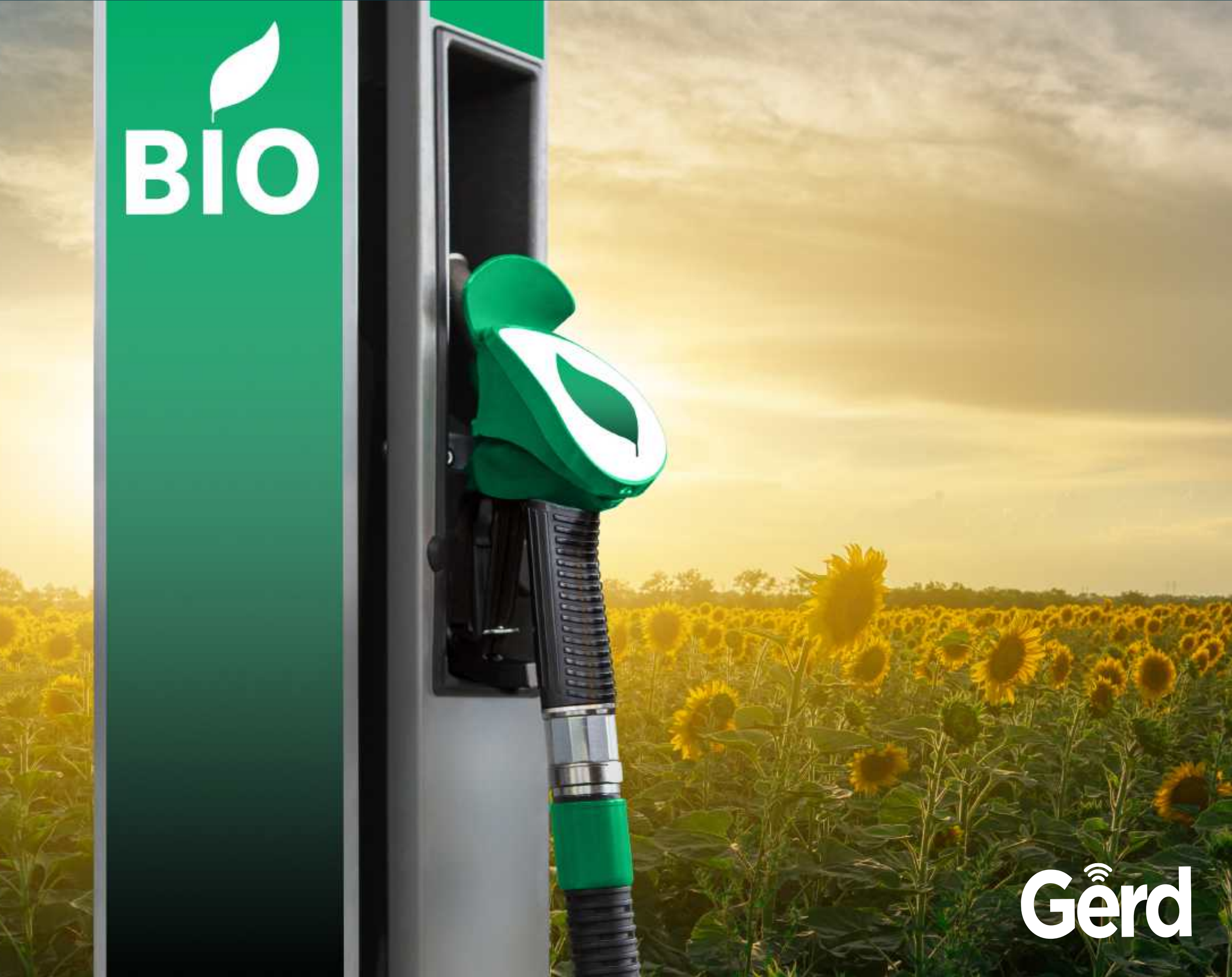
AI is just the first of **SIX** GAME-CHANGING BREAKTHROUGHS: Next is Quantum Computing, Nuclear Fusion, Nano-Tech & Synthetic Biology, Genome Editing and Geo-Engineering

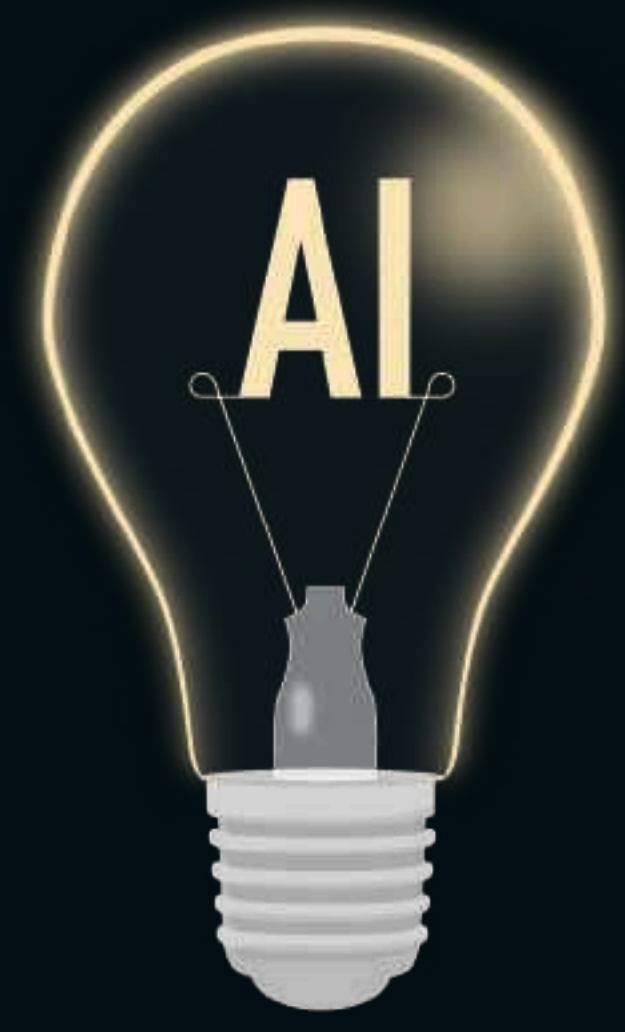


THE DISRUPTIVE IMPACT OF SYNTHETIC BIOLOGY
WHEN, AND HOW, THE TECHNOLOGY WILL AFFECT YOUR INDUSTRY



SYNTHETIC BIOLOGY (SynBio) applies engineering principles to develop new biological parts, devices, and systems or to redesign existing systems found in nature.





“It is the FRAMEWORK which changes with each new technology and not just the picture within the frame”

Marshall Mc Luhan

STAMFORD, Conn., February 19, 2024

Gartner Predicts Search Engine Volume Will Drop 25% by 2026, Due to AI Chatbots and Other Virtual Agents

WIRED

LAUREN GOODE BUSINESS FEB 8, 2024 8:00 AM

Google Prepares for a Future Where Search Isn't King

CEO Sundar Pichai tells WIRED that Google's new, more powerful Gemini chatbot is an experiment in offering users a way to get things done without a search engine. It's also a direct shot at ChatGPT.

STEVEN LEVY BUSINESS FEB 16, 2024 9:00 AM

This Company Says Conversational AI Will Kill Apps and Websites

Sierra hopes every company will use its empathetic AI chatbots for customer interactions.



