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Title

Navitas Worth \$3.5 Billion on\$50 Million Sales in AI Power Bet

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Author

Shao, Wen

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Supplemental Material

<https://escholarship.org/uc/item/5d61043x#supplemental>

Part 1: Project Abstract

Title: Navitas Worth \$3.5 Billion on \$50 Million Sales in AI Power Bet

Student: Wen Shao

Academic Unit: UC Berkeley Graduate School of Journalism

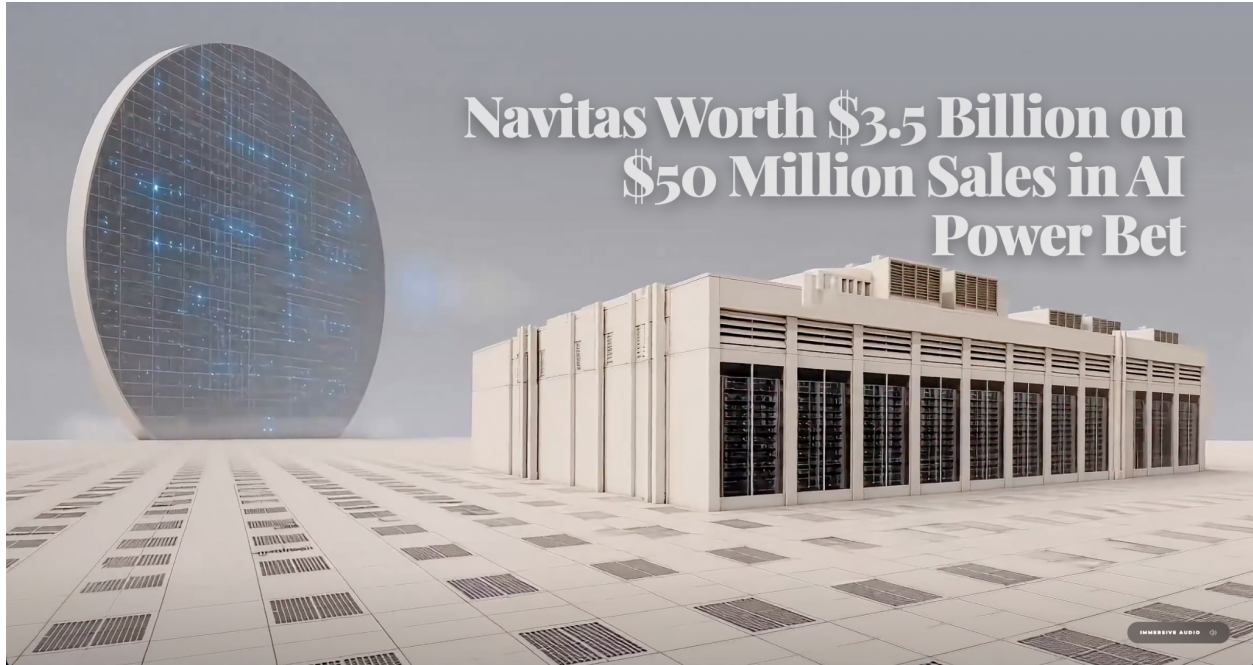
Abstract: This interactive multimedia project, *"Navitas Worth \$3.5 Billion on \$50 Million Sales in AI Power Bet,"* investigates the physical infrastructure bottleneck of the artificial intelligence revolution. While the global conversation focuses on LLMs and GPU benchmarks, a high-stakes financial and engineering gamble is unfolding at the "physical layer" of power conversion.

The narrative centers on Navitas Semiconductor, a firm whose \$3.5 billion market valuation—despite a modest \$50 million in annual sales—signals a profound industry shift toward Wide-Bandgap (WBG) engineering. By utilizing Gallium Nitride instead of traditional Silicon, Navitas promises to solve the "heat and space" crisis in data centers, enabling a 100% increase in rack density for AI workloads.

