

Future Foresights for Scottish Power: The Next 10 Years

10

Gerd Leonhard, Futurist



techvshuman.com



@gleonhard



gerdtube.com



gerd.cloud



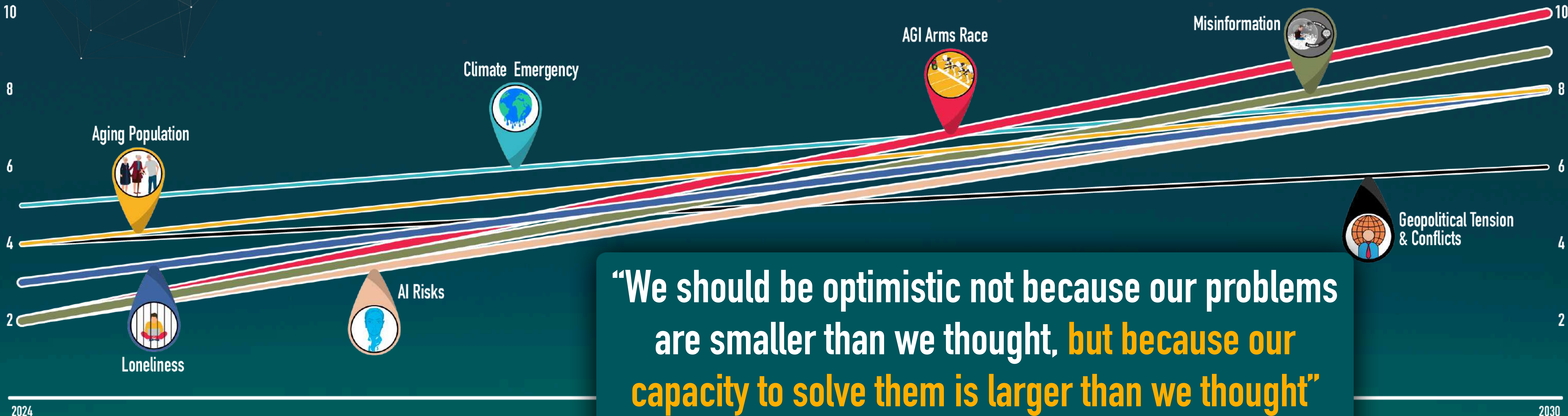
futuristgerd.com



ScottishPower

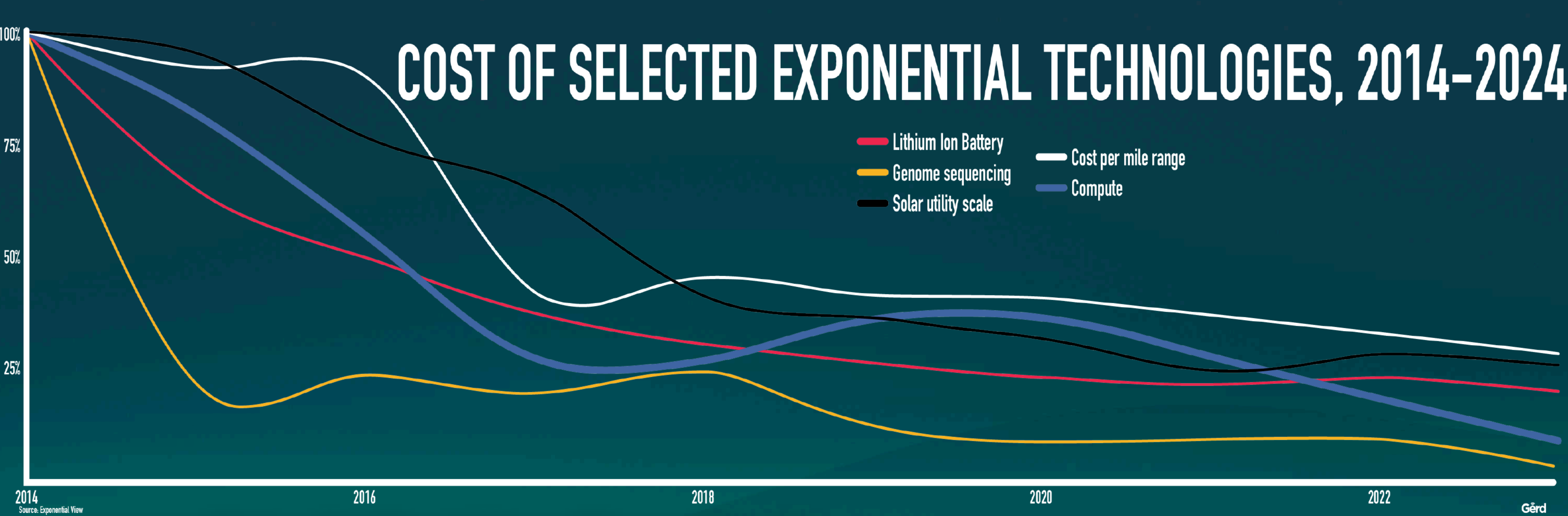
Gerd

THE GOOD FUTURE



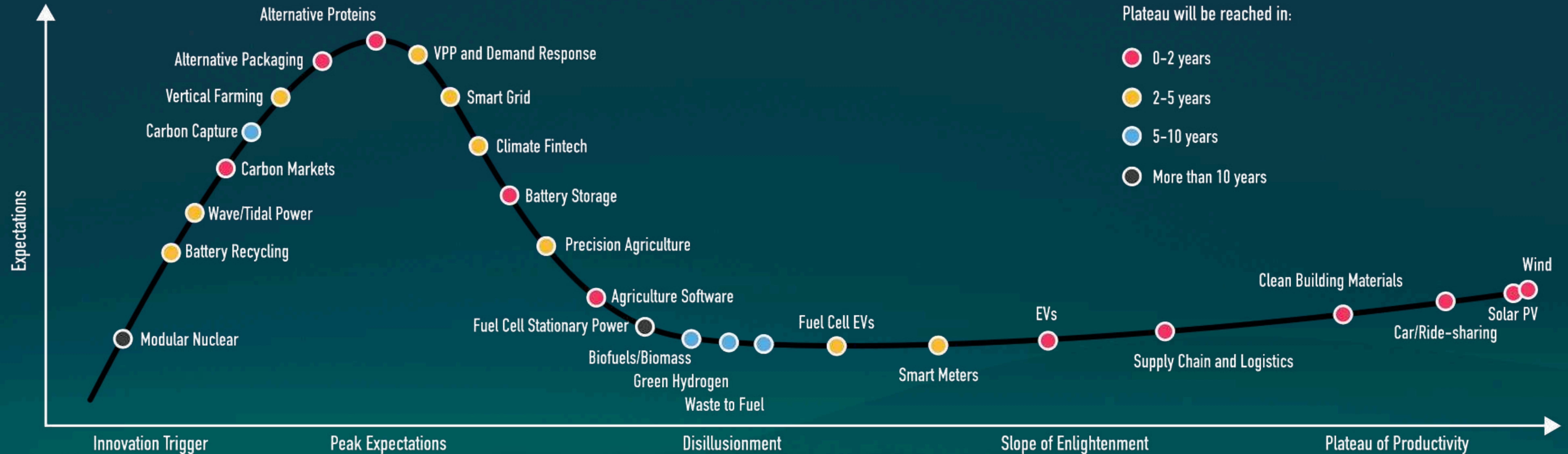
“We should be optimistic not because our problems are smaller than we thought, **but because our capacity to solve them is larger than we thought**”
KEVIN KELLY

COST OF SELECTED EXPONENTIAL TECHNOLOGIES, 2014-2024



...our capacity to solve them is larger than we thought

SELECT CLIMATE TECH INNOVATION HYPE CURVE



Source: Exponentialview.co

...our capacity to solve them is larger than we thought



“The Future exists first in IMAGINATION, then in WILL, then in REALITY” (Barbara Marx-Hubbard)

