

Intel's Journey Toward Sustainable AI

Singularity **TECHDAY** 25

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Ana Escobar

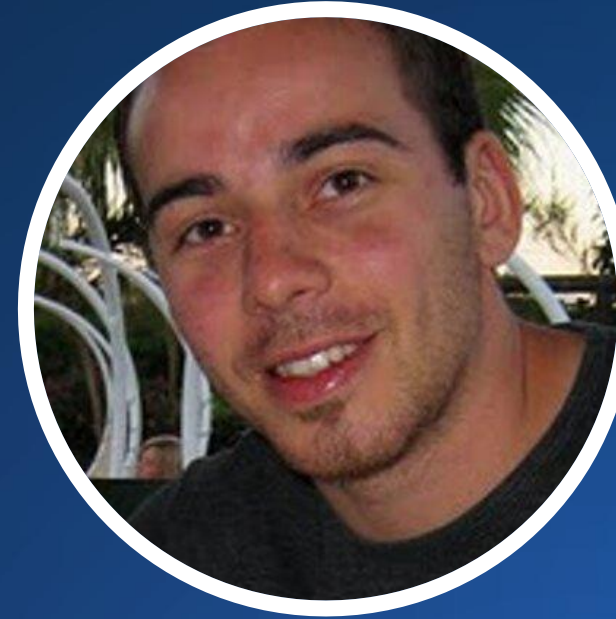
Intel: Field Applications Engineer



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The Artificial Intelligence Race