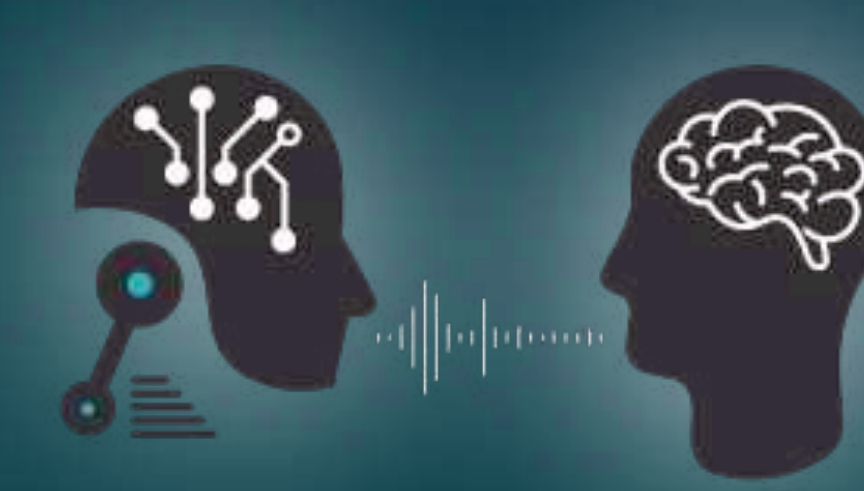
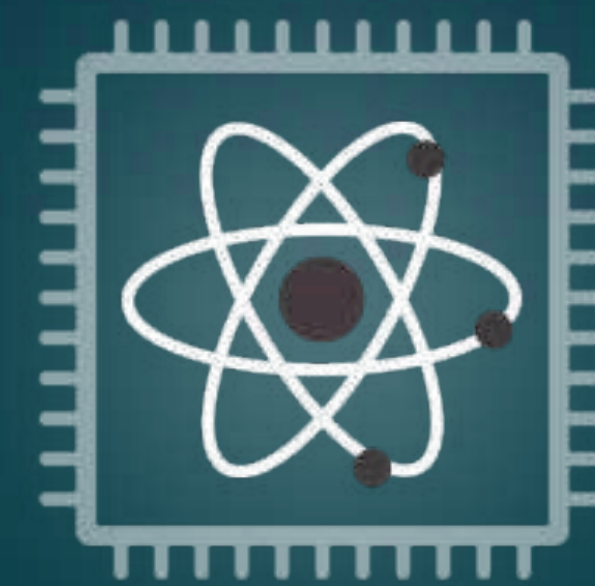
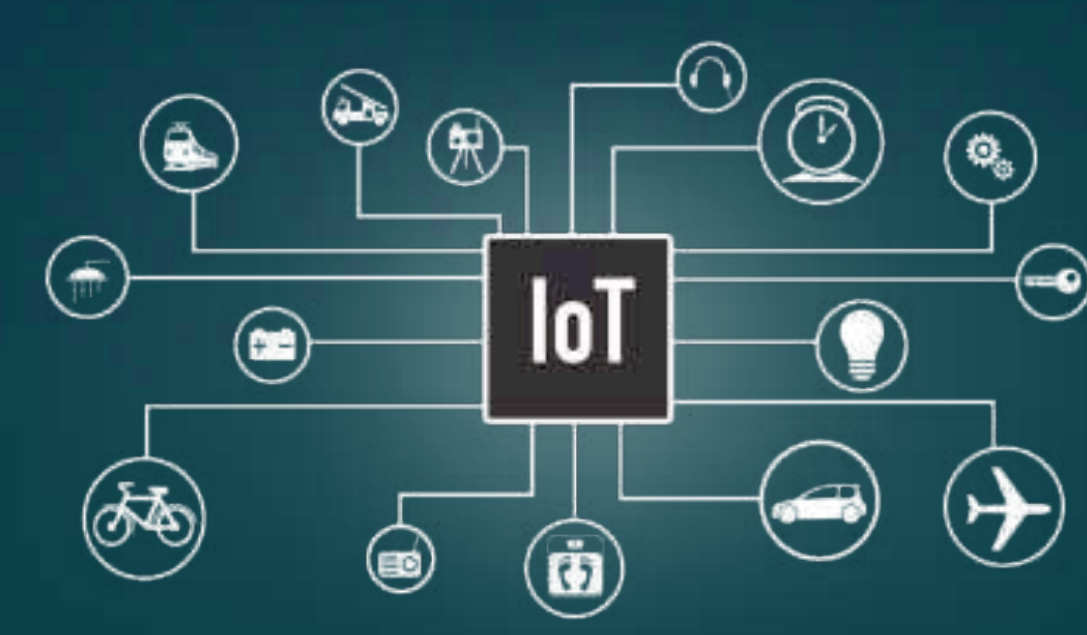
Sierra cofounders Bret Taylor (left) and Clay Bavor. COURTESY OF CARLOS CHAVARRIA/SIERRA

SNU_92

Too much of a good thing
can be a very bad thing

DATA_TRANSFER_01

o o



 **DATA EVERYTHING**

 **CONNECTED EVERYTHING**

 **CLOUD EVERYTHING**

 **COMPUTE ANYTHING**

 **SMART EVERYTHING**

 **TRANSACTION ANYTHING**

 **SEE EVERYTHING**

 **MAKE ANYTHING**



AI TECH



AI: “Computer systems that turn information and data into **KNOWLEDGE**”

(DEMIS HASSABIS, CEO, DEEPMIND)



AI: “Computer systems that turn information and data into **KNOWLEDGE**”

(DEMIS HASSABIS, CEO, DEEPMIND)



THE TECH INDUSTRY MOVES IN PLATFORM SHIFTS

EVERY 10-15 YEARS, A NEW PLATFORM RESETS THE TECH INDUSTRY

Generative AI: Computer systems that turn data & statistics,
image recognition, language understanding and (BINARY)
KNOWLEDGE INTO CONTENT & CONVERSATION

Mainframes

PCs

Web
Open Source

Smartphones
Cloud

Generative AI

Gêrd

Sound by Eleven Labs



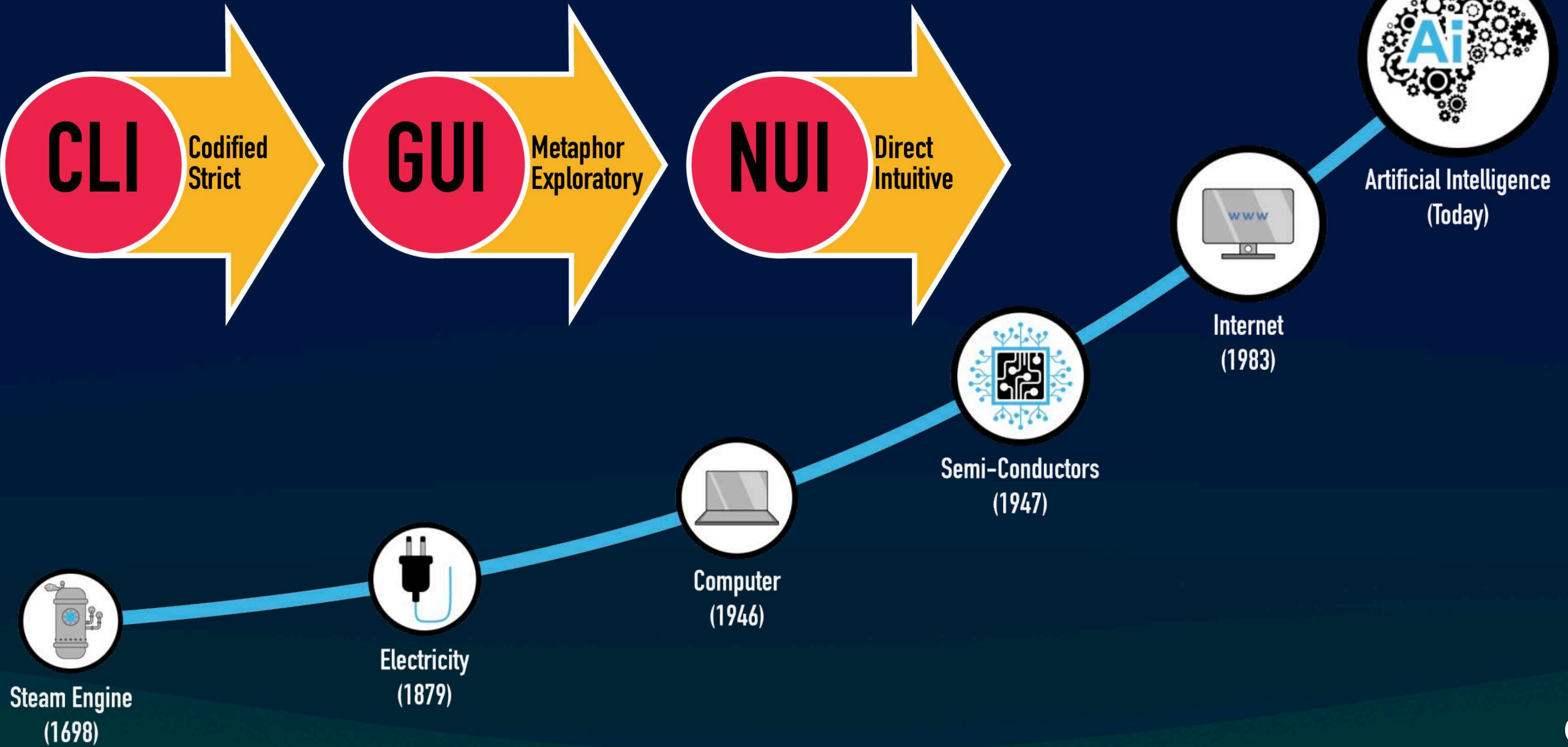
Videos by SORA / Open AI

ChatGPT and The Future of AI




**TIMES
NETWORK**
NOW OR NOTHING

AI IS A GENERAL PURPOSE TECHNOLOGY (GPT)



