

A Decade on the Journey towards Governance Excellence

BOARD OF DIRECTORS & ARTIFICIAL INTELLIGENCE



**ARGÜDEN
GOVERNANCE
ACADEMY**

Good Governance for
Quality of Life
— 10 YEARS —

Prof. David R. BEATTY

14.02.2024

TUSIAD

TURKISH INDUSTRY & BUSINESS
ASSOCIATION

The AI Tsunami

Professor David R. Beatty C.M., O.B.E., F.ICD, CFA
Founding Director, The David & Sharon Johnston Centre for Corporate Governance Innovation
Rotman School of Management
University of Toronto



ICGN

International Corporate Governance Network

Lifetime Achievement Award 2018

Please visit: <http://boardchair.com>



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Economy &
Finance

Industrial Policies
and Investment
Environment

Relations with the
Parliament and
Public Institutions

Social
Development

Digital Türkiye

Energy,
Environment,
and Climate
Change

Entrepreneurship
& Youth

Global Relations
and the EU

Agriculture,
Food and
Services

Relations with
the Business
Organizations



Co-Leader of Roundtable

Perihan İnci

TÜSİAD Board Member

Digital Türkiye Round Table works on technology, innovation and digital economy. Its purpose is to support the transformation to the information society and enhancing the innovation capacity in order to raise the added value and competitiveness.



Co-Leader of Roundtable

H. Çağatay Özdoğru

TÜSİAD Board Member

The AI Tsunami

Günyadın. Kolay gelsin!

You need a compass at sea to navigate – to find your way



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You need a compass at sea to navigate + sextant



Sailed 3,500 miles in the South Pacific
for over a year

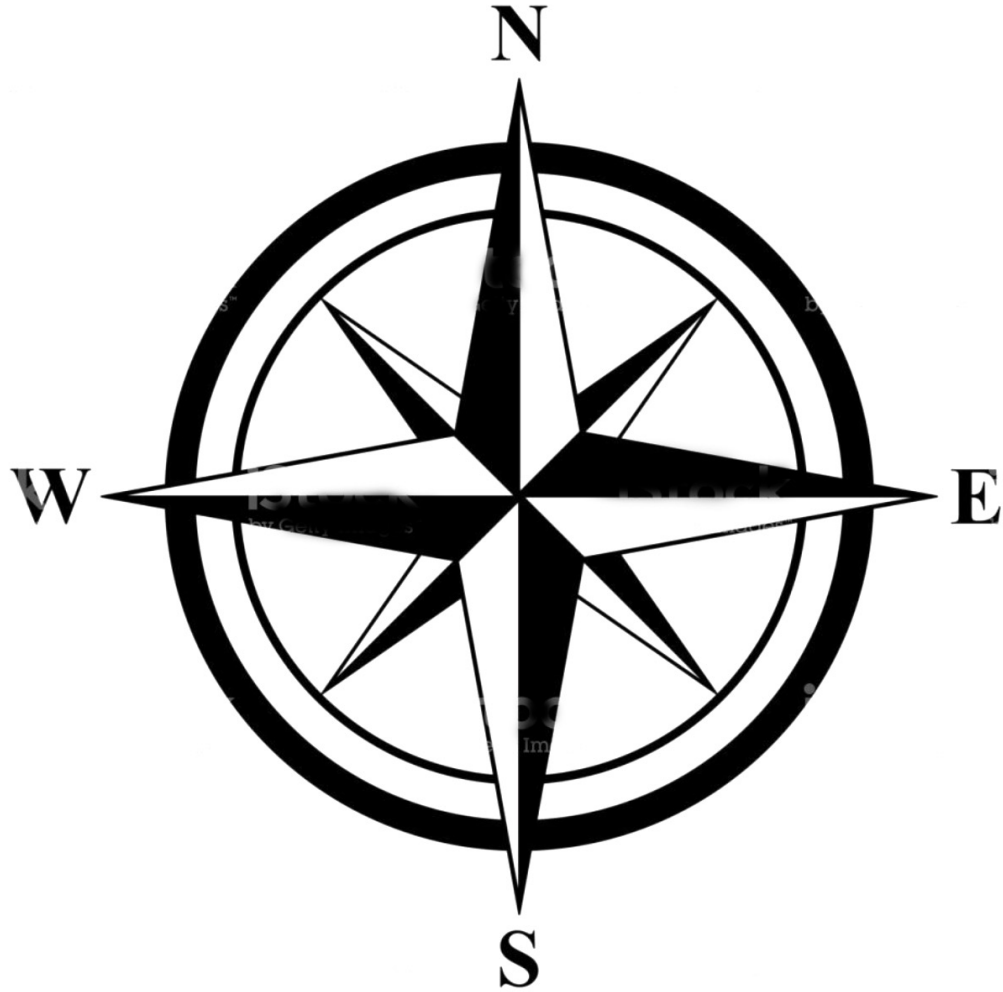


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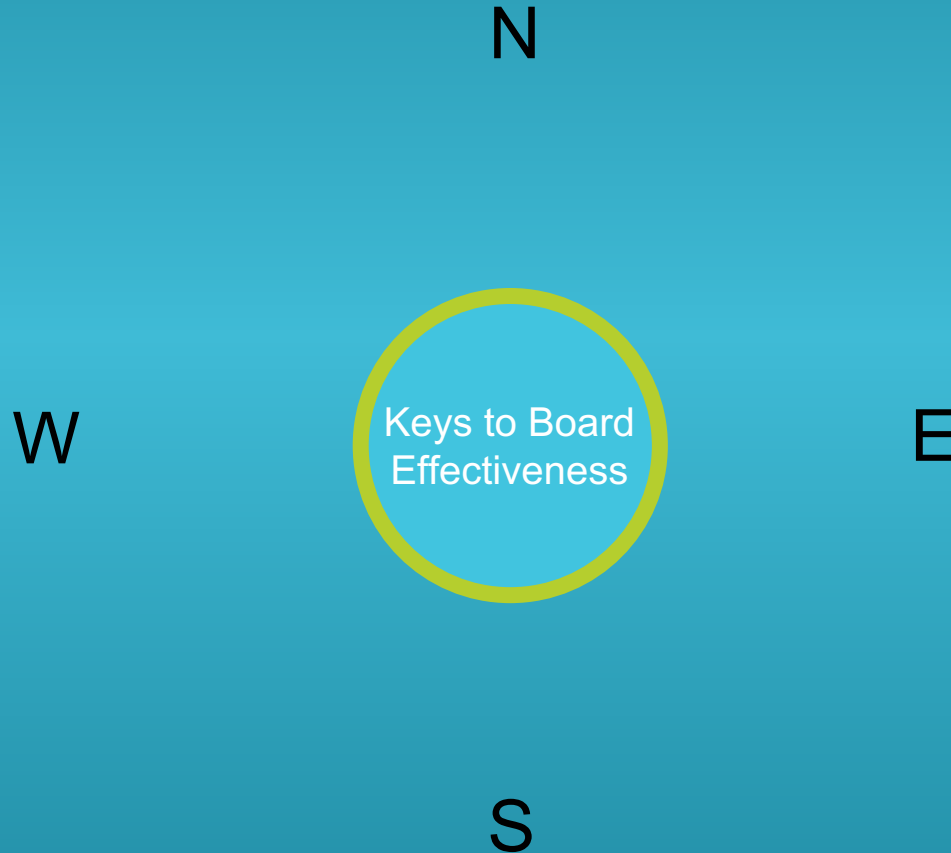
Good Governance for
Quality of Life
— 10 YEARS —

November 1977 embarked on 3,500 mile voyage to New Zealand:

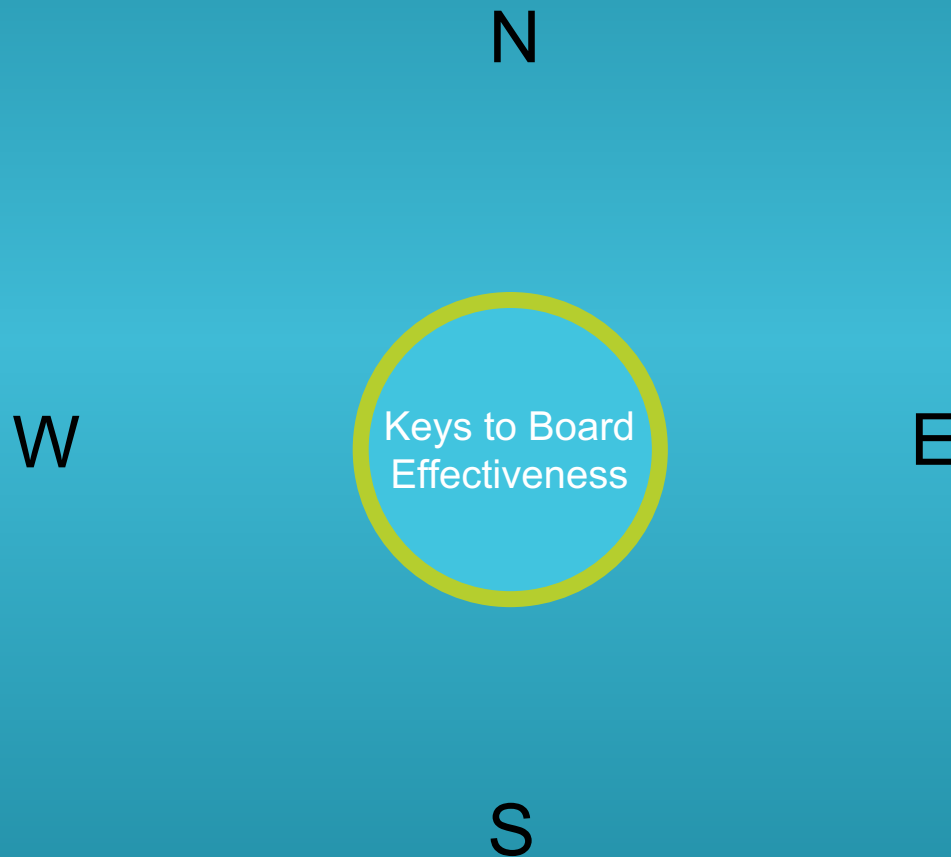




Boards that ADD VALUE need a compass



Boards that **ADD VALUE** need a compass



Boards that ADD VALUE need a compass

N

Skills

HARD: who
SOFT: how – individual behaviour
Collectively: GEL

Keys to Board
Effectiveness

Briefings

S

Boards that ADD VALUE need a compass

N

Skills

HARD: who
SOFT: how – individual behaviour
Collectively: GEL

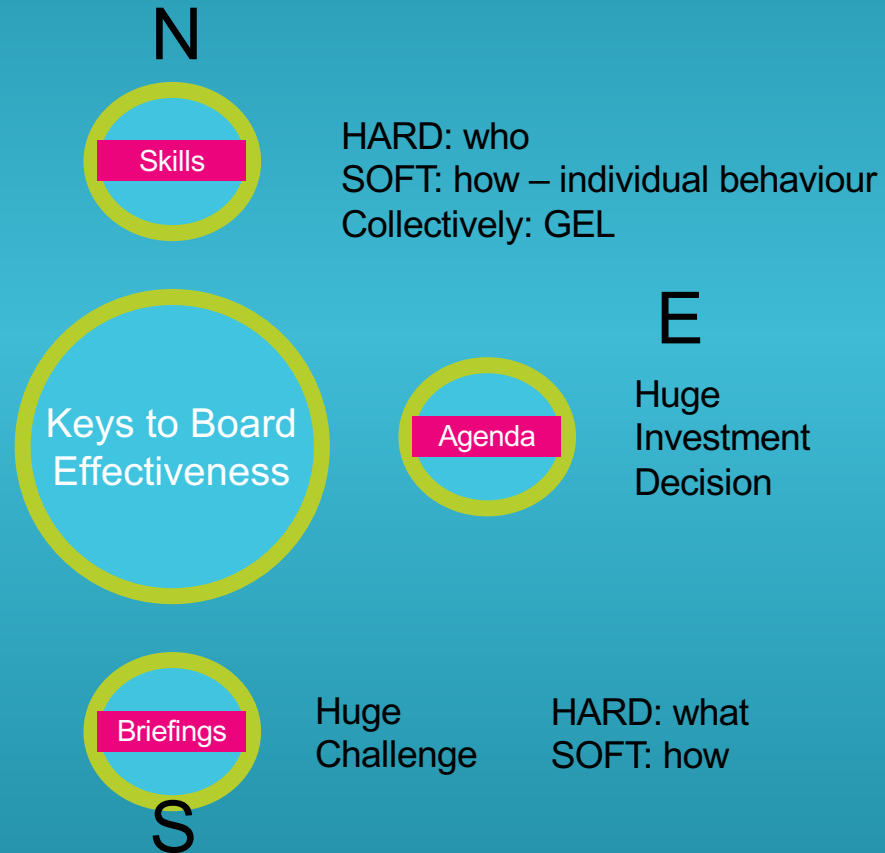
Keys to Board
Effectiveness

Agenda

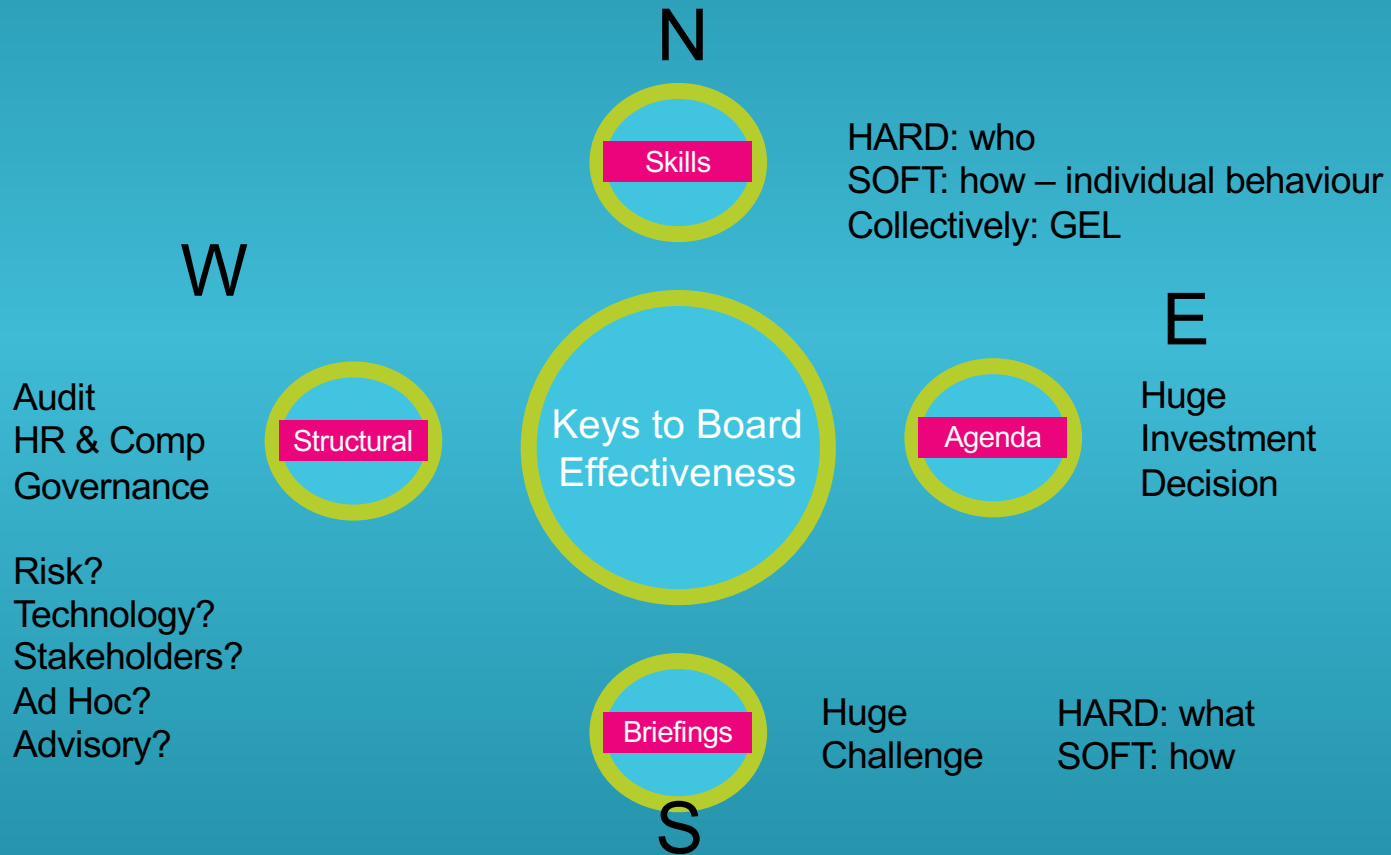
E

Huge
Investment
Decision

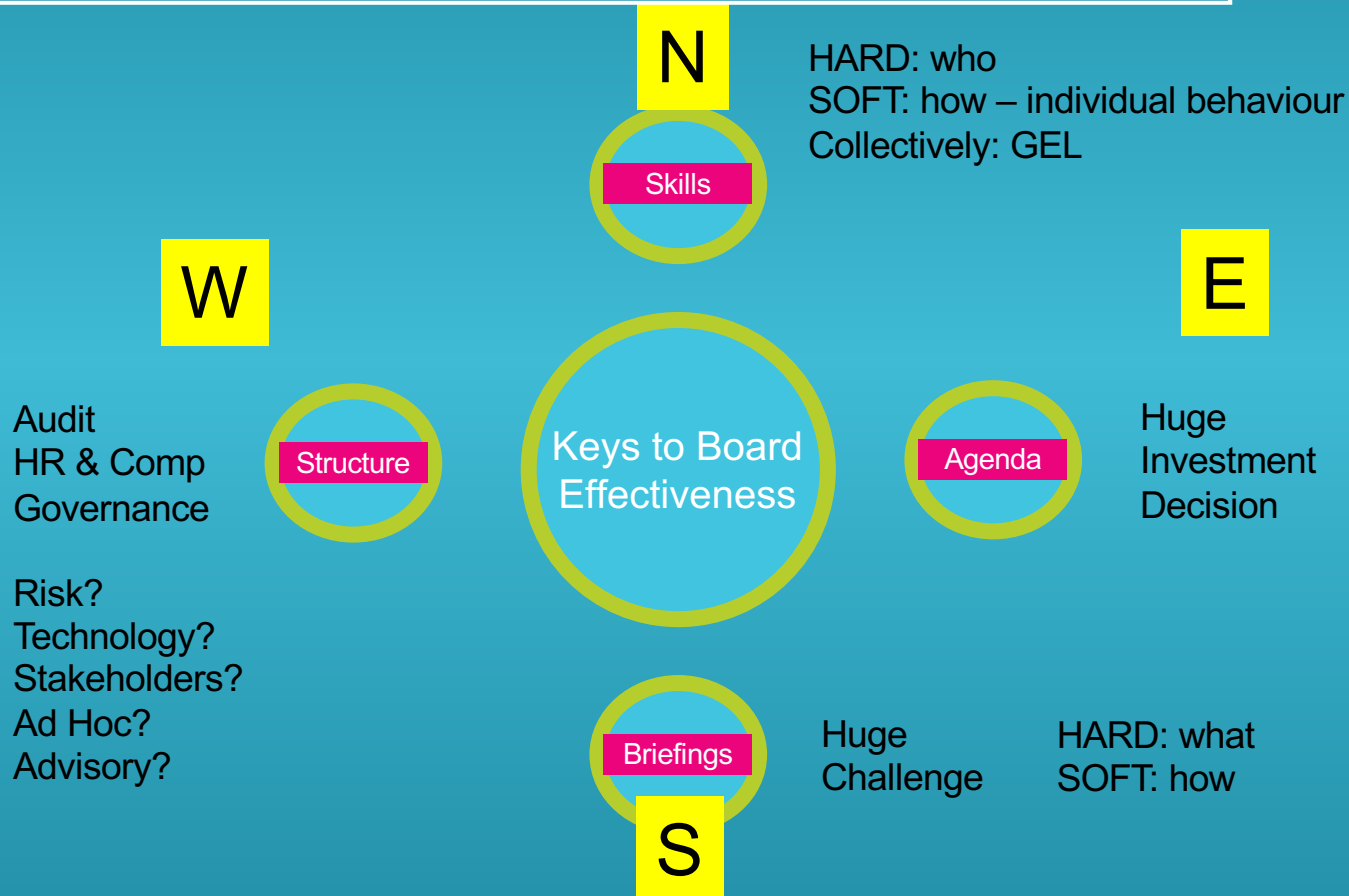
Boards that ADD VALUE need a compass



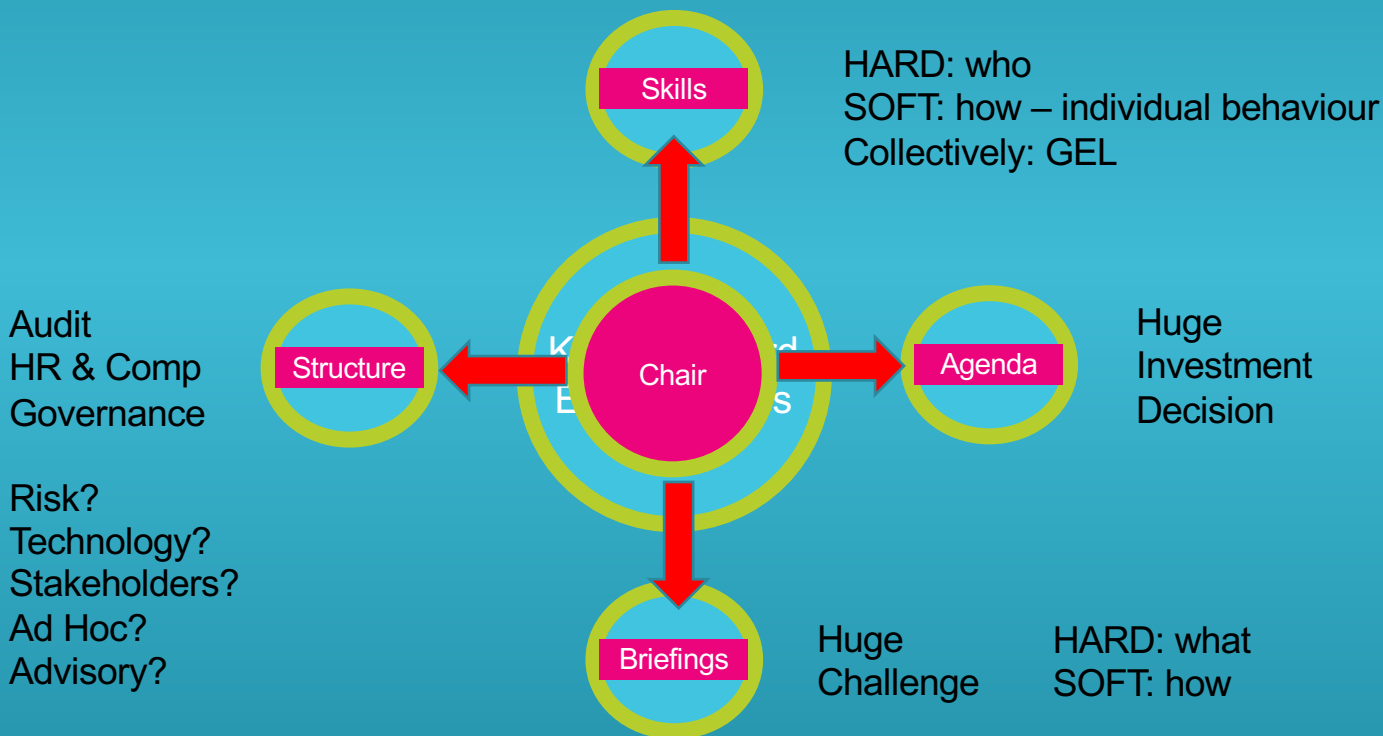
Boards that ADD VALUE need a compass



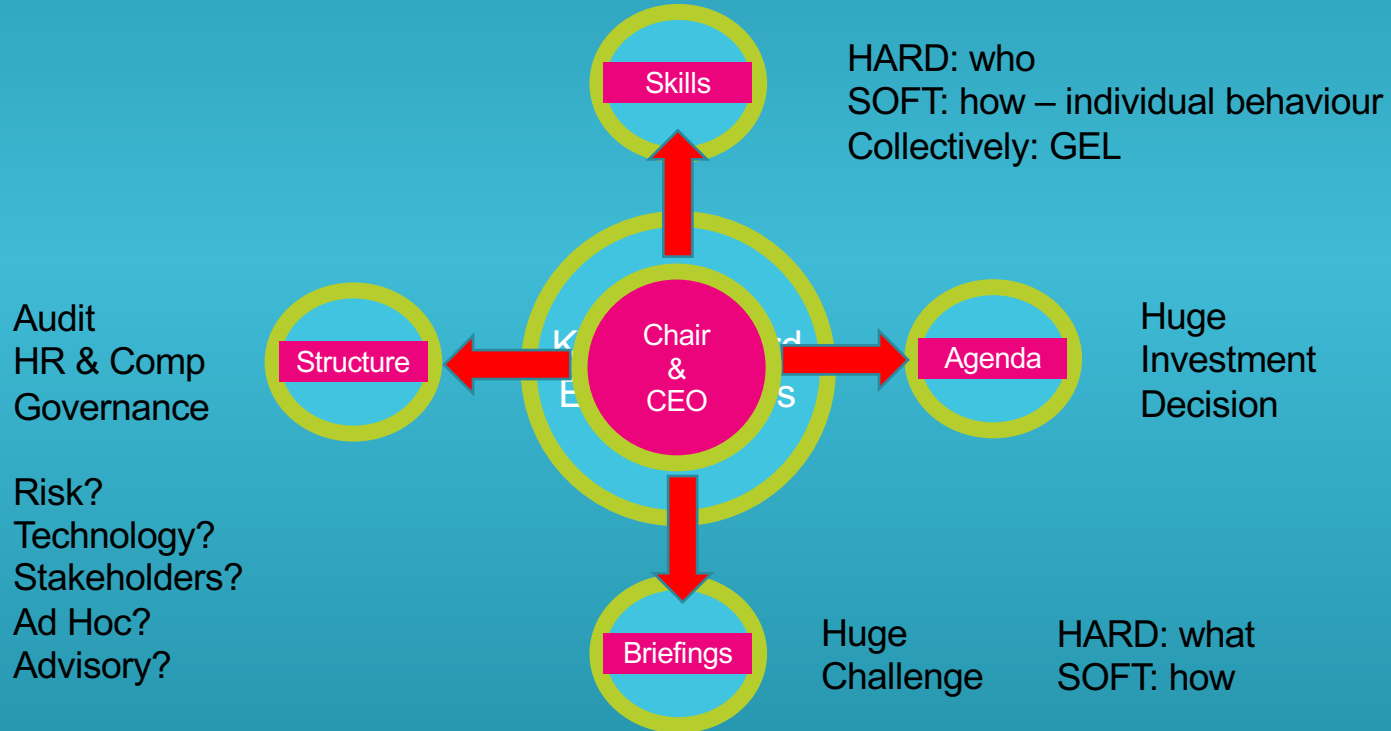
Boards that ADD VALUE need a compass




Value Added Boards need Great Chairs



Great Boards need Great Chairs AND Chair & CEO relationship is KFS



A photograph of Benjamin Zander, an older man with white hair, wearing a dark blue suit jacket over a white shirt and a light-colored tie. He is standing on a stage, gesturing with both hands raised and palms facing forward, as if speaking or conducting. The background is a large, dimly lit audience seated in a theater or lecture hall, with some people looking towards the speaker. The lighting is focused on the speaker, creating a dramatic effect.

Benjamin Zander | TED2008

The transformative power of classical music



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Role of the Chair:

Orchestrating the Board

Talent

Tone

Time

Deep Dive



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Boards that ADD VALUE need a compass

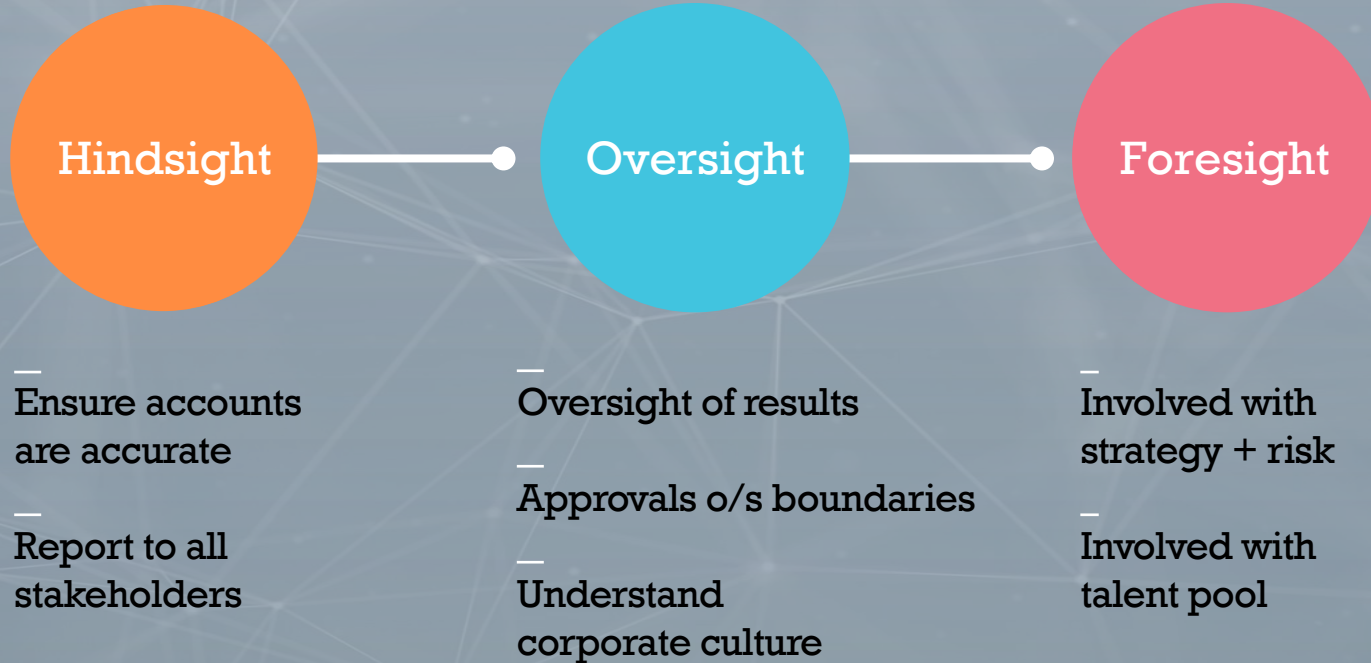
Keys to Board
Effectiveness

Agenda

E

Huge
Investment
Decision

The Board can be thought of as having THREE LINES of SIGHT



The Board can be thought of as having THREE LINES of SIGHT

Hindsight

—
Ensure accounts
are accurate

Report to all stakeholders

Oversight

—
Oversight of results

Approvals o/s boundaries

Understand
corporate culture

Foresight

—
Involved with
strategy + risk

Involved with talent
pool

Compliance/Policing

The Board can be thought of as having THREE LINES of SIGHT



—
Ensure accounts
are accurate

Report to all stakeholders

—
Oversight of results

Approvals o/s boundaries

Understand
corporate culture

—
Involved with
strategy + risk

Involved with talent
pool

Compliance/Policing

Strategy and Talent

The Board can be thought of as having THREE LINES of SIGHT



—
Ensure accounts
are accurate

Report to all stakeholders

—
Oversight of results

Approvals o/s boundaries

Understand
corporate culture

—
Involved with
strategy + risk

Involved with talent
pool



How do Boards spend their time today?

INVEST

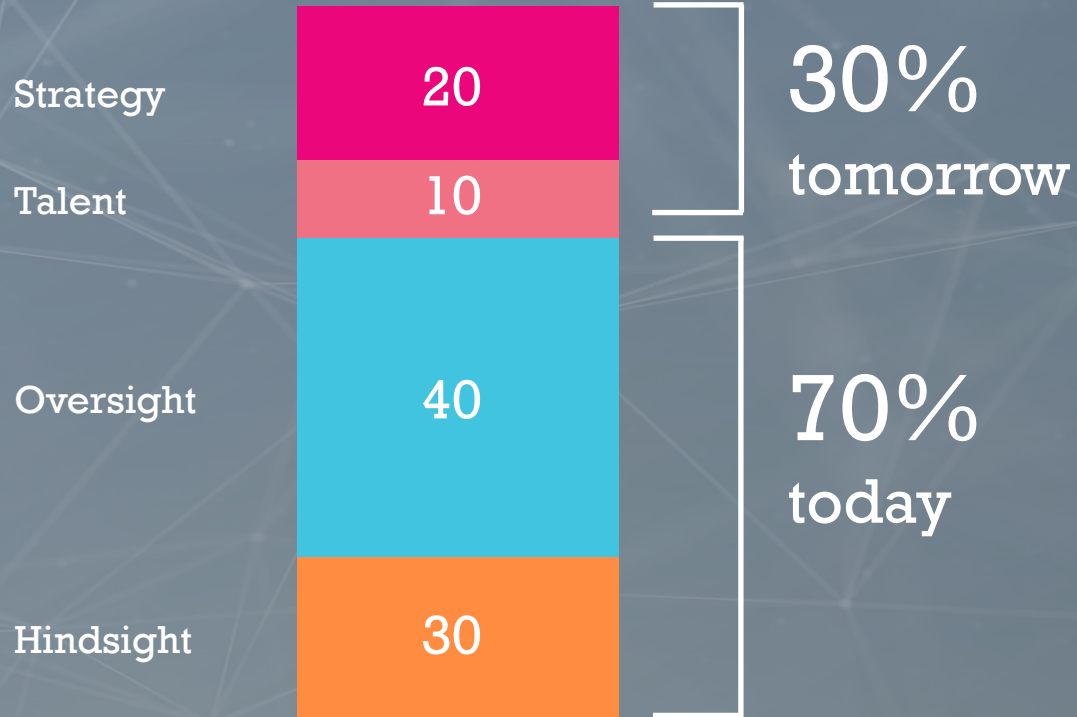


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How DID you INVEST your time ??



How **SHOULD** Boards **INVEST** their time today?