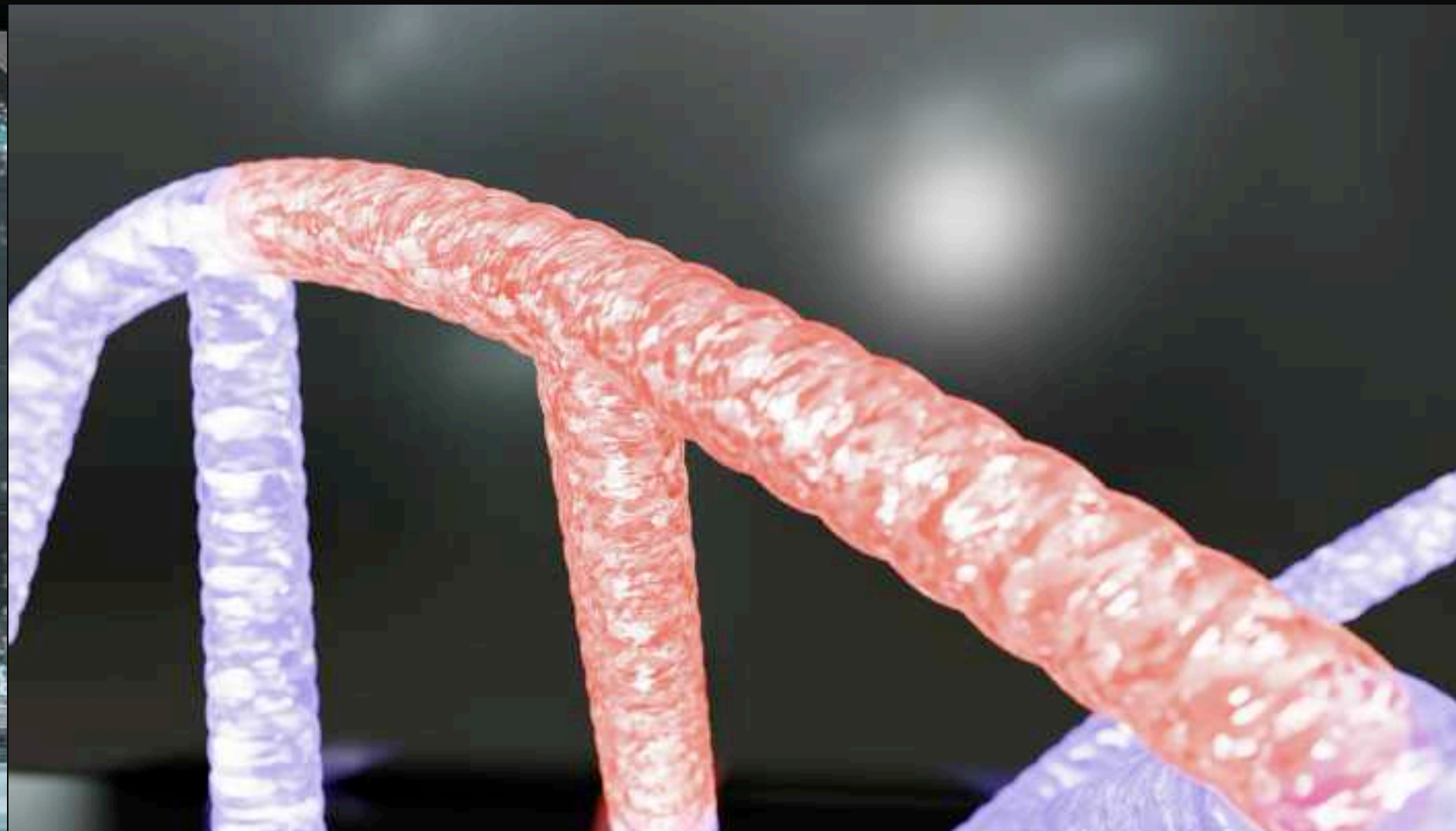
2035
SCOTLAND

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

Bio-Technology / SynBio



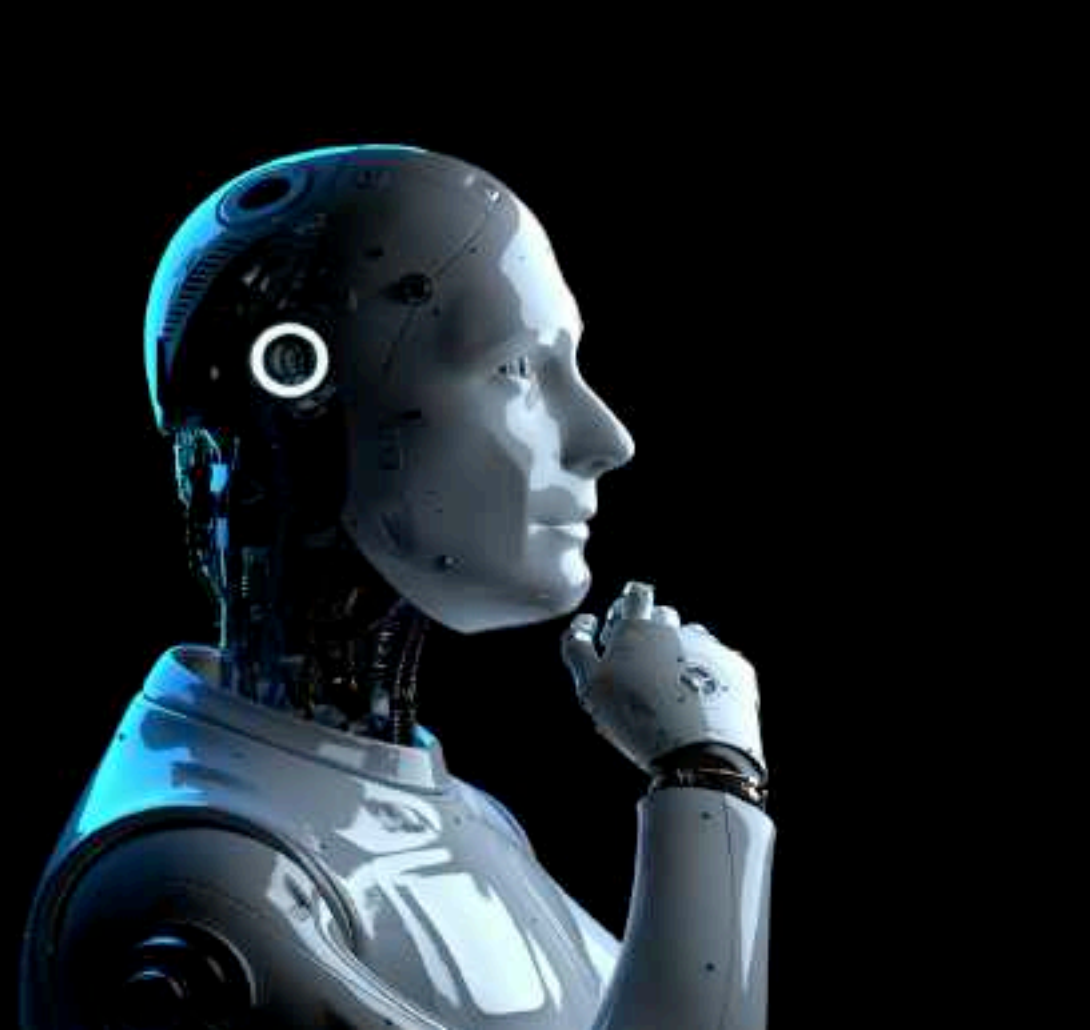
Genetics



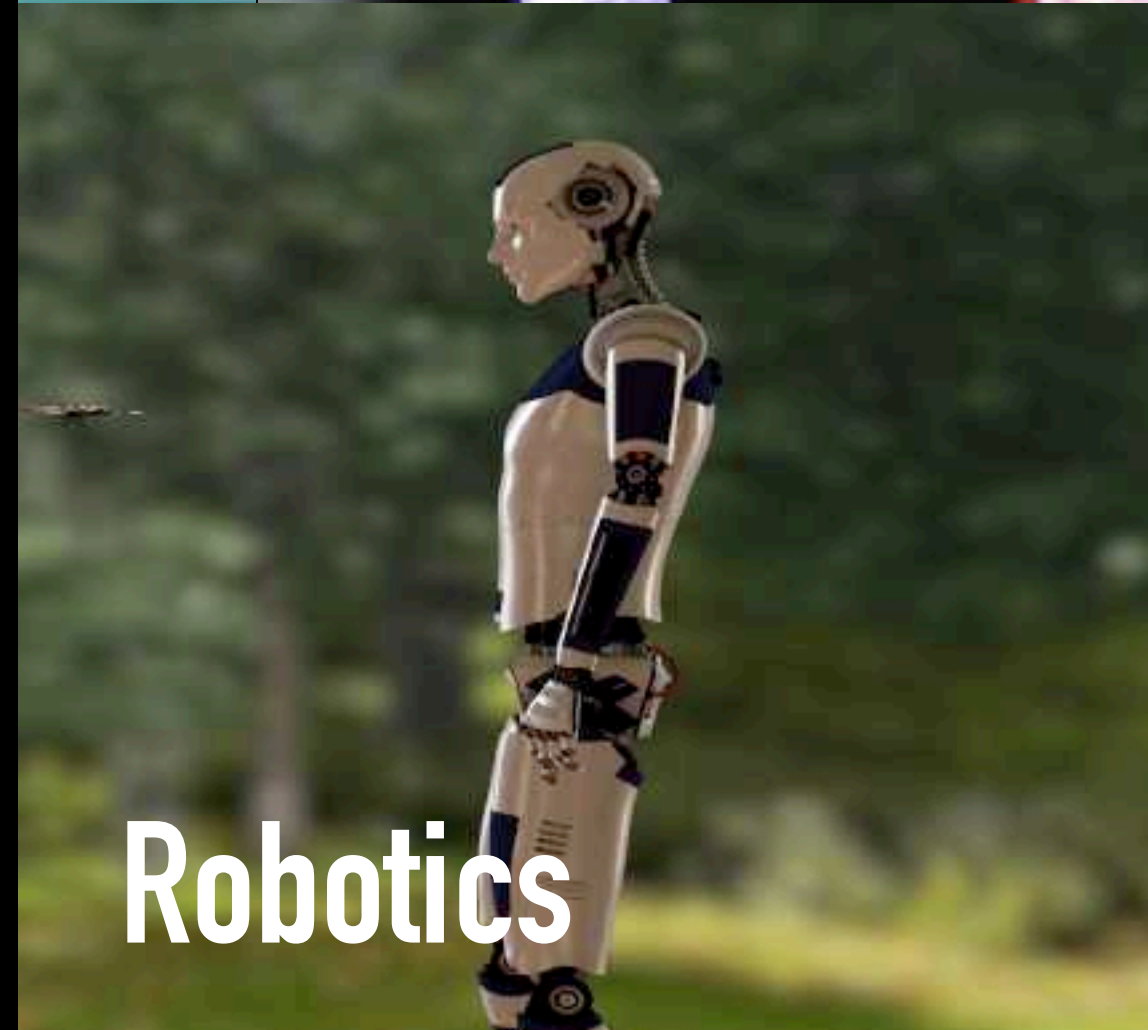
Geo-Engineering



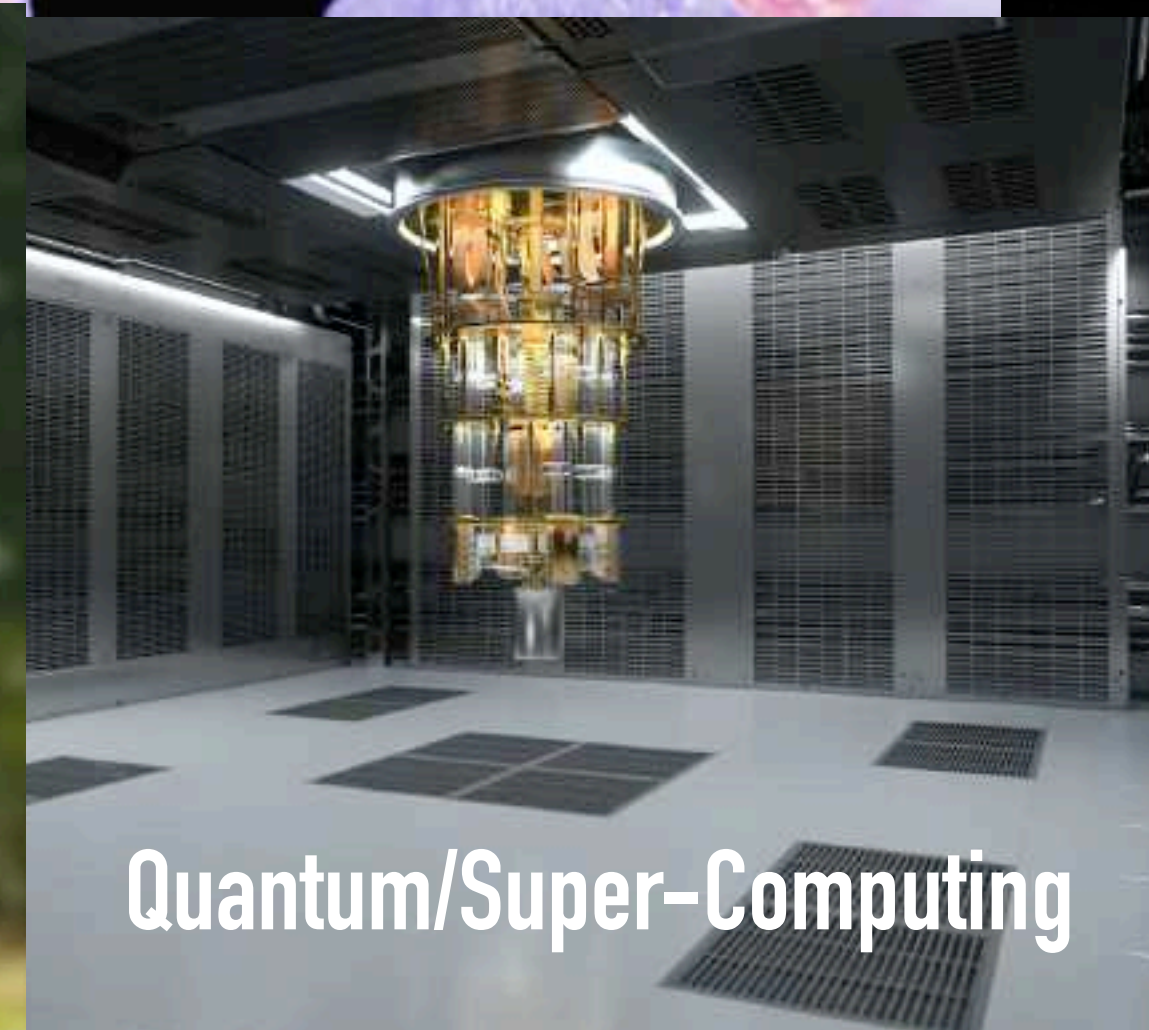
AI / AGI



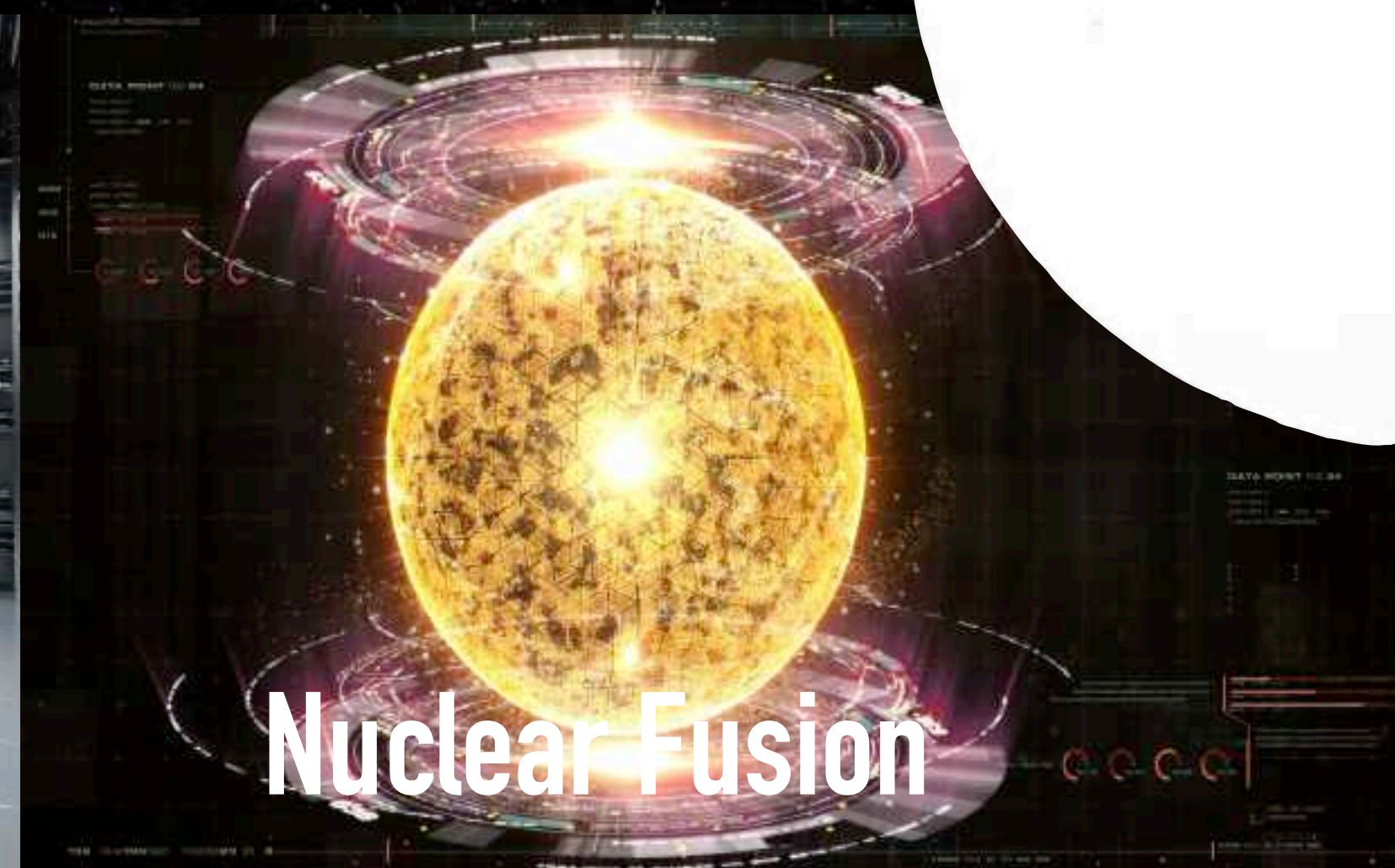
Robotics



Quantum/Super-Computing



Nuclear Fusion



UNLIMITED ENERGY + UNLIMITED INTELLIGENCE

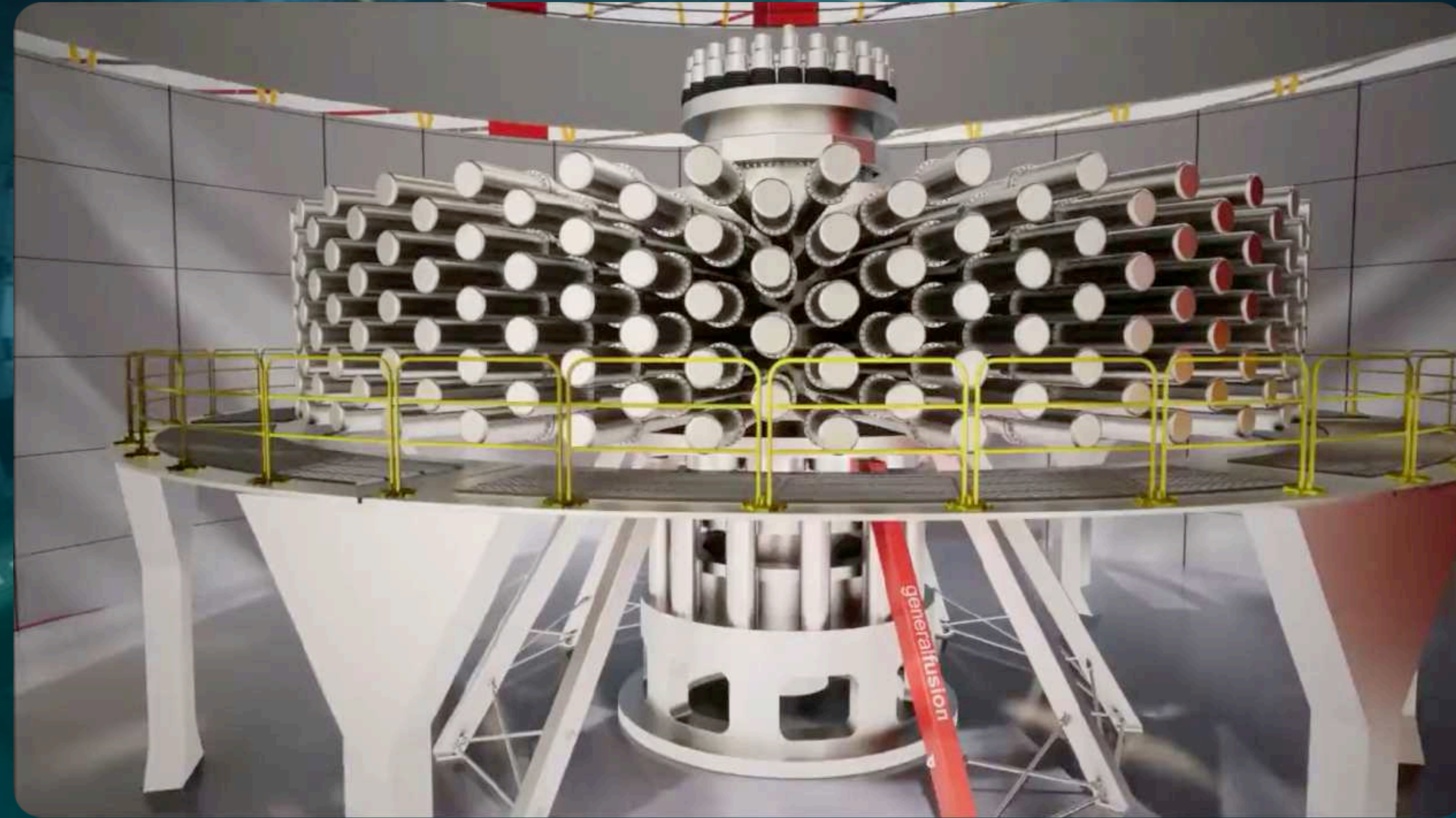
SCIENCE FACT

@tsarnick



intelligence and abundant energy

SAM ALTMAN, CEO, OPENAI



Google DeepMind @GoogleDeepMind · Oct 16
We're announcing a research collaboration with @CFS_energy, one of the world's leading **nuclear fusion** companies.

Together, we're helping speed up the development of clean, safe, limitless **fusion** power with AI.



Li Zexin 李泽欣 @XH_Lee23 · Oct 10
China's "artificial sun" has made a breakthrough with its core part successfully installed!

This controlled **nuclear fusion** device (the ultimate clean energy source) is expected to make the world's 1st **fusion** energy power generation in 2030.

gerd

'UNLIMITED' ENERGY and INTELLIGENCE

“Our moral responsibility is not to stop the future, but to shape it...to channel our destiny in humane directions”

Alvin Toffler #futureshock 1996

Exponential Technological Game-Changers: Change happens Gradually then **SUDDENLY!**



Gerd Leonhard San Francisco, CA, Waymo Autonomous Taxi Trip March 24, 2025



Exponential Technological Game-Changers: Change happens Gradually then SUDDENLY!

