

Google Cloud's AI Platform



Merlin Yamssi

AI Partner Engineering Lead,
Google Cloud



Google Cloud

Google has pioneered AI Innovation for 25+ years



Google DeepMind



Alphabet



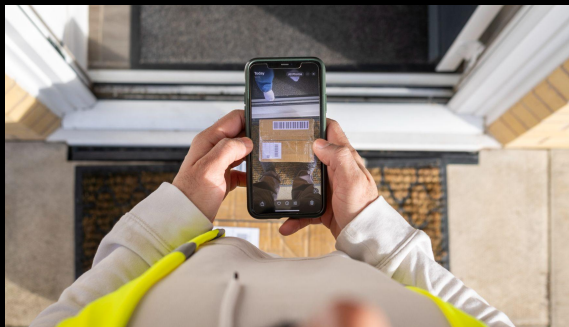
Stay at the cutting-edge with pioneering AI and deep learning models and hardware

Leverage our global scale in delivering AI products and experiences to billions of consumers worldwide

Bringing the future forward by applying AI to 10x problems

We are entering a new era of AI innovation and adoption

Key trends



Multimodality and thinking models

Interact with images, video, and audio in addition to text.



Agentic workflows

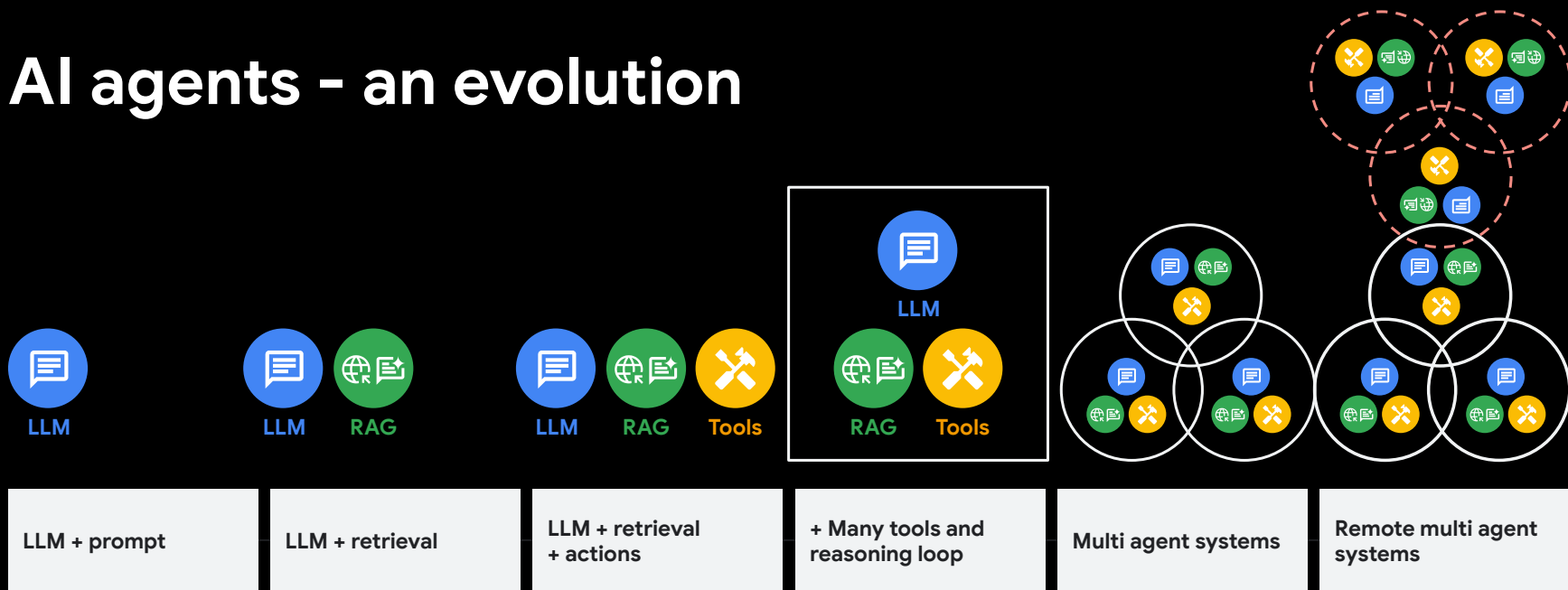
Reasoning, planning, and memory with autonomy to make decisions and adapt.



Knowledge frontier

Reimagining how employees and AI find, access, and interact with information.

AI agents - an evolution



What is next?



