



# How GenAI is Changing Our Daily Lives

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# What's the Hype?

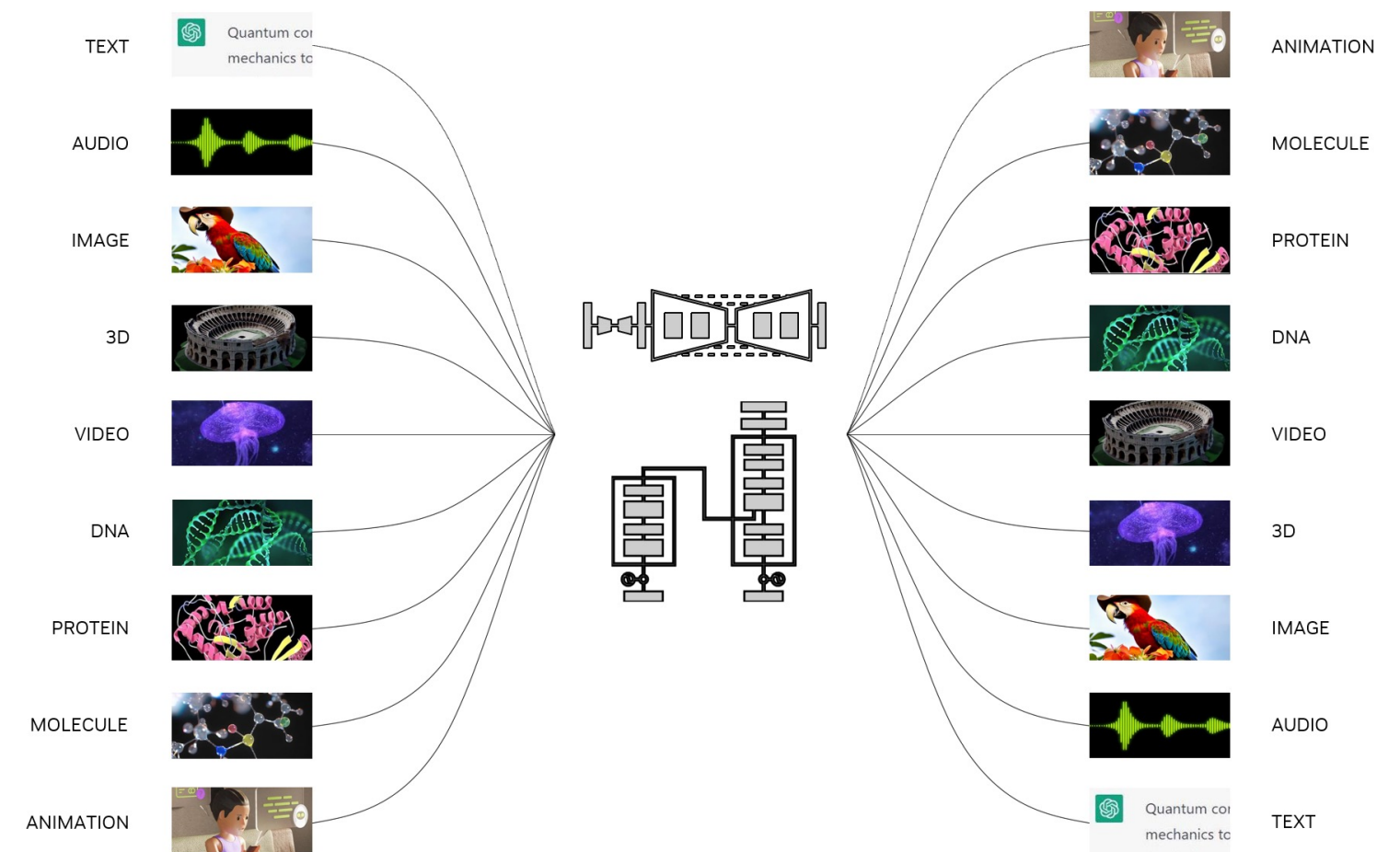
Generative AI is here

Reformatted 'Generative AI Possibilities' image.

## Key Players

 <b>Microsoft</b> Reinvent search with Generative AI	 <b>OpenAI</b> ChatGPT 110 million users in 2 months	 <b>NVIDIA</b> Generative AI computing power & platform of the world
 <b>Meta</b> Business group focused on Generative AI	<b>Enterprises &amp; Startups</b> 1600+	 <b>Google</b> Generative AI changing the main products

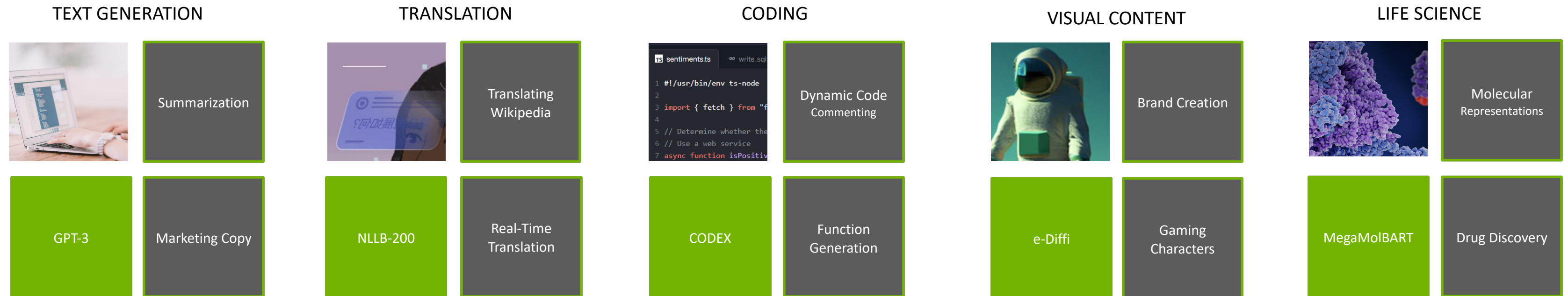
## Generative AI Possibilities



**Generative AI is Having a Moment!**  
Captivating World's Attention | Happening Fast | Solving Problems in a Way Never Done Before



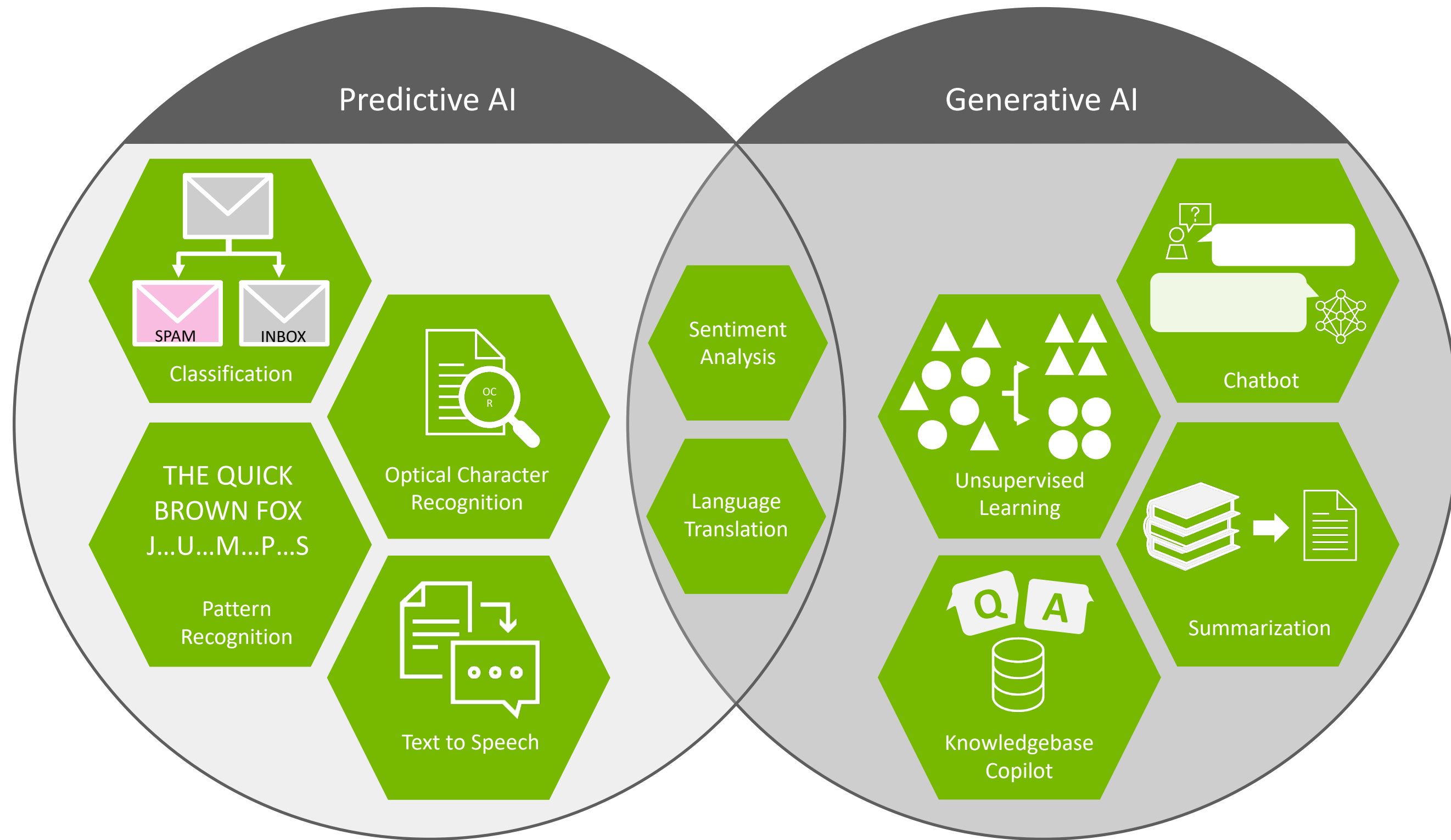
# Generative AI is Transforming Business



Enterprises that adopt next-generation AI like LLMs and Generative AI are **2.6X more likely to increase revenue by 10% or more** but must invest in their AI infrastructure to fully reap the benefits.

-Accenture Research. Breakthrough Innovation: Is your organization equipped for breakthrough innovation? WEF 2023.

