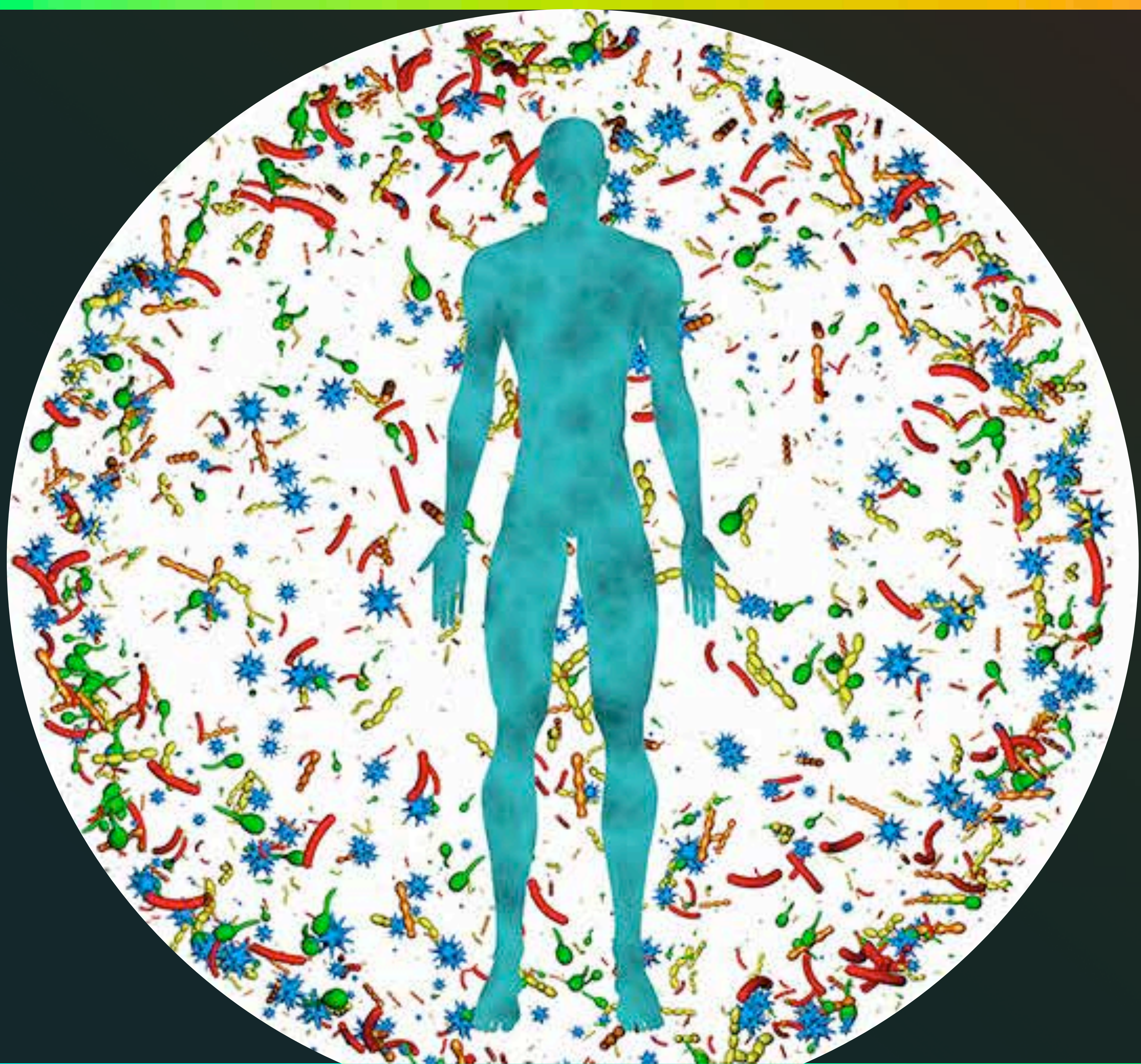


# A DISCOVERY JOURNEY INTO REGENERATIVE INTELLIGENCE











**A Discovery Journey into  
Regenerative Intelligence - Thijs Pepping**





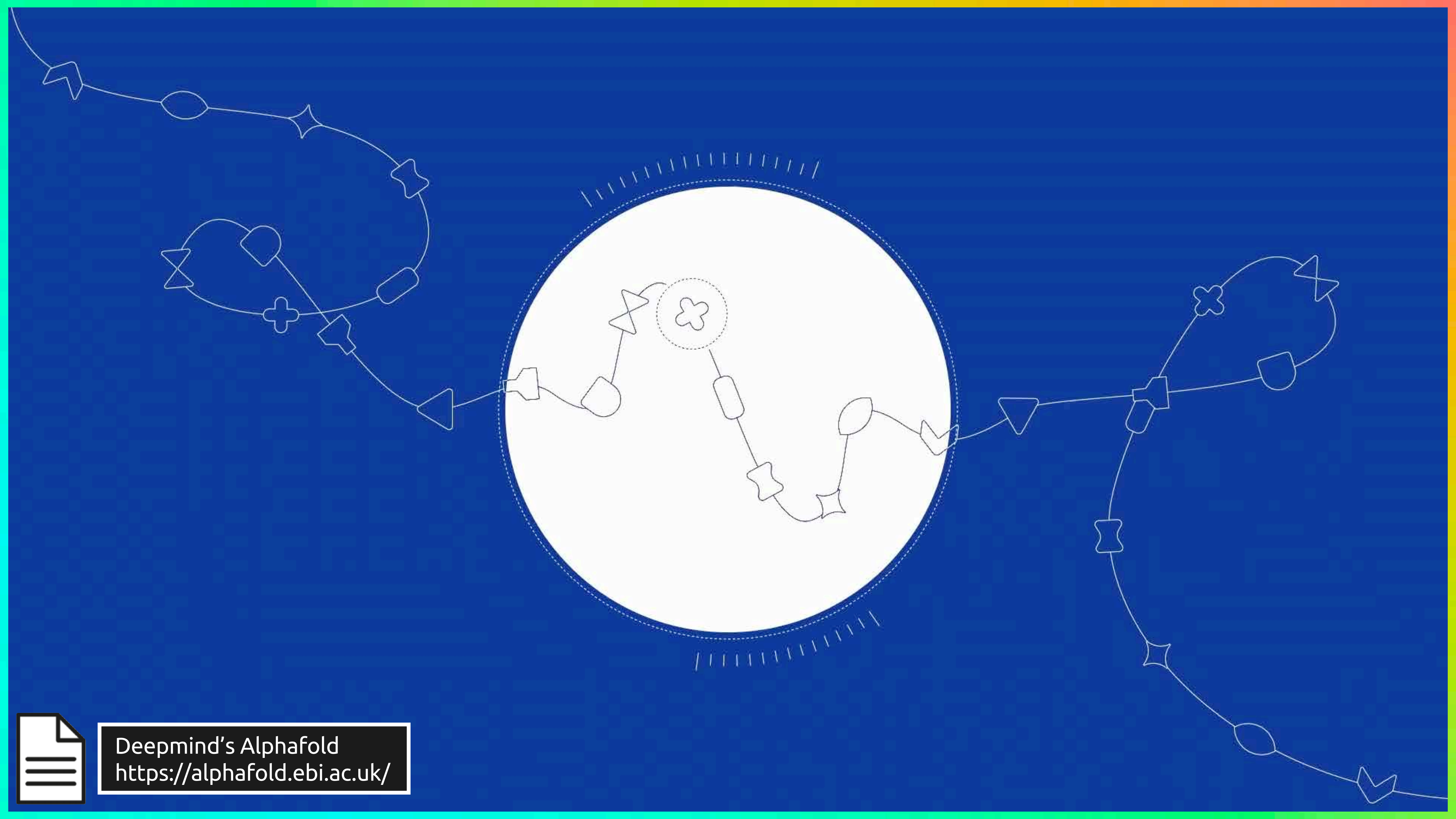
✕ Tokyo Railway Network



✕ Slime Mold Network

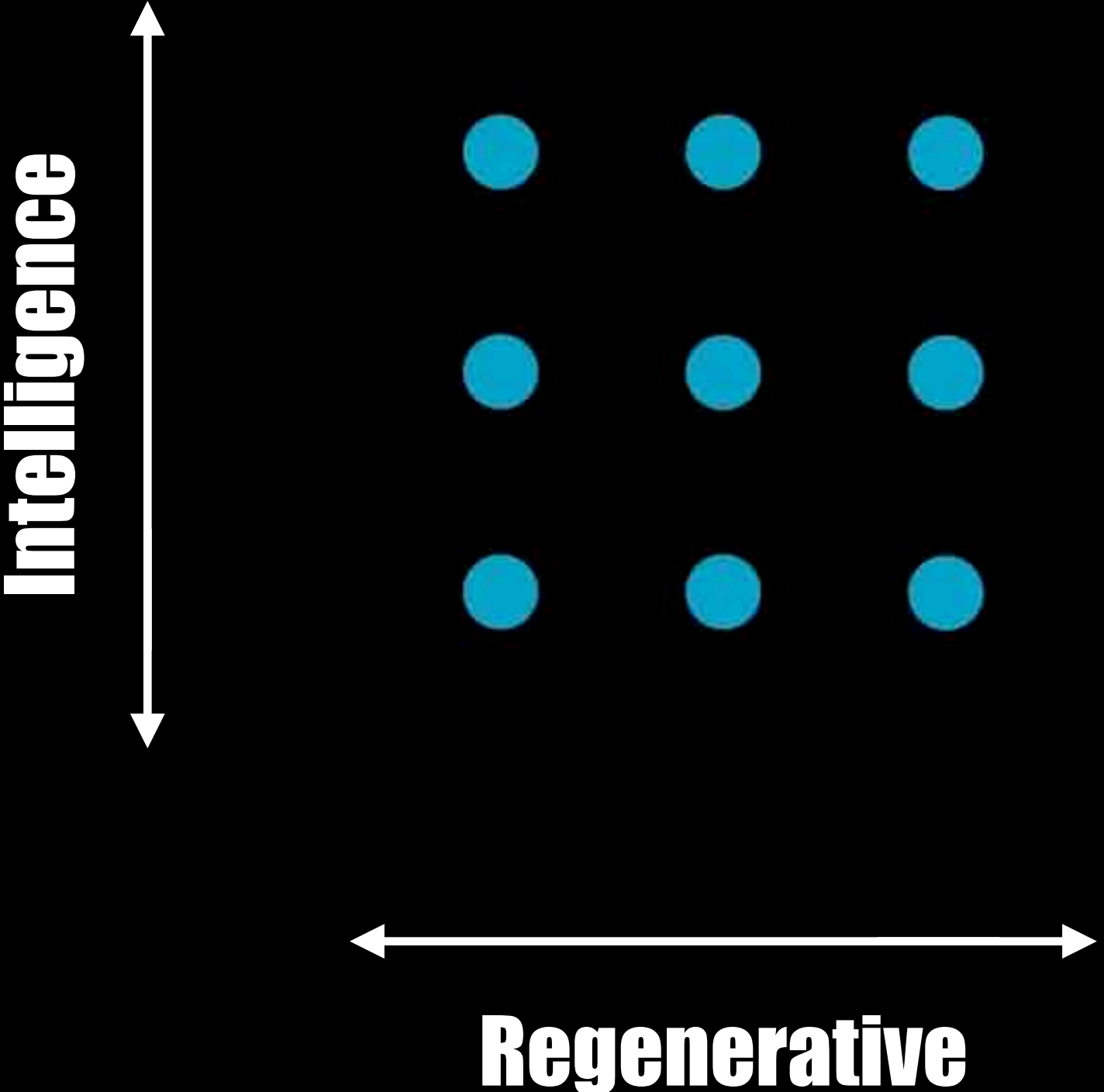






Deepmind's AlphaFold  
<https://alphafold.ebi.ac.uk/>

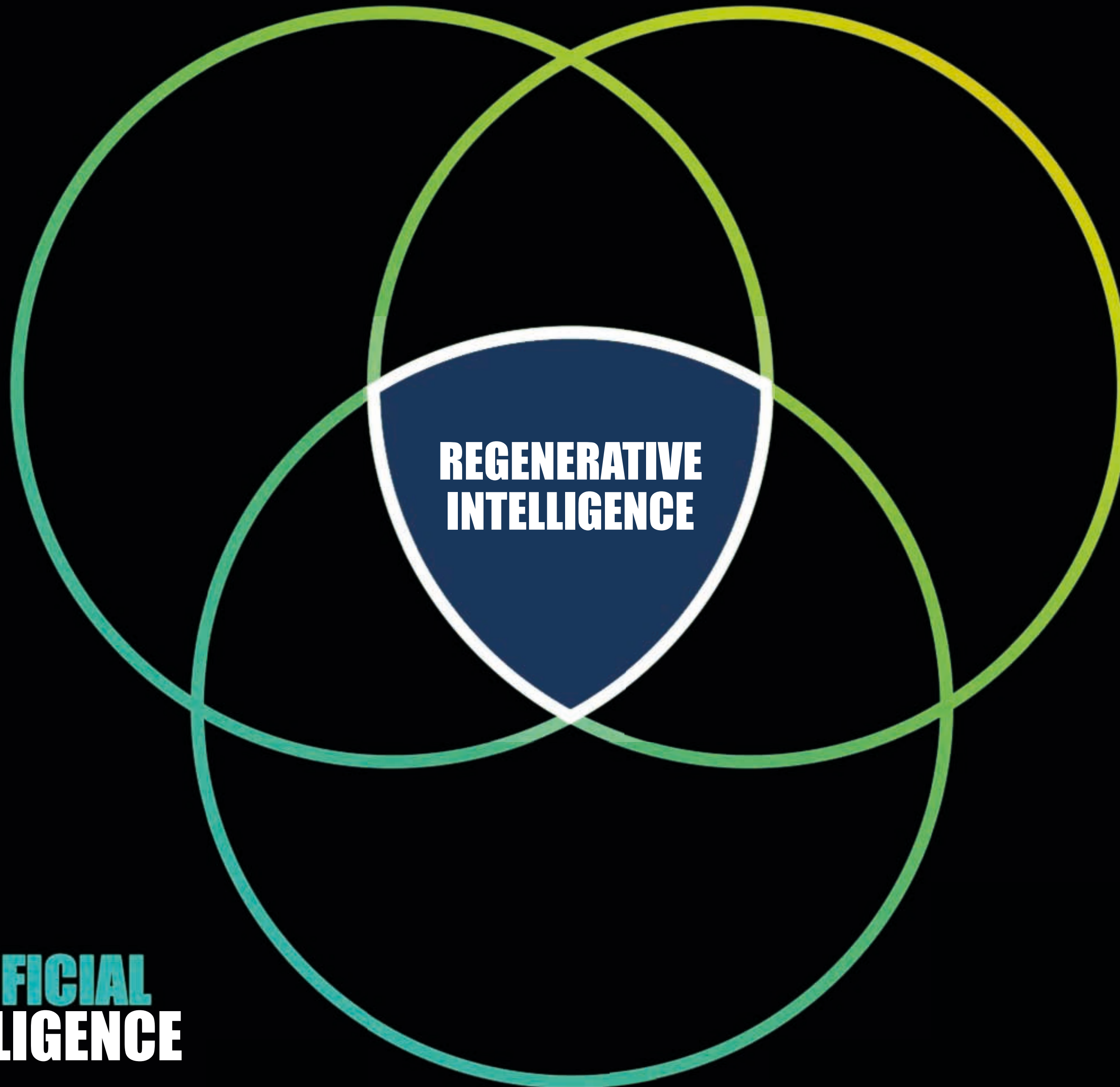
# OUR WORLDVIEW



**NATURAL  
INTELLIGENCE**

**HUMAN  
INTELLIGENCE**

**ARTIFICIAL  
INTELLIGENCE**



**THIJS PEPPING**











ALL OVER AMERICA...  
**MORE SCIENTISTS AND EDUCATORS  
 SMOKE KENT** with the **MICRONITE FILTER**

than any other cigarette!

SMOKE ANALYSIS BY CIGARETTE CATEGORIES AND BRANDS	
<b>KENT</b>	0.10
WINDY	0.15
WINDY	0.15
WINDY	0.15
WINDY	0.15
WINDY	0.15

SMOKE ANALYSIS BY CIGARETTE CATEGORIES AND BRANDS	
