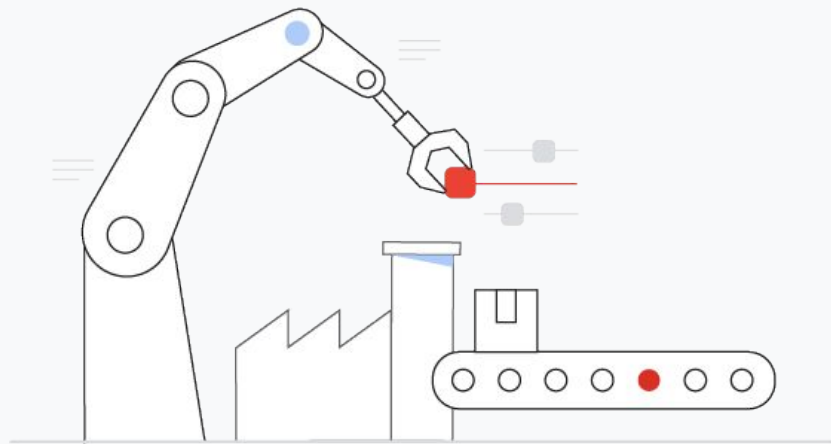
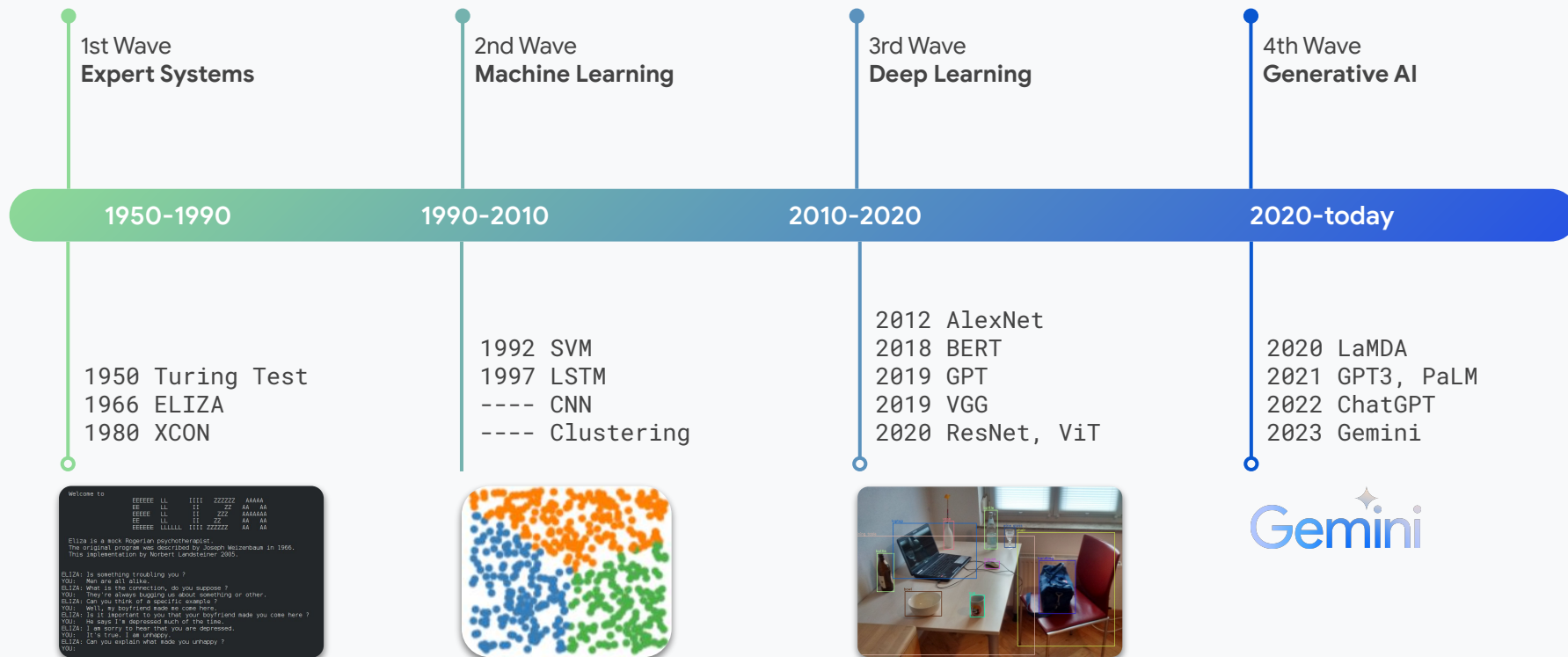