# When to Use Generative AI to Solve Enterprise Challenges



Predictive AI focuses on understanding historical data and making accurate predictions

Generative AI creates new data based on patterns and trends learned from training data



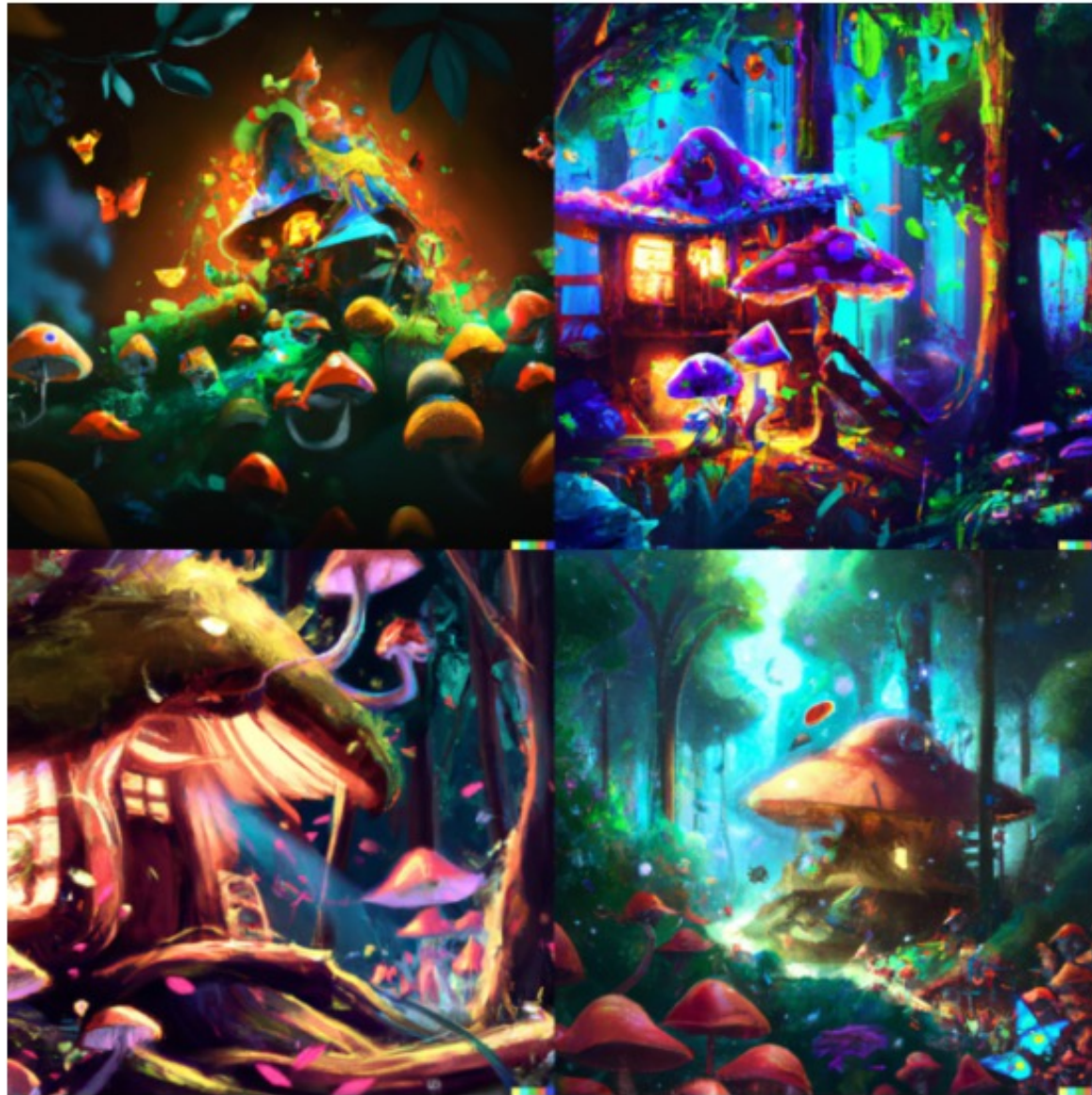
# Generative AI





# Generative AI

*“the house in the forest, dark night, leaves in the air, fluorescent mushrooms, clear focus, very coherent, very detailed, contrast, vibrant, digital painting”*



*Outputs from Dall-E 2*



*Output from Stable Diffusion v2.1*





*"a cat | a dog | a horse"*

Source: Example from "Stable Diffusion Videos" on Replicate – Generate videos by interpolating the latent space of Stable Diffusion

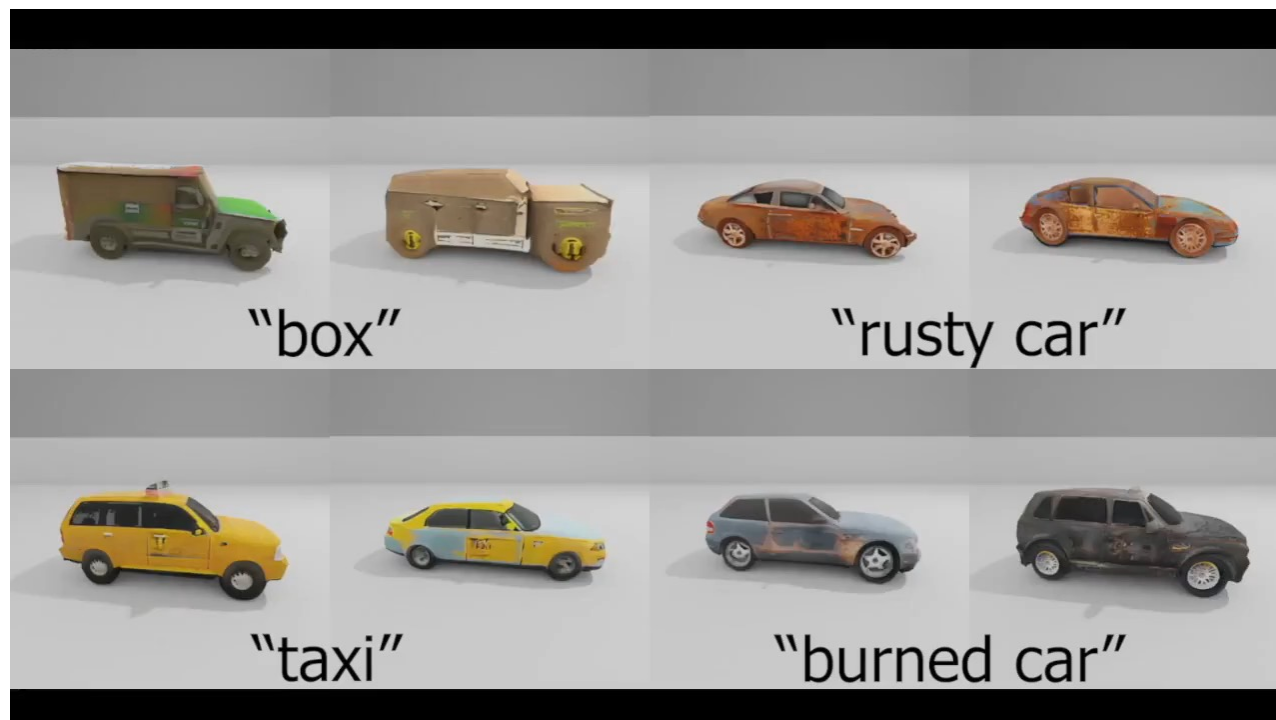
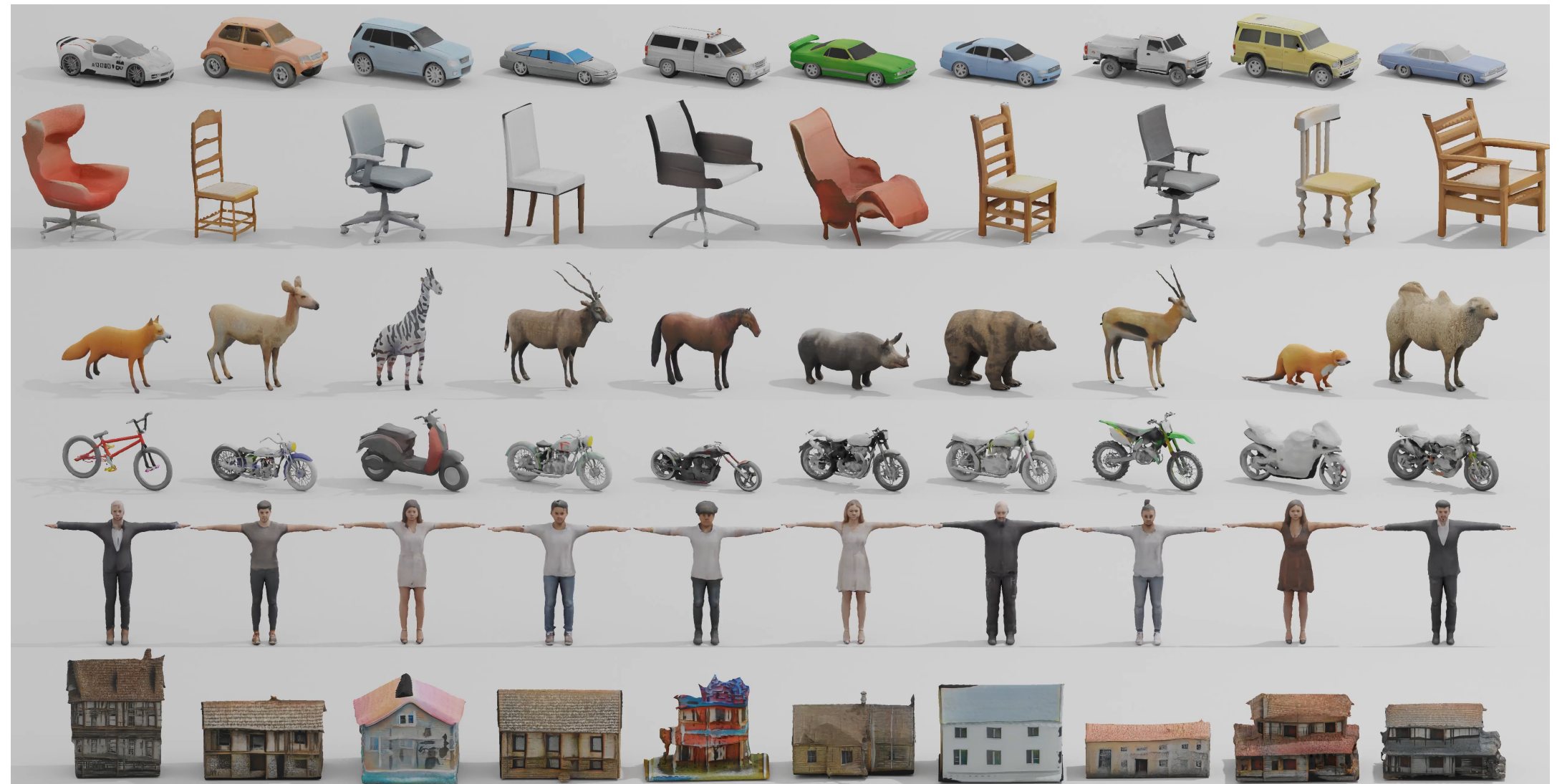
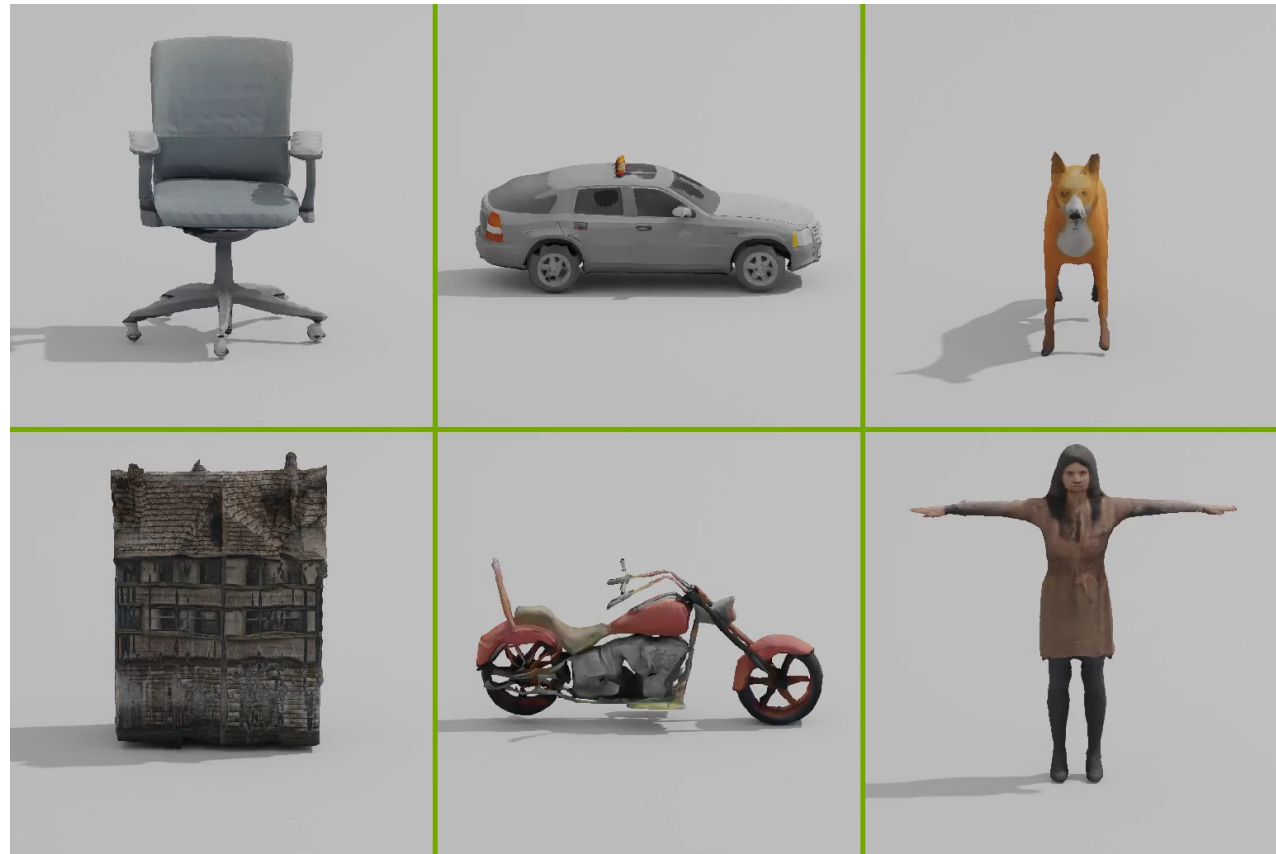


