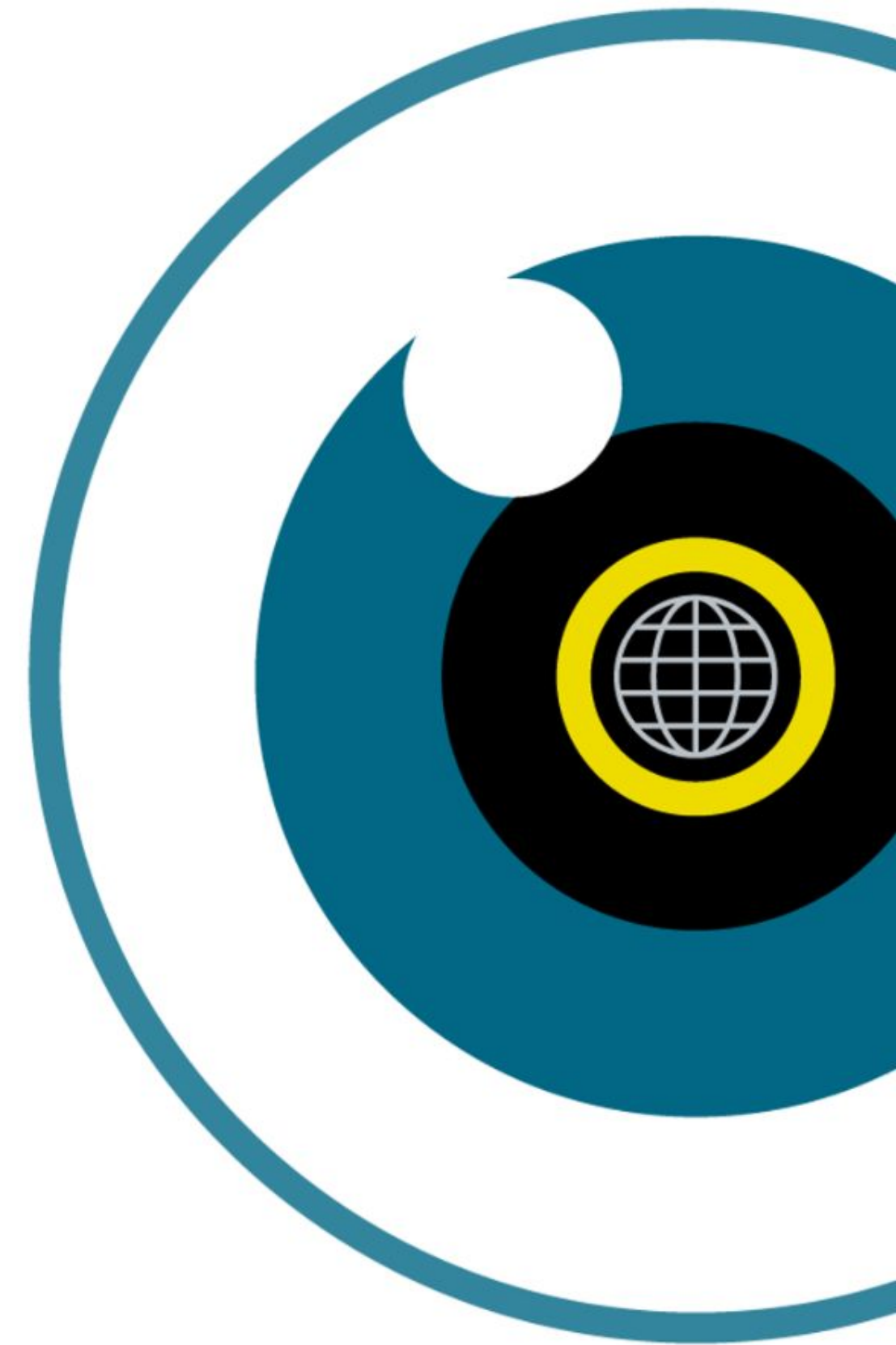




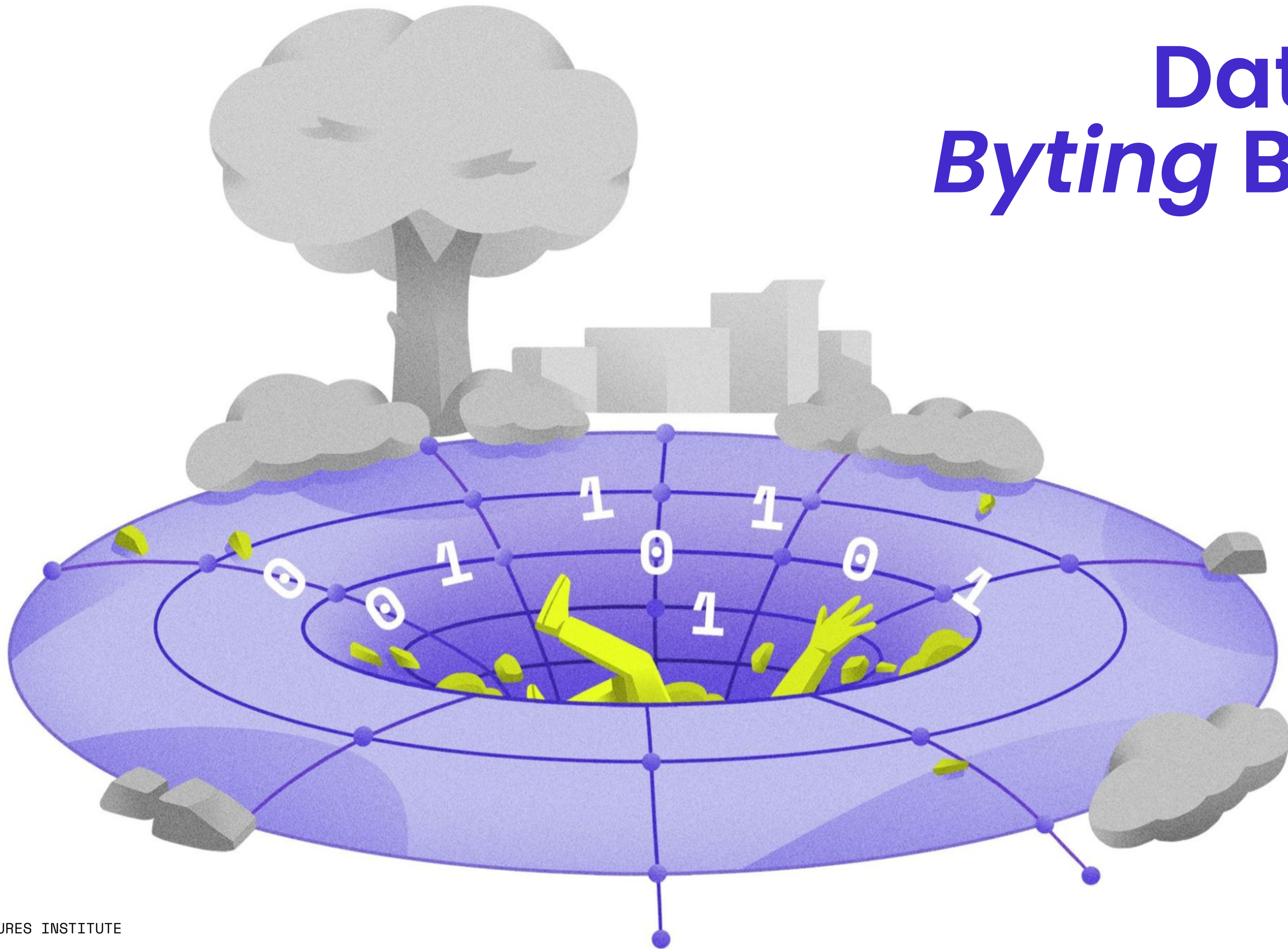


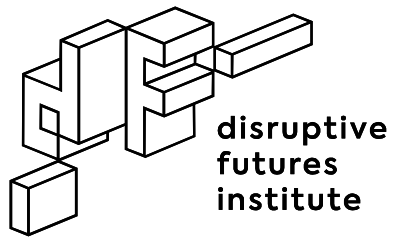
Unpredictability & Adaptive Risk Management for our Deeply Uncertain World