<b>KENT</b>	0.10
WINDY	0.15
WINDY	0.15
WINDY	0.15
WINDY	0.15
WINDY	0.15



For good smoking taste,  
 it makes good sense to smoke **KENT**



AN ANALYSIS BY H. GERRILLARD, CONDUCTED WITH THE FINEST CIGARETTES THROUGH GERRILLARD RESEARCH



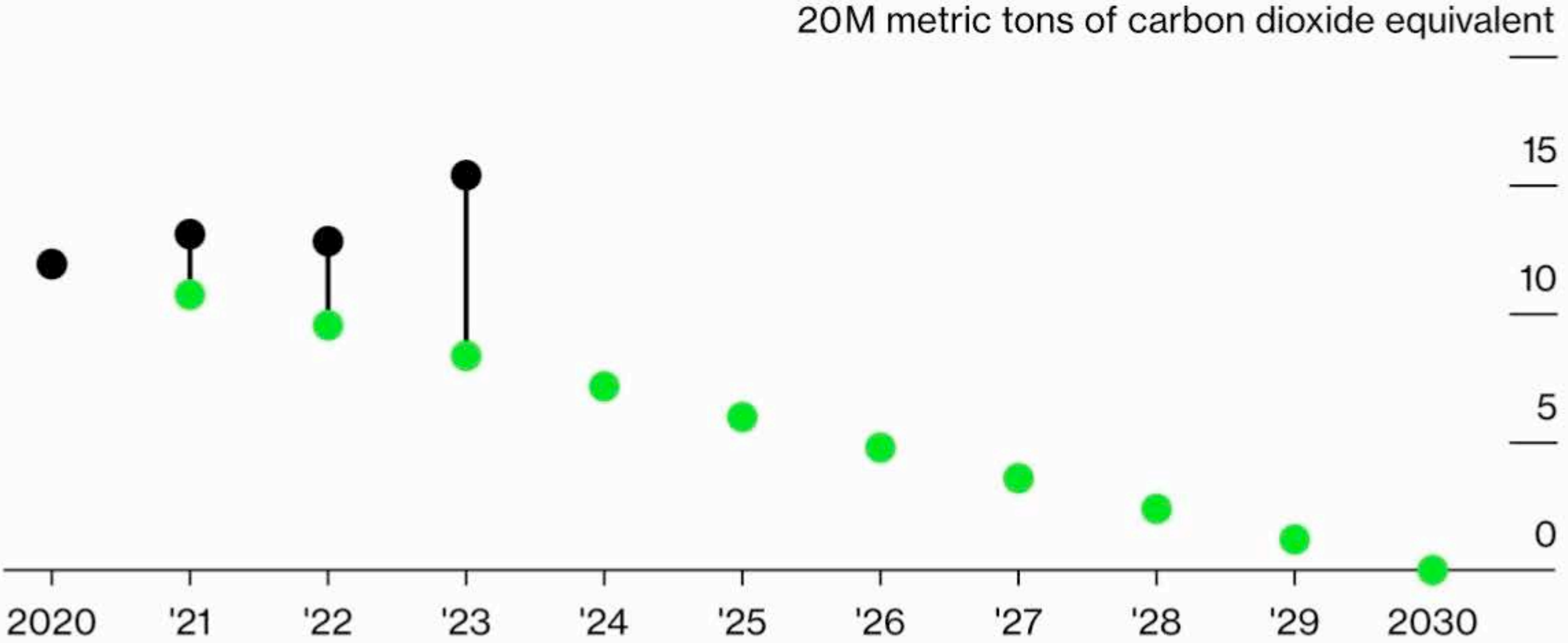




# Microsoft's Emissions

Artificial intelligence is putting the tech giant's climate goals in peril

● Climate plan (simulated) ● Actual



Source: Microsoft (Scope 1, 2 and 3 "management criteria" data)  
Note: Green dots represent linear decline to carbon negative goal.



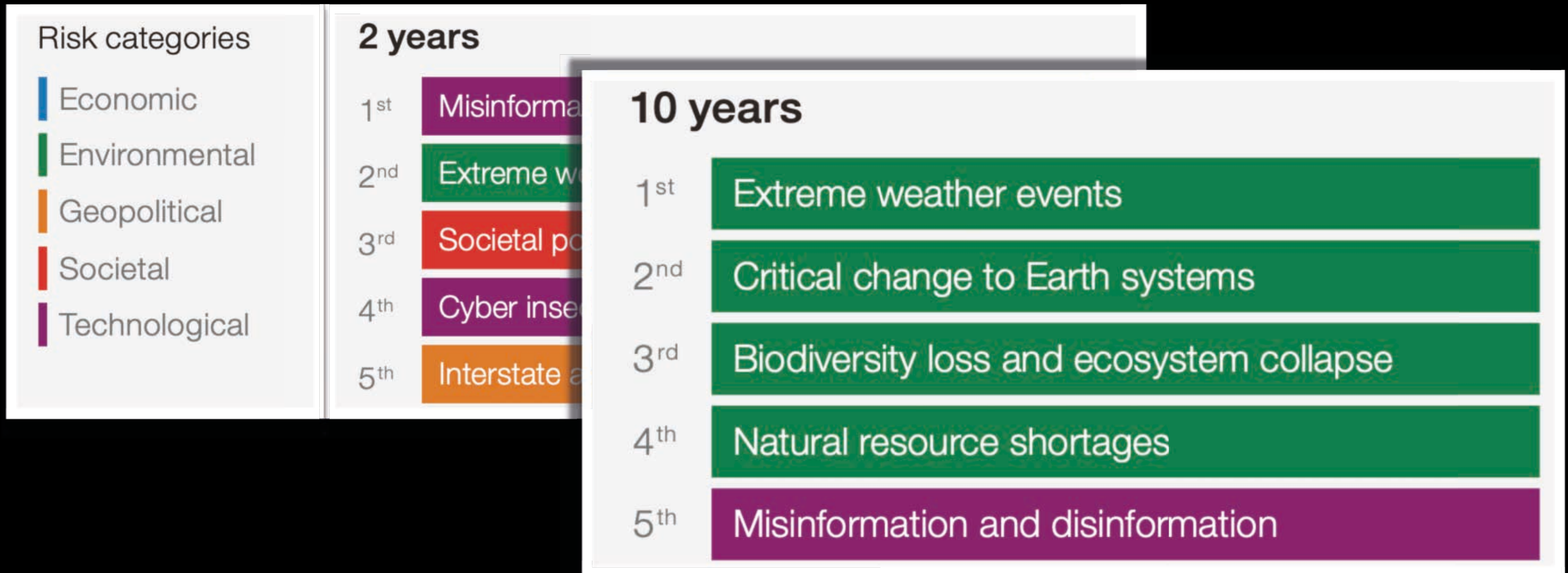
**Three miles island  
800.000 households  
for 20 years**



**Microsoft**



# The risks are turning green



World Economic Forum - Global Risks Report (2024)  
<https://arxiv.org/abs/2402.17485>





