

Google Cloud

# AI and Generative AI: Impacting our Future

A Future of Supply Chain & Logistics Conversation



Leticia Álvarez

Director, Strategic Industries, Supply Chain & Logistics  
Google Cloud



It's all about GenAI.  
But why?

# The headlines today are AI-heavy. (and some even AI-made)

Proprietary + Confidential

ACTUALIDAD LOGÍSTICA

## Inteligencia artificial y logística: Casos de éxito de su implementación

Los casos de éxito son una muestra del potencial de esta tecnología para transformar la industria



The Economist

Menu Weekly edition The world in brief Search

Science & technology | Generative AI

Large, creative AI models will transform lives and labour markets

## Más inteligencia artificial y menos incertidumbre en la cadena logística

IA en una plataforma de análisis automatizada para optimizar los procesos de previsión de la demanda, gestión de inventarios y aprovisionamiento.

LORENA POLO / TERCER MILENIO NOTICIA / ACTUALIZADA 13/2/2024 A LAS 05:00



Arts

Artist rejects photo prize after AI-generated image wins award



Diari de Tarragona

La revolución de la inteligencia artificial se adueña del Mobile



El Periódico

[La inteligencia artificial y el 5G, protagonistas del Mobile World Congress 2024](#)



20 20Minutos

Un exitoso Mobile abre sus puertas en Barcelona con una clara apuesta por la...

CENTROS TECNOLÓGICOS / ESPECIAL

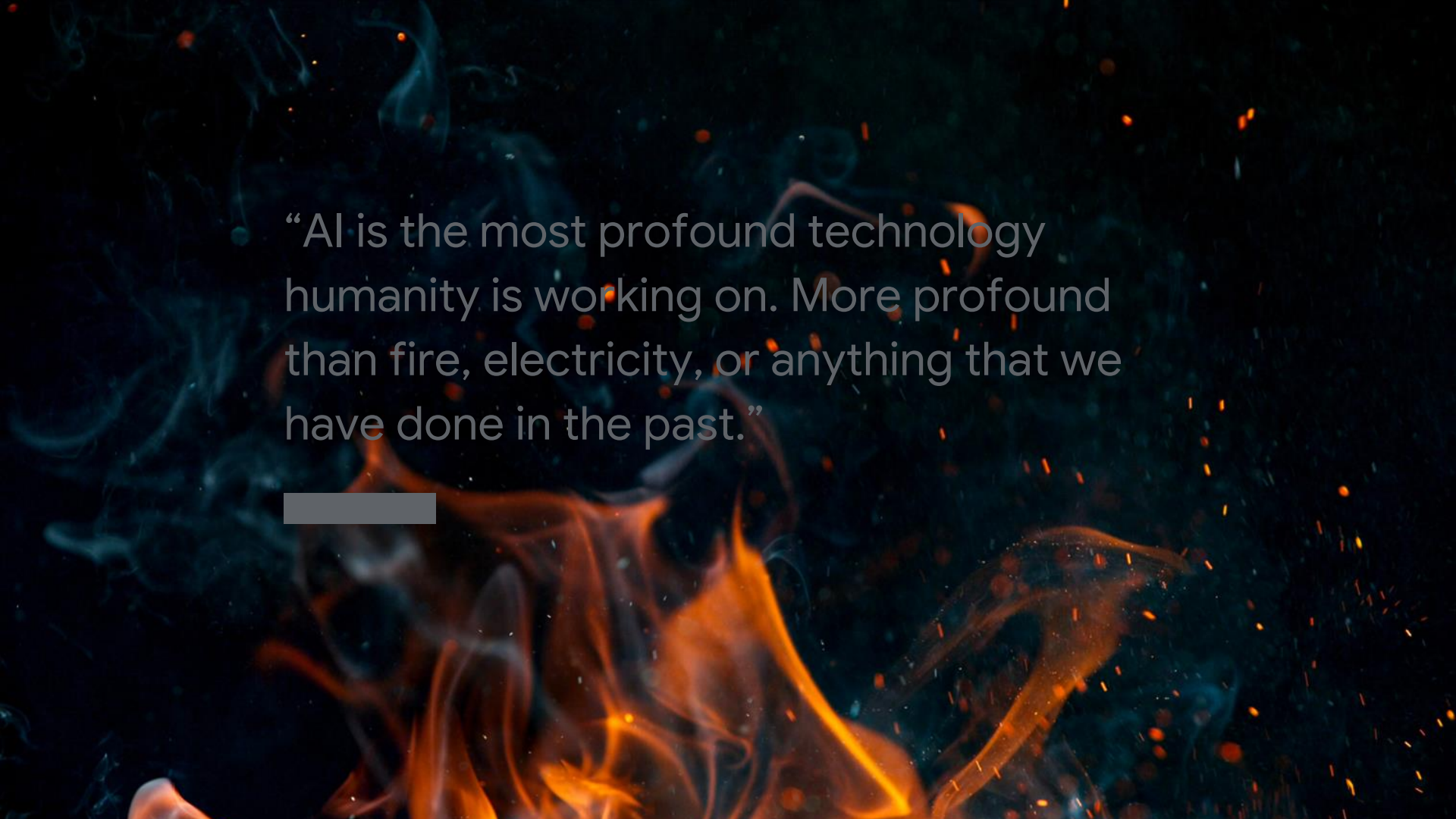
De la eficiencia a la competitividad: la inteligencia artificial "ha llegado para quedarse" en el sector logístico

