PLUG AND PLAY

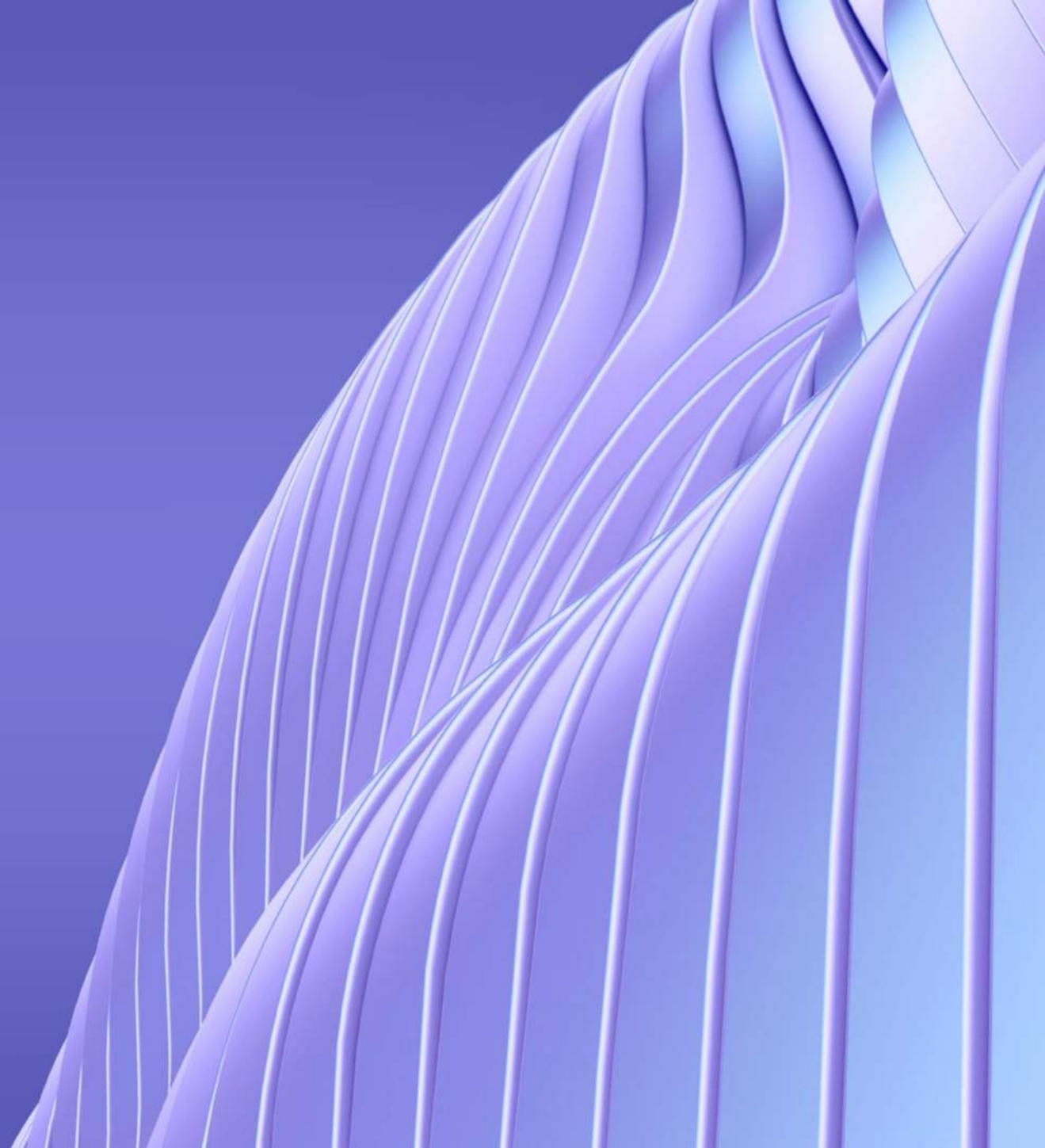
NOVEMBER 19-21 2024

SILICON VALLEY SUMMIT

PLUG AND PLAY

DEEPTECH EXPO

SV SUMMIT



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AGENDA

3:15 – 3:20	Welcome
3:20 – 3:30	The Deeptech Era
3:30 – 4:00	Decoding the Quantum Advantage Panel
4:00 – 4:45	Startup Presentations

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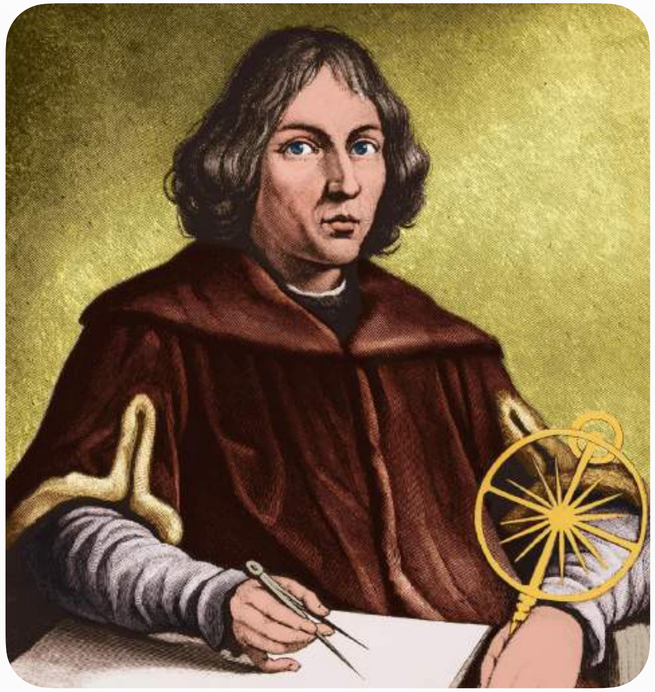
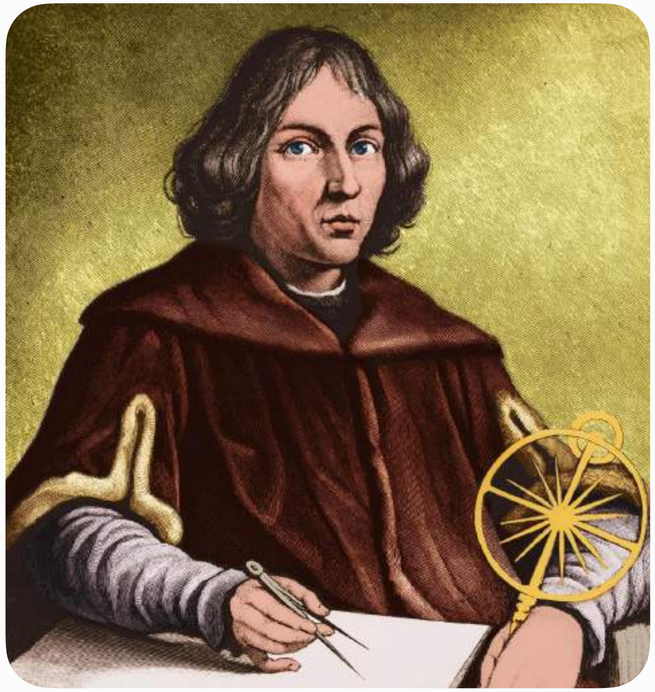
FOLLOW US ON LINKEDIN





Copernicus
(1473 – 1543)

Galileo
(1564 – 1642)

Telescope (1608)

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The Deeptech Era

Stefan Faistenauer

Senior Ventures Associate
Plug and Play

Leonardo Rocchetti

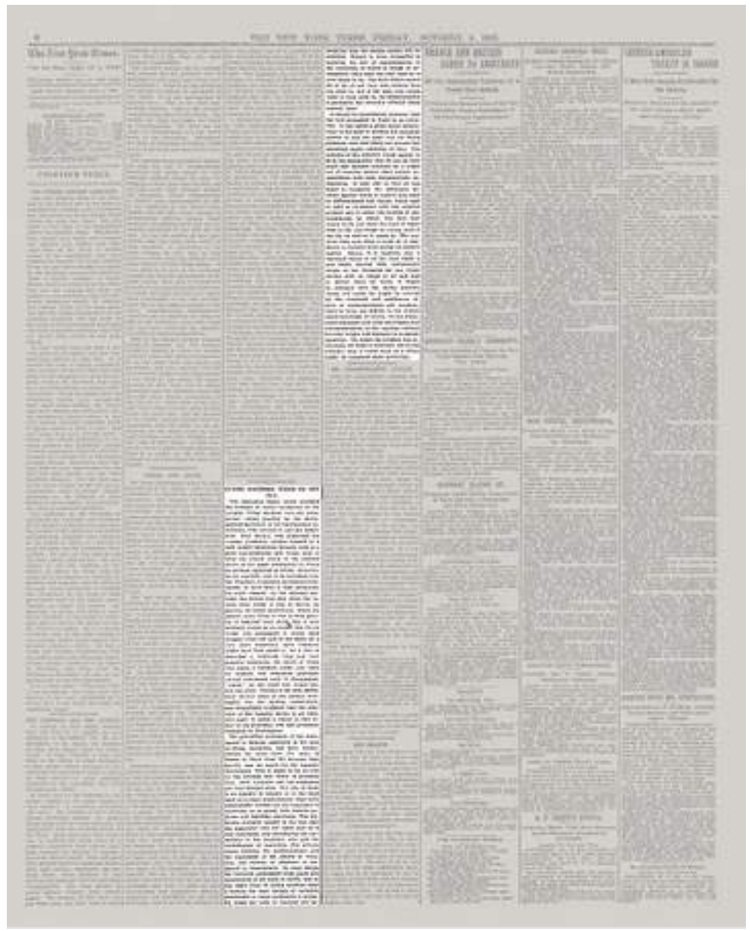
Senior Ventures Associate
Plug and Play

#PNPTCSiliconValley

Join us at **pnptc.com**

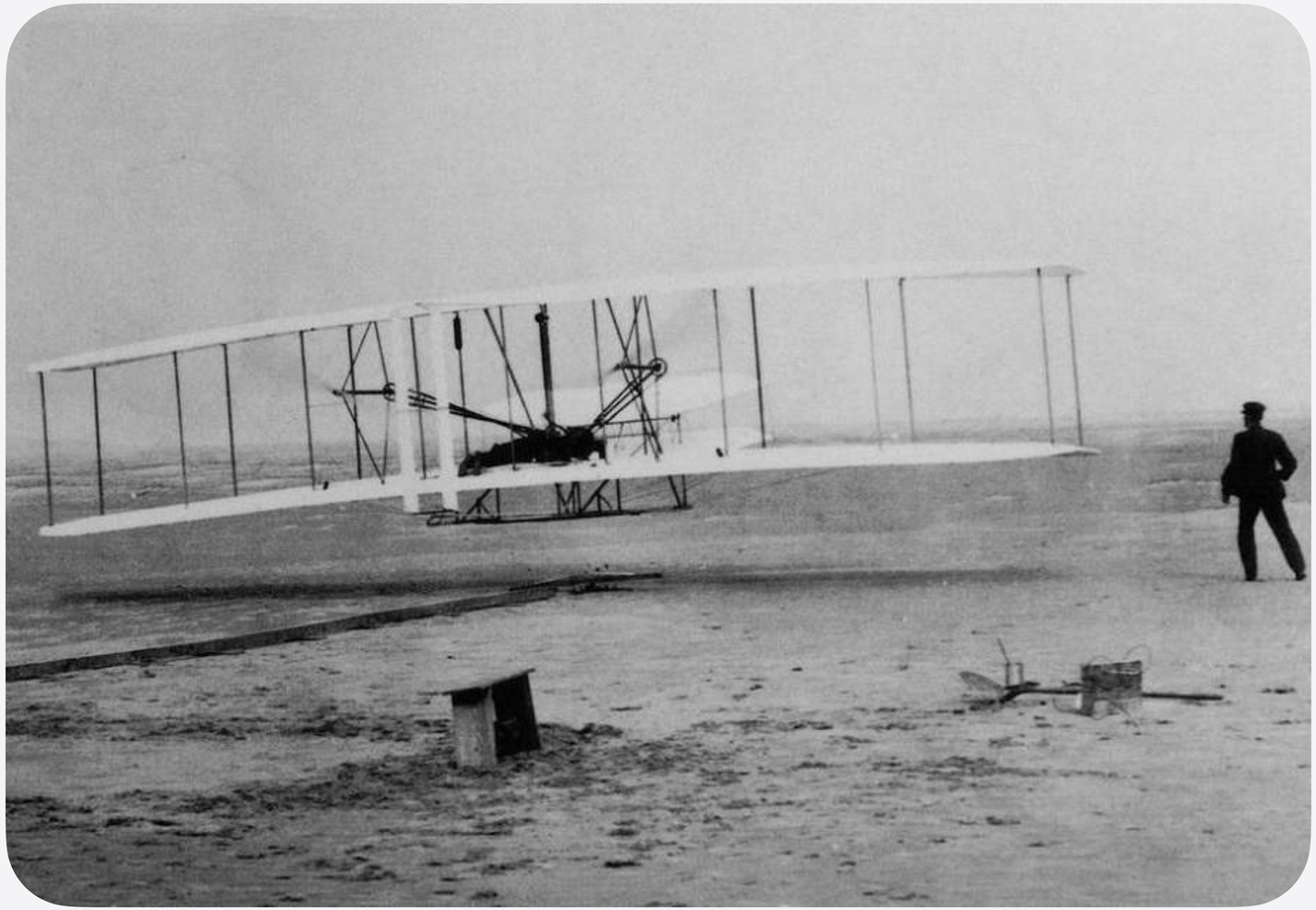
The New York Times

FLYING MACHINES WHICH DO NOT FLY



…"The flying machine which will really fly might be evolved by the combined and continuous efforts of mathematicians and mechanisms **in one million to ten million years.**"

The New York Times
October 9, 1903



Two months later, the Wright Brothers made their first flight.
(December 17, 1903)

THE INDUSTRIAL ERA

Top 10 Companies
S&P 500

1980

1. IBM
2. AT&T
3. Exxon
4. Standard
5. Shell
6. Mobil
7. GM
8. Texaco
9. DuPont
10. Gulf

THE EMERGENCE OF TECH

Top 10 Companies
S&P 500

	1980	2000
1.	IBM	Microsoft
2.	AT&T	GE
3.	Exxon	Cisco
4.	Standard	Walmart
5.	Shell	Exxon
6.	Mobil	Intel
7.	GM	NTT DoCoMo
8.	Texaco	Shell
9.	DuPont	Pfizer
10.	Gulf	Nokia

SOFTWARE ATE THE WORLD.

Top 10 Companies
S&P 500

	1980	2000	2025
1.	IBM	Microsoft	NVIDIA
2.	AT&T	GE	Apple
3.	Exxon	Cisco	Microsoft
4.	Standard	Walmart	Alphabet
5.	Shell	Exxon	Amazon
6.	Mobil	Intel	Broadcom
7.	GM	NTT DoCoMo	Meta
8.	Texaco	Shell	Tesla
9.	DuPont	Pfizer	Berkshire Hathaway Inc.
10.	Gulf	Nokia	Lilly

SOFTWARE + ATOMS ARE THE WORLD.

Top 10 Companies
S&P 500

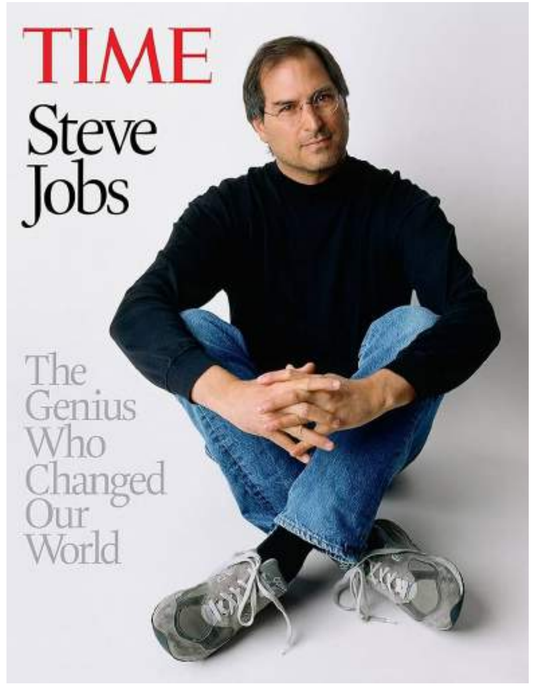
2025

1. NVIDIA
2.
3. Microsoft
4. Alphabet
5. amazon
6. BROADCOM
7. Meta
8. TESLA
9. Berkshire Hathaway Inc.
10. Lilly

"People who are really serious about software should make their own hardware"
- Alan Kay

Software needs Hardware.

HARDWARE CHANGE CREATES NEW MARKETS



TRASPORTATION

Uber lyft

TRAVEL

airbnb airalo

COMMERCE

Vinted GROUPON

ENTERTAINMENT

Spotify Pokémon GO

WORKPLACE

slack Expensify

DATING

tinder Grindr

SOCIAL

FOOD DELIVERY

Glovo DOORDASH

BANHING

Revolut N26

PERSONAL FINANCE

Robinhood coinbase

PAYMENTS

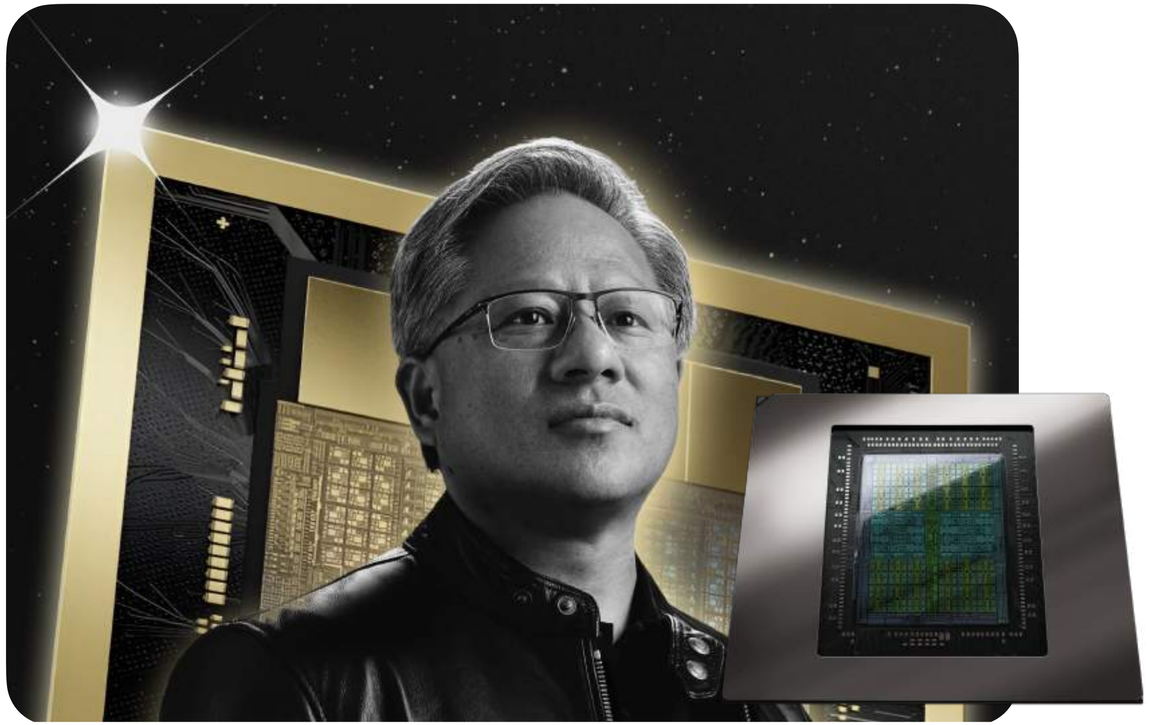
venmo stripe

..AND MANY MORE

* PORTFOLIO

HARDWARE CHANGE CREATES NEW MARKETS

NVIDIA



FOUNDATION MODELS

OpenAI · Gemini · xAI · ANTHROPIC · Mistral AI · deepseek · Meta · perplexity

PHYSICAL AI/ROBOTICS

DYNA · maven · ARCHETYPE AI · FieldAI · AGILITY ROBOTICS · SKILD AI · FIGURE · Physical Intelligence (π)

DATA INFRASTRUCTURE

LangChain · Hugging Face · CoreWeave · scale · Pinecone · TensorFlow

VERTICAL AI

CURSOR · Lovable · glean · PHYSICSX · IIElevenLabs · elementary

* PORTFOLIO

..AND MANY MORE

BACK TO BASICS

licon Valley

The New York Times

Silicon Valley Is in Its 'Hard Tech' Era

Goodbye to the age of consumer websites and mobile apps. Artificial intelligence has ushered in an era of what insiders in the nation's innovation capital call "hard tech."

Aug 4, 2025

BACK TO THE FUTURE: DEEPTECH IN 2025

WHAT IF THE REAL AGE OF INNOVATION IS JUST BEGINNING?

SPACEX: A CATEGORY-ENABLING COMPANY

SPACEX

SpaceX has reduced the price to orbit by
~100% over the last 20 years.

ORBITAL INFRASTRUCTURE

KEPLER · VAST · SIERRA SPACE · VOYAGER SPACE · ASTRANIS · ORBITFAB · AXIOM SPACE · Skyloom · ORBITAL REEF · Astroscale · K2 SPACE

IN-SPACE RESOURCES & INDUSTRIALIZATION

STARPATH · ispace · CISLUNAR INDUSTRIES · ASTROBOTIC · TRANSASTRA · Lunar Outpost · ASTRO FORGE · SPACE FORGE · REDWIRE · OFFWORLD · INTUITIVE MACHINES

SPACE-DERIVED SERVICES: SPACE → EARTH VALUE)

Starcloud · MuonSpace · ICEYE · xona space systems · OneWeb · STARLINK · planet. · VARDA SPACE INDUSTRIES · ALBEDO · URSA SPACE · hubble NETWORK · skylo

SPACE ENERGY & POWER SYSTEMS

STAR CATCHER · AETHERFLUX · solestial · zeno · VIRTUS SOLIS

* PORTFOLIO

..AND MANY MORE

DEEPTECH COMPANIES DON'T ACTUALLY NEED MUCH MORE CAPITAL.

H1 2025 Data:
(median cash raised Seed - Series C)

Software: $75.3M raised
Deeptech: $81.9M raised

Δ: $6.6M (8%)

Startup Fundraising: Deeptech

25th/50/75th percentile benchmarks for key metrics in H1 2025
Data: 403 rounds raised by US deeptech startups on Carta

	Round Size / Name	Percentile	Post-Money Val / Val Cap	Cash Raised	Dilution*
Rounds on SAFEs	$500K–$2M Pre-Seed (?)	25th pct	$10.0M	$0.7M	5.9%
		50th pct	$14M	$0.9M	11.5%
		75th pct	$20.0M	$1.2M	19.6%
	$2M–4M Seed on SAFEs	25th pct	$15.0M	$2.2M	8.8%
		50th pct	$23M	$2.6M	17.5%
		75th pct	$32.8M	$3.0M	24.5%
Rounds using Priced Equity	Priced Seed	25th pct	$15.1M	$2.6M	15.8%
		50th pct	$22.4M	$5.2M	23.0%
		75th pct	$35.7M	$8.6M	31.0%
	Series A	25th pct	$35.6M	$6.0M	13.0%
		50th pct	$62.4M	$11.8M	20.0%
		75th pct	$156.7M	$28.2M	27.0%
	Series B	25th pct	$79.4M	$12.1M	11.0%
		50th pct	$120.7M	$25.7M	19.0%
		75th pct	$319.8M	$48.8M	23.5%
	Series C	25th pct	$72.1M	$8.3M	12.0%
		50th pct	$223.6M	$39.2M	15.0%
		75th pct	$575.6M	$87.5M	22.5%

Source: Carta

Connectivity, Data, and AI

AI-driven innovation is enhancing human capabilities, and redefining operational efficiency. As connectivity and data scale exponentially, AI is unlocking new frontiers in automation.

From next-gen human-machine interactions to self-learning systems, the fusion of AI, data, and automation is reshaping how we build, discover, and innovate.

gradient · deepen · BLUESPACE · FedML · taubyte · Intellectible · EchoTwin AI · fleet · NEXXA.AI

Next-Gen Compute

The tools we use to think will continue to evolve.
The future will be defined by systems that are faster, more efficient, and purpose-built for emerging workloads.

Innovators are rethinking computing from the ground up— developing novel architectures, leveraging specialized accelerators, and integrating AI-driven optimization.

ANAFLASH · Macrometa · Senseye · darcy · Concertio · neteera · CELUS · Astrus · Lemurian Labs · Stealth

Robotics & Industrial Automation

The next frontier of technological transformation lies in the reinvention of physical industries. For too long, these sectors have been underinvested in and slow to adopt digital advancements.

There are massive opportunities in digitizing and optimizing industrial operations, from manufacturing to infrastructure.

GIDEON · NODE · RELIMETRICS · RUGGED ROBOTICS · LITMUS · DIRAC · LUNEWAVE · PlaSiV · SiC Systems

Energy Transition

The way we generate, store, and utilize energy is undergoing a fundamental transformation.