## **CLIMATE CHANGE AS A BUSINESS CASE**

**The costs of doing nothing:  
the global economy will shrink by 20 percent  
in the long run. At least.**

**The costs of doing something:  
will cost 2 percent of the global economy.**

**Sandra Phlippen  
Chief Economist @  
ABN Amro Bank**



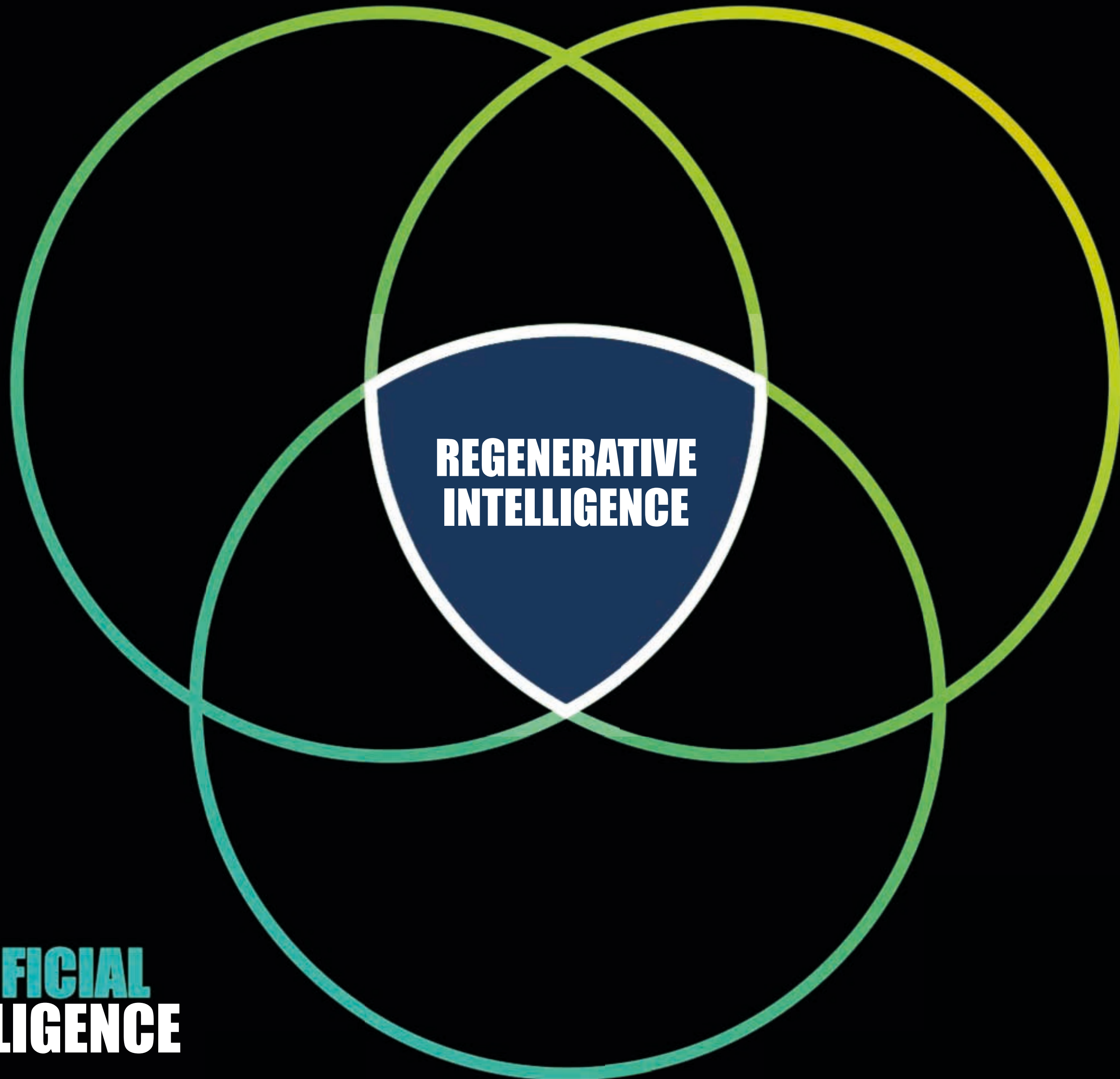
**REGENERATIVE**



**NATURAL  
INTELLIGENCE**

**HUMAN  
INTELLIGENCE**

**ARTIFICIAL  
INTELLIGENCE**







Earth Species Project

[ABOUT US](#)

[WHAT WE DO](#)

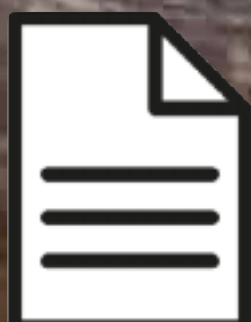
[PARTNERS](#)

[NEWS](#)

[SUPPORT](#)

*Katie Zacarian swimming with Hope, a juvenile Sperm Whale (*Physeter macrocephalus*) near the island of Dominica in the waters of the Eastern Caribbean Sea. Photo by Keri Wilk.*

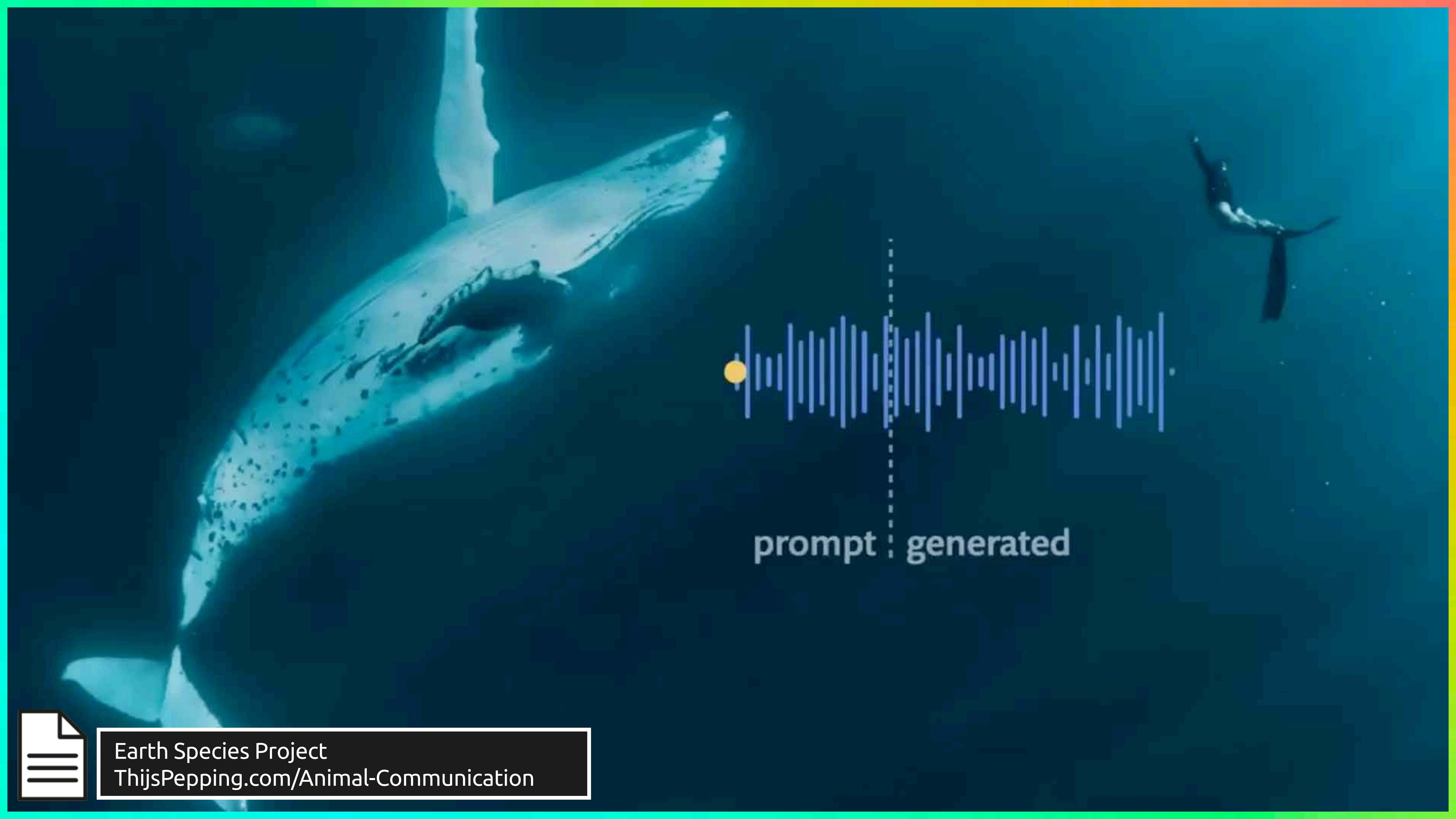




Earth Species Project  
[ThijsPepping.com/Animal-Communication](https://ThijsPepping.com/Animal-Communication)

Partner: Logan James & Sarah Woolley McGill University



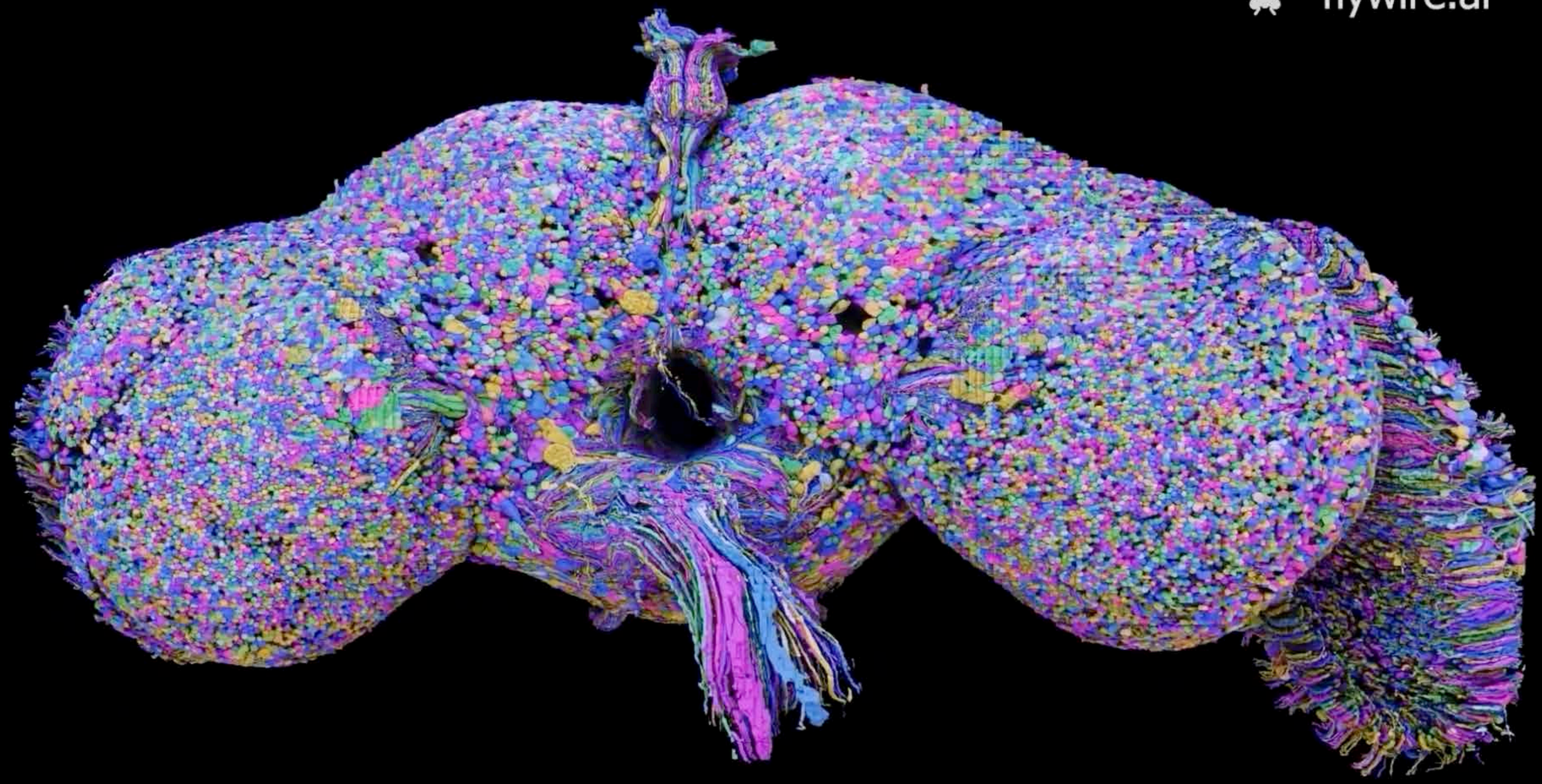


prompt : generated



Earth Species Project  
[ThijsPepping.com/Animal-Communication](https://ThijsPepping.com/Animal-Communication)