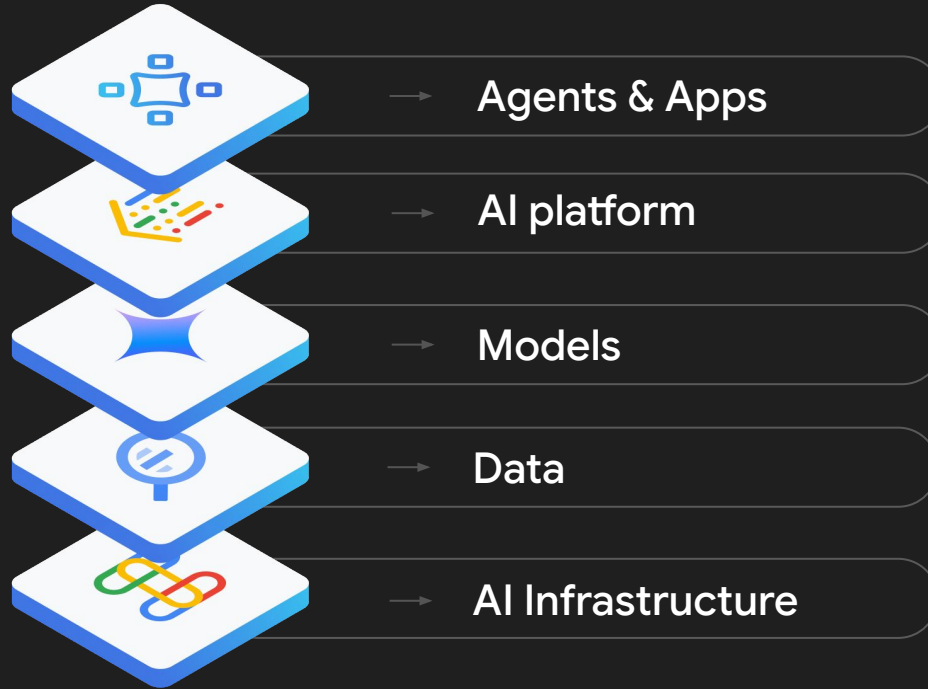
AI agents are
the next
frontier



Google Cloud is
uniquely positioned
to help organizations
transform their business