Energy systems are emerging that are cleaner, more efficient, and purpose-built for a rapidly electrifying world.

The next era of energy will be shaped by those who dare to reimagine its foundations.

swiftmile · TANKTWO · GBatteries · vaulted · ammobia · Yama · nepsis · Terra AI · solidec · ATOMIC CANYON

Space & Frontier

Mega rockets are revolutionizing launch economics, dramatically lowering payload costs. Satellite communications are becoming increasingly critical, bridging commercial and government applications.

Competition, reusability, and the infrastructure that enables a true space economy will define the coming decade.

KEPLER · STARPATH · FlyX Technologies · Starcloud · schemata

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NEW DEEPTECH

PARTNER

Google Pixel
for Business

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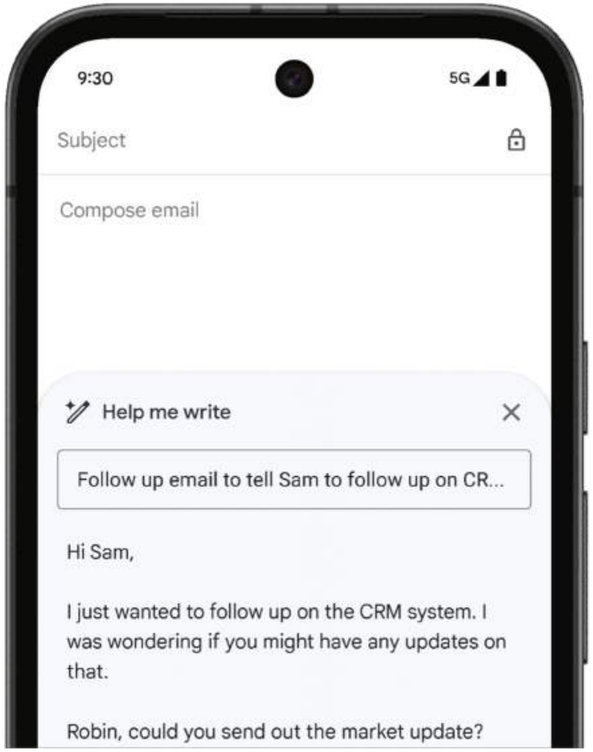
Google Pixel for Business

x

PLUG AND PLAY

Pixel is the entry point to Google AI for your Startup —putting the power of AI directly in the hands of you and your team.

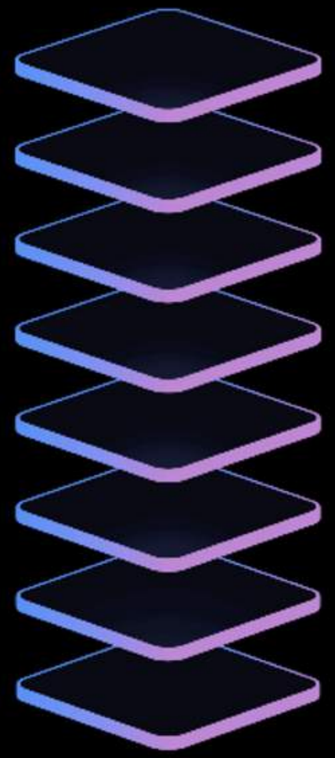


Google Pixel
for Business

FULLY APPROVED

Google Devices are uniquely positioned to deliver on AI today.

- Velocity
- Scale
- Helpful
- Safe



Work with the tools you love: Pixel phones work with all the apps you know, including Google Workspace and custom applications your business needs.

Get Started with Pixel for Business

- **Plug And Play Exclusive offer on Pixel 10 Series.**
- **Up to 50% off MSRP on Previous Generation Devices.**
- Program Benefits Include:
  - Co-Marketing opportunity
  - Dedicated Point of Contact - carrier agnostic.
  - Customized device management.
  - Zero-touch enrollment.
  - Google Workspace productivity apps like Gmail, Docs, Slides, and Sheets.

Presented by

Joshua Emperador - Head of Inside Sales
Jemperador@google.com

Andres Puentes - Global Sales Manager
andrespuentes@google.com

Unlock Exclusive Deals for Your Business

Google Pixel for Business x PLUGANDPLAY

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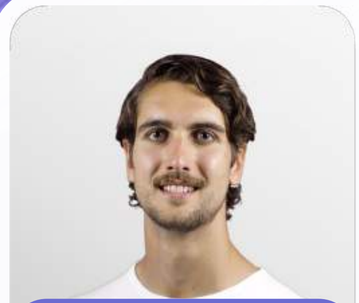
Decoding the Quantum Advantage



MODERATOR

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Senior Ventures Associate
Plug and Play

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CEO
SiC Systems

Celia Merzbacher

Executive Director
QED-C

Richard Murray

CEO
ORCA Computing

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STARTUP PRESENTATION

EchoTwin AI

EchoTwin AI

Transforming smart cities into cognitive self-healing cities.

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COMPANY OVERVIEW AND MISSION

COMPANY OVERVIEW

EchoTwin AI (EchoTwin) was **founded in 2024 by Chris Carson**, former founder and CEO of a bus lane enforcement startup, with the purpose of equipping cities with the necessary technology to see and address infrastructure challenges in real time

MISSION

- **Transform municipal fleets into mobile urban sensors** that provide real-time insights into infrastructure, compliance, and safety
- Advance the era of cognitive cities with awareness to **see, think, and act on challenges** in **real time**
- **Build resilient, self-healing, and sustainable** urban ecosystems by enabling municipalities to proactively monitor, predict, and resolve issues

HOW IT WORKS

1: SEE

Real-Time Object Detection

2: THINK

Real-Time Object Classification & Vision Language Model (VLM) Pipeline

3: ACT

VLM Pipeline & Work Order Begins

4: COMPLETION

Closed-Loop Feedback

5: GOVERNANCE

Integrated governance platform

EchoTwin AI

CHANGE AND ANOMALY DETECTION USE CASES

Use cases for EchoTwin's change and anomaly detection technology are endless

WASTE

ROAD HAZARD

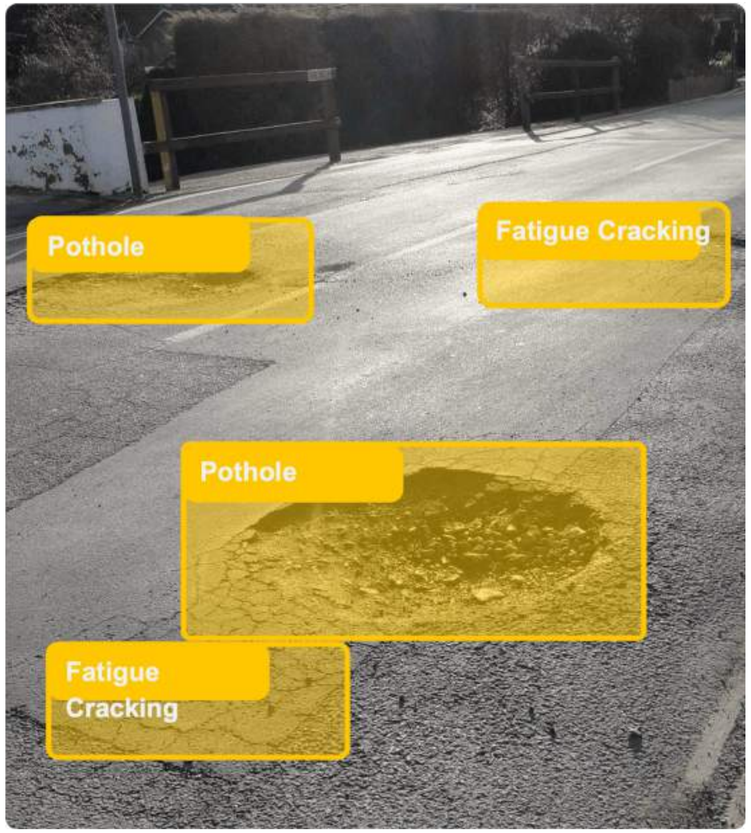
ROAD SAFETY

EchoTwin AI

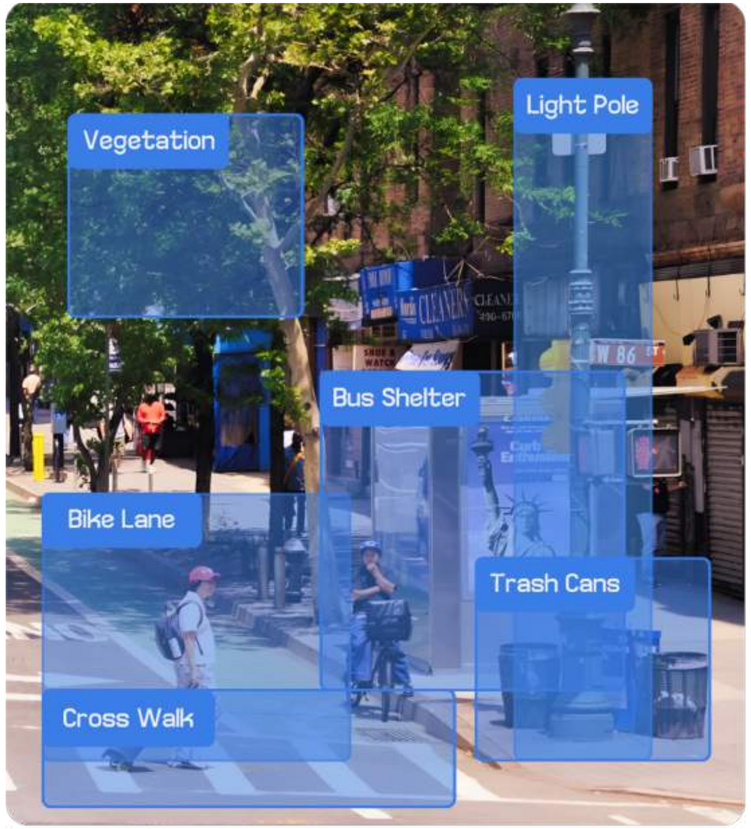
CHANGE AND ANOMALY DETECTION USE CASES

Use cases for EchoTwin's change and anomaly detection technology are endless

PAVEMENT DEFECT



ROAD INFRASTRUCTURE

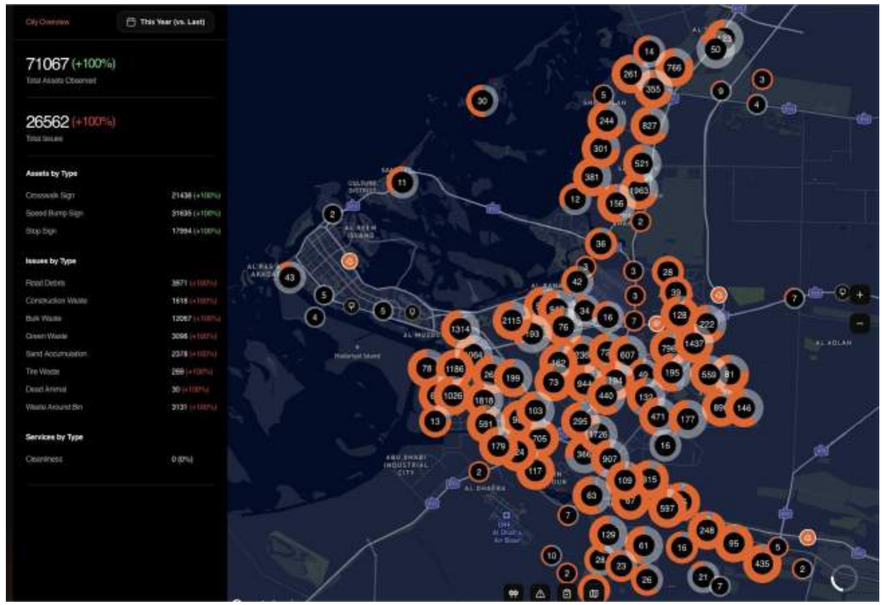


VISUAL POLLUTION

EchoTwin AI

TRANSFORMING ABU DHABI'S WASTE MANAGEMENT WITH AI-DRIVEN COMPLIANCE

Background: DMT is a regulatory authority of Abu Dhabi in the United Arab Emirates responsible for overseeing and supervising the regional municipal councils and municipal administrations



Challenge

- Struggled to keep pace with illegal dumping, debris accumulation, and inefficient waste collection
- Over 9,000 unresolved waste-related incidents in a single month

Solution

- Deployed CityView, equipping vehicles with CityVision sensors
- Within 30 days, identified and classified over **9,000 waste issues, reducing manual inspection time by 60% and cutting operational costs by 35%**
- City streets became noticeably cleaner, and municipal teams were able to respond to hazards within hours instead of days

EchoTwin AI

THE IMPACT TO CITIES: ECONOMIC DEVELOPMENT & GROWTH

Efficiency Through Analytics

Reduced operating costs and revenue leakage through change detection technology, enabling cities to be proactive instead of reactive

Business Attraction & Job Creation

Strong infrastructure and dependable city services make municipalities more appealing to businesses, fueling investment and employment opportunities

Boost in Tourism & Retail

A well-maintained, visually appealing urban environment draws more visitors and shoppers, increasing revenue for local businesses

Sustained Municipal Prosperity

Rising tax revenues enable reinvestment in public infrastructure and services, creating a positive cycle of growth and community improvement

EchoTwin AI

EchoTwin AI

Connect With Us

Website: https://www.echotwin.ai/

Brella QR Code:

DISCLAIMER

These materials and this presentation may contain “forward-looking statements” based on the company’s current expectations, assumptions, estimates and projections about its business and its industry. These forward-looking statements involve risks and uncertainties. Words such as “believe,” “anticipate,” “expect,” “intend,” “plan,” “will,” “may” and variations of such words and other similar expressions are intended to identify forward-looking statements. In addition, any statements that refer to expectations, projections or other characterizations of future events or circumstances are forward-looking statements. The company’s actual results could differ materially from those anticipated in such forward- looking statements. Investors are cautioned not to place undue reliance on forward-looking statements.

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STARTUP PRESENTATION

IndustrialMind.AI

We bring manufacturing intelligence.

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Join us at **pnptc.com**

IndustrialMind.ai

We bring manufacturing intelligence

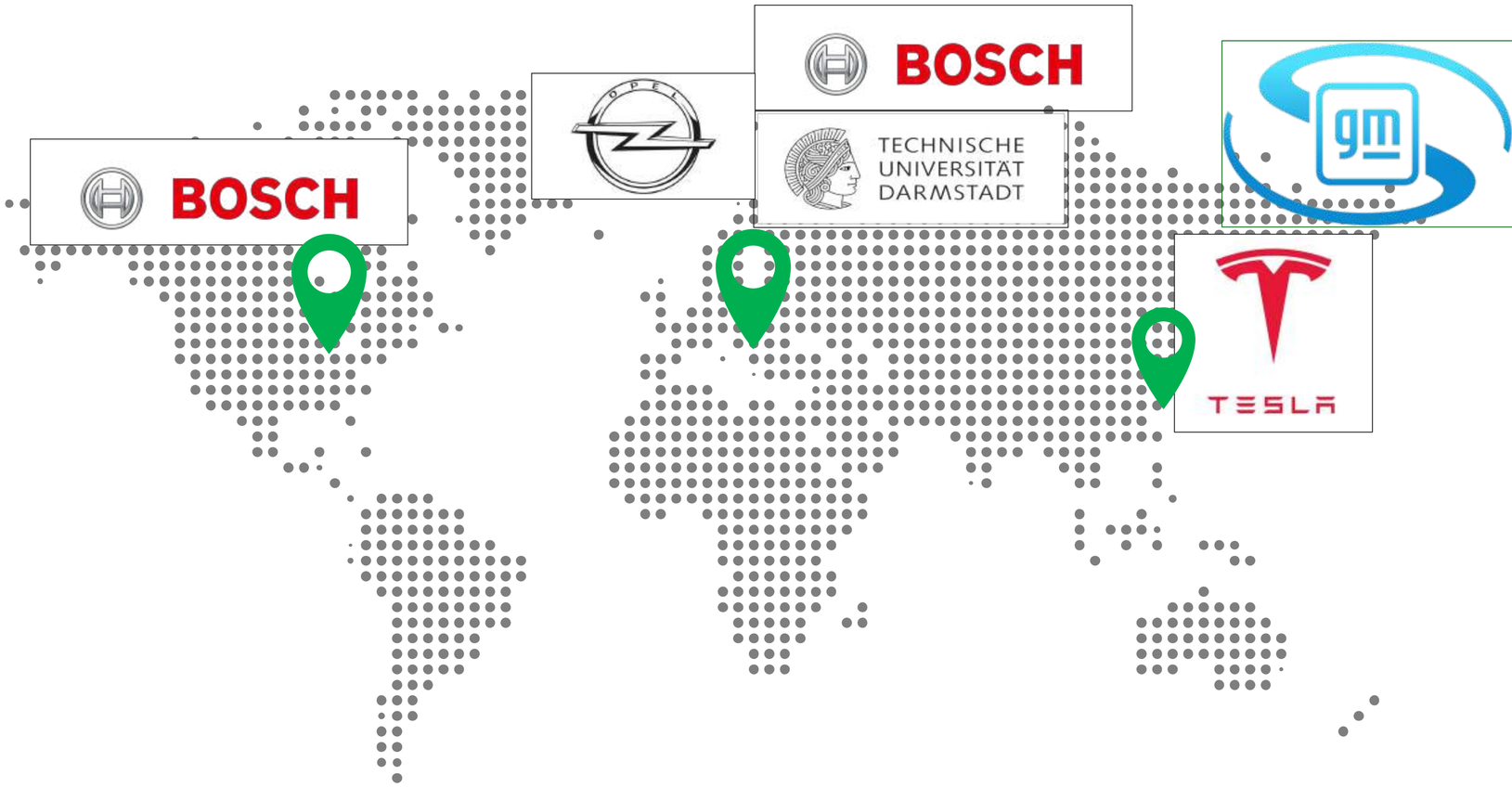
Robots ***can't***
fix your manufacturing problems.


Robots ***can't***
fix your manufacturing problems.
Intelligence can.

Team – We make every factory best of their kind, like Tesla

Steven Gao | *Co-Founder and CEO*

- **Ex-Tesla manufacturing AI expert**
- **Founded Tesla manufacturing AI team from 0 to 20+**
- **Deployed 100+ AI solutions at Tesla**
- **Key contributor launching Tesla Factory**



Team – We make every factory best of their kind, like Tesla

IndustrialMind.ai

Steven Gao | *Co-Founder and CEO*

- Ex-Tesla manufacturing AI expert
- Founded Tesla manufacturing AI team from 0 to 20+
- Deployed 100+ AI solutions at Tesla
- Key contributor launching Tesla Factory

TECHNISCHE UNIVERSITÄT DARMSTADT · BOSCH · OPEL · gm · TESLA

Jeff Wang | *Co-Founder and Chief AI Engineer*

- Ex-Tesla manufacturing AI expert
- 10 years experience of Smart Manufacturing in automotive industry

gm · TESLA

Justin Li | *Co-Founder and CBO*

- Ex-Tesla commercialization expert
- 10 years market expansion experience
- Managed sales & operation team of over 200 staff & $1 billion revenue
- Berkeley MBA

Berkeley UNIVERSITY OF CALIFORNIA · TESLA

Jesse
Engineering Director
TESLA

Peter
Product Manager
TESLA

Daniel
Product Manager
BOSCH

Jenny
Algorithm Engineer
GAC GROUP

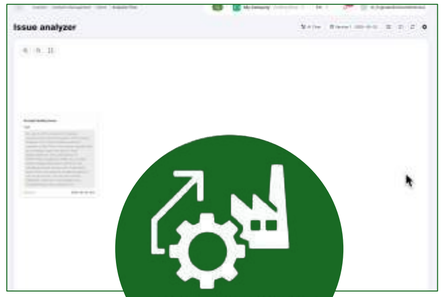
Alice
Algorithm Engineer
Penn University of Pennsylvania