# Hey Google, What's up in AI?



# Timeline of AI Advances



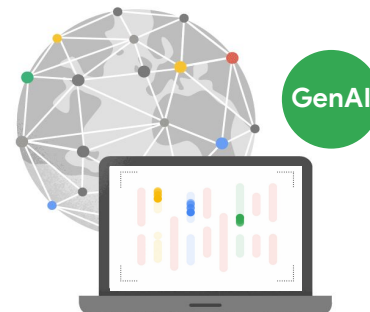
# Predictive & Generative AI

## Predictive AI



- Train expert ML models
- Extract and infer/forecast data
- Decision-making agents

## Generative AI



- Apply and tune foundation models
- Generate and describe data
- Problem-solving agents

# Gen AI holds immense potential for **productivity gains** in the manufacturing industry

**\$170-290B**

value potential in Advanced Manufacturing

↓ Leading to

**7%-27%**

impact of Gen AI as a proportion of  
the manufacturing industries' EBIT



## Productivity Gains



**Customer  
Service**

**+30-45%**  
of current servicing costs



**Marketing**

**+5-15%**  
of total marketing spend



**Software  
engineering**

**+20-45%**  
of current annual spending



**R&D**

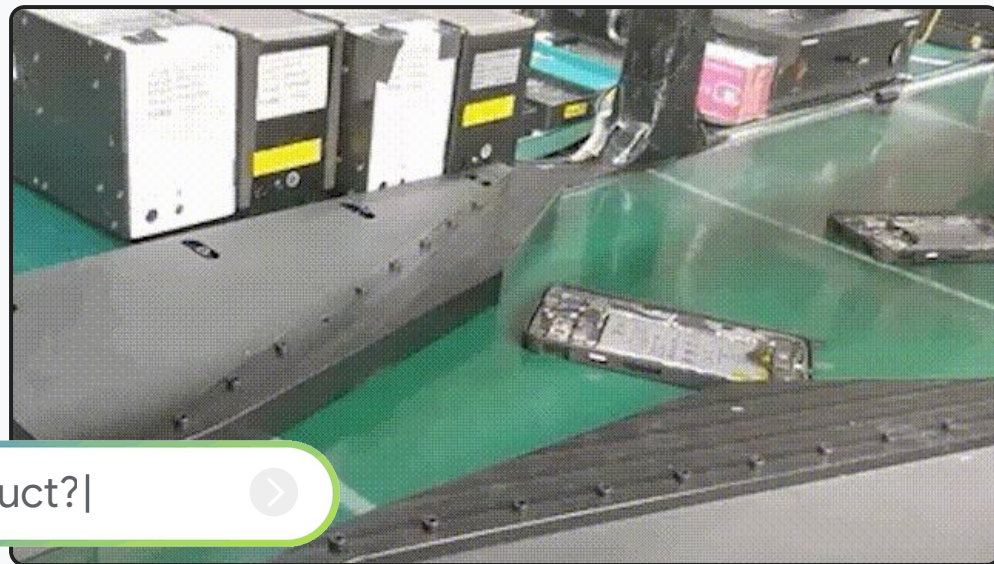
**+10-15%**  
of overall R&D costs

**What**  
**is possible today?**



# Google AI helps identifying defects

✦ What is the quality of my product?|



# Reconstruct indoor spaces from photos



✦ Show my restaurant in 3D|

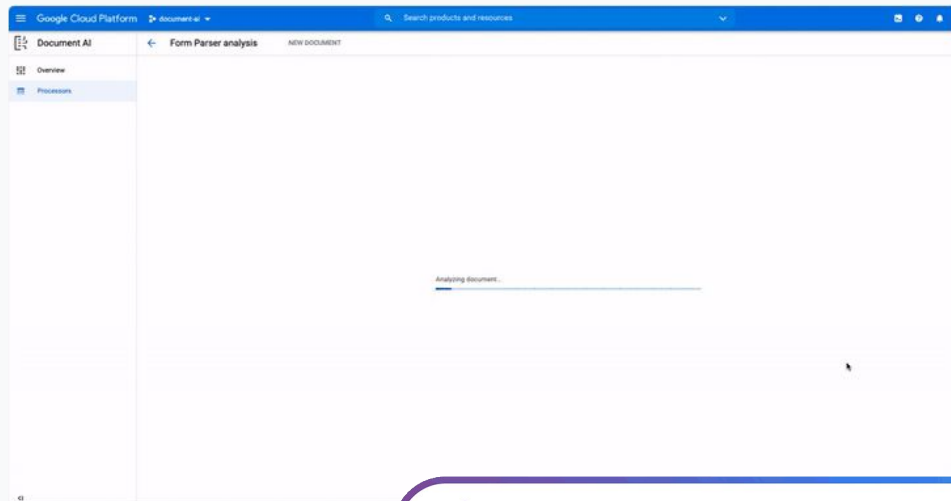
## Google AI saves 20% of energy in spray cabins



How to save energy in my paint shop?|







Document AI turns your documents into searchable data



How to find the needle in the haystack?