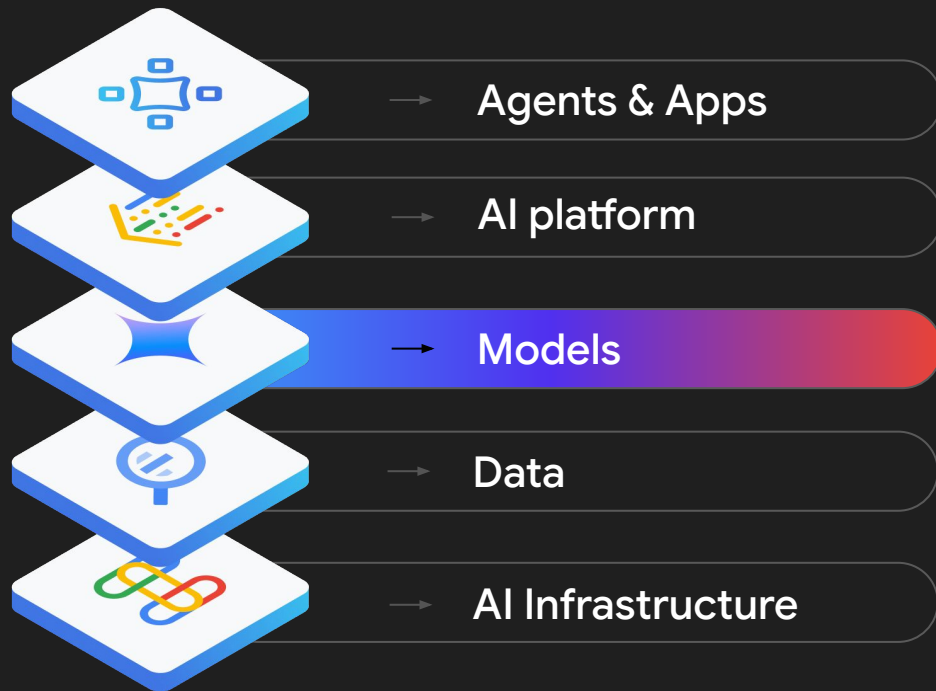
Google Cloud's AI-optimized stack



Secure, enterprise-ready foundation



AI-optimized stack



Secure, enterprise-ready foundation



Shifting to an era of action

UNDERSTANDING

Gemini 1

THINKING

Gemini 2

ACTION



Introducing Gemini 3

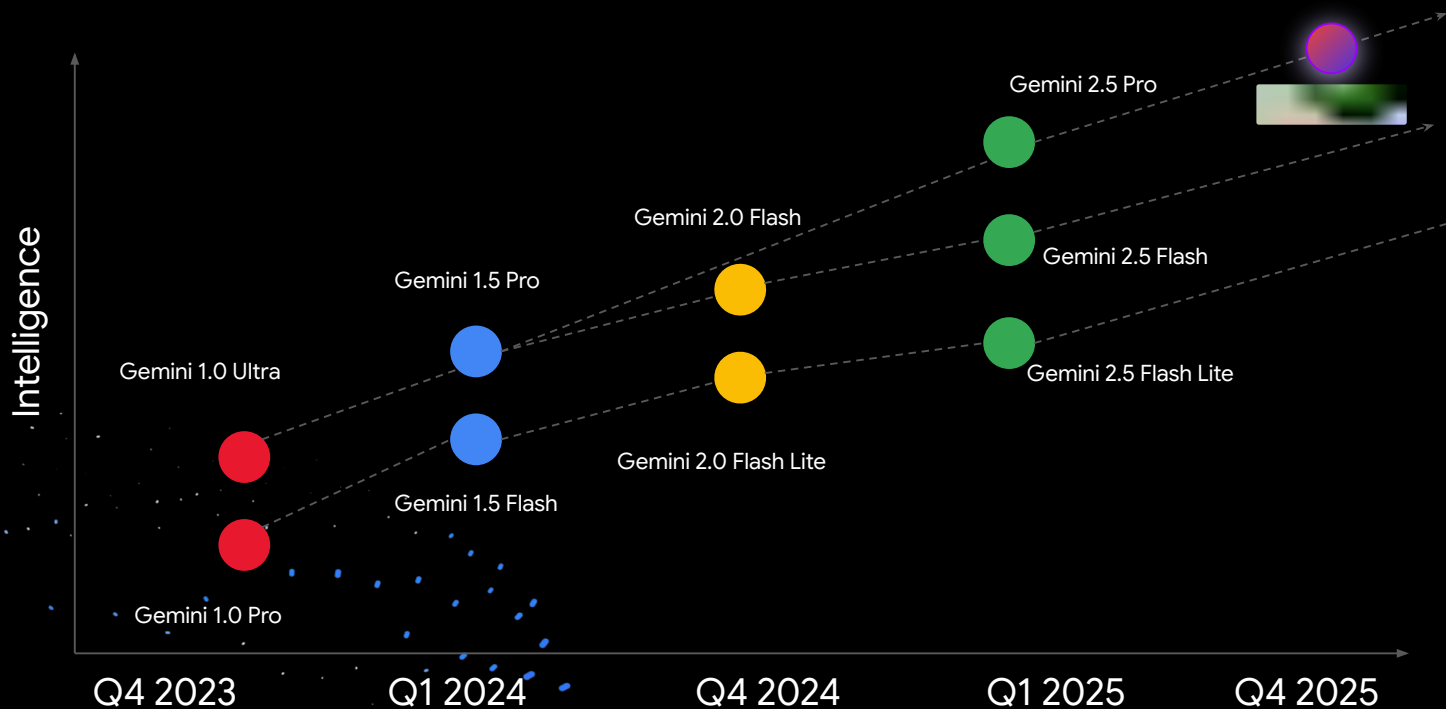
Our most powerful model yet, built on a foundation of agentic reasoning & multimodality

SOTA Reasoning & Multimodality

Agentic Coding

Advanced Tool Use & Planning

Each generation of Gemini redefined the standard for the amount of intelligence you can get at each tier for performance