AMD



Microsoft



NVIDIA



ORACLE



SoftBank

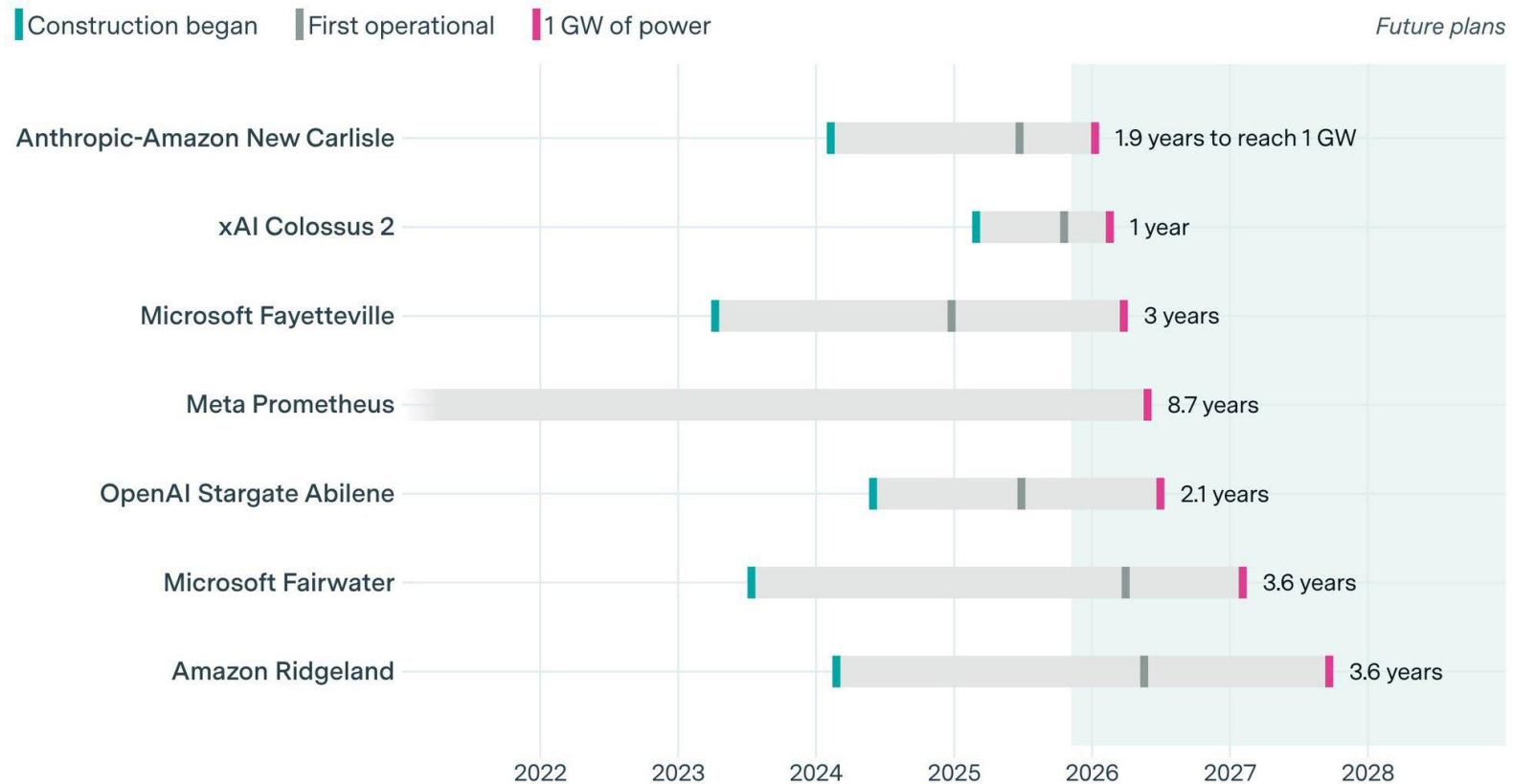


Stargate



Gigawatt-scale data centers can likely be built in 2 years

EPOCH AI



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5055

5053

5054

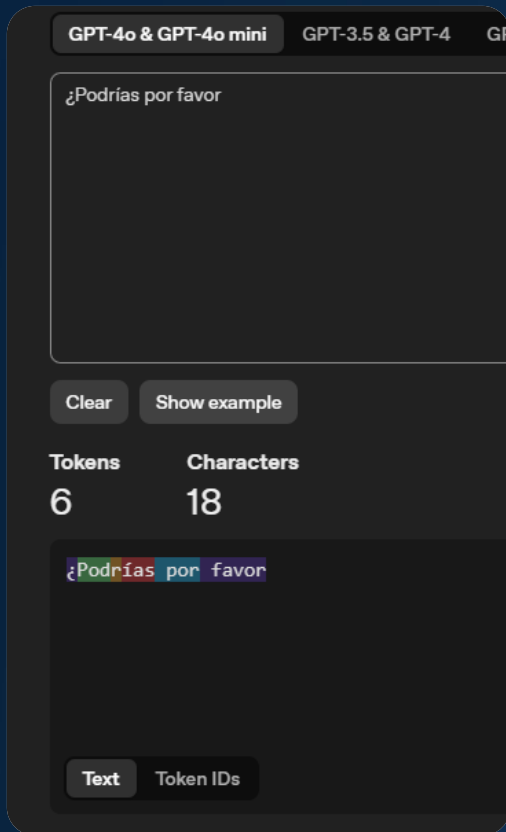
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How much it costs us when we say “Thanks” or “Please” to AI



+5 extra tokens in prompt (*input*)
+15 extra tokens in answer (*output*)
1 M “polite” queries = **\$160** extra cost

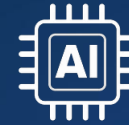
1500 M daily ChatGPT queries
60% of users are polite and formal
900 M polite queries = **\$144,000** per day