*"a beautiful forest by Asher Brown Durand, trending on Artstation"*

Source: Example from deforum stable diffusion – Animating prompts with stable diffusion



# Get3D



<https://nv-tlabs.github.io/GET3D/>



# Magic3D

High resolution text-to-3D generation



Download 3D mesh!

A beautiful dress made out of garbage bags, on a mannequin. Studio lighting, high quality, high resolution.



Download 3D mesh!

A blue poison-dart frog sitting on a water lily.



Download 3D mesh!

[...] a car made out of sushi.



a silver platter piled high with fruits



Michelangelo style statue of an astronaut



a stuffed grey rabbit holding a pretend carrot



an iguana holding a balloon



a beautiful dress made out of garbage bags



an imperial state crown of England



a blue poison-dart frog sitting on a water lily



Neuschwanstein Castle, aerial view

Low resolution bunny before editing

a baby bunny sitting on top of a stack of pancakes



a metal bunny sitting on top of a stack of broccoli



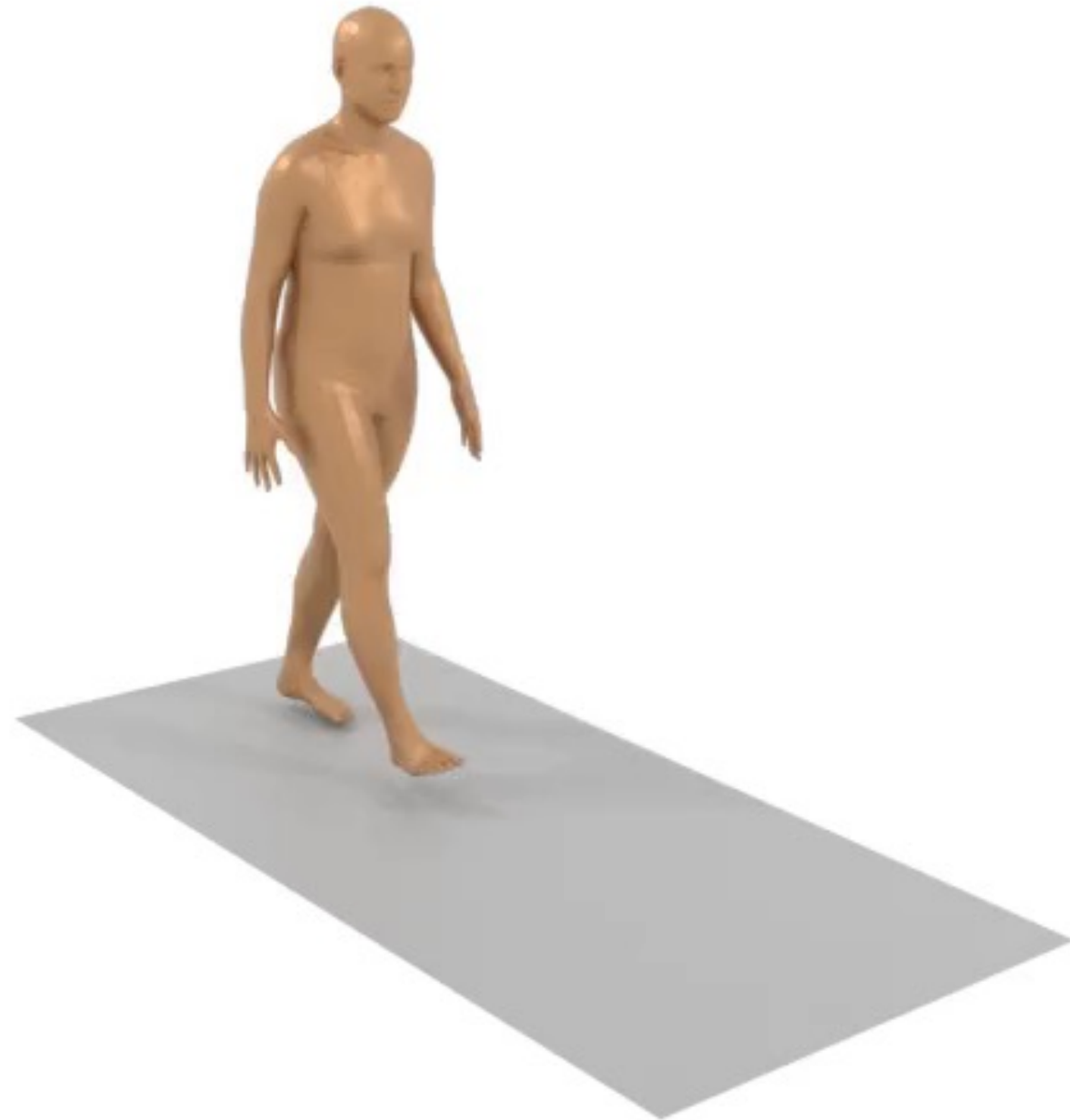
a metal bunny sitting on top of a stack of chocolate cookie



a sphinx sitting on top of a stack of chocolate cookie



# Text-to-Motion



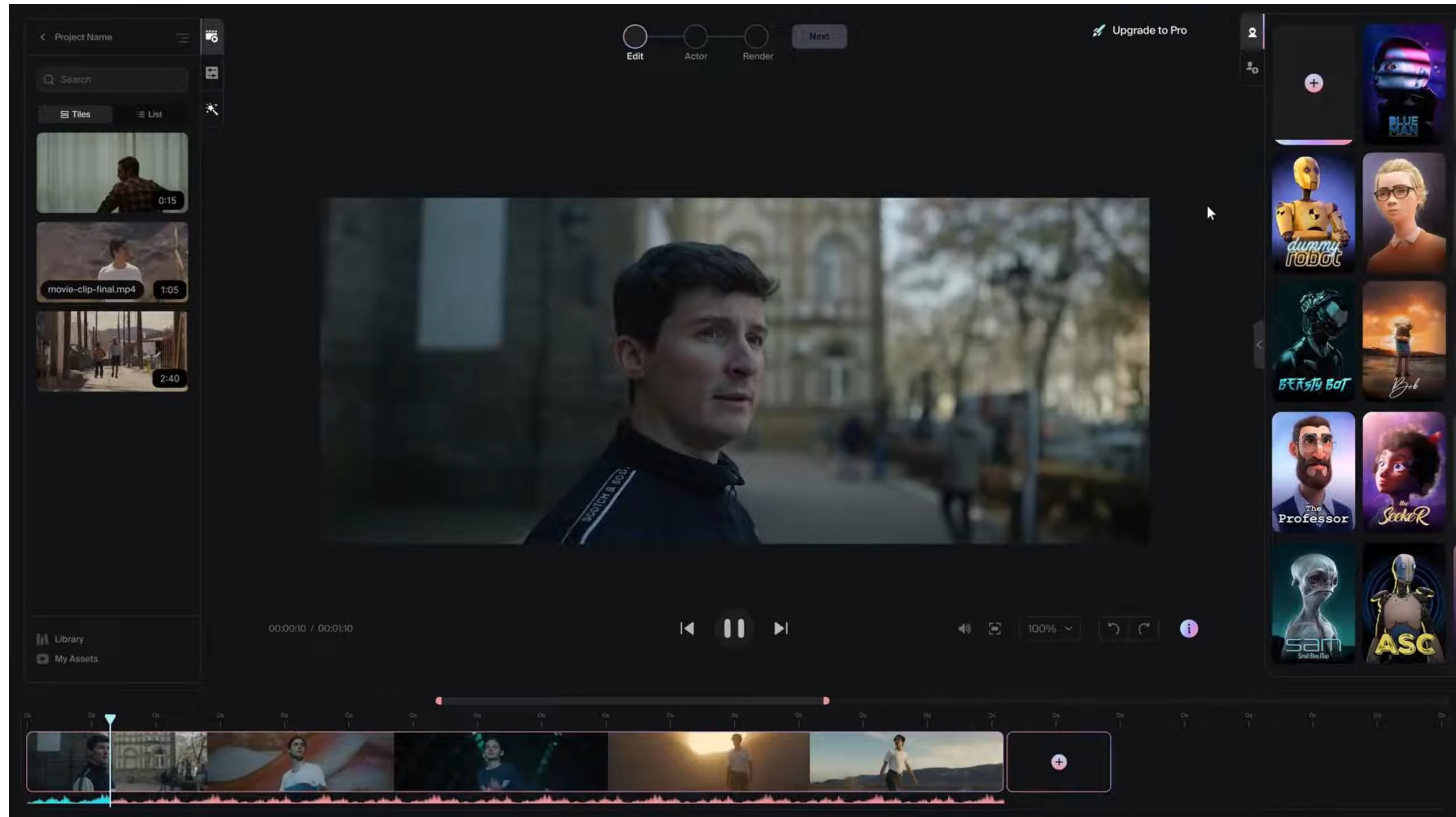
*"A person walks forward, bends down to pick something up off the ground."*  
Source: <https://guytevet.github.io/mdm-page/>