Generative Media on Vertex AI

Image



Gemini Flash Image & Imagen

High quality image
generation and editing

Video



Veo 3

Exceptional video generation, editing and
advanced camera controls

Audio



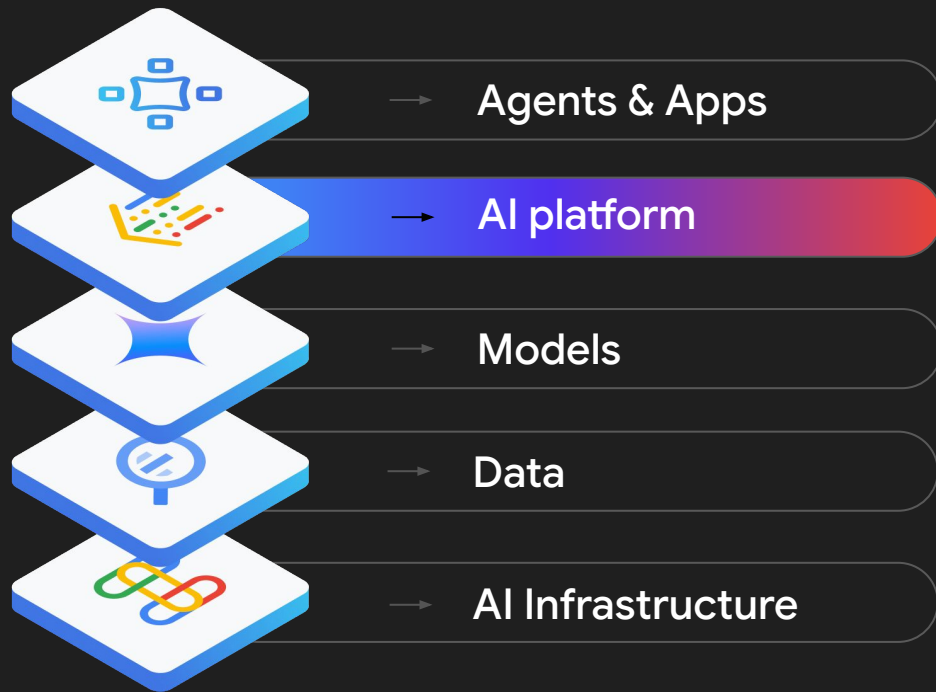
Gemini Live, Chirp, & Lyria

High quality music
Multi-speaker voices and
voice cloning



Gemini - analyze, enhance prompts, create stories

AI-optimized stack



Secure, enterprise-ready foundation



Developers

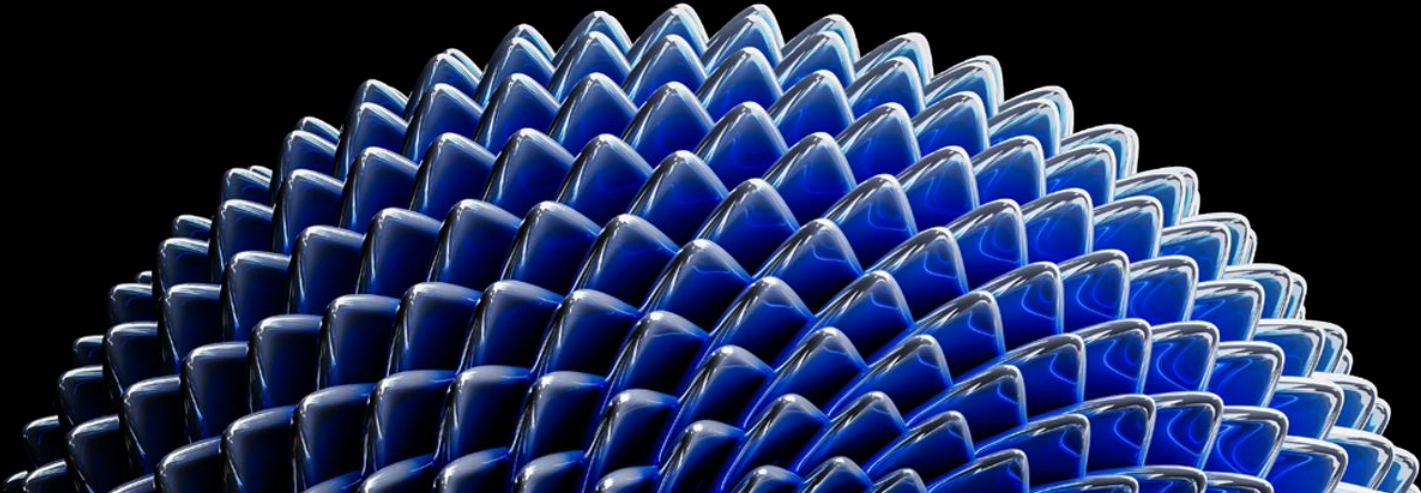
9M+

are building
with Gemini

Vertex AI

20X

Usage increase
year-over-year



AI Applications

Vertex AI

Models

Grounding,
Connectors,
and Tools

Discover, build, and
deploy agents

Governance & Orchestration

Security

Infrastructure

Data

200+ models in the Model Garden

Google Cloud is the only hyperscaler to offer state-of-the-art **MaaS open models** from all major labs including OpenAI, Meta Llama, Alibaba Qwen, and DeepSeek



Gemini 2.5



Imagen 4

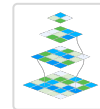


Veo 3

Chirp 3

Lyria 2

Embeddings API



Science models

Text and multimodal Embeddings



Claude 3.5, 3.7, 4, & 4.5



Llama 3.1, 3.2, and 3.3, & 4



Large, Nemo, Codestral



Jamba



Allen Institute



Gemma

Gemma



Hugging Face



gpt-oss



Qwen

Qwen 3



deepseek

Deepseek

Model Launchpad for partners to self-deploy models on Vertex AI

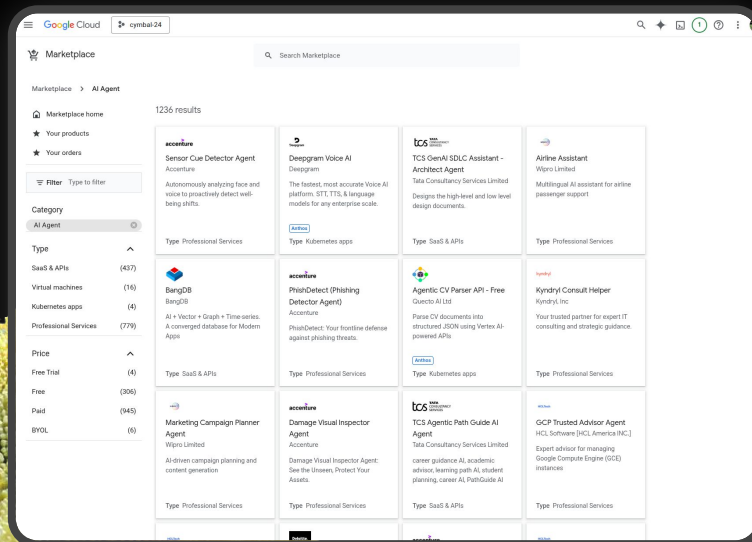
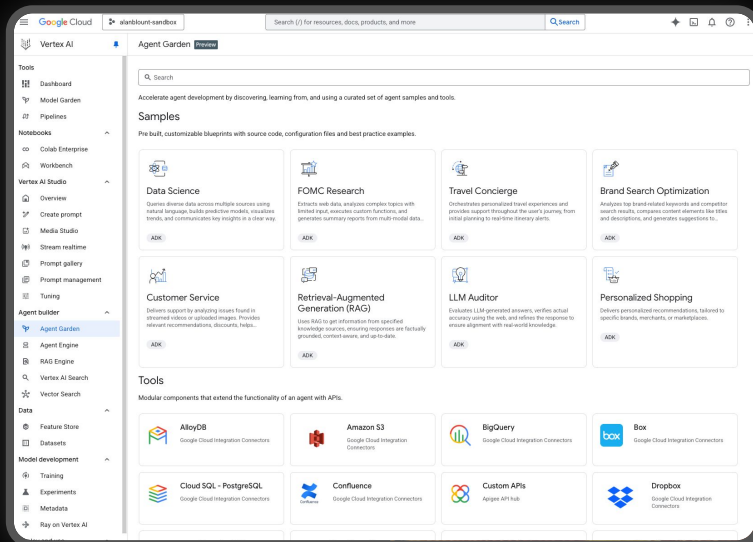
Start building faster with agents