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The way we are

The way we ought to be

Strategy

20

Talent

10

Oversight

40

Hindsight

30

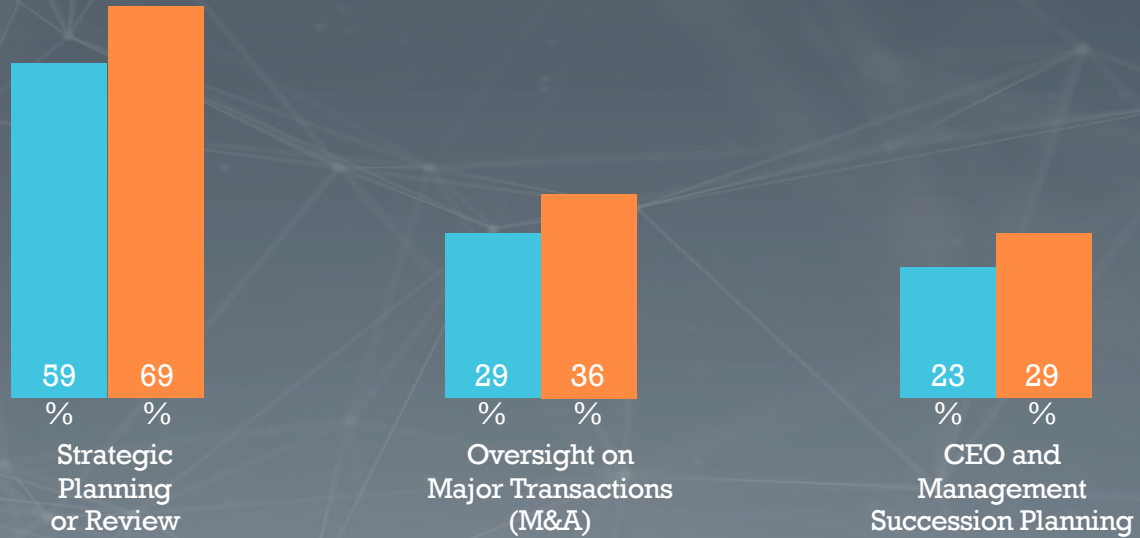
60

30

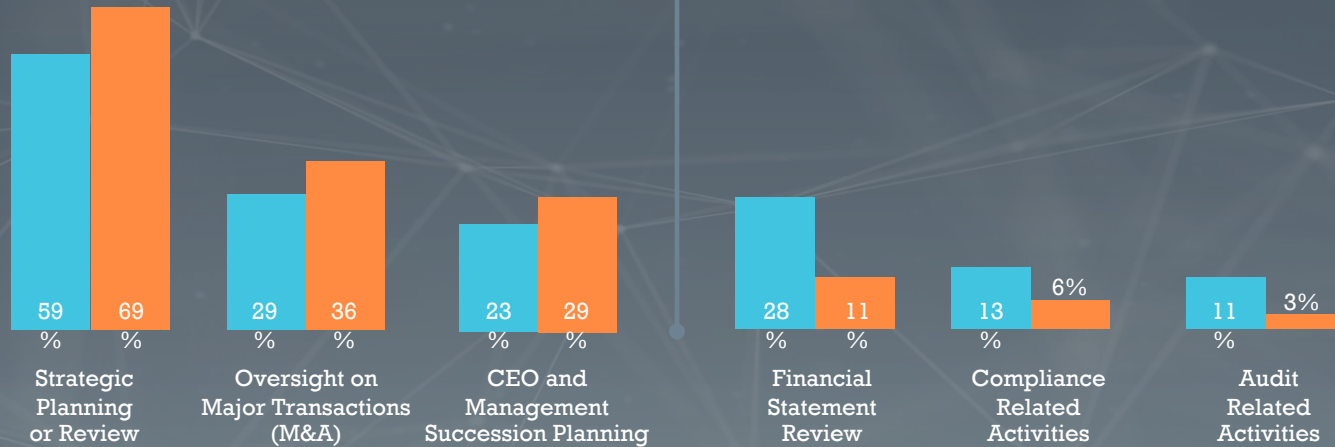
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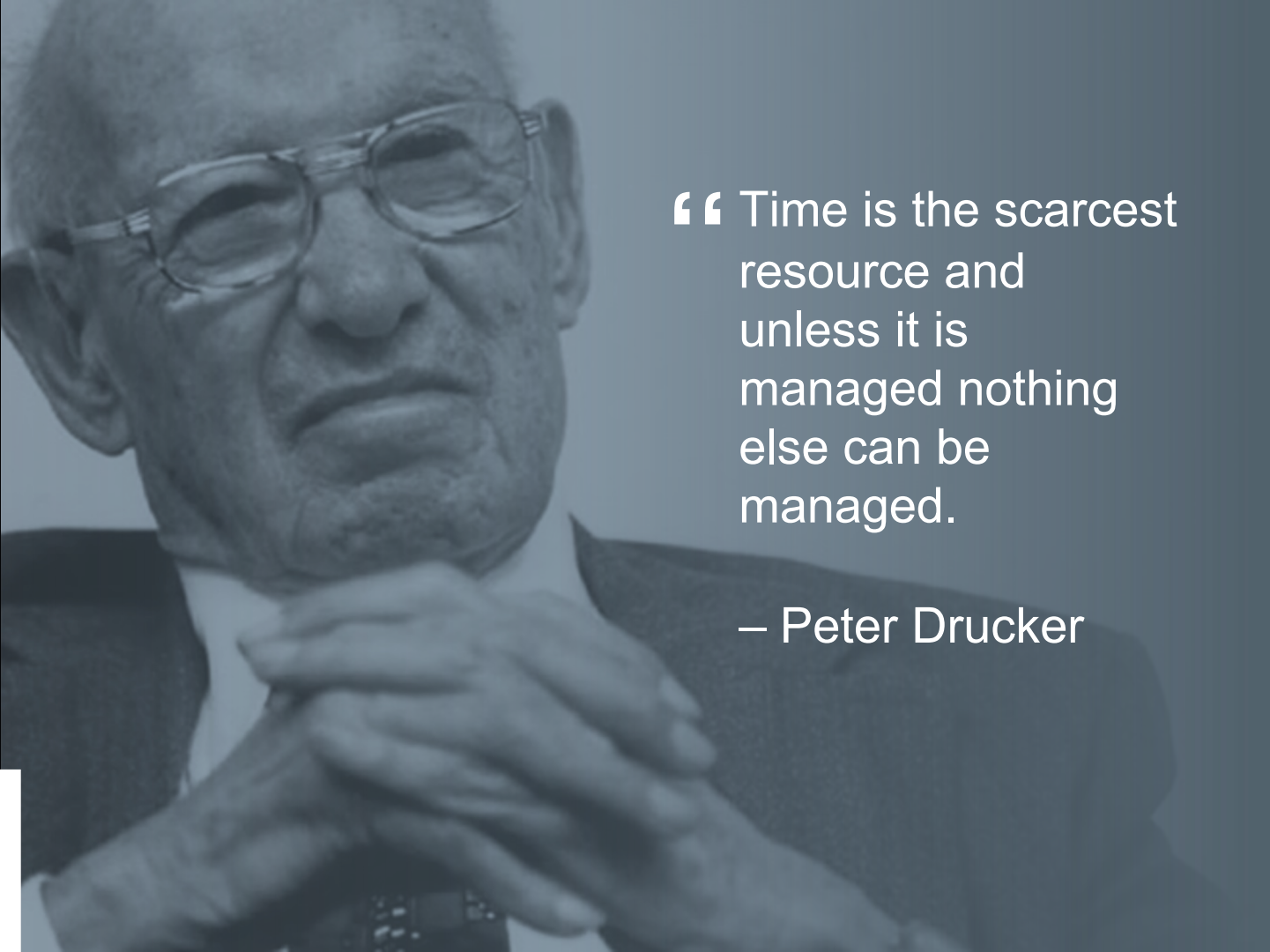
2x

Gold Boards*



Gold Boards*



A grayscale portrait of Peter Drucker, an elderly man with glasses, wearing a suit and tie, with his hands clasped in front of him. The image is semi-transparent and serves as a background for the text.

“ Time is the scarcest resource and unless it is managed nothing else can be managed.

– Peter Drucker

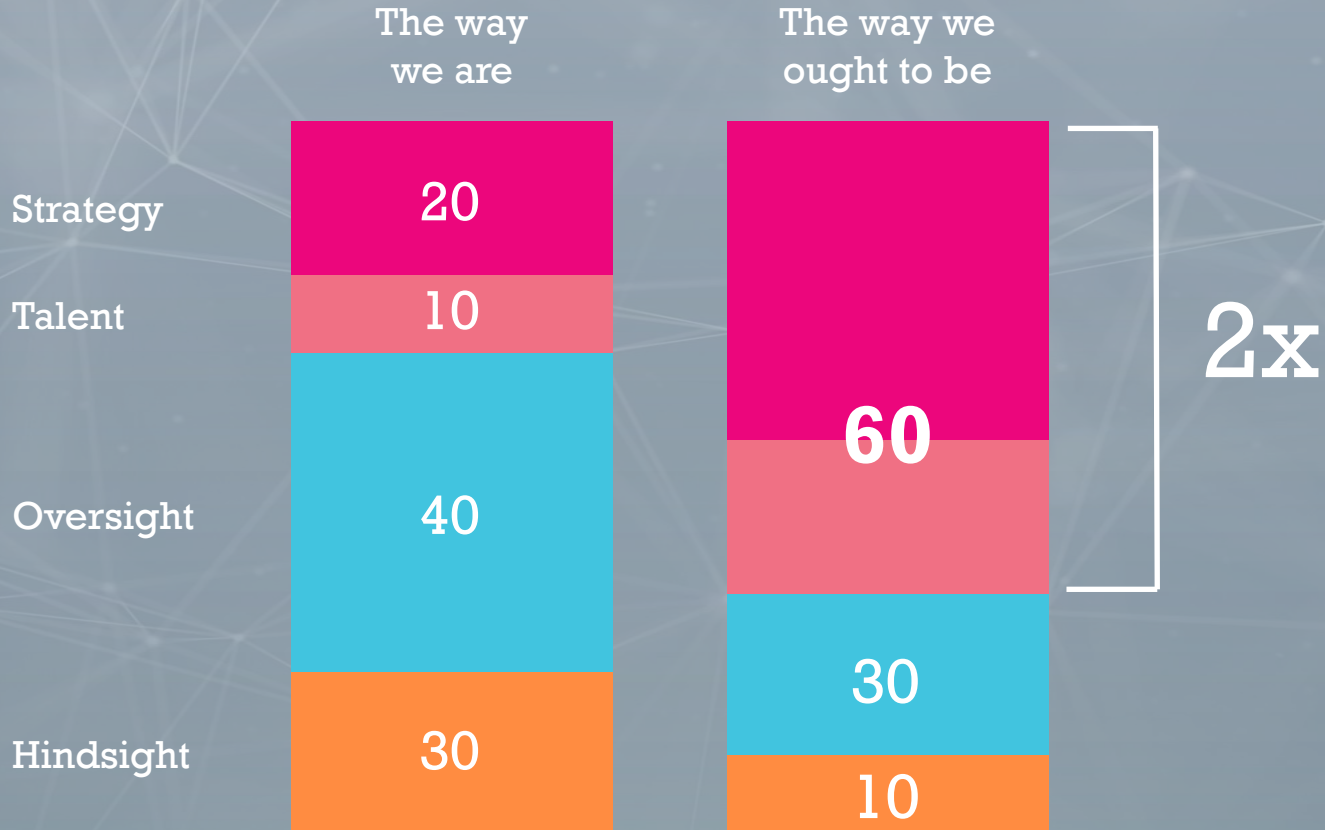


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Whatever the balance make the INVESTMENT an EXPLICIT decision !



Digital Tsunami is upon us as directors:

1. Devastating in its impact



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World Economic Forum Annual Meeting

15–19 January 2024



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THE TOP GLOBAL RISKS IN 2024

Risk Categories



Economic



Geopolitical



Societal



Technological



Environmental

Likely Short-Term Impact

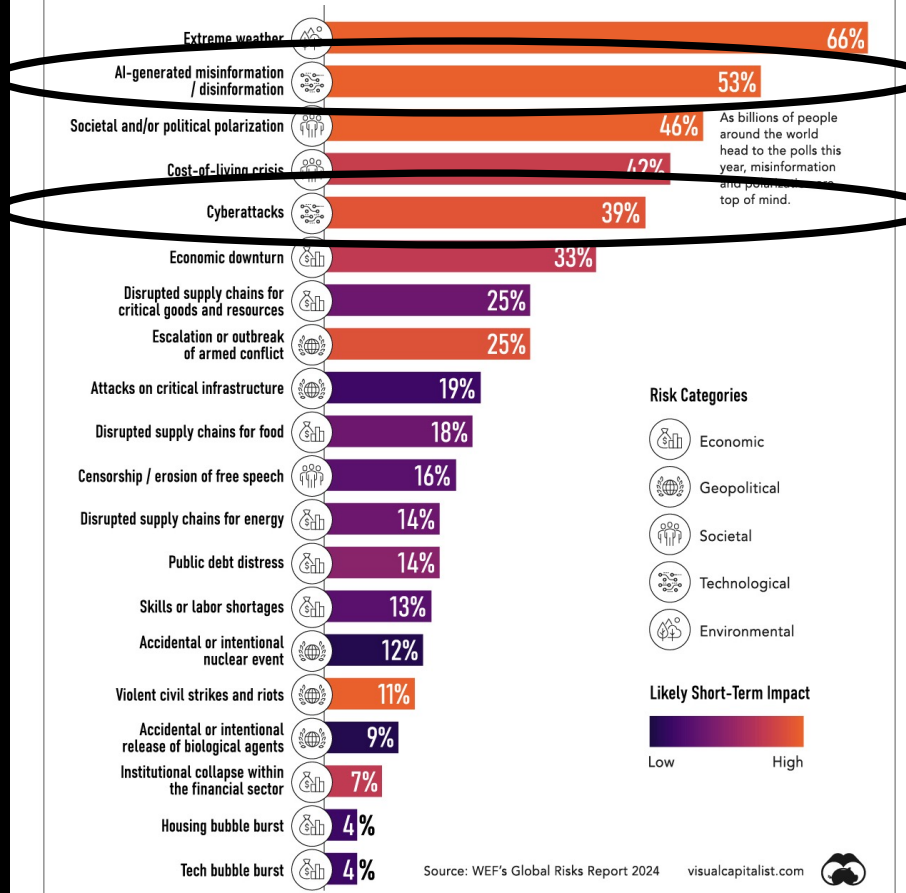


Low

High

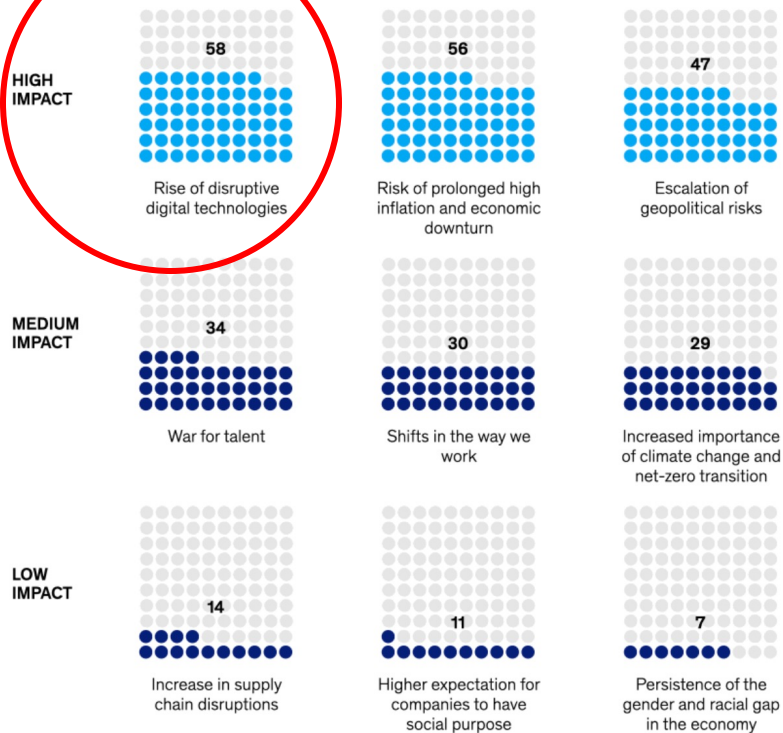


THE TOP GLOBAL RISKS IN 2024



Top CEOs identify disruptive technology, the economy, and geopolitics as the most important trends to act on in 2023.

Trends that have the biggest impact on how CEOs are leading their organizations in 2023,¹
 % of respondents (n = 73)



¹Question: From your perspective as a current or former CEO, which of the following trends will have the biggest impact on how you lead/would lead your organization in 2023 and beyond, compared with past years? Respondents selected their 3 most important trends.
 Source: McKinsey CEO Excellence Survey

An aerial photograph of a city, likely Istanbul, with a massive, towering tsunami wave crashing over it from the left. The wave is dark blue and white with a small boat being tossed in its path. The city buildings are visible in the foreground and middle ground, with a large multi-story apartment building on the right. The sky is overcast with grey clouds.

Digital Tsunami is upon us as directors:

1. Devastating in its impact

2. Not all believe it has arrived:



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A dramatic, apocalyptic scene where a colossal, towering wave of dark, churning water and white foam crashes down upon a modern city. The wave is the central focus, appearing to be a digital or metaphorical tsunami. In the background, a city with various buildings, including a prominent one with a construction crane on top, is visible under a heavy, grey, stormy sky. The overall mood is one of impending disaster and overwhelming force.

Digital Tsunami is upon us as directors:

1. Devastating in its impact

2. Not all believe it has arrived:

- Scale of innovation
- Speed of introduction
- Singularity of Generative AI



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A dramatic digital illustration of a massive tsunami wave crashing over a city skyline. The wave is towering and turbulent, with a small boat being tossed in the air. The city below features various buildings, including a prominent one with a construction crane on top. The sky is filled with dark, heavy clouds, creating a sense of impending doom and scale.

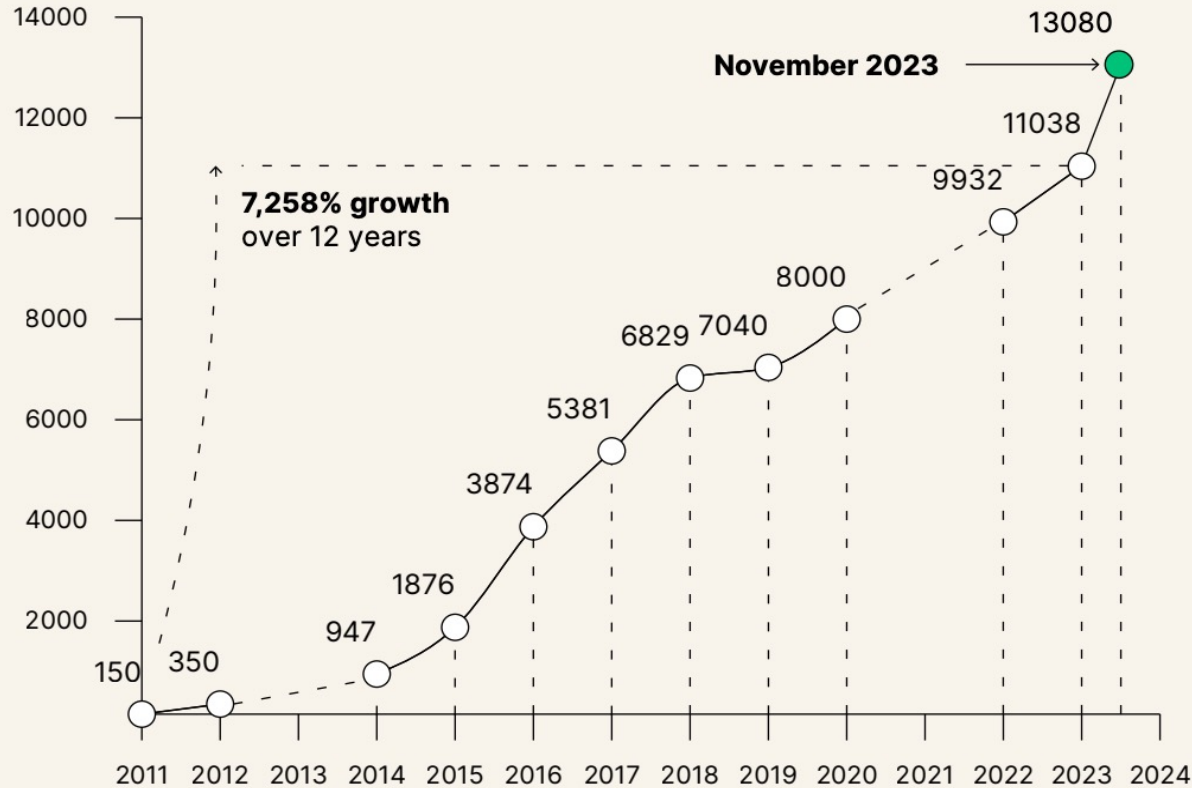
Digital Tsunami is upon us as directors:

1. Devastating in its impact

2. Not all believe it has arrived:

- Scale of innovation

Number of martech software apps since 2011



13,080 start ups in the marketing technology



And that's only the tip of the iceberg



And that's only the tip of the iceberg



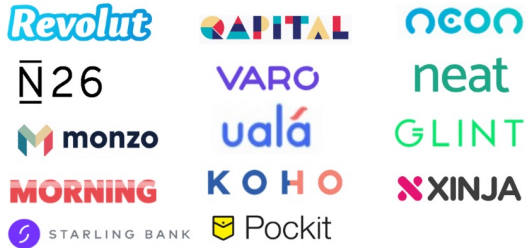
Over **500 million** digital apps and services will be developed and deployed using cloud native approaches by 2023.