Yubo
Algorithm Engineer
SONY

Bob
Research Scientist
NUS National University of Singapore

We bring Manufacturing Intelligence to every factory

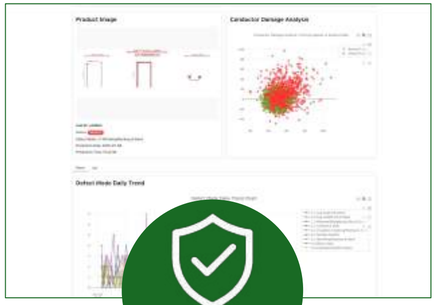
PLANNING



PROCESS

MONITOR

OPTIMIZATION



QUALITY

Design

IndustrialMind.ai Manufacturing Intelligence Platform

Product

Foundation Model

Manufacturing Agent

Customer Case Study

$ 9.5 Billion Revenue
Global market leader in hydropower equipment

Before: Manual Workflow

Drawing → Feature Reading → Process Steps → Parameters → Documentation

10 hours per drawing

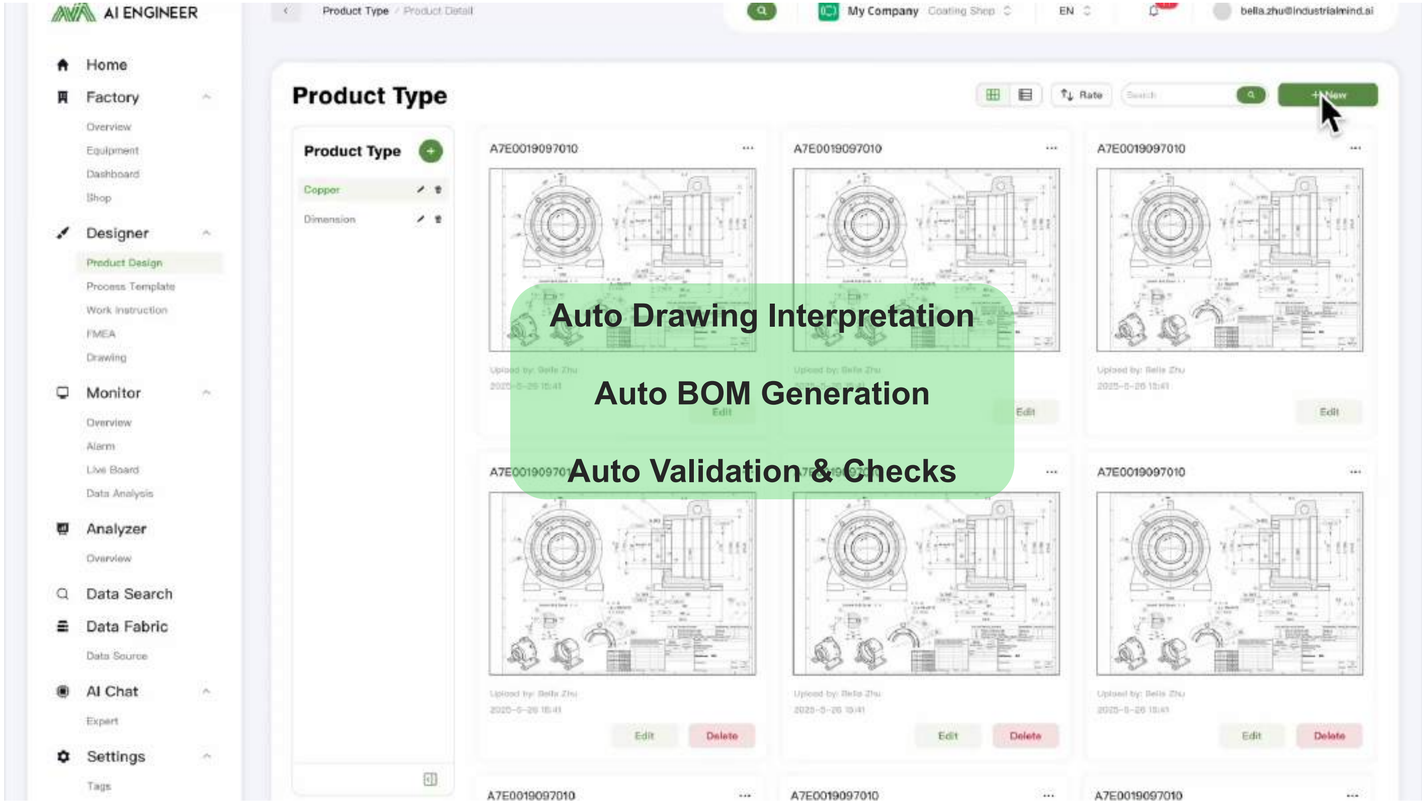
Complex variants

Repetitive logic

Frequent changes

Error-prone

After: AI-driven workflow with IndustrialMind.ai



Auto Drawing Interpretation

Auto BOM Generation

Auto Validation & Checks

Customer Case Study

$ 9.5 Billion Revenue
Global market leader
in hydropower equipment

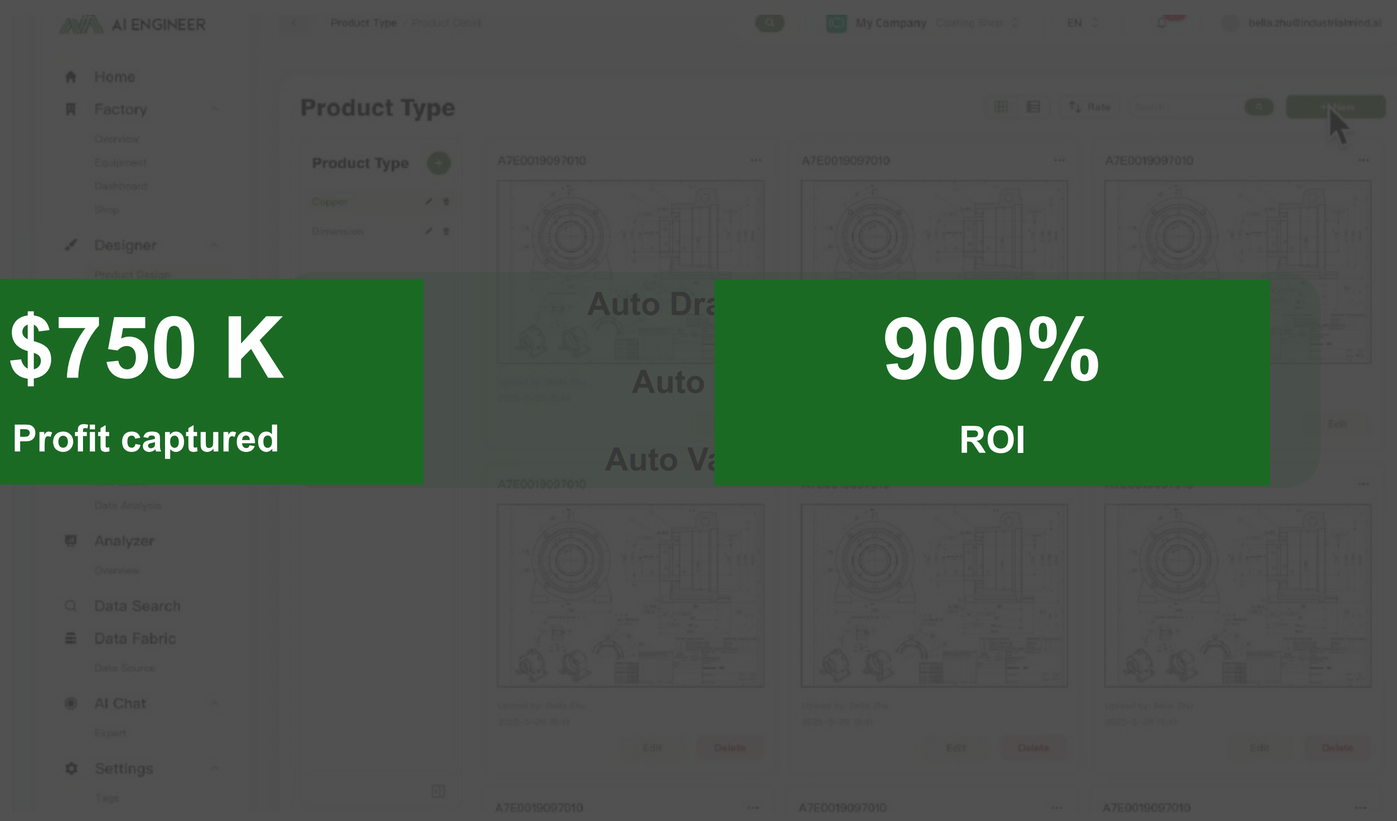
Before: Manual Workflow

Repetitive logic

Frequent changes

Error-prone

After: AI-driven workflow with IndustrialMind.ai



90%
Engineering time saved

$750 K
Profit captured

900%
ROI

Backed By

Ex-Tesla VP of Manufacturing

Angel Investor

World's largest innovation platform

PLUG AND PLAY

Global accelerator

ANTLER

First investor of Zoom

TSVC

Trusted By

SIEMENS

Industrial automation & electrification company, ***$86 B revenue***

tesa

World-leading tape manufacturer, ***$1.2 B revenue***

BASF
We create chemistry

World-leading chemical company, ***$75 B revenue***

ANDRITZ

Global hydropower pump supplier, ***$9.5 B revenue***

By engineers, for engineers.

On-prem deployment for Data Safety

Outcome-based pricing for Fast ROI

Forward-deployed to Guarantee Success

...


IndustrialMind.ai

IndustrialMind.ai

Scan to learn more via Brella.

We bring manufacturing intelligence

PLUG AND PLAY

STARTUP PRESENTATION

NYXARA

Nyxara

Beam Terabytes of Data in Seconds Anywhere on Earth Using Space Lasers.

#PNPTCSiliconValley

Join us at **pnptc.com**

beam Data at TB/Sec Anywhere on Earth from space

Nyxara

Next Era of Connectivity

Nyxara Inc.
Contact: hq@nyxaraspace.com
www.nyxaraspace.com

NETWORK INFRASTRUCTURE IS FAILING

Outdated Infrastructure
90%+ of U.S. military data still moves via outdated RF satellite links vulnerable to jamming and interception.

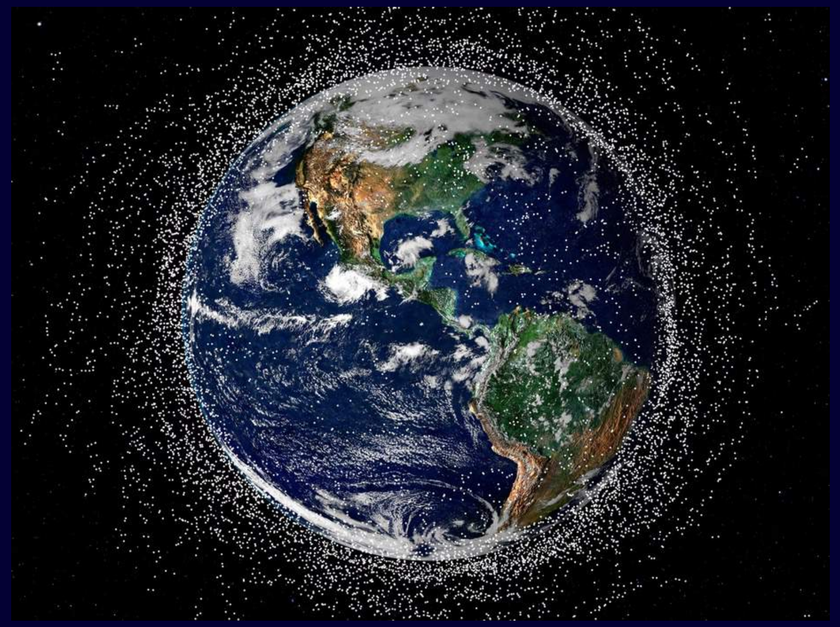
Rising Demand
U.S. wireless networks are unable to meet 25% of traffic demand in high-traffic areas during peak hours. 1.2ZB data/month expected by 2026. AI use accelerates this.

Economic Impact
Economic Loss: The U.S. is projected to lose $1.4 trillion in potential GDP between 2025–2035 if this connectivity crisis is not addressed.

WE NEED NEXT GENERATION COMMS - 6G

NYXARA

TO BUILD 6G WE NEED TO SOLVE THE DATA TRAFFIC JAM IN SPACE



1 Over 42,000+ satellites expected by 2030 and growing lack ground stations

2 Satellites generate 150+ TB/day; only ~1.5TB reaches Earths ground stations

3 AI, defense need instant insights — satellites orbit for 60min+ looking for available ground stations

CURRENT RF SYSTEMS ARE THE BOTTLENECK

COSTLY LICENSES

Reuters

SpaceX buys wireless spectrum from EchoStar in $17 billion deal

By **David Shepardson** and **Joey Roulette**

September 8, 2025 2:04 PM EDT · Updated September 8, 2025

PRONE TO INTERCEPTION

satnews

Satellites face growing security risks from Russia and China with 10,000+ incidents per year

MAY 5, 2025

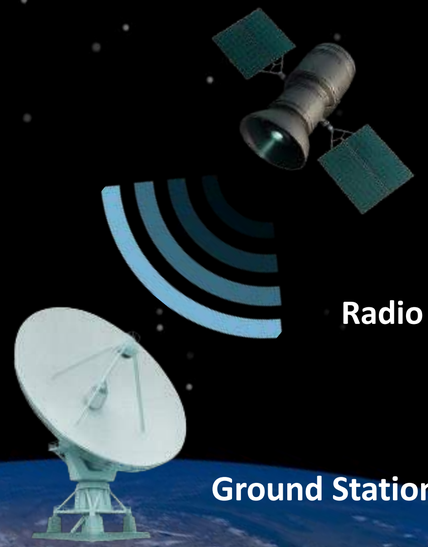
OVERBURDENED & CONGESTED NETWORKS

THE TEXAS TRIBUNE

Feds approve Texas' plan for $3 billion to expand broadband access

The federal investment follows the $1 billion approved by Texas taxpayers to help connect the state.

BY JAYME LOZANO CARVER NOV. 20, 2024 10 AM CENTRAL SHARE REPUBLISH



SOLUTION: LASER COMMUNICATIONS

SPECTRUM LICENSE-FREE

INTERCEPTION PROOF

HIGH VOLUME TB DATA

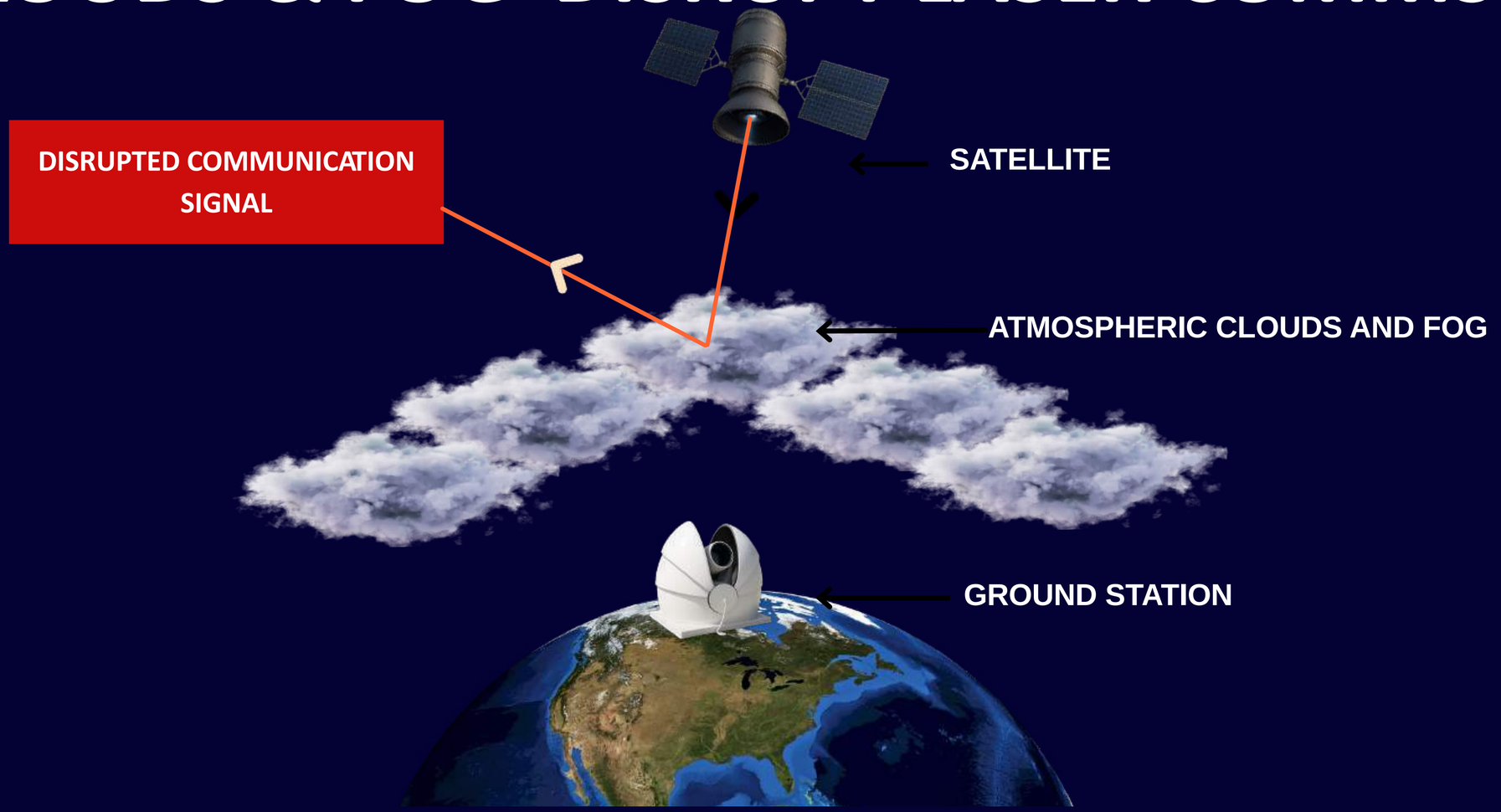
ALREADY IN USE FOR INTER-SATELLITE LINKS

STARLINK

amazon project kuiper

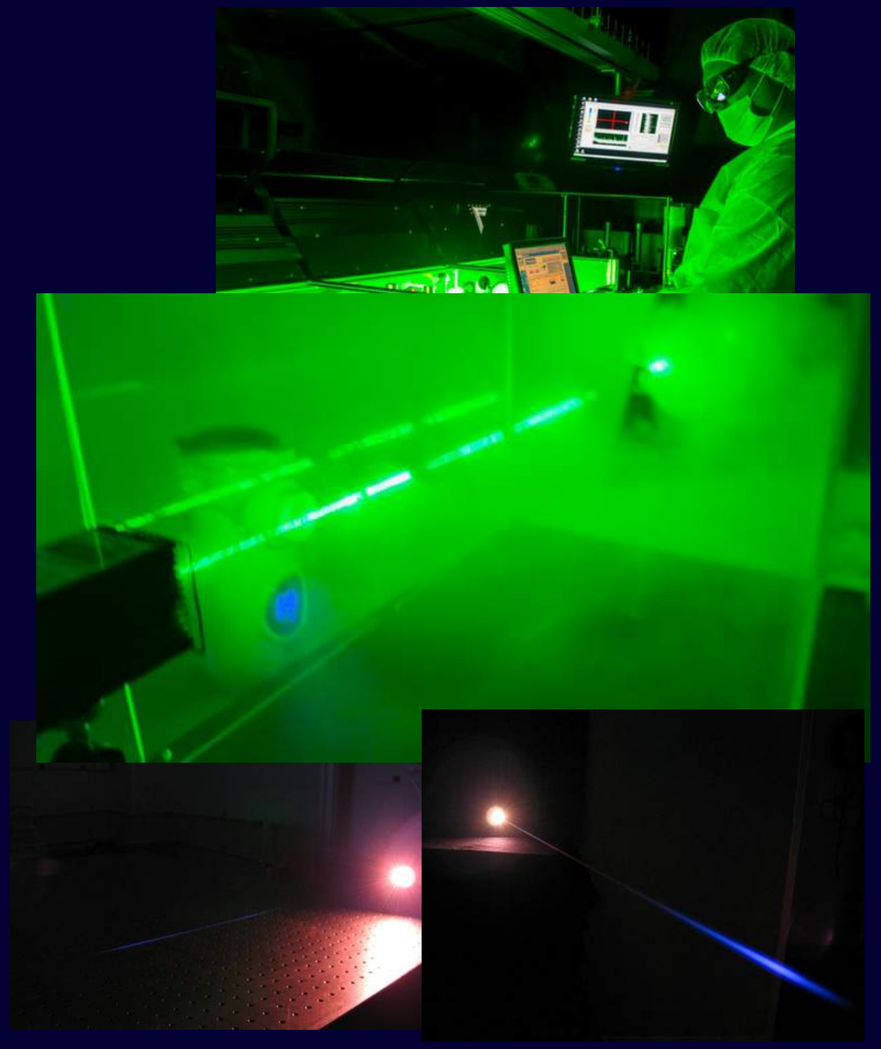
SDA SPACE DEVELOPMENT AGENCY

CLOUDS & FOG DISRUPT LASER COMMS



CURRENT STATE OF ART OPTICAL GROUND TERMINALS

CLOUD PENETRATING SYSTEMS



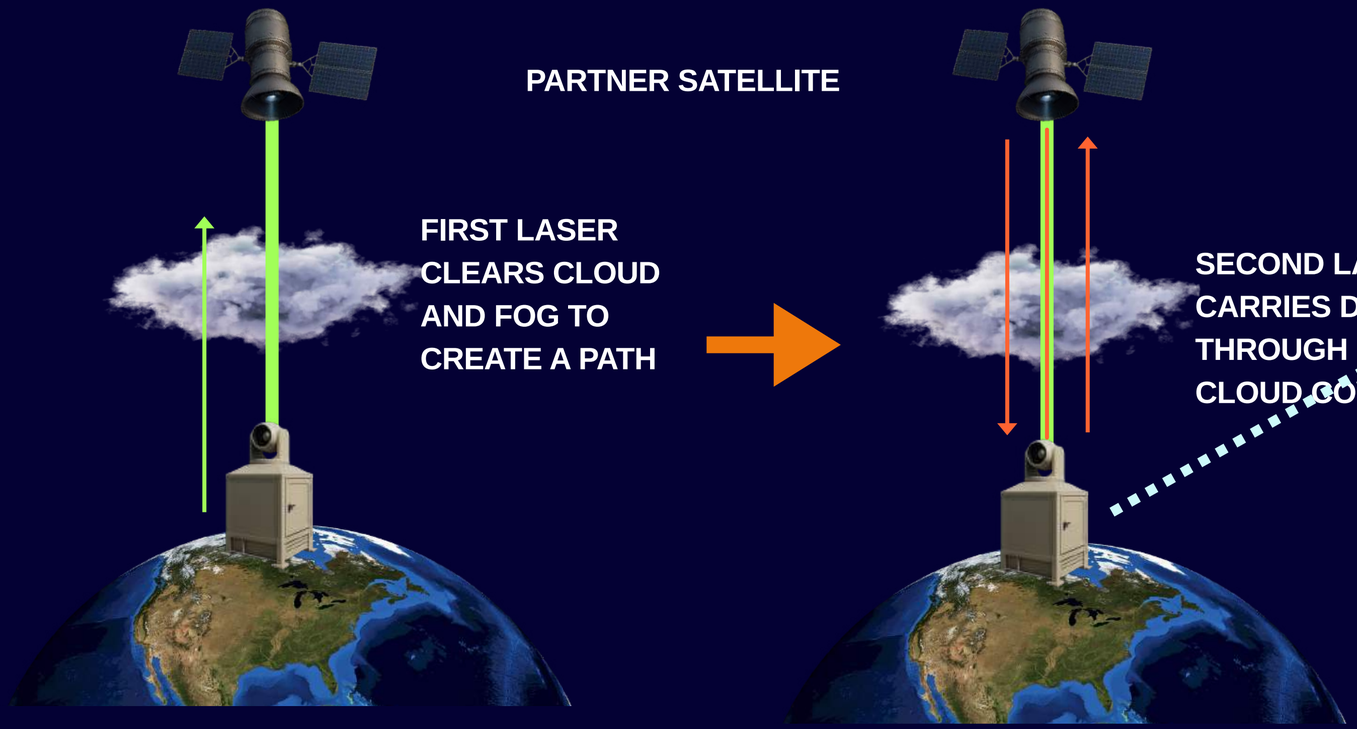
FROM LAB

TO FIELD

NYXARA

HOW IT WORKS?

Nyxara's dual-laser system uses a directed-energy beam to pierce cloud cover and open a clear channel, followed by a high-speed data laser that transmits signals; we partner with satellites and airborne assets to leverage existing space infrastructure, and have a design partnership with a leading American satellite provider, giving us access to 27 satellites already in orbit to build and test our solution.



PARTNER SATELLITE

FIRST LASER CLEARS CLOUD AND FOG TO CREATE A PATH

SECOND LASER CARRIES DATA THROUGH CLOUD COVER

REAL TIME DYNAMIC ROUTING AND NETWORK ASSET MANAGEMENT

NYXARA'S HIGH POWERED LASER SYSTEM
PATENT PENDING

END USER

END CUSTOMER SOLUTION

PARTNER SATELLITE

OUR GROUND STATION

NETWORK MANAGEMENT

NYXARA

Tb/s Data

DIRECT TO ENTERPRISE AND HOME

Tb/s Data

DATA CENTERS AND EDGE

PARTNER TRANSCEIVER

OUR GROUND STATION

NETWORK MANAGEMENT

NYXARA

Tb/s Data

REMOTE CONNECTIVITY - (DEFENSE AND EMERGENCY)

USE CASES & TAM

Telecommunications Backhaul and National Security (Dual Use Beachhead Market)

Data Centers in Space
$23.54B

Data Center Connectivity
$38.52B

Rural-Remote Areas
$66.06B

National Security
$54.35B

Remote Robot Operation
$19.98B

Offshore Rigs
$6.56B

High Frequency Trading
$5.35B

BUSINESS MODEL

NETWORK AS A SERVICE

Uplinks and Downlinks priced by TB Data delivered

Customer Subscribe to Recurring Fee Structure

Ground Stations Owned, Operated, and Maintained by Nyxara

TIERED PRICING

WHOLESALE PRICING

Ideal for:

- **Telecommunications providers**
- **Non inference (non AI) data center data loads**

PREMIUM ENTERPRISE PRICING

Ideal for:

- **Inference data loads (AI data) at data center**
- **High frequency trading, remote robotics operation, oil & gas**

MISSION CRITICAL PRICING

Ideal for:

- **Battlefield deployments**
- **Emergency response**
- **Surgical robots, space missions**

TRACTION

$10M PURCHASE LOIS | FAMILY OFFICE STARTUP GRANT + ANGEL FUNDING + BOOTSTRAPPING

CUSTOMER ENGAGEMENT

Building Customer Relationships for PMF

amazon project kuiper
NASA
airtel
planet.
AT&T
Telstra
verizon
SUMITOMO ELECTRIC
Starcloud

DEVELOPMENT PARTNERSHIPS

Partners to Build and Validate Market Fit

Skyloom
IONQ
TRUMPF
CLASS 5 Photonics

RESEARCH PARTNERSHIPS

Research Partners to De-Risk Technology

LABORATORY FOR LASER ENERGETICS
UNIVERSITY OF ROCHESTER
LINCOLN LABORATORY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY
UNIVERSITY OF MARYLAND 18 56
DEPARTMENT OF PHYSICS
Princeton Physics

SUPPORTED BY

NSF
I-CORPS NSF Innovation Corps
THE ENGINE Built by MIT
BLUEPRINT A TOUGH TECH STARTUP DEVELOPMENT PROGRAM
NVIDIA INCEPTION PROGRAM
PLUG AND PLAY

TEAM

Engineering

Gulmohar Ahluwalia – CEO & Founder

Ex-Telstra Product Manager in IoT and analytics; built telecom and data products across Australia before founding Nyxara. Electrical and telecoms engineering from ANU and MBA from Georgetown University.

Dr. Sterling Backus- Fractional CTO & Ultrafast Laser Expert

Former CTO of KM Labs and Director of Special Projects at Thorlabs; pioneered ultrafast, high-power laser systems and serves as guest faculty in optical engineering at University of Colorado.

Science Advisors

Dawn Harms –Fractional COO and GTM Expert

Former CRO and interim CEO at Momentus, VP at Boeing and Space Systems Loral; scaled global satellite and launch partnerships exceeding $1B.

Dr. Mike Campbell: Directed Energy Science Lead

Former Director of both LLNL's Laser Directorate and the University of Rochester's Laboratory for Laser Energetics; globally recognized pioneer in fusion and directed-energy research for the DoD.

Ethan Becker - Optical Communications Lead

Ex- Director of Engineering at BridgeComm, where he built next-generation optical communication systems. Holds multiple optical system patent. MS. Systems Engineering, University of Pennsylvania.

Board Advisor

Tony Colucci – International Space Strategy

Ex-Chief Strategy Officer at SpaceLink and VP at Maxar / SSL and Hughes; over $3B in satellite transactions worldwide. MBA from Wharton.

RESEARCH PARTNERS FROM

NYXARA

- USING SPACE FOR GOOD ON EARTH.
- JOIN OUR MISSION: WWW.NYXARASPACE.COM

NEXT GENERATION DYNAMIC NETWORKS BUILT FOR AI GRADE INFERENCE LOADS

DEMOCRATIZE ACCESS TO HIGH SPEED INTERNET FROM SPACE

CONNECTING EARTH FIRST
LUNAR AND MARTIAN SURFACE NEXT

PLUG AND PLAY

STARTUP PRESENTATION

Bench

With Bench engineers can generate and execute design workflows across their existing toolstack.