English - US \$

1

ONEWAY (1 TRAVELER)

Revise this trip

San Francisco SFO to Detroit DTW

Nov 25 • 6:00 am to 3:27 pm • 1 stop

Duration: 6h 27m

Travelers: 1

Includes Travel Operated by Republic Airways dba United Express

San Francisco SFO to Chicago ORD

Nov 25 • 6:00 am to 12:24 pm

Duration: 4h 24m

Flight Number: UA 2091

Aircraft type: Airbus A321neo

Emissions per seat type: 147 kg CO₂

35M

Chicago ORD to Detroit DTW

Nov 25 • 12:59 pm to 3:27 pm

Duration: 1h 28m

Flight Number: UA 3408

Aircraft type: Embraer E175

United Airlines | Select Flights

Is there a mother's room at my connection and is it open when I'm there?

Yes—at Chicago O'Hare (ORD), your connection airport, there is a Mother's Room in **Terminal 1, Concourse B by Gate B10**, which is where United operates. It's listed as open 24 hours, so it will be available during your layover on Tuesday, Nov 25 (12:24 pm–2:20 pm local time).

Fly Chicago

English - US \$

1

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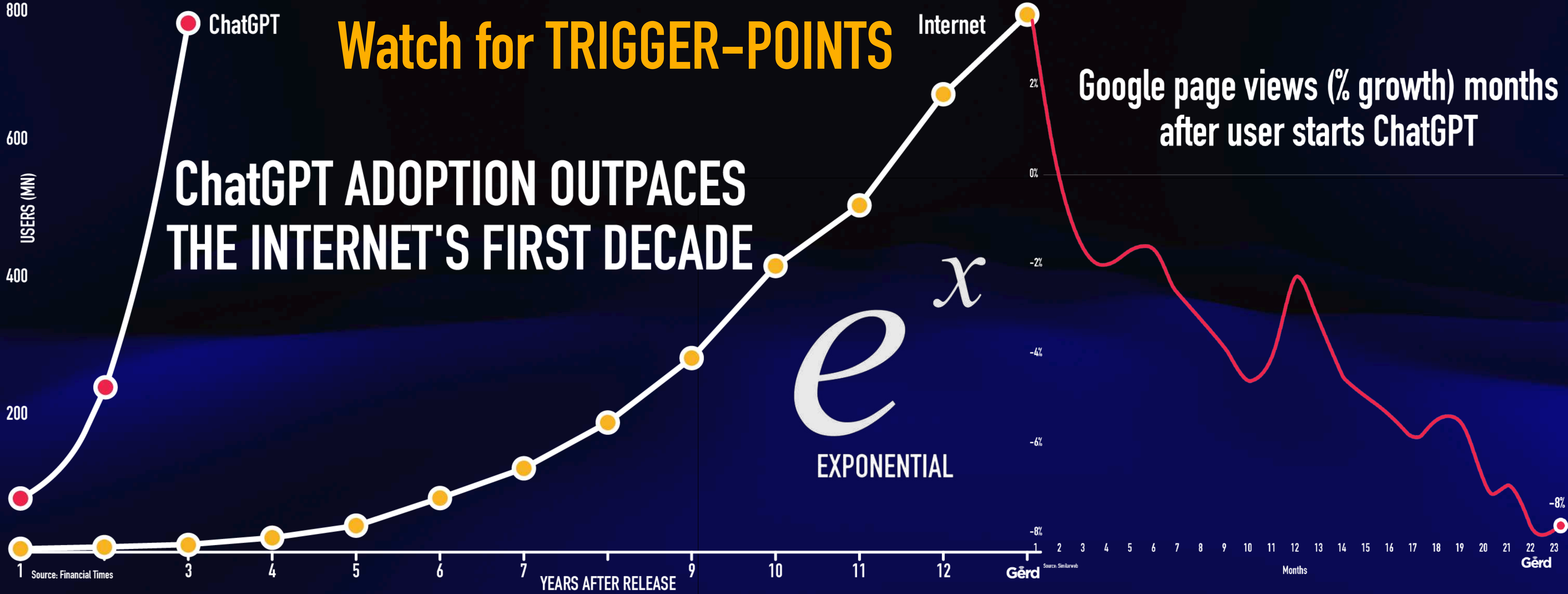
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Fly Chicago

Watch for TRIGGER-POINTS

ChatGPT ADOPTION OUTPACES
THE INTERNET'S FIRST DECADE



**GEOPOLITICAL
REVOLUTION**

**DIGITAL
REVOLUTION**

**SUSTAINABILITY
REVOLUTION**

**PURPOSE
REVOLUTION**



2030



e^x



PROFIT
GROWTH



PEOPLE
PLANET
PURPOSE
PEACE
PROSPERITY



SUSTAINABILITY IS CORE STRATEGY, regardless of current political aberrations. Leaders will be measured by how well organizations **align profit with people, planet and purpose.**