CLI

Codified
Strict

GUI

Metaphor
Exploratory

NUI

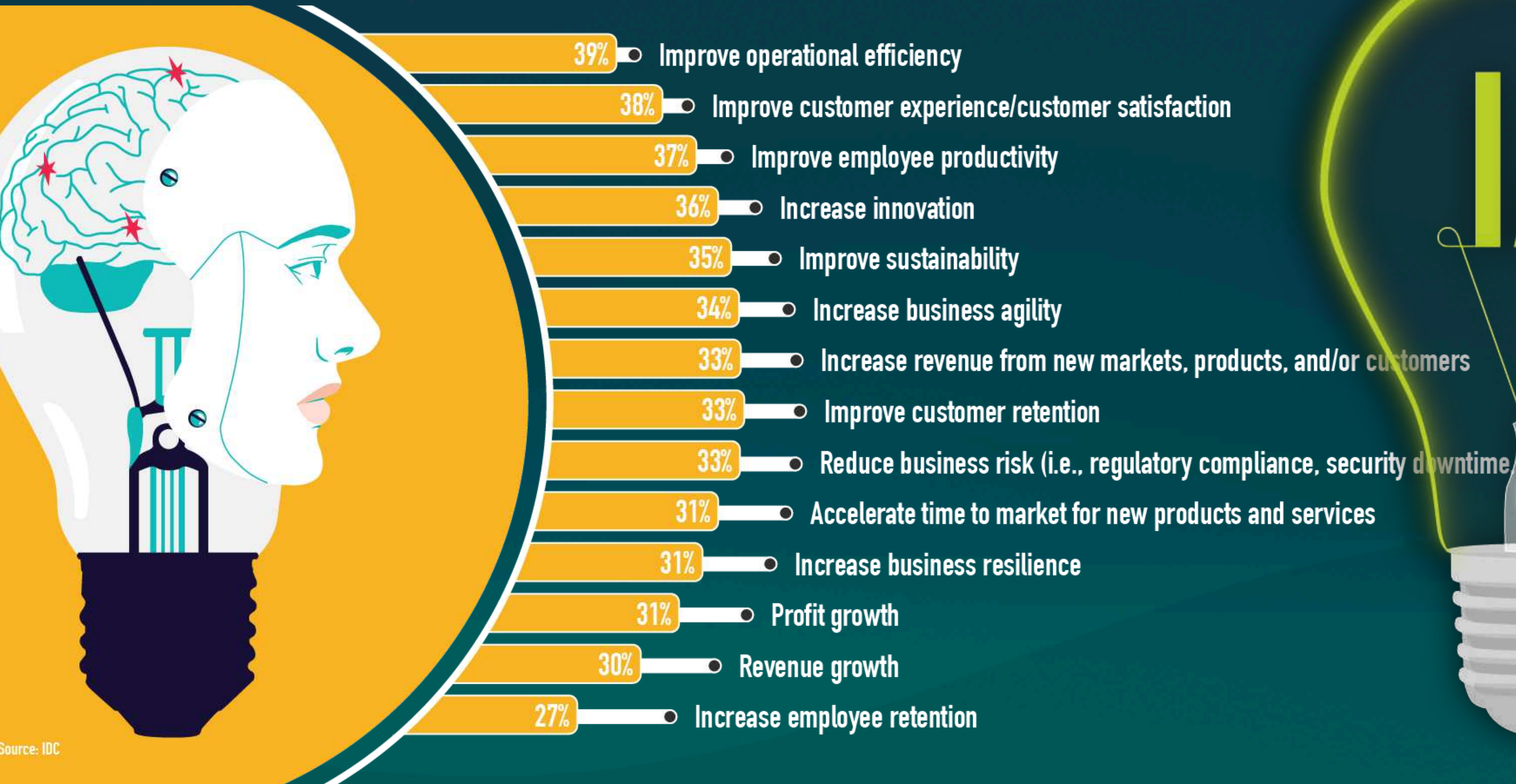
Direct
Intuitive



FROM GRAPHIC INTERFACES TO **CONVERSATIONAL AI**



WHAT ARE THE PRIMARY BUSINESS OBJECTIVES FOR USING AI



WHO

WHEN

HOW

WHAT



WHERE

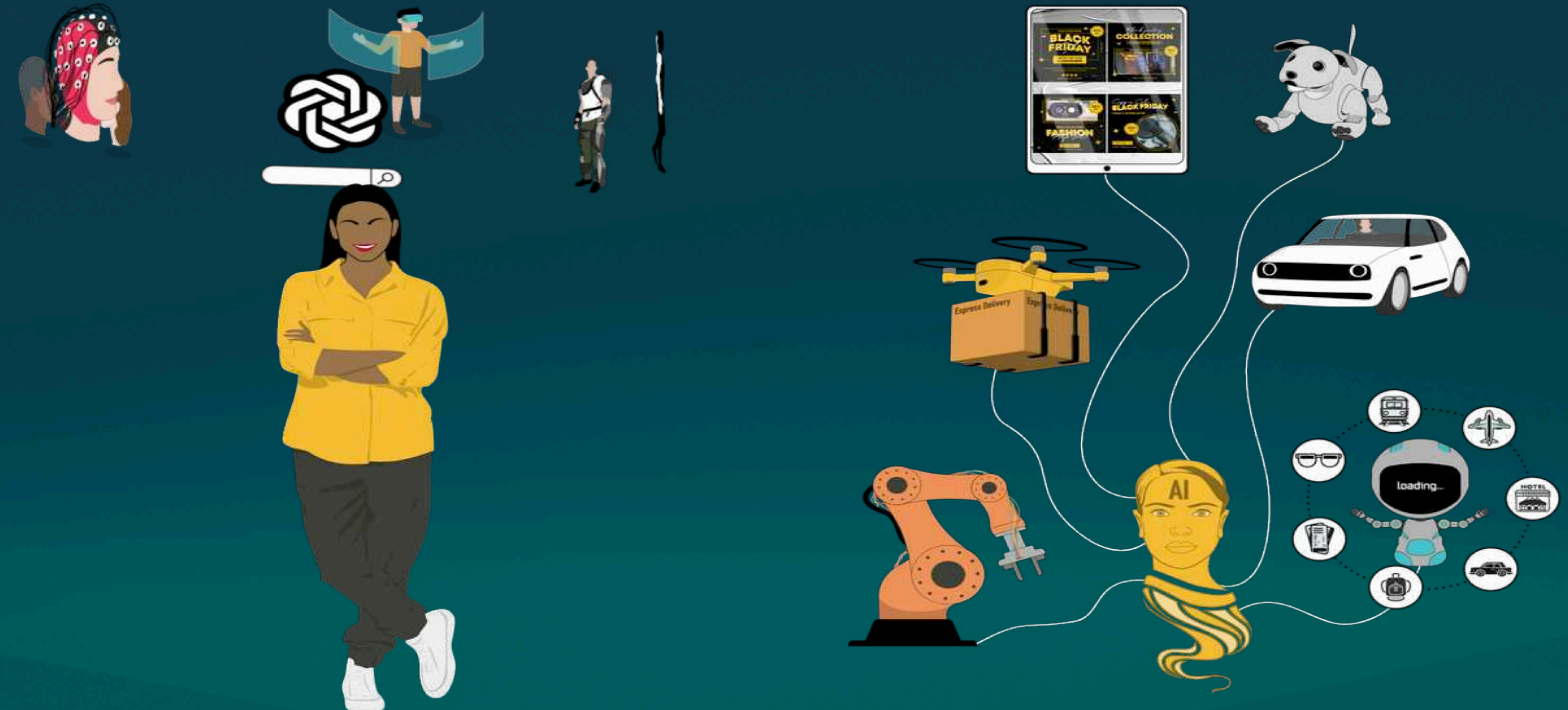
Always keep
the humans in
the loop!