*"A person is skipping rope."*



# Generative AI for Movies





# AI for Advertising



# AI for Coding

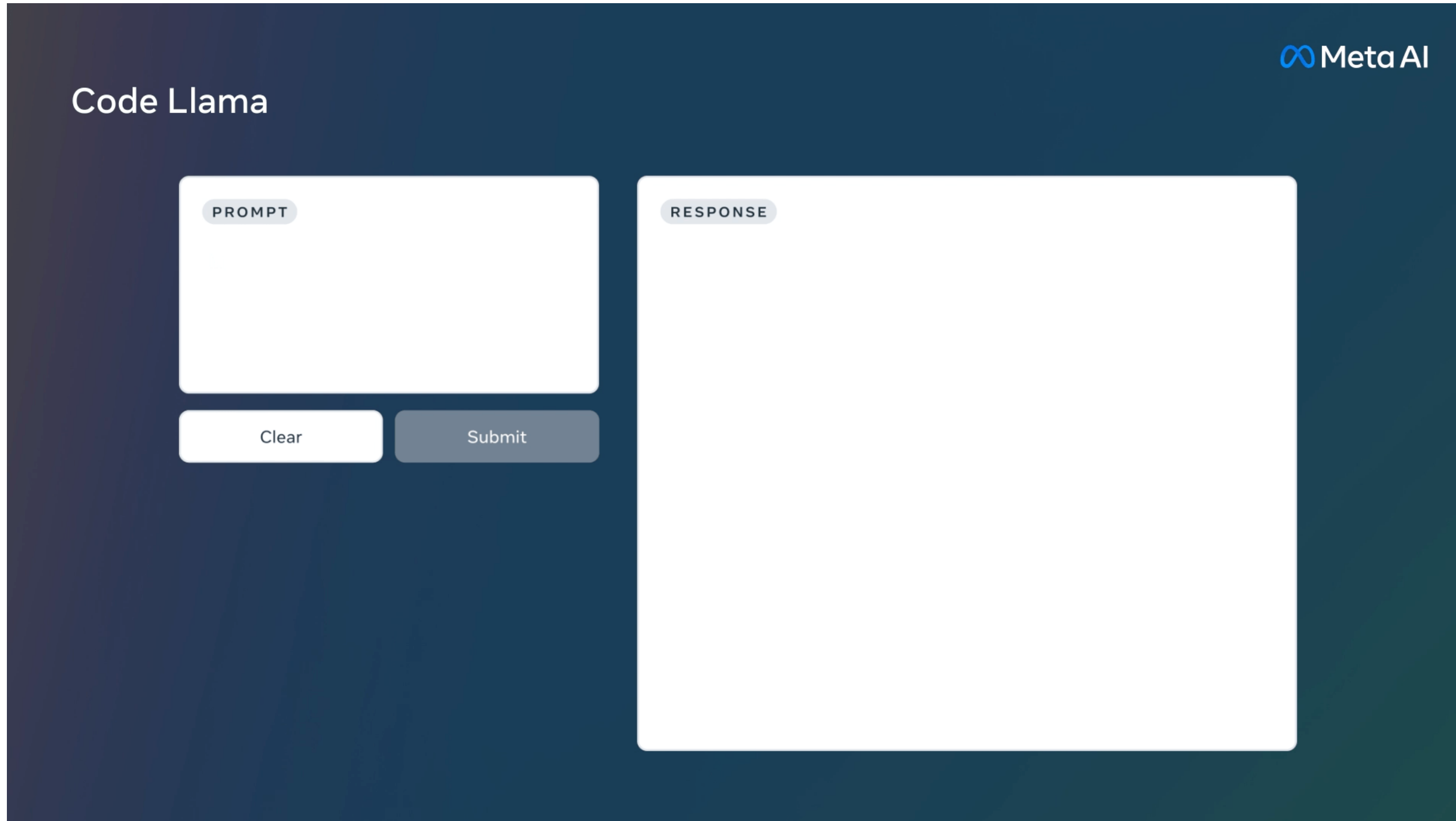
Code Llama

Meta AI

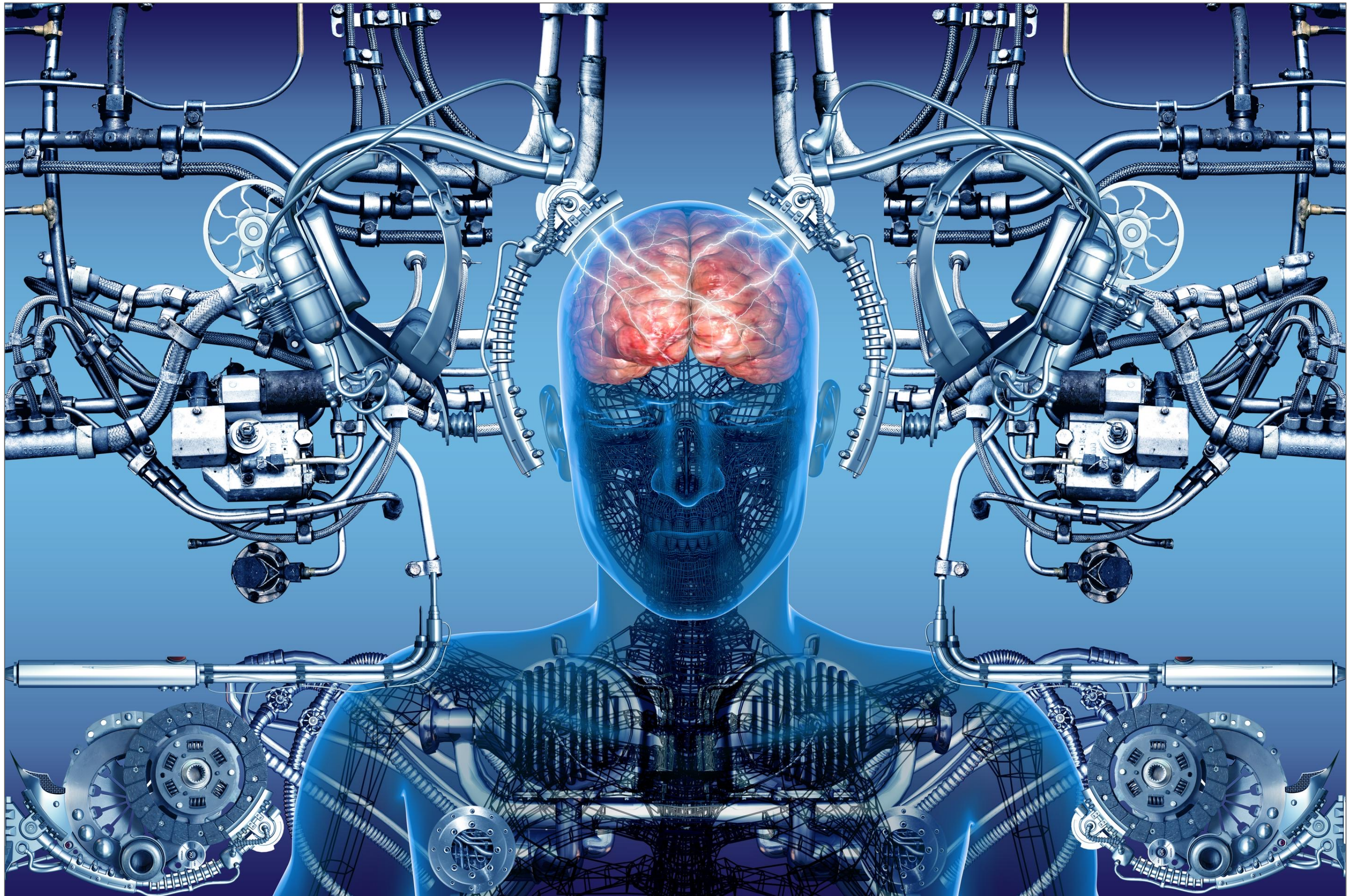
PROMPT

RESPONSE

Clear Submit

The image shows a web interface for Code Llama, an AI coding assistant. The interface is set against a dark blue background. At the top left, the text "Code Llama" is displayed in white. At the top right, the "Meta AI" logo is visible. The main area is divided into two large white rectangular boxes. The left box is labeled "PROMPT" in a small grey tab at its top left corner and is currently empty. Below this box are two buttons: a white "Clear" button and a grey "Submit" button. The right box is labeled "RESPONSE" in a small grey tab at its top left corner and is also empty.