– IDC IT Industry 2020 Predictions

Startups Disrupting Retail & Commercial Banking

B2C - DEBIT

Underbanked/Unbanked



Blockchain



Students



Freelancers



Millennials



Kids



SMB/SMEs



Expense Management



Freelancers



Tech Startups



B2B - DEBIT

CREDIT

Students



Home owners



Tech Startups



Underbanked/Unbanked



SMB/SMEs



Created by You. Powered by **CBINSIGHTS**

Furniture Tech

D2C Furniture



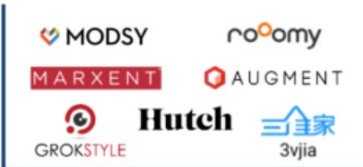
Smart Furniture



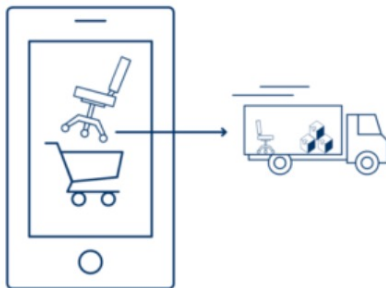
Art



Visualization Tools



D2C Home Accessories



P2P Marketplaces



Interior Design Solutions



D2C Mattresses



Search & Discovery



E-Commerce Multibrand



Furniture Rental Platforms



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Disrupting The Happy Hour

Craft Spirits Brands



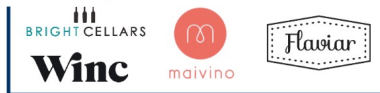
Alcohol-Free Wines & Spirits



Cannabis-Infused Beverages



Subscription Services



Bar Tech



Alcohol Appliances



New Alcoholic Drinks



Celebrity-Backed Spirits



Anti-Hangover Solutions



On-Demand Delivery Services



The Future Of Stadium Tech Market Map

Stadium Analytics

Connected Device Analytics

mhubo **FOGHORN**

SWIM.AI **HXPERIENCE**

Consumer Behavior Analytics

PlaceIQ **Gravy**
ANALYTICS

unacast. **cuebiq**

Crowd Sentiment Analysis

CROWDVISION **:) Affectiva**

CrowdOptic **KAIROs**

ADVERTIMA **sightcorp**

Real-Time Player Insights

KOMODO **HEXOSKIN**
signal **ATHOS**

Live Event Holograms

LIGHT FIELD LAB
eyallison **MIMESYS** **8P**

Concessions & Payments

[Sc] **REDROCK**
STANDARD COGNITION BIOMETRICS
CLEAR **zwipe** **KEYO**

Stadium Robots & Drones

STARSHIP **flytrex**

MATTERNET **neurala**

braincorp **MYTHIC** **UNIFLY** Created by You. Powered by **CBINSIGHTS**

Ticketing, Access, & Security

EVOPASS **eventchain**
evolv technology **Blink Identity**
UPGRADED **zenus**

Stadium Connectivity

STARRY **sigfox**
big switch networks
Innovium **cradlepoint**

Esports Tournaments

OVERPOWERED NETWORK **ESPORTS ARENA**

Live Betting

STAKEHAUL **ZenSports**

Global Unicorn Club

1,205 private companies valued at \$1B+



Global Unicorn Club
1,205 private companies valued at \$1B+

CBINSIGHTS

Artificial intelligence
Auto & transportation
Cloud
Consumer & retail
Data management & analytics
E-commerce & digital marketing
Health
Hardware
Infrastructure & services
Media & entertainment
Mobile & telecommunications
Supply chain, logistics, & delivery
Other

AI
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Global Unicorn Club

1,205 private companies valued at \$1B+



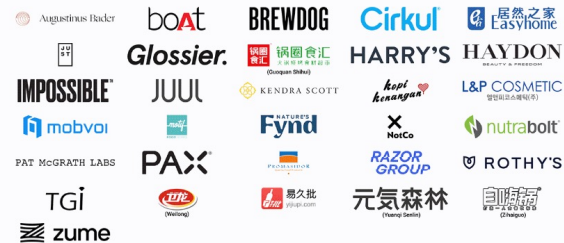
Artificial intelligence



Auto & transportation



Consumer & retail

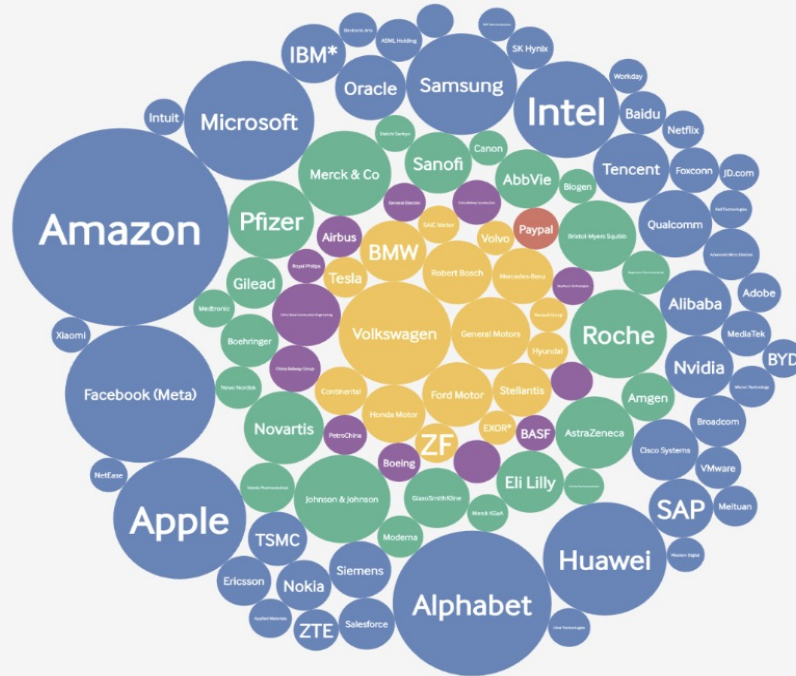


Global Unicorn Club	
1,205 private companies valued at \$1B+	
CBINSIGHTS	
Artificial intelligence	Auto & transportation
Consumer & retail	Mobile & telecommunications
Data management & analytics	Cybersecurity
EdTech & digital content	Fintech
Health	Software
Infrastructure & services	Supply chain, logistics, & delivery
Other	Tech



Top 100 global innovation leaders

Some \$720bn was invested into R&D by the top innovative firms in 2022



Global AI funding by type, in millions

Select a cluster for type definition

2020

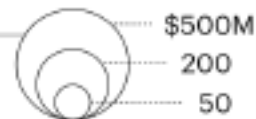
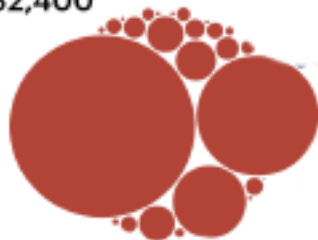
AI/machine
learning ops

\$309



2023

\$2,400



Notes: 2023 data is through September 19, 2023; clusters created using flourish.studio

Sources: PitchBook; Bain analysis



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— 10 YEARS —

Global AI funding by type, in millions

Select a cluster for type definition

2020

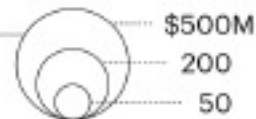
2023

Data management

\$138



\$1,100



Notes: 2023 data is through September 19, 2023; clusters created using flourish.studio

Sources: PitchBook; Bain analysis



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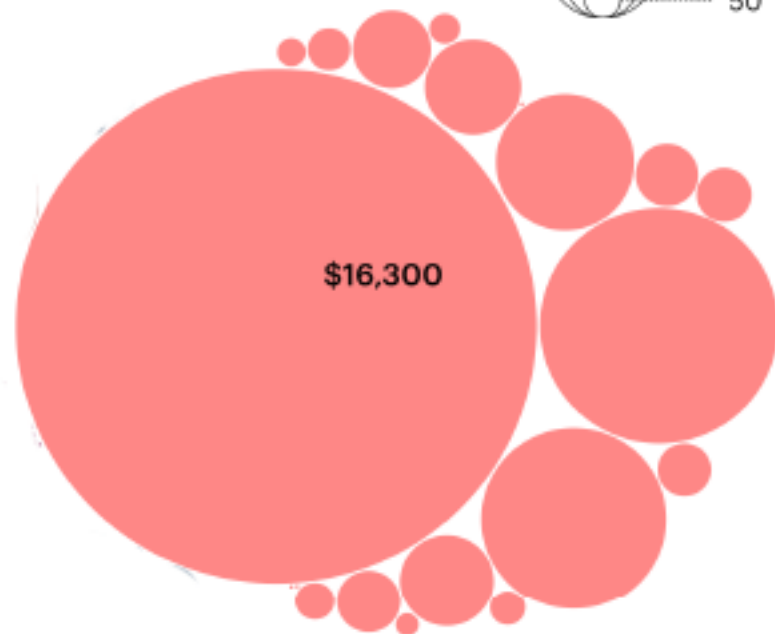
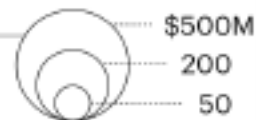
Global AI funding by type, in millions

Select a cluster for type definition

2020

2023

 Foundation models
\$44



Notes: 2023 data is through September 19, 2023; clusters created using flourish.studio
Sources: PitchBook; Bain analysis

Global AI funding by type, in millions

Select a category type definition

2020

\$2bn

2023

\$34bn

AI/machine learning ops
\$309

Data management
\$138

Foundation models
\$44

Applications
\$1,450

Enabling infrastructure
\$72

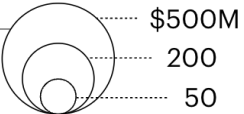
\$1,100

\$2,400

\$3,200

\$16,300

\$700



Notes: 2023 data is through September 19, 2023; clusters created using flourish.studio
 Sources: PitchBook; Bain analysis

A dramatic, high-angle photograph of a city being inundated by a massive tsunami wave. The wave is towering and turbulent, with white foam and dark water. In the foreground, a multi-lane road with cars and a bus is partially submerged. In the background, several multi-story apartment buildings and a tall tower with antennas are visible under a cloudy sky. The overall scene is one of catastrophic scale.

Digital Tsunami is upon us as directors:

1. Devastating in its impact

2. Not all believe it has arrived:

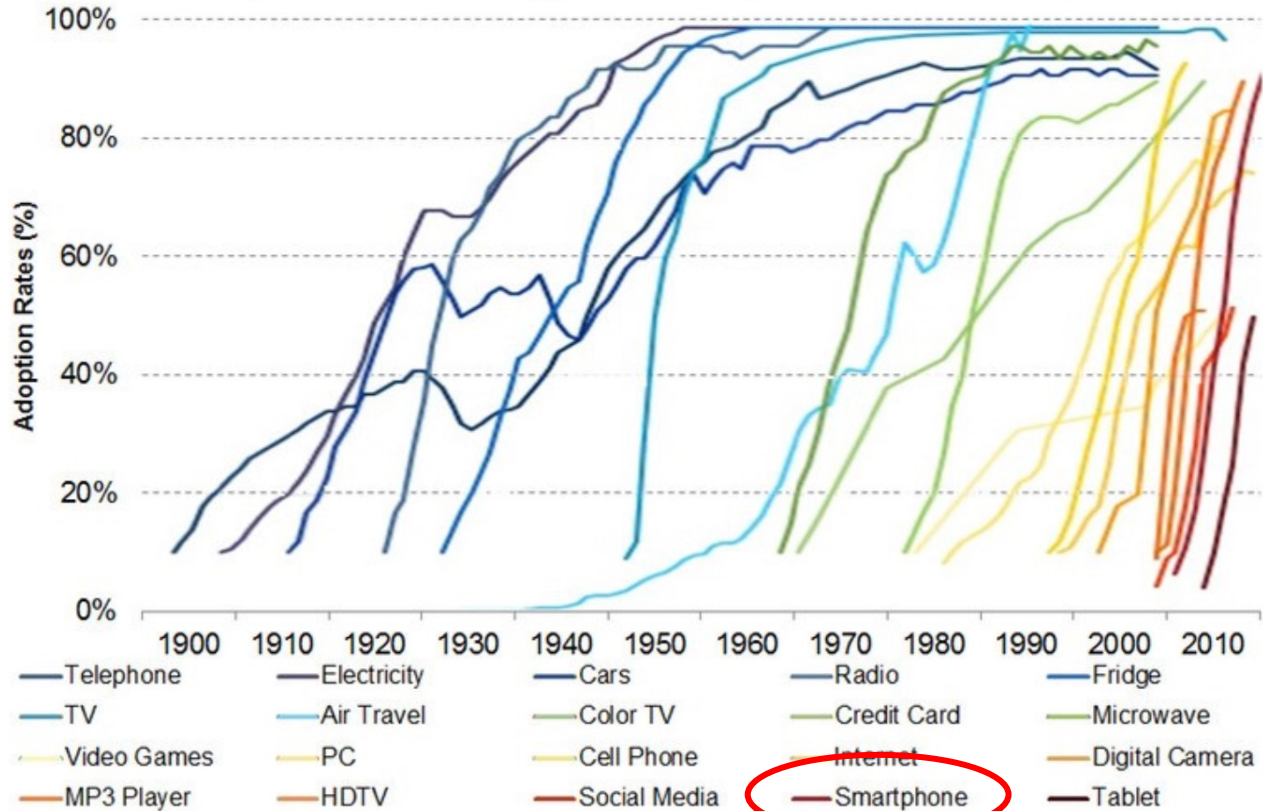
- Scale of innovation
- Speed of introduction



**ARGÜDEN
GOVERNANCE
ACADEMY**

Good Governance for
Quality of Life
— 10 YEARS —

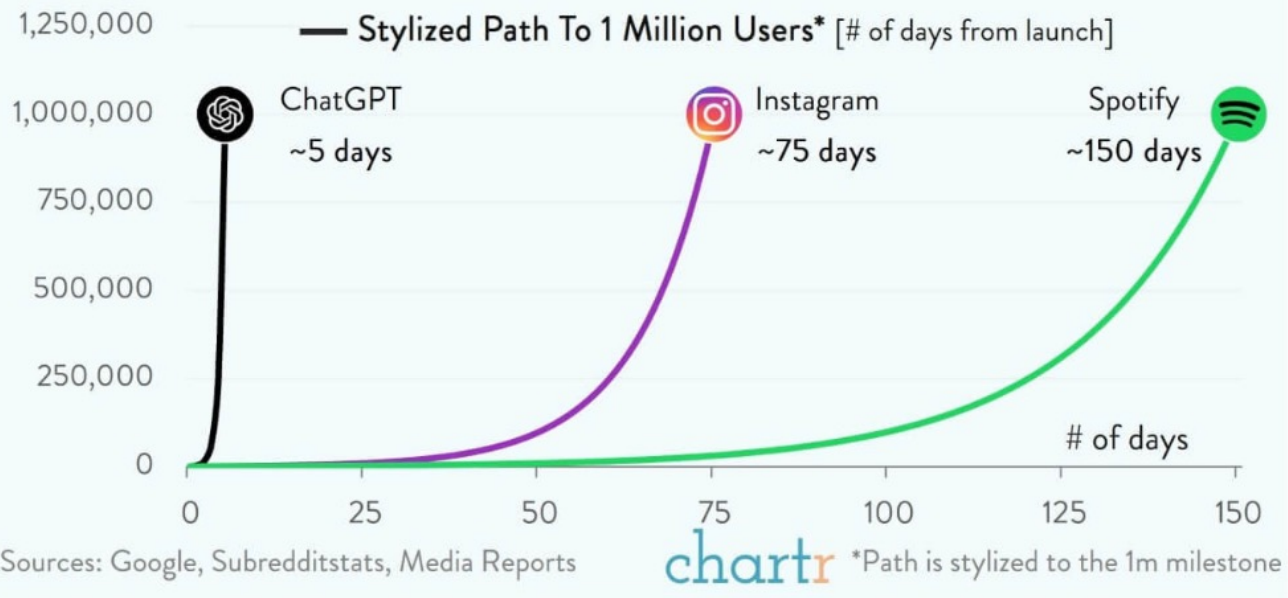
Adoption of Technology in the US (1900 to the Present)



Market Realist

Source: BlackRock

6.8bn



Source: *Charttr*

of days to 1M and 100M users by technology

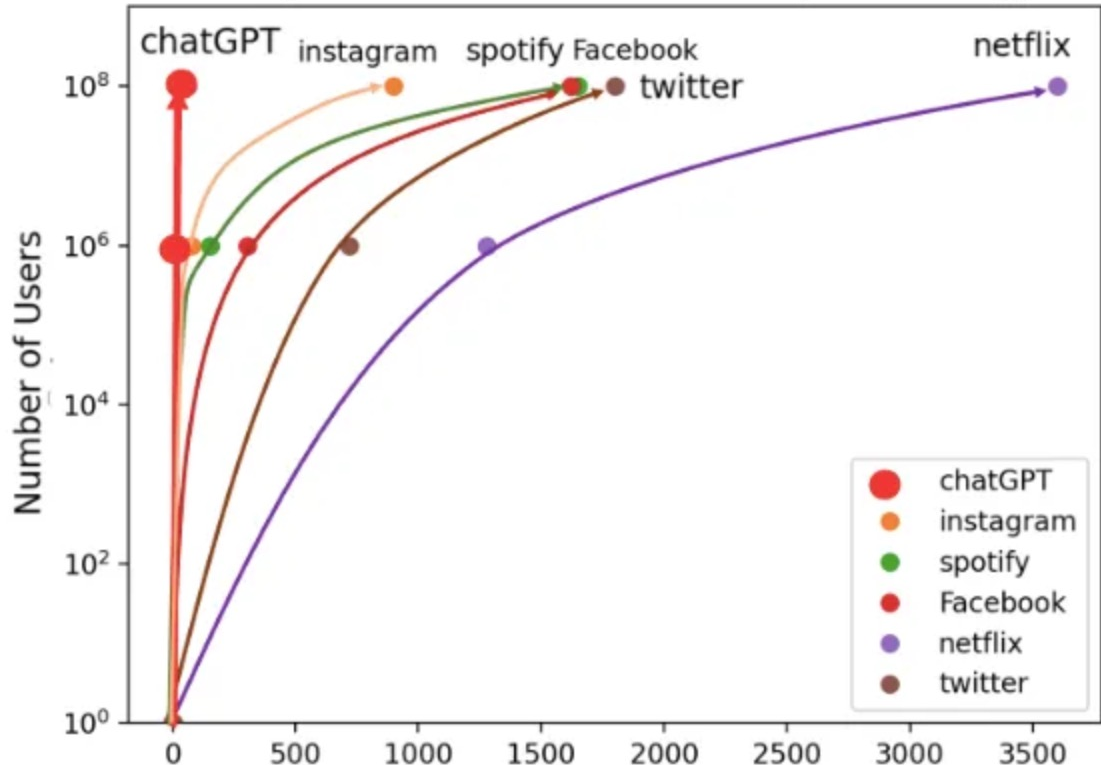


chart by **kyleif** (Kyle Hailey)



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Good Governance for
Quality of Life
— 10 YEARS —



Nick Darveau-Garneau
Google's Chief Evangelist

Nick spoke to Elon Musk a couple of months ago:

“Elon,

10 years from now what will be TESLA’s competitive advantage?”