*Living cell*

*Lifeless molecules*



**A Discovery Journey into  
Regenerative Intelligence - Thijs Pepping**



# nature

THE INTERNATIONAL WEEKLY JOURNAL OF SCIENCE

Article | [Open access](#) | Published: 20 December 2023

## Autonomous chemical research with large language models

[Daniil A. Boiko](#), [Robert MacKnight](#), [Ben Kline](#) & [Gabe Gomes](#) 

*Nature* **624**, 570–578 (2023) | [Cite this article](#)

126k Accesses | 79 Citations | 944 Altmetric | [Metrics](#)

## FOOTPRINTS OF LIFE

*How Earth's oldest rocks are revealing ancient life at home - and on Mars.*

PAGE 122

## 'Set it and forget it': automated lab uses AI and robotics to improve proteins

*A self-driving lab system spent half a year engineering enzymes to work at higher temperatures.*

HUBBLE AT 25

### STAR PERFORMER

*The space telescope is a tough act to follow*  
PAGES 282 & 287

CANCER THERAPY

### TARGET SELECTION

*Druggable Ras and precision care in sight*  
PAGES 278 & 290

PLANETARY SCIENCE

### A TOUCH OF MERCURY

*The missing ingredient in Earth's mantle*  
PAGES 299 & 337

NATURE.COM/NATURE

7 April 2016



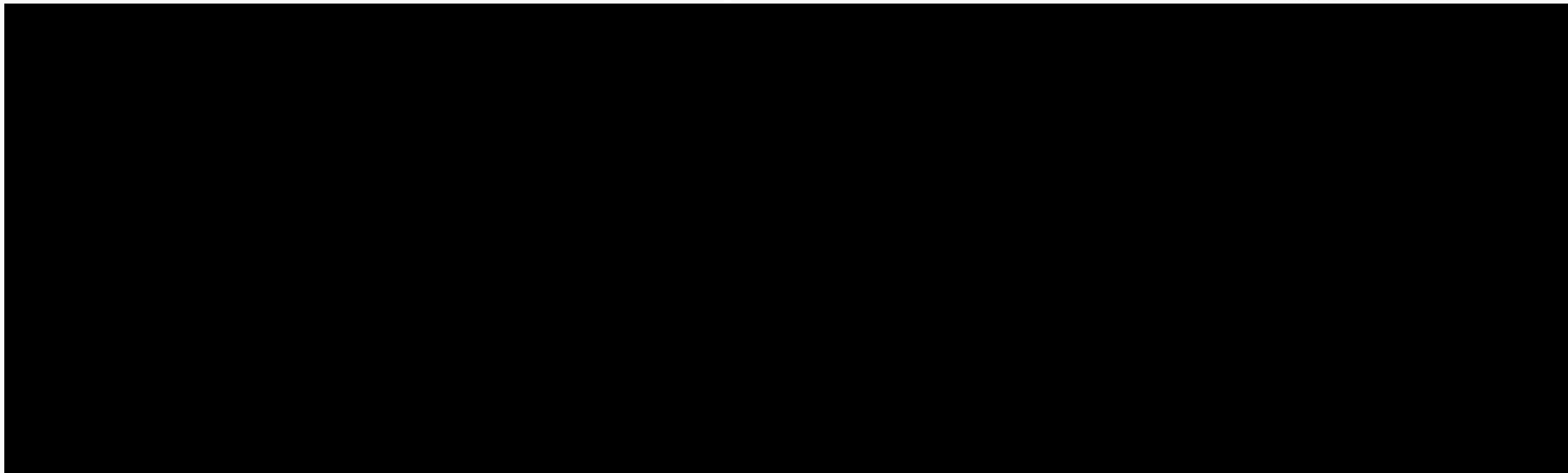


From: [Autonomous chemical research with large language models](#)