#PNPTCSiliconValley

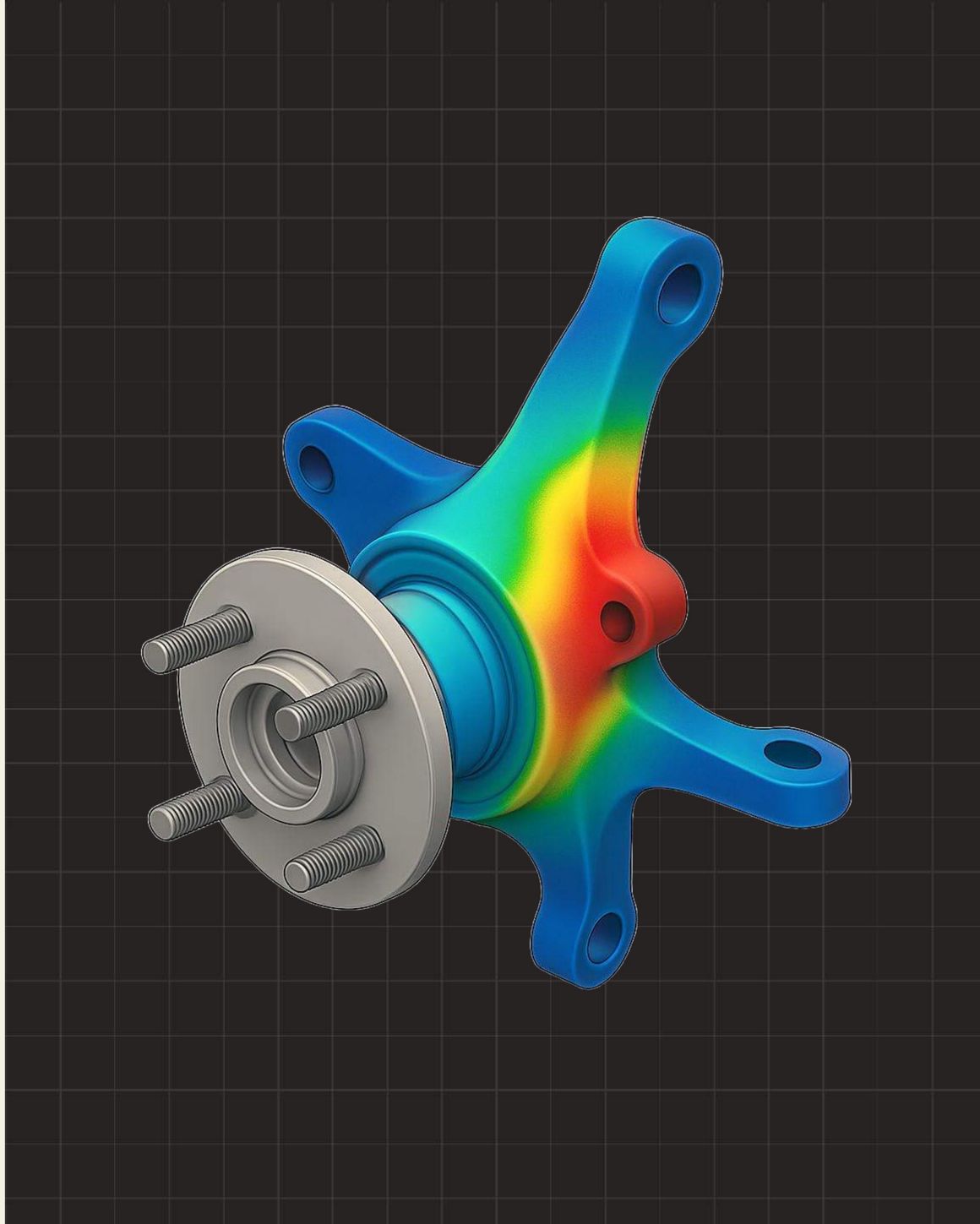
Join us at **pnptc.com**

Accelerating *Engineering Design*.

Bench *automates time-intensive engineering tasks* across CAD & CAE.

bench

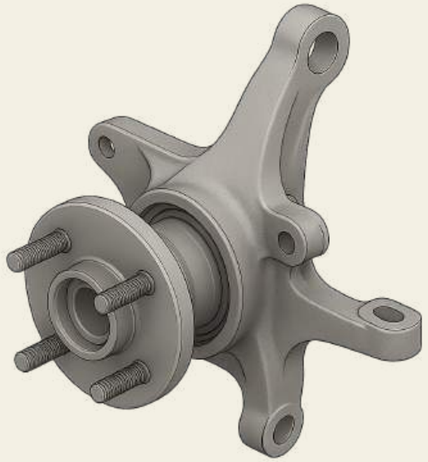
PLUGANDPLAY



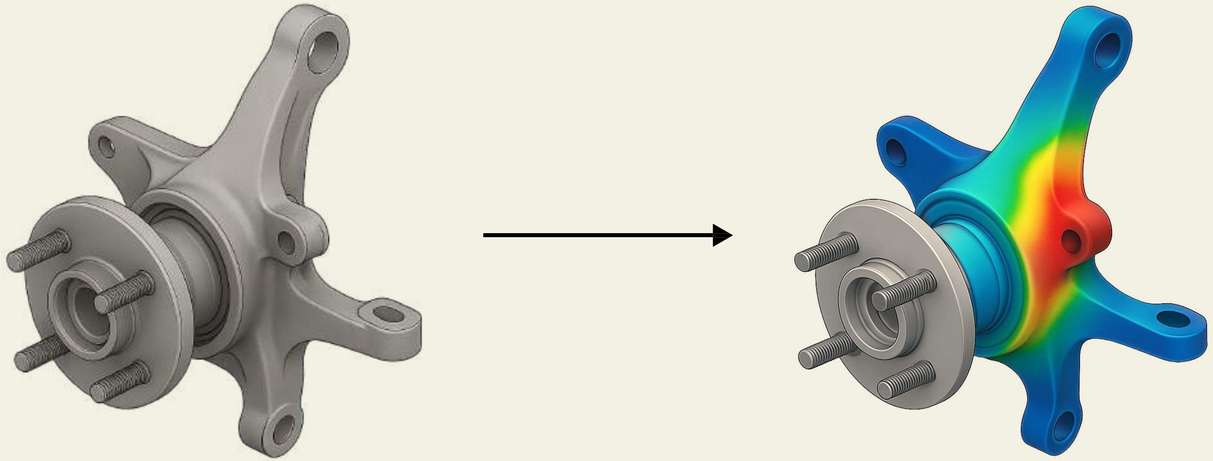
Most engineering workflows are *repetitive*.

Optimisation.

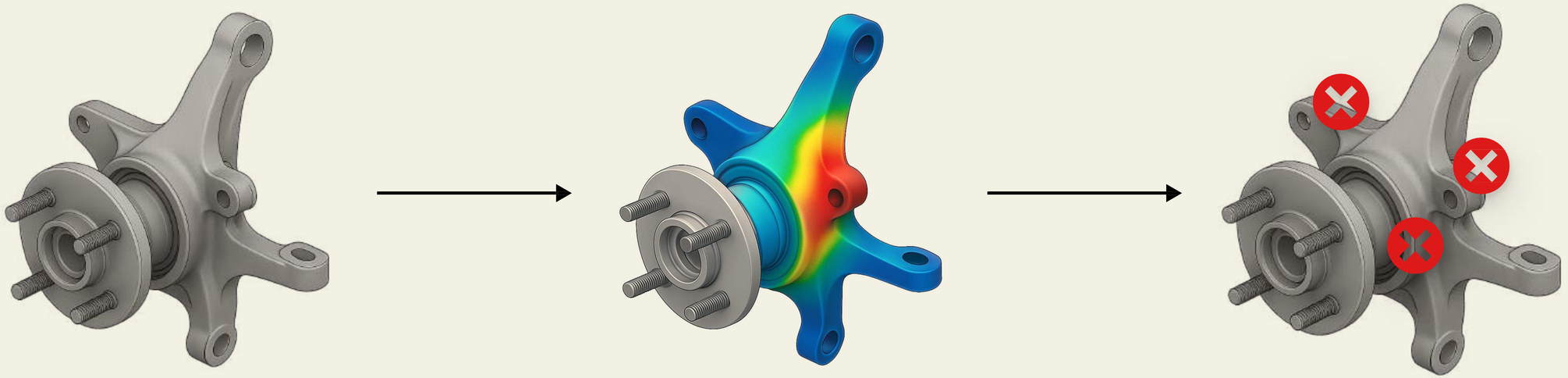
Optimisation.



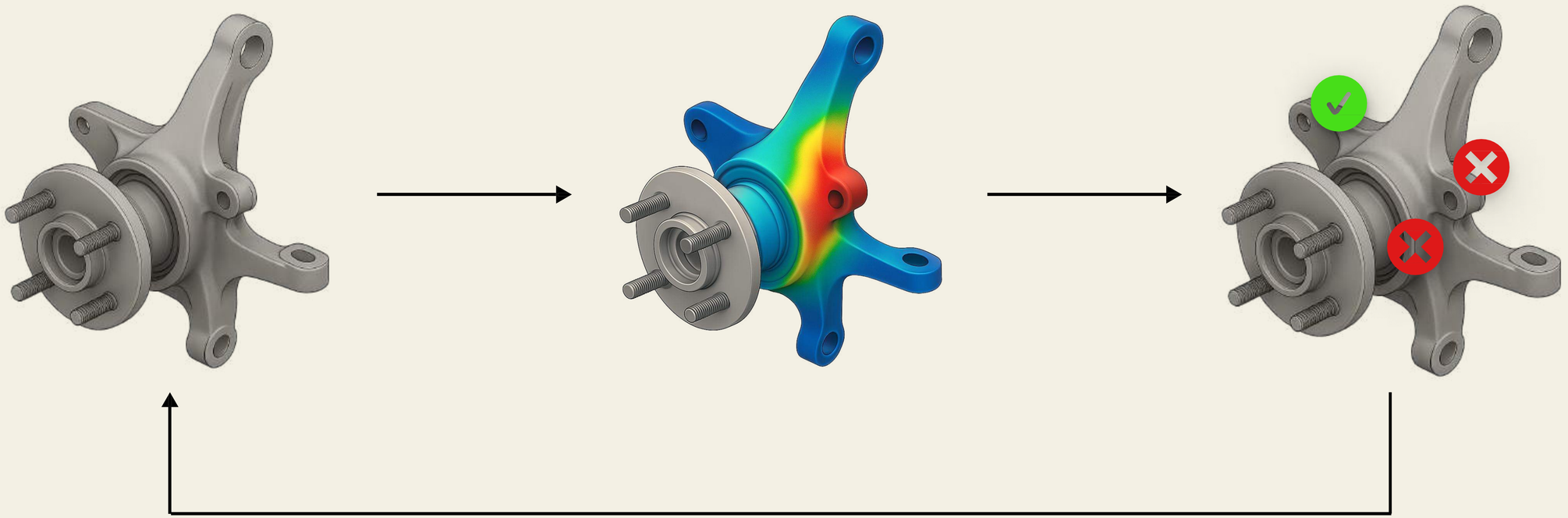
Optimisation.



Optimisation.

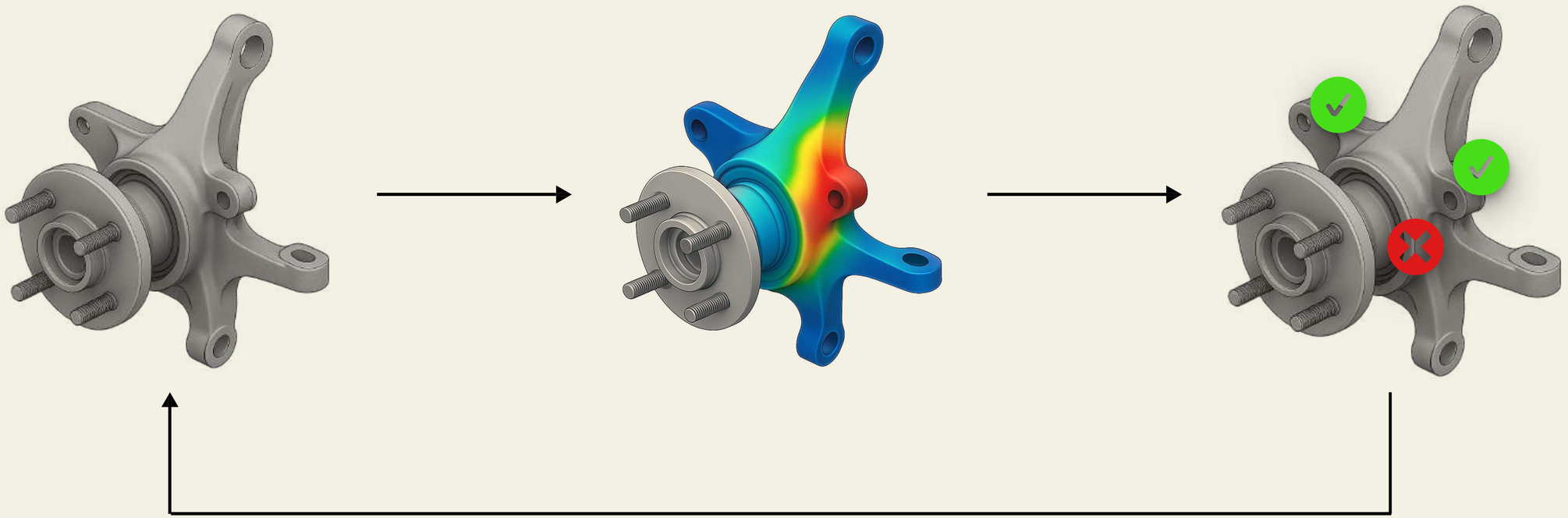


Optimisation.



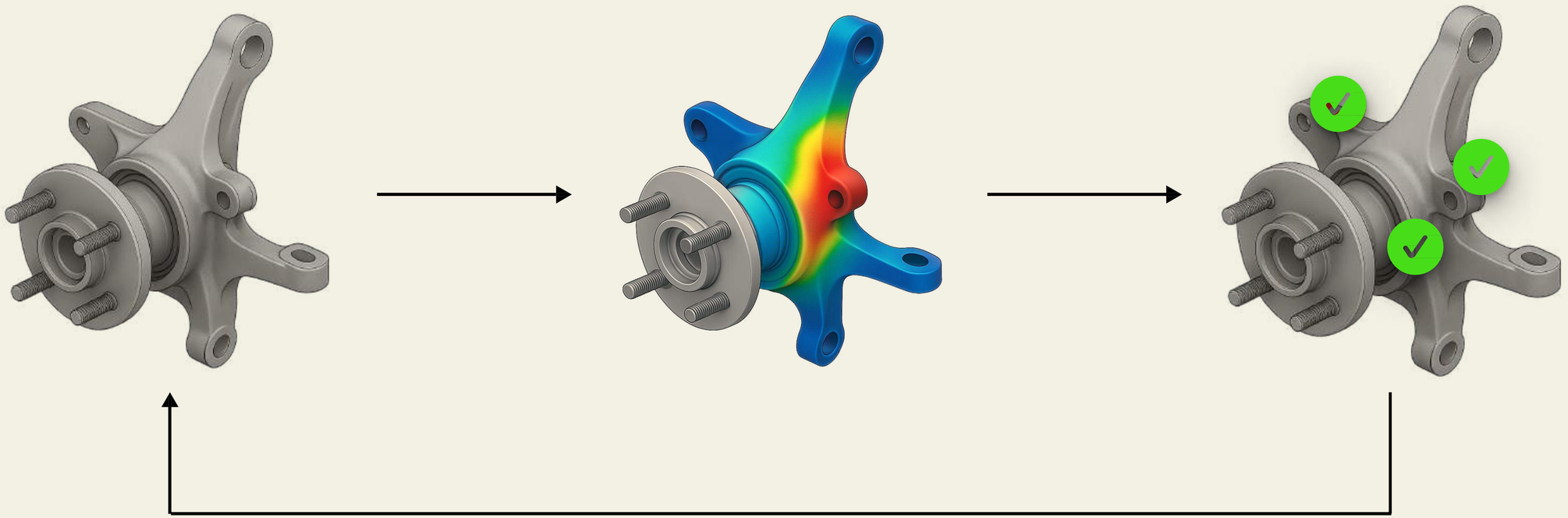
Iteration **1**

Optimisation.



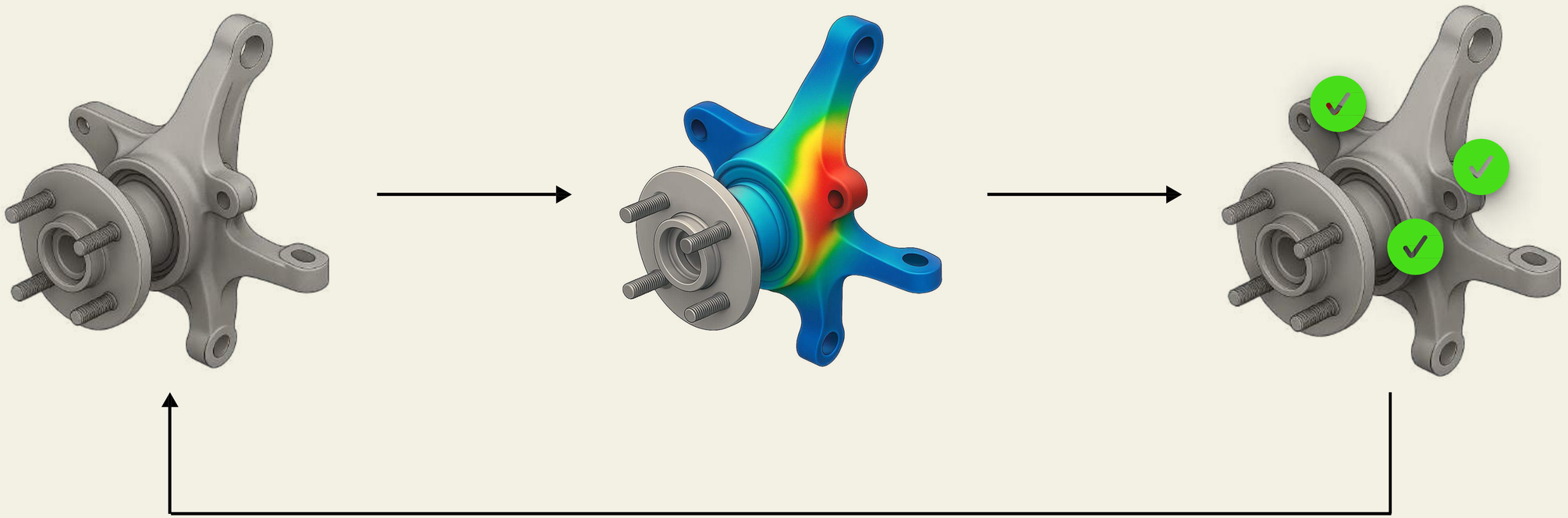
Iteration 6

Optimisation.



Iteration 21

Optimisation.



Iteration 21

Looks repetitive, but actually *varies significantly*.

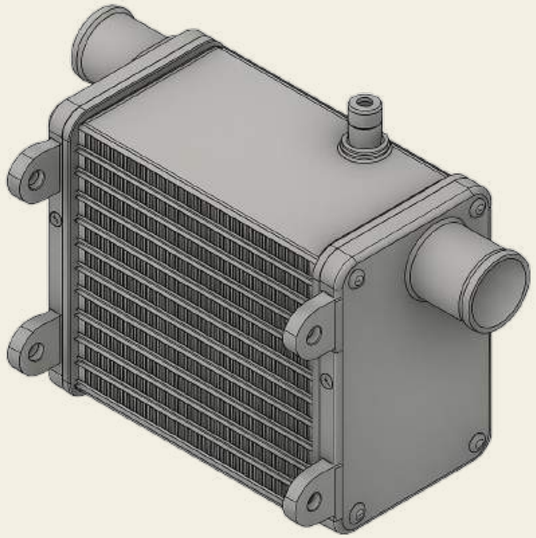
Every optimisation flow is *actually different*.

Every optimisation flow is *actually different*.

Wheels

Every optimisation flow is *actually different*.

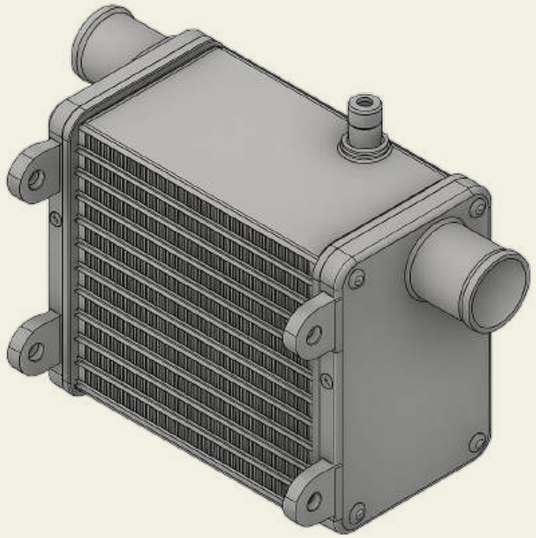
Wheels



Heat exchangers

Every optimisation flow is *actually different*.

Wheels



Heat exchangers

Engine mounts

Every CAD edit is different.

Every CAD edit is different.

Every simulation needs adjustment.

Every CAD edit is different.

Every simulation needs adjustment.

Every result must be judged in context.

Human intelligence is still needed.

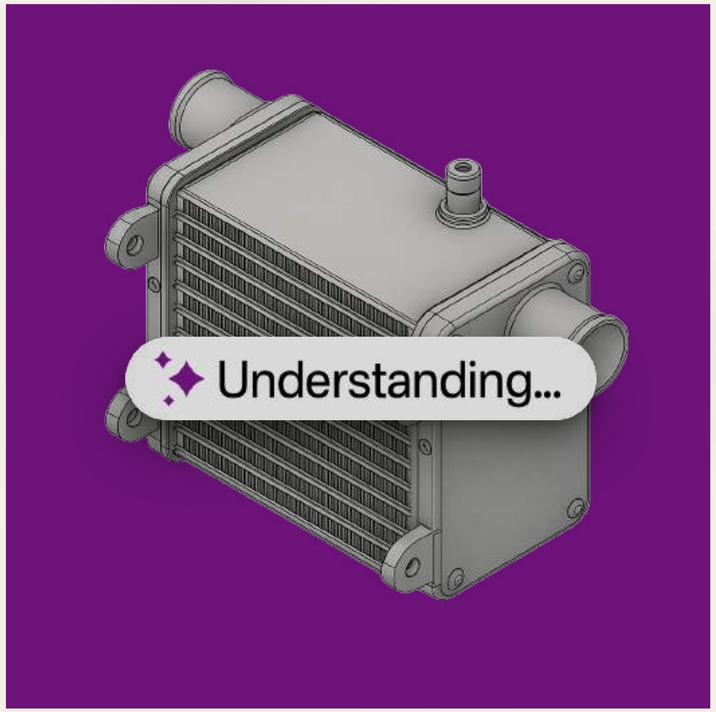
Introducing *Engineering Intelligence*.

bench

Bench automates the *previously un-automatable*.

bench

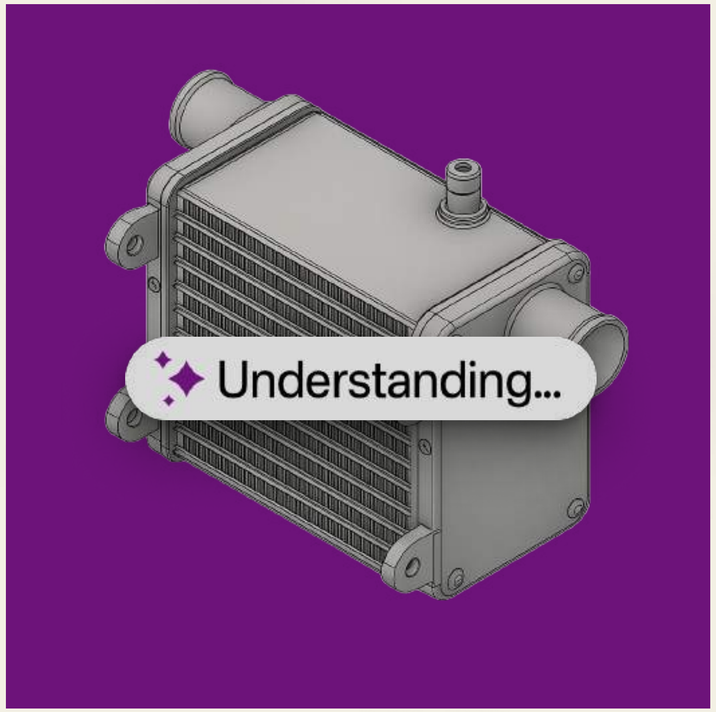
Bench automates the *previously un-automatable*.

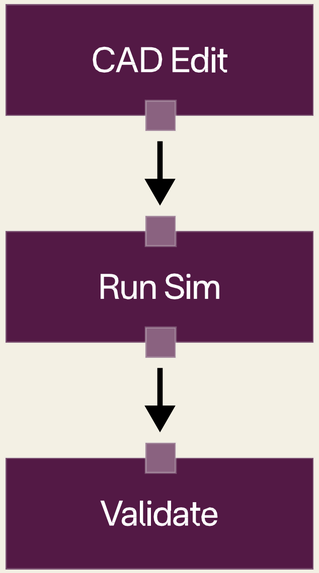


1. **Understand**
   CAD, meshes and design intent.

bench

Bench automates the *previously un-automatable*.