Investigadores y empresas destacan la regulación o la incertidumbre como los retos a abordar en la implantación de la IA en esta industria.

***How A.I. and DNA Are Unlocking the Mysteries of Global Supply Chains***

And rather than answers, they lead us to more and more questions.

Will AI shock us?

The background of the image is a dark, almost black, space filled with dynamic, ethereal flames. The flames are primarily in shades of deep blue and vibrant orange, with wispy, smoke-like textures. Numerous small, bright orange sparks or embers are scattered throughout the scene, creating a sense of movement and energy. The overall atmosphere is mysterious and futuristic.

“AI is the most profound technology  
humanity is working on. More profound  
than fire, electricity, or anything that we  
have done in the past.”





# An AI-first Company

Sundar Pichai  
2016

**15 \* 500M users**  
**6 \* 2B users**

# IA aplicada, con responsabilidad.

Crisis support

Speech accessibility

Cancer screening

Flood detection

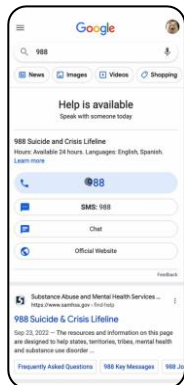
Translation

Fraud detection

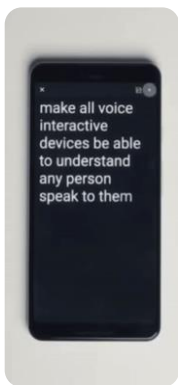
Transportation

Representation

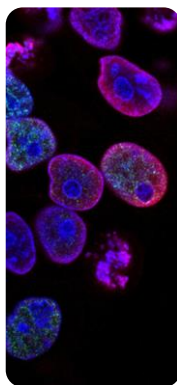
Productivity



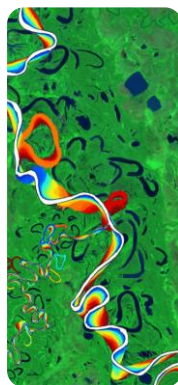
Search



Assistant



Health



Search & Maps



Lens



Google Pay



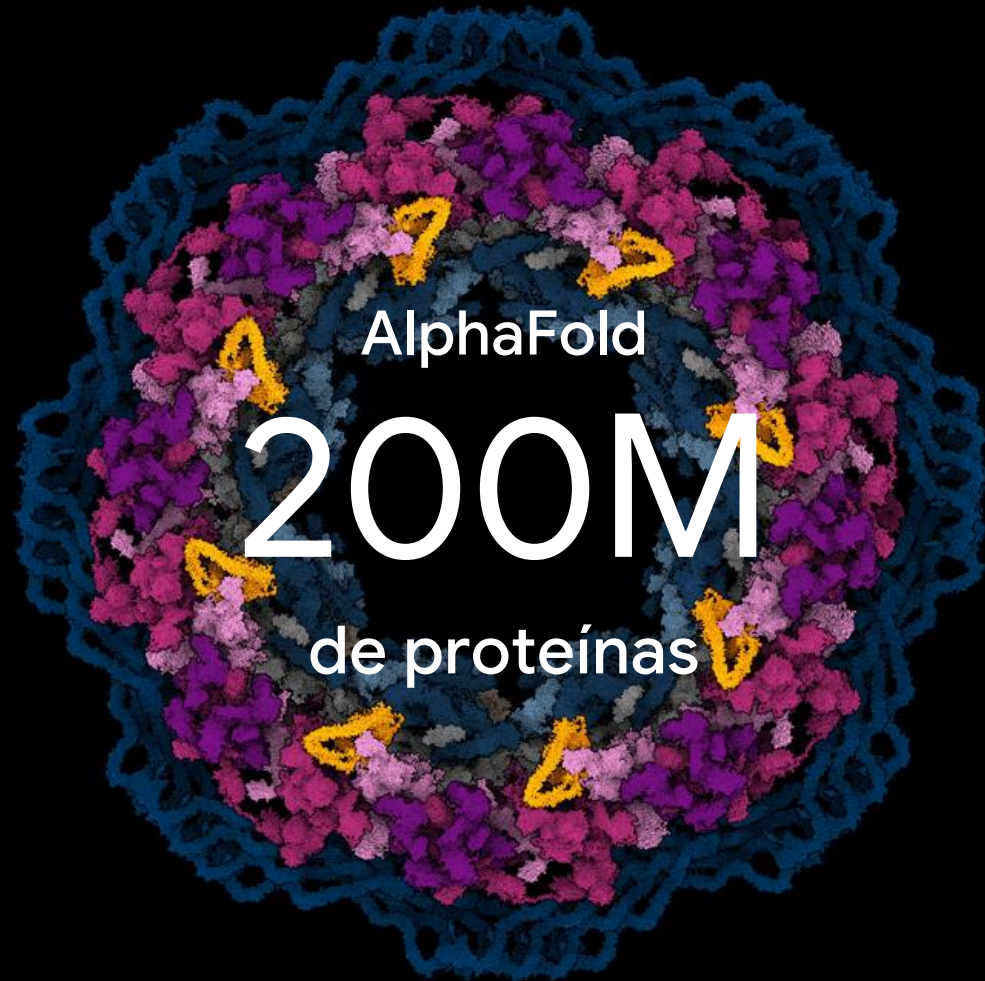
Waymo



Photos



Workspace



AlphaFold

200M

de proteínas



GNoME

2.2M

de nuevos materiales

The background features a dark blue grid with several lines of Python code written in a glowing, semi-transparent font. The code includes: 'import sys', 'def main():', 't = int(input())', 'for \_ in range(t):', 'n = int(input())', 'ans = 10 \* n', 'for a in range(1, n):', 'for b in range(1, n):', and 'if N - (a \* 6 +'.

AlphaCode 2

supera al

85%

De los humanos en  
programación competitiva



# Pioneros en la IA Generativa

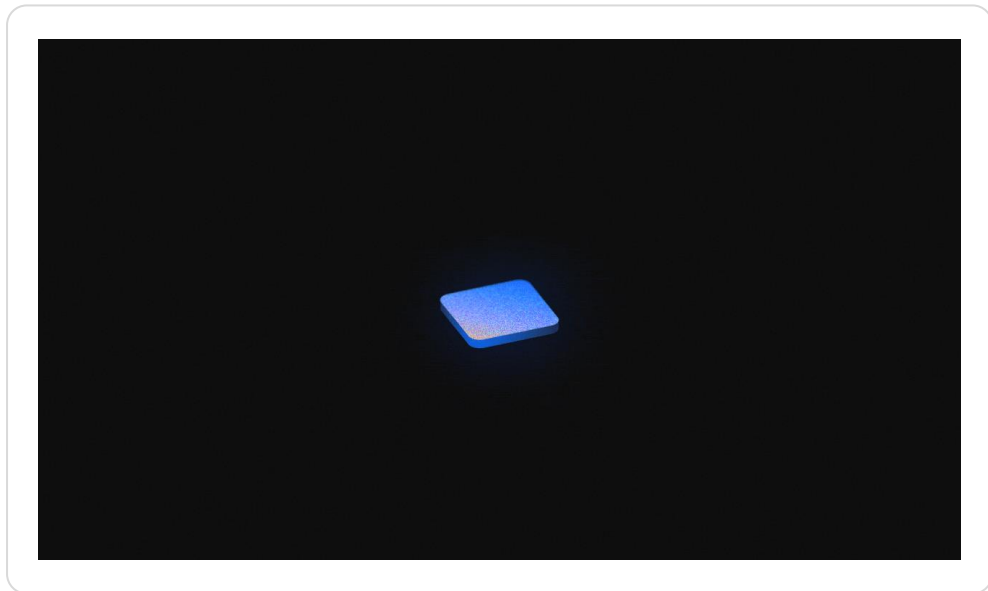
Nuestra investigación [responsable](#) ha originado los recientes avances en IA.