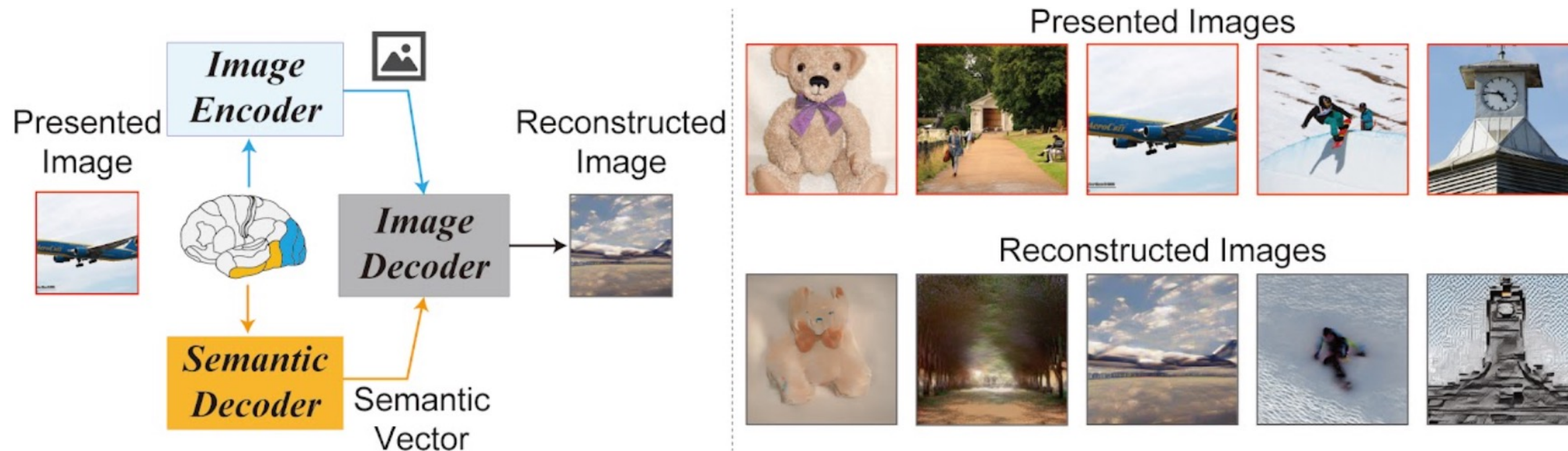






# Reconstructing Visual Experiences From Human Brain Activity with Stable Diffusion

We demonstrate that our simple framework can reconstruct high-resolution images from brain activity with high semantic fidelity, without the need for training or fine-tuning of complex deep generative models



Left: Overview of our framework. Right: Presented images (redbox, top row) and images reconstructed from human brain activity (grey box, bottom row).

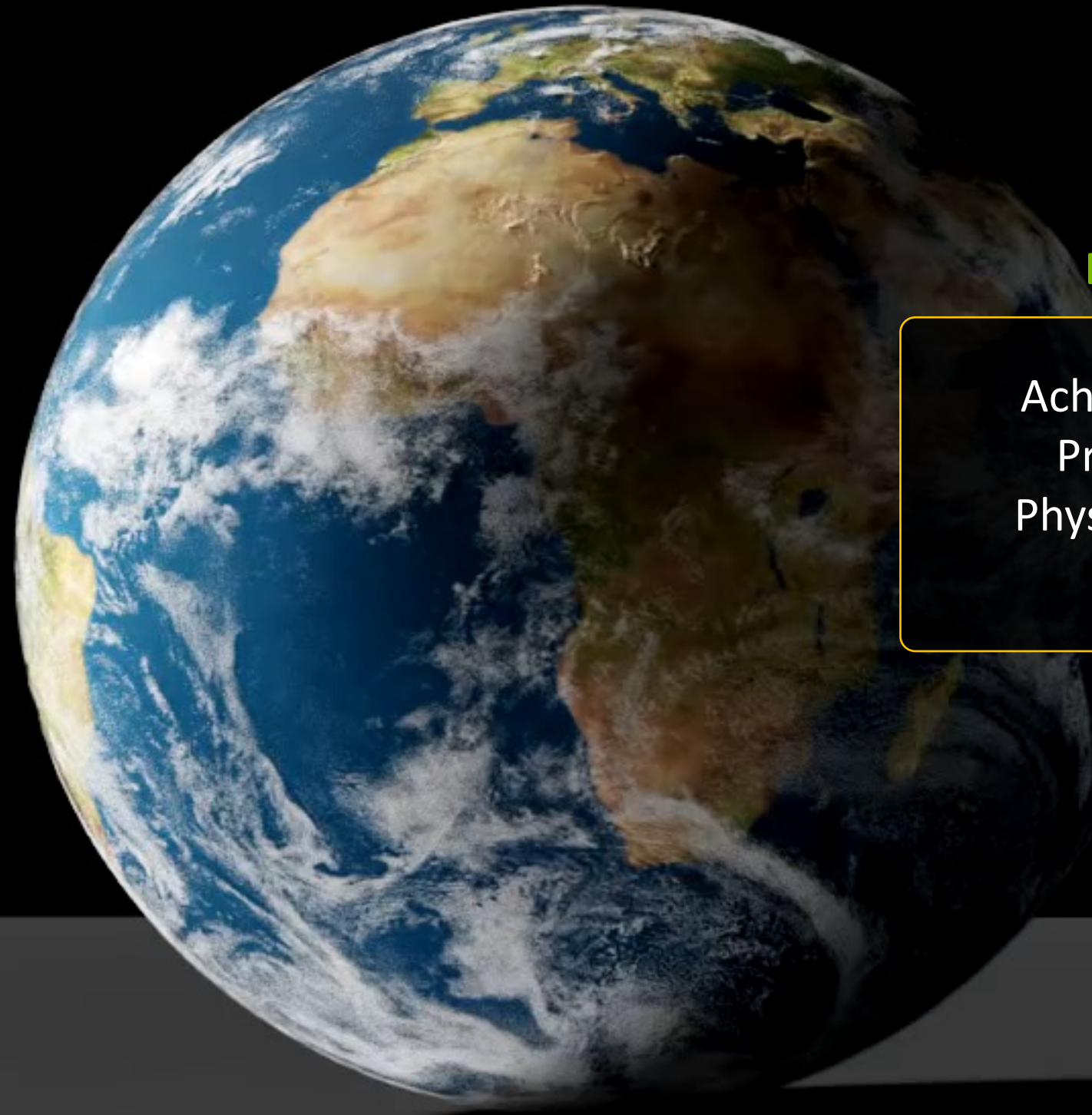




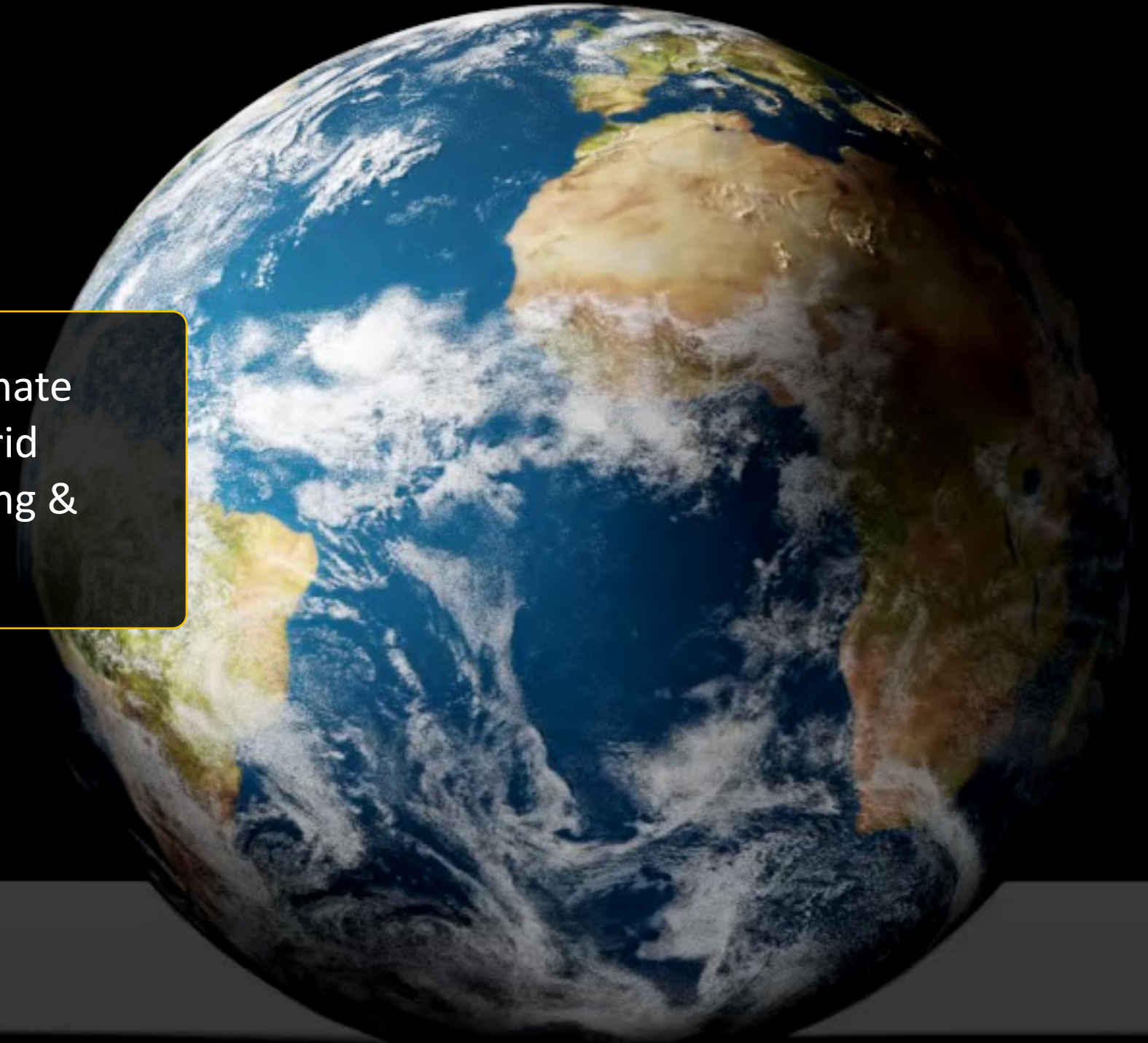
# Imagine the System Evolving in Computational Fidelity and Ambition

Eventually fed by a new library of climate predictions so high-resolution they seem impossible today.