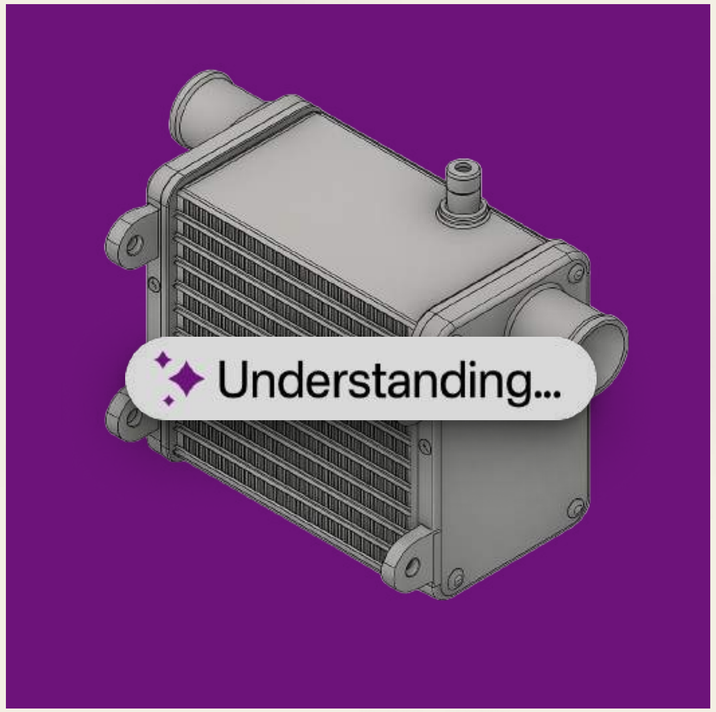


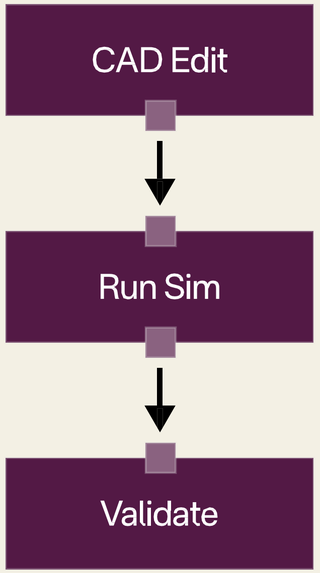
1. **Understand** CAD, meshes and design intent.

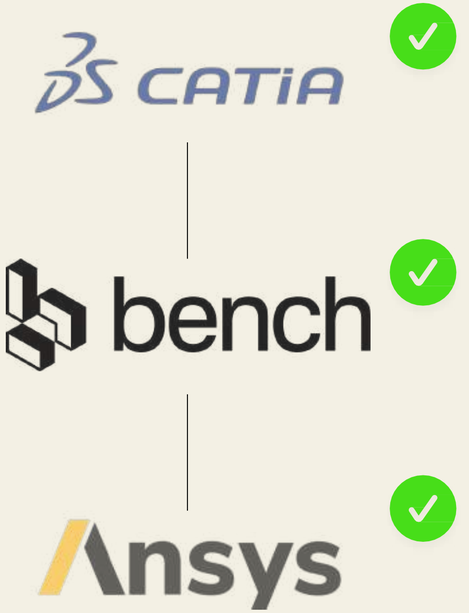
2. **Plan** multi-step engineering workflows.

bench

Bench automates the *previously un-automatable*.







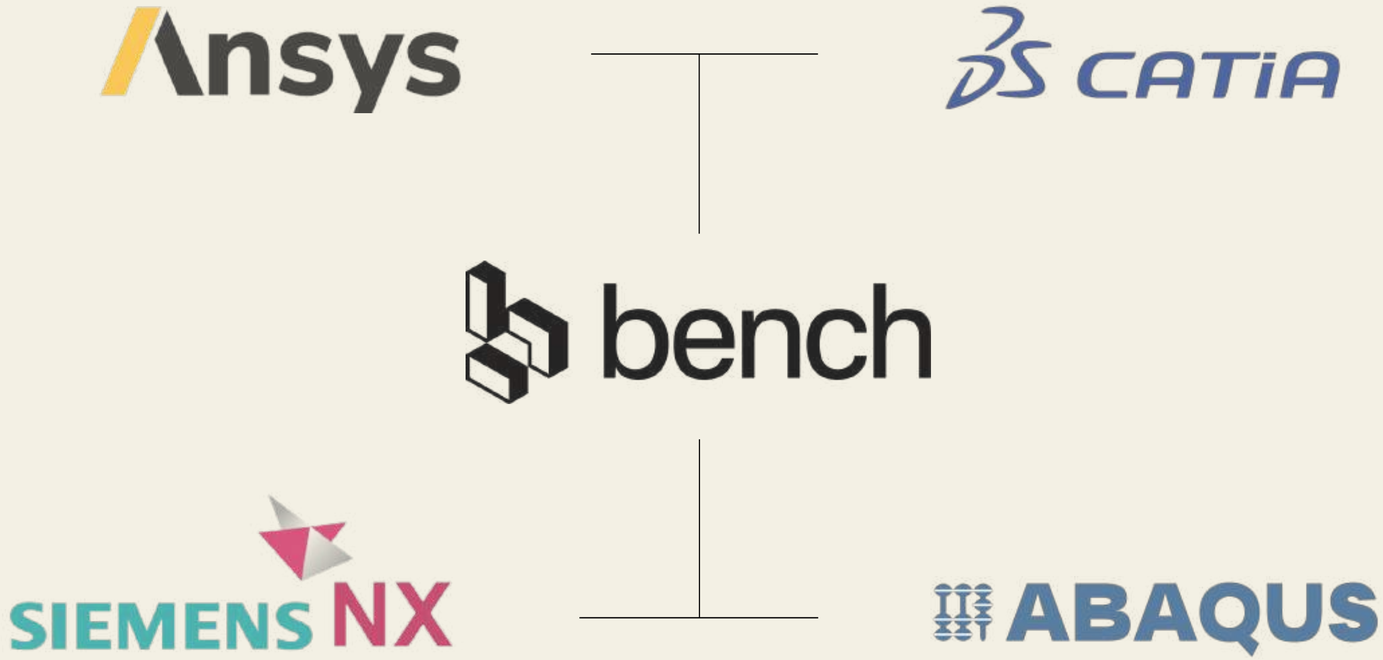
1. **Understand** CAD, meshes and design intent.

2. **Plan** multi-step engineering workflows.

3. **Completes** workflows autonomously.

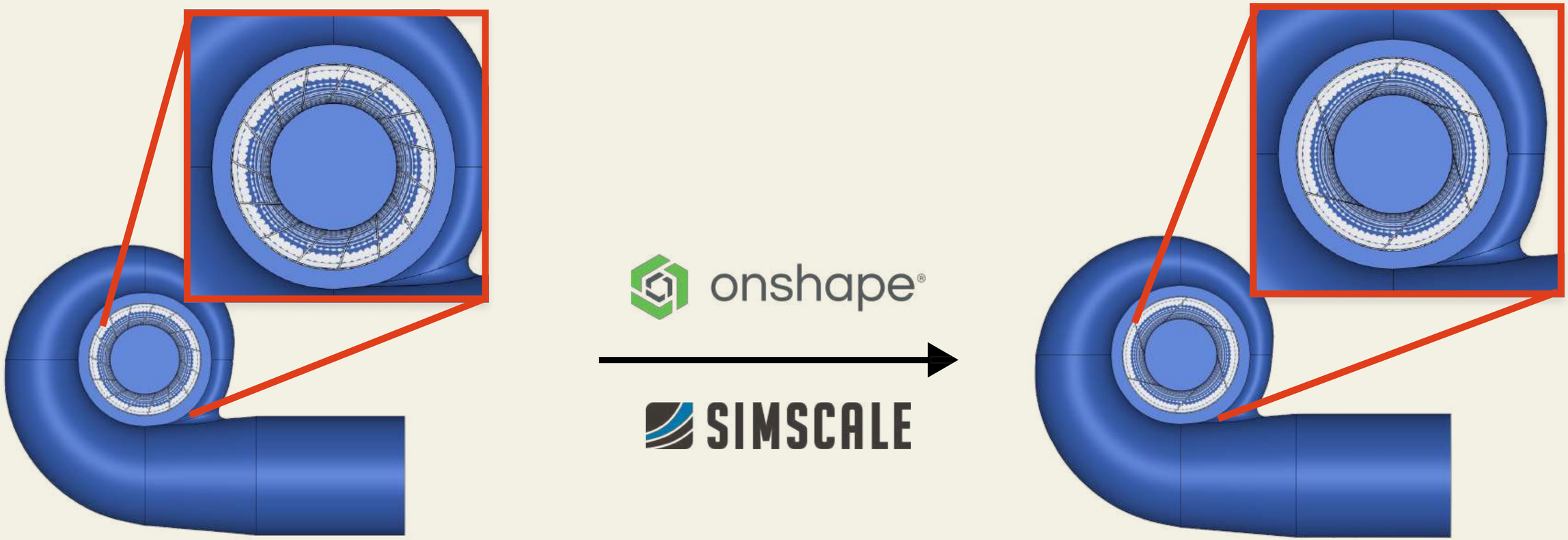
bench

All while using the *tools you already trust*.



No migrations. Connects to any engineering software.

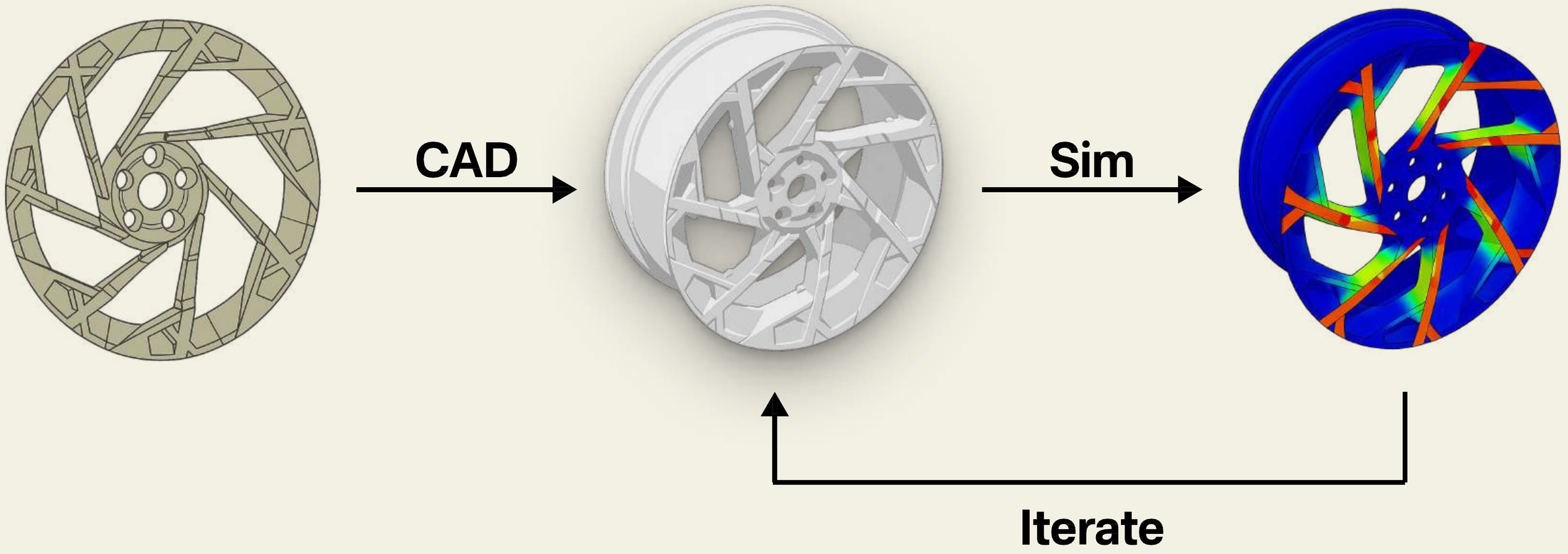
Agentic design optimisation - *97% time saved*.



30 mins → 1 min

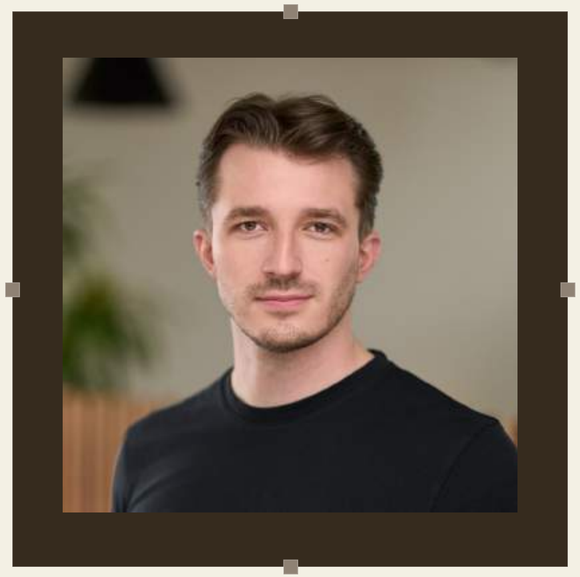
bench

End-To-End Product Design - *75% time saved*



bench

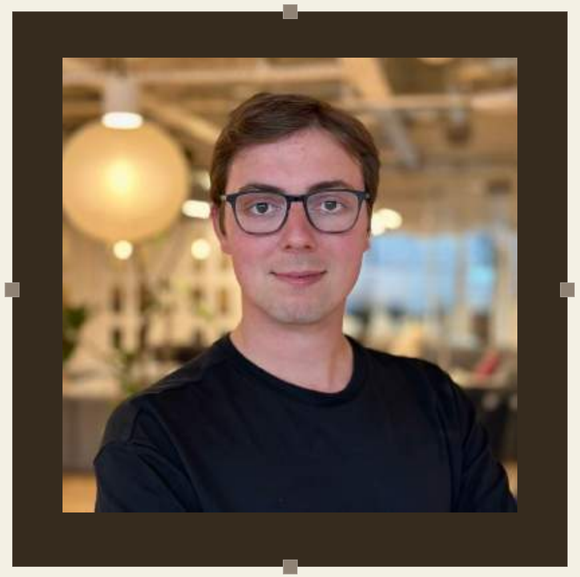
Engineers who've *lived these problems before*.



Martin Bielicki
CEO

Raihaan Usman
CTO

Mohammad Kapadia
AI Engineer



Luc Groshens
Platform Engineer

Rolls-Royce® AUTODESK MathWorks® esa

bench

Unlock faster engineering cycles.

Scan to connect.

bench

Martin Bielicki

Bench · CEO & Founder

Silicon Valley November Summit 2025

PLUG AND PLAY

STARTUP PRESENTATION

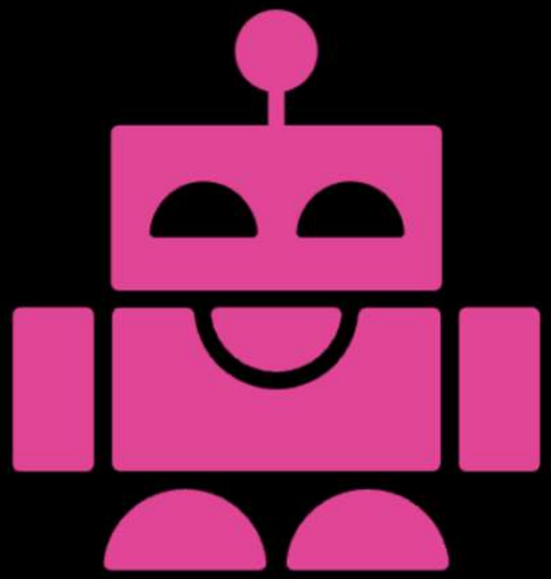
BotBot

Bot Bot

The missing UX layer for AI.