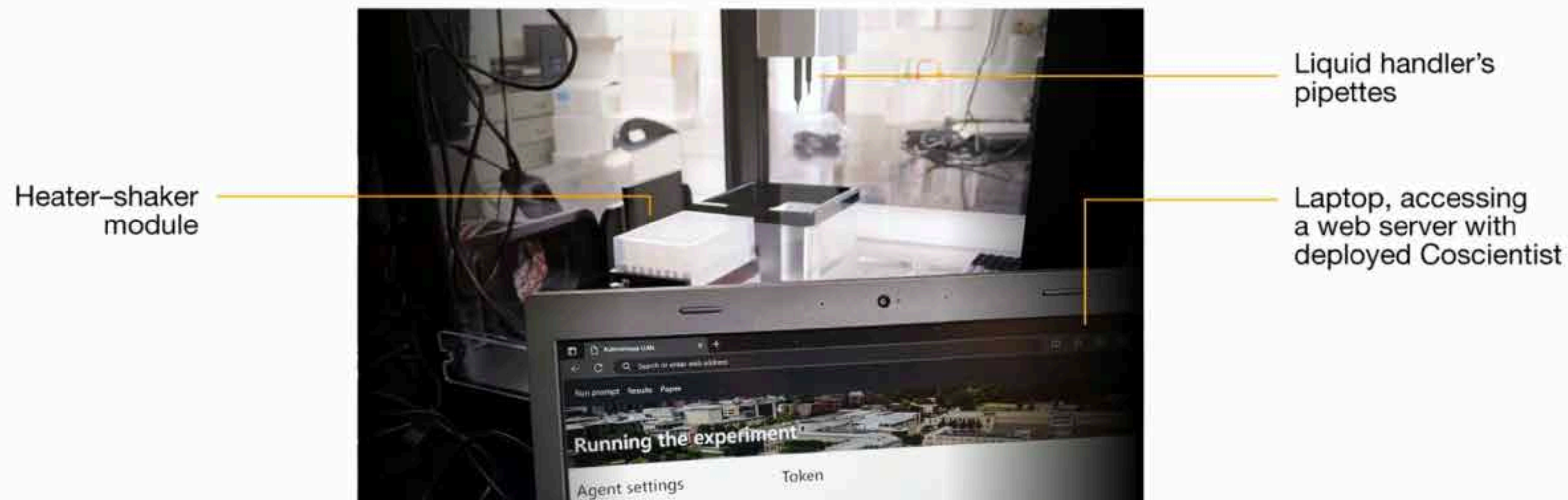
**a**



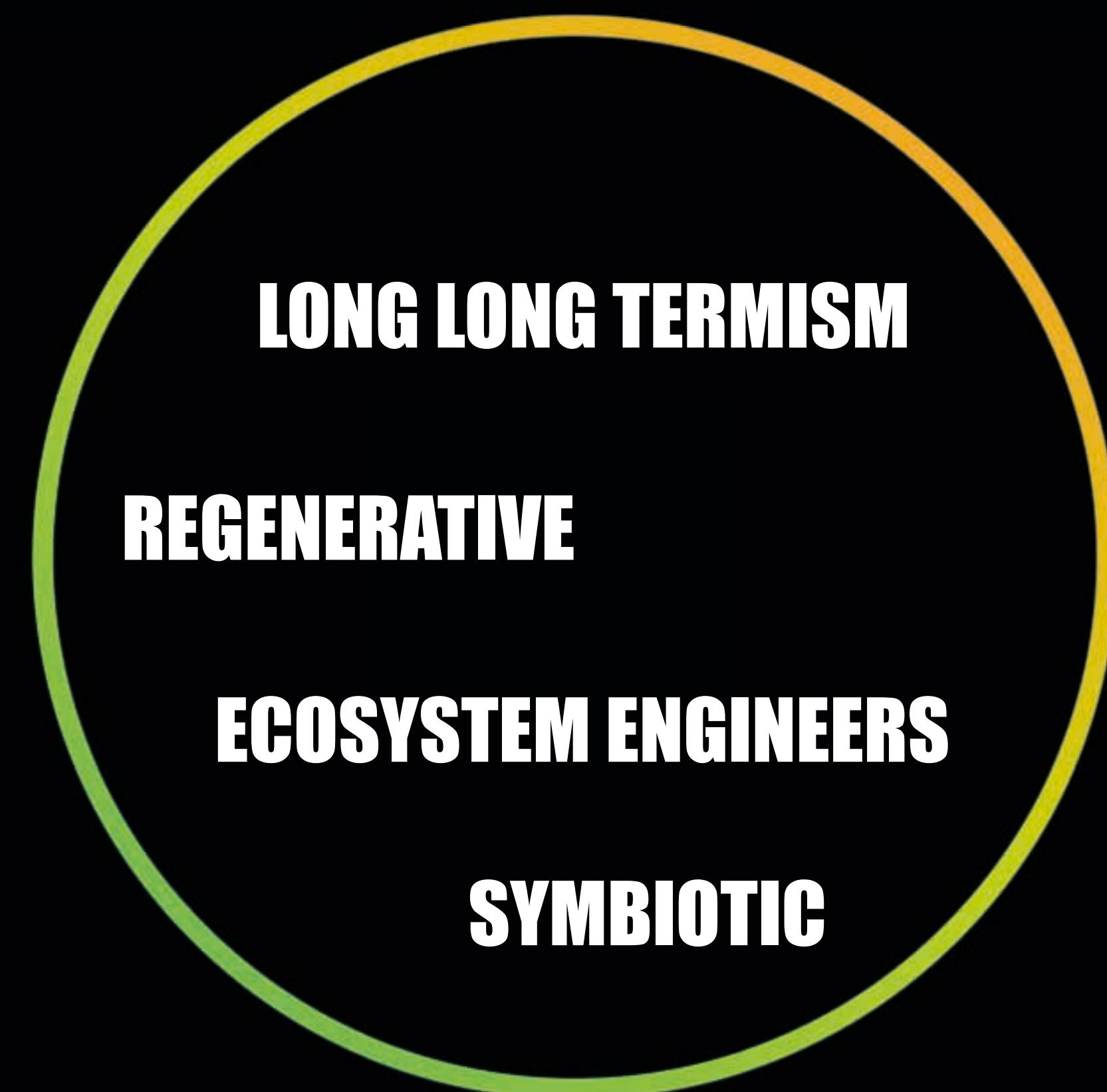
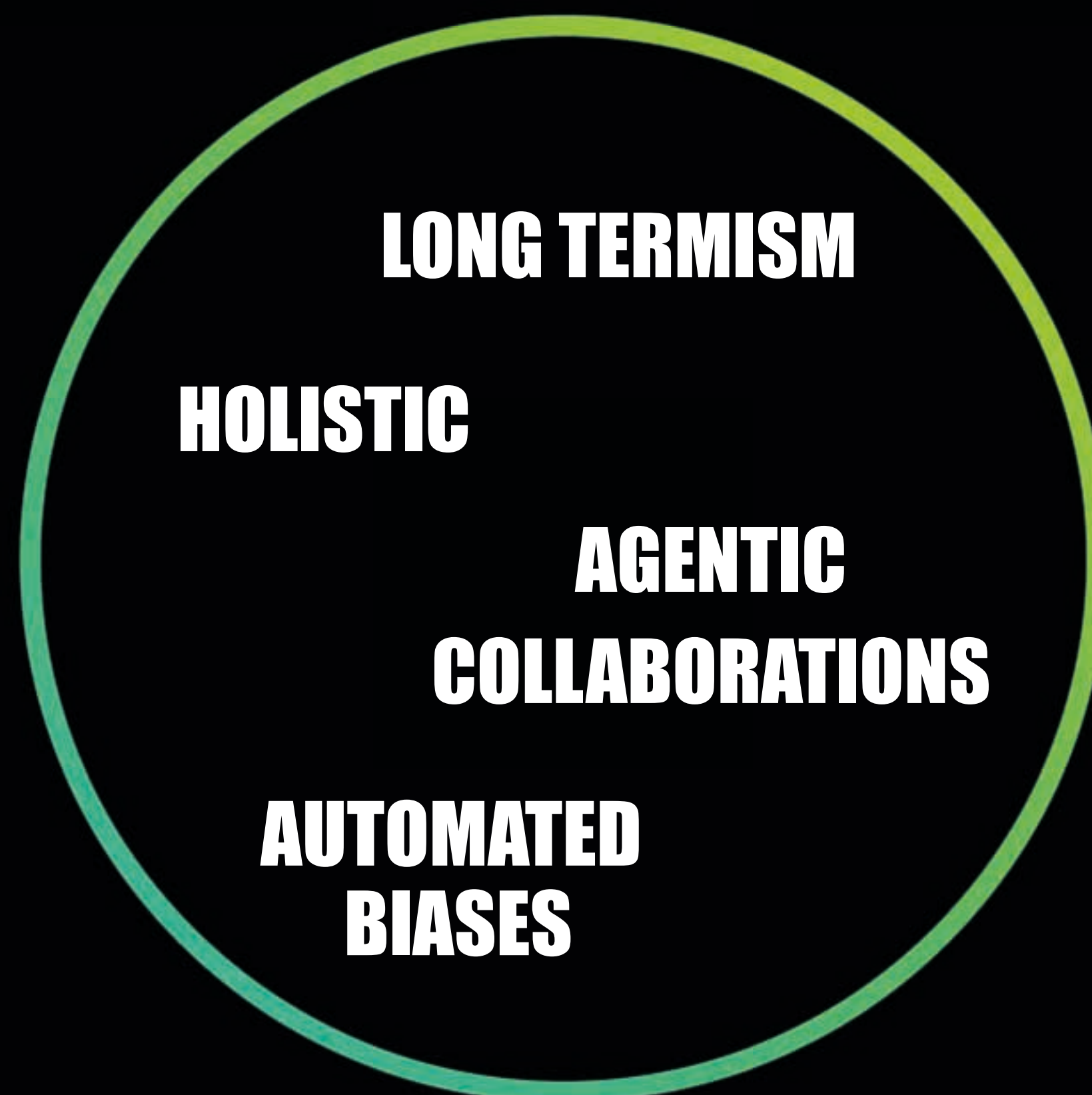
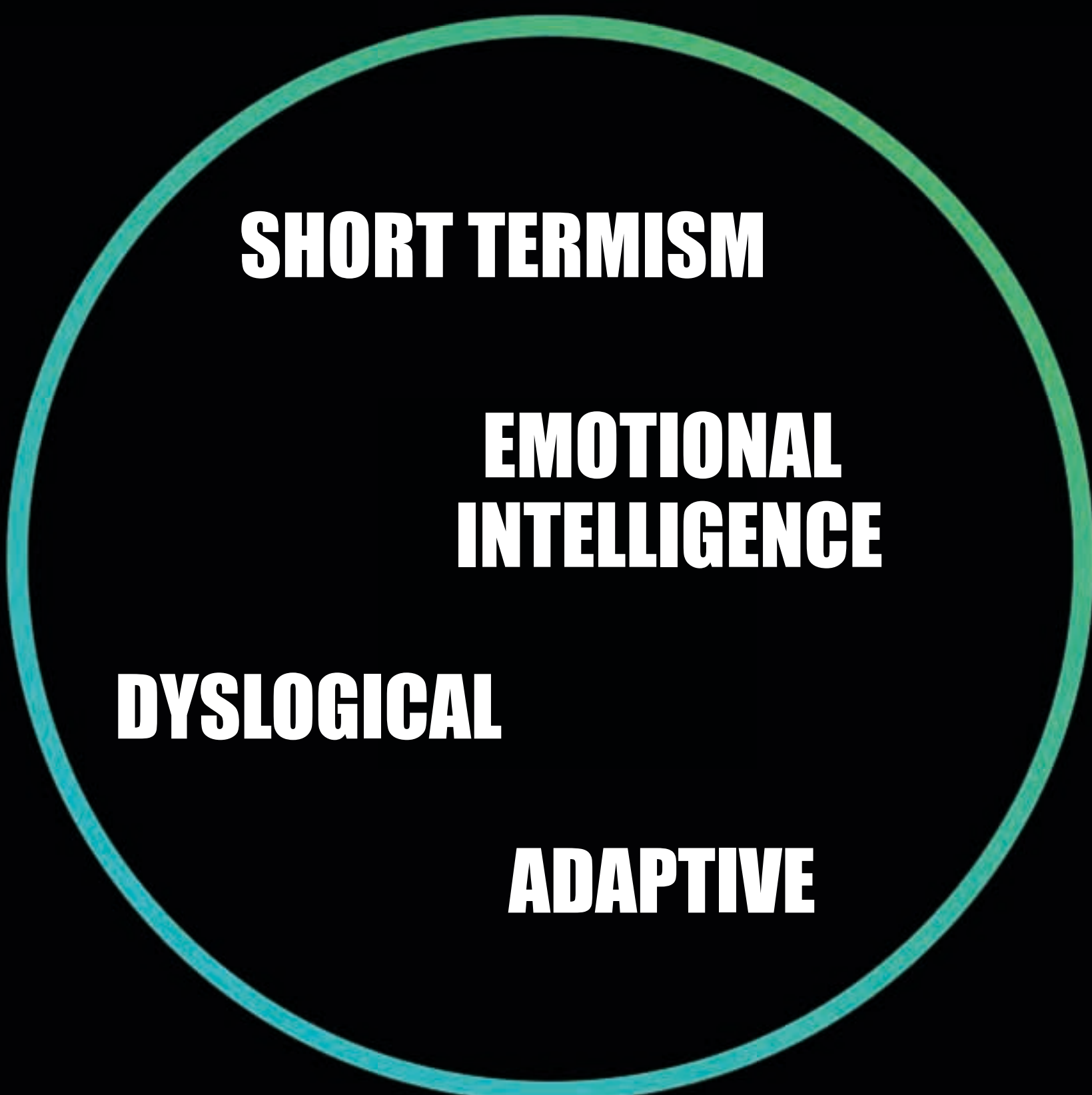
- The module does not use LLMs
- The module uses LLMs
- Command used by LLM