Roger Spitz, Founding Chair Disruptive Futures Institute



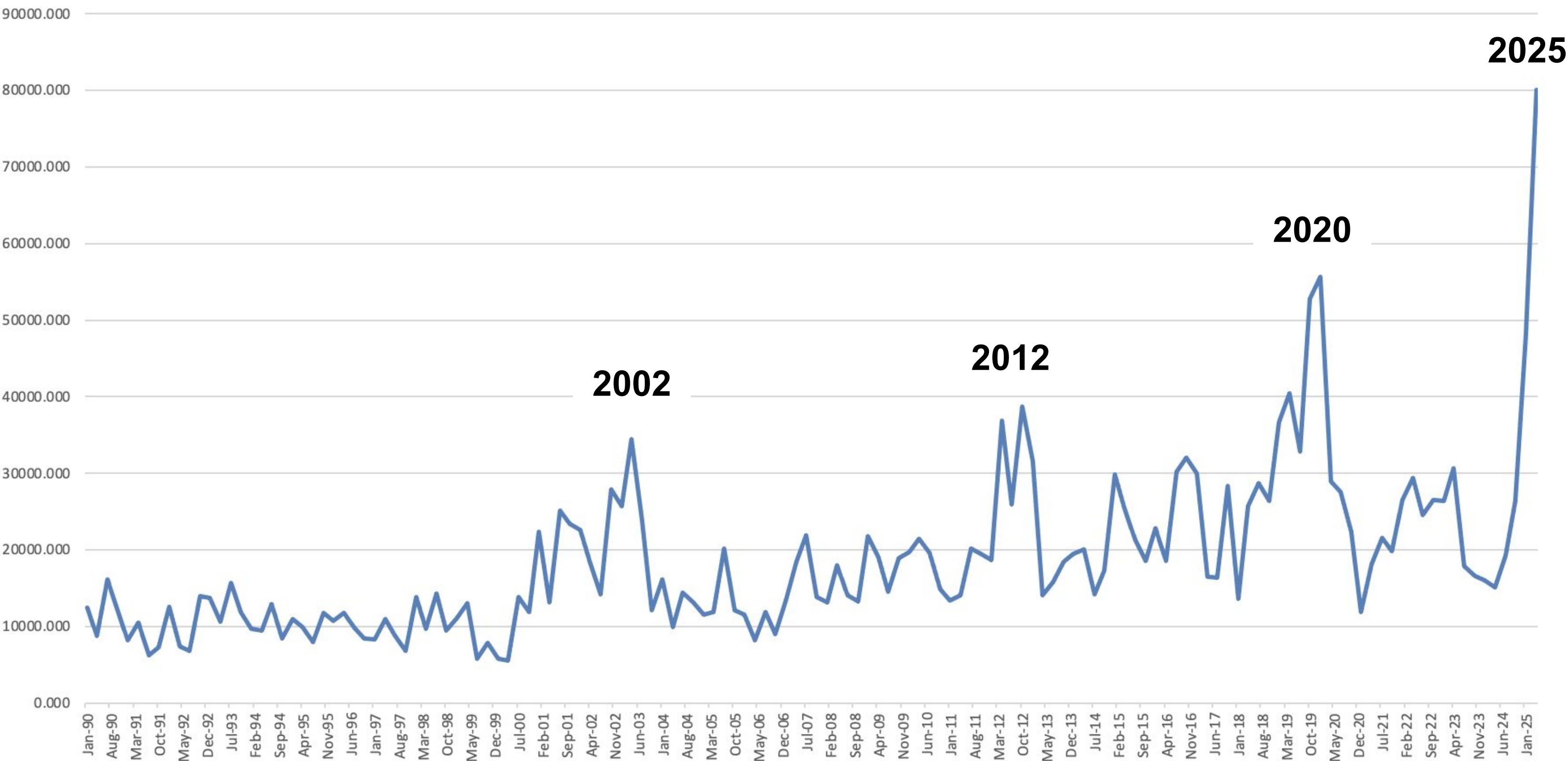
Data is *Byting* Back





World Uncertainty Index

World Uncertainty Index (WUI): Global
Index. GDP weighted average. January 1990 to April 2025.





IMF



The Global Economy Enters a New Era

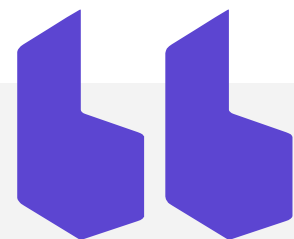
Pierre-Olivier Gourinchas

April 22, 2025

The International Monetary Fund explicitly warns that **uncertainty is now exceeding pandemic levels**, driven largely by unpredictable trade policies and geopolitical fragmentation.

JPMorganChase Launches Center for Geopolitics to Help Clients Navigate Global Business Landscape

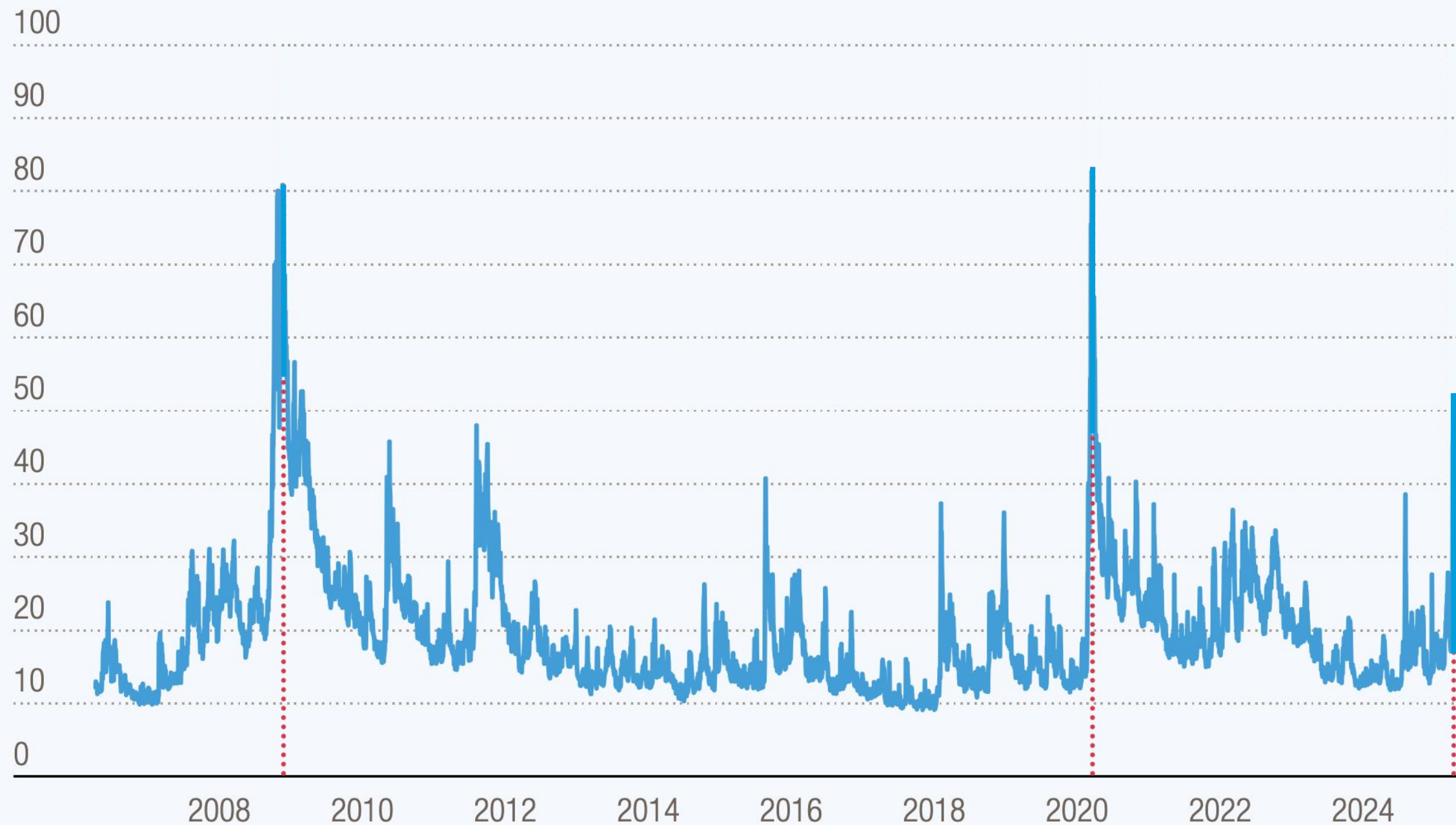
Washington, DC | May 21, 2025



...the **tectonic shifts** reshaping our world...
...unprecedented interconnectedness,
disruptive technological forces, **persistent
economic uncertainty**, and proliferating
geopolitical crises...

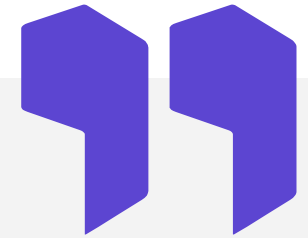
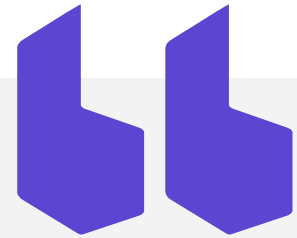
➤ **‘Fear index’ signals rising unease among investors**

Investors’ concerns over global uncertainty, VIX Index, 10 April 2006 – 9 April 2025