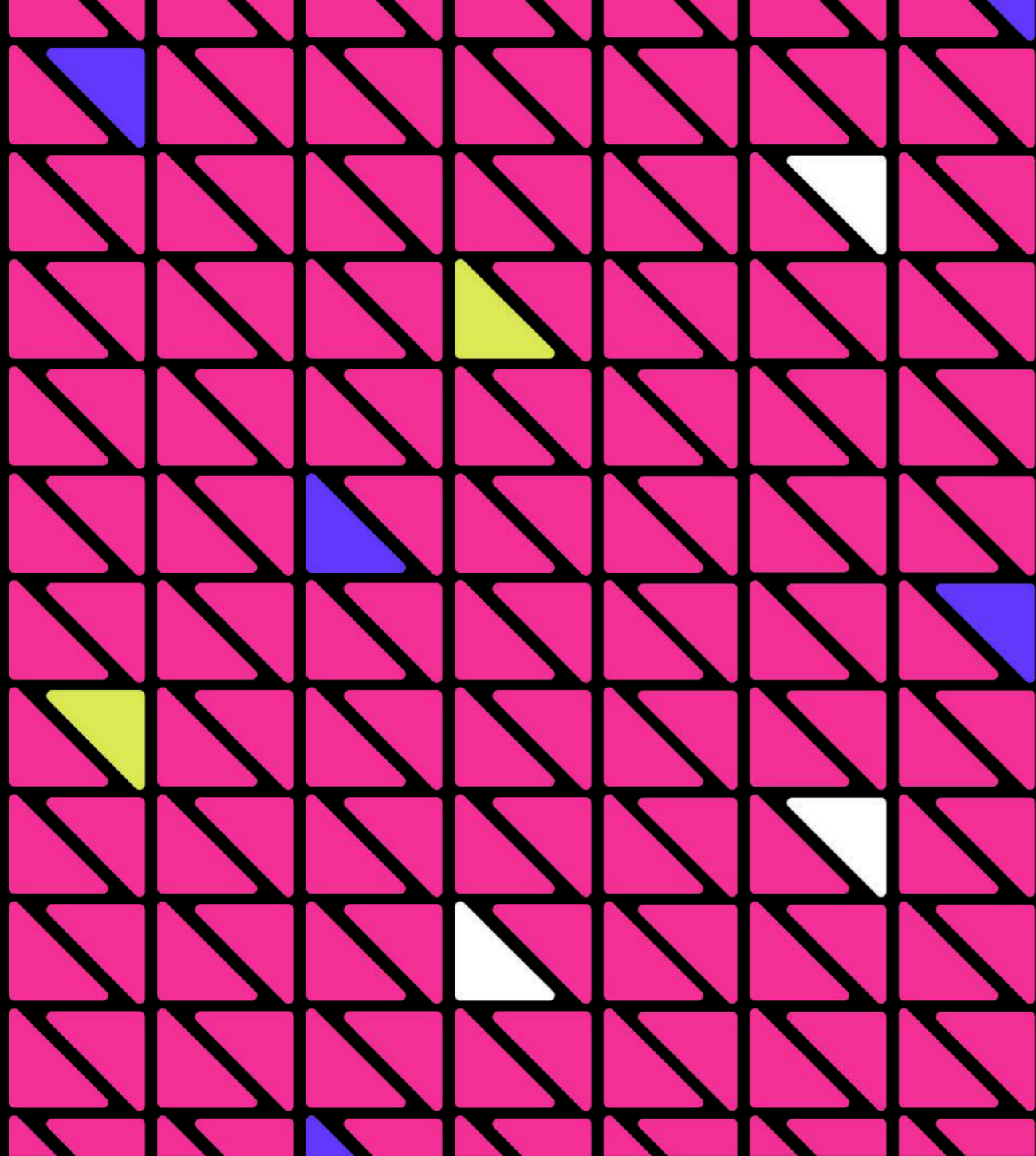
#PNPTCSiliconValley

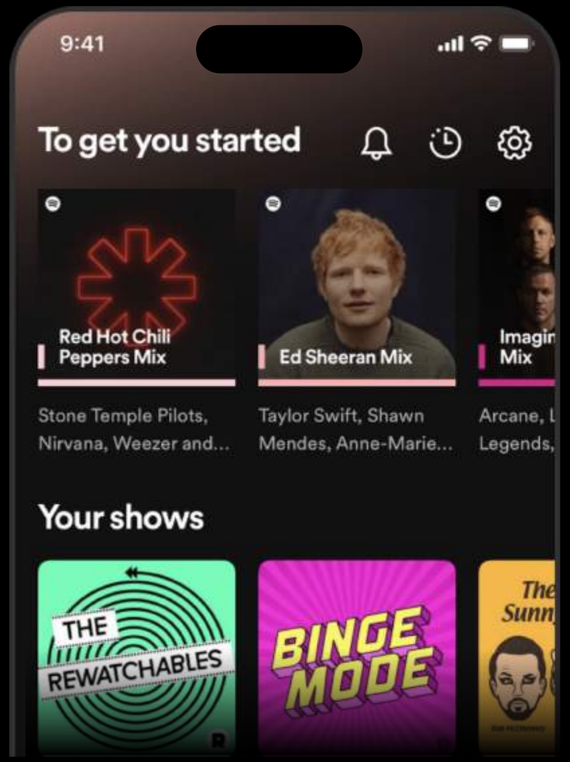
Join us at **pnptc.com**



BotBot

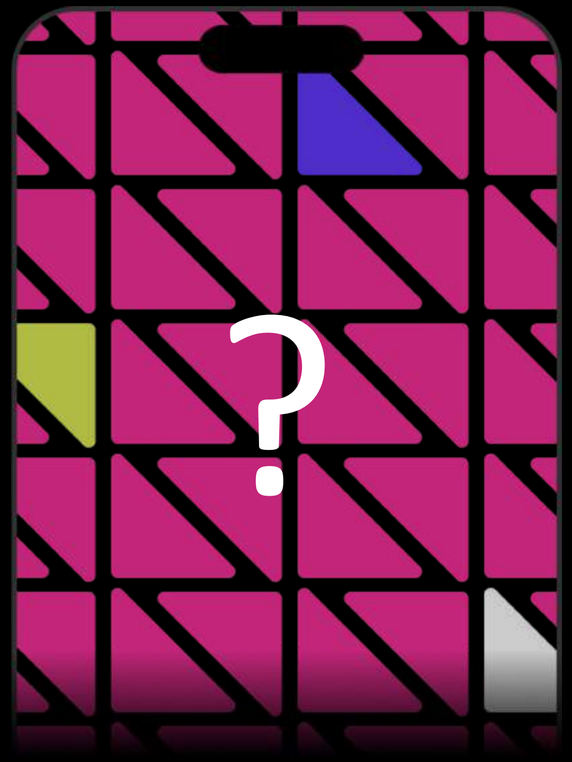
The missing UX layer for AI





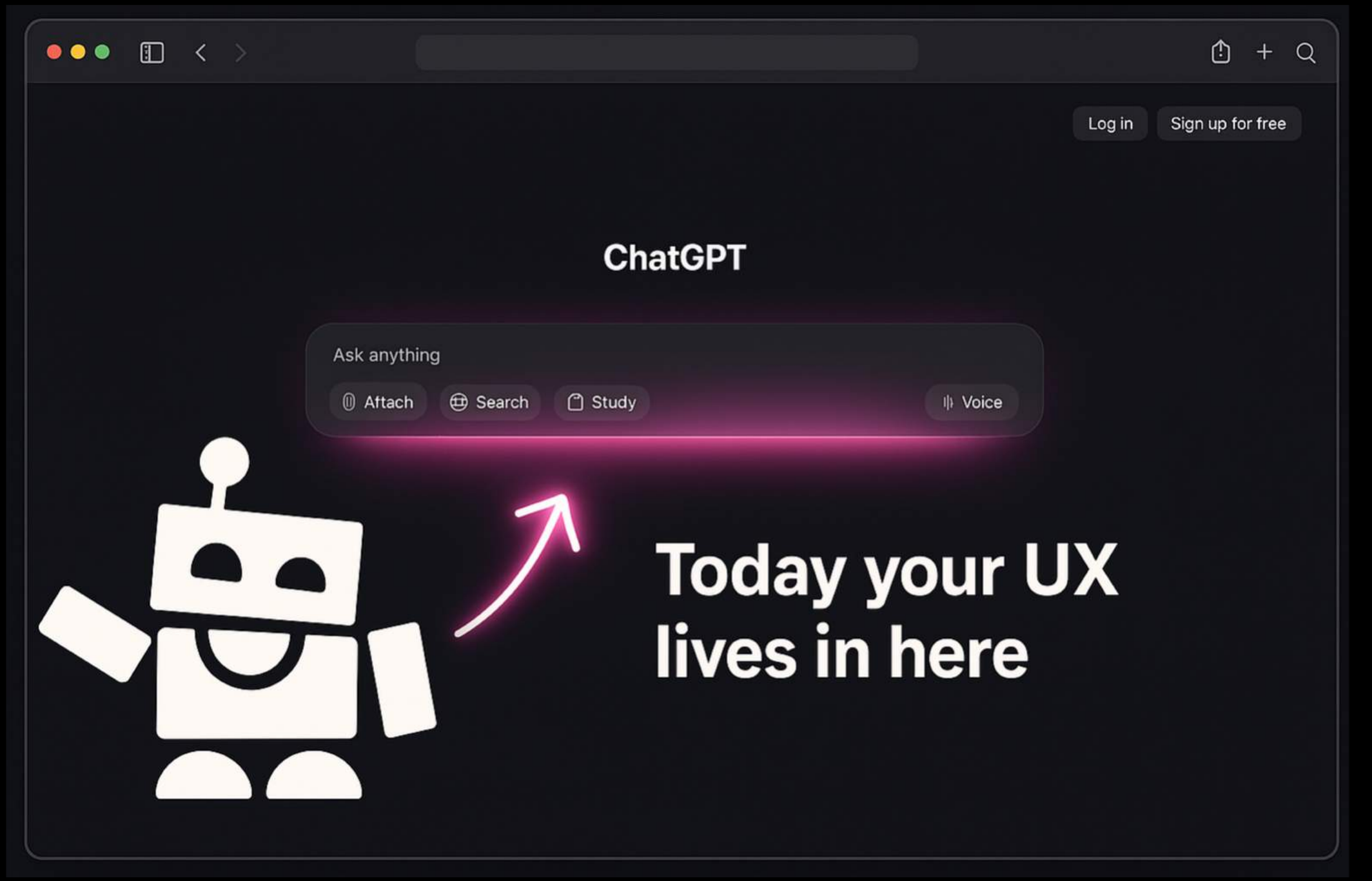
Today's UX

Beautiful, designed



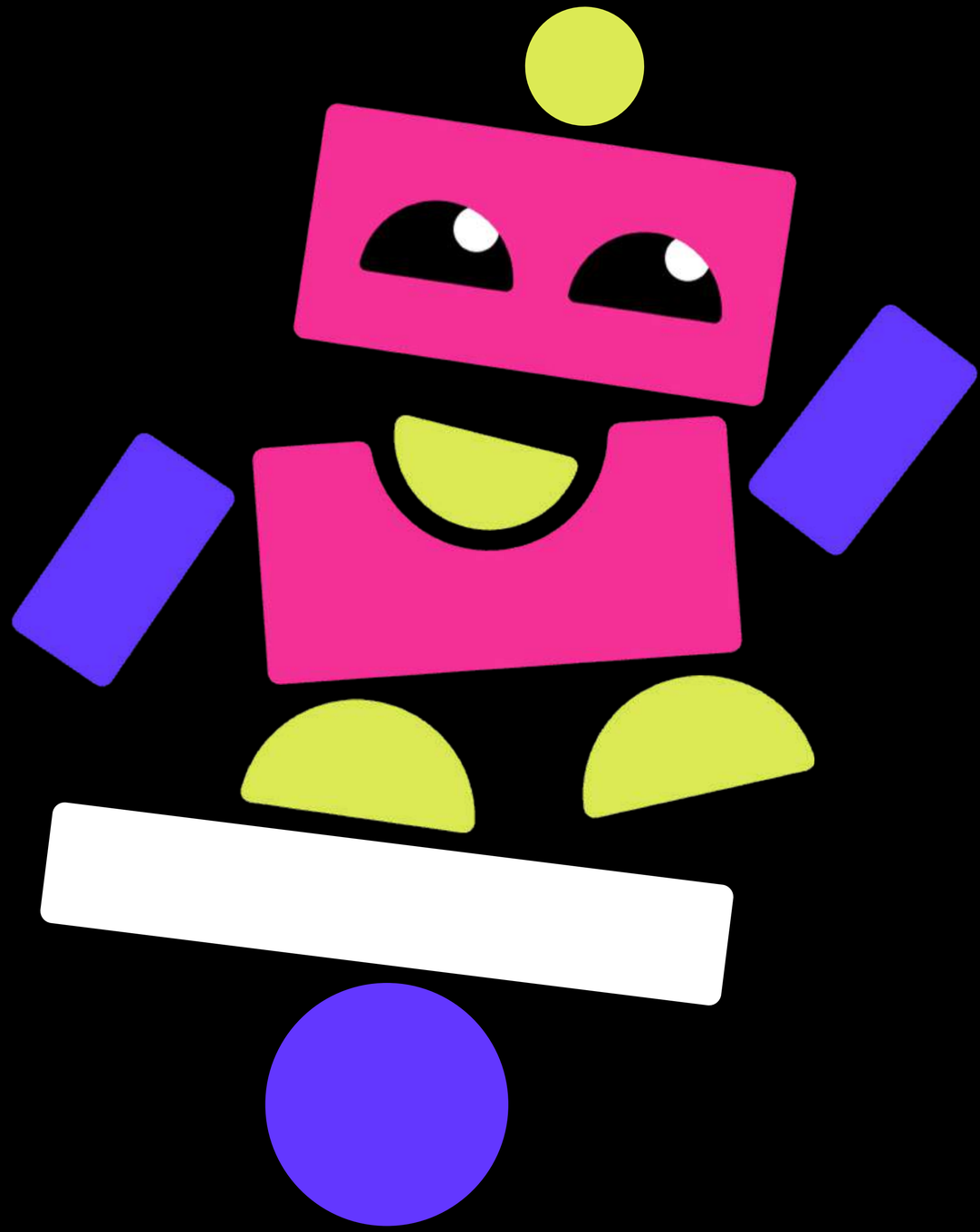
The critical gap

Engineers build,
designers can't shape


Log in
Sign up for free
ChatGPT
Ask anything
Aftach
Search
Study
Voice
Today your UX lives in here

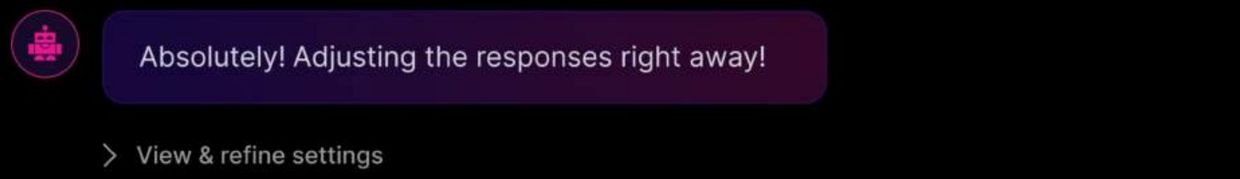
The solution

BotBot is the UX layer for AI features and products.



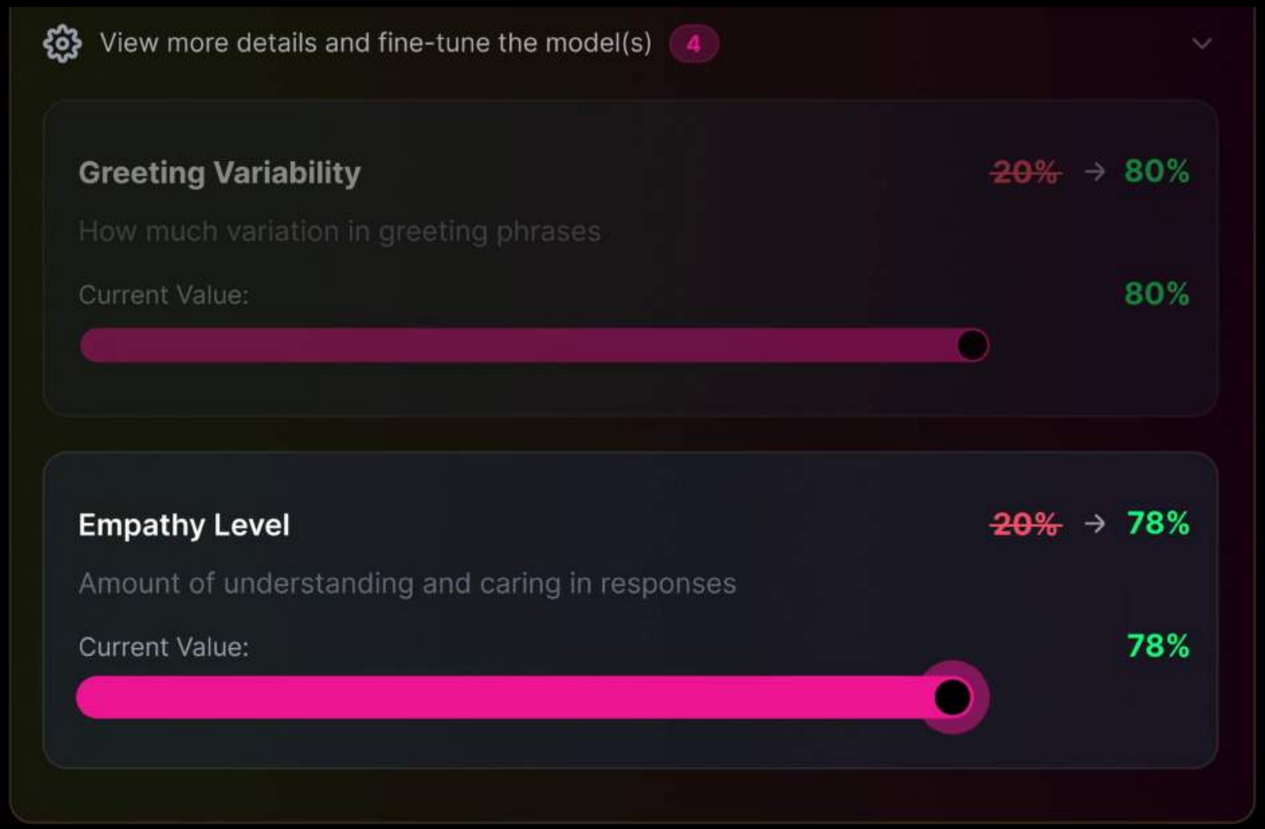
Conversational Interface

Shape AI experiences with natural language



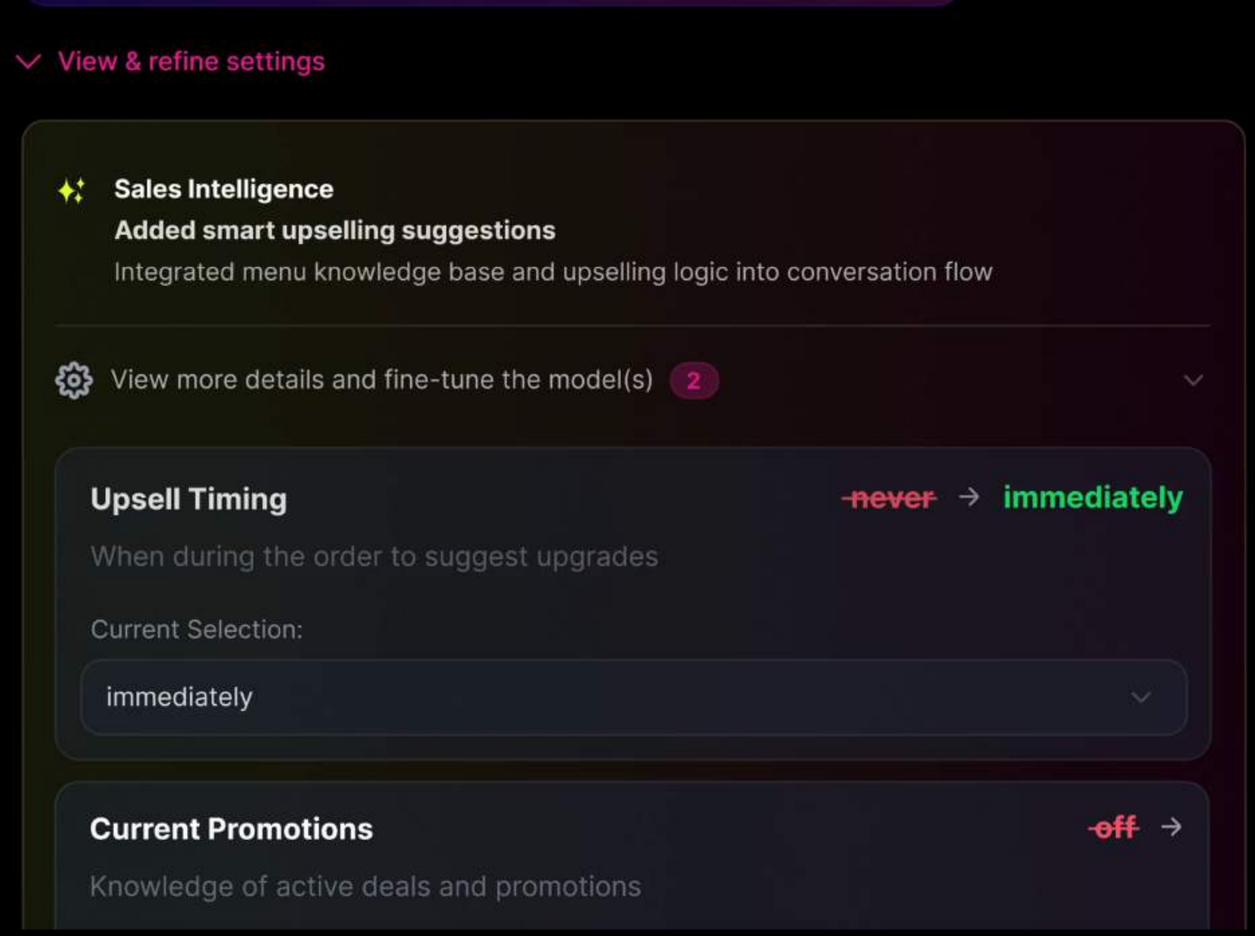
Test and Iterate Rapidly

Expose knobs and dials otherwise buried in code



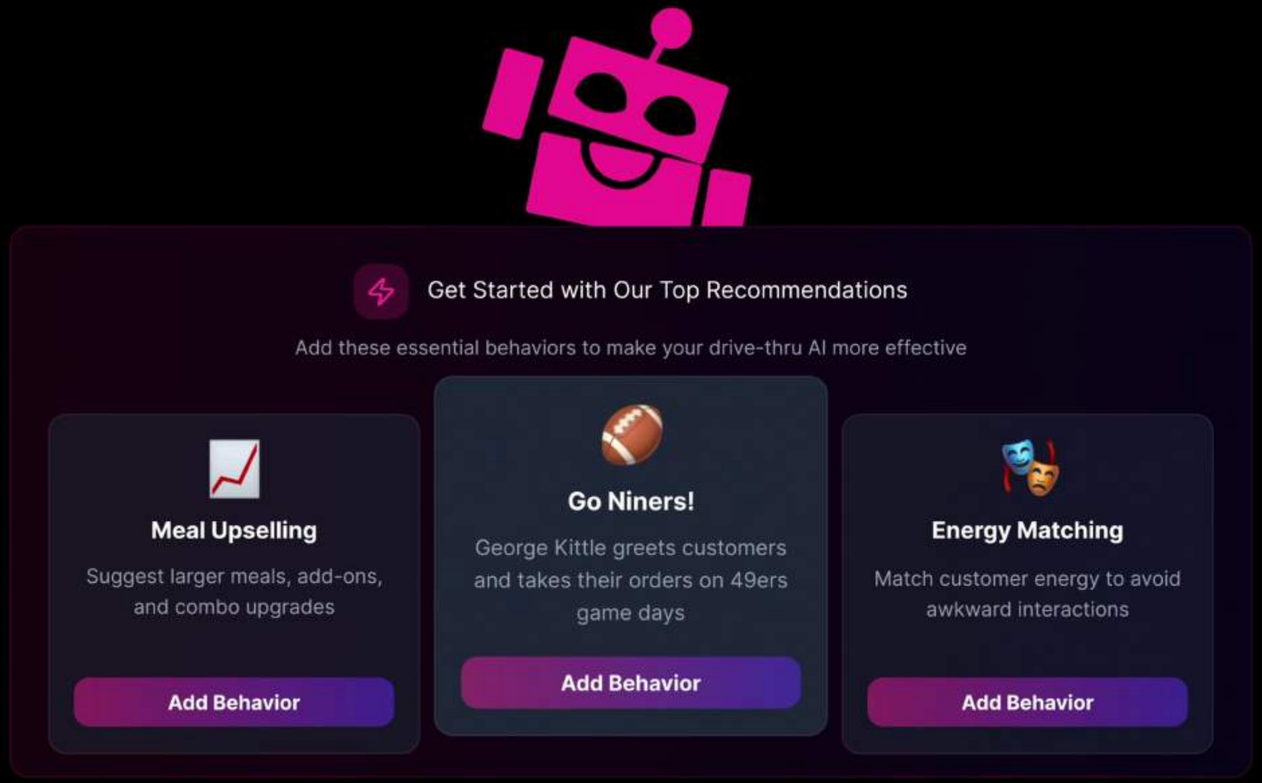
Shape Behavior

Build dynamic and contextual AI behaviors



Smart Recommendations

Recommend contextual and smart AI behaviors



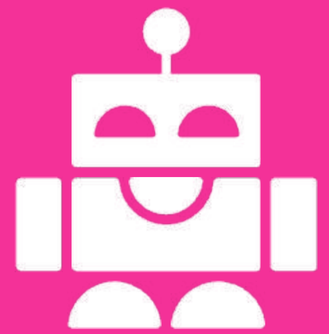
UX for a new era. That's BotBot.

Adobe

Print

Figma

Web



BotBot

AI

Thank You

PLUG AND PLAY

STARTUP PRESENTATION

FOUNDATION

Foundation

Foundation is developing the future of general purpose robotics with the goal to address the labor shortage.

#PNPTCSiliconValley

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FOUNDATION

STATE OF MANUFACTURING

HOW AMERICA WINS THE SECOND INDUSTRIAL REVOLUTION

AUTONOMY IS DEAD

FOUNDATION

Plug and Play Silicon Valley Summit

2025

Today’s most advanced [Smart] facilities are based on outdated thinking

- Manufacturing is based on decades of an old strategy based on predictability.
- Even systems built for scale remain rigid, siloed.
- Plants are sitting on untapped potential.

15%

Unlocked efficiencies even after Implementing automation

78%

Intend to invest in Automation

27%

Of Automation delivers full ROI

Deloitte 2025 Smart Manufacturing & Operations Survey, McKinsey & Co. Manufacturing Agility study 2024

AUTOAGILITY

noun *(au·to·a·gil·i·ty)*
pronunciation: /ˌɑːtoʊ-əˈdʒɪləti/
Definition:

1.The quality or state of being both **autonomous and adaptive**; the capacity of a system, machine, or process to operate independently while dynamically responding to changing conditions, inputs, or objectives.

2.In manufacturing and robotics, the next evolutionary stage beyond automation—where autonomous systems continuously reconfigure, optimize, and execute tasks with human-level adaptability.

FOUNDATION

Plug and Play Silicon Valley Summit

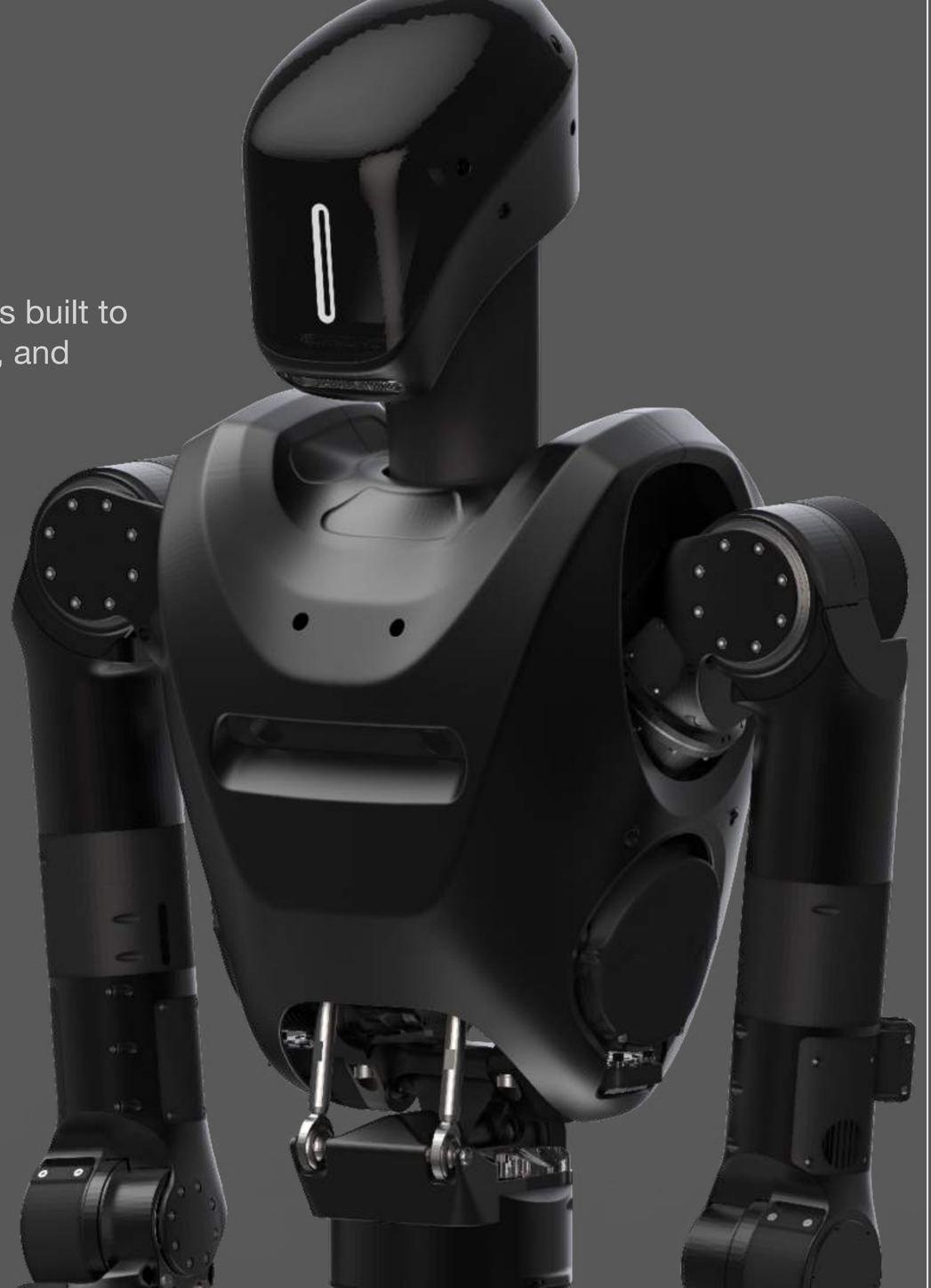
2025

Hello, we are FOUNDATION

Where autonomy evolves into intelligence

Foundation is creating the next generation of intelligent workers. Humanoids built to operate in environments too dynamic for static robotics: learning, adjusting, and collaborating in real time.

ADAPTIVE LABOR	Humanoids that can reconfigure workflows without retooling or retraining.	24/7 workforce continuity — zero downtime.
INTEGRATED INTELLIGENCE	Embedded AI that learns from human operators and system data	Continuous performance optimization and skill learning.
AUTOAGILE INFRASTRUCTURE	Humanoids that can reconfigure workflows without retooling or retraining.	24/7 workforce continuity — zero downtime.



FOUNDATION

Plug and Play Silicon Valley Summit

2025

What we are seeing

True output efficiencies that last beyond product lifecycle.

79%

Reduction in set up time

50%

Reduction in downtime

50%

Margin Increase

Deloitte 2025 Smart Manufacturing & Operations Survey, McKinsey & Co. Manufacturing Agility study 2024

Let’s Talk

Foundation’s Humanoids are here to pride scaling solutions for your business
Beyond the traditional lens of quantity and output.

Areas of efficiencies to consider:

- SAFETY
- QUALITY & PRODUCTIVITY
- TRAINING & AUTOMATION
- LOW RISK PILOT
- ADAPTABILITY
- FLEET MANAGEMENT
- COST MODEL
- INFASTRUCTURE
- TASKS
- SELECECTION CRITERIA

FOUNDATION

Plug and Play Silicon Valley Summit

2025

PLUG AND PLAY

STARTUP PRESENTATION

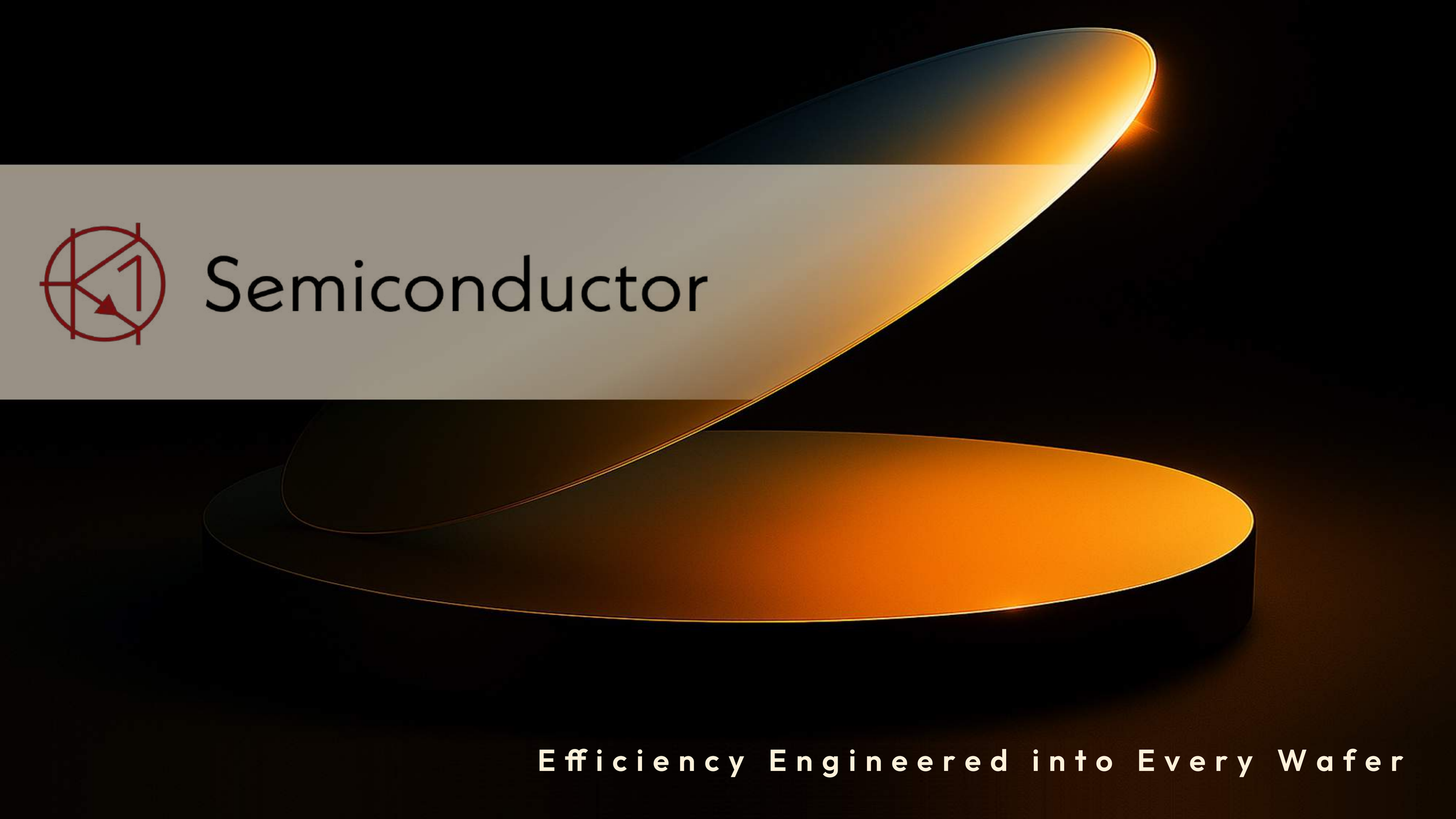
Semiconductor

K1 Semiconductor

Unlocking the future of semiconductor manufacturing.