Annual cost: **\$52,000,000**

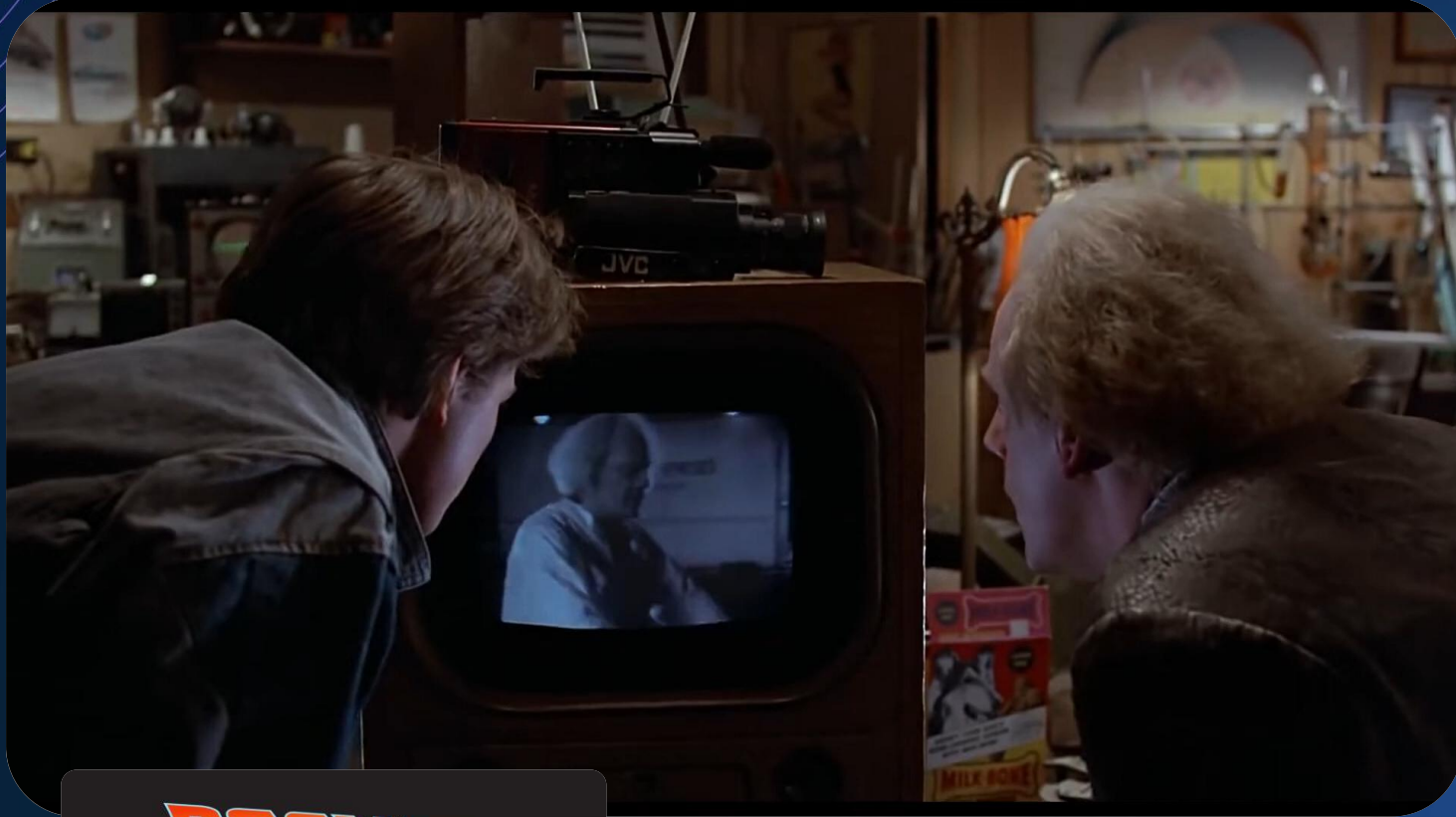


The Costs of Gigafactories

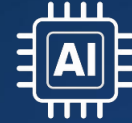
■ Amazon data center



800K – 1M Chips



**BACK
TO
THE FUTURE**

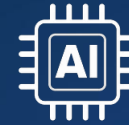


800K – 1M Chips



1 GW electricity and water

■ Amazon data center



800K – 1M Chips

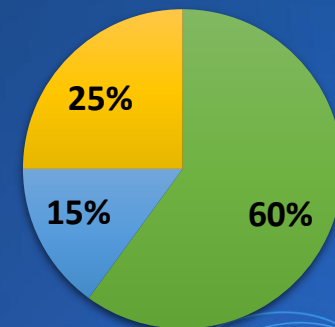


1 GW electricity and water



Cost \$50 billion

■ Chips ■ Land+Construction ■ Energy





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China offers tech giants cheap power to boost domestic AI chips, FT reports

By ReutersUpdated November 4, 2025



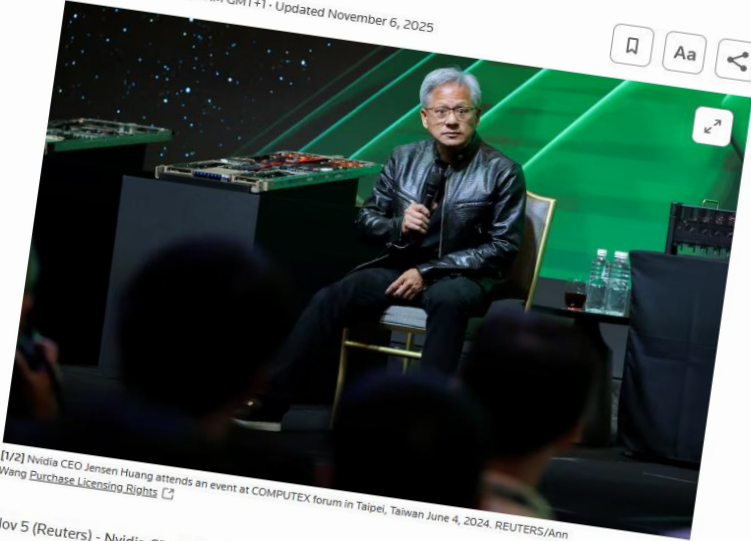


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Nvidia's Jensen Huang: 'China is going to win the AI race,' FT reports

By ReutersNovember 6, 2025 1:05 AM GMT+1 · Updated November 6, 2025





[1/2] Nvidia CEO Jensen Huang attends an event at COMPUTEX forum in Taipei, Taiwan June 4, 2024. REUTERS/Ann Wang Purchase Licensing Rights

Nov 5 (Reuters) - Nvidia CEO Jensen Huang has warned that China is going to win the AI race, the Financial Times reported on Wednesday. "China is going to win the AI race," Huang said at the Future of AI Summit.