COGNIFICATION

AUGMENTATION

AUTOMATION



Line speed:

Congestion:



Mountain-Dew_12-Pack_B 0.97

Mountain-Dew_24-Pack_Original_A 0.93

Mountain-Dew_12-Pack_B 0.96

Gatorade_24-Pack_Fruit-Punch_A 0.90

Mountain-Dew_12-Pack_B 0.97

COGNIFICATION AUGMENTATION (AUTOMATION)

According to Accenture research:

—
43%

of all working hours across end-to-end supply chain activities could be impacted by generative AI.

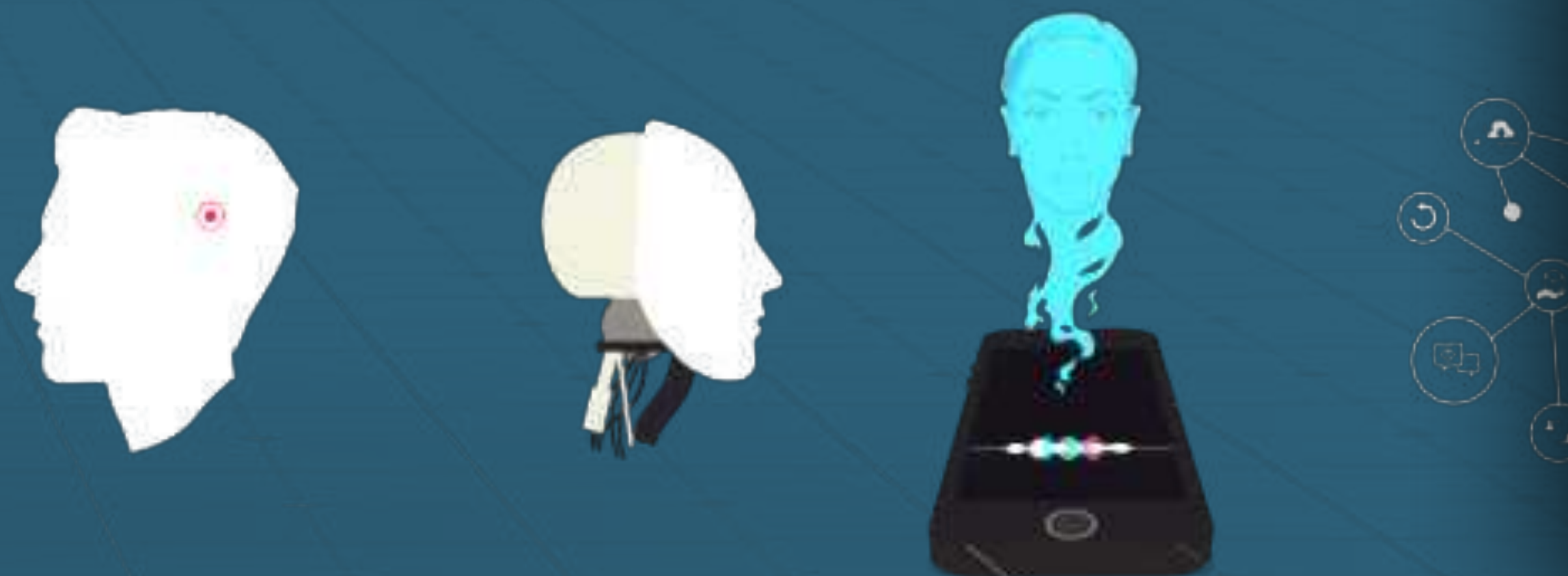
—
29%

of working hours across supply chains could be automated by generative AI.

—
14%

of working hours across supply chains could be significantly augmented by generative AI.

AI TECH



The combination of generative AI and human ingenuity is the key that unlocks next-level supply chain network sustainability

HOW ARE YOU USING, OR HOW DO YOU PLAN TO USE, GENERATIVE AI AS A PART OF YOUR SUPPLY CHAIN TRANSFORMATION STRATEGY?

Internal knowledge
base enhancement

49%

Problem resolution
management

44%

Generating interactive
predictive models

42%

Customer service
supplement

39%

Inventory
management

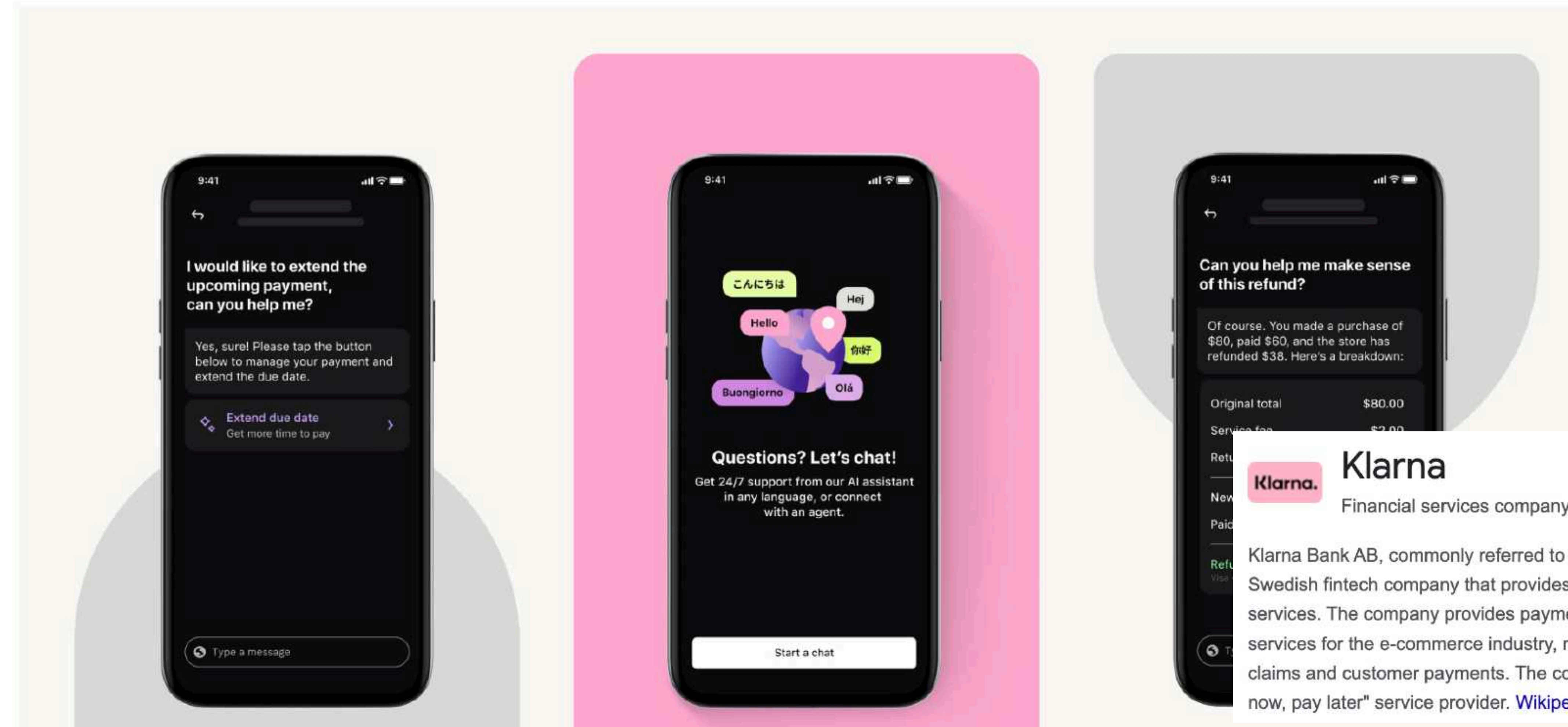
32%

Lower-level task
automation

28%

Gartner®
Peer Community™

Klarna AI assistant handles two-thirds of customer service chats in its first month



- The AI assistant has had 2.3 million conversations, 2/3 of Klarna's customer service chats
- IT IS DOING THE EQUIVALENT WORK OF 700 FULL-TIME AGENTS
- It is on par with human agents in regard to customer satisfaction score
- Customers now resolve their errands in less than 2 mins compared to 11 mins previously
- It's estimated to drive a \$40 million USD in profit improvement to Klarna in 2024