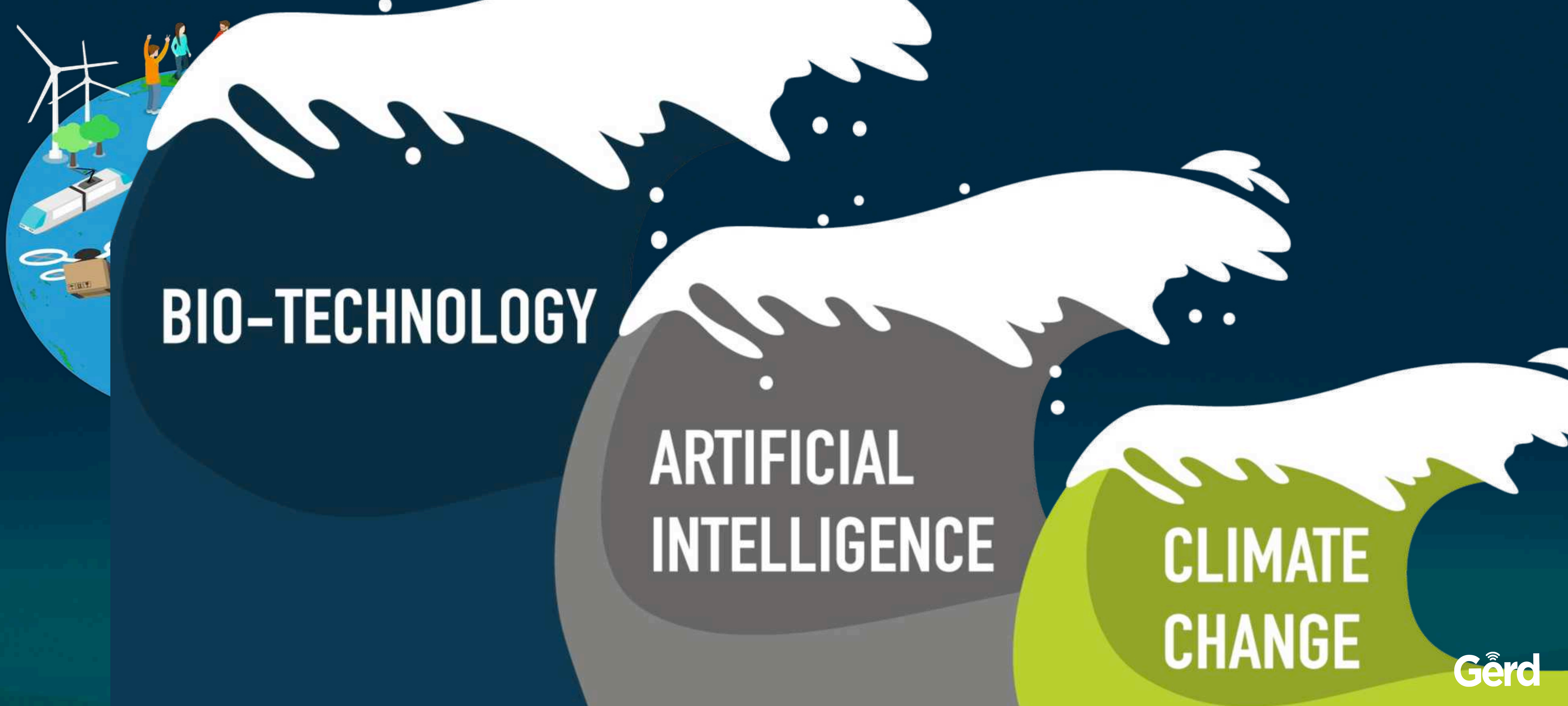
PEOPLE
PLANET
PURPOSE
PEACE
PROSPERITY



PROFIT
GROWTH
POWER



PEOPLE
PLANET
PURPOSE
PEACE
PROSPERITY



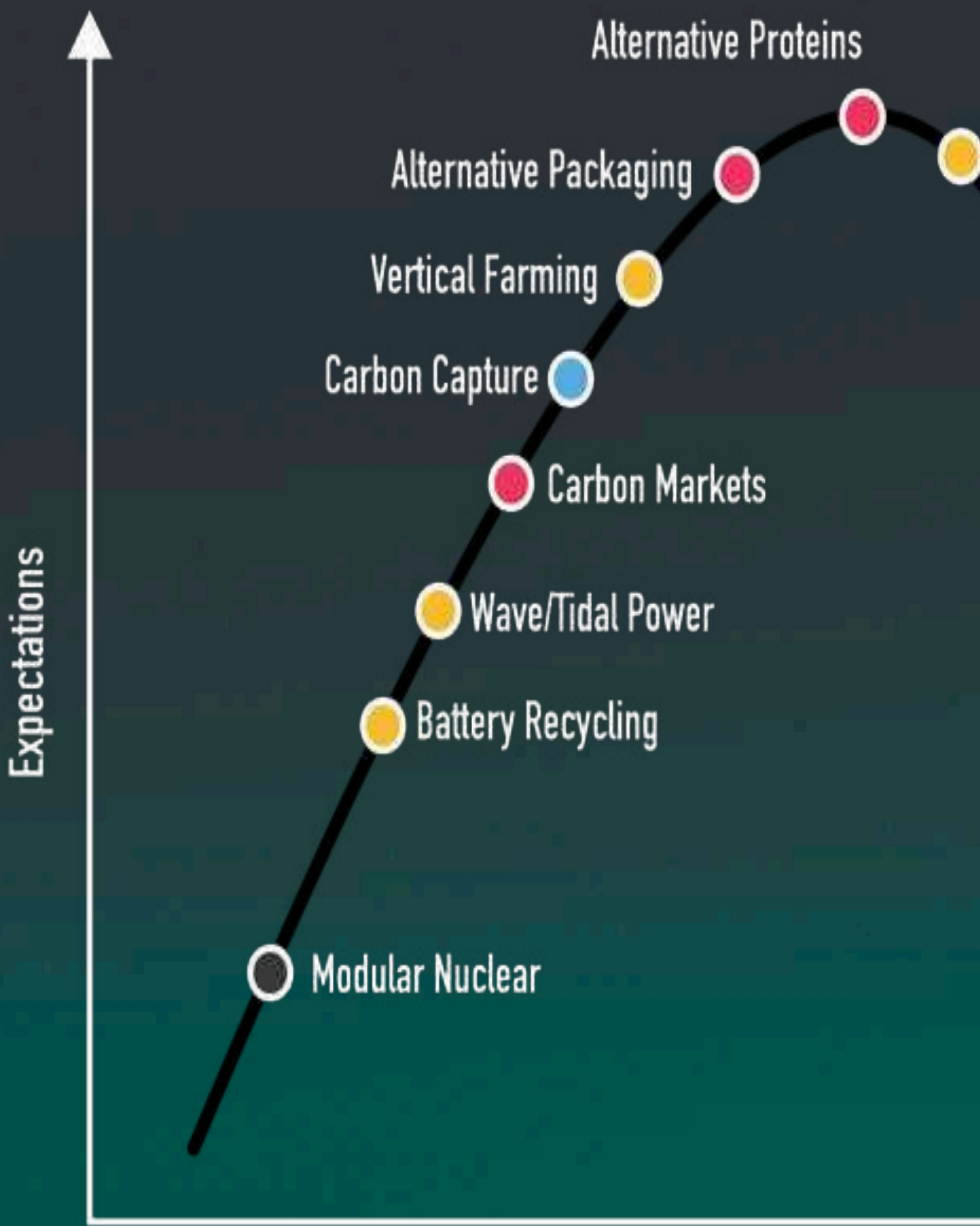
BIO-TECHNOLOGY

ARTIFICIAL
INTELLIGENCE

CLIMATE
CHANGE

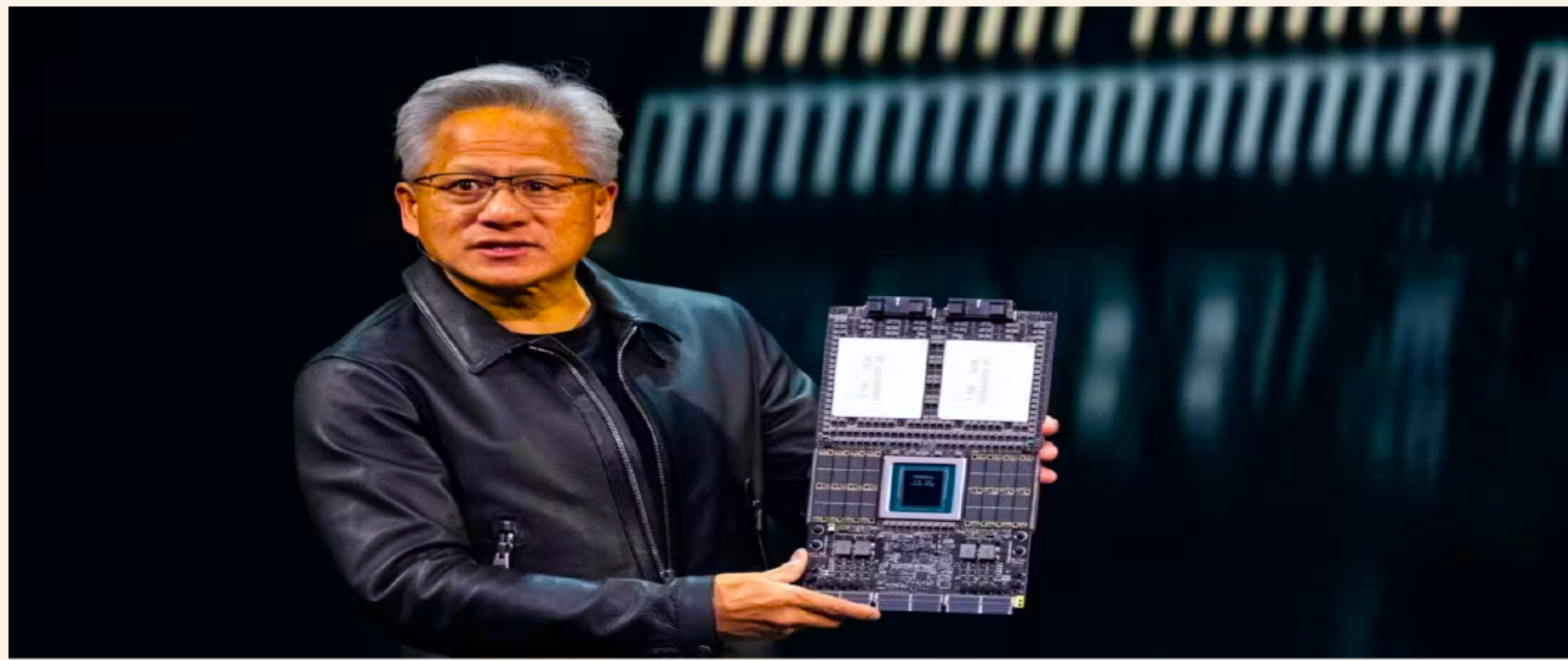
BIG GREEN AND BIG BLUE (TECHNOLOGY)

SELECT CLIMATE TECH INNOVATION HYPE CURVE

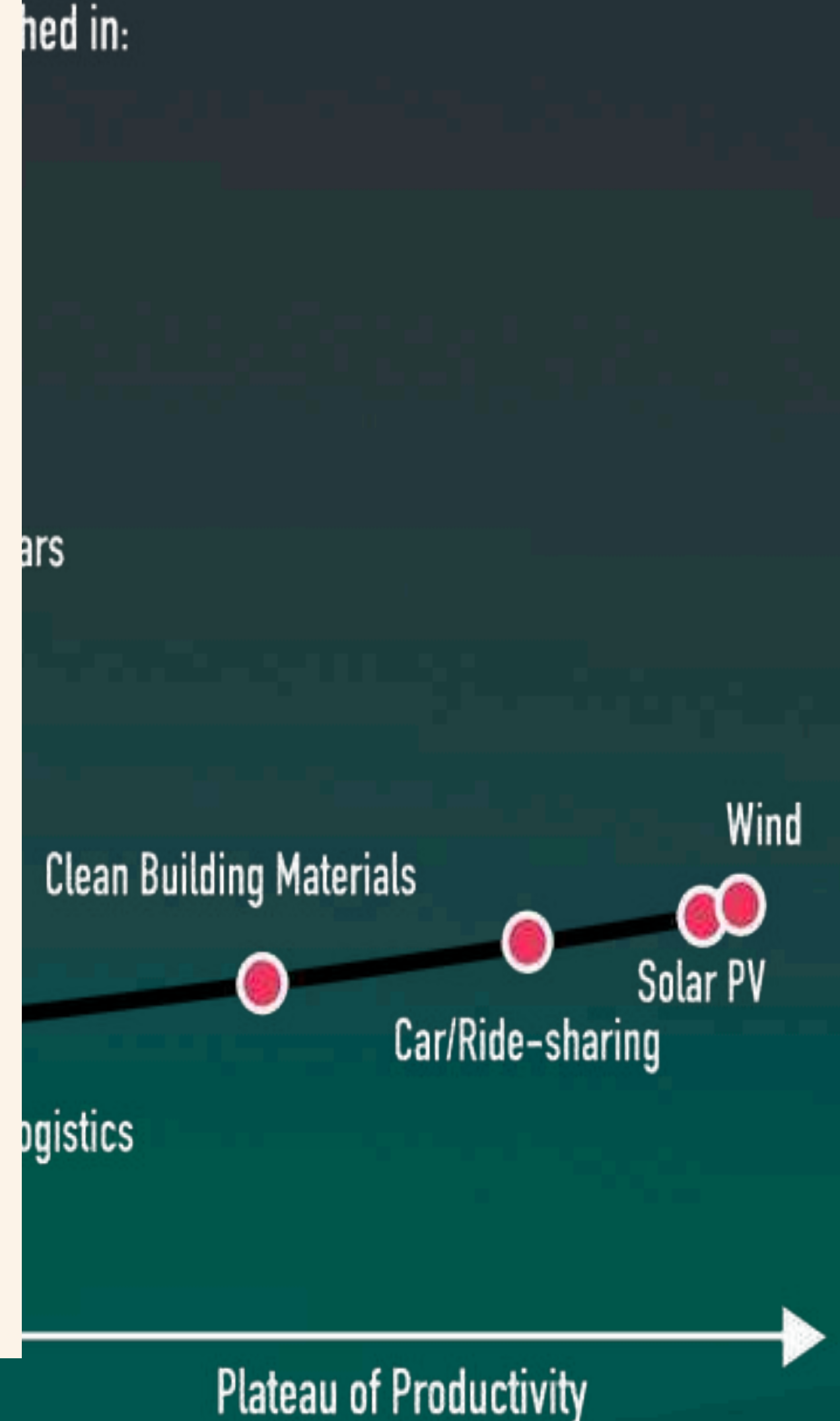


Nvidia poised to become world's first \$5tn company

US chip giant's stock propelled by strong sales of AI systems and prospect of access to China



Chief executive Jensen Huang said Nvidia had already secured half a trillion dollars in orders of its AI chips for the next five quarters © Bloomberg