Through immersive scrollytelling and data visualizations based on IEA, Bloomberg, and UBS research, this project exposes the "Reality Gap" between current infrastructure capacity and the projected 945 TWh power demand by 2030, a scale comparable to the total electricity consumption of Japan. The project challenges the sustainability of the AI boom, questioning whether the physical layer can keep pace with digital ambition.

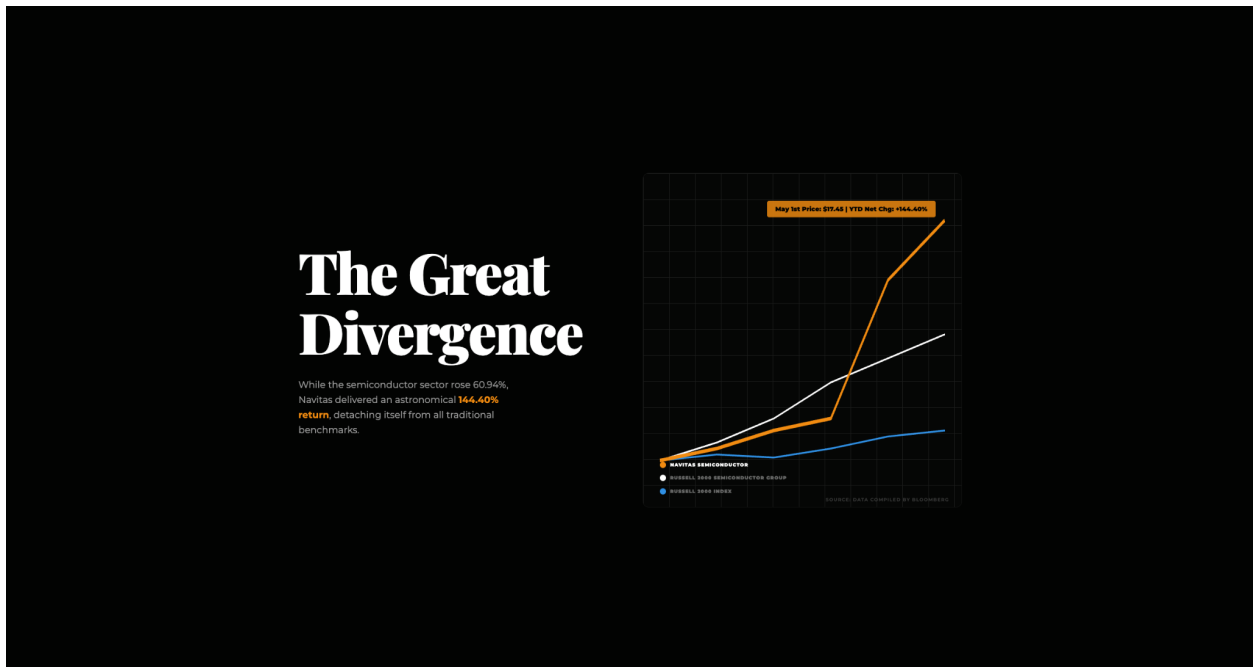
Part 2: Required Screenshots & Descriptions

Figure 1: The Narrative Entry (Hero Section)