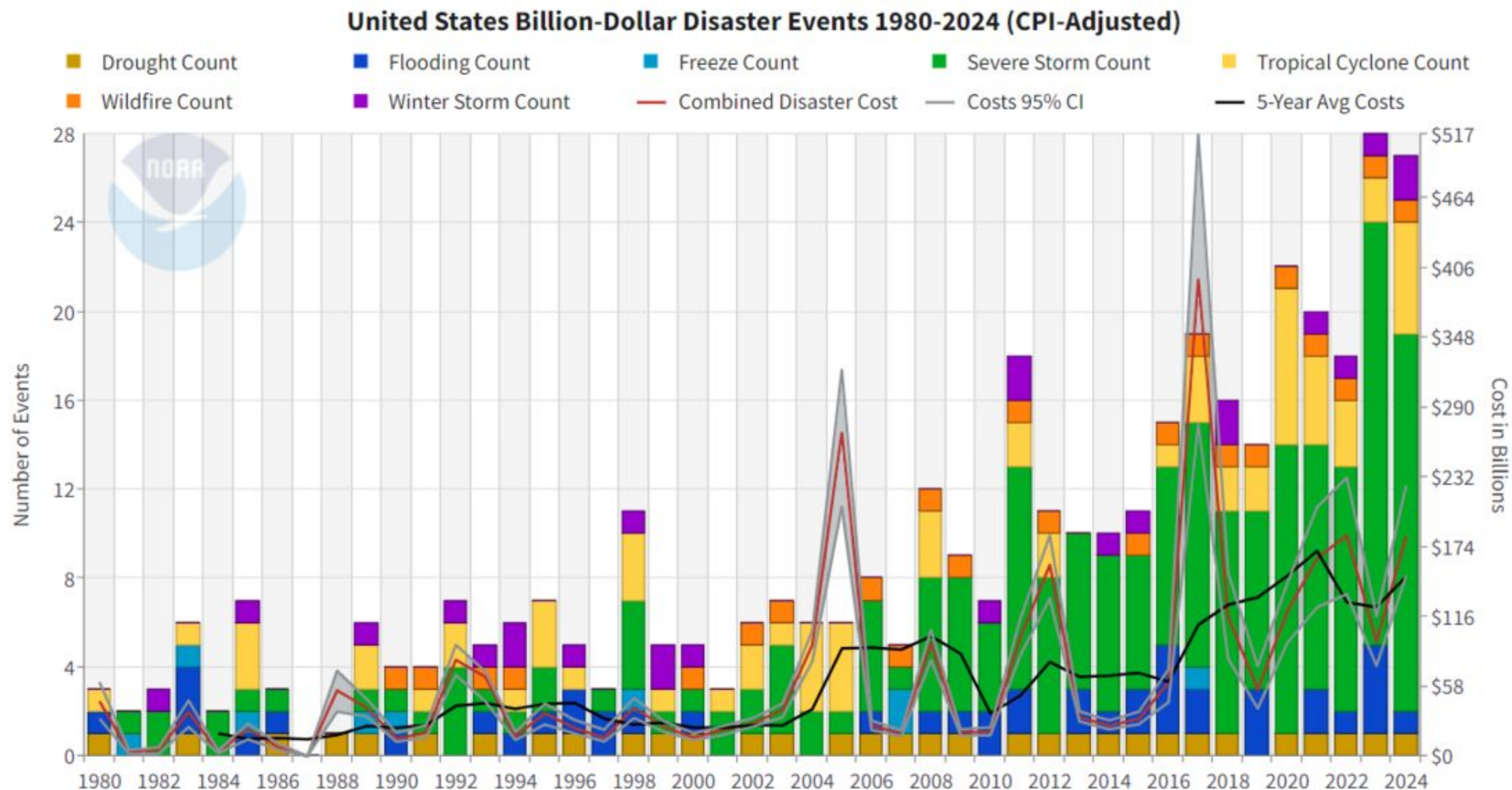


IPCC Sixth Assessment Report

Impacts, Adaptation and Vulnerability



...The rise in weather and climate extremes has led to some **irreversible impacts as natural and human systems are pushed beyond** their ability to adapt...

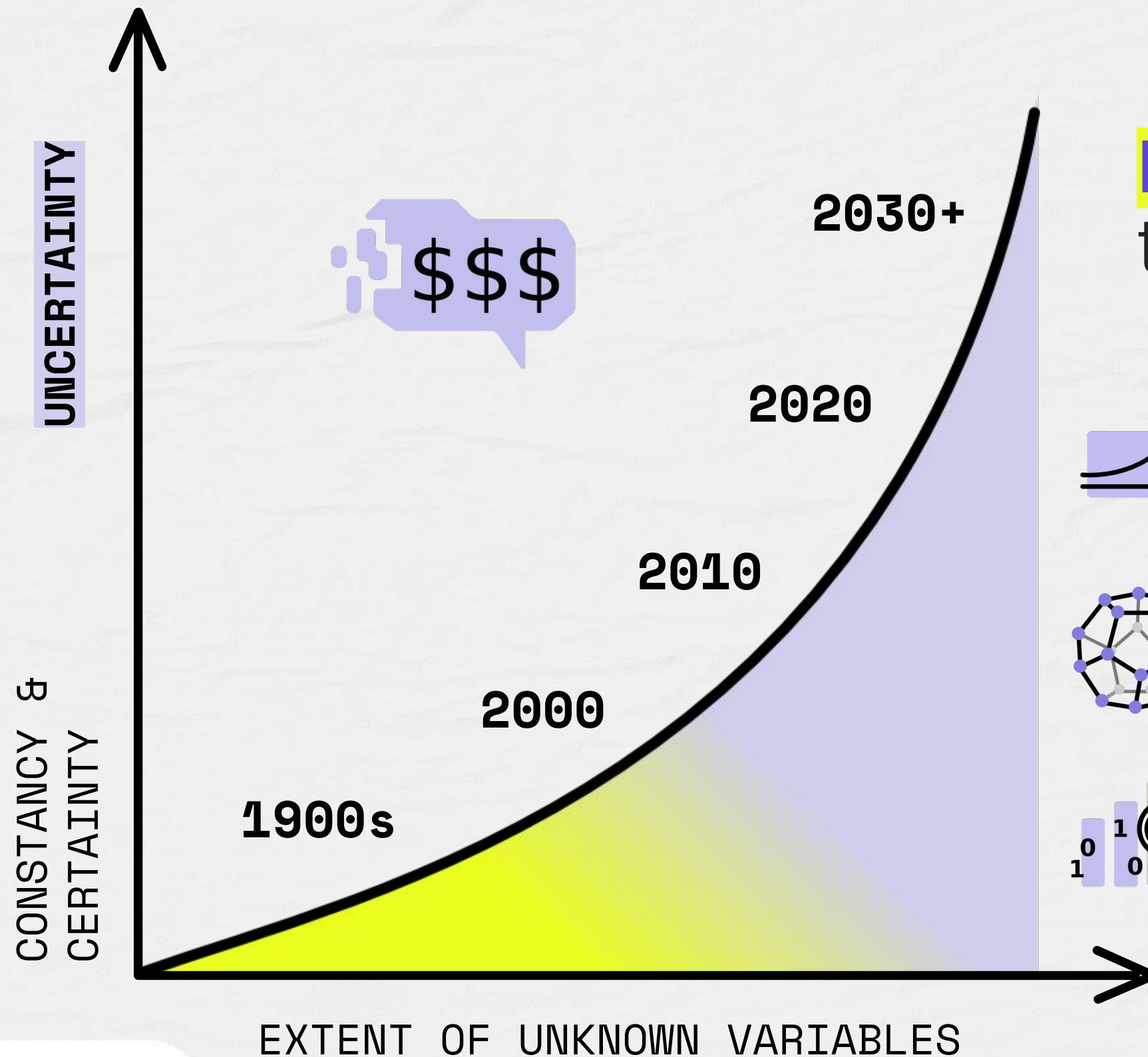


U.S. Billion-dollar Weather and Climate Disasters, 1980 – present
(NCEI Accession 0209268)

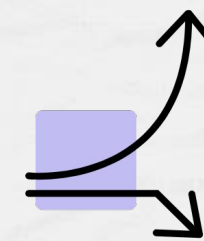
Munich Security Report 2025



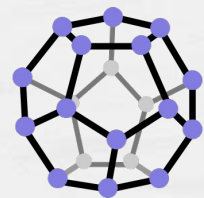
The Increasing Cost of Business as Usual



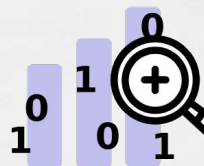
Rising cost of assuming that the world is predictable.



Inverse relationship between predictability and uncertainty.



Not predictable if: **Unknown variables**.



Predictable if: **Known & stable parameters**.

It's Beyond Complicated

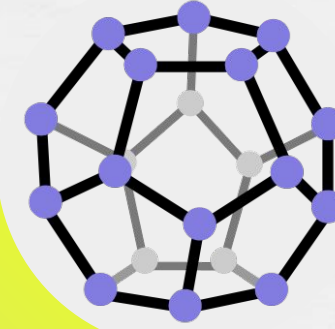


Complicated

- Understand cause & effect
- Expert: Known unknowns
- Range of right answers
- Linear, incremental
- Good practice
- Governing constraints

Complex

- Retrospective cause & effect
- Test: Unknown unknowns
- No right answers
- Nonlinear, exponential
- Emergent practice
- Enabling constraints