# The next chapter of **Generative AI** innovation

The Gemini logo features the word "Gemini" in a blue, sans-serif font. Above the letter "i" is a stylized four-pointed starburst icon with a gradient from light blue to white.

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.



# The next chapter of **Generative AI** innovation



Google Cloud ofrece todas las capacidades necesarias para la nueva era multimodal con Gemini

Búsqueda

Conversación

Herramientas

Descubrimiento

Ajuste y  
Extensión

Seguridad

Despliegue

Catálogo de Modelos + Plataforma Data

# Logistics is becoming more complex, expensive, and riskier



## Increasing cost pressure

**3-4%**

Post-pandemic slowdown is challenging for the logistics industry, bringing lower profits and closures, after a few years of VC investment and M&A<sup>1</sup>



## Limited progress on managing interruptions

**\$184M**

Cost of supply chain disruptions per company in 2021<sup>2</sup> as even logistics players are hampered to change by unions pressure, asset dependency etc



## Internal hurdles to digital transform

**40%**

Cite as the biggest hurdle to digital transformation is skills and people shortage, followed by legacy mindset<sup>3</sup>. 52% of tasks are expected to involve AI by 2025<sup>4</sup>



## Lack of global free flow of goods

**15%**

Of costs of import to non-partner countries are accounted for by customs clearance, limiting trade outside partner countries<sup>5</sup>



## Rising Sustainability Responsibility

**96%**

Of major companies target their scope 3 emissions, majority of which is accounted by logistics and transportation<sup>6</sup>



# Generative AI

What might it mean for  
the future of supply chain & logistics?



Text



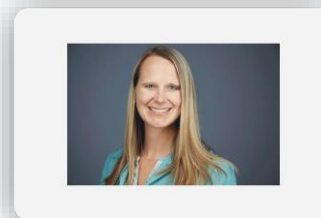
Code



Audio



Images



Videos



# Use intelligence for planning and operations

Create innovative supply chain solutions that solve big problems using AI/ML and data & analytics



## Demand AI & Forecasting AI

Use real time insights powered by AI to determine quickly changing demand and deliver greater supply chain visibility



## Procurement Doc AI

Reduce manual document processing by providing a cost-effective approach to data extraction for documents



## Fraud and Insurance AI

Use AI to process claims faster and to identify fraud patterns



## Assisted Order Picking

Reduce manual work by easily navigating warehouses without needing to carry extra equipment



## Pack AI

Intelligent Pack Recommendation (IPR) uses AI to show packers how to optimally pack the box for any orders



## Visual Inspection

Decrease costs for maintenance and manual inspections, improve quality control processes, and increase throughput



## Contact Center AI (CCAI)

Lower cost and improve customer service with AI that understands, interacts, and talks



## Fleet Routing AI

Create efficient delivery routes for even the most complex fleet routes and improve customer satisfaction with on-time deliveries

# Gen AI for Supply Chain & Logistics: Top Use Cases

Deliver exceptional customer experiences

## Customer Service Automation

Obtain answers with less human intervention, summarize conversations, and automate more tasks.

- Save cost through less manual processes
- Generate revenue through efficiencies
- Increase customer service and satisfaction

Drive efficient and sustainable operations

## Intra-Knowledge Question & Answer

Leverage a personal "Supply Chain Advisor" to obtain answers by gaining access to disparate data across the supply chain

- Improve customer service
- Reduce cost to serve
- Increase sales & margin
- Expedite supply chain issue identification & resolution

## Document Search & Synthesis

Develop a quick way to navigate large sets of complex contracts and supply chain documents

- Improve productivity by spending more time actioning
- Increase compliance and customer service
- Reduce cost by identifying new areas for savings

## Regulatory Compliance Automation

Continuously search and summarize key, complex regulations spanning global trade.