NVIDIA vs Big Pharma

\$4.6T
Market cap

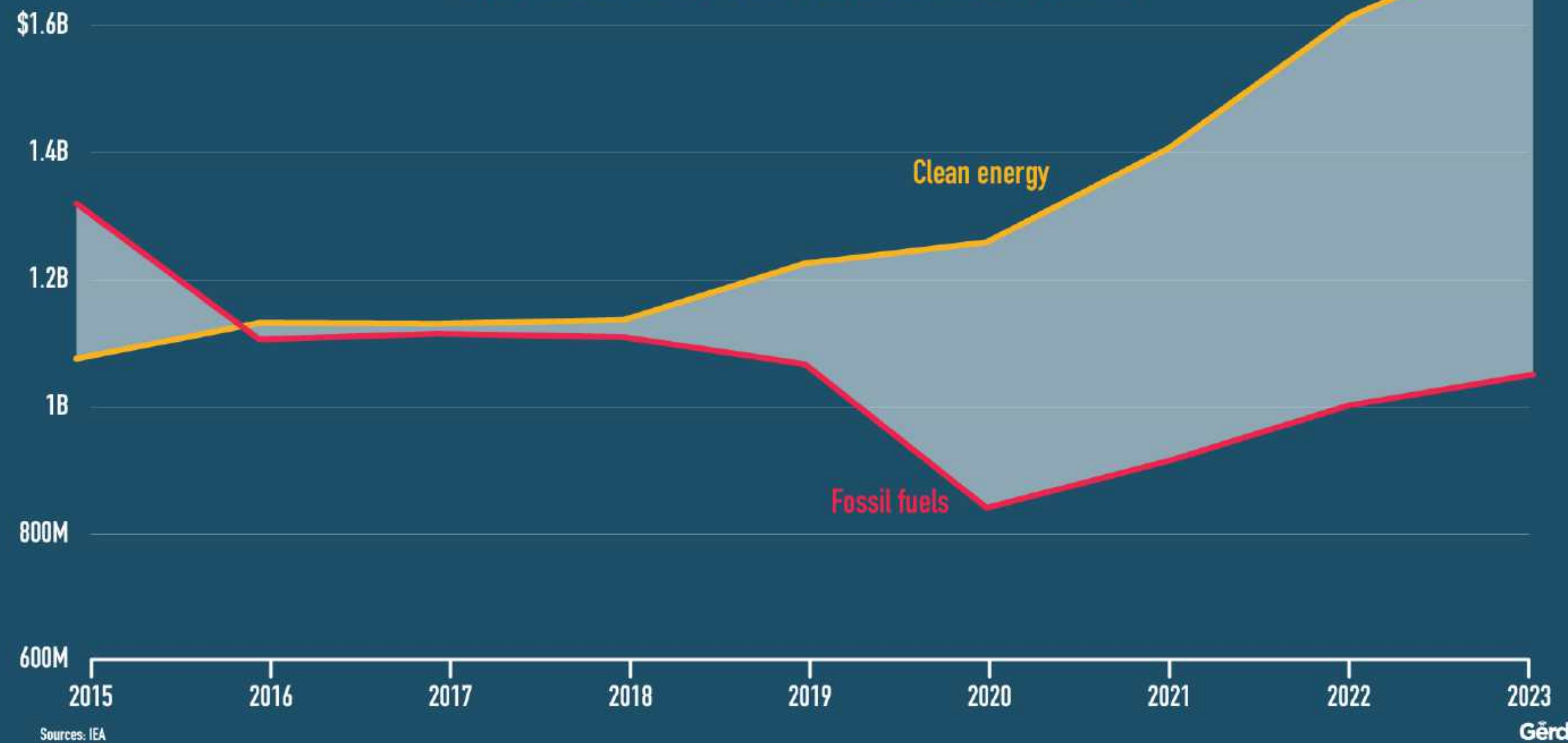


\$4.2T
Combined Market Cap

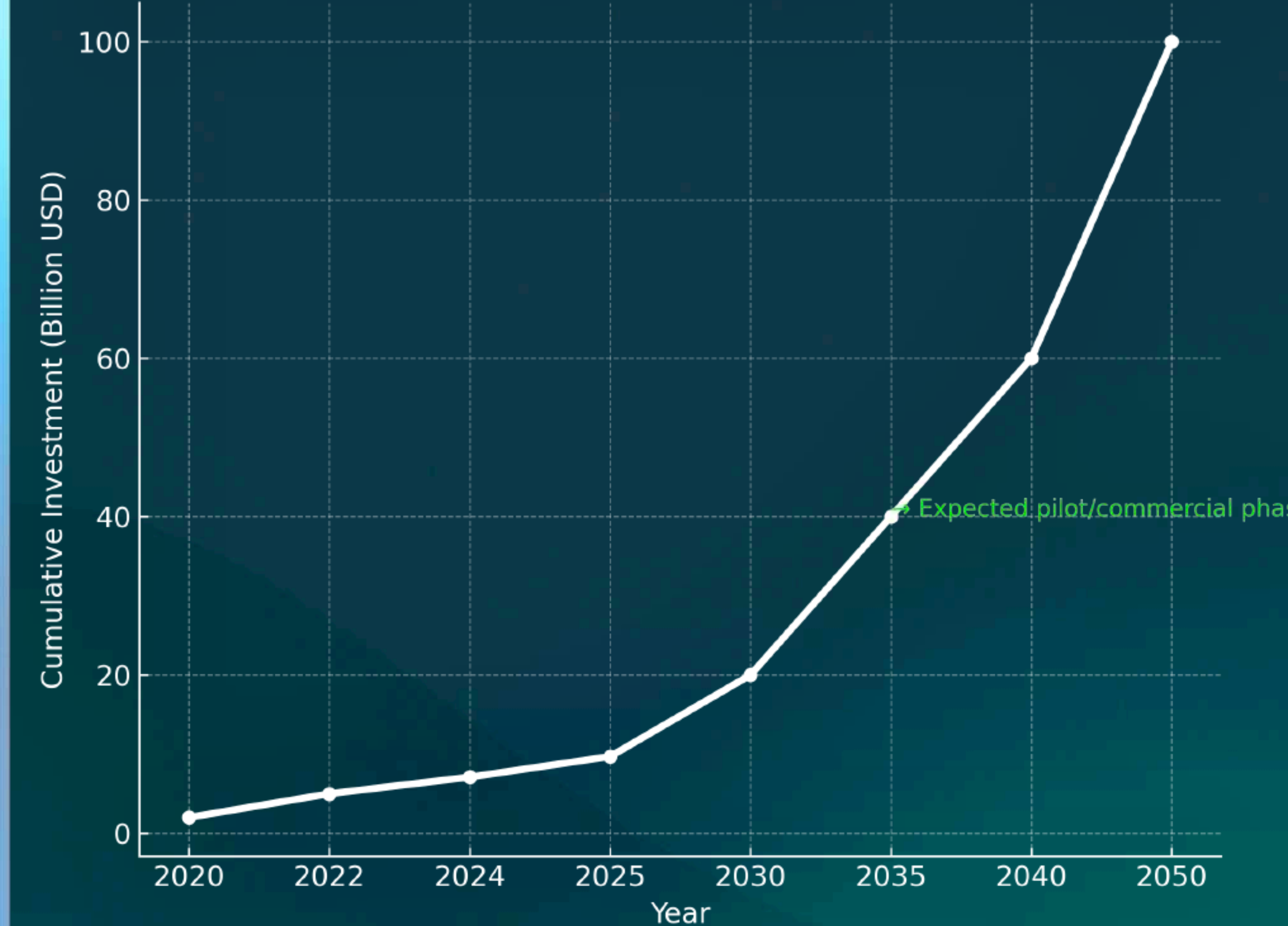


Impossible New Normal (Digital Revolution + Green Revolution)

THE GAP BETWEEN ANNUAL INVESTMENT IN CLEAN ENERGY
AND IN FOSSIL FUELS CONTINUES TO WIDEN

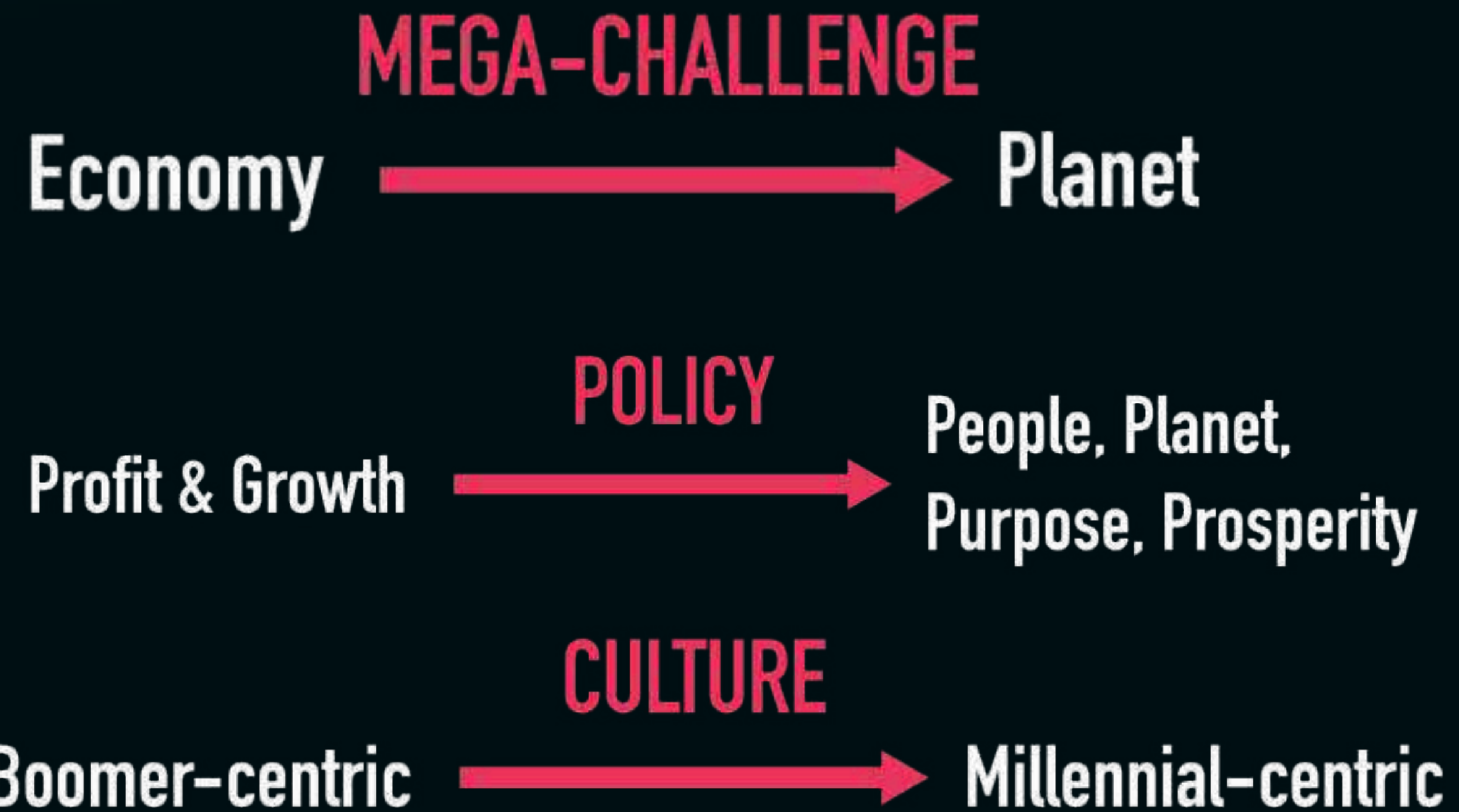


Global Investment Growth & Projection in Nuclear Fusion

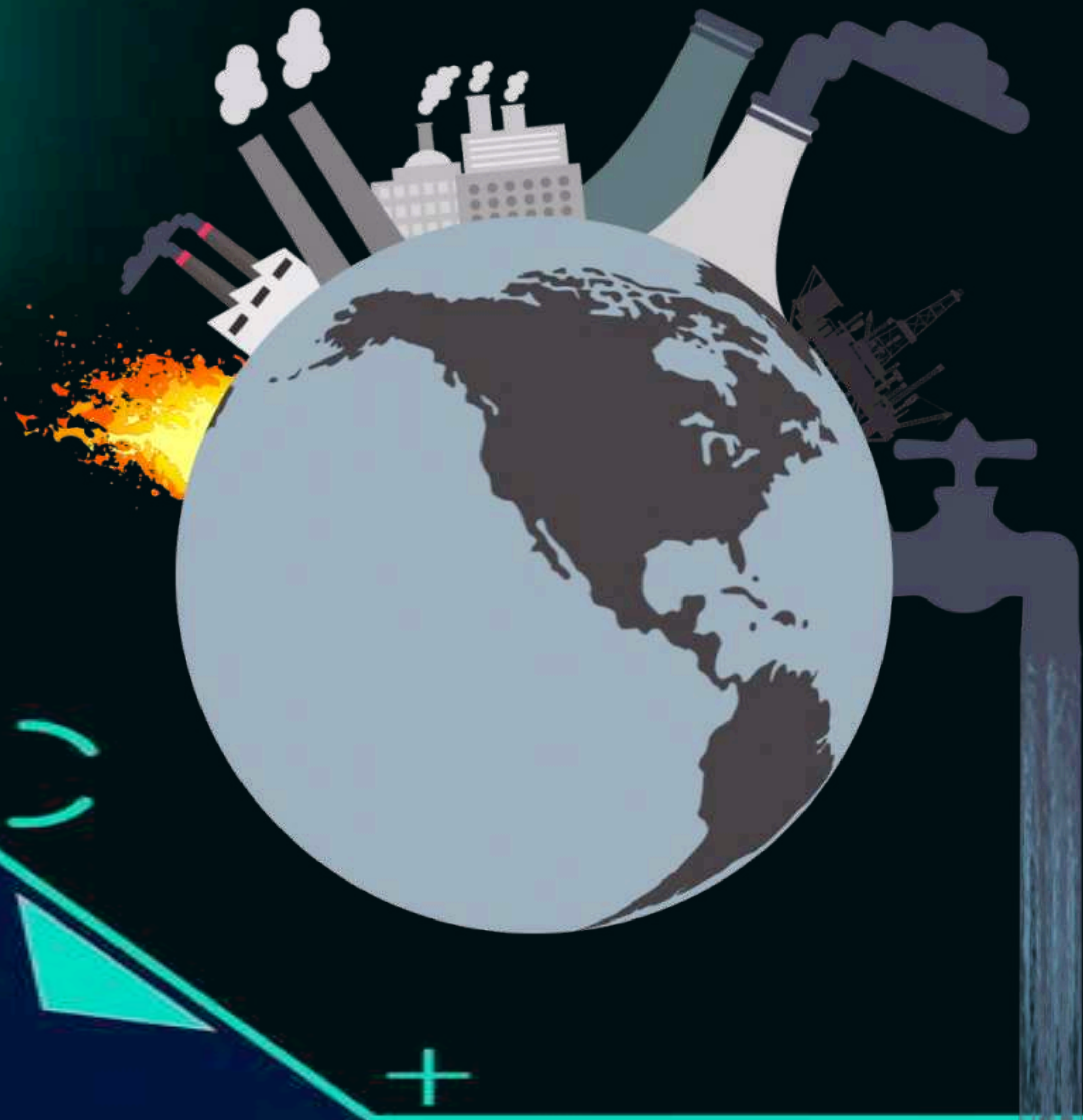


“It is the
FRAMEWORK which
changes with each
new technology and
not just the picture
within the frame”