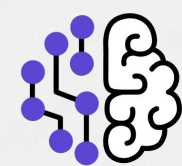


Probe
Sense
Respond

Sense
Analyze
Respond

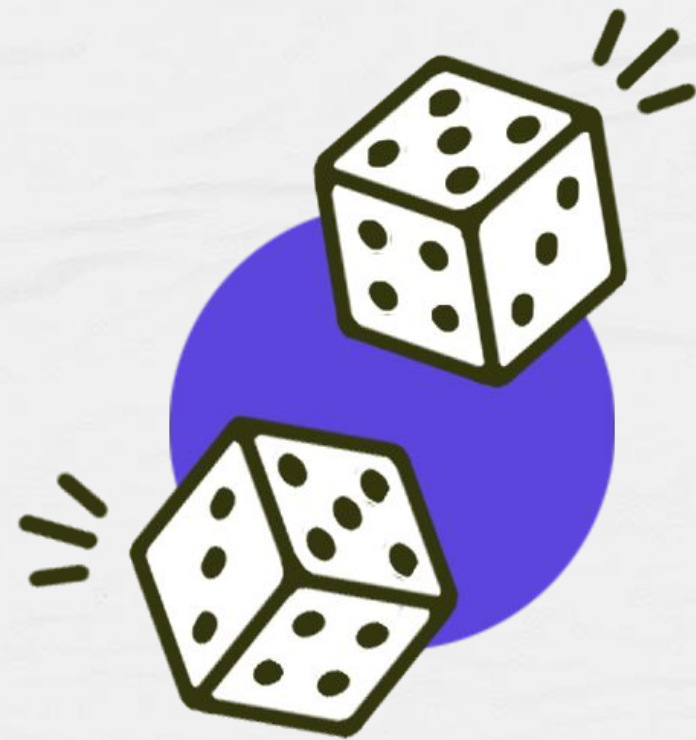
Predictable
Stable

Unpredictable
Flux

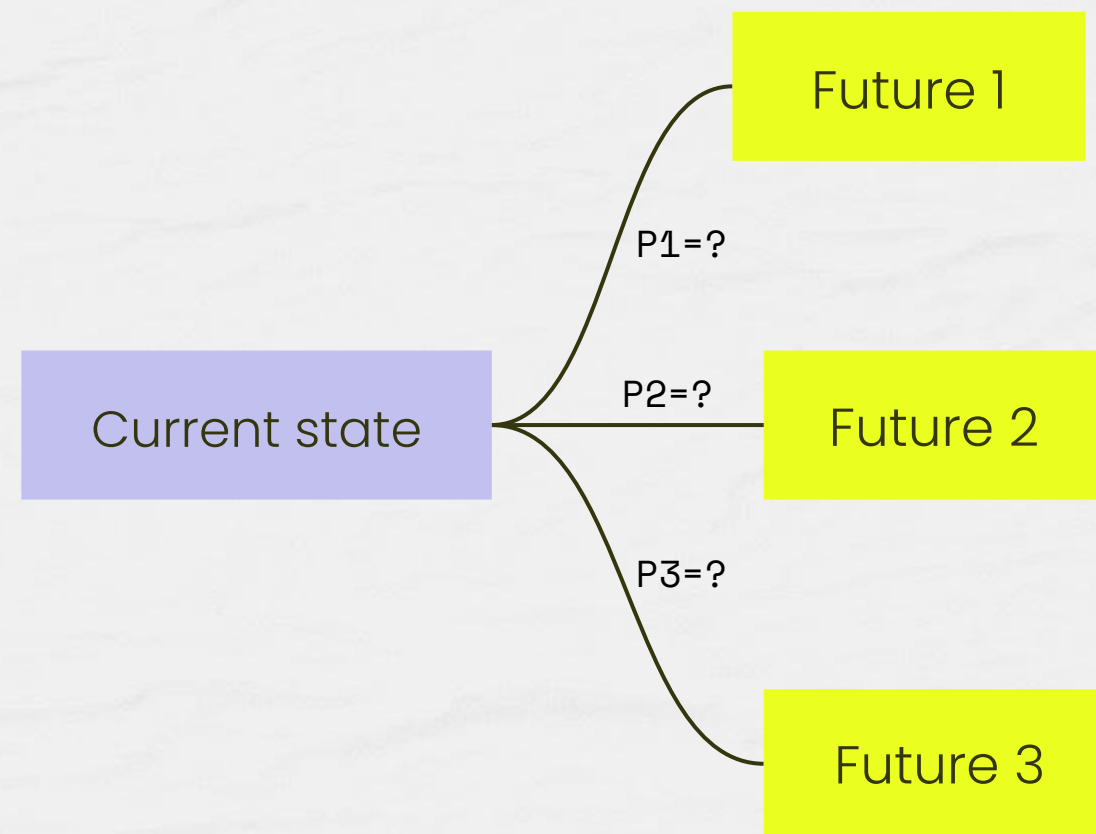


Strong AI
"comfort zone"