- Employee productivity - less time spent searching for documents & information
- Reduced risk - better understanding of which regulations are relevant

Business Value

# Customer service automation

Example only

Customers can get answers they need with less human intervention, can receive summaries of conversations, and automate more tasks.

This helps save cost by spending less time manually answering questions, generates more revenue by allowing faster time to book loads and increases customer satisfaction through personalized experiences.

Customer: I see my shipment is delayed, what are my options to get it delivered on time, or to receive adequate coverage?

Company AI: Yes, it does appear your shipment is delayed. We do not have your exact part numbers available, however, we do have compatible parts XYZ that could work for your needs. We have additional quantities on hand that we can expedite for you

Customer: That works, I would like to order the same amount as my delayed order and also cancel the delayed order.

Company AI: Your original order has been canceled, and your new order for parts XYZ has been placed, with a confirmation number of 123 and delivery date of 1/2/34.

# Intra-Knowledge Question & Answer

Example only

Supply chain professionals can get the answers they need by gaining access to competing factors to better determine the best mix of pricing and trade promotion spend.

This helps streamline daily tasks, bolster overall efficiency and effectiveness, and empower users to make better, more timely decisions.

Having their own “*Supply Chain Advisor*” on their side, supply chain professionals can quickly get answers to their questions and make better decisions.

Supply Planner: Tell me which of my SKUs are at risk of being out of stock across my network

Supply Chain Advisor: You have two SKUs at risk of being out of stock - they are XYZ123 and XYZ12345. This is a result of an unexpected surge in demand in the greater Boston area.

Supply Planner: Ok, thanks. I'd also like to see where the bottlenecks are for my raw materials - specifically, wheat.

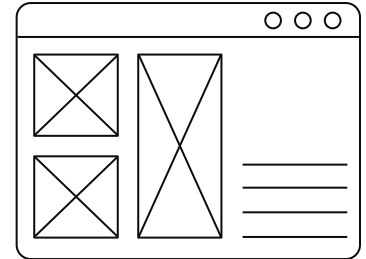
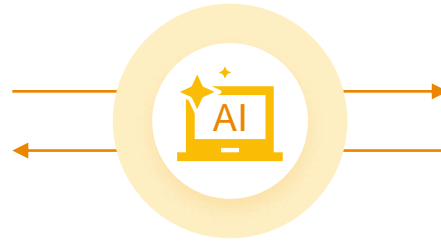
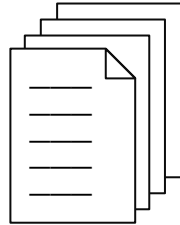
Supply Chain Advisor: Due to rising temperatures in Minnesota it appears your bottleneck is specifically in factory 123 where the production has been lower than usual.

# Document Search and Synthesis

Example only

Supply chain professionals can obtain a quick way to navigate large sets of complex contracts and documentation.

This helps improve productivity by spending less time searching for information, increases compliance and customer service and reduces costs by identifying new areas for savings across different vendors



Procurement contracts dating from 2010-2022

Summarize the scope of work and payment terms from all contracts dating from 2010-2020

Clear summary of specified areas of contract. Professional can then ask follow up questions specific to the summary

# Regulatory Compliance Automation

Example only

Companies can continuously search and summarize key, complex regulations spanning global trade. This helps streamline the efforts to ensure compliance throughout the value chain

This leads to reduced costs in risk of fines for non-compliance and a lowered risk of lost time in freight movements held for investigation of non-compliance