Smart sectors

United States, companies using AI to produce goods and services, %

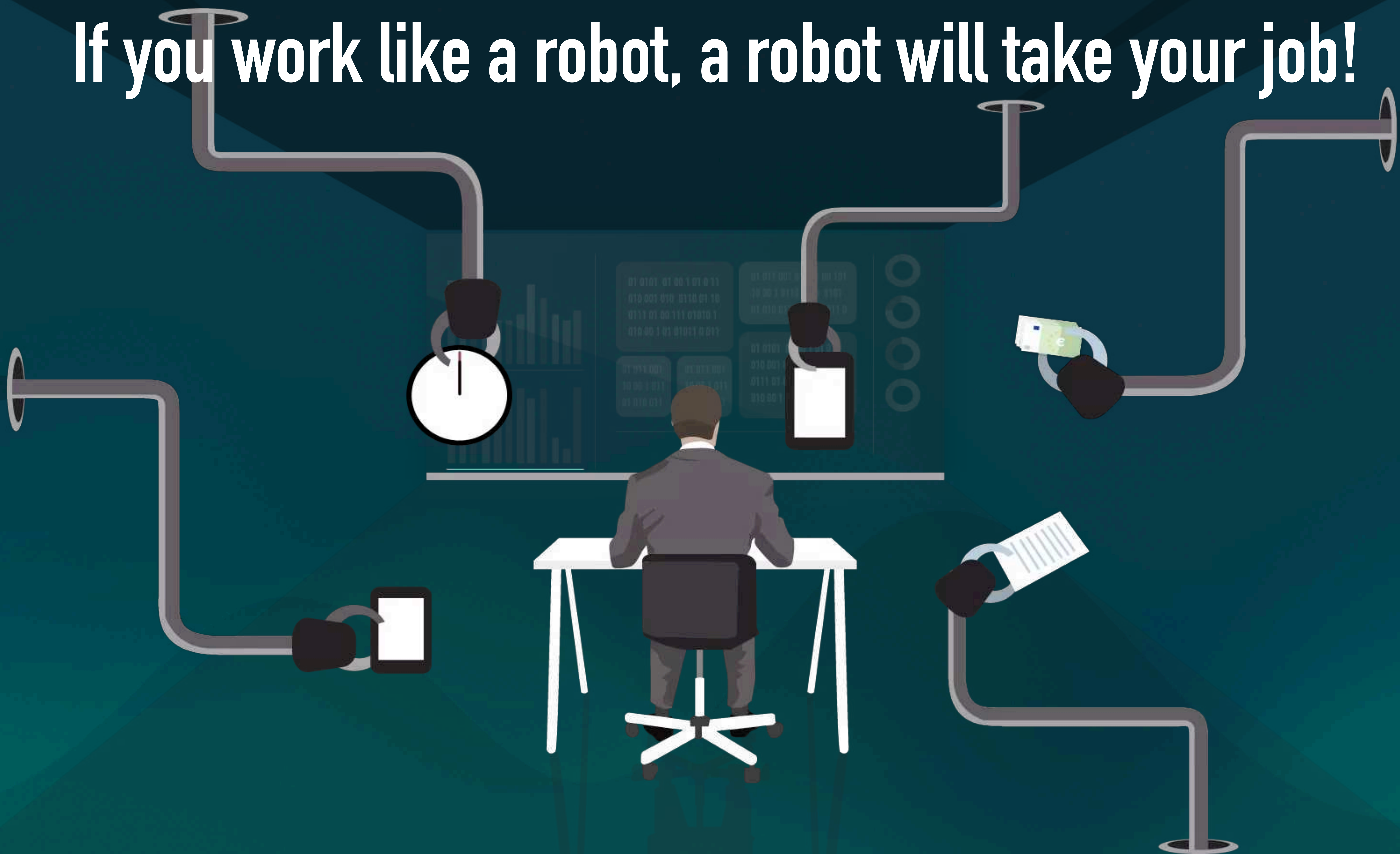
Have done in the past two weeks, by sector





ROUTINE

If you work like a robot, a robot will take your job!





Machines **DON'T** 'Think' or 'Feel'

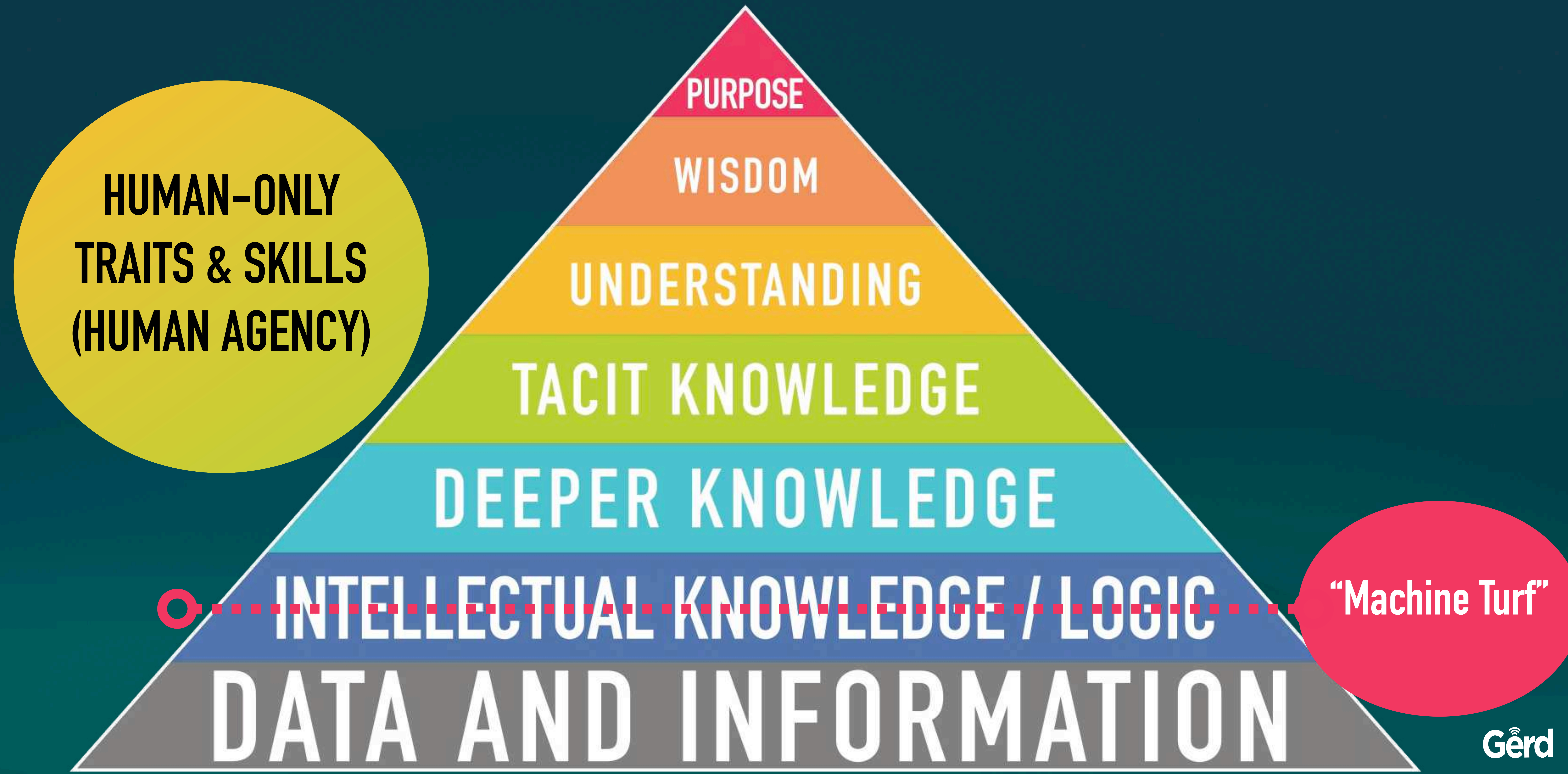
Machines **DON'T** have hunches

Machines **DON'T** 'understand'