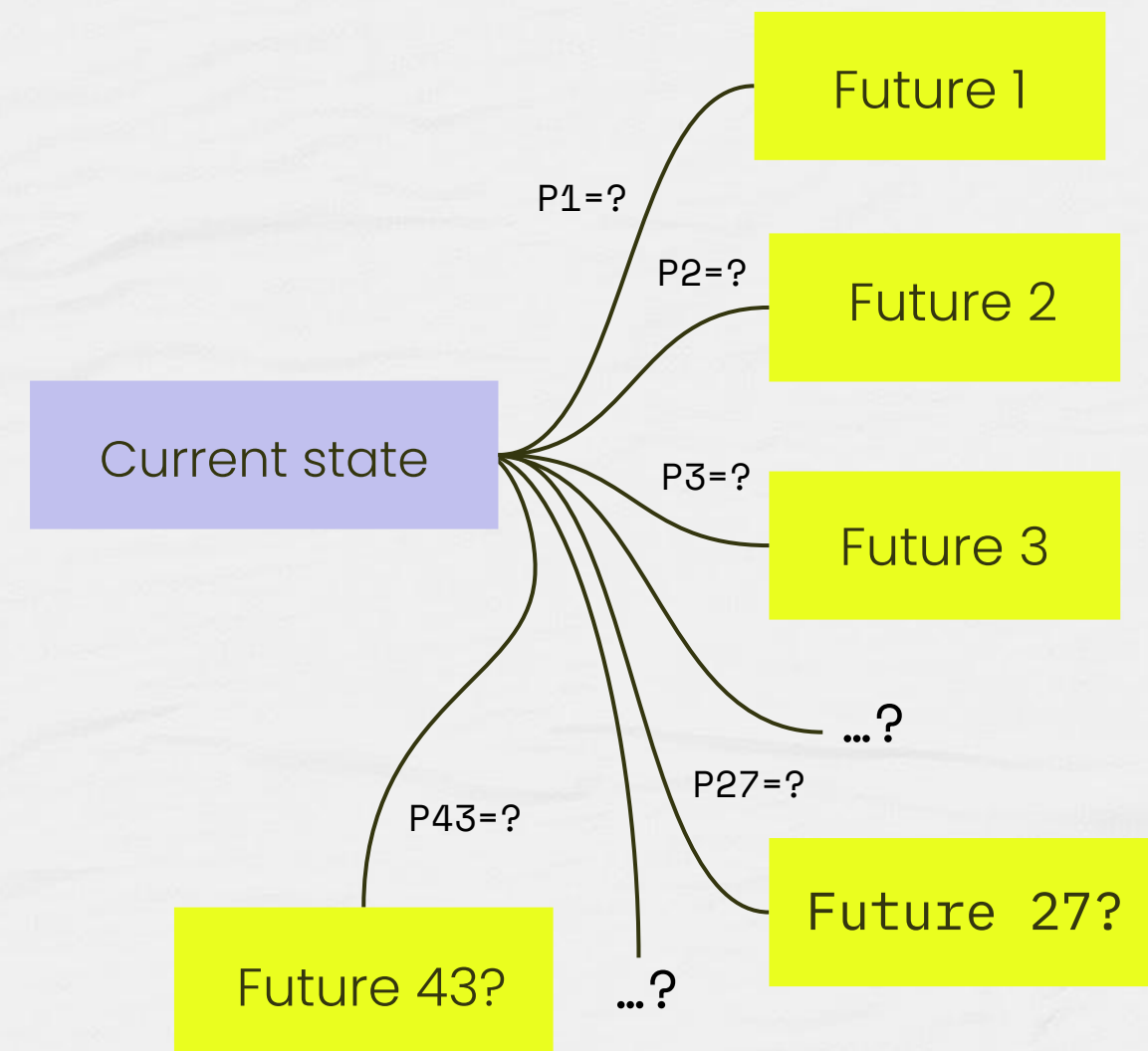
Risk



Uncertainty



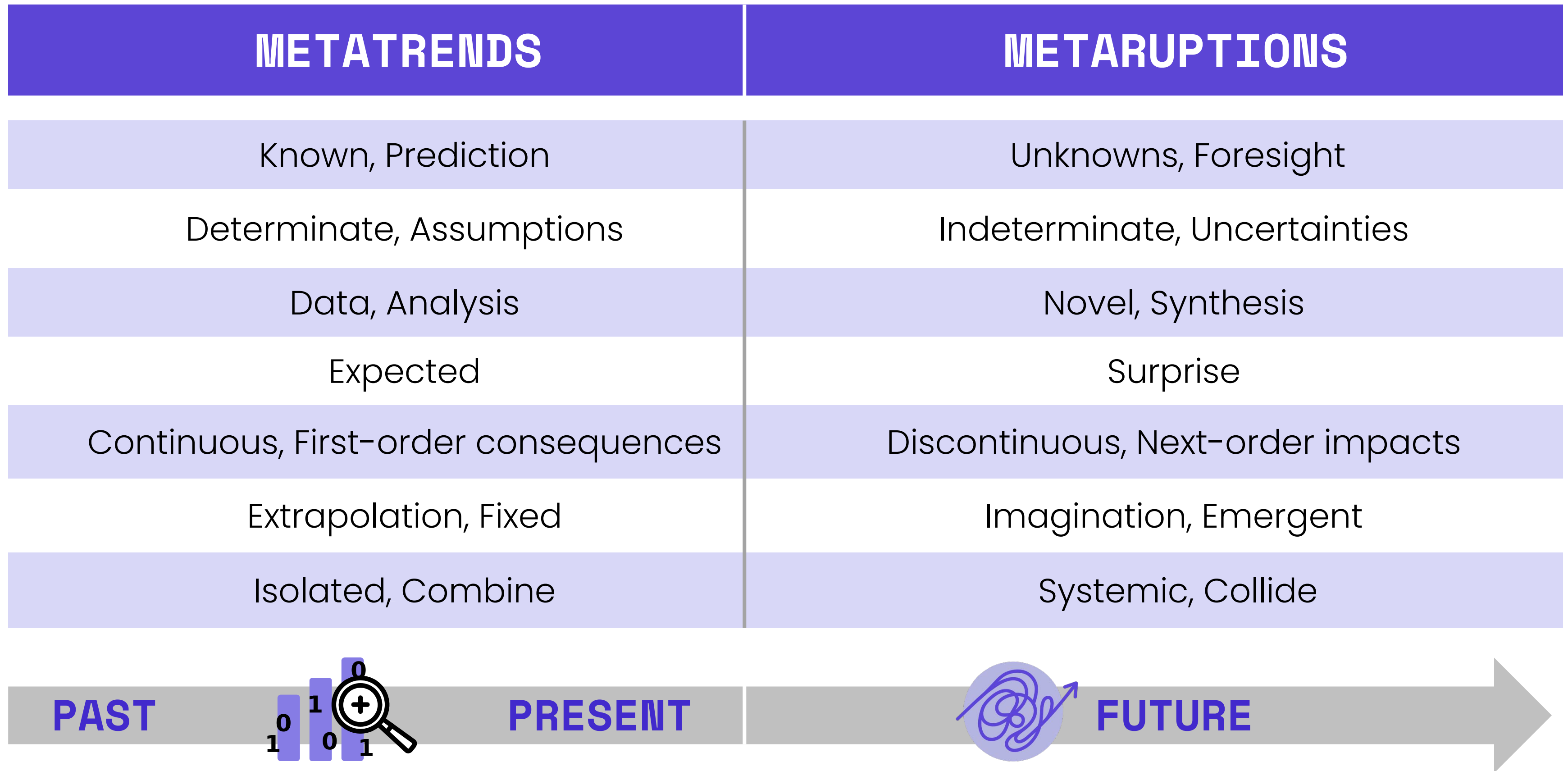
Deep Uncertainty



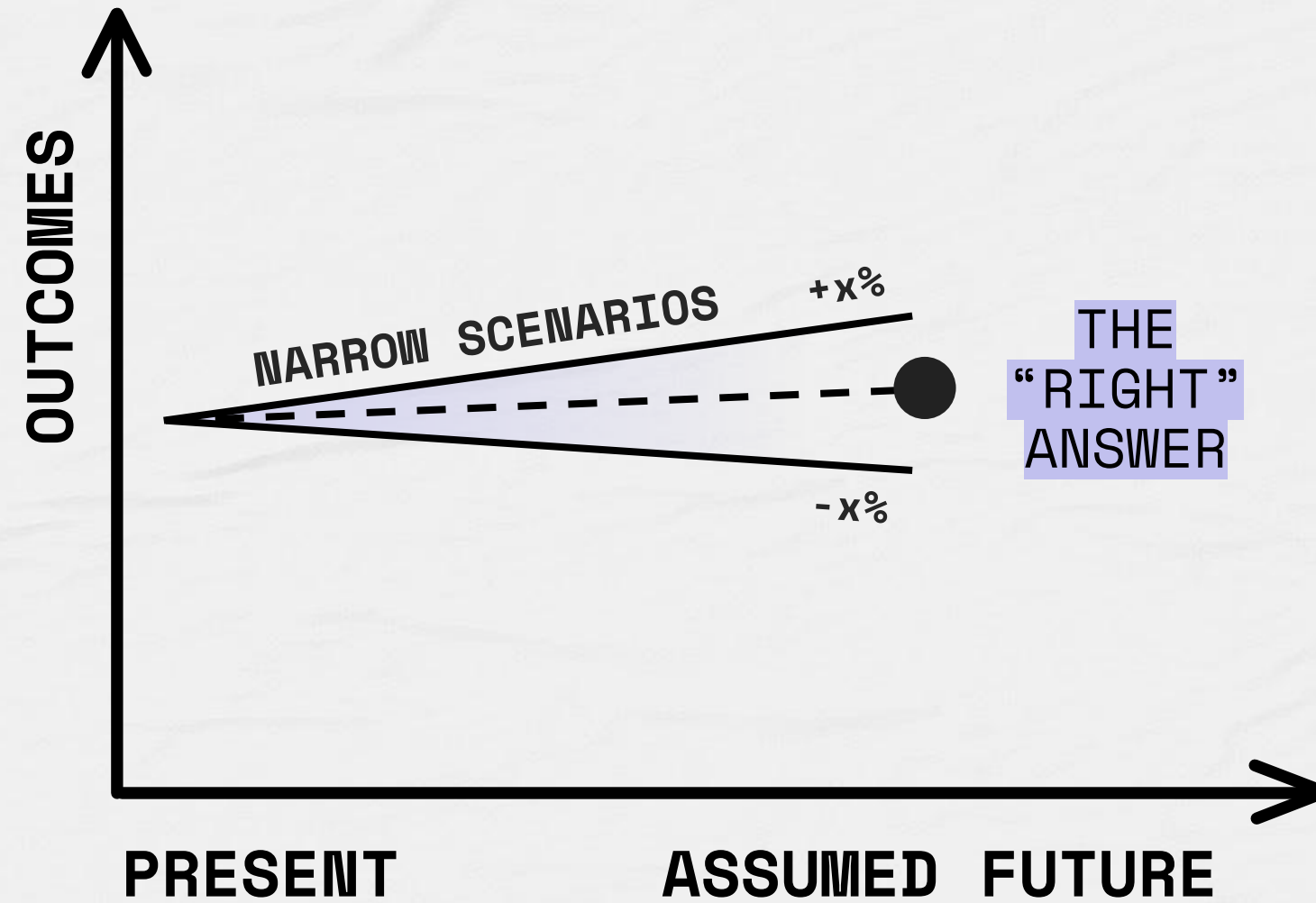
P=Probability

Metamorphosis of Disruption



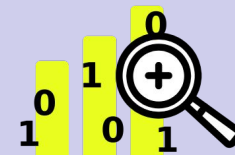


Prediction

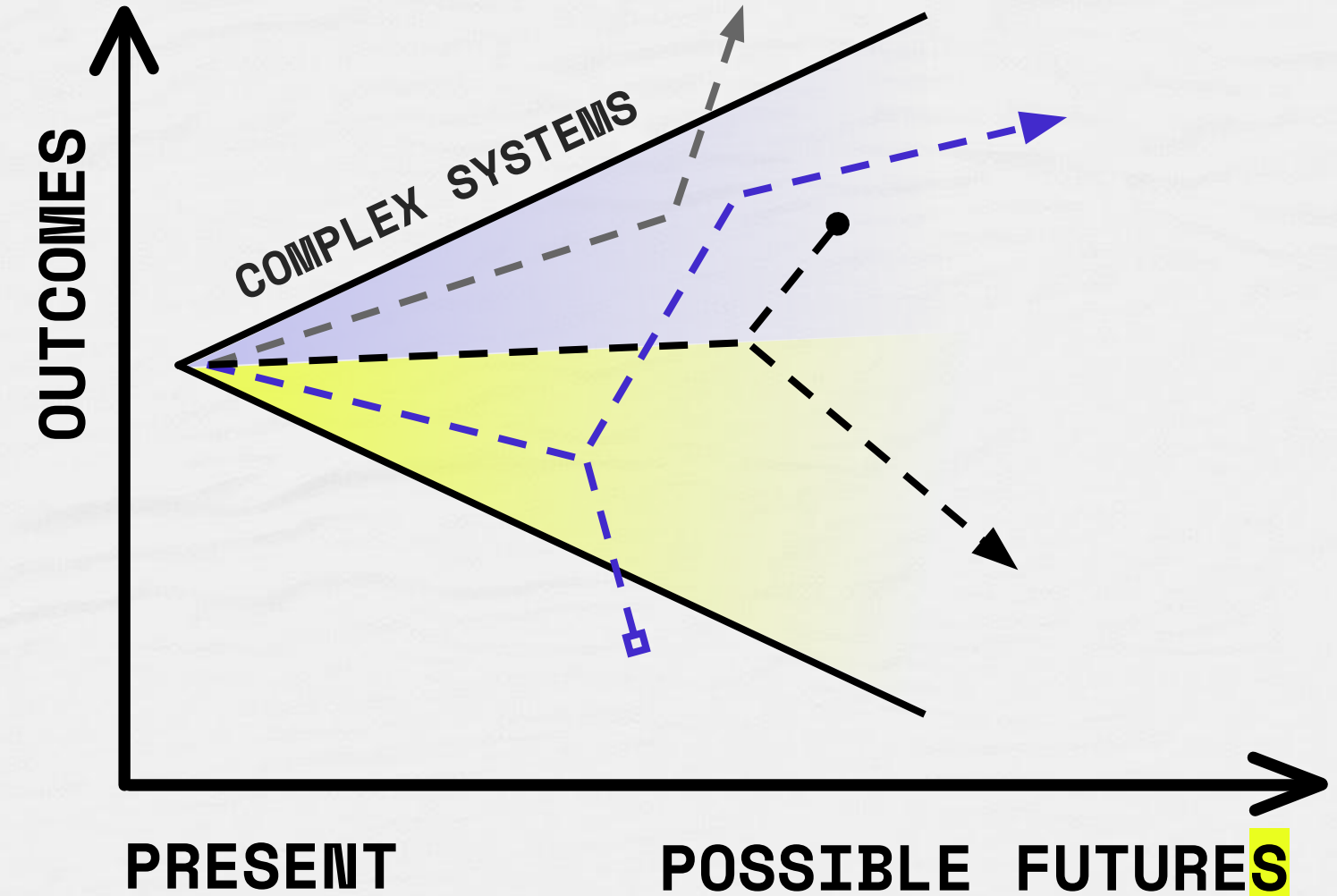


Features Allowing Prediction

- All parameters known
- Specific question
- Prediction is a right answer

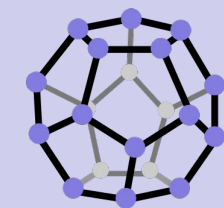


Foresight



Uncertainties Prevent Prediction

- Multiple unknowns
- Broad possibilities
- No right answer



Certainty is in the Past

MOST UNKNOWN
& **UNCERTAIN**

MOST EVIDENCE,
DATA & CERTAINTY

AUDIT



MARKET
ANALYSIS



TRENDS



MEGATRENDS &
METATRENDS



STRONG SIGNALS



DRIVERS OF
DISRUPTION



METARUPTIONS



WEAK SIGNALS &
EMERGING ISSUES



DISRUPTION NETWORKS



WILD CARDS



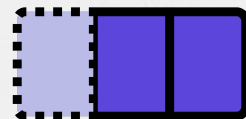
BLACK SWANS



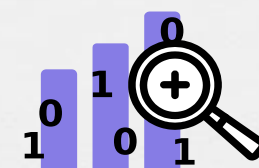
SCIENCE FICTION



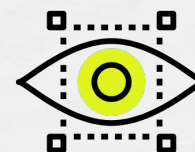
PAST



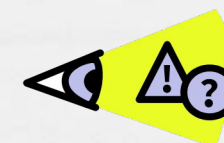
QUANTITATIVE
ANALYSIS



ENVIRONMENTAL