Marshall Mc Luhan



EXTRACTION



CREATION



MEGA-CHALLENGE

Economy



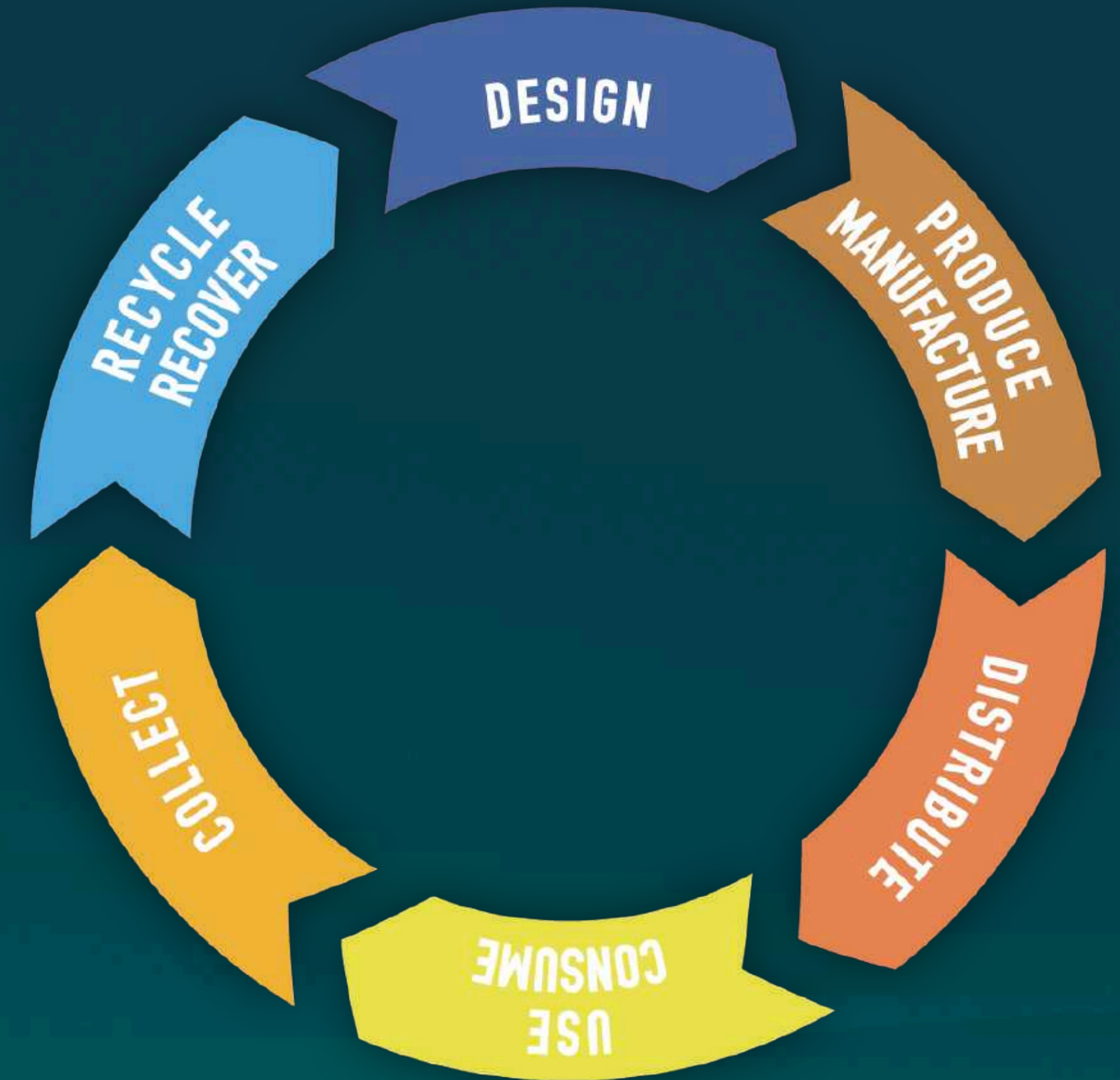
Planet

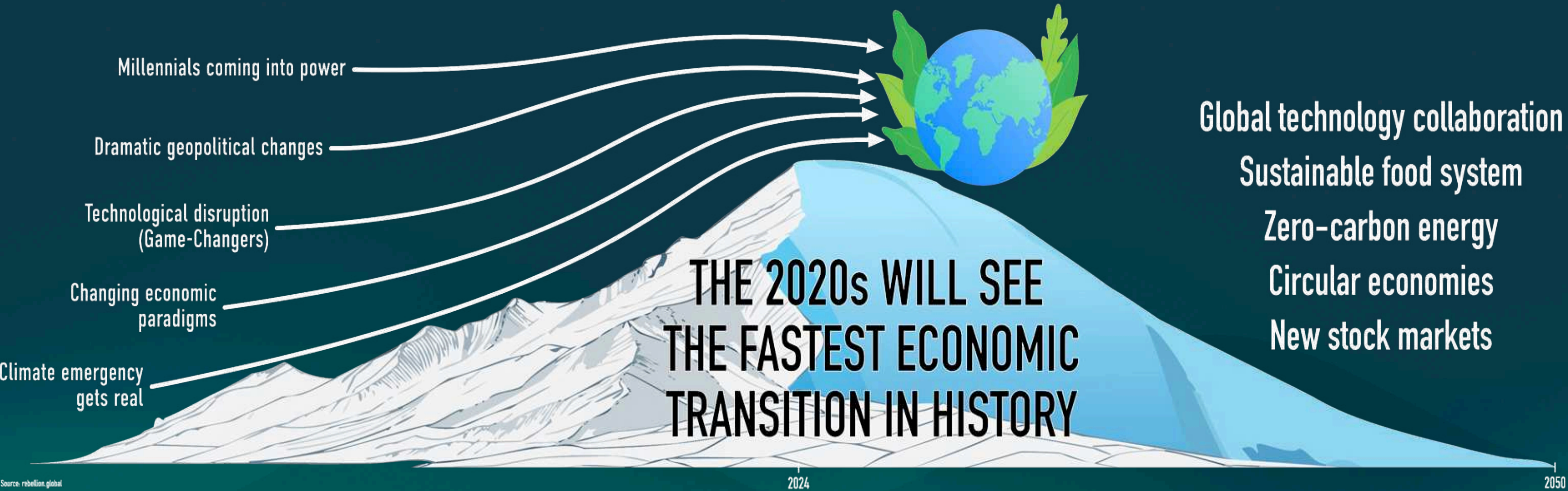
Economy

MEGA-CHALLENGE



Planet







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

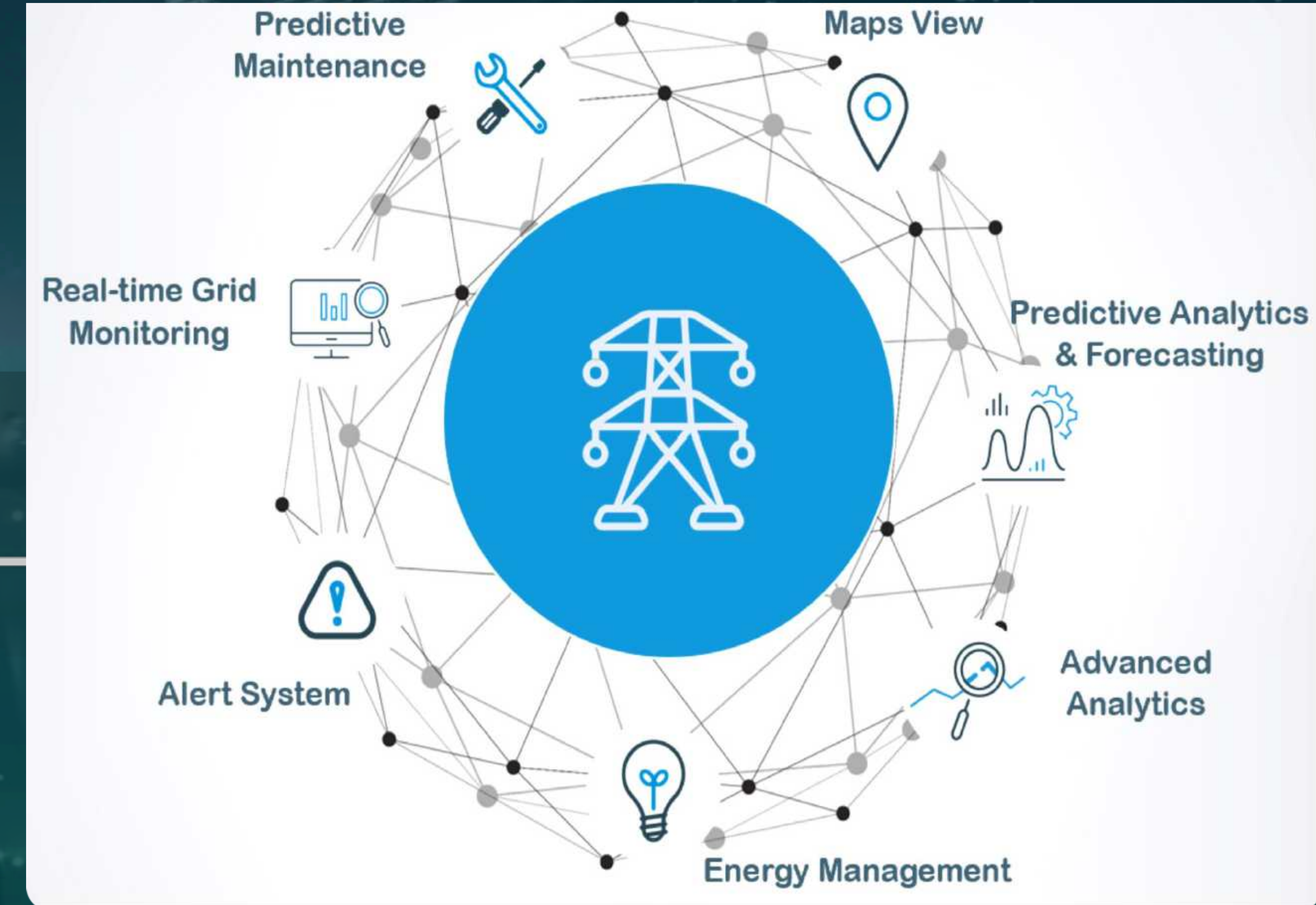
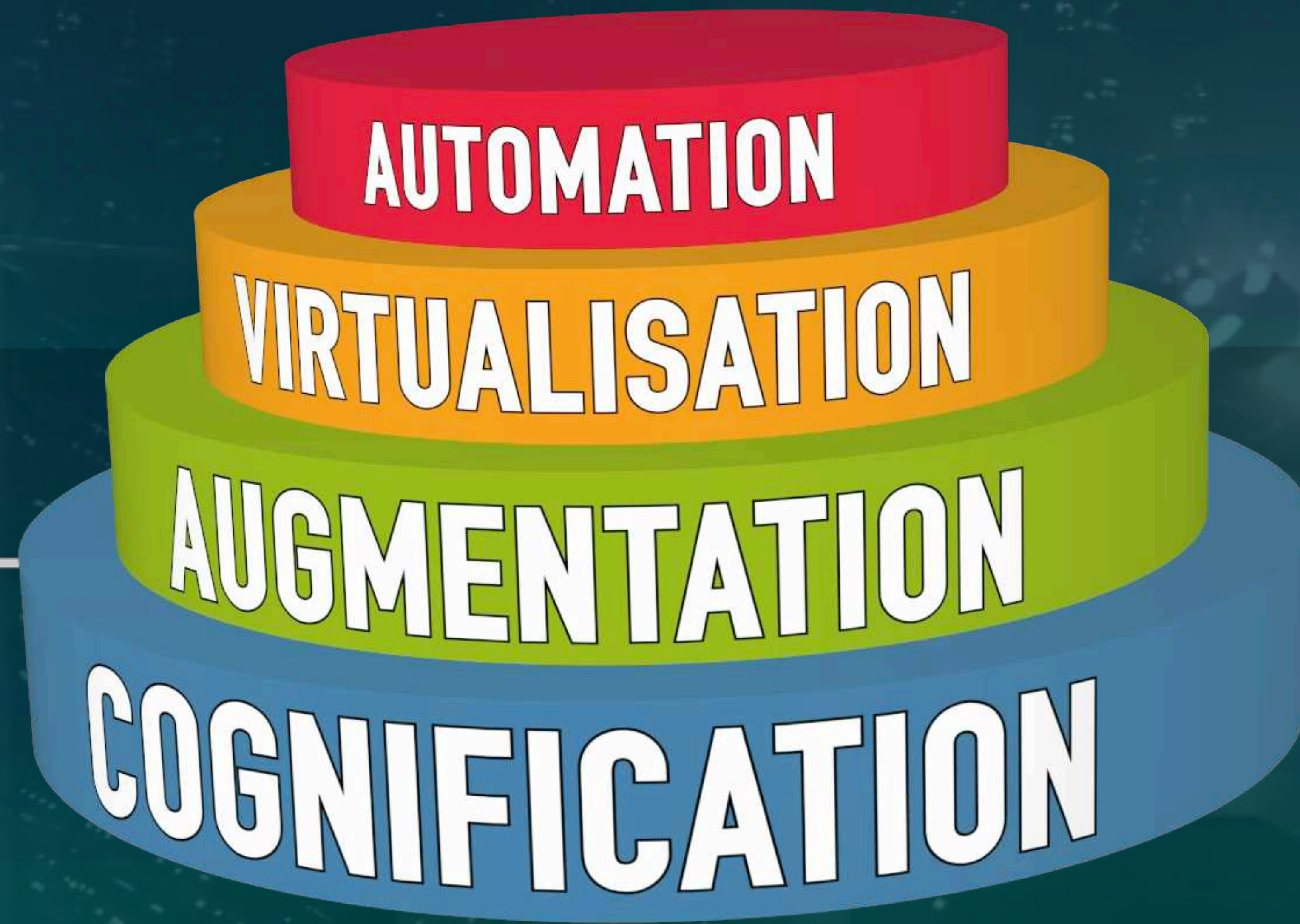
DEMIS HASSABIS,
CEO, DEEPMIND



“The coming change (in AI) will
center around the most
impressive of human capabilities:
the phenomenal ability to **think,
create, understand, and reason**”

SAM ALTMANN, CEO, OPENAI







Tallahassee

Madison

Wfordville

Perry

Steinatchee

Big Bend Seagrasses Aquatic Preserve

Ocala

What economic, health or other variables do you have access to that describe the vulnerability of the population in these counties?

◆ Show Thinking ▼

To understand the vulnerability of populations in the counties affected by Hurricane Helene, we have to find relevant economic, health, and other variables

- ✓ Get data for socioeconomic and health indicators from [Data Commons](#) for the specific counties
- ✓ Choose a subset of the indicators specifically tied to population vulnerability and create a table

Data indicating the population vulnerability in the counties most affected by Hurricane Helene have been stored in a table on the left.