Machines **DON'T** imagine

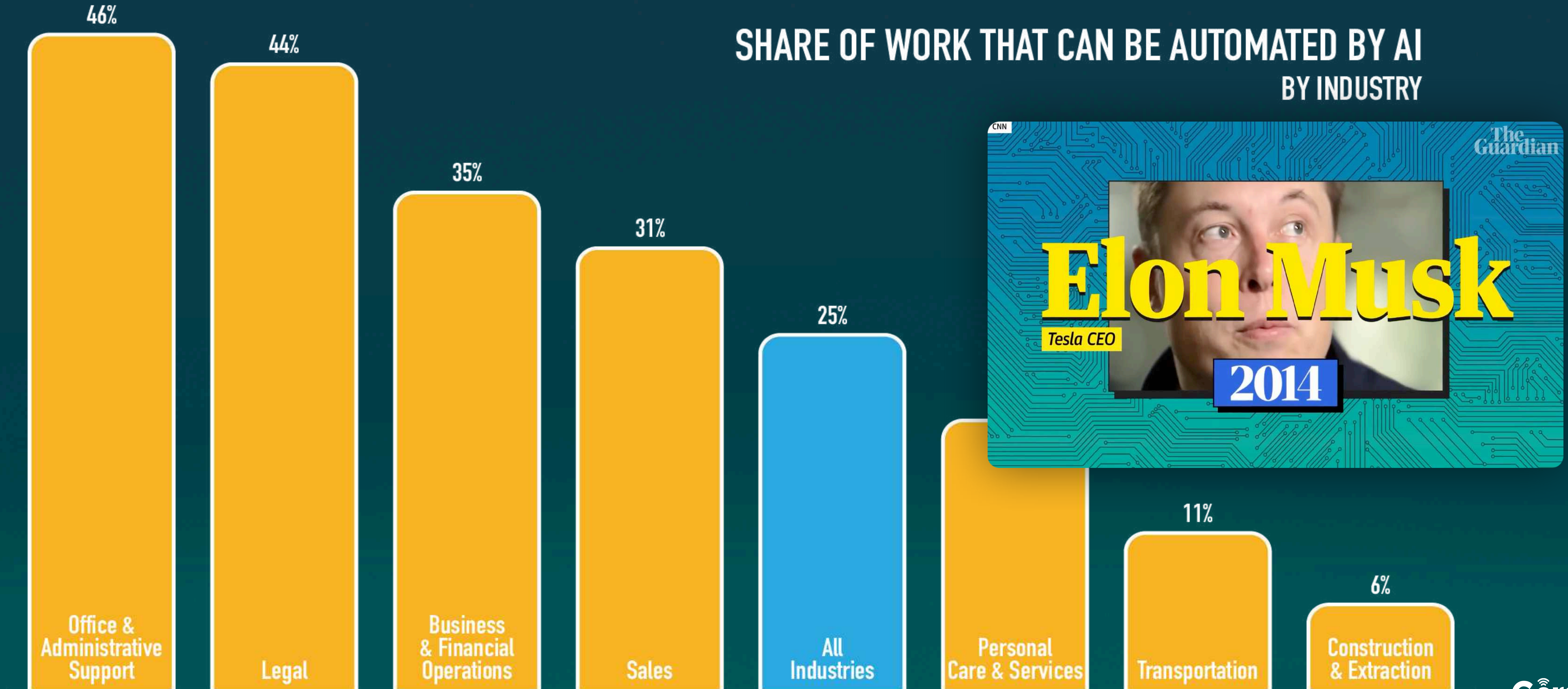
Machines **DON'T** care

THE FUTURE OF WORK PYRAMID



Never mistake a clear view for a short distance *Paul Saffo

SHARE OF WORK THAT CAN BE AUTOMATED BY AI
BY INDUSTRY





**Future Today
Institute**



OMNIVISION CHAIN 2031

“An immersive omnichannel platform called OmniVision where controllers navigate a virtual landscape that mirrors the real-time dynamics of the global supply chain.

Management controllers, equipped with advanced VR gear, stand amid a digital twin of the supply chain world. They observe a holographic globe where supply routes, manufacturing hubs, distribution centers pulse with life.

Through intuitive gestures, they zoom into specific areas, inspecting operations with incredible detail. They can visualize everything from cargo ships navigating oceans to robotic arms assembling products in factories.

One of the platform’s groundbreaking features is real-time ESG reporting: Controllers can instantly access a site’s ESG metrics and observe live data streams of energy consumption, waste management, and labor practices”

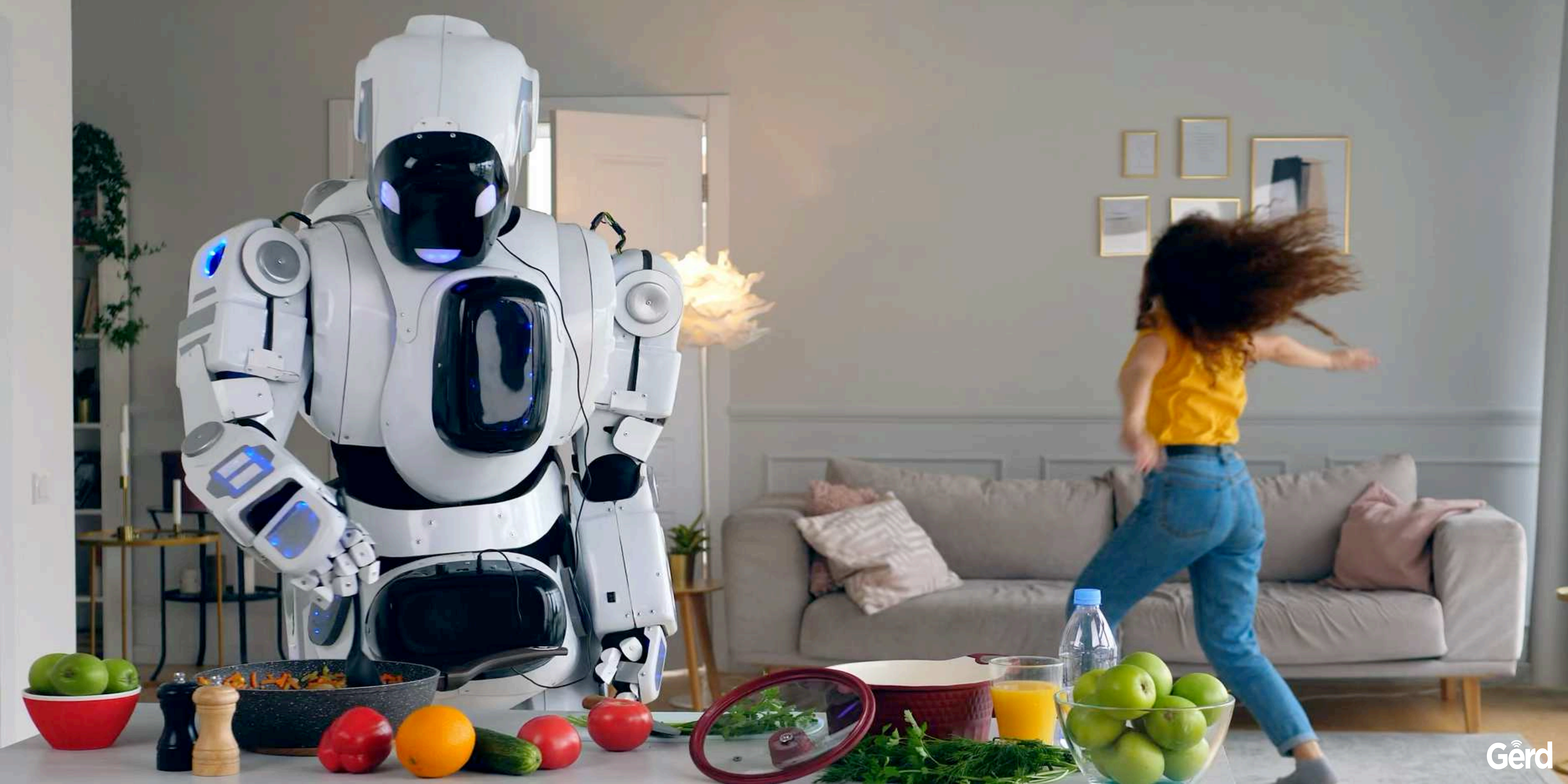
Made with RunwayML



Can AI liberate us from “Monkey Work” ?