SCANNING



HORIZON
SCANNING



FUTURES

Black Swans & Wild Cards

Low-probability
High impact



Unexpected
Outliers
Unpredictable



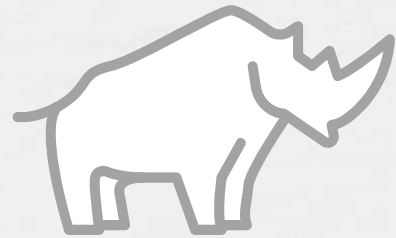
Happen often
Perceived as unlikely
Could be spotted

The Complex Five

KNOWN

UNKNOWN

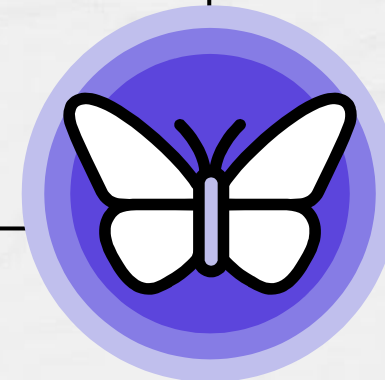
KNOWN



Gray Rhino

- Known Known
- Word: Charging
- Probability: Extremely High
- Impact: High
- Speed: Swift
- Evidence: Highest

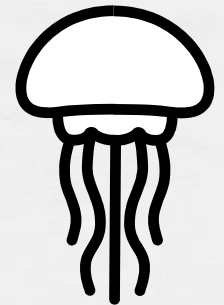
BUTTERFLY



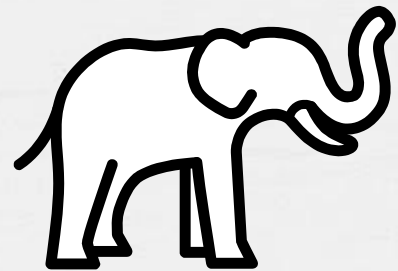
EFFECT

Black Jellyfish

- Unknown Known
- Word: Emerging
- Probability: Low to Medium
- Impact: High
- Speed: Long tail, could be delayed or swift
- Evidence: Low



UNKNOWN

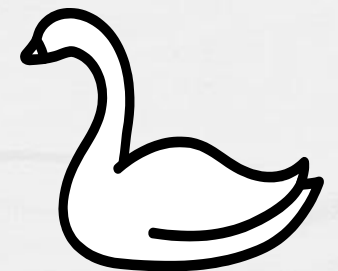


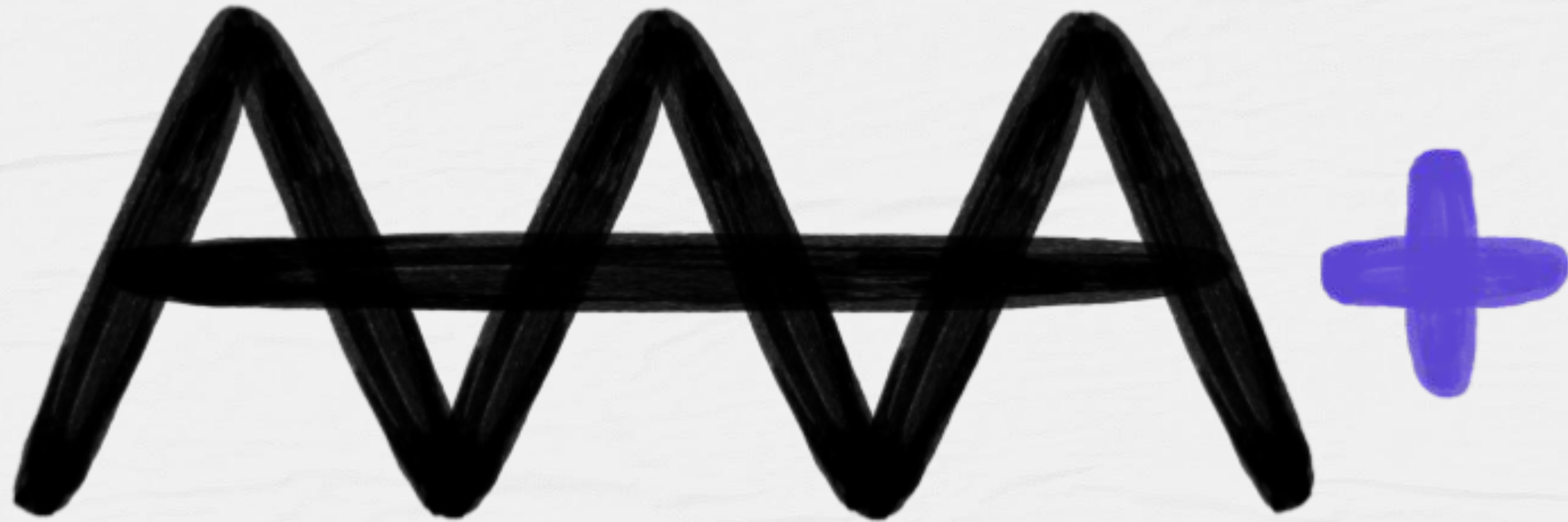
Black Elephant

- Known Unknown
- Word: Standing
- Probability: Very High
- Impact: High
- Speed: Often swift
- Evidence: High

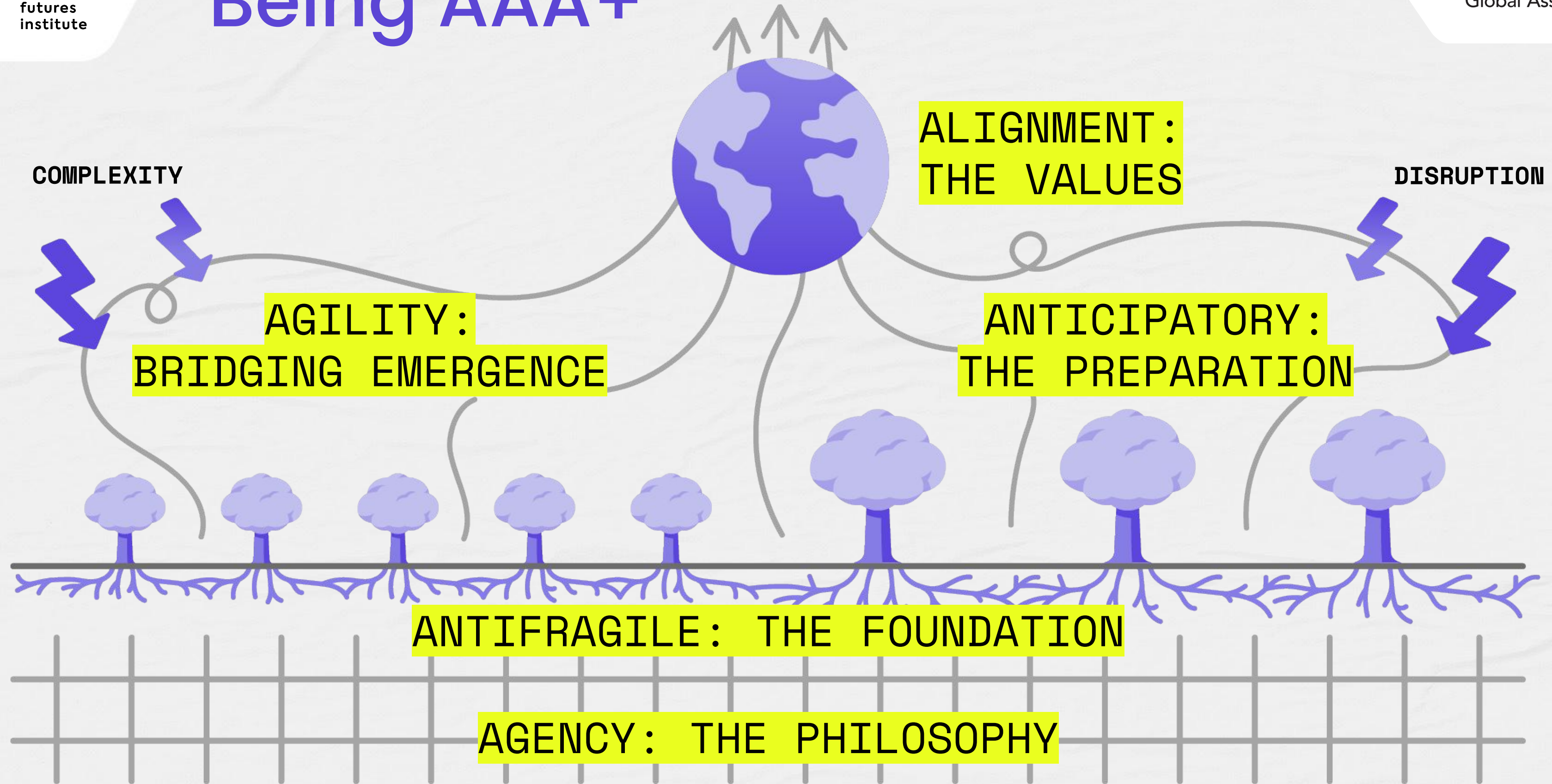
Black Swan

- Unknown Unknown
- Word: Crashing
- Probability: Low
- Impact: High
- Speed: Can be immediate
- Evidence: Low