Vertex AI Agent Garden

Discover agent samples and tools, Learn by example, **Components** for your multi-agent systems, **Get started** with source code in GitHub

AI Agent Marketplace

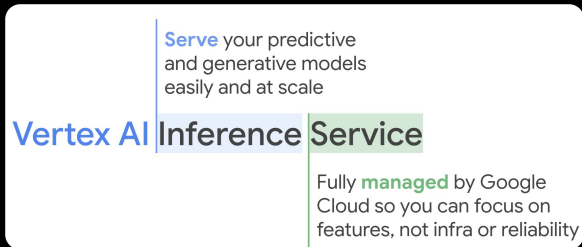
Open platform for enterprise customers to find, buy and deploy 3p AI Agents



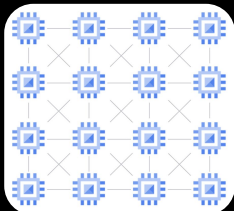
Future-proof your AI workloads with Vertex AI

Build & Serve

Custom model training & inference powered by scalable, managed infrastructure



Vertex
Training



Connect

Connect models & agents to enterprise data and up-to-date world knowledge



Grounding with Google Search and Maps



Grounding on your own data and with 3p data



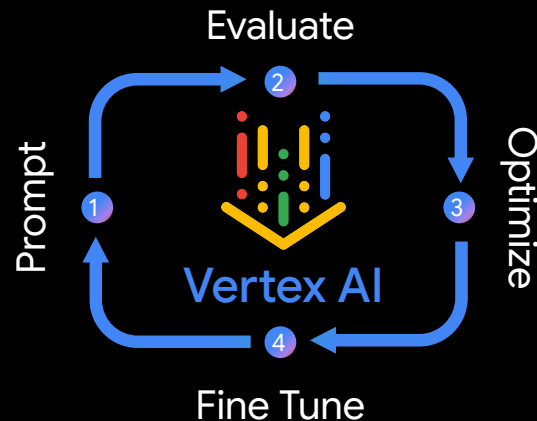
Vertex AI Search

RAG Engine

Search Builder platform

Operate

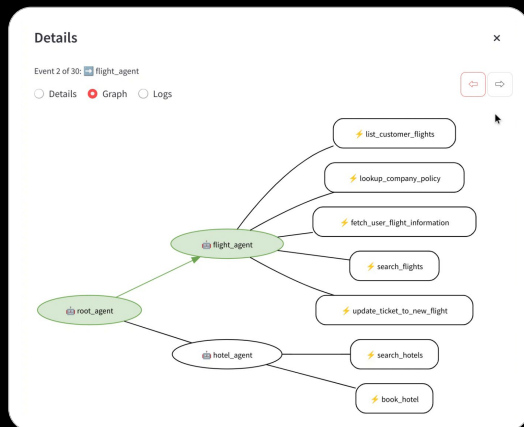
Tailor for every use case by prompting, tuning and evaluating with your data