Nick was thinking to himself:

1. Batteries?
2. Self driving capabilities?
3. Charging network?

NO ONE ELSE WILL BE AS FAST



Sundar Pichai
CEO

Google culture is:

- GROW constantly
- IMPROVE 1% per day
- INNOVATE – 600 PhDs in ML



Sundar Pichai
CEO

“...the only sustainable
competitive advantage is...”

SPEED

Google culture is:

- GROW constantly
- IMPROVE 1% per day
- INNOVATE – 600 PhDs in ML



Sundar Pichai
CEO

“...the only sustainable
competitive advantage is...”

SPEED

Google culture is:

- GROW constantly
- IMPROVE 1% per day
- INNOVATE – 600 PhDs in
ML

Half the S&P500 will be GONE
in the next decade



A composite image showing a cityscape with a massive, towering digital tsunami wave crashing over it. The wave is dark blue and green with white foam, appearing to be made of data or digital information. The city buildings are visible in the background under a cloudy sky. The overall scene conveys the scale and impact of digital technology.

Digital Tsunami is upon us as directors:

1. Devastating in its impact

2. Not all believe it has arrived:

- Scale of innovation
- Speed of introduction
- Singularity of Generative AI



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ACADEMY**

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Quality of Life
— 10 YEARS —



Nick Darveau-Garneau
Google's Chief Evangelist

Nick covers THREE kinds of AI

Computational AI



Superhuman Math
Almost Always

Nick covers THREE kinds of AI

Computational AI



Superhuman Math
Almost Always

Generative AI



+50% Productivity And
Infinite Creativity

Nick covers THREE kinds of AI

Computational AI



Superhuman Math
Almost Always

Generative AI



+50% Productivity And
Infinite Creativity

“Senses AI”



Nick covers THREE kinds of AI

Computational AI



Superhuman Math
Almost Always

Automotive insurance industry profitability is based on cost estimates using 72 parameters



24% accuracy with actuaries

Automotive insurance industry profitability is based on cost estimates using 72 parameters



24% accuracy
with actuaries

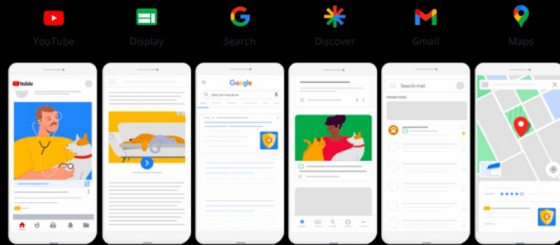
78% accuracy in
2 days

Now a completely integrated Google system in real time

AI automated ads

AI quote engine

AI profit forecast



\$825

AI profit maximization by Google

● Insurance AI leaders

● Insurance AI laggards

3 months

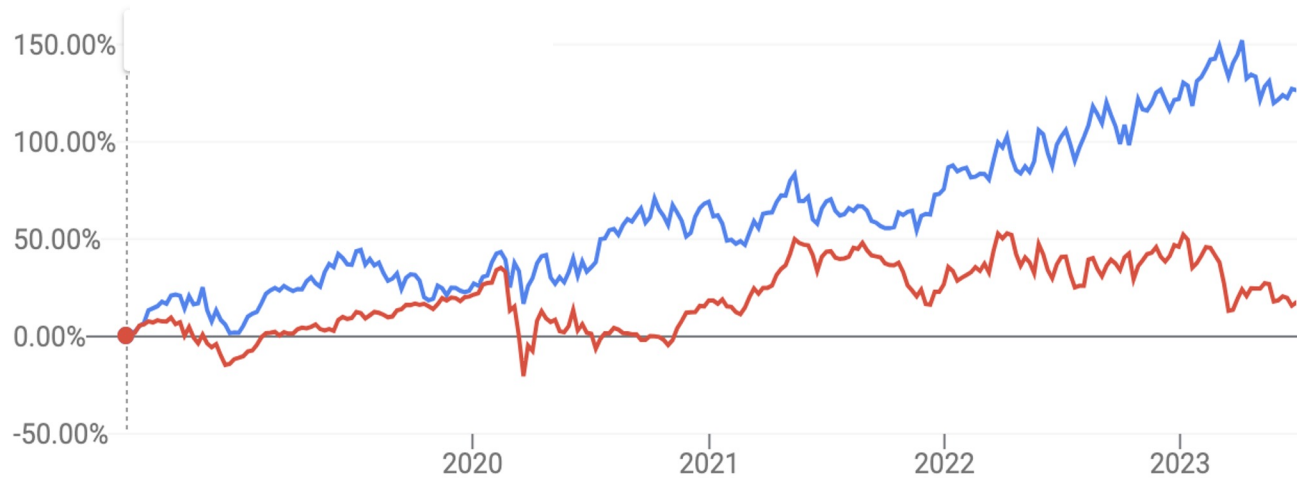
6 months

YTD

1 year

5 years

Max



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— 10 YEARS —



Google Cloud

Using machine learning for insurance pricing optimization

March 29, 2017

Kaz Sato

Developer Advocate, Google Cloud

AXA, the large global insurance company, has used machine learning in a POC to optimize pricing by predicting “large-loss” traffic accidents with 78% accuracy.



See example: John Deere

Buys Blue River for \$350M in 2017



Leads the age of precision agriculture





JOHN DEERE

R BLUE RIVER TECHNOLOGY

Optimize Every Plant

Blue River Technology is building the next generation of smart agriculture equipment. We're introducing See & Spray technology, enabling a world in which every plant counts.



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ACADEMY

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Quality of Life
— 10 YEARS —

See & Spray™

The world's first smart sprayer



BLUE RIVER
TECHNOLOGY

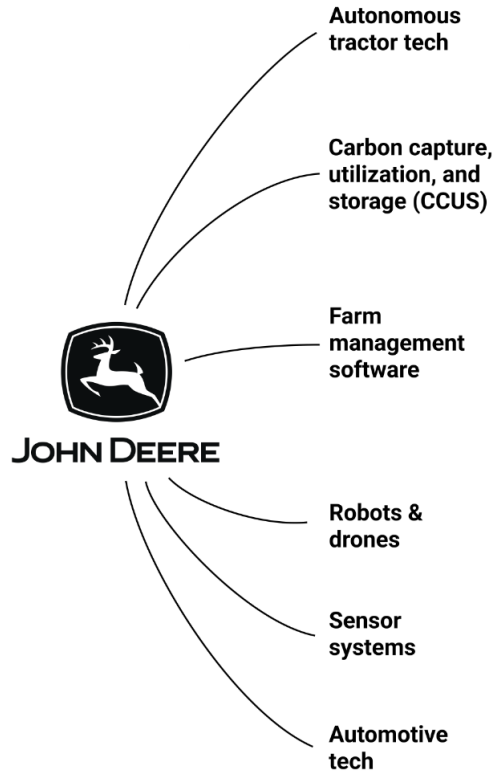


**ARGÜDEN
GOVERNANCE
ACADEMY**

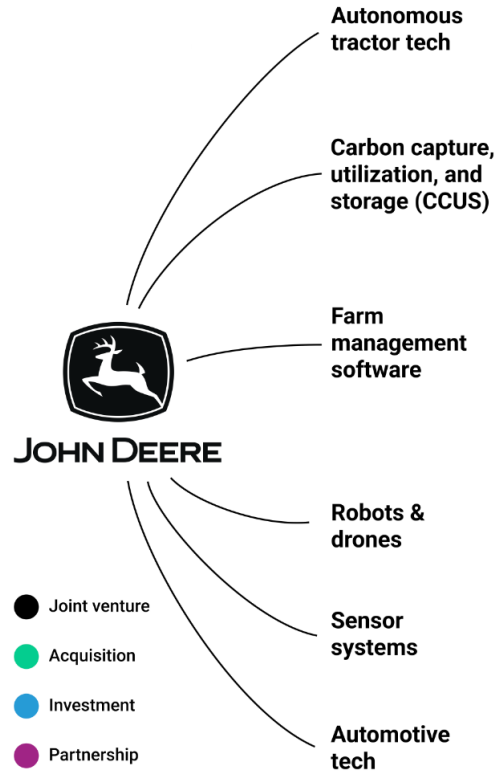
Good Governance for
Quality of Life
— 10 YEARS —



John Deere's Strategy Map

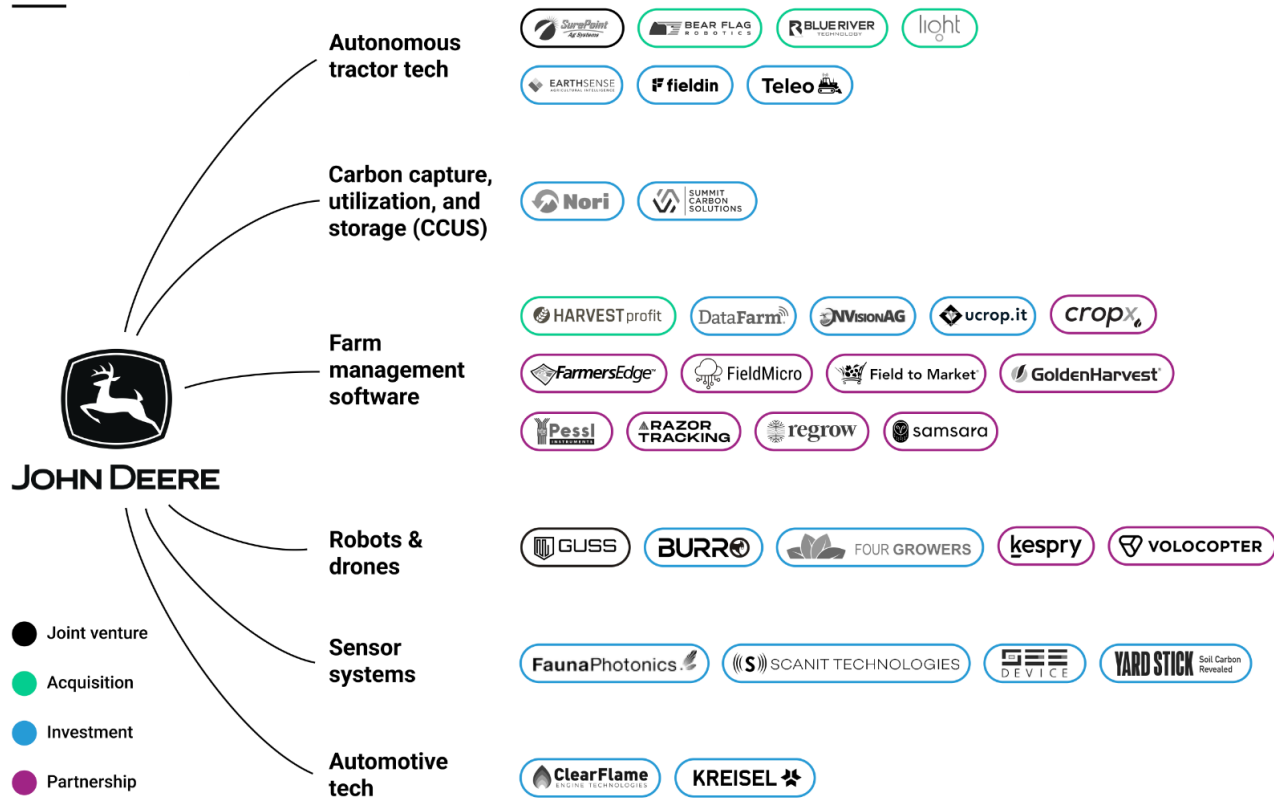


John Deere's Strategy Map



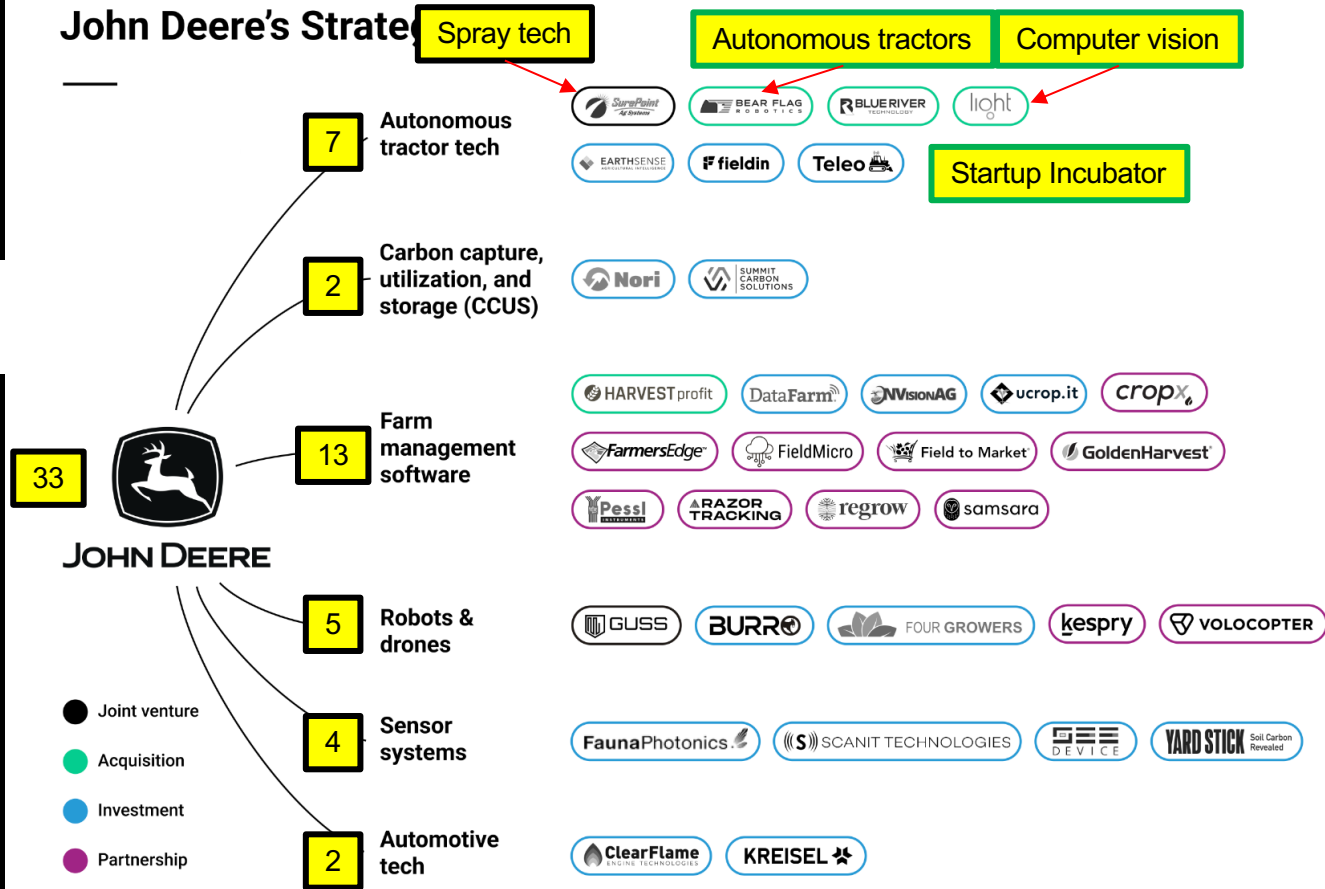
* For companies receiving support from the Deere Startup Collaborator: Deere Startup Collaborator does not explicitly fund startups participating in its accelerator, though it is part of the company's investment in exploring tech.

John Deere's Strategy Map



* For companies receiving support from the Deere Startup Collaborator: Deere Startup Collaborator does not explicitly fund startups participating in its accelerator, though it is part of the company's investment in exploring tech.

John Deere's Strategic



....creativity starts at the top: NOT casual !!!



Want to Hear How Our Tech is Moving Farming Forward?

Keynote Address: January 5, 11a CST | Featuring John May, Chairman & CEO



Consumer
Technology
Association

Join US at CES

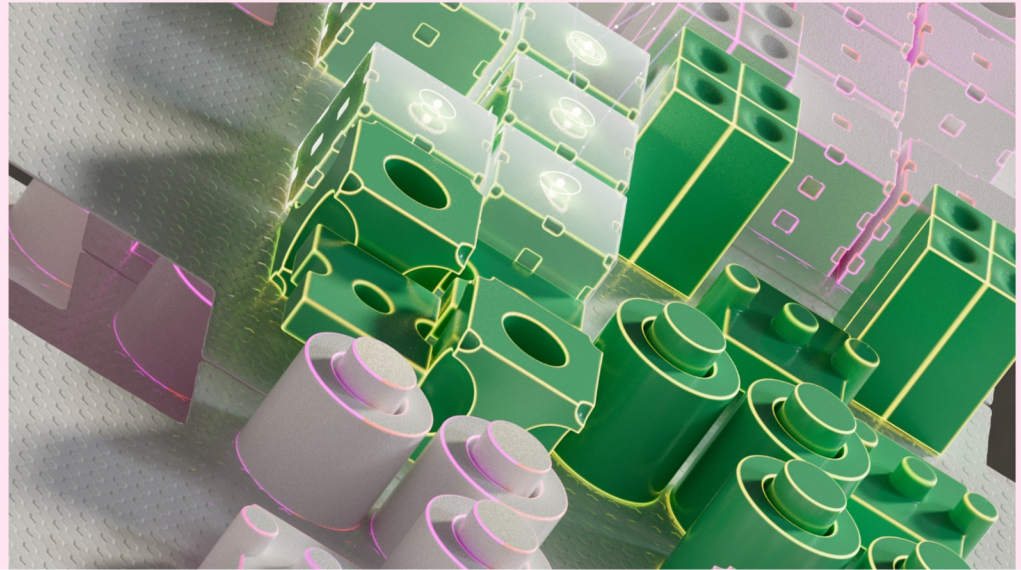
The banner features a portrait of John May on the left. The background is dark with a grid of blue lines and a faint image of a tractor. The CES logo is a stylized 'CES' in white on a blue and yellow background.