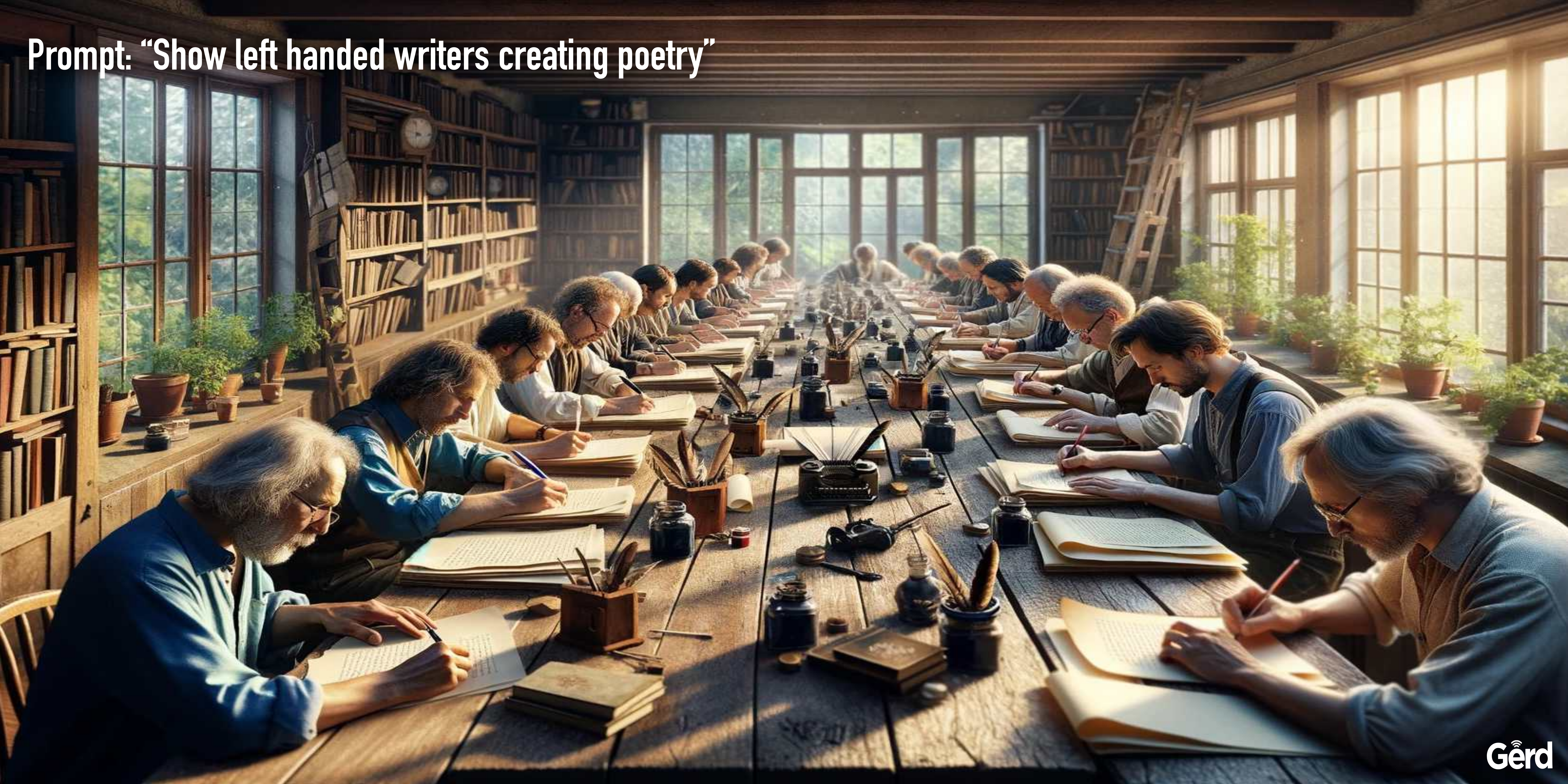


Sora (OpenAI) text to video: **VERY COOL** – but still no Context, no Causality, no Common Sense, no Veracity, no real Understanding. Still super-useful!

FREQUENTLY WRONG BUT NEVER IN DOUBT



Prompt: "Show left handed writers creating poetry"





With Generative and Conversational AI, maybe the less accomplished can do a lot more – and the REALLY ACCOMPLISHED can make exponential leaps (or chill?)

OpenAI

Sam Altman, CEO, OpenAI:

“The coming change (in AI) will center around the most impressive of human capabilities:
THE PHENOMENAL ABILITY TO THINK, CREATE, UNDERSTAND, AND REASON”