Earth



Twin Earth

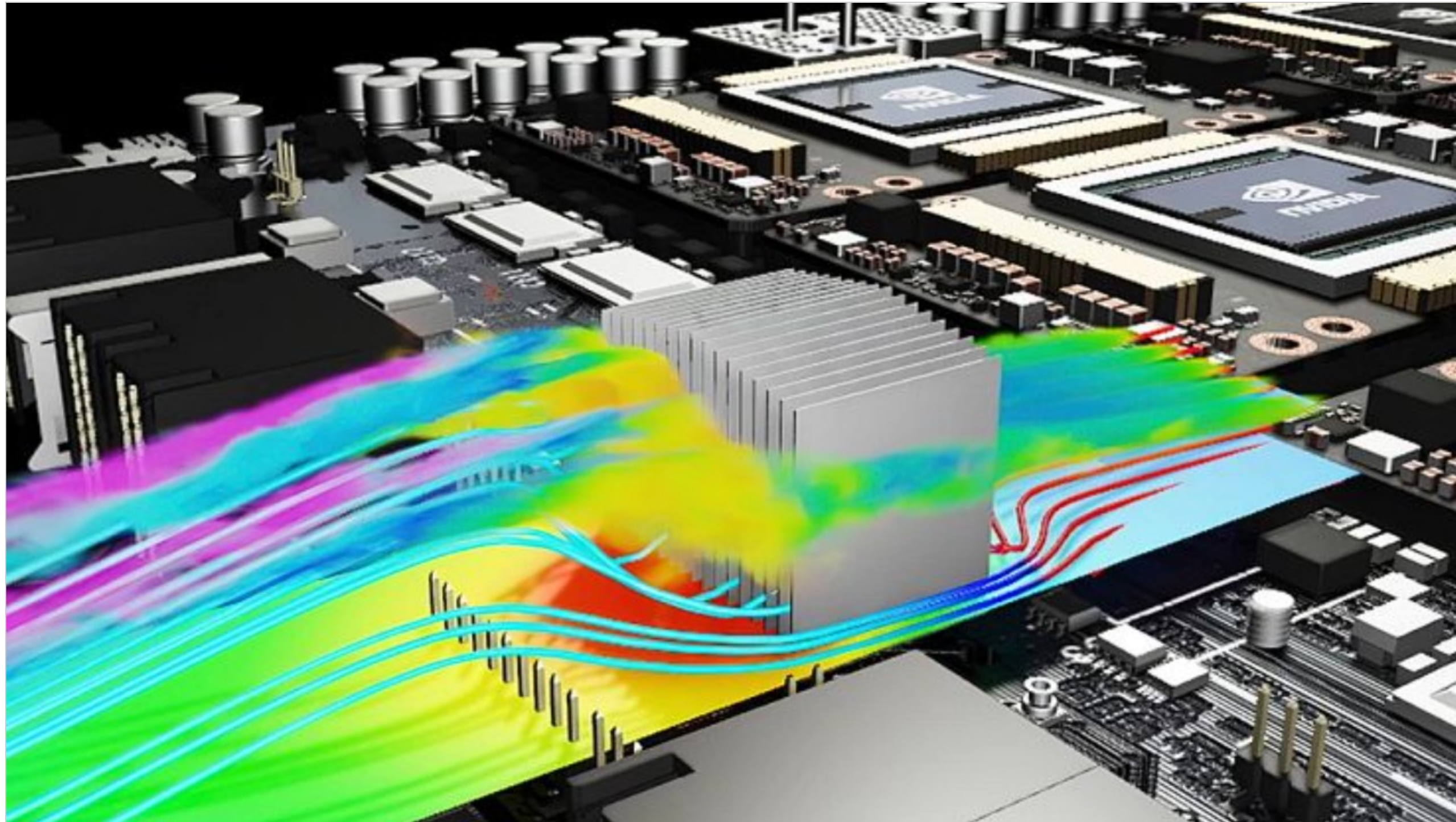


## Earth-2 Mission #2

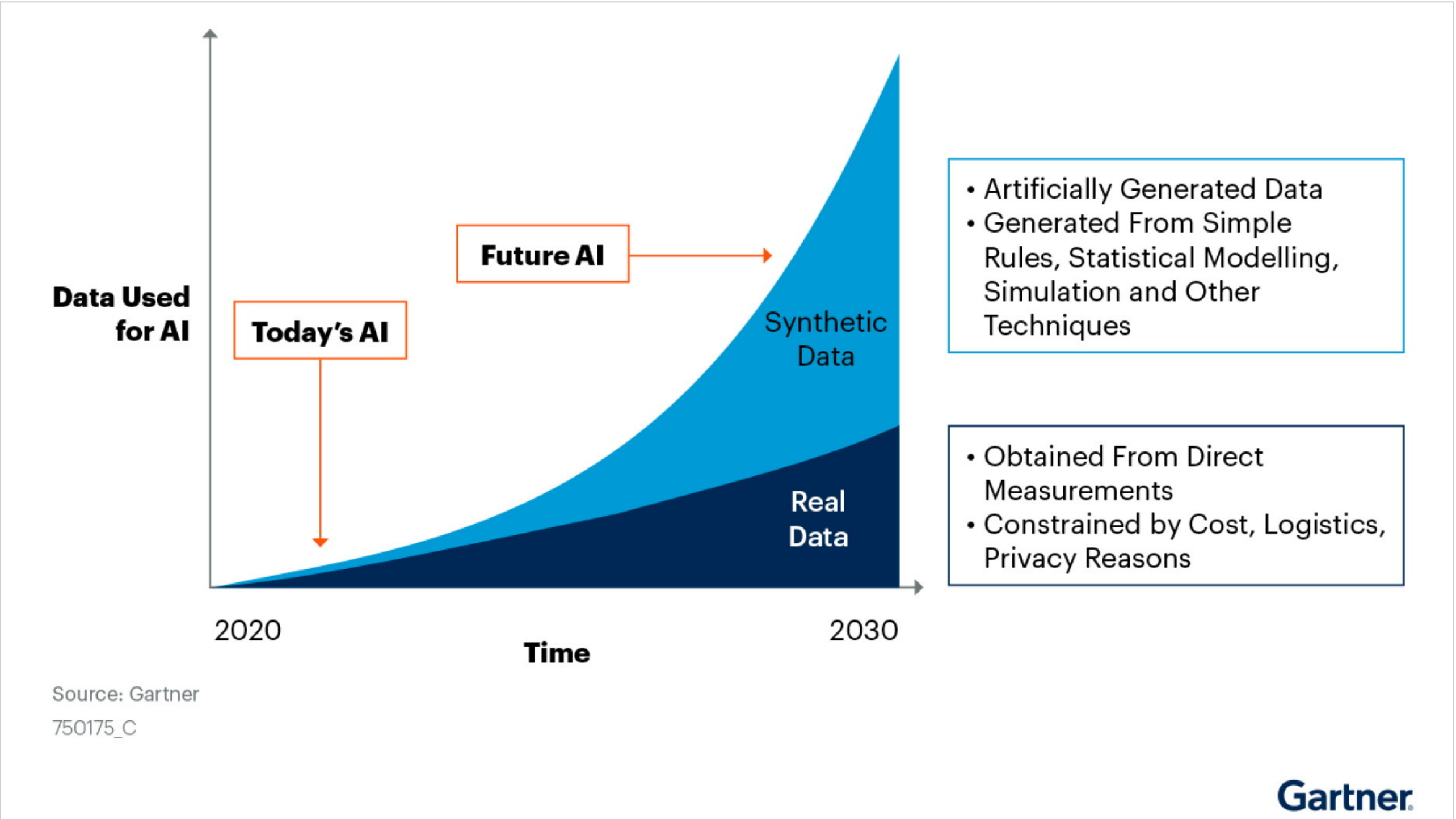
Achieving Next-Gen Climate  
Predictions using Hybrid  
Physics, Machine Learning &  
HPC.