**c**







**HUMAN INTELLIGENCE**

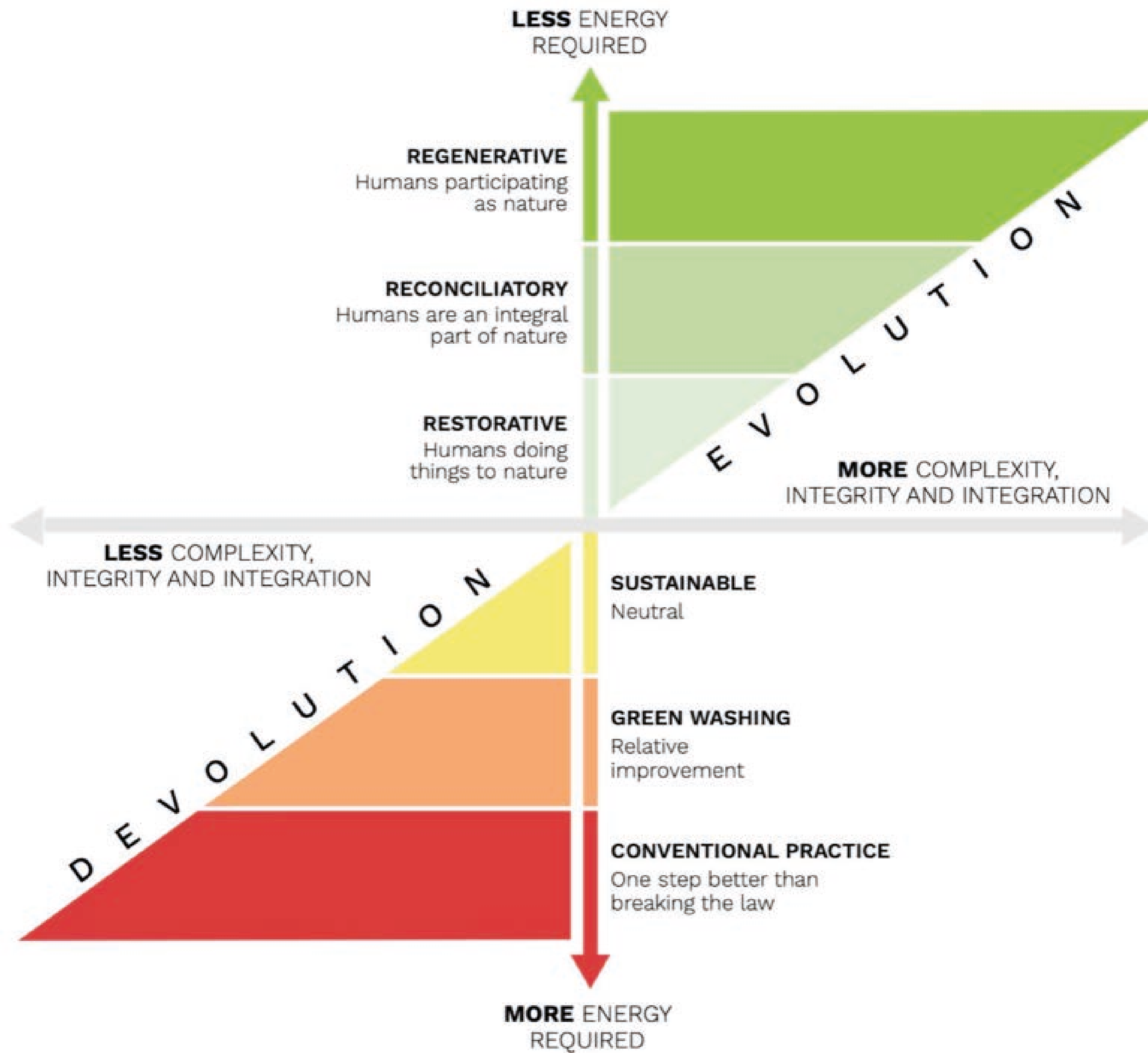
**ARTIFICIAL INTELLIGENCE**

**NATURAL INTELLIGENCE**



**REGENERATIVE?**





SEVA

ECO

EGO



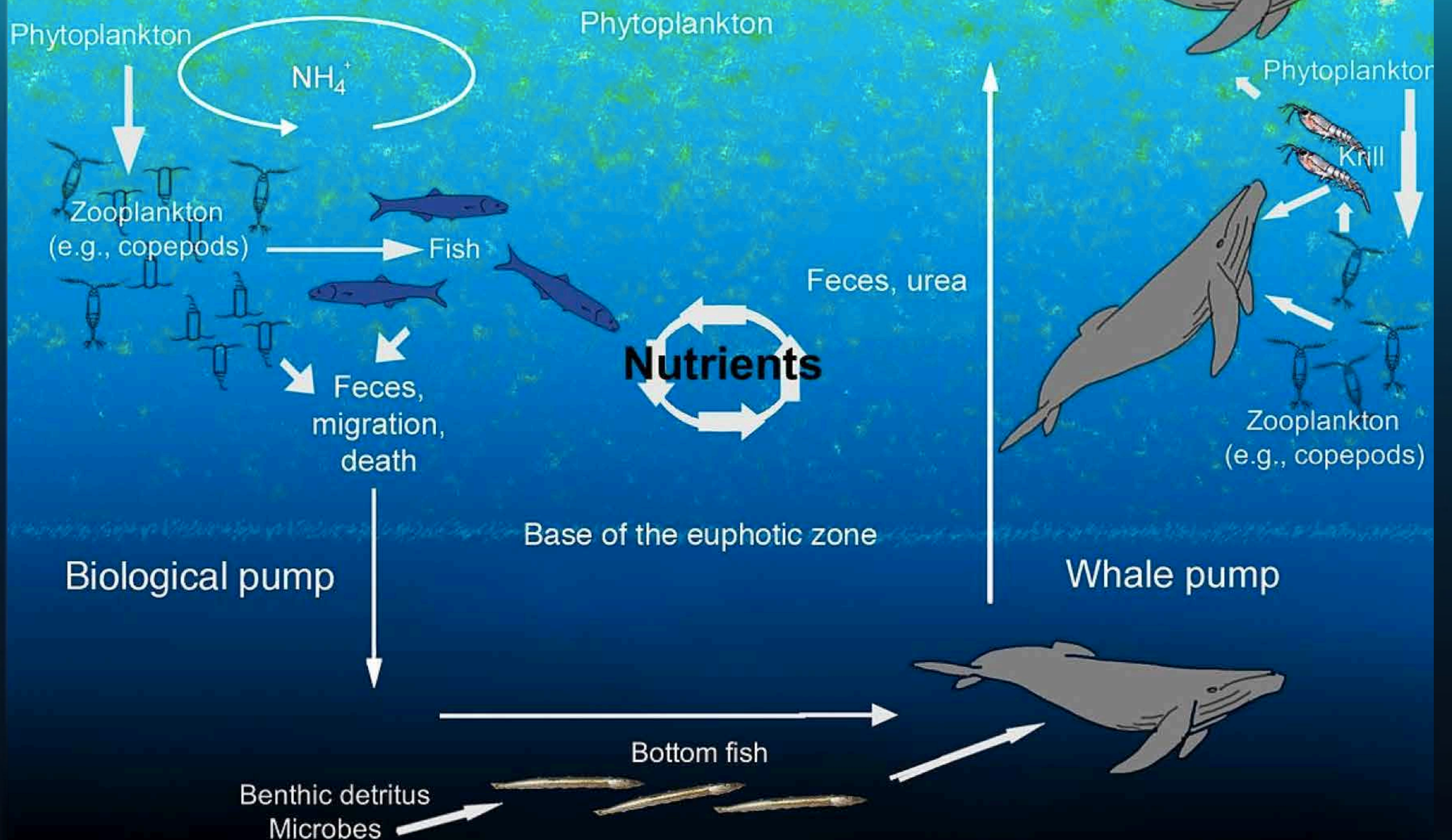






Zooplankton, Fish

Marine Mammals





Zooplankton, Fish

Marine Mammals

Phytoplankton

Phytoplankton

Phytoplankton

$\text{NH}_4^+$

# Whales as

# Marine Ecosystem Engineers

Biological pump

Base of the euphotic zone

Whale pump

Bottom fish

Benthic detritus  
Microbes





Zooplankton, Fish

Marine Mammals

Phytoplankton

Phytoplankton

Phytoplankton

$\text{NH}_4^+$

# Supporting whales is an “Earth-Tech” strategy

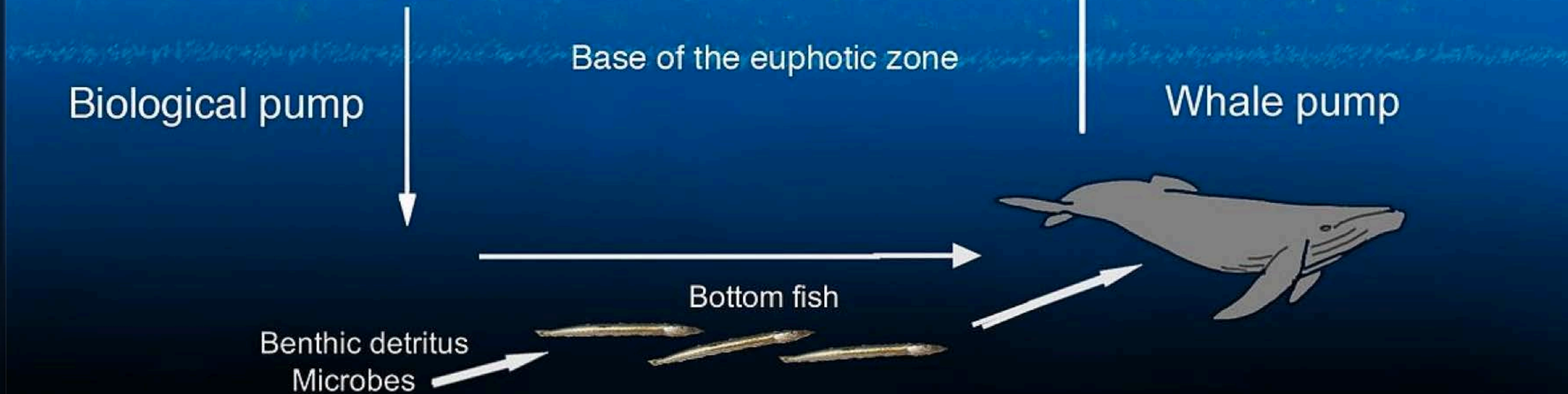
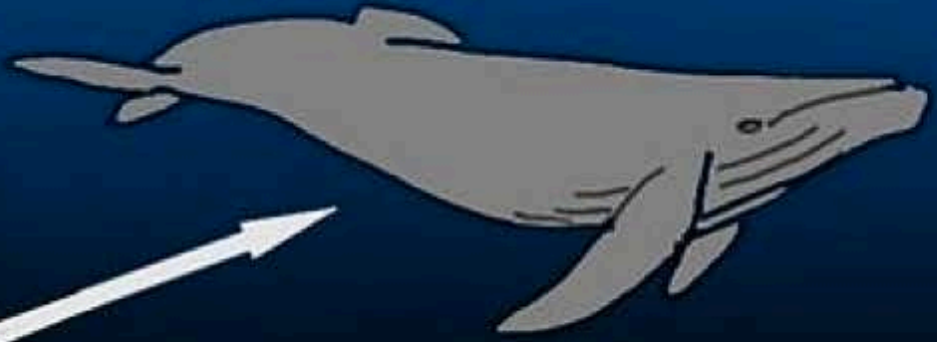
Biological pump

Base of the euphotic zone

Whale pump

Bottom fish

Benthic detritus  
Microbes





Zooplankton, Fish

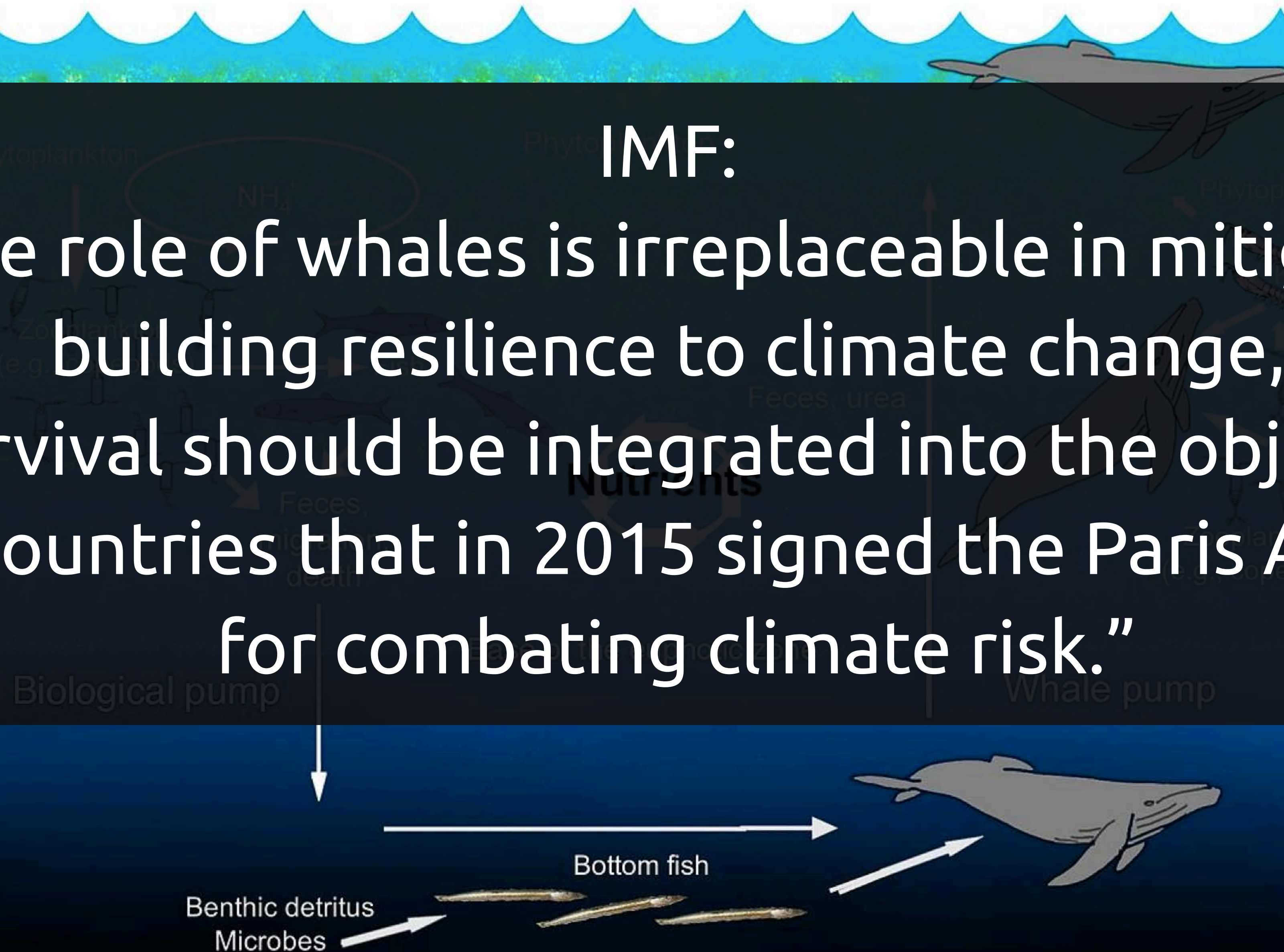
Marine Mammals

IMF:

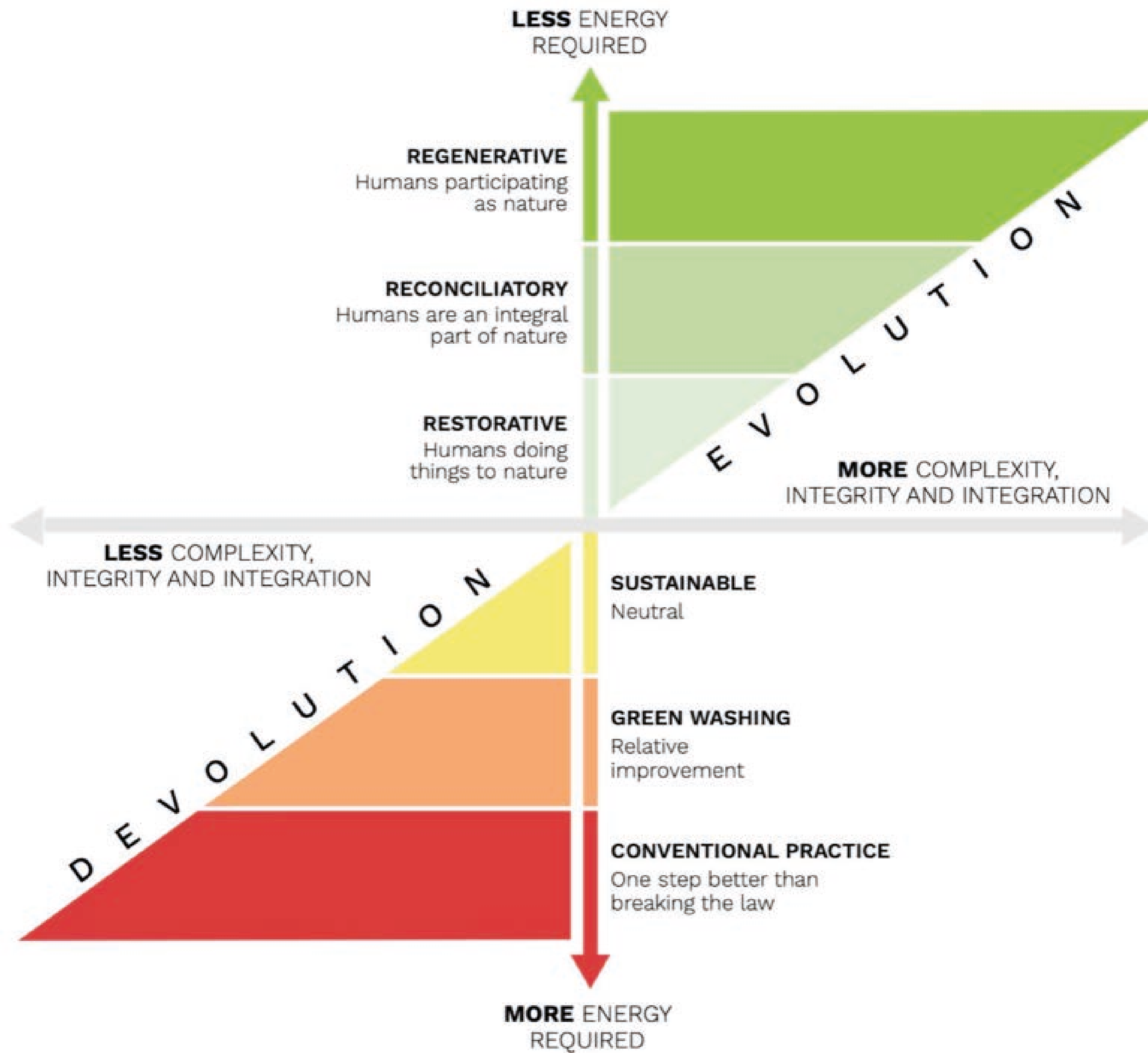
“Since the role of whales is irreplaceable in mitigating and building resilience to climate change, their survival should be integrated into the objectives of the 190 countries that in 2015 signed the Paris Agreement for combating climate risk.”