Being AAA+



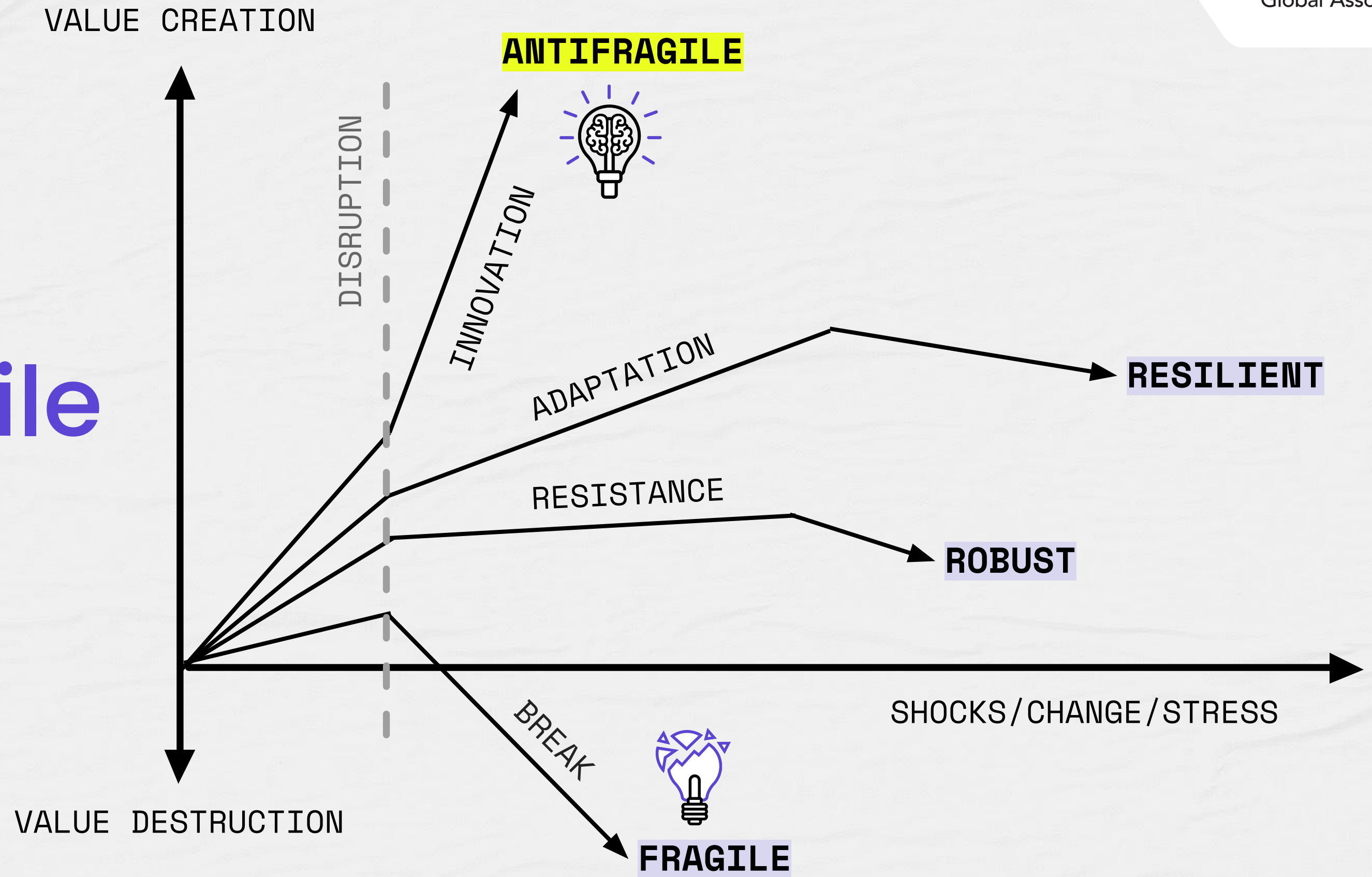
What if...?