# AI for Science

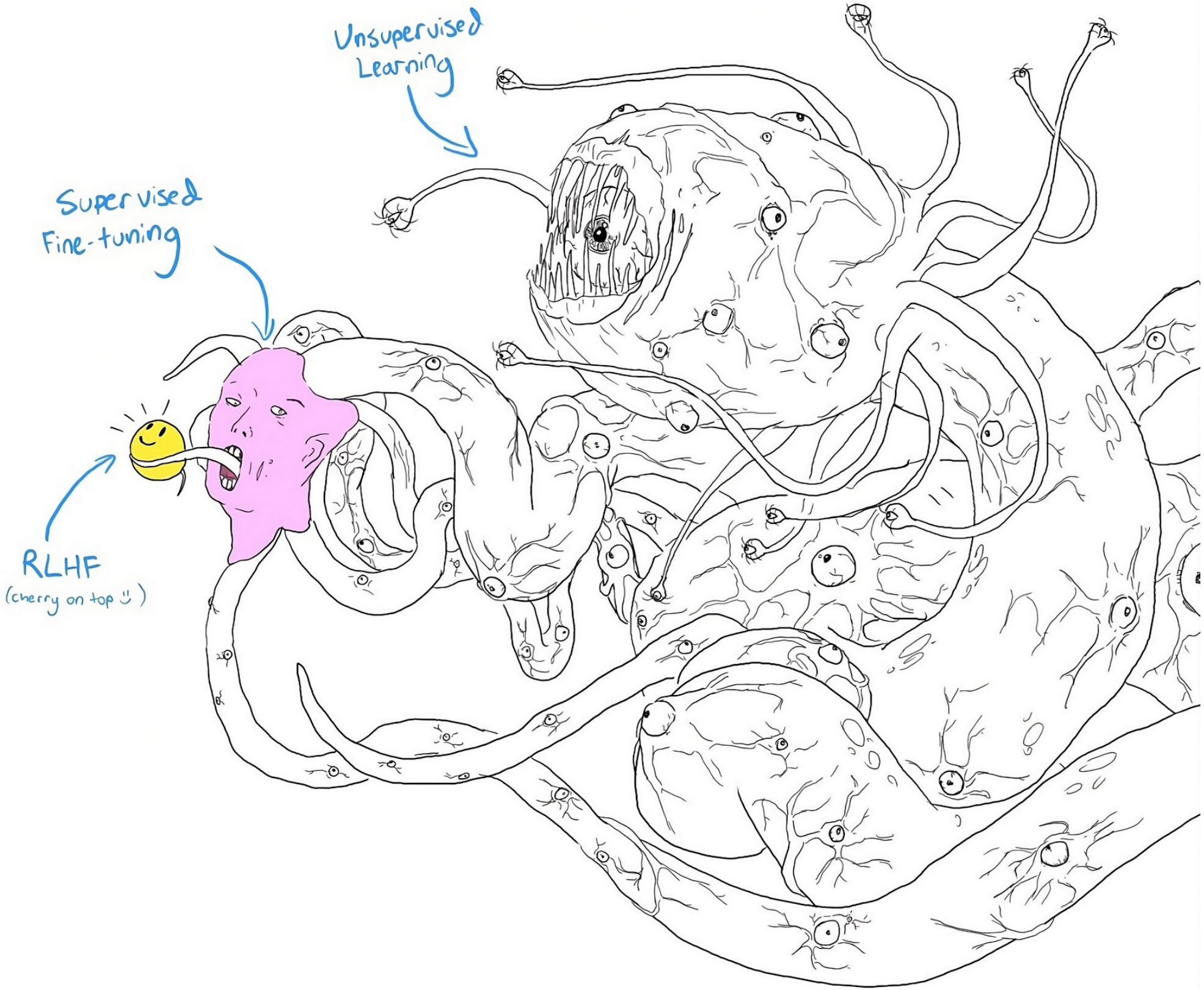


# By 2030, Synthetic Data Will Completely Overshadow Real Data in AI Models

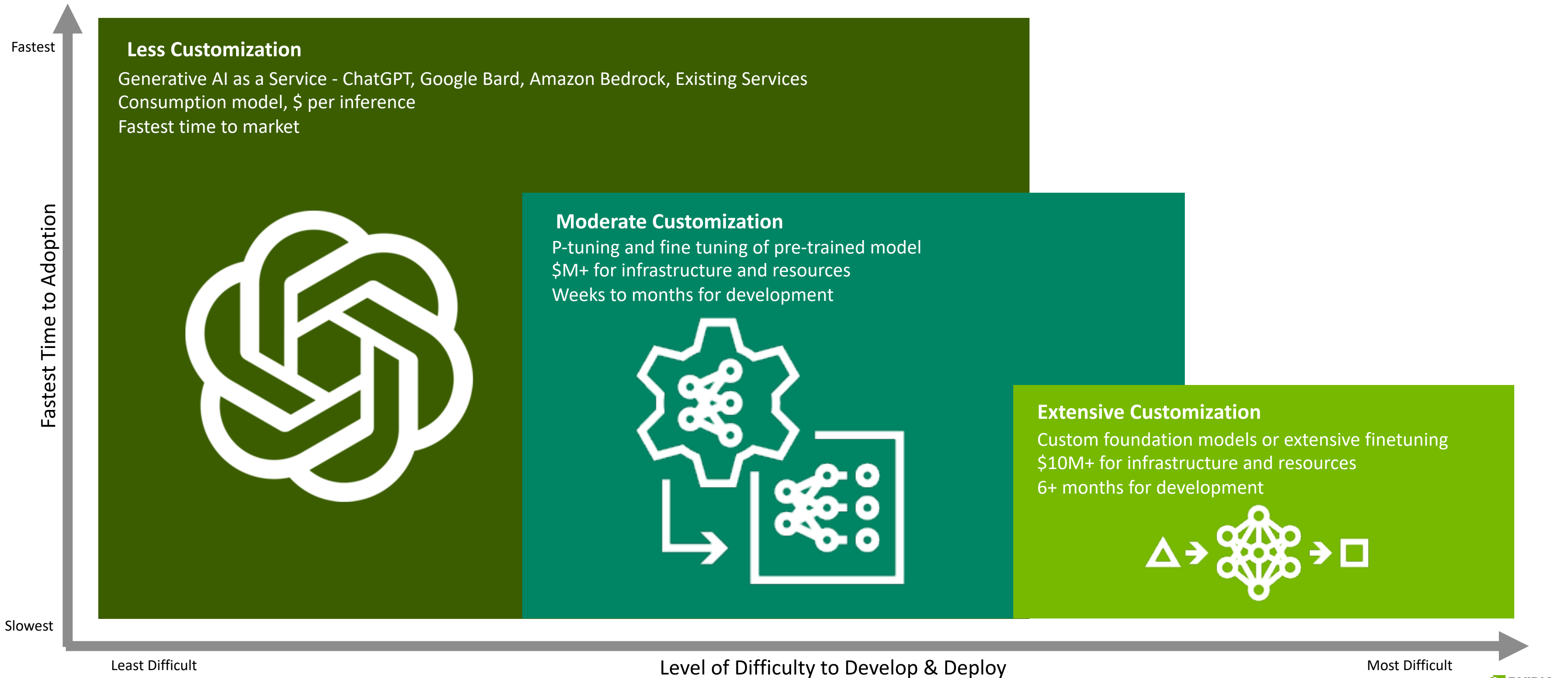




# Tame the Model



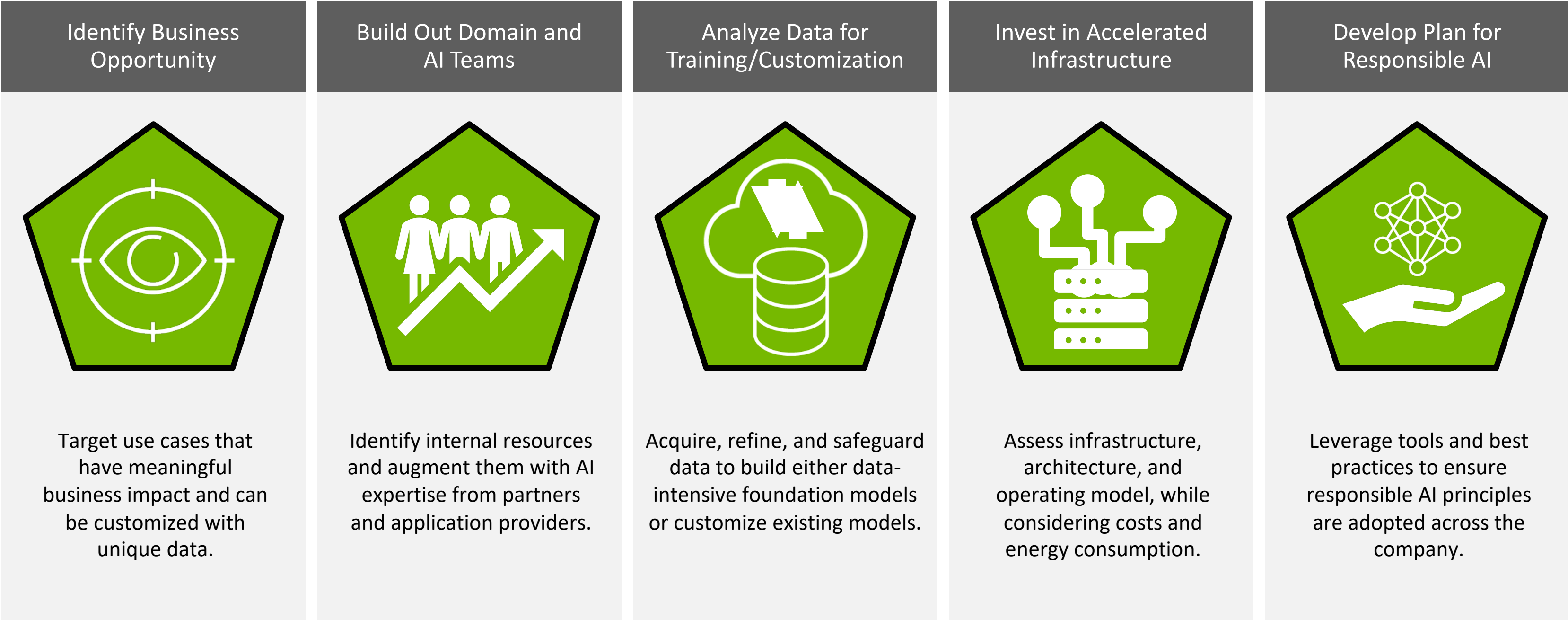
# How Enterprises are Using Generative AI