Interact with  
your documents  
in a natural way

The screenshot displays the NotebookLM web interface. On the left sidebar, the 'Sources' section shows a document titled 'google-2023-enviro...' selected. The main area is titled 'Untitled notebook' and features a 'Notebook guide' section. This guide includes a 'Generate' row with five buttons: 'FAQ', 'Study guide', 'Table of contents', 'Timeline', and 'Briefing doc'. Below this is a 'Summary' section containing a paragraph about Google's 2023 Environmental Report. To the right of the summary is a 'Suggested questions' section with three prompts. At the bottom, there is a 'View chat' button, a source indicator showing '1 source', a text input field 'Start typing...', and a 'Notebook guide' link. A disclaimer at the very bottom states: 'NotebookLM may still sometimes give inaccurate responses, so you may want to confirm any facts independently.'

NotebookLM EXPERIMENTAL

Untitled notebook

Sources

Select all sources ☒

google-2023-enviro... ☒

\* Notebook guide

Generate

FAQ

Study guide

Table of contents

Timeline

Briefing doc

Summary

Google's 2023 Environmental Report details the company's commitment to environmental sustainability through three core pillars: **empowering individuals, collaborating with partners, and ensuring operational sustainability.** The report highlights Google's "gigaton aspiration," which outlines their goal to **reduce emissions by 50% by 2030 and achieve net-zero emissions by 2030.** It emphasises Google's use of **artificial intelligence (AI)** to address sustainability challenges such as **optimising energy consumption, predicting extreme weather events, and promoting sustainable practices.** Additionally, the report showcases Google's commitment to **water stewardship and a circular economy,** aiming to **replenish more water than they consume and maximize resource reuse.**

Suggested questions

What are the three key pillars of Google's sustainability strategy?

How does Google measure and estimate the environmental impact of its initiatives?

What are the main challenges and opportunities Google faces in achieving its sustainability ambitions?

View chat

1 source Start typing...

\* Notebook guide

NotebookLM may still sometimes give inaccurate responses, so you may want to confirm any facts independently.

**How**  
did we get there?



QUESTION ANSWERING

ARITHMETIC



LANGUAGE UNDERSTANDING

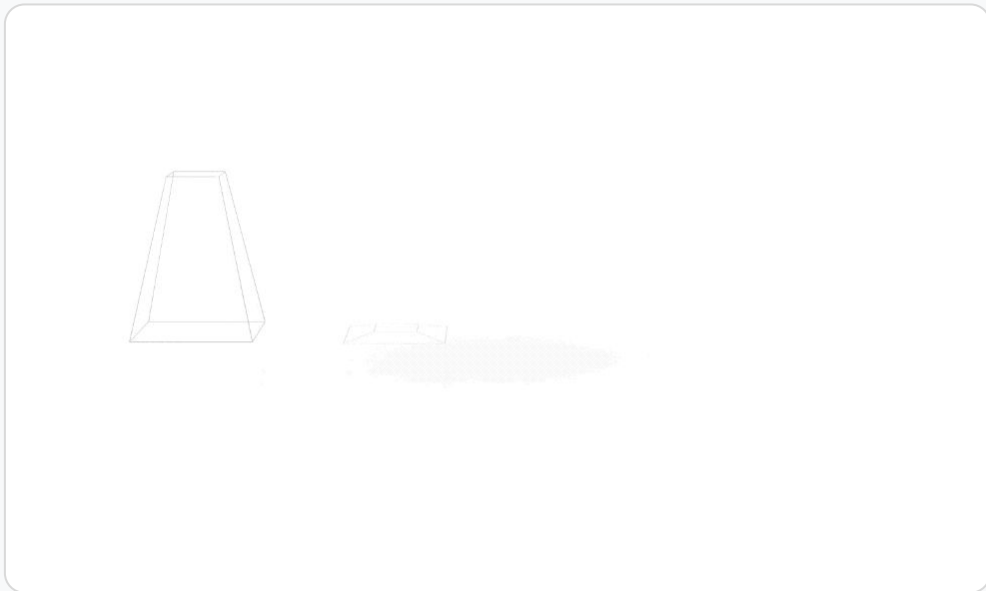
**8 billion parameters**



# The next chapter of Generative AI innovation

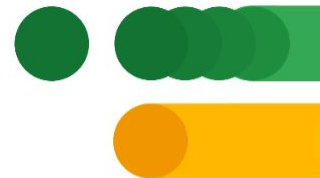


Gemini is the most capable and general model we've ever built, and is the result of a large-scale collaborative effort by teams across Google, including Google DeepMind and Google Research.