Google Cloud is leading the way in agent building standards

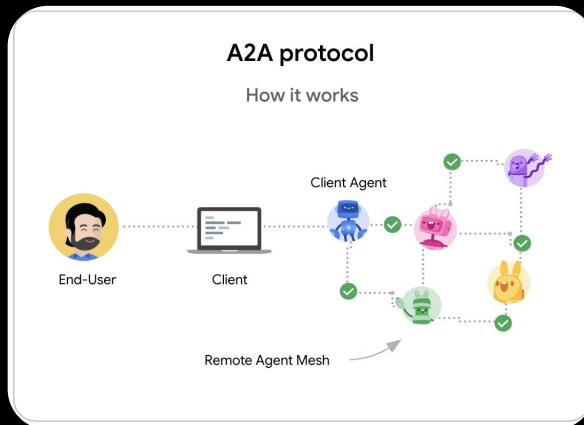
ADK

Agent Development Kit is an open framework to build multi-agent solutions



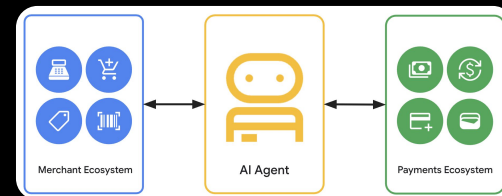
A2A

Agent-to-Agent protocol is the open standard for collaboration between agents



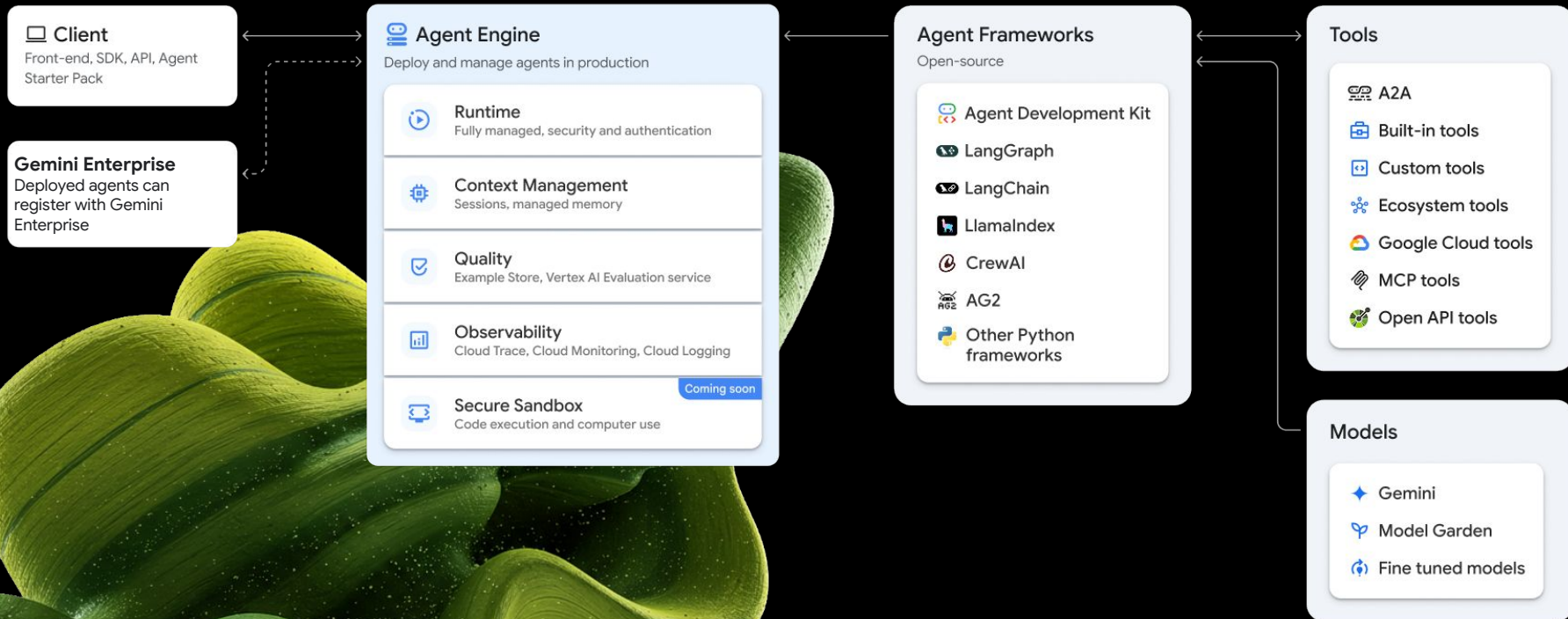
AP2

Agents Payment Protocol is the open protocol to handle agentic payments



Deploy, manage, and scale agents in production

Vertex AI Agent Engine



The logo features a stylized 'A' icon with a rainbow gradient, followed by the text 'Google Antigravity' in a white sans-serif font. The background is dark with a pattern of colorful dots in the top right and bottom left corners.

Google Antigravity

Google Antigravity is an **agentic development platform** that empowers developers to act as architects, orchestrating autonomous agents that plan and execute complex tasks across the editor, terminal, and browser.