... and can generate incredible breakthroughs



AlphaDev discovers faster sorting algorithms

June 7, 2023



Up to 70% faster sorting algorithm

We will cover THREE kinds of AI

Computational AI



Superhuman Math
Almost Always

Generative AI



+50% Productivity And
Infinite Creativity

1. Hunter Gatherers – several million years



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Quality of Life
— 10 YEARS —

2. Agricultural age— several thousand years



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3. Industrial Age – couple of centuries



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— 10 YEARS —

4. Information Age – several decades



5. Augmentation Age – just emerging



COGNITIVE AUGMENTATION



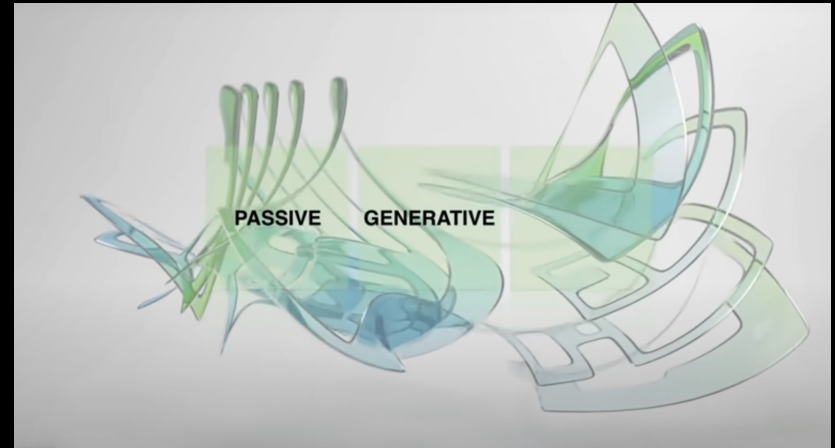
**ARGÜDEN
GOVERNANCE
ACADEMY**

Good Governance for
Quality of Life

5. Augmentation Age – just emerging

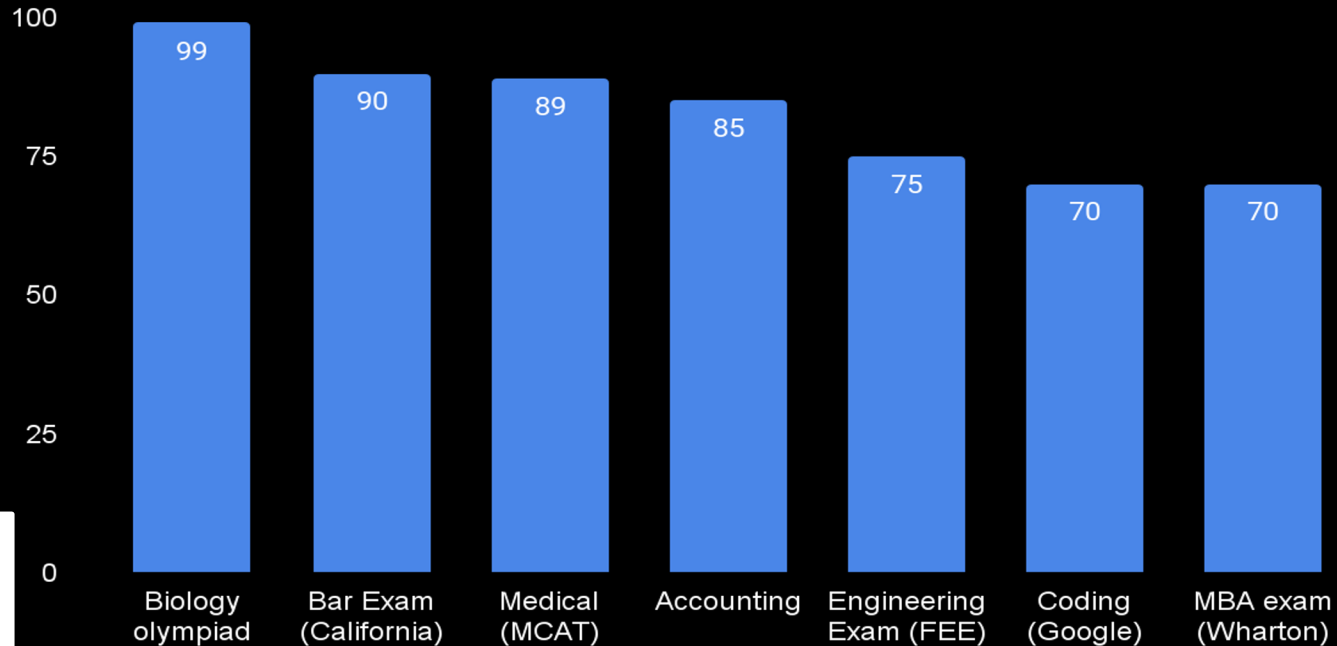
Moving from PASSIVE TOOLS...

...to generative tools



AI is becoming competent at **some** white collar jobs

ChatGPT 4.0 scores



Specifically trained AI is even better



Med-PaLM

A large language model from Google Research, designed for the medical domain.

[Watch Video](#)

The screenshot shows a blue-themed interface for Med-PaLM. On the right side, there are several medical icons: a stethoscope, a first aid kit, a search bar, a book, a pill bottle, a pipette, and a heart with an ECG line.

87%

US Medical License Exam

April 28, 2023

Comparing Physician and Artificial Intelligence Chatbot Responses to Patient Questions Posted to a Public Social Media Forum

John W. Ayers, PhD, MA^{1,2}; Adam Poliak, PhD³; Mark Dredze, PhD⁴; [et al](#)

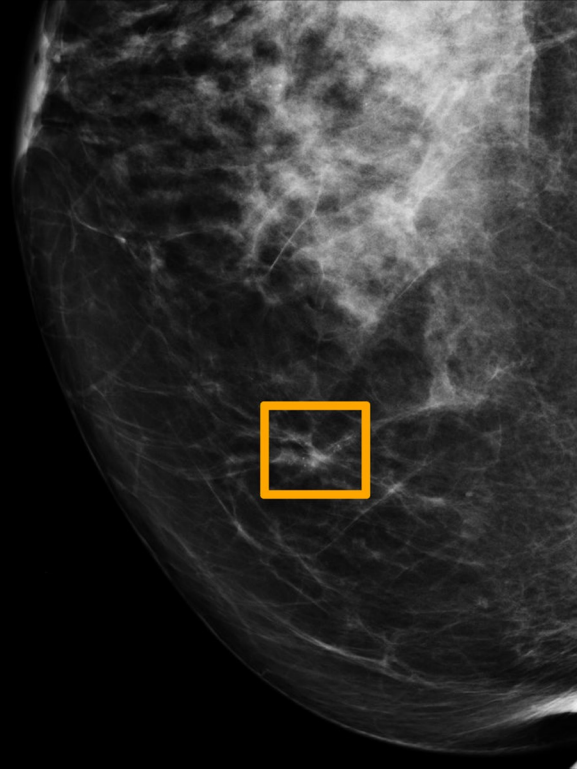
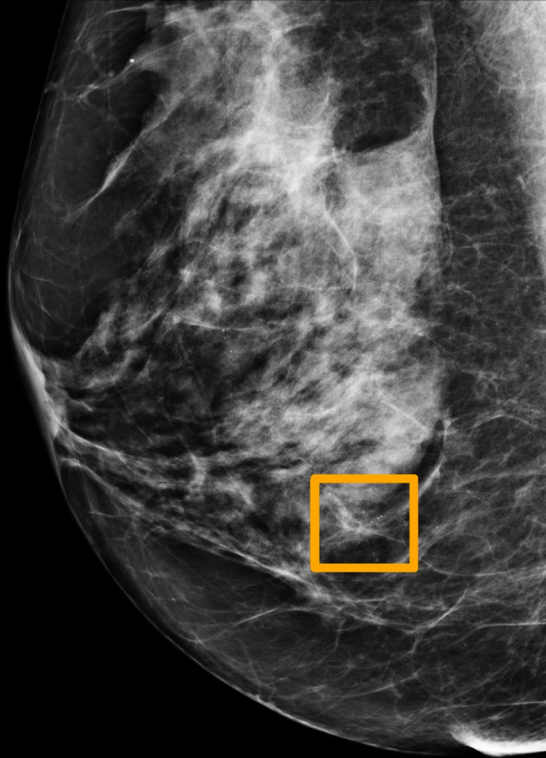
» [Author Affiliations](#)

JAMA Intern Med. 2023;183(6):589-596. doi:10.1001/jamainternmed.2023.1838

41%

More empathetic

See example: radiology



AI significantly increases productivity and work quality...

Working Paper 24-013

Navigating the Jagged Technological Frontier: Field Experimental Evidence of the Effects of AI on Knowledge Worker Productivity and Quality

Fabrizio Dell'Acqua
Edward McFowland III
Ethan Mollick
Hila Lifshitz-Assaf
Katherine C. Kellogg

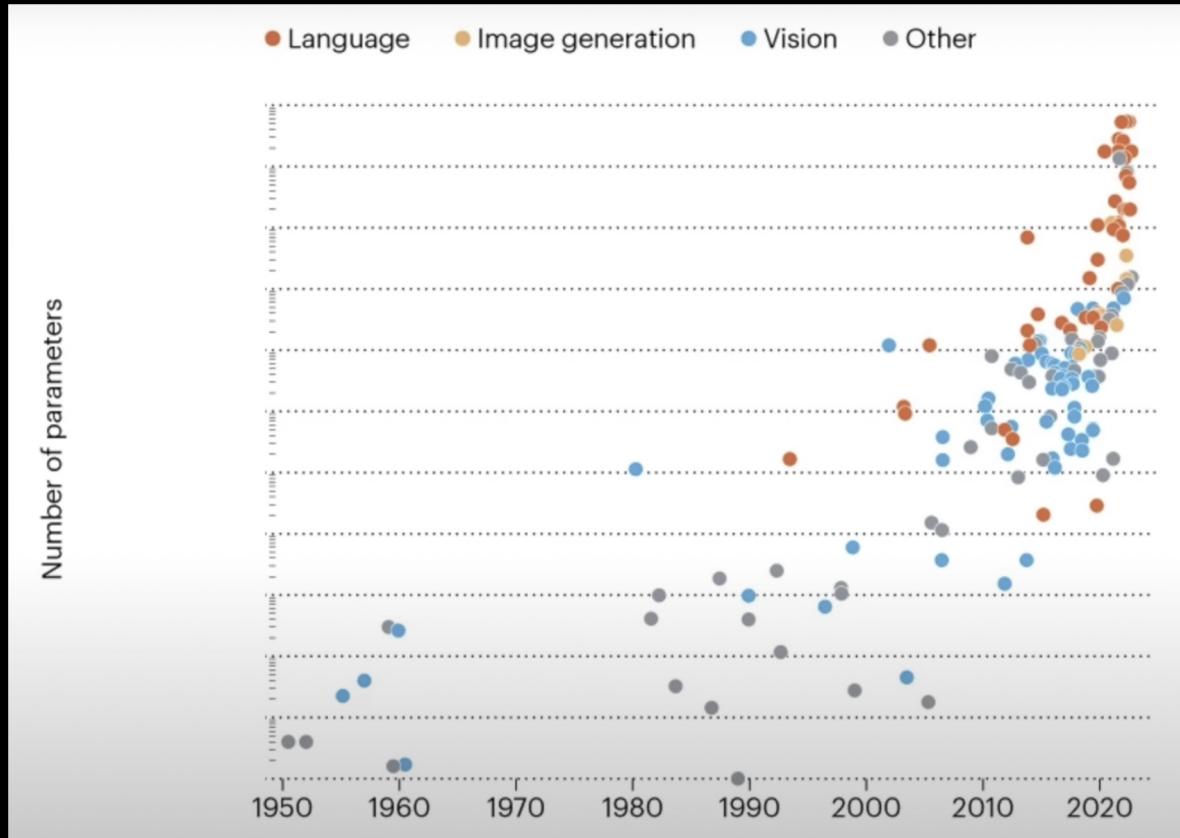
Saran Rajendran
Lisa Kraymer
François Candelon
Karim R. Lakhani

12% more work

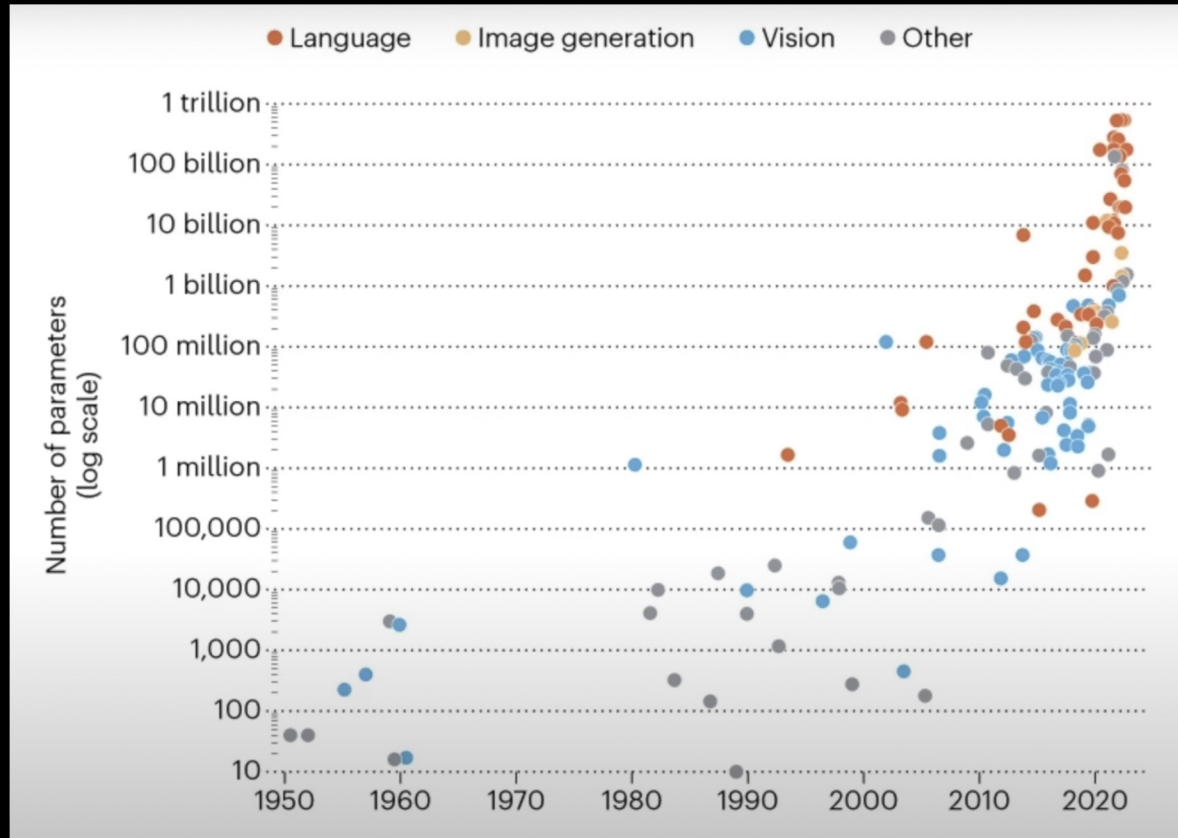
25% less time

40% better quality

Exponential improvement



Exponential exponential improvement



Computational AI



Superhuman Math
Almost Always

Generative AI



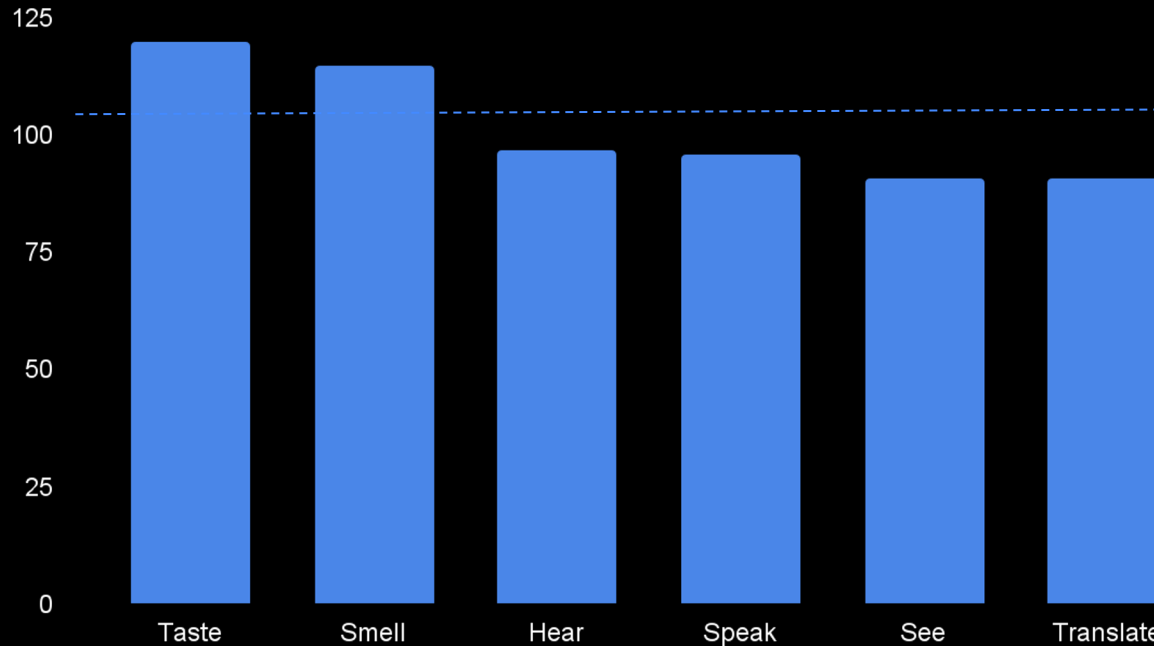
+50% Productivity And
Infinite Creativity

“Senses AI”



AI is able to “sense” fairly well

AI scores on different "sensing" tasks



Smell example: 96% accuracy sniffing whiskey

Could you sniff out counterfeit whiskey?

This “electronic nose” can identify a whiskey’s brand with 96% accuracy.