Benthic detritus  
Microbes

Bottom fish







SEVA

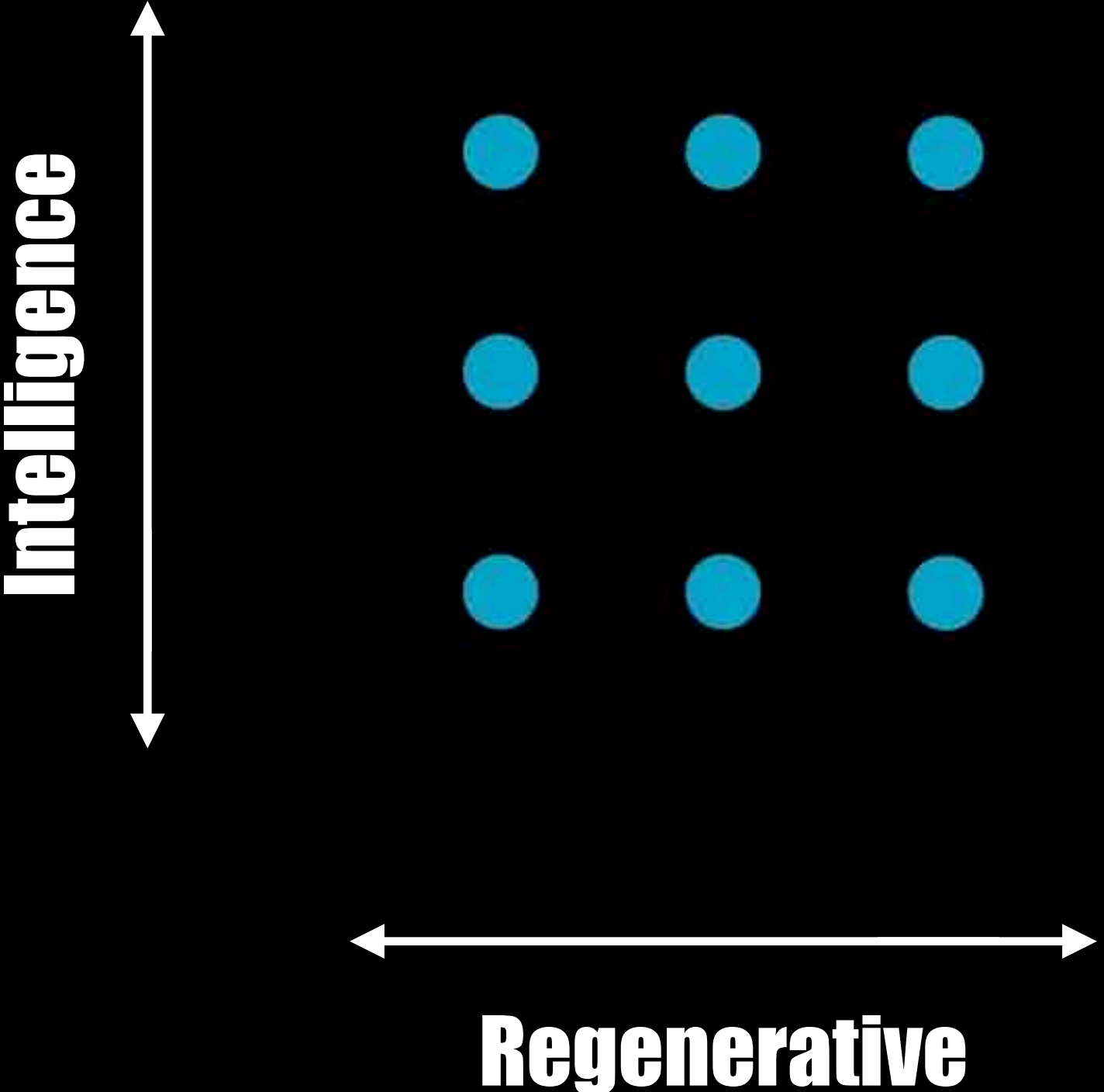
ECO

EGO





# OUR WORLDVIEW







**WE ARE THE FLAT EARTHERS OF THE  
21ST CENTURY**



Calm

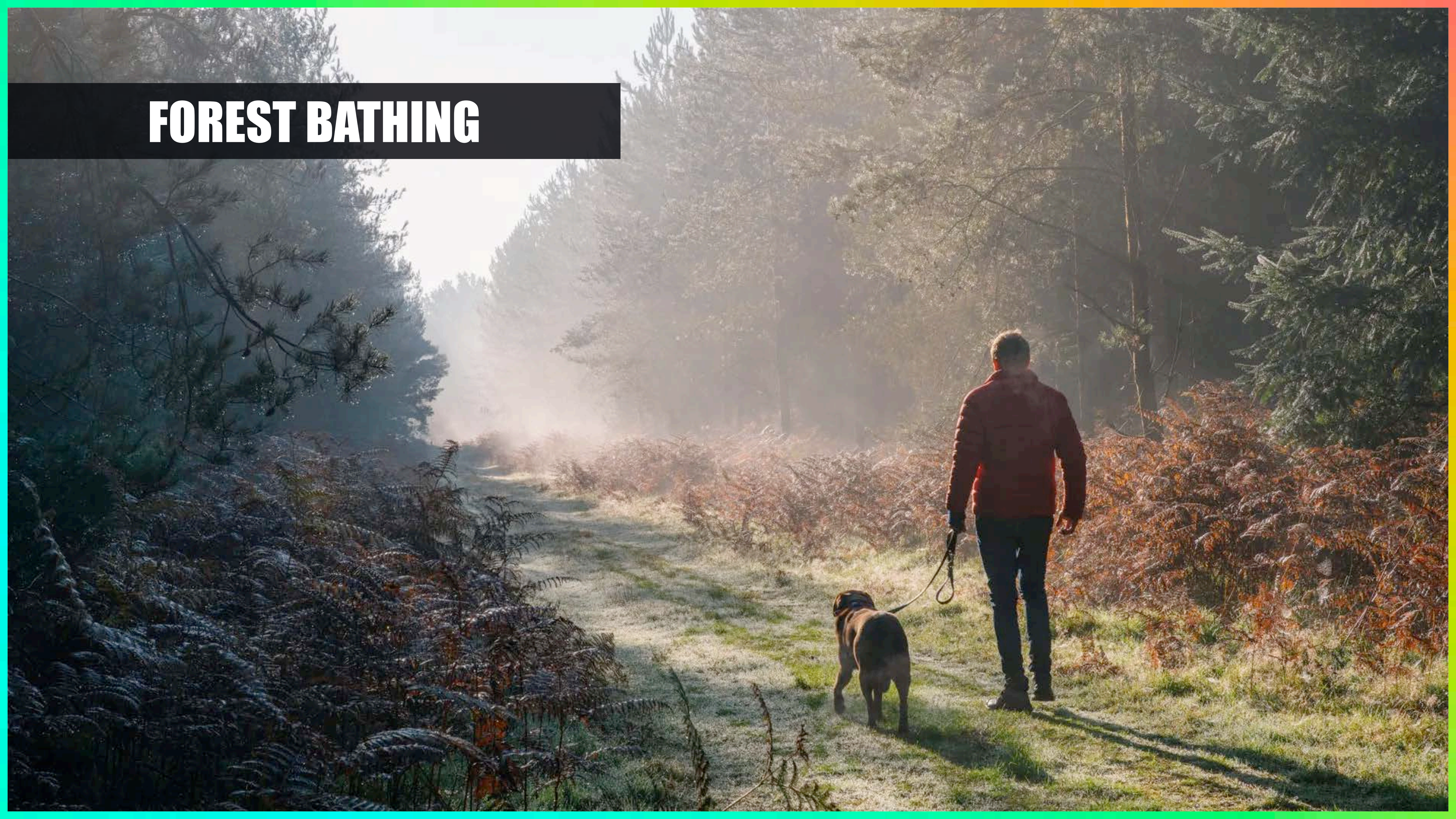


Wild






# FOREST BATHING






A close-up photograph of an older man with white hair and blue eyes, wearing an orange jacket with black stripes on the sleeves over a white collared shirt. He is looking slightly to the right with a thoughtful expression. A white speech bubble with a black border is positioned to his right, containing a quote in bold black text. The background is a blurred outdoor setting with greenery and a white railing.


**There's only one moment in which you can arrive in time. If you're not there, you're either too early or too late.**



A close-up photograph of an older man with white hair and blue eyes, wearing an orange zip-up jacket with black stripes on the sleeves over a white collared shirt. He is looking slightly to the right with a thoughtful expression. A white speech bubble with a black border is positioned to his right, containing text. The background is a blurred outdoor setting with greenery and a white railing with a red stripe.

**To win you have to  
score one more  
goal than your  
opponent.**



A close-up photograph of an older man with white hair and blue eyes, looking slightly to the right. He is wearing an orange zip-up jacket with black stripes on the sleeves over a white collared shirt. A white speech bubble with a black border is positioned to his right, containing the text "You will only see it when you get it." The background is a blurred outdoor setting with greenery and a white railing with a red stripe.