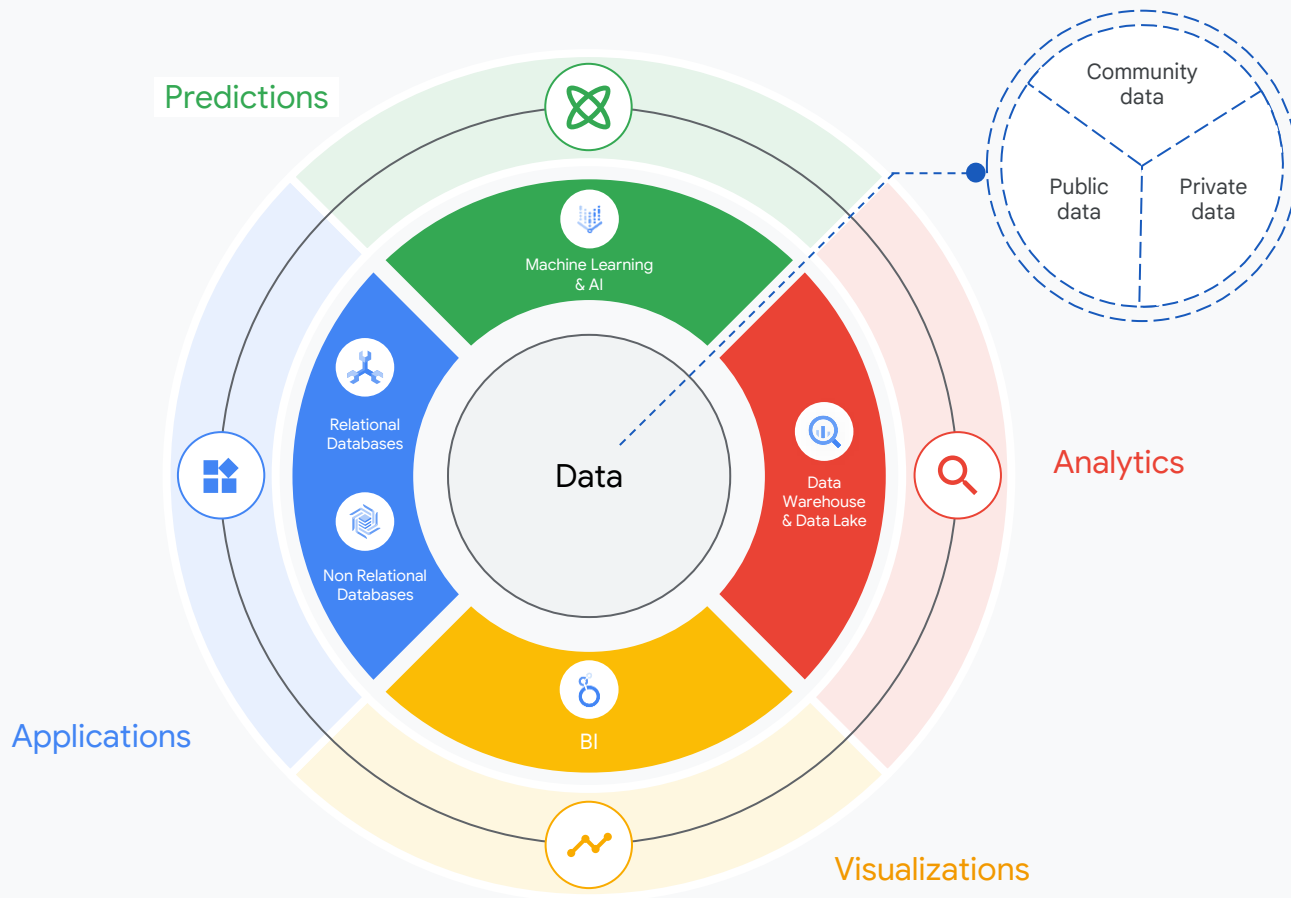
Can I package product X and product Y together in a single shipment?



No, you cannot ship these two products together because one is a flammable and combustible material and the other is considered hazardous according to the Hazardous Materials Regulation HMR; 49 CFR Parts 171-185. Here is the summary of that regulation



# Data is always the starting point of your AI journey



# Logistics and transportation firms are on a journey with Google Cloud



# Pursuing Generative AI transformation



## Identify & prioritize use cases

Evaluate business needs along with Generative & Traditional AI capabilities



## Data first strategy

Bring together disjointed data sets and strong governance to lay a solid AI foundation



## Organizational readiness

Assess your organization's current status along with costs & benefits of AI solutions



## Test and scale

Not all AI is built equal. POC often and fail fast to identify what works for your business.

# Today, the future we envision, is ready to be deployed.

Thank You!



Leticia Álvarez

Director, and AI-Generated TV Show Winner  
[Google Cloud](#)

This is a Gen AI content

Video made by text-to-video RunwayML.  
Runway is AI powered tool suite for video creators, invested by Google.