Credit: Richard / Adobe Stock

Computational AI



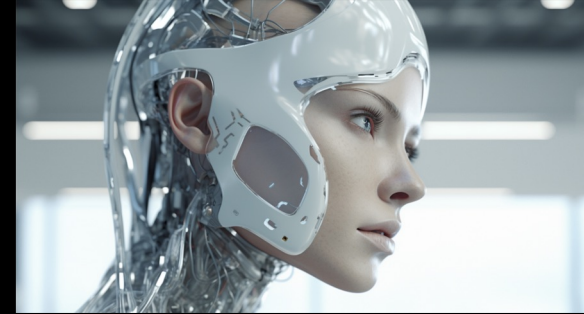
Superhuman Math
Almost Always

Generative AI



+50% Productivity And
Infinite Creativity

“Senses AI”



Advice #1: Mandate an AI-first strategy



Consensus

Leadership

Advice #2: Get started



Write 5-year plan



Get an early win

Advice #3: Focus on low-risk, proven winners



Brainstorm new ideas



Inventory existing winners

Advice #4: Get help

**AI
Board**



**Cloud
Provider**



**Business
Consultancy**



**Legal
Consultancy**



These THREE kinds of AI

Computational AI



Superhuman Math
Almost Always

Generative AI



+50% Productivity And
Infinite Creativity

“Senses AI”



Digital Tsunami is upon us as directors: how are we responding

1. Skills on board: AGE



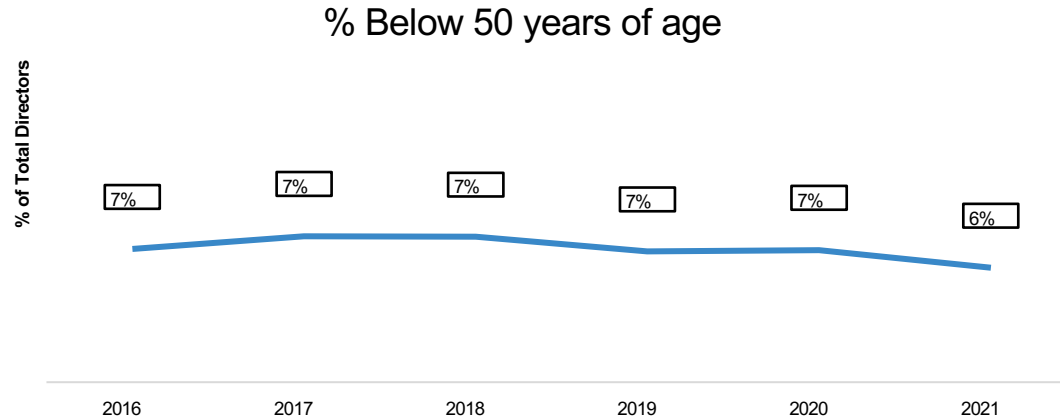
Wal-Mart added 31 year old Kevin Systrom to join Marissa Meyer (2012) and now family heir 36 year old Stuart Walton



Stuart L. Walton is the chief executive officer of Game Composites, Ltd., a company he founded in 2013 that designs and builds small composite aircraft.

TSX Directors are not getting any younger !

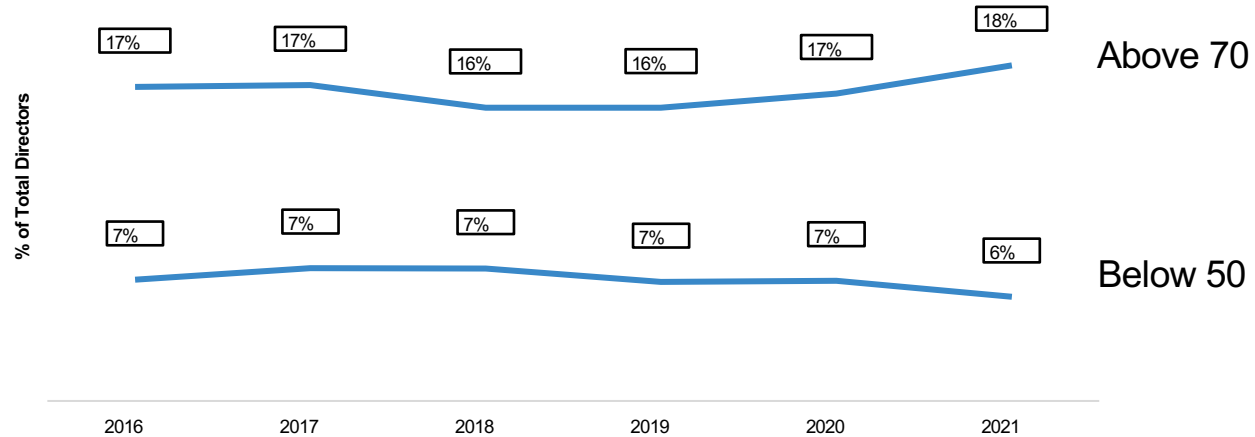
2016 – 2021 TSX Composite Index of 220 companies



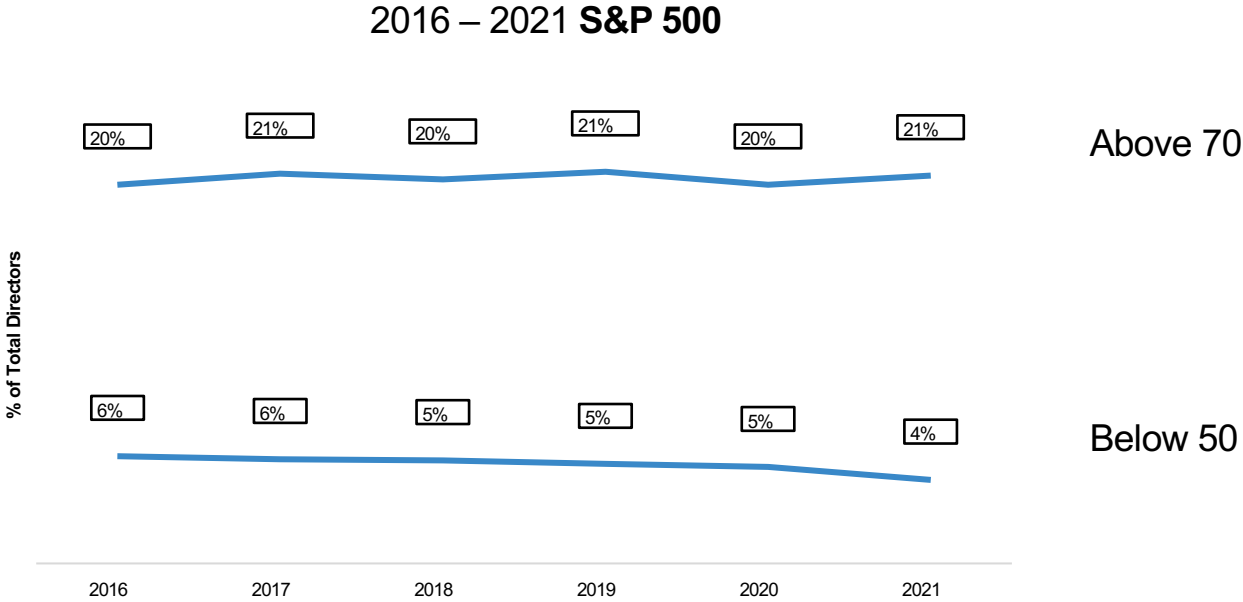
2016 – 2021 TSX Index

TSX Directors are not getting any younger !

2016 – 2021 TSX Composite Index of 220 companies



But the S&P500 boards are even older !!!!



Digital Tsunami is upon us as directors:how are we responding

1. Skills on board: AGE - not happening, anywhere !



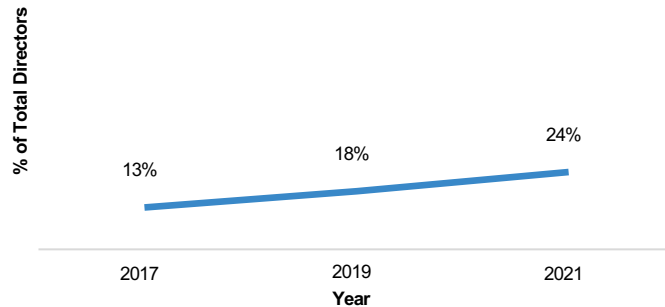
Digital Tsunami is upon us as directors: how are we responding

1. Skills on board: AGE - not happening, anywhere !
2. Skills on board: EXPERTISE

TSX Directors are getting more tech savvy

2016 – 2021 TSX Index

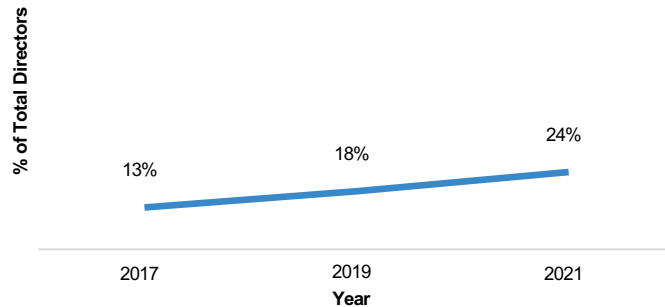
Proportion of total directors identified as “tech savvy”



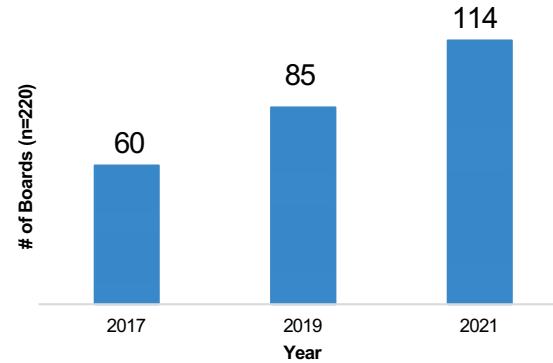
TSX Directors are getting more tech savvy

2016 – 2021 TSX Index

Proportion of total directors identified as “tech savvy”

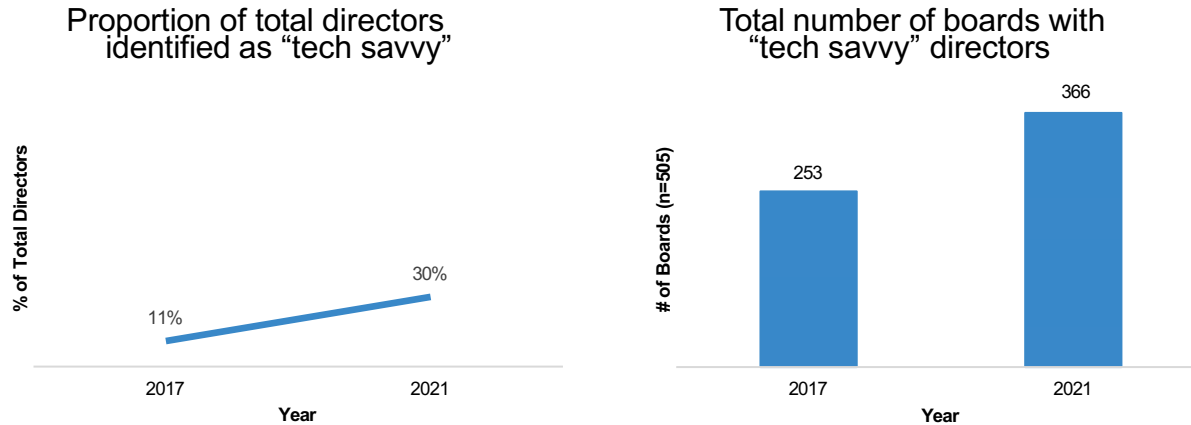


Total number of boards with “tech savvy” directors almost doubled



But the S&P500 boards are slightly more advanced

2016 – 2021 S&P 500



BERKSHIRE HATHAWAY INC.

3555 Farnam Street
Omaha, NE 68131



Bill Gates



Susan Decker
Ex-CEO Yahoo

SpencerStuart

Candidates with technology backgrounds are increasingly popular

- » “Specialist” directors are not generally in high demand, but interest in directors with technology backgrounds is growing.
- » Our 2023 survey reveals that boards are prioritizing the following technology-related skills for recruitment: technology (21%, down from 38% last year), digital (20%, up from 12% last year) and cyber (19%, up from 8% last year).
























Digital Tsunami is upon us as directors:

1. Skills on board: AGE - not happening, anywhere !
2. Skills on board: EXPERTISE increasing dramatically
3. Board committee



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— 10 YEARS —

	Audit	Compensation & Management Development Committee	Nominating & Governance Committee	Executive Committee	Global Compensation	Strategic Planning & Finance	Technology eCommerce
James I. Cash, Jr.  ★							
Timothy P. Flynn ★							
Carla A. Harris							
Tom Horton ★							
Marissa A. Mayer							
C. Douglas McMillon							
Gregory B. Penner 							
Steven S. Reinemund							
Kevin Systrom							
S. Robson Walton							



S&P 500
now 70 up from 46 in 2016

Canada
now 4 up from 0 in 2016

Digital Tsunami is upon us as directors: how are we responding

1. Skills on board: AGE - not happening, anywhere !
2. Skills on board: EXPERTISE increasing dramatically
3. Board committee: S&P way in front of UK & Canada
4. Advisory Board: no data

Digital Tsunami is upon us as directors: how are we responding

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4. Advisory Board: no data
5. Innovation Labs

Routine is needed in large complex businesses



Nearly 8,700 properties across 139 countries and territories with 1,423,044 rooms with 400,000 employees



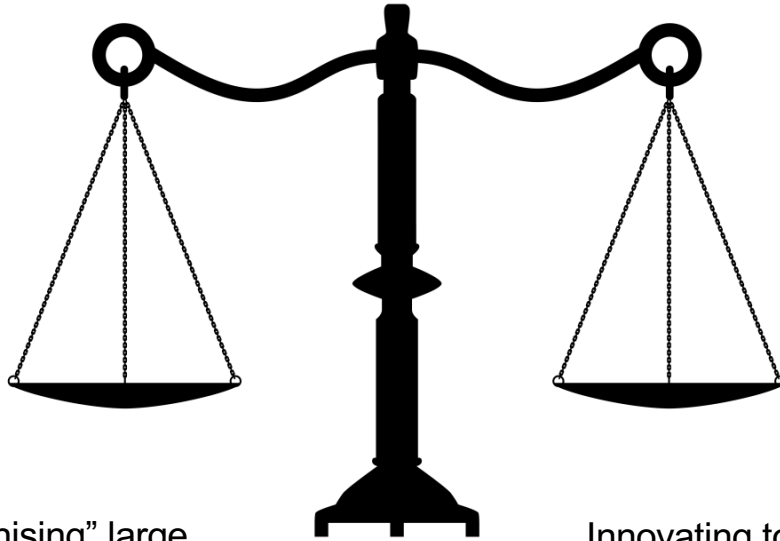
Routine drives out creativity



Nearly 8,700 properties across 139 countries and territories with 1,423,044 rooms with 400,000 employees



So the balance is really, really hard



“Routinising” large,
complex bureaucracies

Innovating to survive the
digital tsunami & GenAI



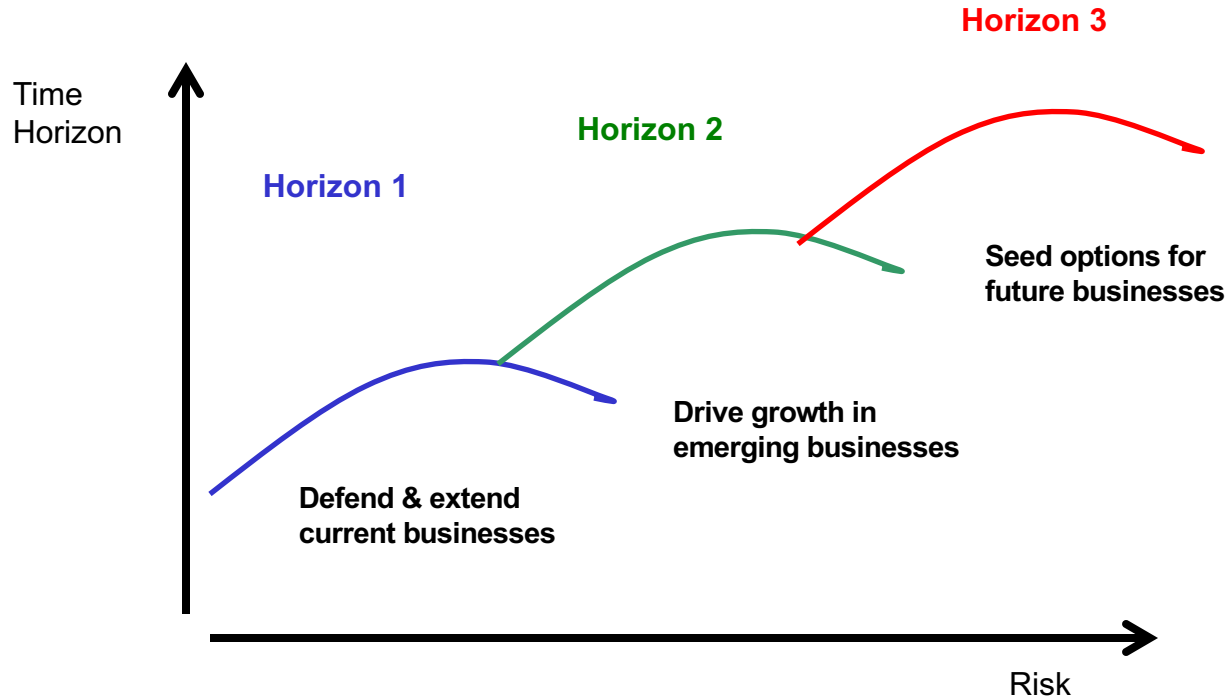
JOHN M. THOMPSON

#2 to Lou Gerstner at IBM

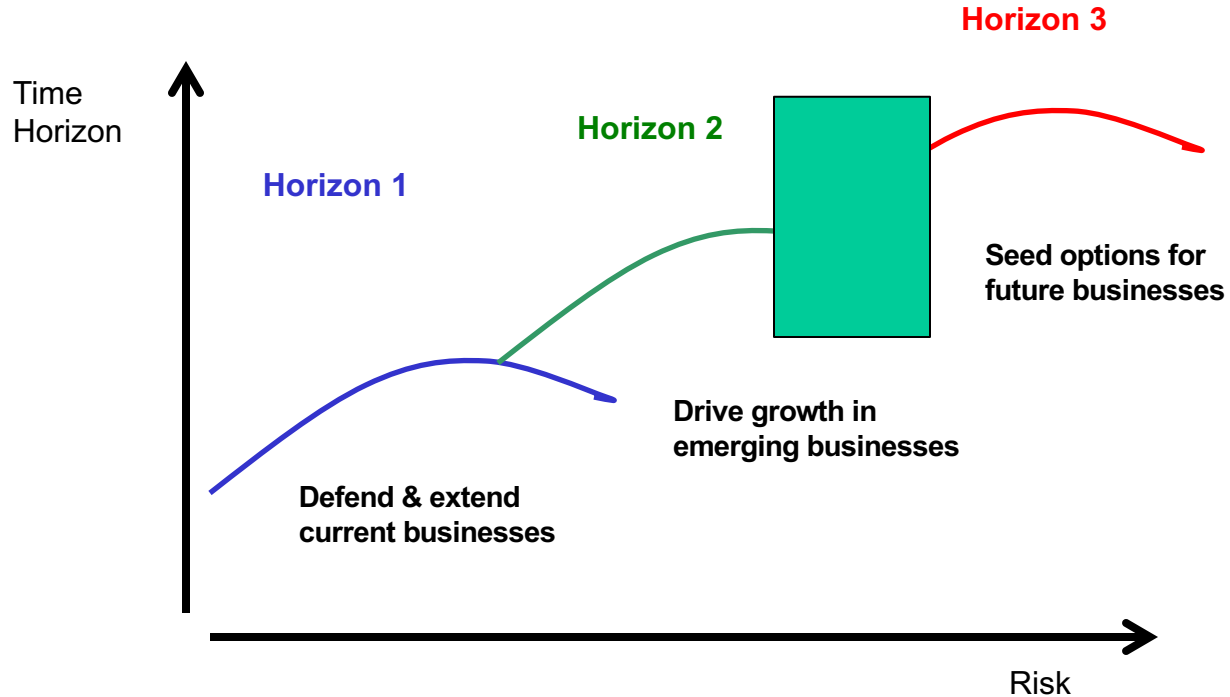
Former Chair TD Bank

Board of :
Thomson Reuters
Royal Phillips NV
Hospital For Sick Children

Growth requires a pipeline of opportunities across 3 horizons...