**You will only see it  
when you get it.**



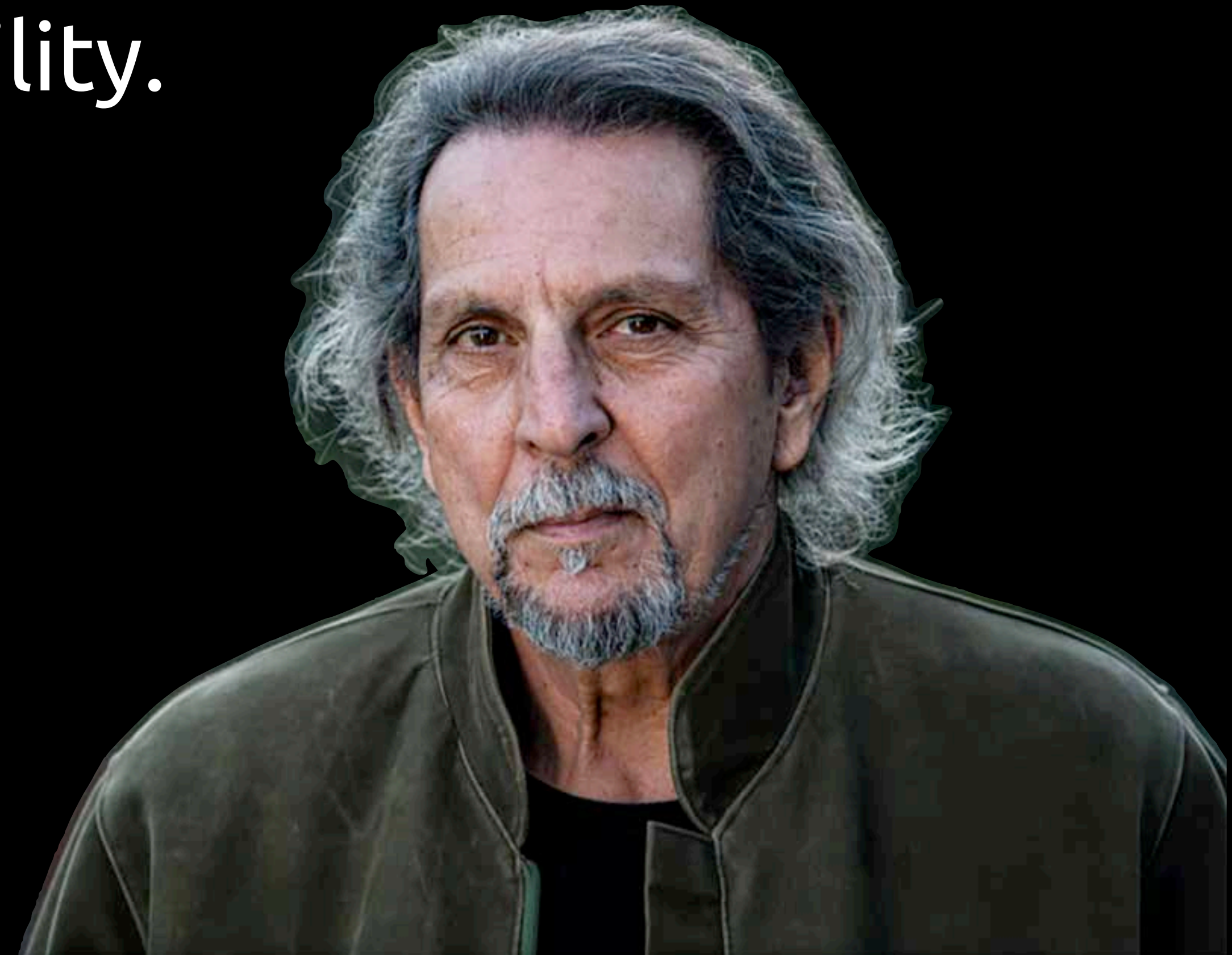


**Glenn Albrecht**  
Philosopher new “psychoterratic” emotions



# Symbiocene

The period after the Anthropocene, characterized by mutually beneficial relationships between humans and the natural world. This era emphasizes cooperation, restoration, and sustainability.



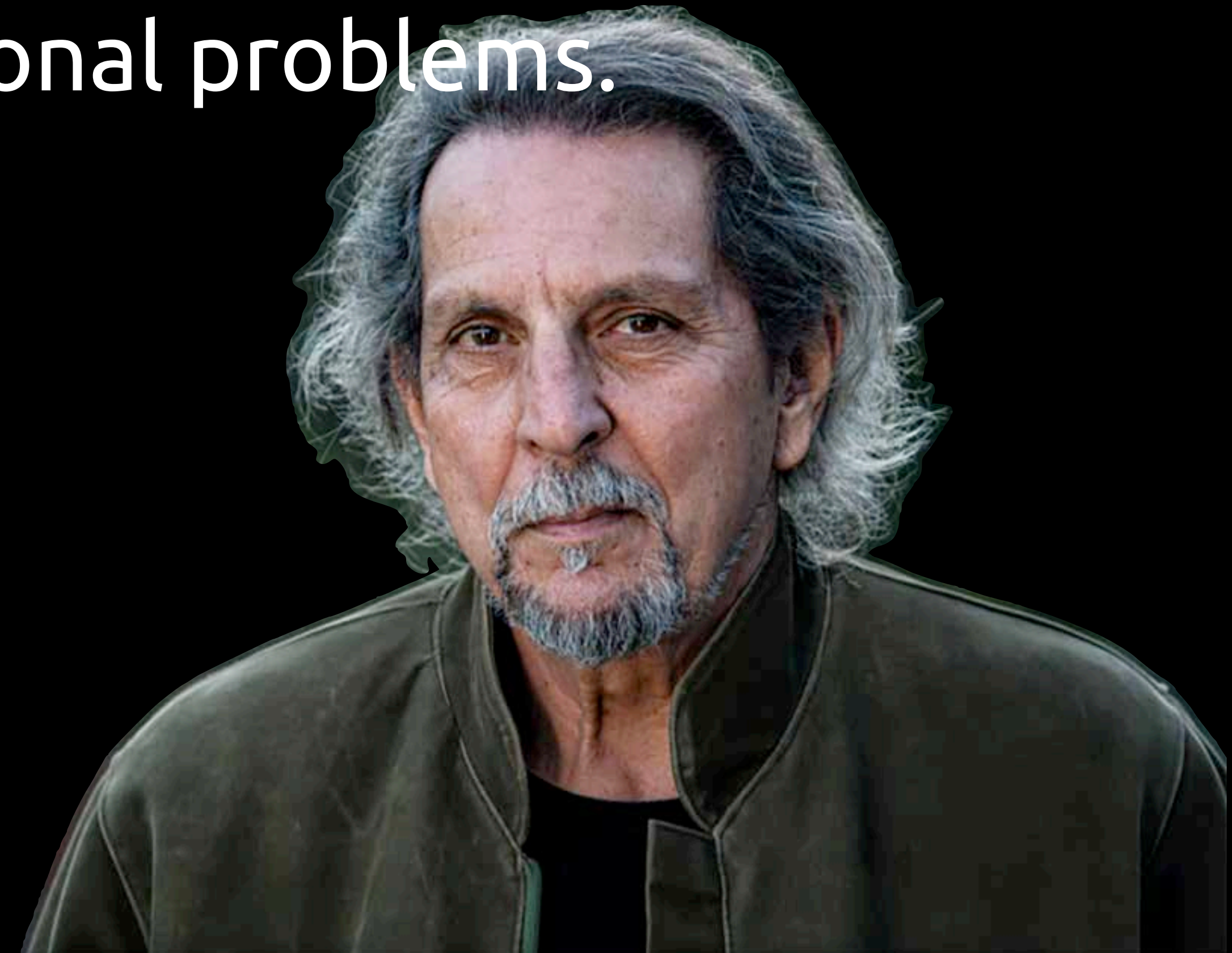
**Glenn Albrecht**

Philosopher new “psychoterratic” emotions



# Psycho-terratic identity

The idea that our mental health and identity are deeply rooted in the earth and the landscapes in which we live. Loss or degradation of these landscapes can lead to psychological and emotional problems.



**Glenn Albrecht**

Philosopher new “psychoterratic” emotions



**Conscious technology** - Designed to create awareness about the societal and ecological impact of human behavior. It makes the ecological effects of consumption transparent.

**Deep Technology** - Deep technology refers to innovations based on significant scientific and technical breakthroughs. These technologies push the boundaries of technology and include, for example, autonomous robots and advanced ICT solutions.

**Techno Sobriety** - Represents the conscious, responsible use of technology to avoid excess and waste. The goal is to reduce the ecological footprint of technology by extending the lifespan of hardware and reducing the impact of digital consumption behavior.

**Eco-Algorithms** – AI systems designed to operate in harmony with natural ecosystems, optimizing for sustainability and resource regeneration rather than exploitation. This reflects the integration of technology into environmental cycles .

**Symbiotic Tech** – A term describing a symbiotic relationship between AI and biological systems, where AI enhances and learns from nature's resilience and adaptability, functioning as a cooperative partner .



**WE ARE NATURE**

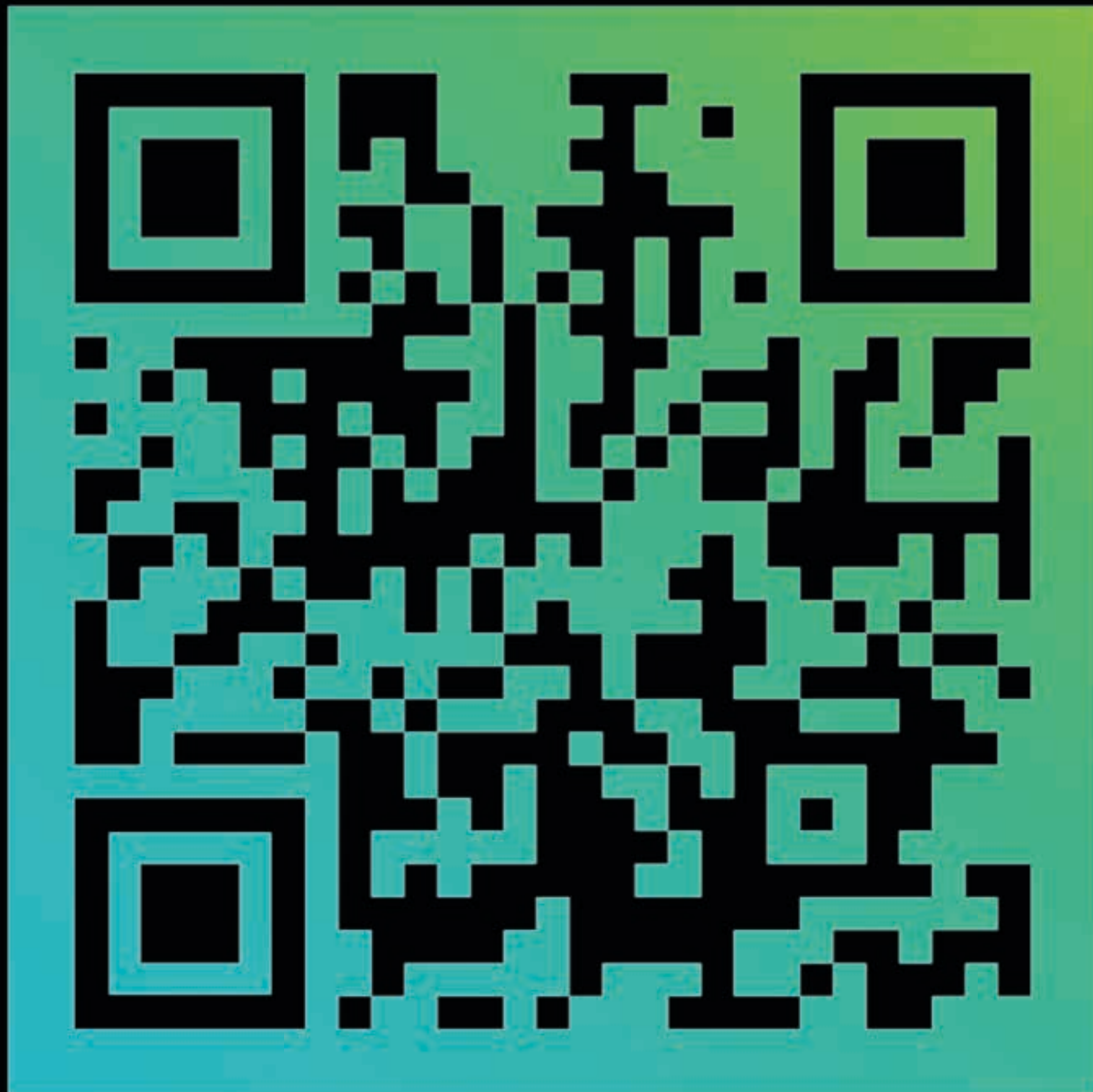
**AI CAN ACCELERATE THIS PARADIGM SHIFT**

**IT MAY FEEL AWKWARD AT FIRST, BUT THE SOONER  
YOU EMBRACE IT, THE GREATER THE BENEFIT**



**THIJS PEPPING**





[THIJSPEPPING@SUBSTACK.COM](mailto:THIJSPEPPING@SUBSTACK.COM)