IDE & Code

High-level orchestration
in familiar interface

Terminal & Operations

Autonomous building,
testing, fixing

Browser & Preview

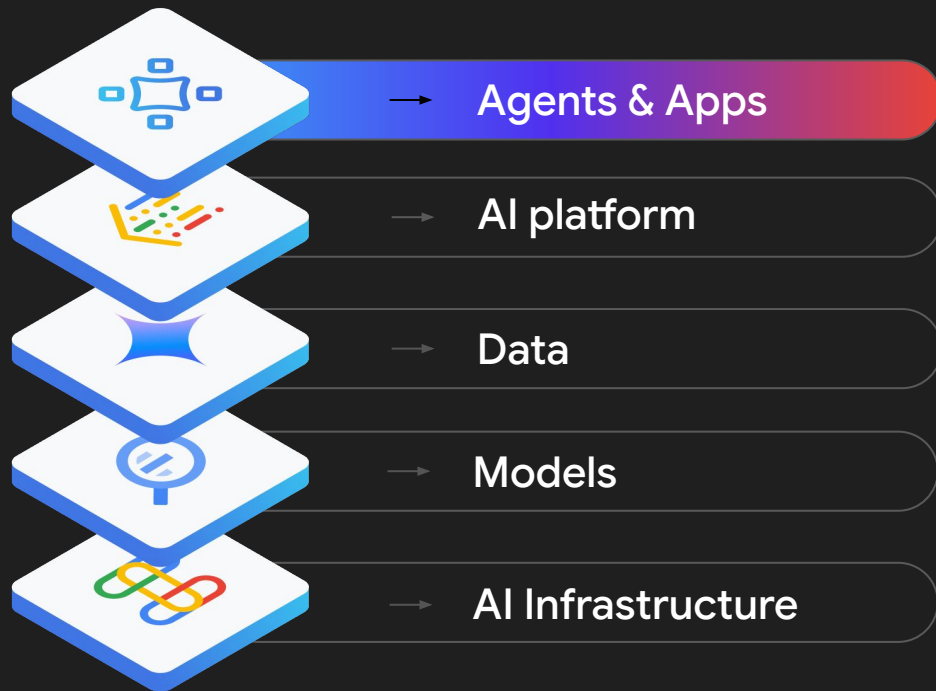
End-to-end execution &
verification

Gemini Native Foundation

Gemini 3 Pro Reasoning

Gemini 2.5 Computer Use

AI-optimized stack



Secure, enterprise-ready foundation



AI & Agriculture



The Digital Harvest

Sowing the Seeds of a Sustainable Future with AI

Merlin Yamssi, Google Cloud

Our Planet's Triple Challenge



60% Increase in Food Demand
by 2050, as global population grows.



Increasing Climate Strain
on production, with unpredictable weather, droughts, and floods becoming the new normal.



Rising Regulatory Complexity
for food traceability and sustainability, with new rules like EUDR and FSMA.



“Agriculture is stepping into a new era, one that is deeply driven by data, predictive AI, Generative AI technologies... a disruptive phase where digital tools are reshaping traditional farming methods.”

— Professor Serge Miranda, ESTIA Institute of Technology

The AI-Optimized Stack for Agriculture



Agents & Apps

Delivering critical insights directly to the field.

AI Platform (Vertex AI)

To build, deploy, and manage custom agricultural models.

Models (Gemini)

World-class intelligence to see patterns and predict outcomes.

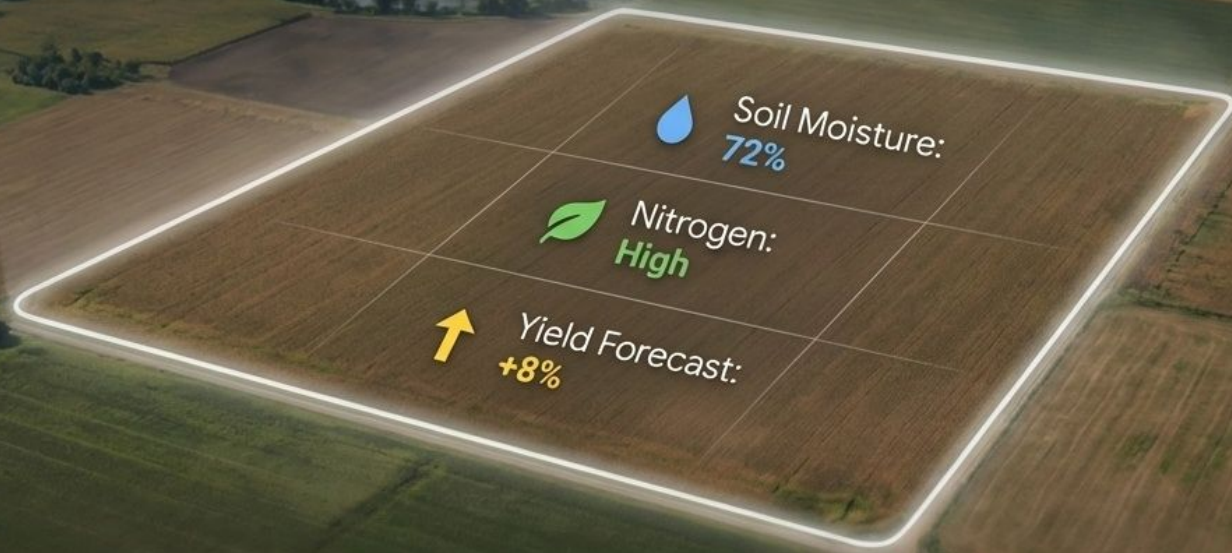
Data

Unifying all agricultural data, from sensors to satellites.

AI Infrastructure

The power to compute at planetary scale.

The Field is the Atomic Unit of Agriculture



Generating agricultural insights at an individual field level is critical to a meaningful change in the agri ecosystem.



A Living Lab: The DEEP FARM Project

- An Erasmus+ collaboration advancing data-driven agriculture through education and innovation.
- Pairing students with agronomists to build real-world digital farms.
- Leveraging Google Cloud for hands-on experience with cutting-edge technologies.



Erasmus+



ESTIA



Google Cloud

Powering the 5 'P's of Modern Farming



Production

Achieve full supply chain visibility and transparency with **Blockchain** and **Cloud SQL**.



Prevention

Enable early disease detection and risk mitigation using **Vision AI** on drone and satellite imagery.



Prediction

Forecast water availability and weather events with **Earth Engine** and **WeatherNext**.