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OpenAI Exec Says It Could Use Some Financial Support From the Government

By Victor TanasevichPublished Nov 7, 2025 10:41 AM EST





As investors are growing increasingly concerned over an AI bubble, triggering a major tech selloff earlier this week, OpenAI is still in full-steam-ahead mode. During the Wall Street Journal's Tech Live conference on Wednesday, the company's chief executive officer Sarah Friar revealed that the company has

RED HOT

Astronomer Launching

By Frank Landy

The Whole Terrified of

By Victor Tanasevich

Town's Hug Generated

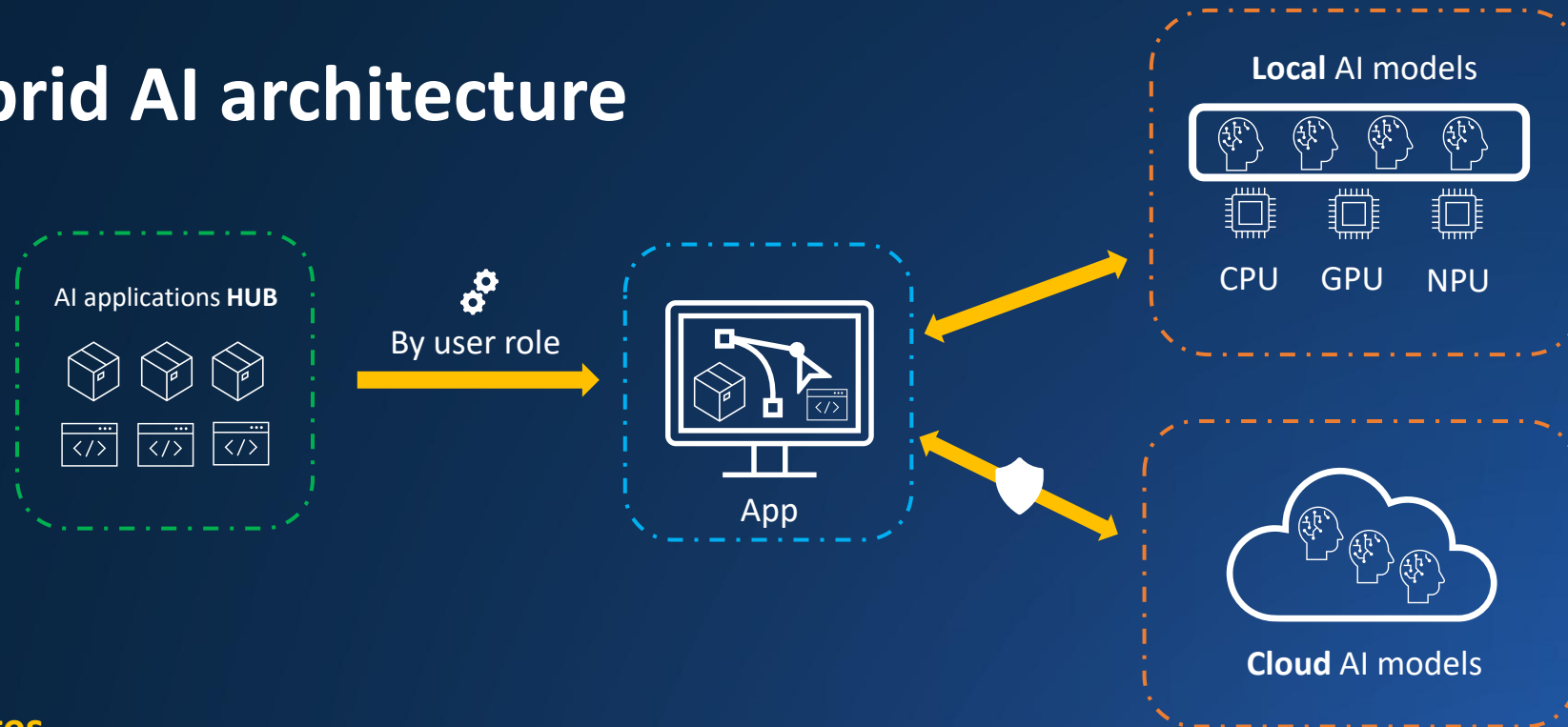
Ghastly Ch...