📊 Florida Population Vulnerability by County

Ask a question

Generative AI experiment. Info quality may vary. Double check your responses. [Learn more](#)



Bilawal Sidhu ✓ @bilawalsidhu · Oct 24

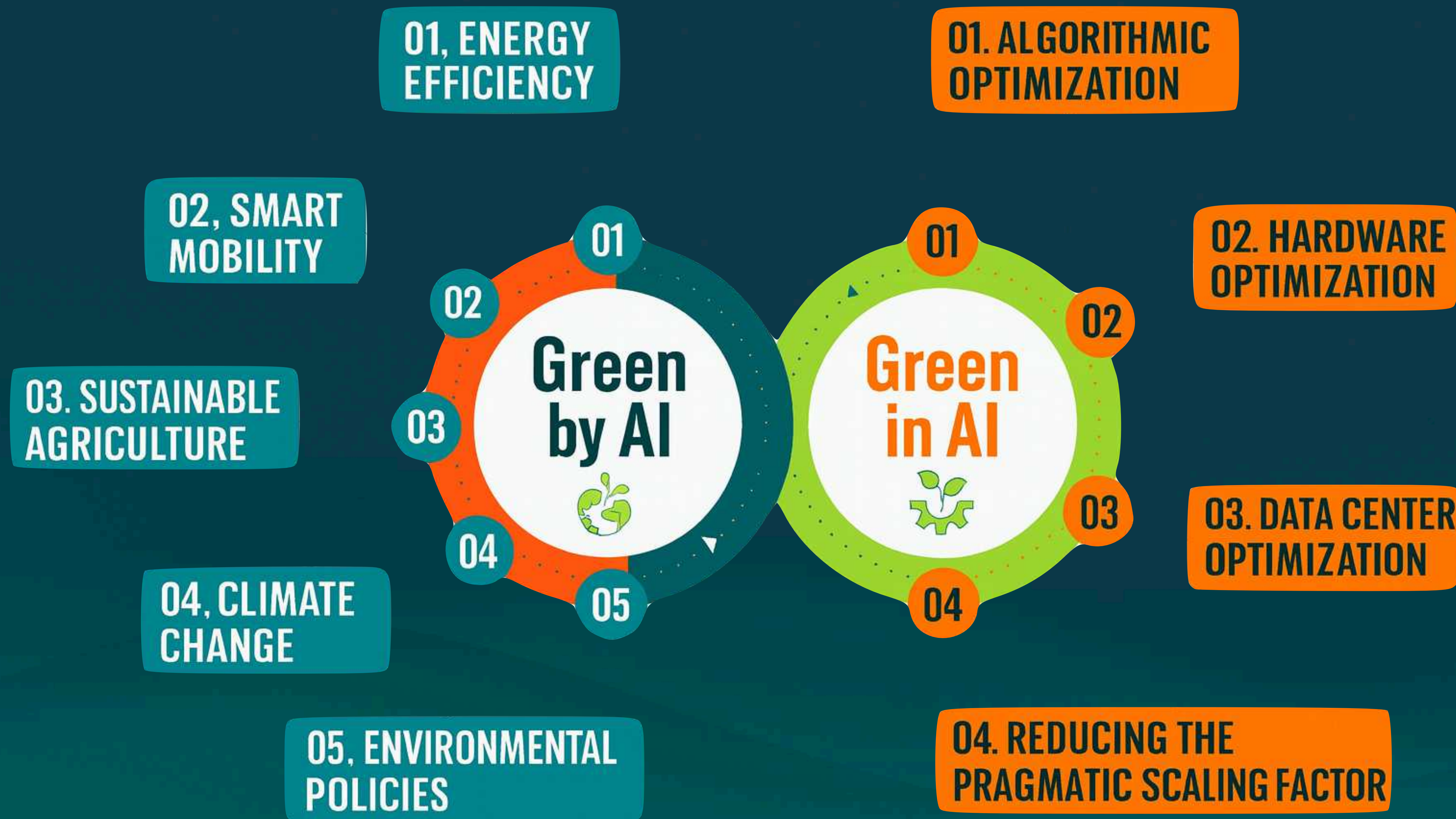
Google just took another big step towards becoming ChatGPT for planet earth.

I can't overstate how important this is — geospatial AI commodified. Here's what it can do:



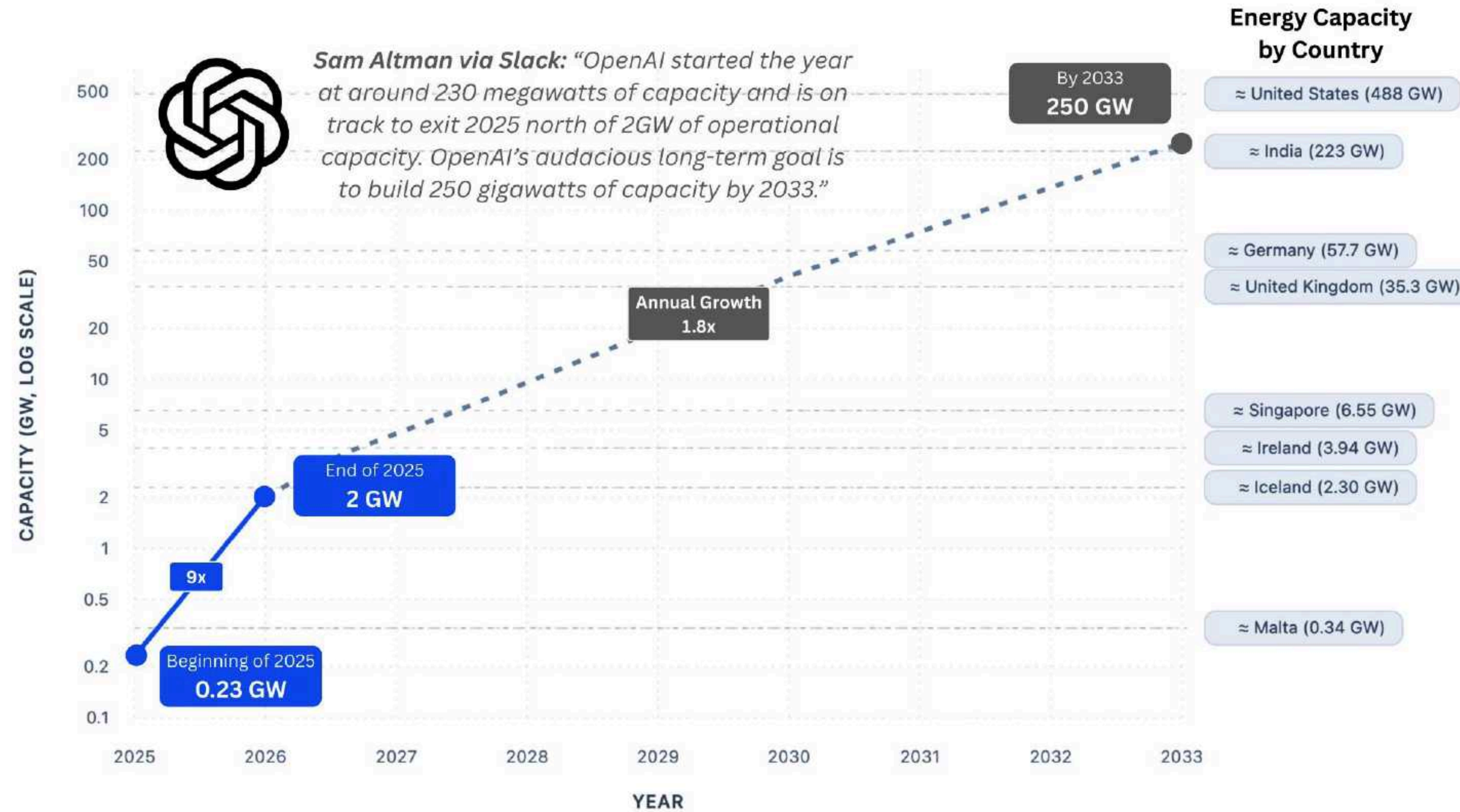
@tsarnick

it also saves a lot of energy



OpenAI planning to 125x energy capacity in 8 years

This would mean using more than India's energy capacity today



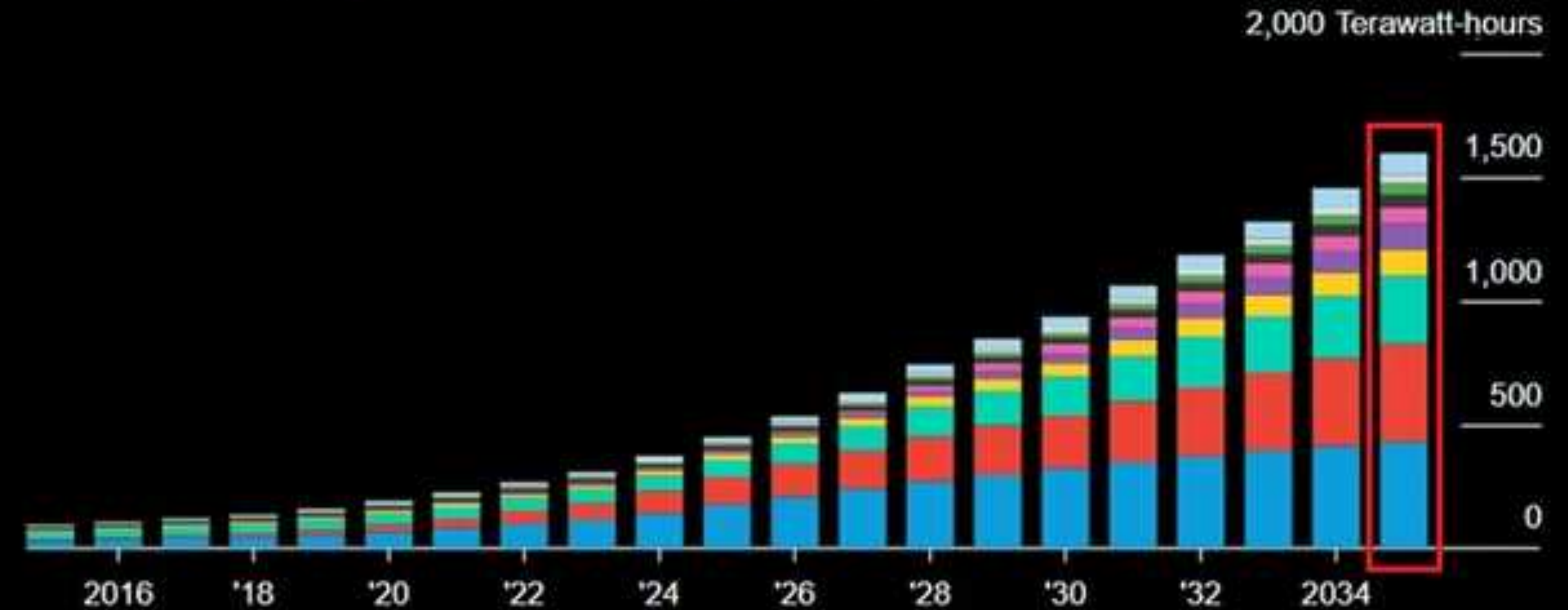
Source: Alex Heath, Sources.News

Peter Gostev (<https://x.com/petergostev>); (<https://www.linkedin.com/in/peter-gostev/>)

Power Demand From AI Data Centers to Quadruple in 10 Years

Global data center power demand outlook by market

US China Europe Japan and South Korea India Southeast Asia
Other Asia-Pacific Latin America Australia Rest of World



Source: BloombergNEF

BloombergNEF

Gerd

Cognification

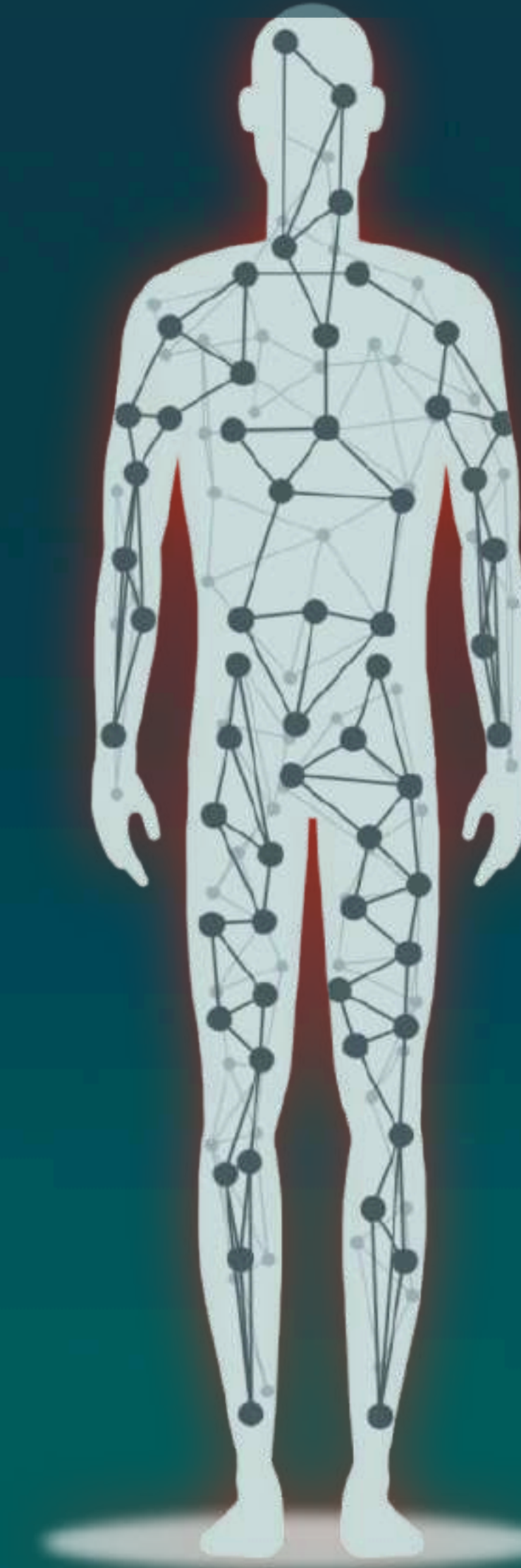
Augmentation

DEHUMANISATION

“Digital Humans”



MAGIC



Toxic



Who would you TRUST?



ChatGPT-5



ChatGPT
Agent



ChatGPT
Atlas



Gerd

STATEMENT ON SUPERINTELLIGENCE

“...This has raised concerns, ranging from human economic obsolescence and disempowerment, losses of freedom, civil liberties, dignity, and control, to national security risks and even potential human extinction.