Personalization

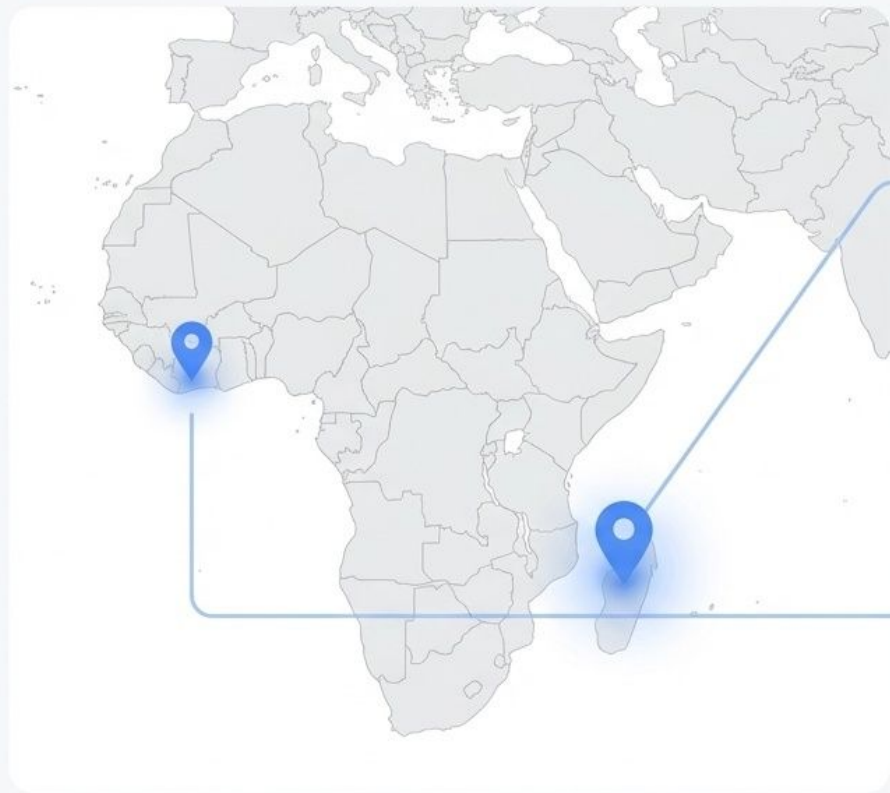
Deliver customized advice to farmers through virtual assistants built on **Gemini**.



Precision

Optimize resource use like irrigation and inputs with **IoT Core** and **BigQuery ML**.

From Madagascar to the Ivory Coast



In Madagascar, students use **BigQuery** and **Earth Engine** to tackle a critical rice yield gap.

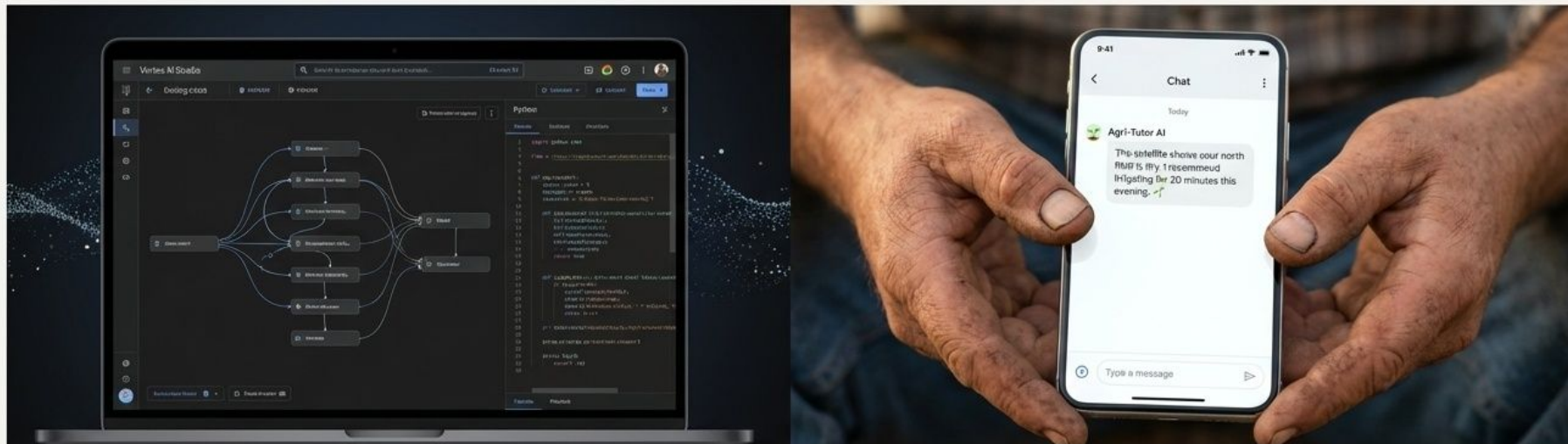
The world average is 4.8 tons per hectare; in Madagascar, it's just **2.45 tons**.

This isn't an academic exercise—it's about global food security.



In the Ivory Coast, teams are applying the same principles to ensure sustainable cacao farming.

The Future in Their Hands: The Virtual Agricultural Tutor



Empowered by **Generative AI on Vertex AI**, DEEP FARM students are building 'Virtual Tutors'—AI assistants that provide personalized, expert advice to farmers, scaling expertise directly to their phones.

**“In an apple, you can count
the seeds, but in a seed, you
you cannot count
the apples.”**



— Gascon Proverb,
via Professor Serge Miranda

Join the Digital Harvest



Explore Solutions

Discover our AI tools for the entire agricultural value chain.



Partner with Us

Work with our experts to solve your biggest challenges.

Thank you

Google Cloud