# Leverage Gemini 1.5 Pro/Flash

## 1M Context Window




tokens

**How**  
can you benefit?







# Consumers & Enterprise Customers have different needs....


**Consumers**

**Gemini Chat**

**Hello, Maximilian**  
How can I help you today?

Help me write HTML, CSS, and JS

```
<!DOCTYPE html>
html
head
<title>Image Slider</title>
<link rel="stylesheet" href="style.css">
```



Summarize the evolution of jazz

Jazz, a musical genre renowned for its improvisation, syncopated rhythms, and soulful expression, emerged from the vibrant melting pot of New Orleans in the late 19th and early 20th centuries.



Practices for improving daily interactions

- 1. Active Listening and Empathy: The Behavior: Pay full attention when someone speaks. Practice reflecting back what you hear, both in content and emotion. Phrases like "It sounds like you're..."


Draft a cover letter based on my resume

Humans review some saved chats to improve Google AI. To stop this for future chats, turn off Gemini Apps Activity. If this setting is on, don't enter info you wouldn't want reviewed or used. [How it works](#)

Enter a prompt here  

Gemini may display inaccurate info, including about people, so double-check its responses. [Your privacy & Gemini Apps](#)


**Enterprises**

**Vertex AI**

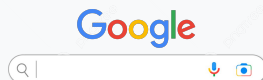
How do we control our data

How do we deal with fraud & security

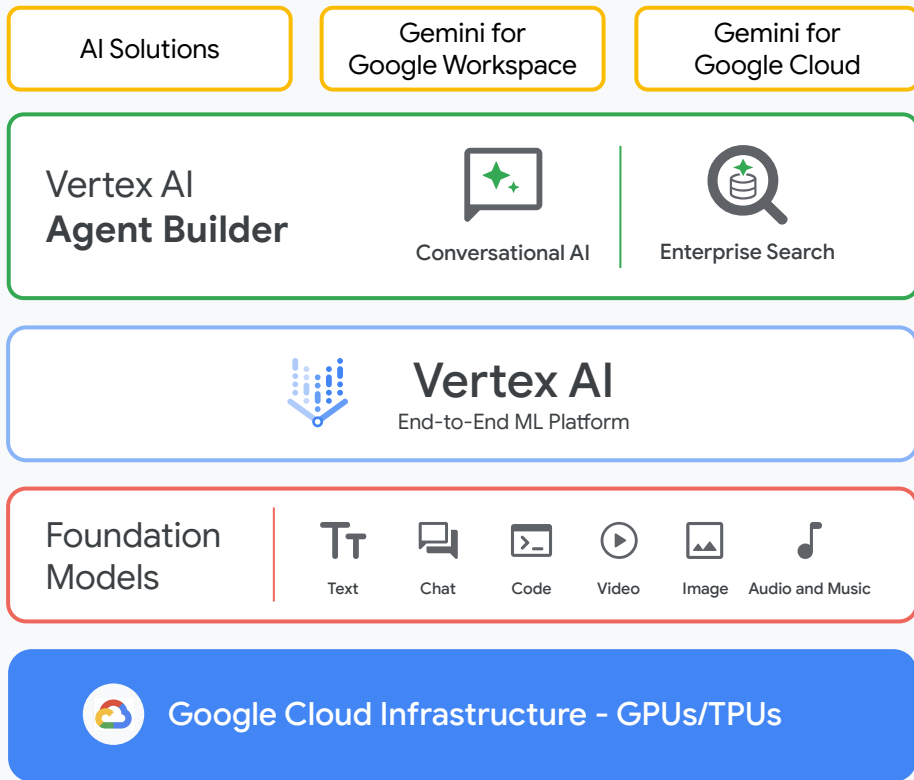
We need to be accurate & explainable

How will we control costs?

How do we integrate our existing data & applications



# Google Cloud AI Portfolio



Broad Ecosystem  
of Partners

# Deploy AI/ML in industrial applications at scale

Google Cloud AI/ML solutions can unlock **next-level efficiency** and drive **automation** across use cases

---

## Predictive Maintenance

Predict part failure and recommend service

---

## Logistics AI

Scheduling and routing optimisation

---

## Quality Prediction

Use inline process parameters to predict quality of product

---

## Vision AI

Detect defects and monitor quality control and factory safety

---

## Generative AI

Discover and search your product catalog and generate content

---

## Adaptive Controls

Process manufacturing control optimization



# Thank You

Google Cloud