Anticipatory



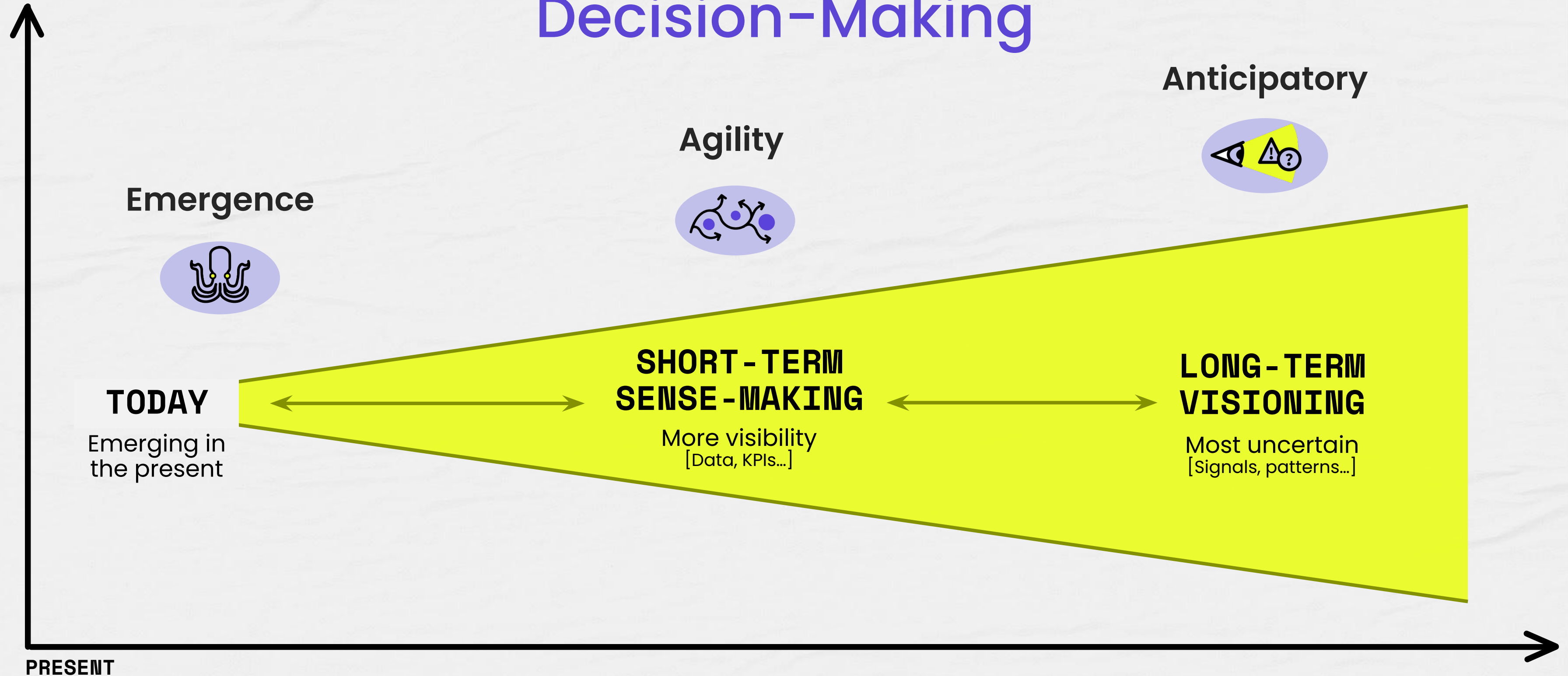
Antifragile

AAA
FRAMEWORK



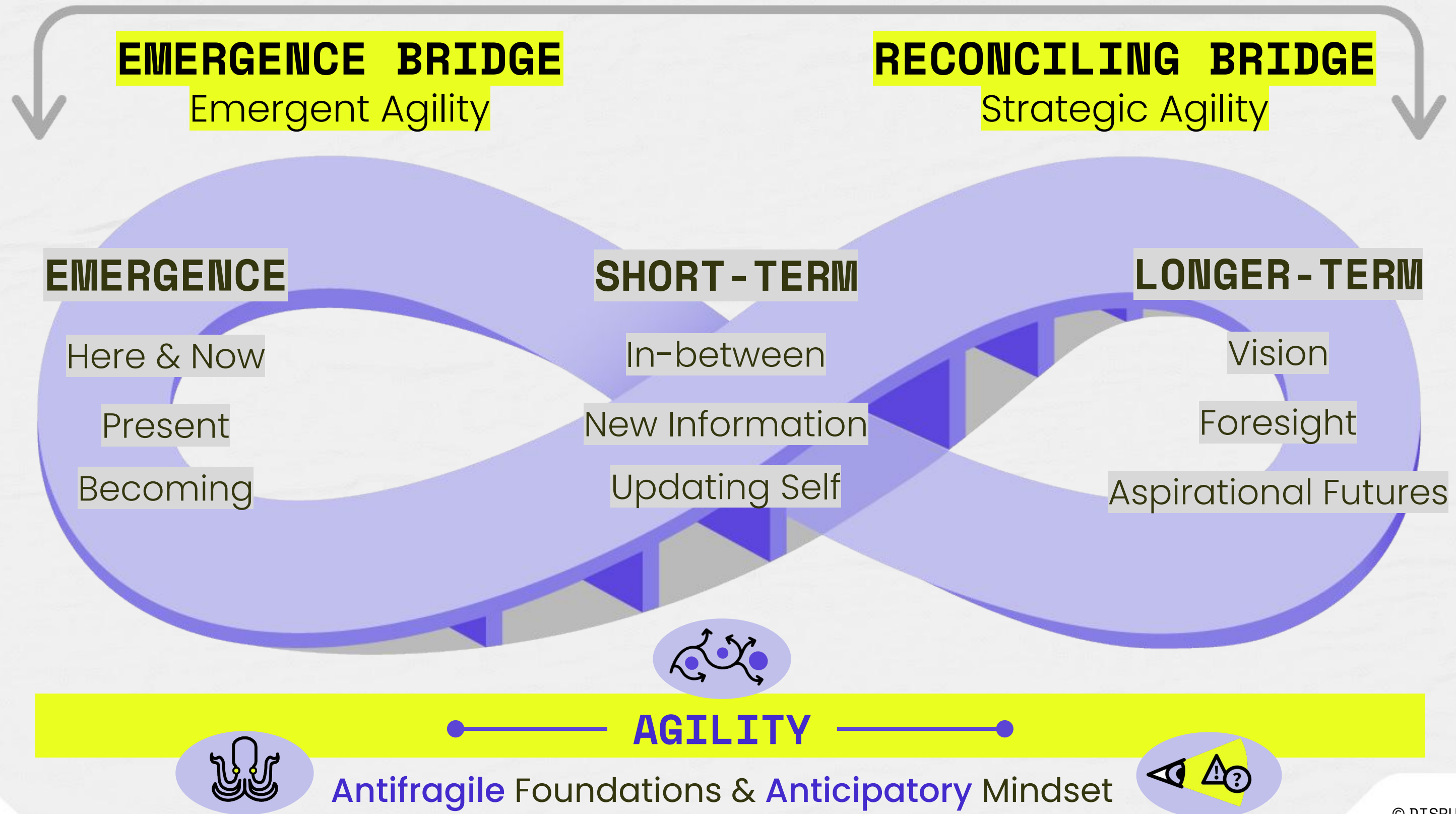
Adapted from Nassim Nicholas Taleb: *Antifragile: Things That Gain From Disorder*

Bridging Short-Term and Long-Term Decision-Making

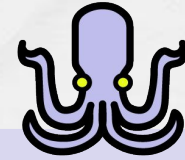


Emergent & Strategic Agility

Infinite Loop Bridges



AAA Framework



ANTIFRAGILE: LAYING THE FOUNDATIONS

DNA

Strengthen even with shocks

Build a strong foundation:

Enables optionality

Thrives in randomness

More upside from shocks

Likes errors, embraces risk

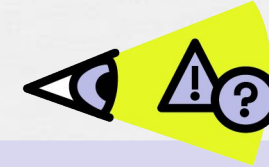
Complex systems

Many interdependencies

FEATURES

KEYWORDS

Innovate, Tinker, Heuristic, Friction



ANTICIPATORY: PREPARING THE FUTURE

Capacity to prepare for change

Prepare possible futures:

Decipher signals

Interpret future impacts

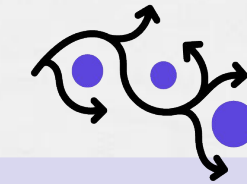
Avoid surprise

Detect opportunities

Degrees of uncertainty

Complex Five

Foresight, Scan, Signals, Impacts



AGILITY: EMERGING IN THE PRESENT

Bridge short-term & long-term

Bridge the present:

Here & now: Sense-making

Experiment: Amplify, dampen

Emergence in complexity

Infinity loop bridges

Emergent & Strategic agility

Cognitive agility

Emergent, Complex, Sense-making

Endorsed by 4 Prestigious Awards

INTERNATIONAL BESTSELLER



SYSTEMS & PLANNING

BRAZIL, FRANCE & GERMANY



AI EXPERT SYSTEMS

INDIA, USA & UK



BUSINESS DEVELOPMENT

BRAZIL, INDIA & USA



INTERNET & SOFTWARE

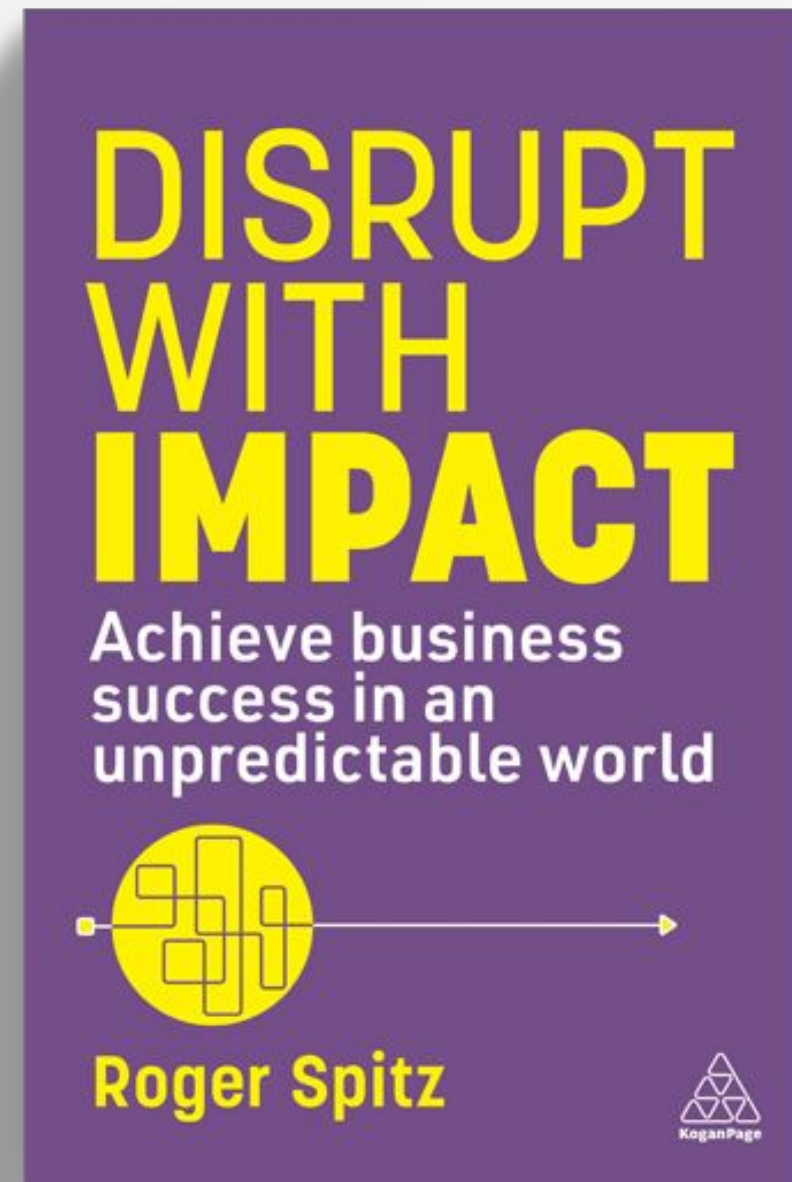
BRAZIL, FRANCE, GERMANY & USA



ENTREPRENEURSHIP

BRAZIL & FRANCE

Source: Amazon Bestseller
(Kindle & Print, August 2024 – March 2025)



MULTI-AWARD WINNING



CRITICALLY ACCLAIMED

★★★★★ READERS' FAVORITE

★★★★★ SAN FRANCISCO BOOK REVIEW

★★★★★ MANHATTAN BOOK REVIEW

"Pure gold!" – **BookTrib**

"A well-illustrated and wide-ranging new approach..." – **Kirkus Reviews**

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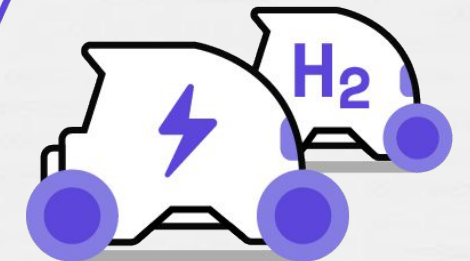
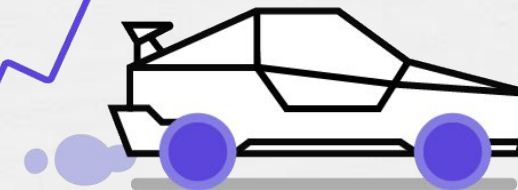
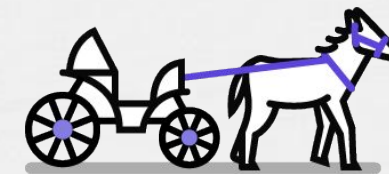
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You can also find **Roger Spitz** &
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practice) across social media platforms.

Trends continue...



...until they don't.

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