SOURCE: FUTURE OF LIFE INSTITUTE

©CBS NEWS 24/7

THE DAILY REPORT

28,000+ PEOPLE SIGN PETITION CALLING FOR
BAN ON A.I. "SUPERINTELLIGENCE" DEVELOPMENT

HEADLINES ACCUSED HAMAS CONSPIRATOR PLEADS NOT GUILTY IN LOUISIANA TO AIDING OCT. 7 ATTACK



Gerd

WORK

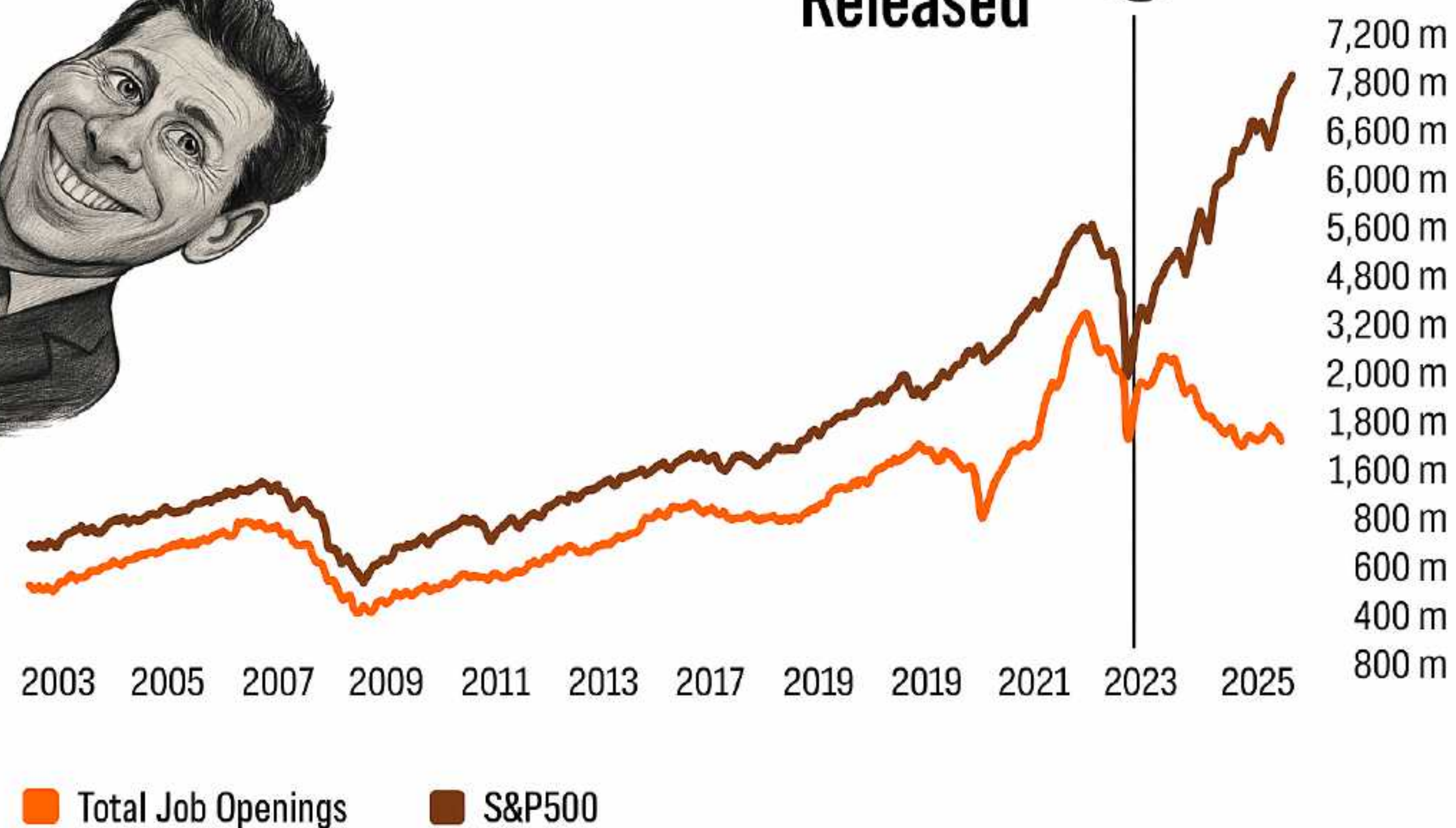
**Humans
Doing Routines**

**Machines
Doing Routines**

YES... BUT

YES...BUT... REALLY?

Chat GPT
Released



Amazon Plans to Replace More Than Half a Million Jobs With Robots

Internal documents show the company that changed how people shop has a far-reaching plan to automate 75 percent of its operations.

Hire Artisans, Not Humans

ava@artisan.co



ARTISAN

14X48

OUTFRONT/

464050

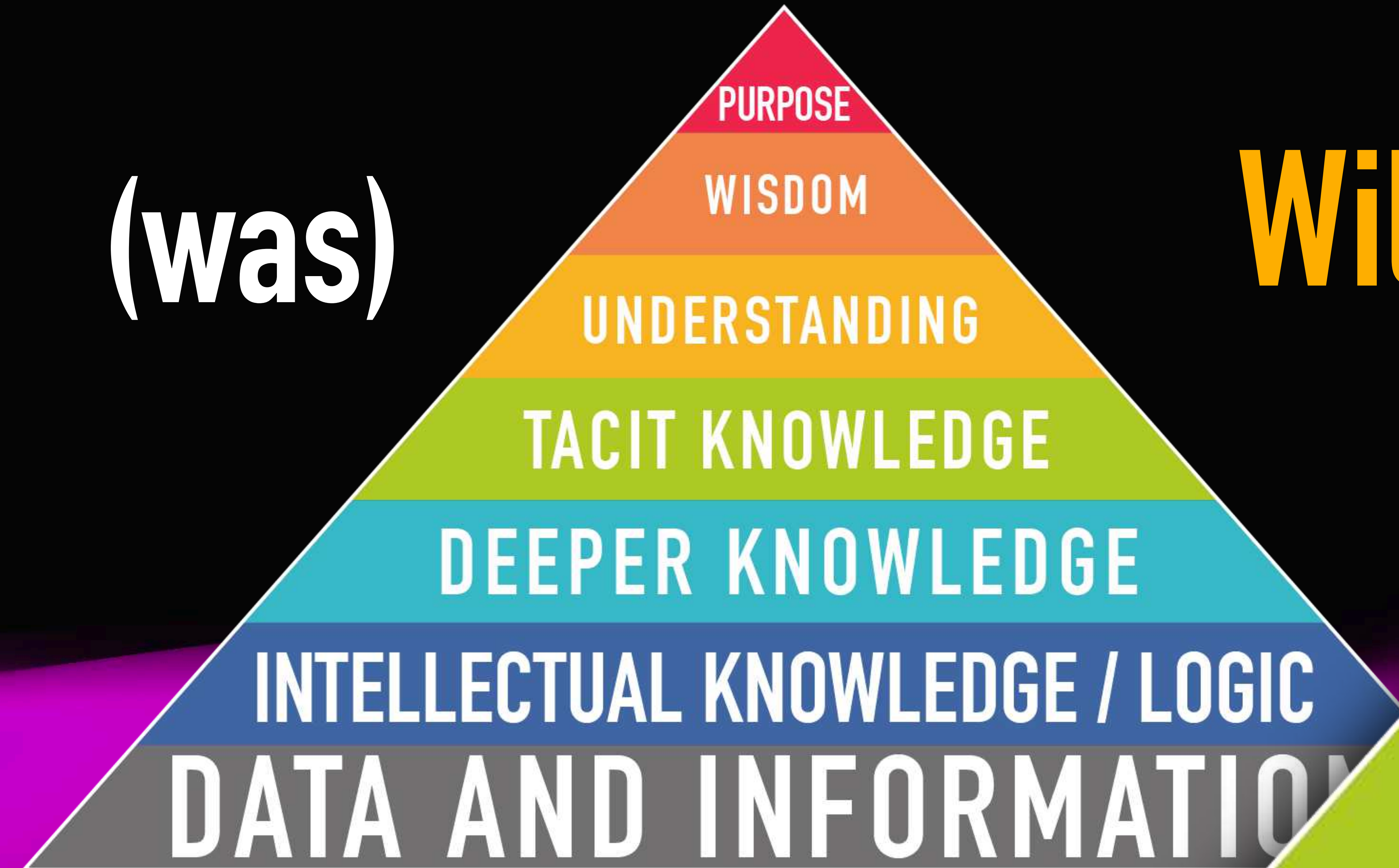
6269

PARKING
400 3RD S

Gerd

(was)

Will be

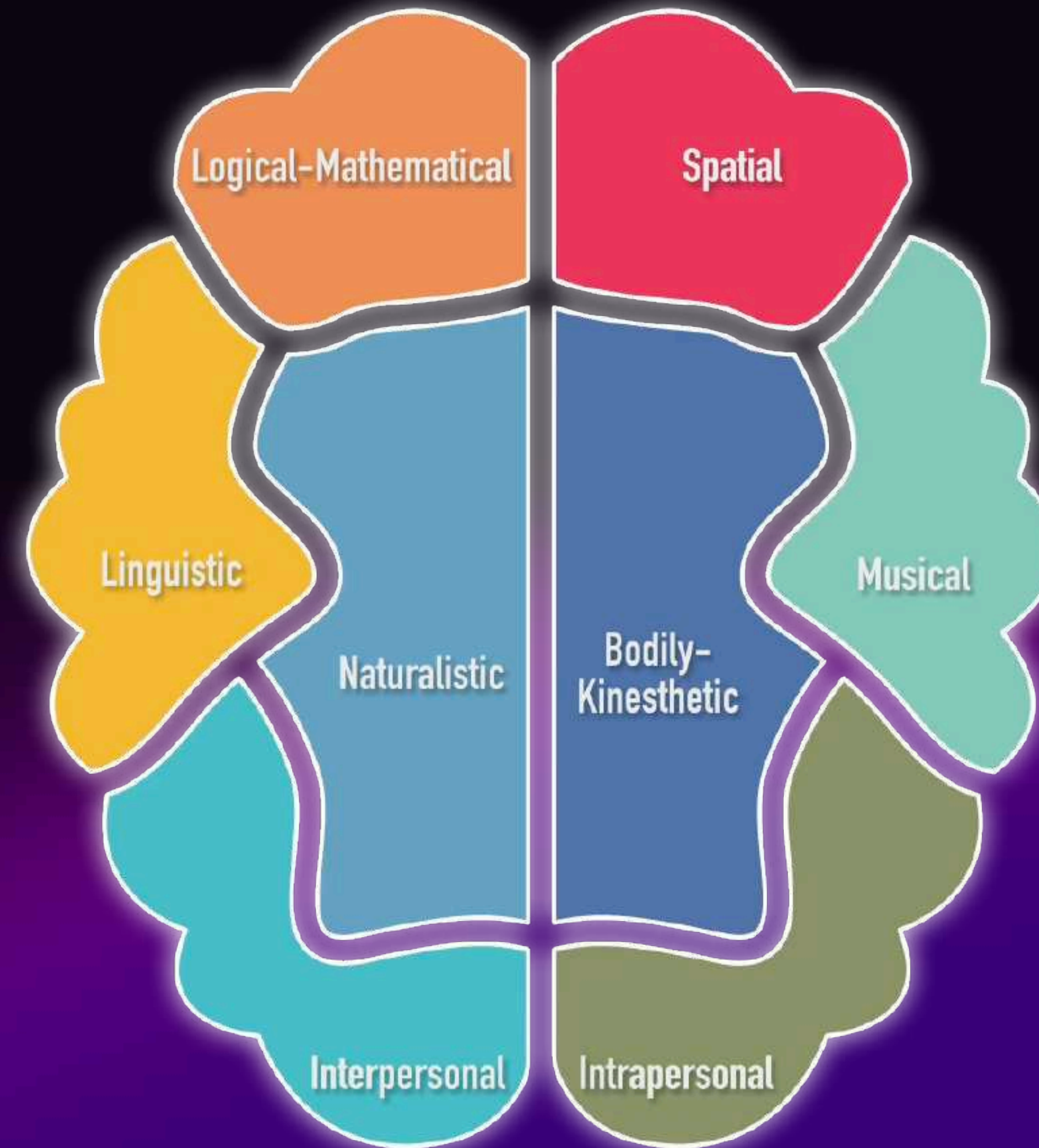


MACHINE INTELLIGENCE AI



HUMAN INTELLIGENCE (HI)

DATA
LOGIC
EFFICIENCY
ALGORITHMS
PRODUCTIVITY



EMOTIONS

INTUITION

COMPASSION

MYSTERY

VALUES

CONSCIOUSNESS

CREATIVITY

IMAGINATION

ETHICS

EMPATHY



e^x

EXPONENTIAL



Critical Thinking

Compassion

Imagination

Resilience

Questions

Optimism

Courage

Intuition

Ethics

“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



The doors aren't closing – they are opening!



TAKE A WIDER VIEW!



TESLA

GEELY



BYD, China 4075

Tesla, U.S. 1790

Volkswagen, Germany 745

SAIC, China 631

Geely, China 492

GAC, China 374

Hyundai, South Korea 271

BMW Germany 268

WORLD'S
BEST-SELLING
ELECTRIC CARS
2024, IN
THOUSANDS

**GEOPOLITICAL
REVOLUTION**

**DIGITAL
REVOLUTION**

**SUSTAINABILITY
REVOLUTION**

**PURPOSE
REVOLUTION**

We are
to be

**ARCHITECTS
OF THE
FUTURE,**

not its victims!

(Buckminster Fuller

Gerd





Sustainable – Connected – Intelligent – Collaborative – Equitable



Gerd

Thanks for your time and kind attention. Now, let's talk!  ScottishPower

THE GOOD
FUTURE

2035
SCOTLAND