By Victor Tanasevich

Harv...

Sustaninability of Artificial Intelligence

Hybrid AI architecture



Advantages



Scalability *(costs and availability)*



Privacy



Security and data access



Cost-effectiveness

New Intel Processors

2003

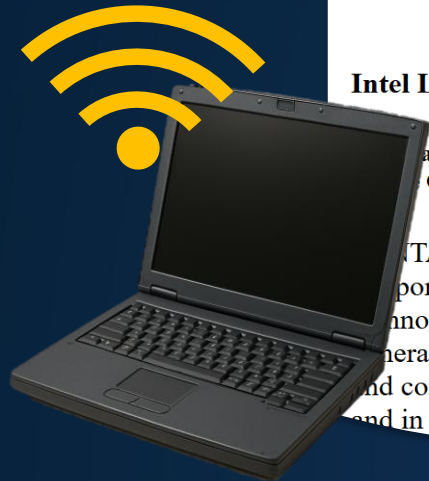


Intel News Release

Intel Launches Intel® Centrino™ Mobile Technology

Capabilities Unwire Mobile PCs to Change Where and How Compute and Communicate

SANTA CLARA, Calif., March 12, 2003 - Intel Corporation today introduced Intel® Centrino™ mobile technology, integrating wireless capability into a new generation of mobile PCs that will bring business and consumers greater freedom to work and in new ways.



2023



Intel Core Ultra Ushers in the Age of the AI PC

DECEMBER 14, 2023 Published

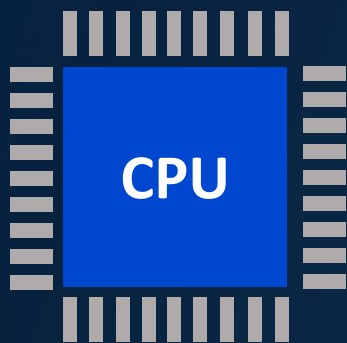
Client Computing



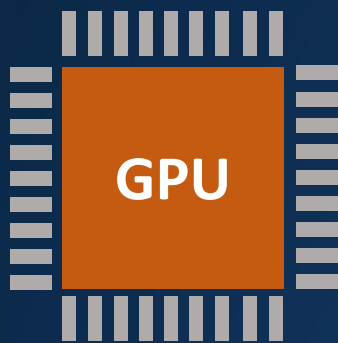
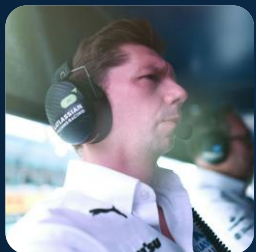
Michelle Johnston-Holthaus, vicepresidenta ejecutiva y gerente general de Client Computing Group de Intel, sostiene el procesador Intel Core Ultra para portátiles lanzado el 14 de diciembre de 2023. (Créditos: Intel Corporation)

The heart of the AI PC, the new processor capabilities across operating systems

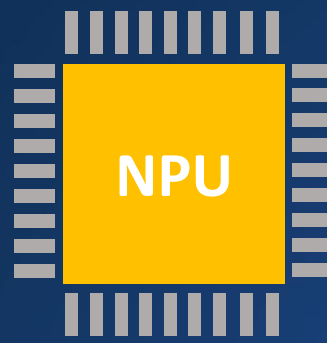
Redefining AI Computing with Intel® Core™ Ultra



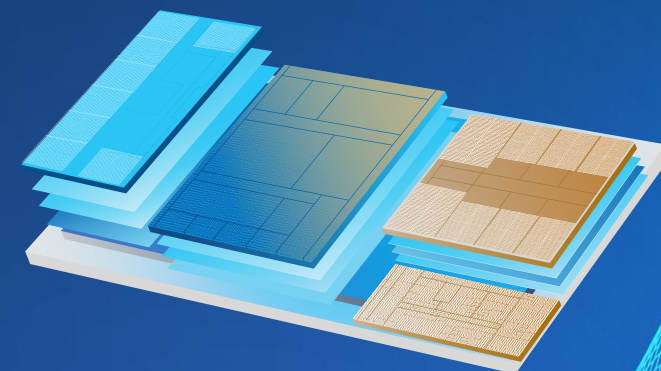
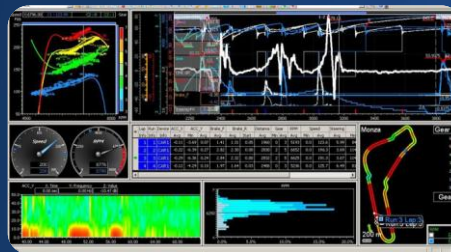
Fast Response
Ideal for low-latency
AI workloads