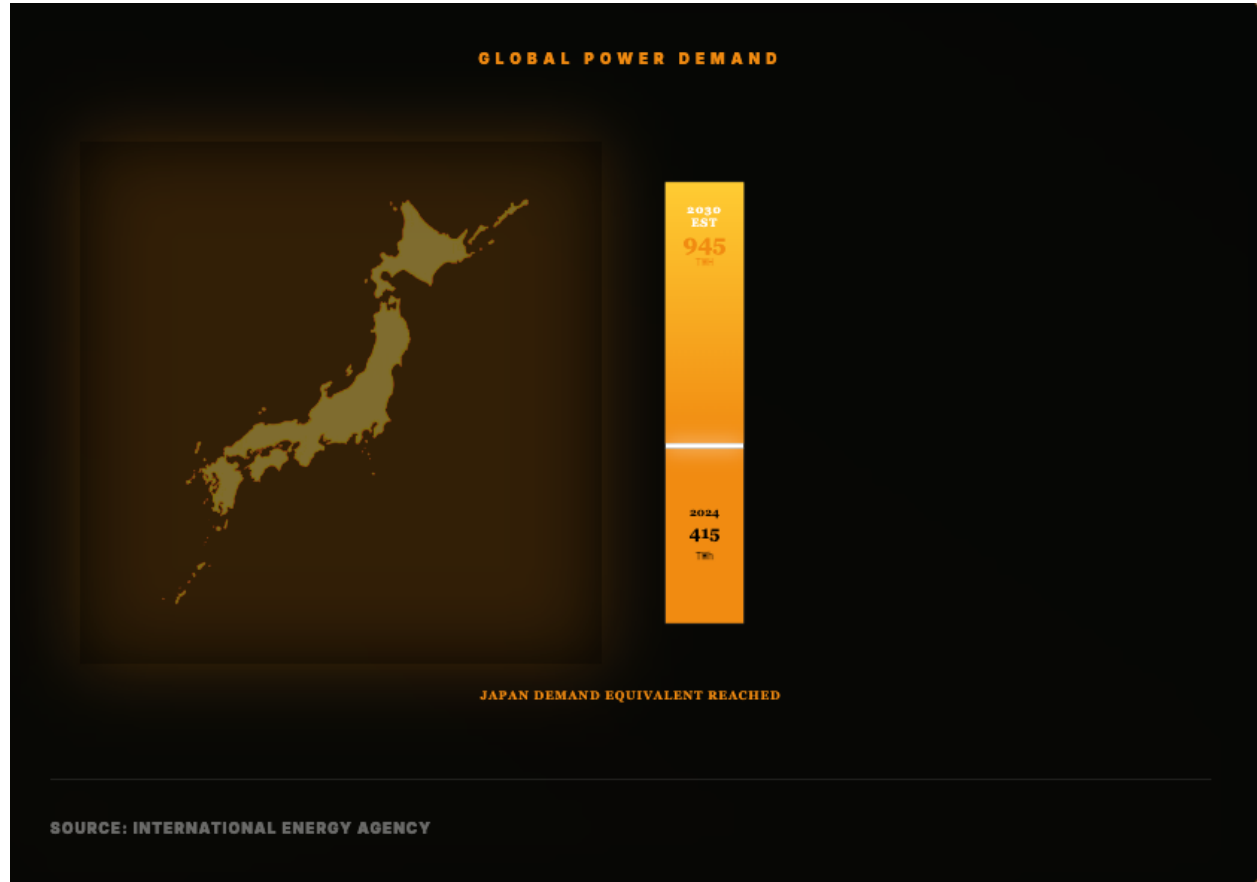
The opening sequence uses high-fidelity 4K video background and bold, cinematic typography to establish the high-stakes atmosphere of the \$3.5 billion AI power bet.

Figure 2: The Data Divergence Visualization



An interactive chart compiled from Bloomberg Terminal analytics, illustrating the widening gap between traditional semiconductor performance and the escalating demands of generative AI hardware.