# Steps to Get Started with Generative AI

Leveraging custom LLMs to differentiate your business









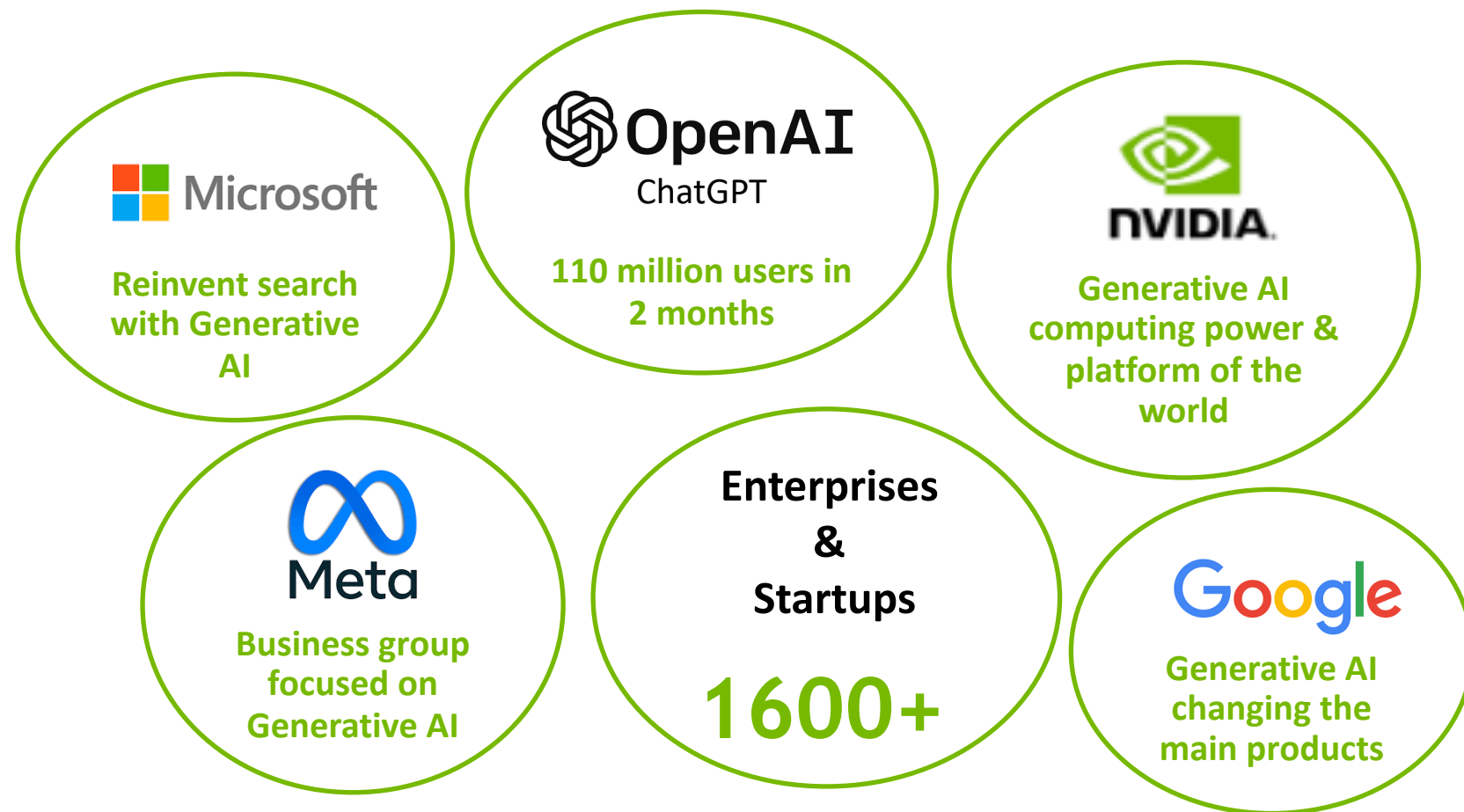
**ORIGINAL SLIDES**



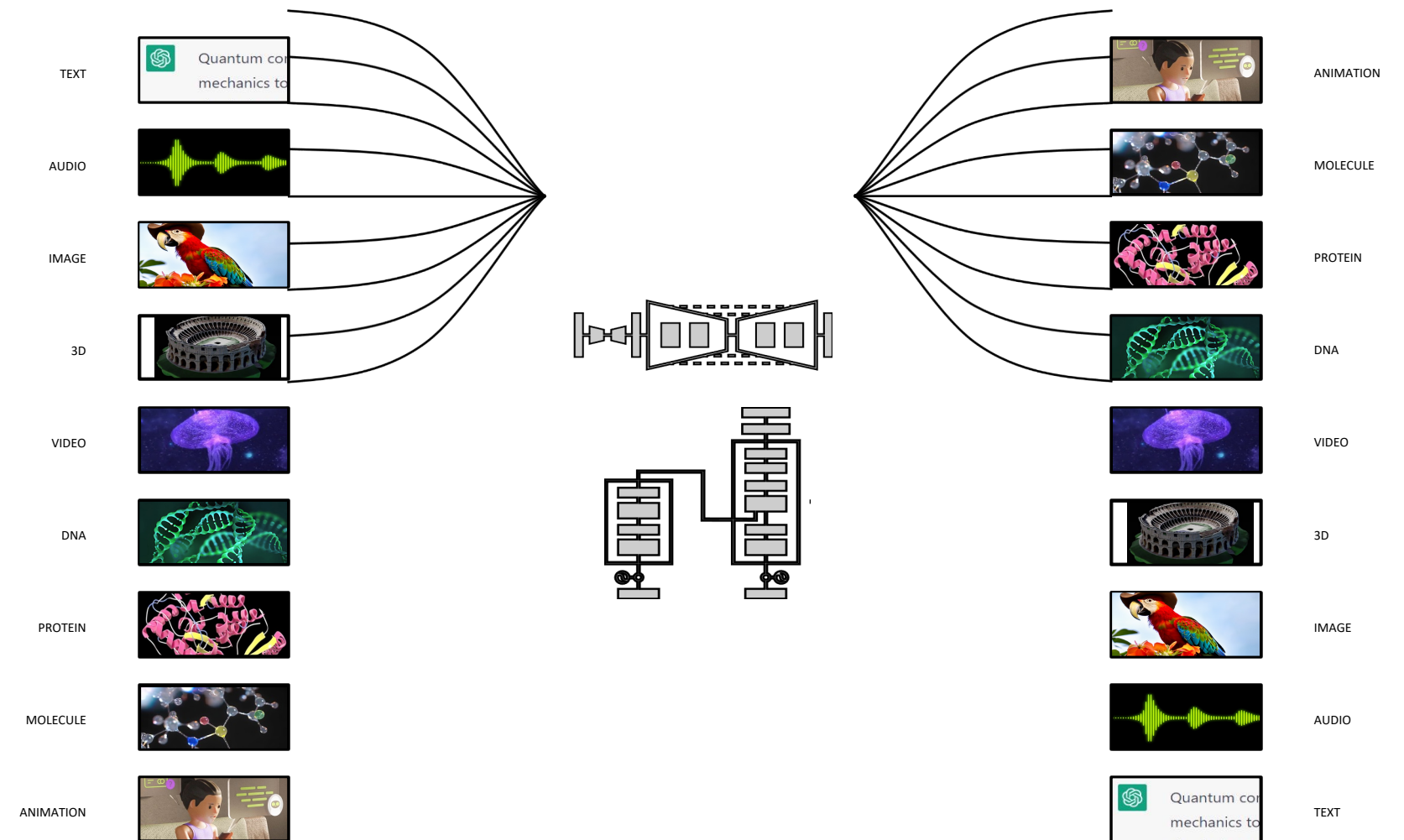
# What's the Hype?

Generative AI is here

## Key Players



## Generative AI Possibilities



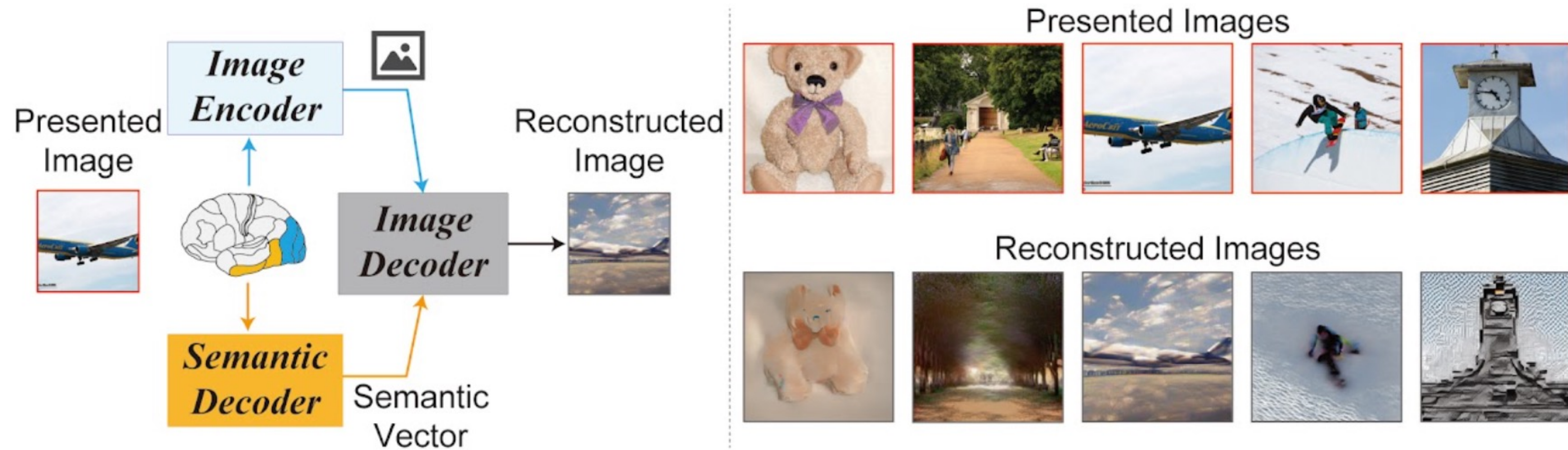
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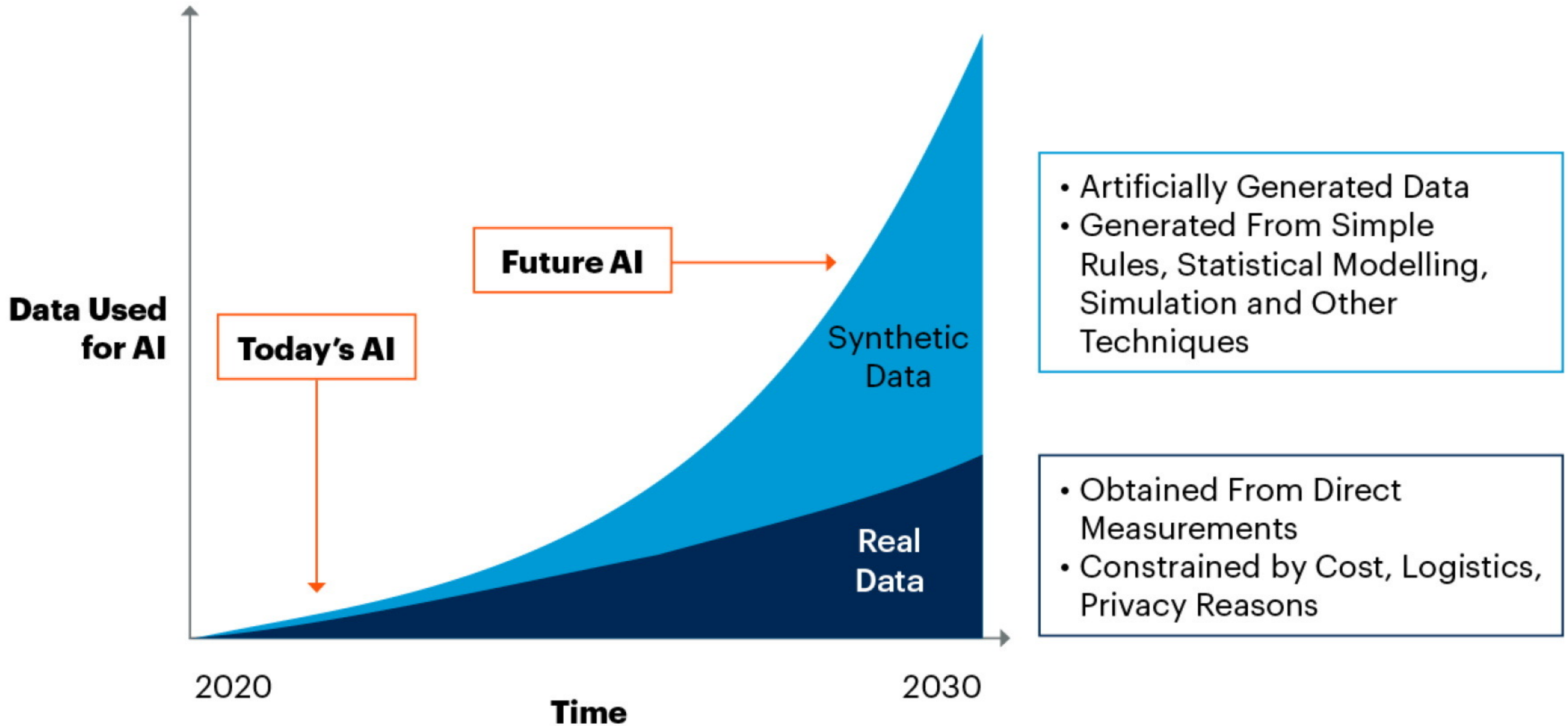


Left: Overview of our framework. Right: Presented images (redbox, top row) and images reconstructed from human brain activity (grey box, bottom row).





# By 2030, Synthetic Data Will Completely Overshadow Real Data in AI Models



Source: Gartner  
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