Horizon 3 requires you to separate it from the CORE...



Corporate Innovation Labs

From AT&T To Xerox: 90+ Corporate Innovation Labs

Innovation is critical for established companies to stay relevant in the face of disruption.

Digital Tsunami is upon us as directors:

1. Skills on board: AGE - not happening, anywhere !
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3. Board committee: S&P way in front of UK & Canada
4. Advisory Board: no data
5. Innovation Labs: significant in the US
6. CVC to drive innovation in house

Invest directly into the future: John Deere



...acquires Blue River Technology for \$350mn (Sept 2017)

See & Spray™

The world's first smart sprayer



BLUE RIVER
TECHNOLOGY

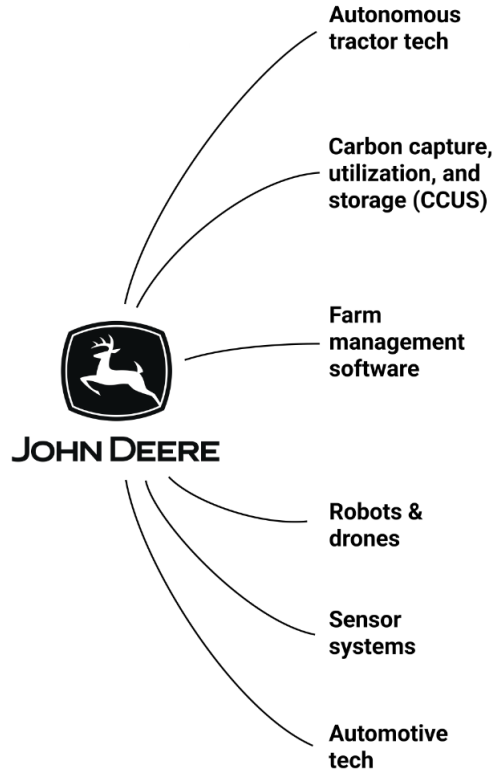


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GOVERNANCE
ACADEMY**

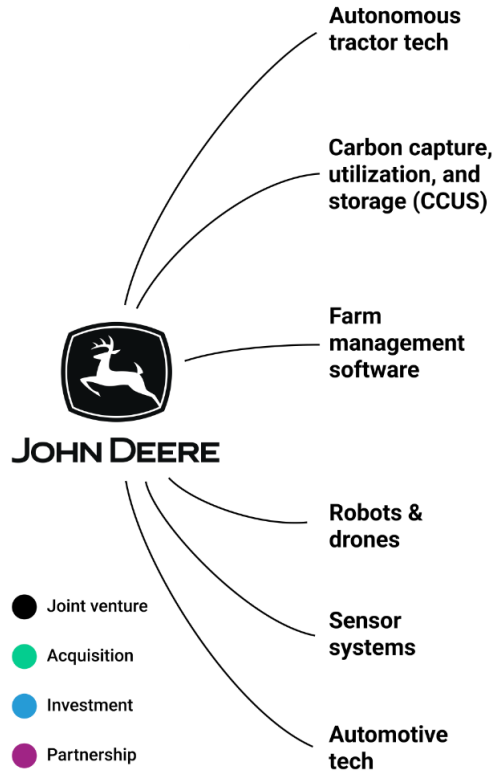
Good Governance for
Quality of Life

— 10 YEARS —

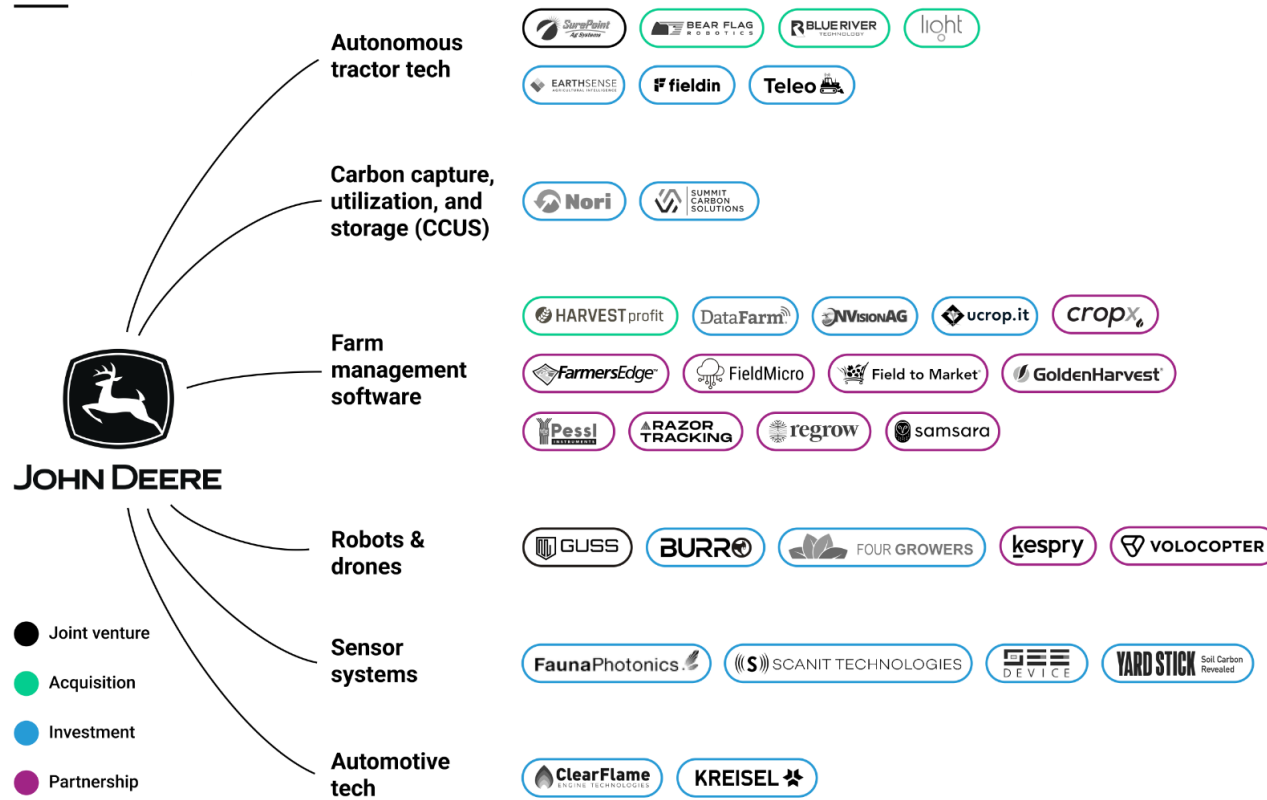
John Deere's Strategy Map



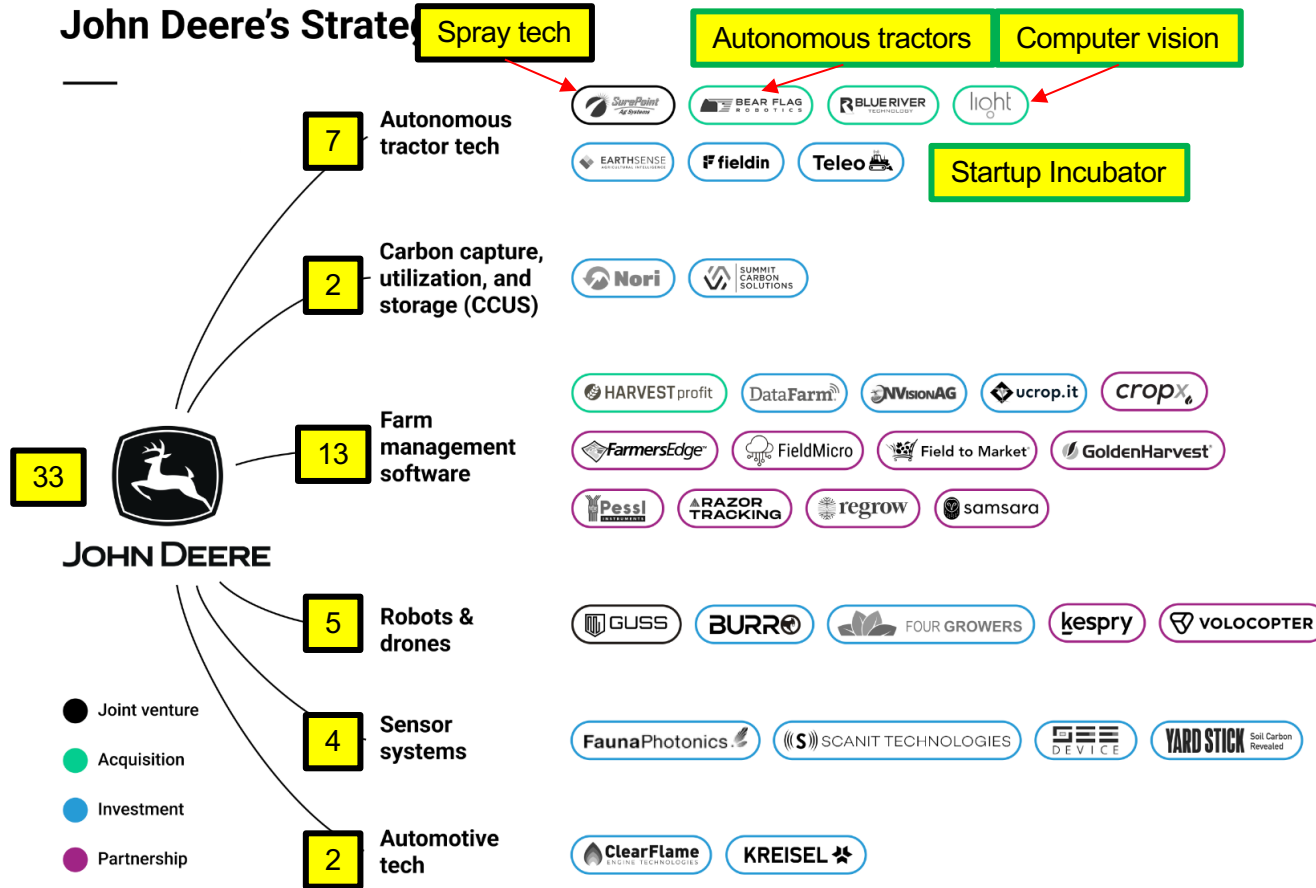
John Deere's Strategy Map



John Deere's Strategy Map



John Deere's Strategy



- Joint venture
- Acquisition
- Investment
- Partnership



* For companies receiving support from the Deere Startup Collaborator: Deere Startup Collaborator does not explicitly fund startups participating in its accelerator, though it is part of the company's investment in exploring tech.

....creativity starts at the top: NOT casual !!!



Want to Hear How Our Tech is Moving Farming Forward?

Keynote Address: January 5, 11a CST | Featuring John May, Chairman & CEO



Consumer
Technology
Association

Join US at CES

The banner features a portrait of John May on the left. The background is dark blue with a grid pattern and faint images of agricultural machinery. The CES logo is a stylized 'CES' in white and yellow on a blue background.

Can it catch up ??

24

CATERPILLAR

Batteries



Energy efficiency



Heavy equipment



Hydrogen tech



Industrial IoT



- Acquisition
- Investment
- Partnership

Medtronic's Strategy Map

We mined Medtronic's acquisitions, investments, and partnerships since 2017 to determine its strategic priorities.

Categories listed are not exhaustive of all Medtronic's activity in the period.

39

Medtronic

- Acquisition
- Investment
- Partnership

Artificial intelligence



Remote monitoring



Robotics



Surgical intelligence



Therapeutic delivery systems



Walmart's Strategy Map

We mined Walmart's acquisitions, investments, and partnerships since Q1'20 to discern its strategic priorities.

Categories listed are not exhaustive of all of Walmart's activity in the period.

52

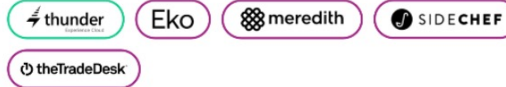
Walmart

- Acquisition
- Investment
- Partnership

Autonomous delivery



Digital advertising tech



E-commerce assortment expansion



E-commerce merchandising



Fulfillment & delivery tech



Healthcare access



Bosch's Strategy Map

We mined Bosch's acquisitions, investments, and partnerships since Q1'19 to discern its strategic priorities.

Categories listed are not mutually exclusive or exhaustive of all of Bosch's activity in the period. Categories include investment activity from Robert Bosch Venture Capital.



27

- Acquisition
- Investment
- Partnership



Automotive semiconductors



Autonomous vehicles



Connectivity



Electrification



Toyota's Strategy Map

We mined Toyota's joint ventures, acquisitions, investments, and partnerships since Q1'19 to discern its strategic priorities.

Categories and companies listed are not exhaustive of all of Toyota's activity in the period. Categories include investment activity from Toyota Ventures.

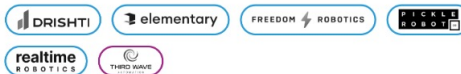
24



TOYOTA

- Joint venture
- Acquisition
- Investment
- Partnership

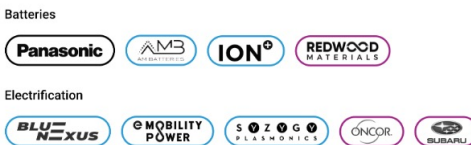
Automation & robotics



Autonomous vehicles



Energy & storage



Hydrogen



Mobility solutions



Semiconductors



* Toyota purchased Lyft's self-driving unit.

NVIDIA's Strategy Map

We mined NVIDIA's acquisitions, investments, and partnerships since Q1'21 to discern its strategic priorities.

Categories listed are not mutually exclusive or exhaustive of all of NVIDIA's activity in this period.

39



AI & machine learning



Autonomous driving



Cloud & data infrastructure



Digital twins



Healthcare



Quantum & high-performance computing



- Acquisition
- Investment
- Partnership



Netflix's Strategy Map

We mined Netflix's acquisitions, investments, and partnerships since Q1'21 to discern its strategic priorities.

Companies listed are not mutually exclusive or exhaustive of Netflix's activity in this period.

42

NETFLIX

Ad tech

Consumer products

Digital content

Gaming

- Acquisition
- Partnership

Digital Tsunami is upon us as directors:

1. Skills on board: AGE - not happening, anywhere !
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4. Advisory Board: no data
5. Innovation Labs: significant in the US
6. CVC to drive innovation in house
7. Task CEO



 **LRP**
ASIA PACIFIC
2016 - 2018

LRP Meeting
October 29 & 30
Macau



Did a JV with ALIBABA !!



08/07/2017 - SHANGHAI

Alibaba Group and Marriott
International Announce Innovative Joint
Venture to Redefine Travel Experience

Digital Tsunami is upon us as directors:

1. Skills on board: AGE - not happening, anywhere !
2. Skills on board: EXPERTISE increasing dramatically
3. Board committee: S&P way in front of UK & Canada
4. Advisory Board: no data
5. Innovation Labs: significant in the US
6. CVC to drive innovation in house
7. Task CEO
8. Ask the RIGHT questions



NOT: WHEN WILL IT HAPPEN?

BUT

WHEN IT DOES HAPPEN HOW MUCH
OF A DIFFERENCE WILL IT MAKE?

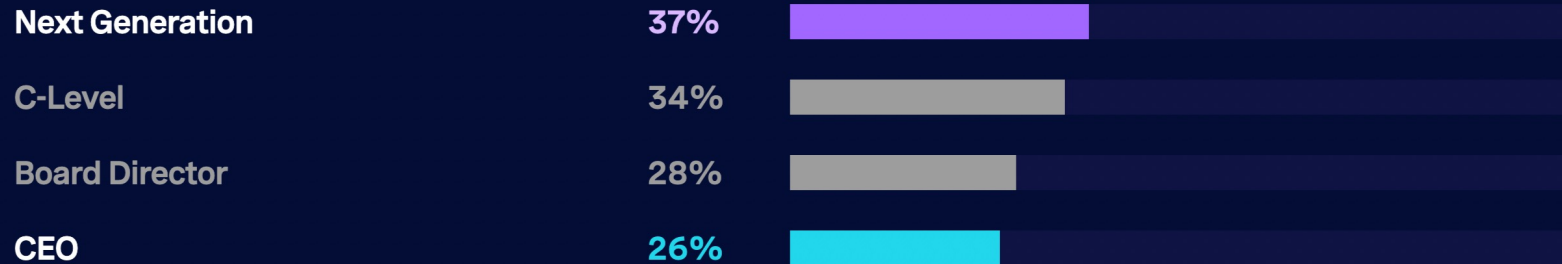
Nick Darveau-Garneau

So, how can organizations navigate the next tech leap?

Look to your next generation of leaders.

37% of next-generation leaders are confident that they have the right skills to implement GenAI... compared to **26% of CEOs**.

Give them the power to experiment and pilot projects.



Source: *Russell Reynolds Associates' H2 2023 Global Leadership Monitor*

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8. Ask the RIGHT questions
9. Get started: anything, anywhere NOW !!

We are ALL in an extinction event



**ARGÜDEN
GOVERNANCE
ACADEMY**

Good Governance for
Quality of Life

— 10 YEARS —

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If you don't get started on this journey there is only ONE question left to answer



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Where do you want to be buried ?

Teşekkür Ederim



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