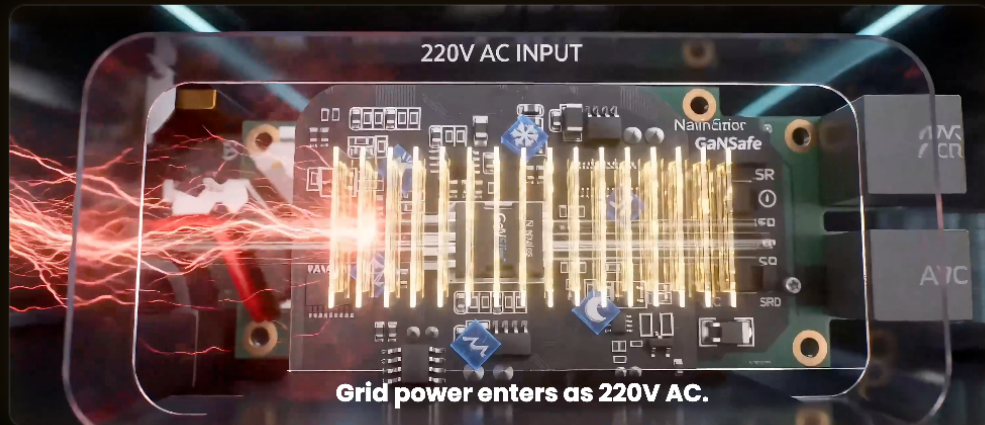
Figure 3: Global Power Demand & The Japan Metaphor



This interactive module allows users to visualize the 2030 energy surge. Clicking the “growth” segment of the bar chart illuminates a silhouette of Japan, providing a visceral sense of scale for the 945 TWh projected demand.

Figure 4: The Physical Layer Technical Deep-Dive

"Power conversion in data centers is a game of heat and space. Navitas GaN technology reshapes this at the physical layer."



High-frequency switching shrinks magnetic components, enabling a 100% increase in rack density.

A visual breakdown of Wide-Bandgap (WBG) engineering. The section explains how high-frequency switching shrinks magnetic components, directly addressing the heat and space constraints of modern server racks.

Figure 5: The Reality Gap Dashboard

DIAGNOSTIC STATUS REPORT

SUBJECT: NAVITAS & AI INFRASTRUCTURE REALITY GAP

INDUSTRY CAPACITY (2-YEAR HORIZON)

OVERCAPACITY RISK

INDUSTRY PLANS

40+ GW

UBS REALISTIC RANGE

10-15 GW

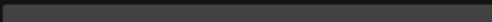
THE DOUBLE-ORDERING SIGNAL

MUNTERS GROUP CASE STUDY

BUBBLE ALERT



7x (Orders)



1x (Shipments)

DEMAND FOG: STRUGGLE TO DETERMINE "WHAT'S REAL DEMAND"

NAVITAS SURVIVAL COUNTDOWN

\$46M REV / -\$12M QUARTERLY LOSS

2027 TARGET

NOW

DEPLOYMENT WINDOW

PHASE: CASH BURN

PHASE: REVENUE LIFT

SOURCES: UBS GROUP AG, MUNTERS GROUP, AND BANK OF AMERICA MERRILL LYNCH

A concluding synthesis of market intelligence from UBS, Munters, and Bank of America, contrasting the massive surge in AI orders against the actual capacity of global power infrastructure.

Part 3: Source List

I. Primary Financial & Market Data

- Bloomberg Terminal: Historical equity data, market capitalization metrics, and relative valuation analysis for Navitas Semiconductor (NVTX) and the Philadelphia Semiconductor Index (SOX).
- Navitas Semiconductor Investor Relations: Quarterly financial results (Q1 2024 – Q1 2026), annual 10-K filings, and technical product white papers regarding GaNFast™ technology.
- SEC Edgar Database: Tracking institutional ownership and capital expenditure disclosures for major data center operators (Hyperscalers).

II. Energy & Infrastructure Projections

- International Energy Agency (IEA): Electricity 2024: Analysis and forecast to 2026.
- BofA (Bank of America) Global Research: Proprietary reports on the "AI Infrastructure Super-Cycle" and the capitalization of the data center supply chain.

III. Technical & Industry Analysis

- UBS Global Research: Sector analysis on high-density server rack configurations.
- Munters Group AB: Global order intake data and backlog reporting for data center climate control systems (2023–2025).
- IEEE Xplore Digital Library: Academic papers on the switching frequency advantages of Gallium Nitride (GaN) over traditional Silicon (Si) in high-power applications.