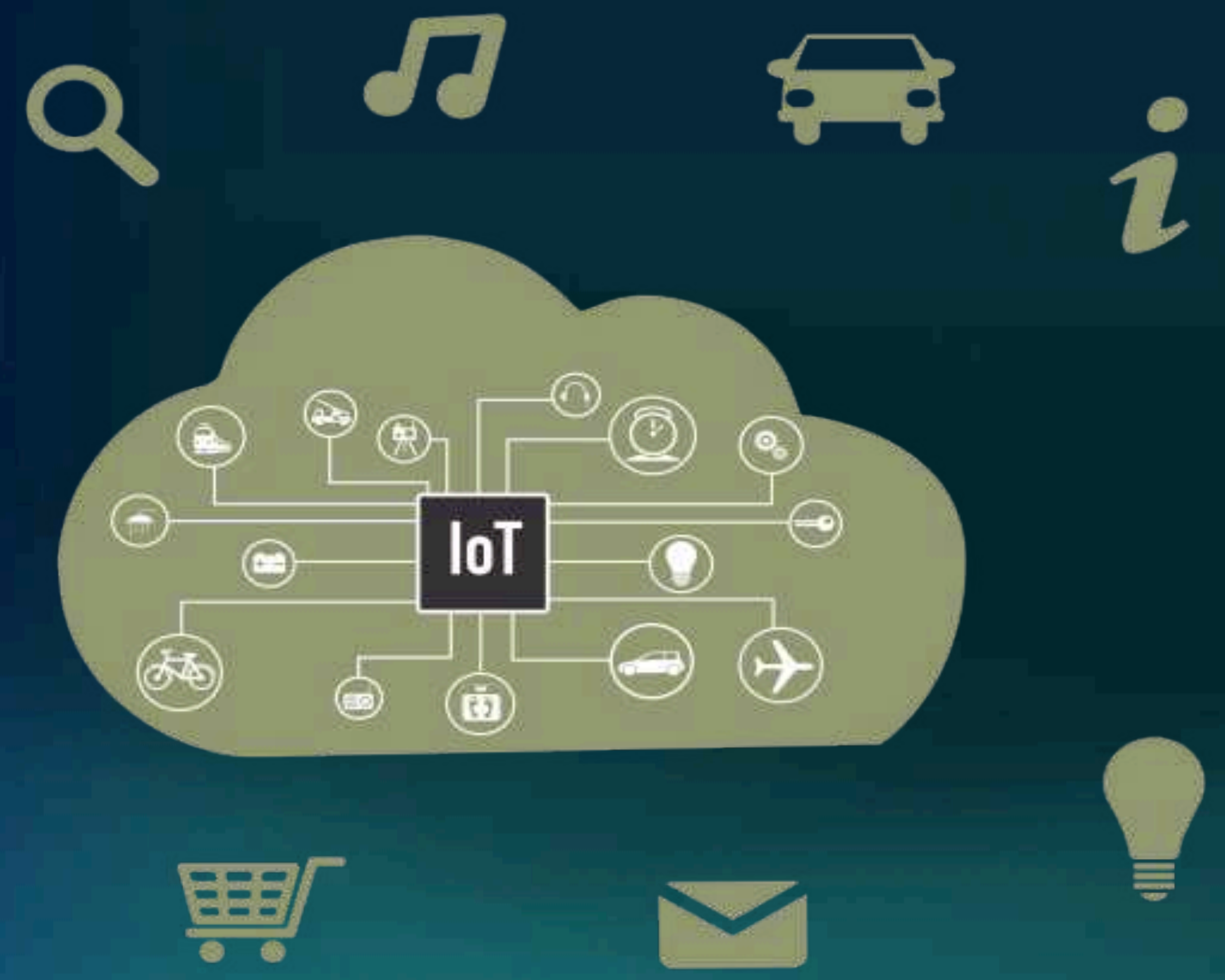


Pursue Big Blue, Big Green, Big Purple

SUSTAINABLE EVERYTHING



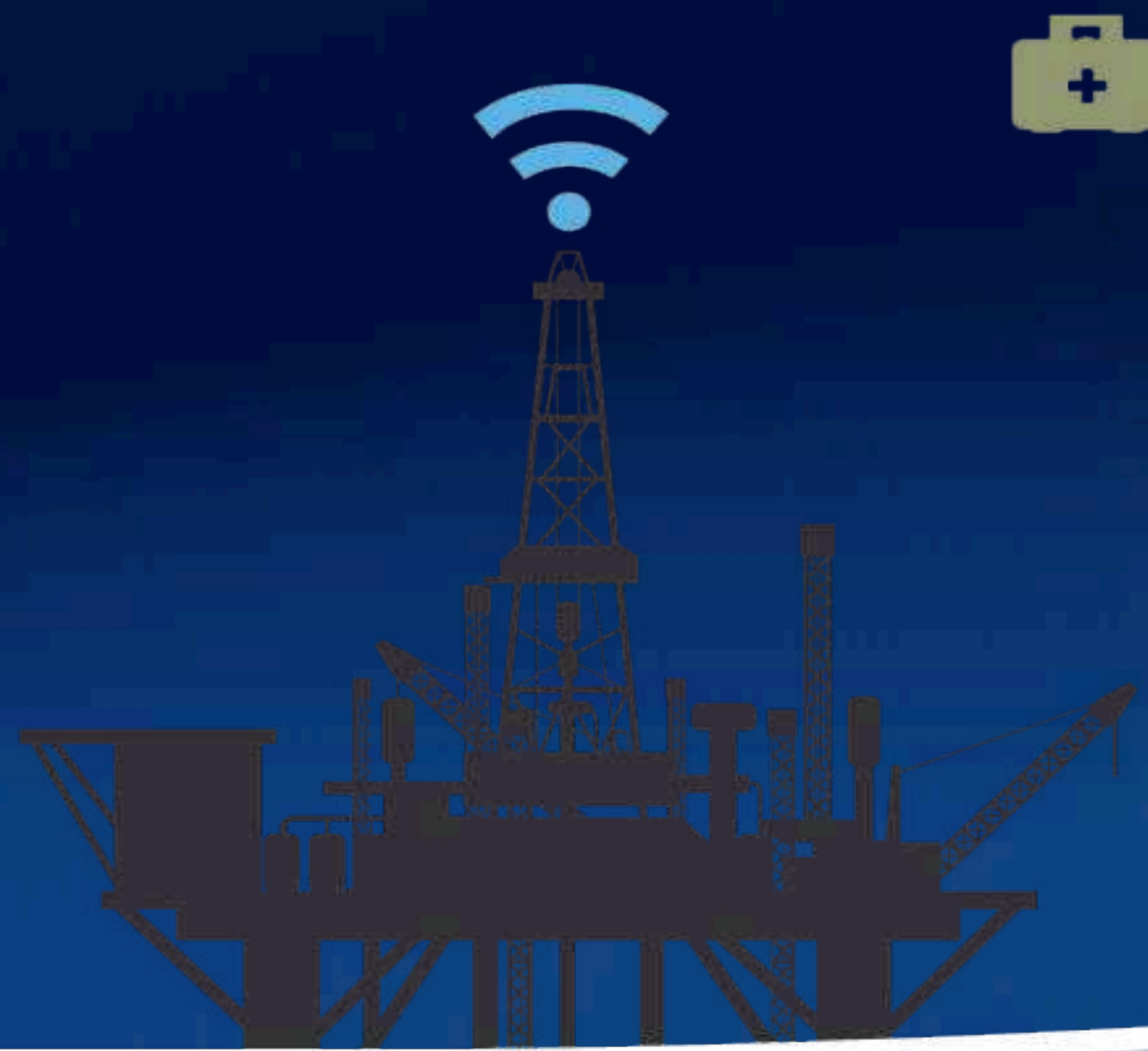
NETWORKED EVERYTHING
CLOUD EVERYTHING



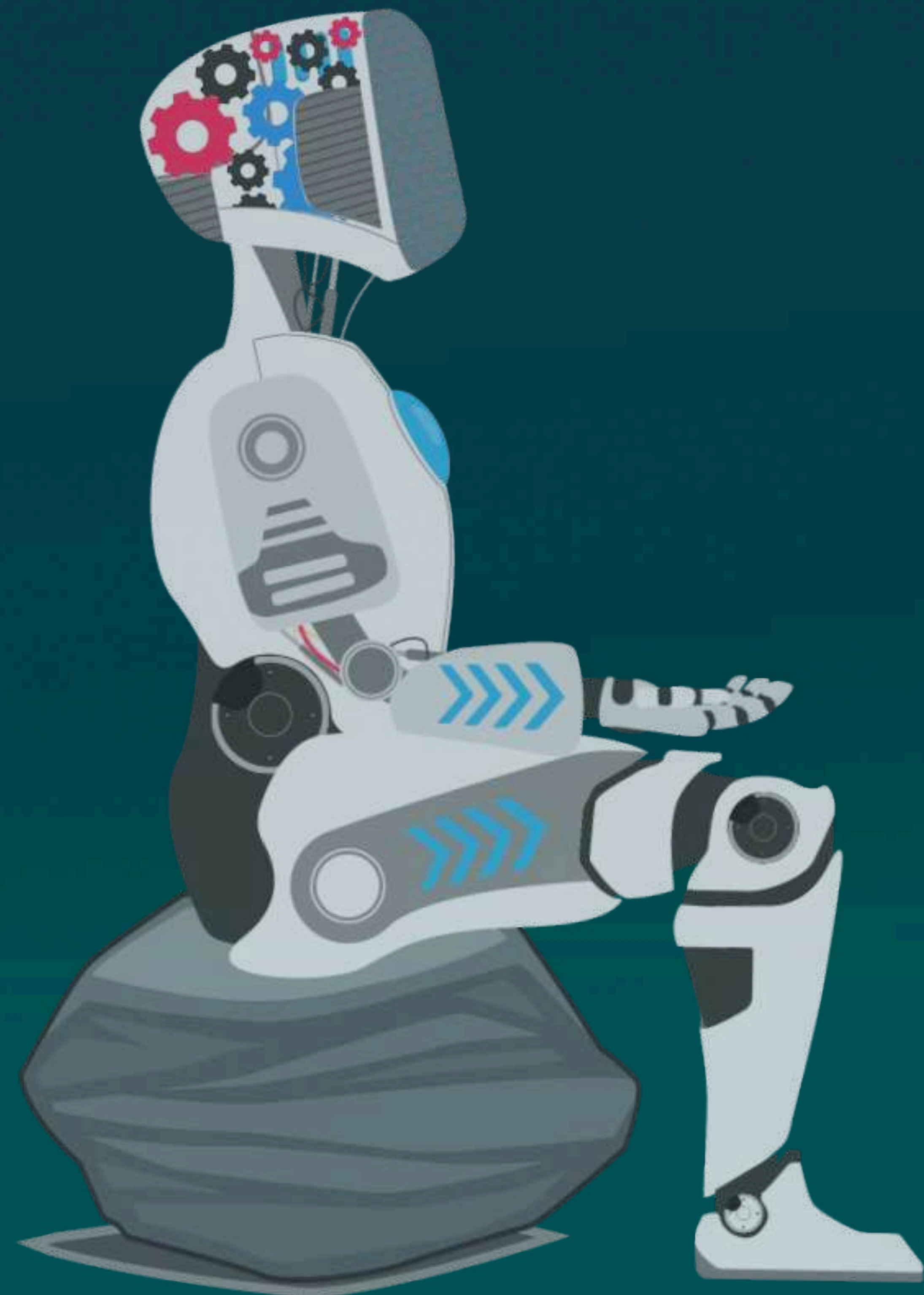
SMART EVERYTHING



DATA EVERYTHING



AI: **COMPETENCE** NOT CONSCIOUSNESS!



The question is
not 'what AI will
do to us' but
**WHAT WE WANT
AI TO DO FOR US**

* David Autor

Gerd

THANKS FOR YOUR TIME AND KIND ATTENTION!

THE FUTURE IS BETTER
THAN YOU THINK

Gerd Leonhard, Futurist
www.lookupnow.tv www.gerdtube.com



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