High Throughput
Ideal for accelerated parallel AI
workloads



Power Efficiency
Ideal for sustained AI workloads
requiring energy efficiency



Intel Model Compression Tools



Alfa Romeo 158 (1938)

Top Speed: ~290 Kms

Fuel consumption: 125-175 L/100 km

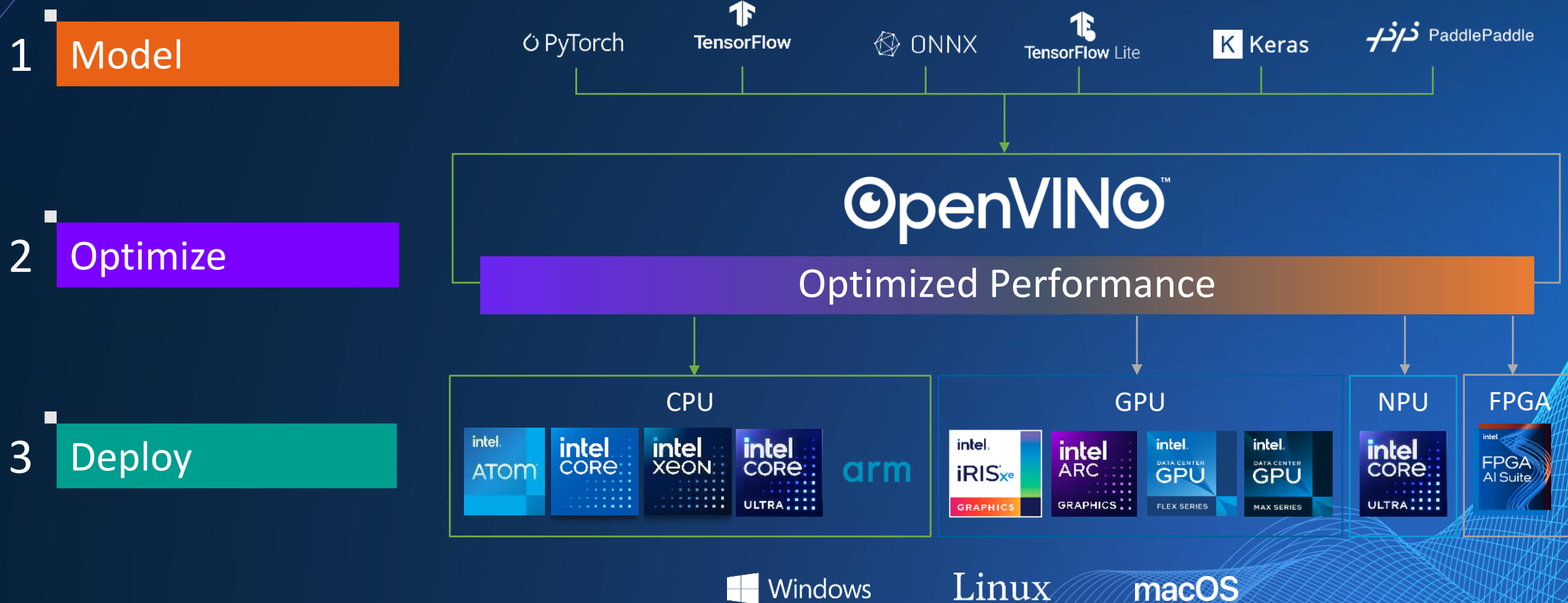


Alfa Romeo C43 (2023)

Top speed: ~362 Kms

Fuel consumption: 38 L/100 km

Optimized AI Performance on Intel Hardware



Optimized AI Performance on Intel Hardware

1 Model



2 Optimize



3 Deploy

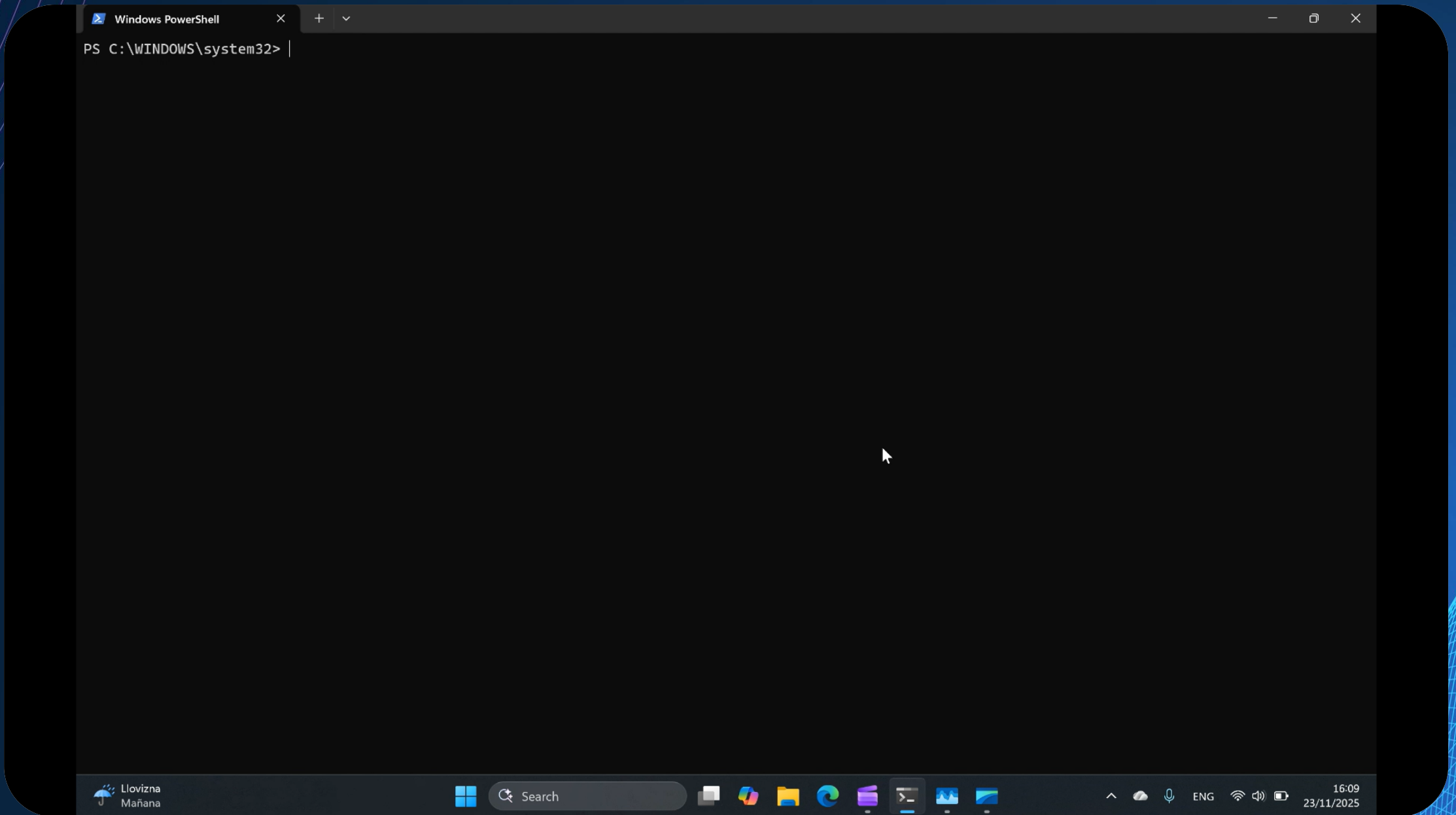


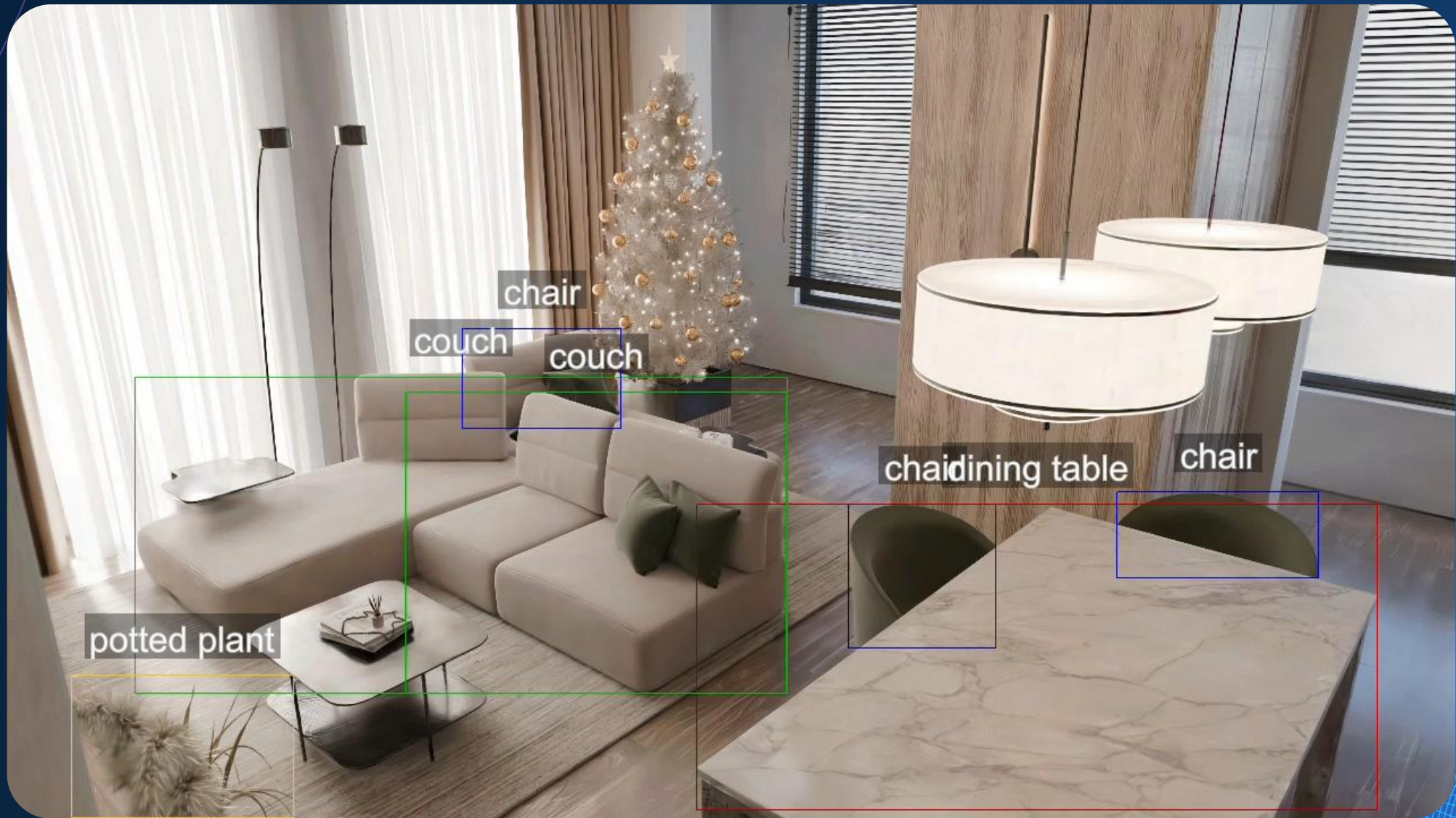
Windows

Linux

macOS

DEMO





Reflexión final

Sólo sobrevivirán a la caída aquellas aplicaciones y compañías que realmente aporten valor, comprendan los costes y sus límites, e integren la IA con sentido común. Esas serán las que escalen la rampa de la consolidación, hasta la meseta de la productividad, mientras las demás se quedarán por el camino.

Marc Vidal



Ana Escobar

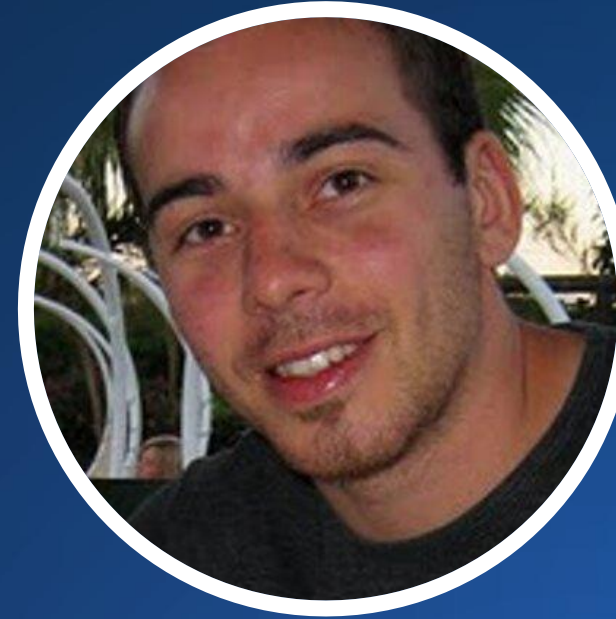
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Thank you!

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