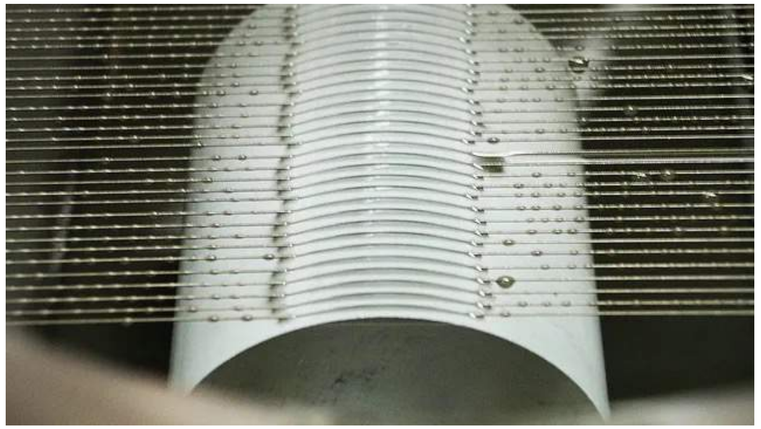
#PNPTCSiliconValley

Join us at **pnptc.com**

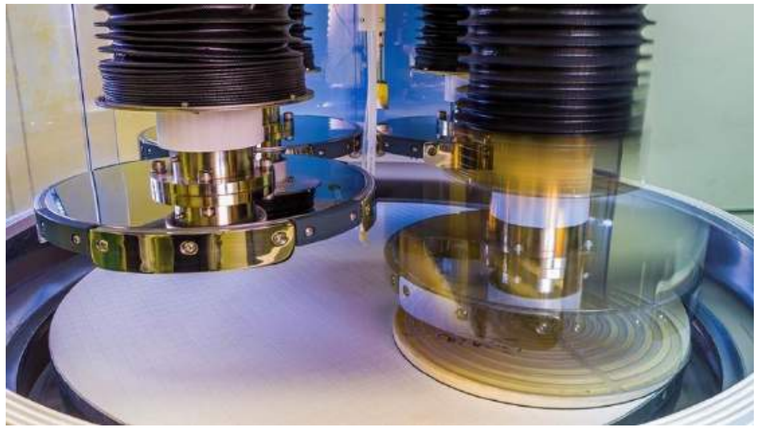

Semiconductor
Efficiency Engineered into Every Wafer

Semiconductor Wafer Manufacturing is Outdated

Hundreds of furnaces



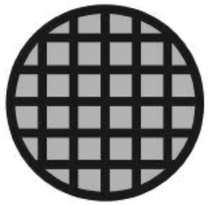
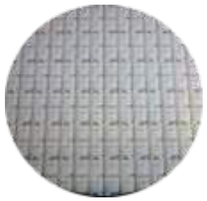
Wire saw



Wafer grinding

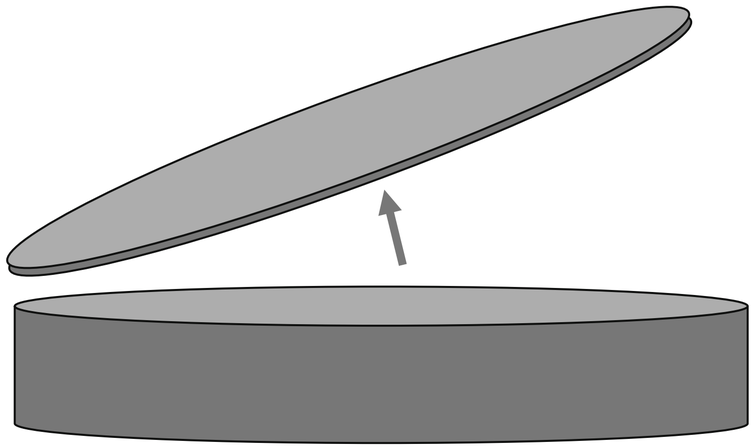
>65% of expensive material lost as waste

Inefficiency Hits High-end Materials the Most

Semiconductor	 $20 / in.^{2} Silicon Carbide	 $400 / in.^{2} Gallium Nitride	 $400 / in.^{2} Lithium Niobate on Insulator	 $6000 / in.^{2} Diamond
Applications	EVs Solar Power Dist	5G Power Adapters LEDs / LASERs	Fiber optics LIDAR Sensors	Heat Spreaders High Power Quantum
2030 Market; CAGR *	$10B 30%	$4B 20%	$2B 39%	$0.6B 27%

* Sources: Yole, Verified Market Research, Quantum Computing Inc., Intello

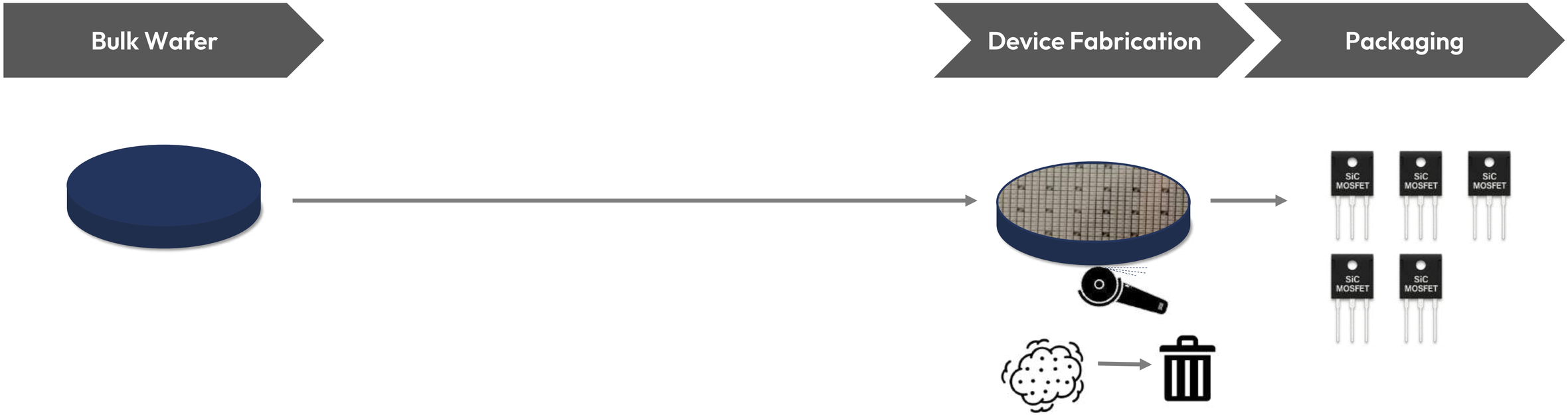
K1's Breakthrough Wafer Splitting Technology



- 20x Wafer Reuse
- Enables Engineered Composite Wafers
- Works With All Semiconductor Wafers

Semiconductor

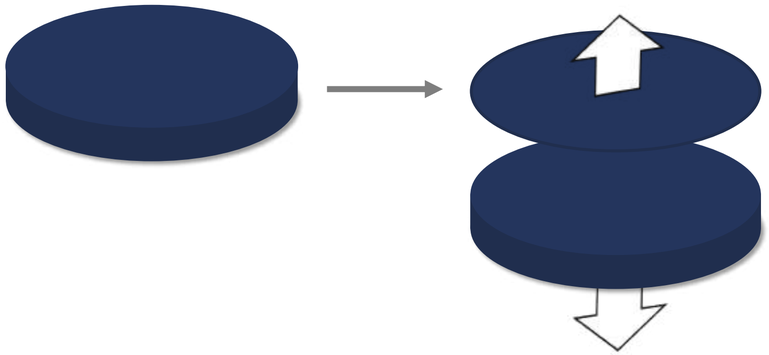
Power Semiconductor Manufacturing



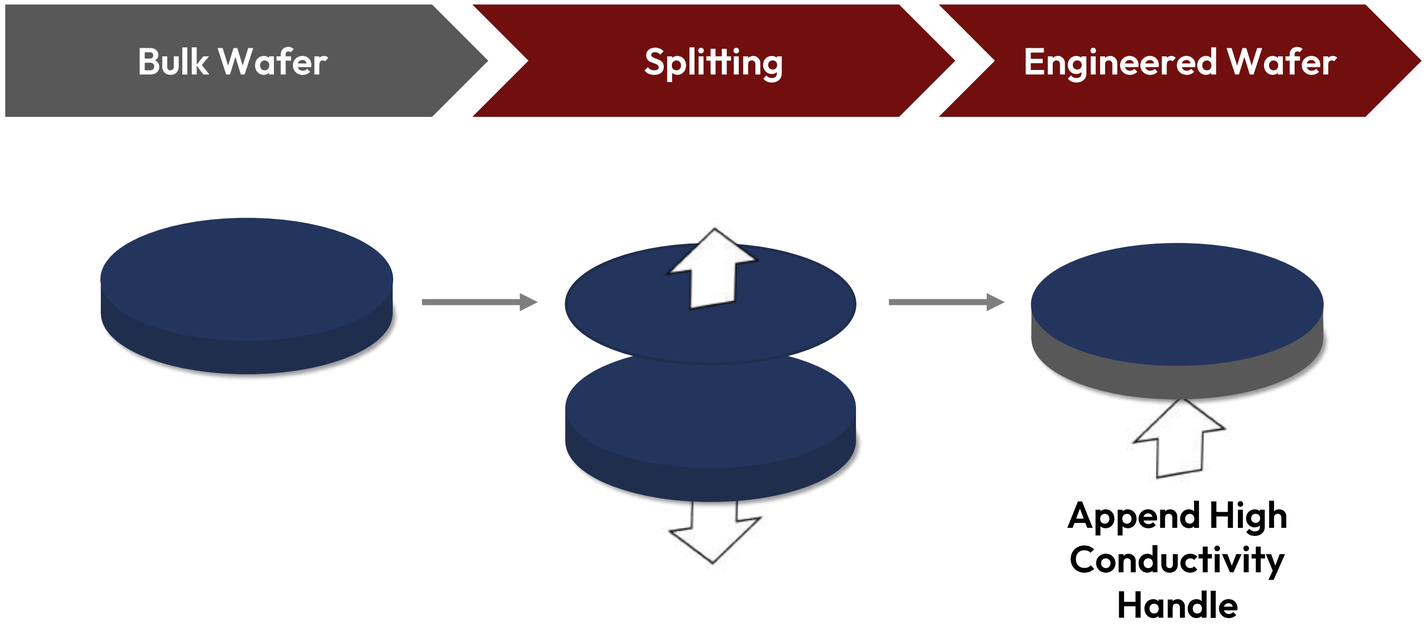
Semiconductor

Improved Power Semiconductor Manufacturing

Bulk Wafer → Splitting

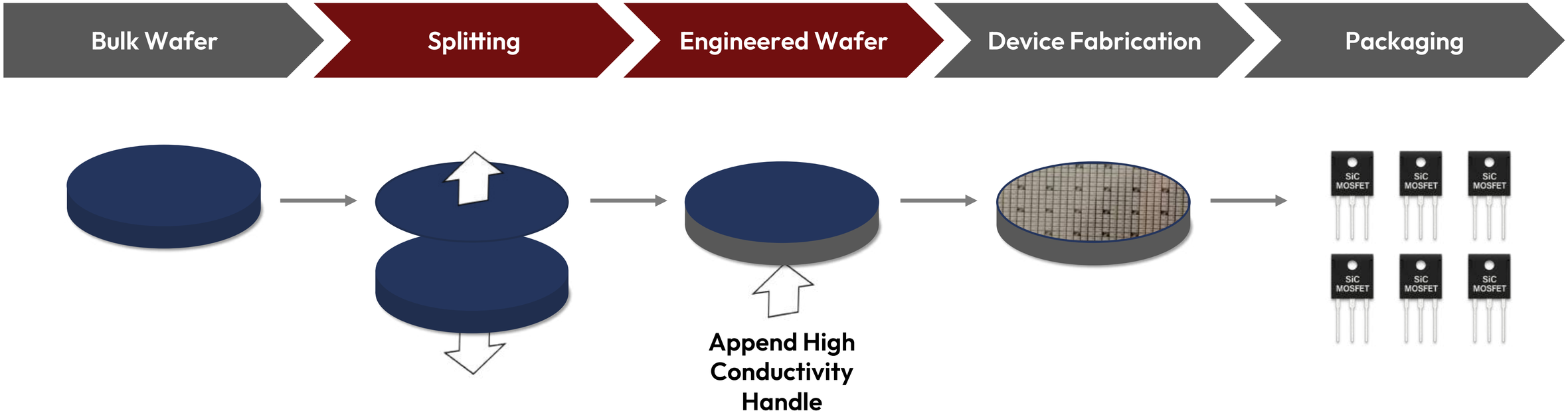


Improved Power Semiconductor Manufacturing



Semiconductor

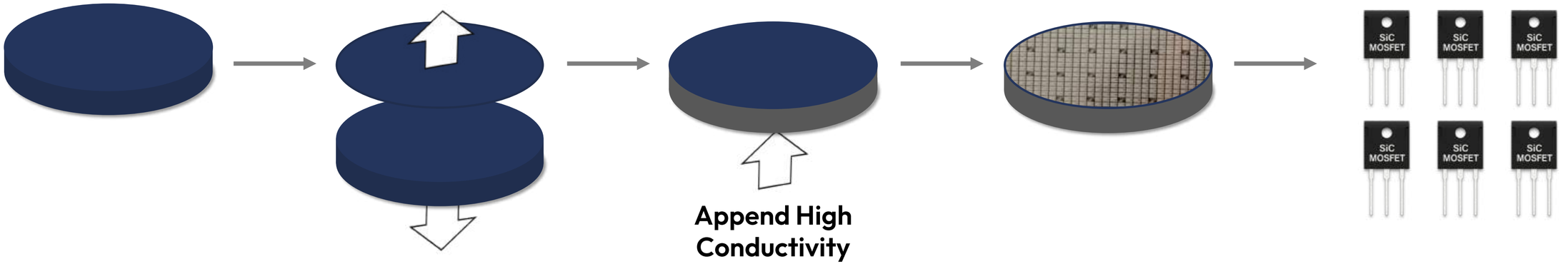
Improved Power Semiconductor Manufacturing



Semiconductor

Improved Power Semiconductor Manufacturing

Bulk Wafer → Splitting → Engineered Wafer → Device Fabrication → Packaging



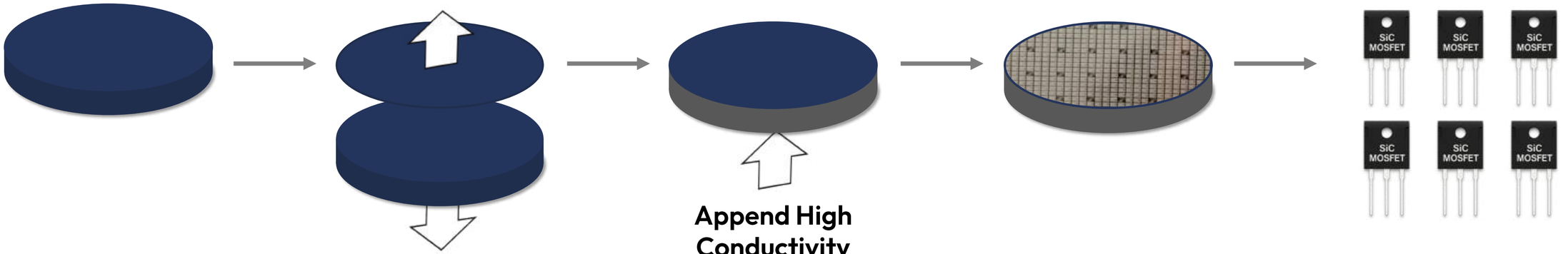
Append High Conductivity Handle

20% More Devices

Semiconductor

Improved Power Semiconductor Manufacturing

Bulk Wafer → Splitting → Engineered Wafer → Device Fabrication → Packaging



Append High Conductivity Handle

20x Reuse

20% More Devices

Semiconductor

Case Study: Huge EV Cost Reduction

Conventional

48 Chips @ $25/ea

Tesla Model 3
(Inverter only)

Cost: $1200

20x Wafer Reuse +
20% Performance Benefit

K1 Enhanced

40 Chips @ $20/ea

Cost: $800

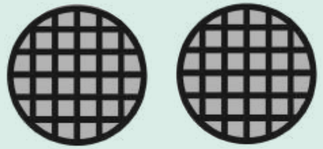
Savings:
$400/Unit
$100M/yr

Source: PCG Consulting

Tech Commercialization Already Underway

Company X*

NASDAQ-100 - $30B+ market cap

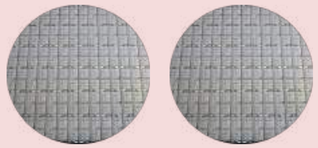


Received SiC wafers

Testing performance post splitting

Company Y*

Multi-billion $ Japanese firm



Due to receive GaN wafers

Splitting and evaluating feasibility of pilot project

GREAT LAKES CRYSTAL TECHNOLOGIES

Processing diamond samples

Pioneering scalable diamond splitting

SRICO Tower Semiconductor

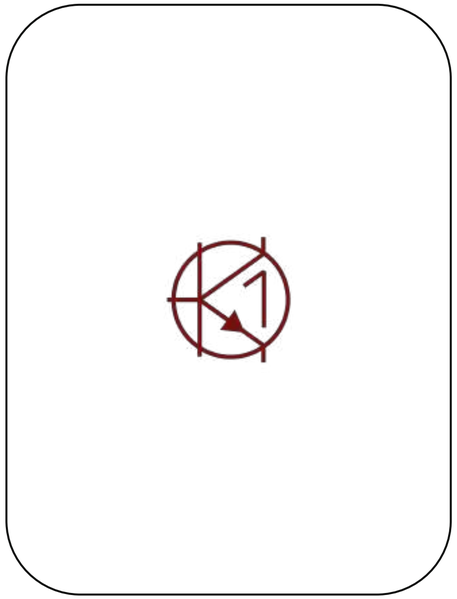
Splitting lithium niobate wafers

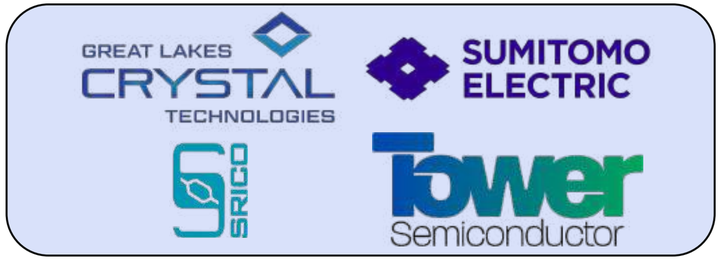
Developing scalable on-chip photonics integration

* Name of Company X and Y have been kept confidential in accordance with NDAs.

K1's Business Model

Engineered Wafer Supplier





SiC and GaN Companies

Diamond and Photonic Companies

Co-located Plant

Semiconductor

Competing Wafer Splitting Technologies

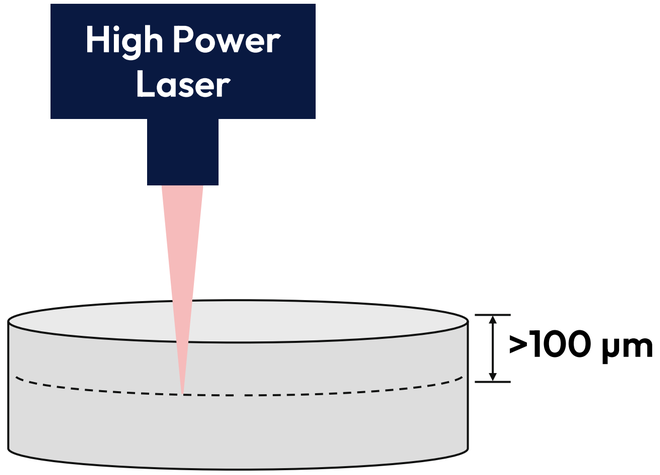
Competitors:

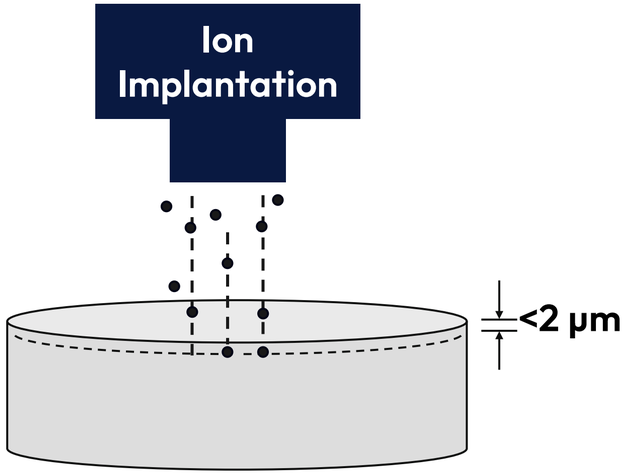
Damaging processes, wrong thickness removed

Halo Industries

SILTECTRA

soitec

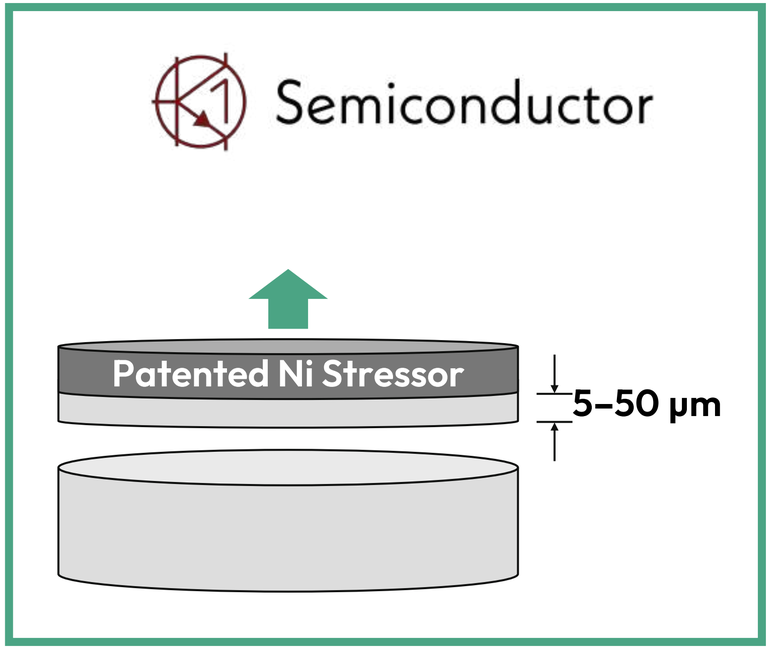




K1's Method:

Simple, one step remote splitting process

Split layer thickness on par with desired device layers



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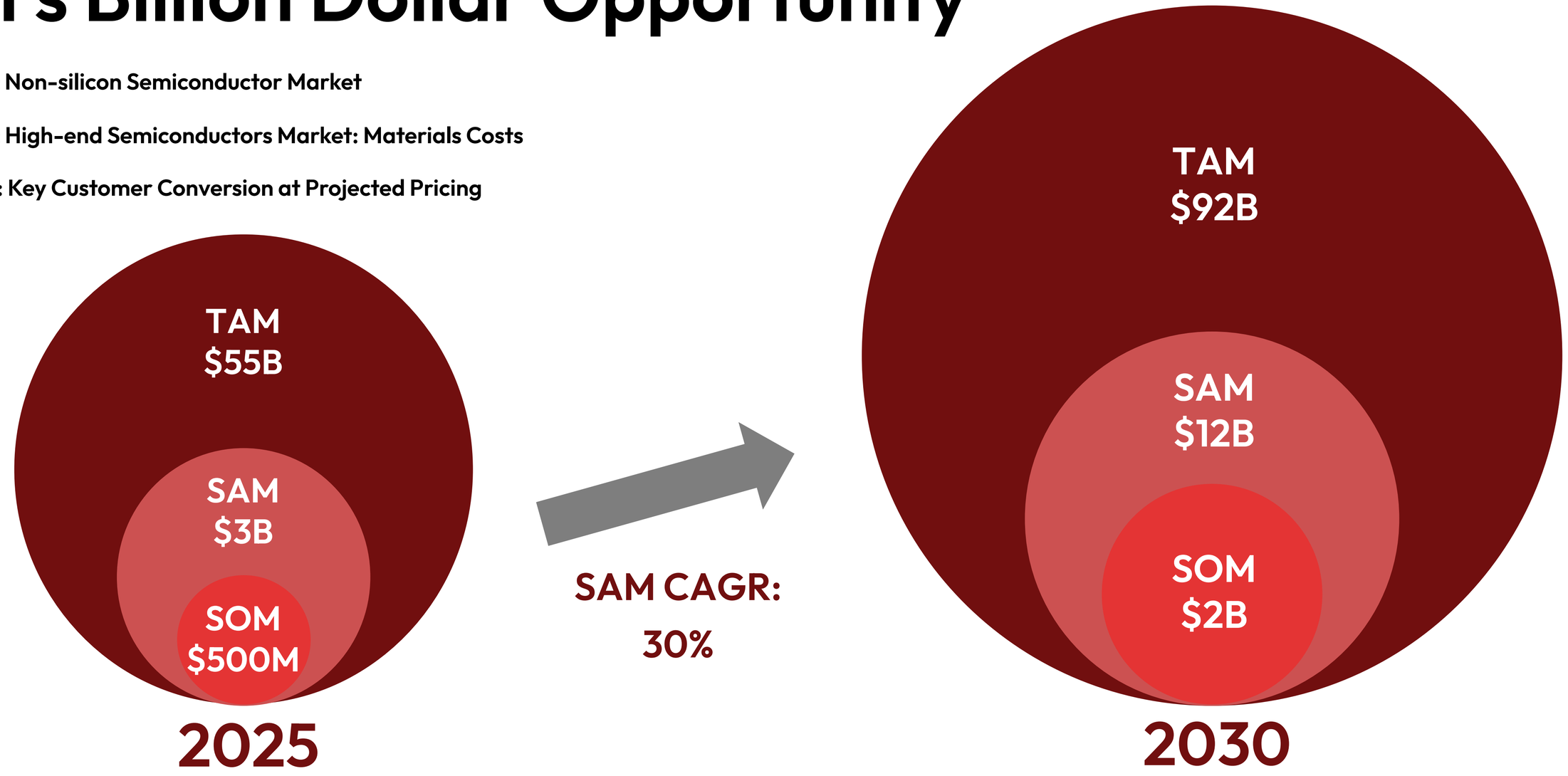
K1's Billion Dollar Opportunity

TAM: Non-silicon Semiconductor Market

SAM: High-end Semiconductors Market: Materials Costs

SOM: Key Customer Conversion at Projected Pricing



Sources: McKinsey, Mordor Intelligence, PwC, and Yole Intelligence

Semiconductor

3 PhDs + 2 MBAs & Technical + Industry Advisors

Team

Connor Horn

Co-founder & CEO
UChicago PhD

Argonne NATIONAL LABORATORY

Xella Doi

CTO
UChicago PhD

Argonne NATIONAL LABORATORY

Sagar Seth

UChicago PhD

Argonne NATIONAL LABORATORY

Joe McDonald

CFO
Chicago Booth MBA

ExxonMobil CHICAGO BOOTH

Hashaam Asif

Chicago Booth MBA/MPP

POLSKY CHICAGO BOOTH

Advisors

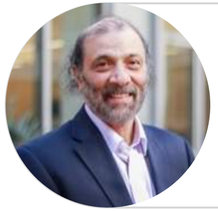
Supratik Guha

Co-founder

IBM 3M Argonne NATIONAL LABORATORY

Samir Mayekar

POLSKY NANOGRAF CORPORATION



Subramanian Iyer

IBM UCLA

Nii Dodoo-Amoo

ASML KLA

Semiconductor

Investment Drives 1st Applications and +EBITDA

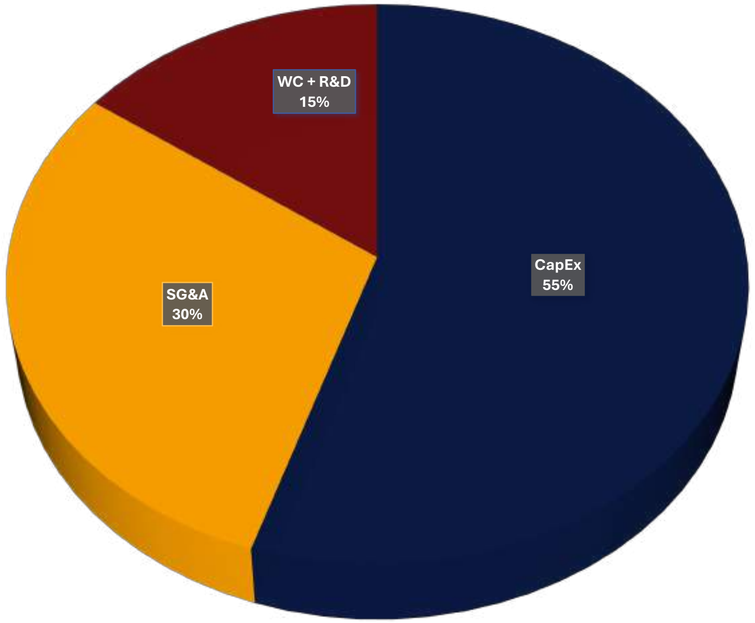
Phase 1 Ask: $2M

$1.35M Already Committed

$1.1M CapEx: Machinery + Plating

$600K Overheads

$300K Working Capital + R&D



Semiconductor

“Reusing substrates is a game changer, we obsess over making our process more efficient”

Wolfspeed

*“We want to be able to split wafers to stay competitive with ******”*

COHERENT

“Everybody is looking for a way to split large-area diamond and you have actually done it”

GREAT LAKES CRYSTAL TECHNOLOGIES

Semiconductor

Efficiency Engineered into Every Wafer

Contact: connor@k1semiconductor.com

“Your timing is excellent. Layer transfer technology is on the top of everyone’s mind right now.”

Tower Semiconductor

“This tech is addressing the key constraints that have limited SiC adoption thus far”

APPLIED MATERIALS

"The key is low cost (i.e. non-SmartCut) and “Made in the USA”

SRICO

Semiconductor

PLUG AND PLAY

STARTUP PRESENTATION

RoboForce

RoboForce

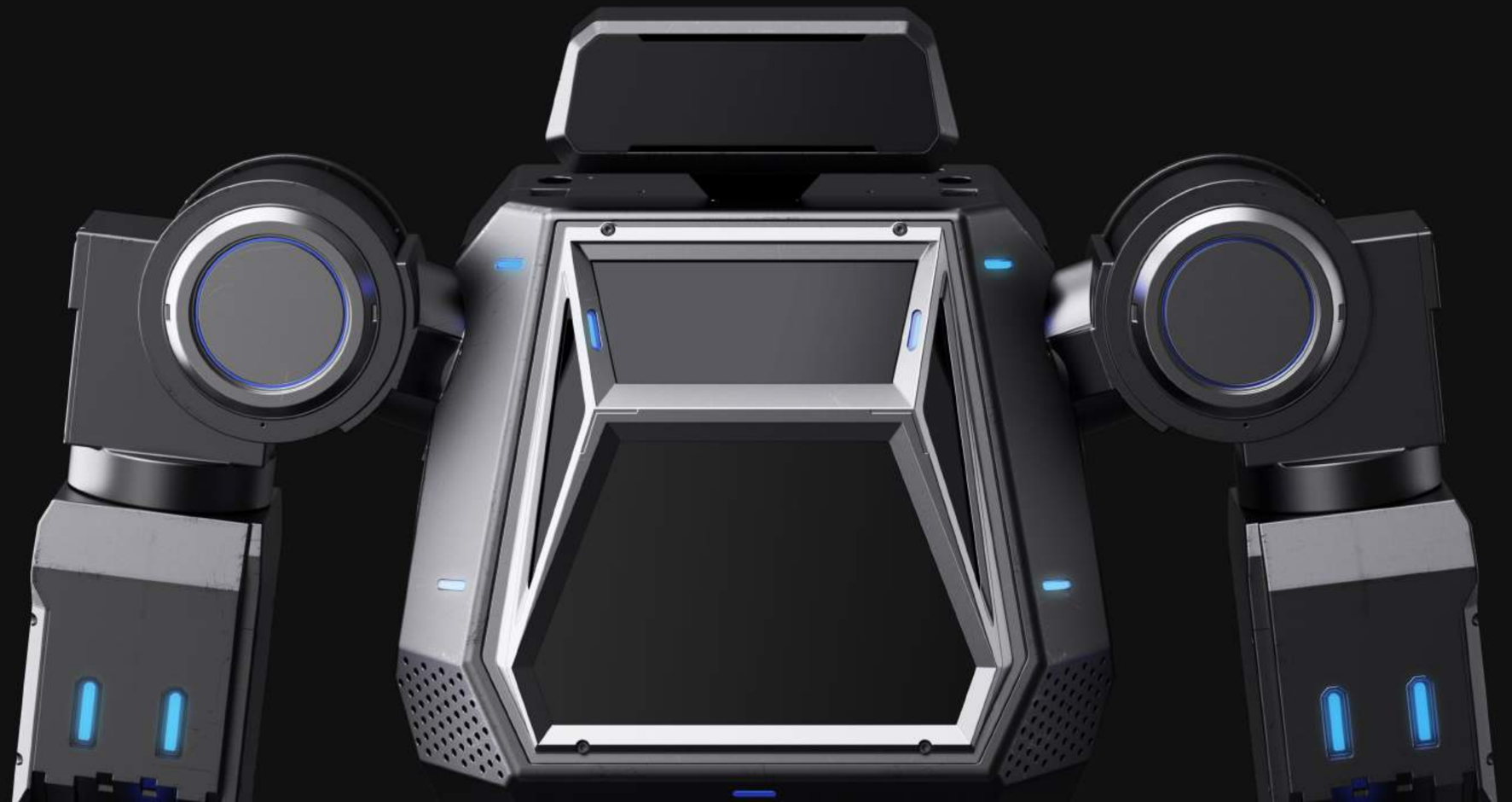
Building Physical AI-powered Robo-Labor.

#PNPTCSiliconValley

Join us at pnptc.com

RoboForce

Physical AI-Powered Robo-Labor



We Provide **Robo-Labor** to Do **Dirty**, **Dull**, **Dangerous** Work That **Humans Shouldn't Have to Do**.

"I visited more than **200** industrial sites in more than **10** years. I understand dirty, dull and dangerous work deeply. I see **labor shortage** is killing the **timeline** and **profit** of business."

— Leo Ma, Founder & CEO

Labor Shortage in Dull, Dirty, Dangerous Work.

Global labor shortages are killing **business timelines and profits.**

This problem centers on human workers' **availability**, **cost**, and **safety.**

The impact spans across **most critical industrial sectors.**

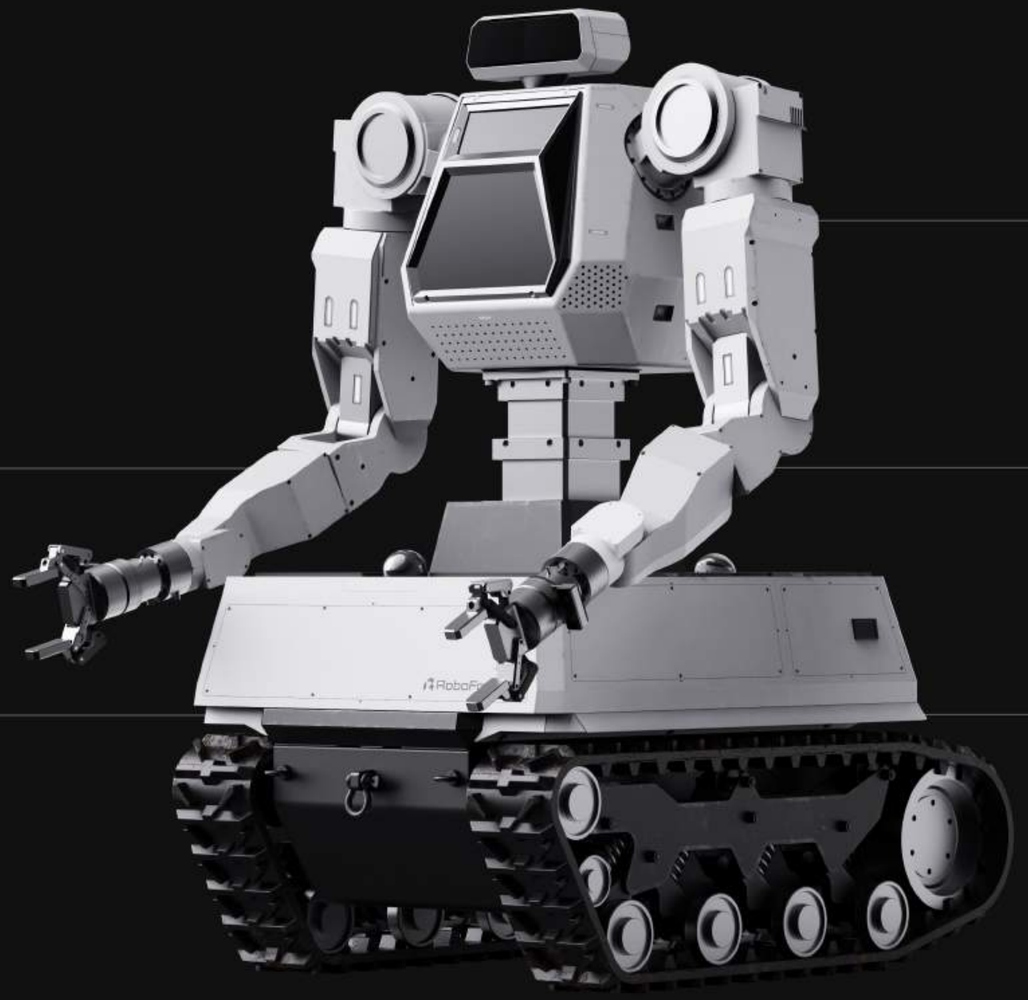
Physical AI-Powered Robo-Labor.

Scalable and deployable AI robotics solution built for demanding industrial environments.

RoboForce Robo-Land
Gilroy, California
2025

TITAN

The first-ever commercially viable Superhumanoid AI Robot.



Height
2.10M
1.50m-2.10m
600mm Lifting Range

Payload
40KG
Full
Workspace

Sensor
Top
RGB Camera
3D Camera
360° LiDAR
Tactile

Reachability
1100MM
Arm
Reachability

Speed
2.5M/S Wheel-Based
1.5M/S Track-Based

Runtime
8H
Per Battery
Pack

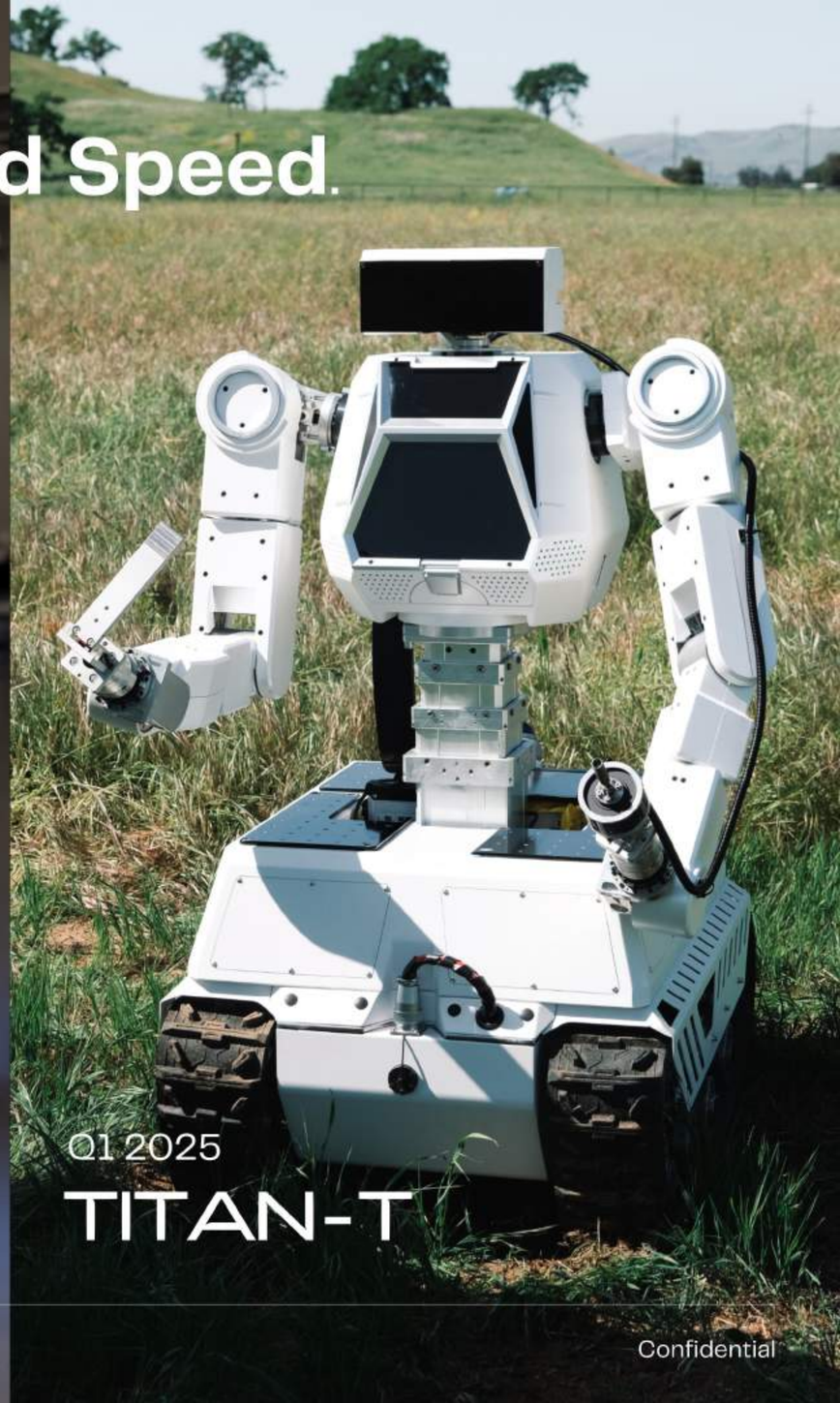
Iterate Robot Development at **Unmatched Speed**.

Q3 2024

Early Prototype

Q4 2024

TITAN-W



Q1 2025

TITAN-T

Demo: Solar Panel Installation

Continuous Operations, Long-Horizon Task

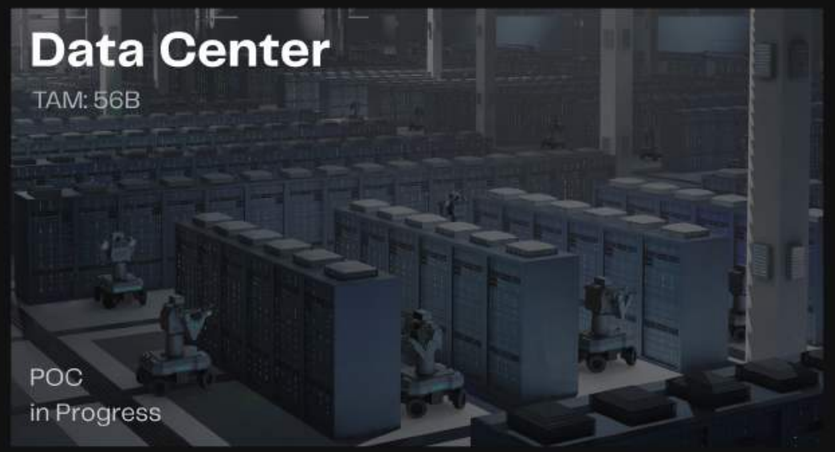
Daytime, Outdoor, Fully Autonomous, 1mm Accuracy

Torqued Nuts: 0

RobboForce

Robotics for Humanity, From Earth to Space.

We focus on profitable, scalable, and impactful markets with trillion-dollar opportunities.



Sources: BLS OEWS, ILOSTAT, IRENA, UN SDG 9.2.2, Eurostat, BIMCO/ICS Seafarer Workforce Report, and ILO Joint Maritime Commission (JMC).

Activating Markets Through **Global GTM Strength.**

6
Industry Sectors

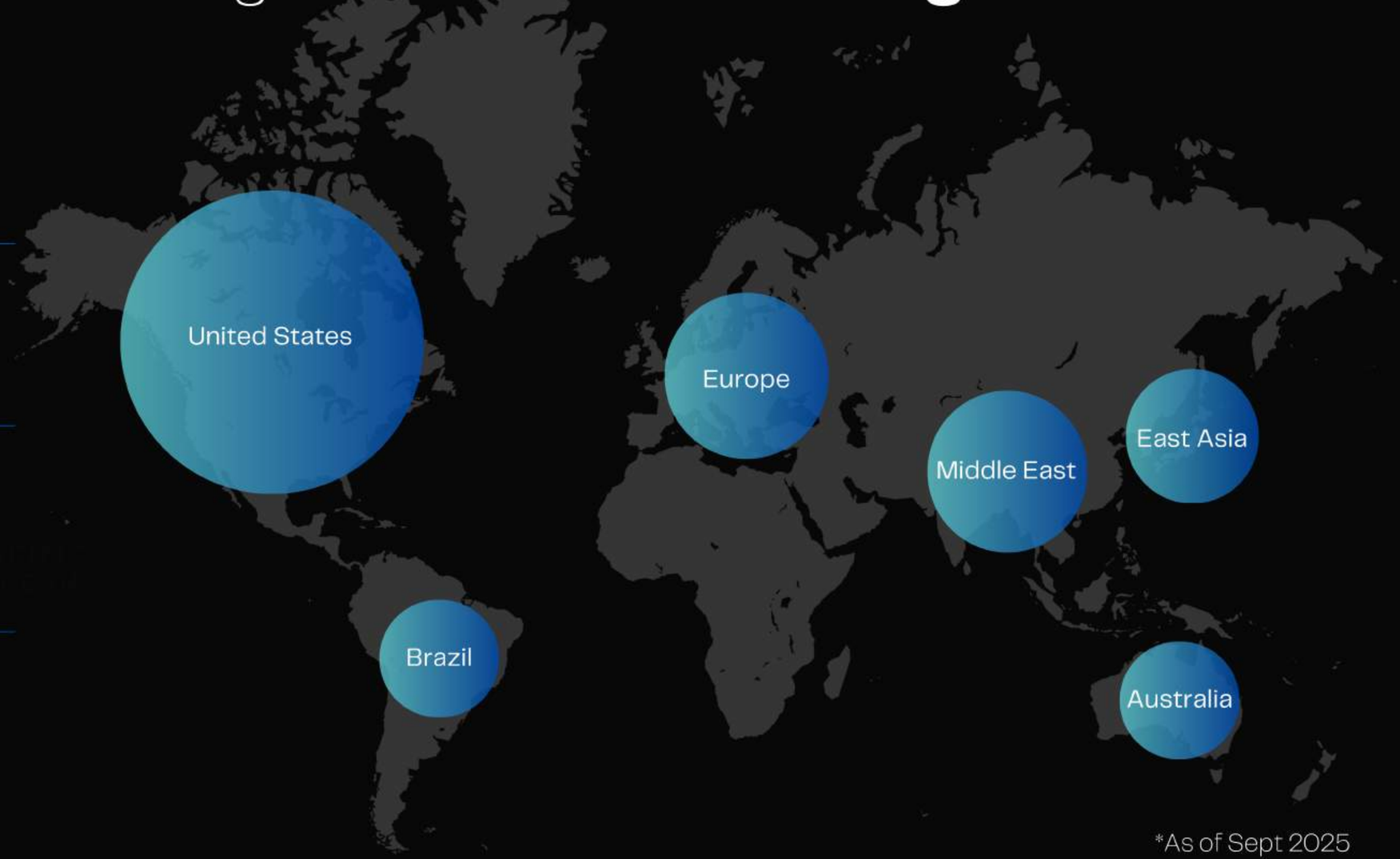
12
Countries

35+
Early Partners and Customers

1
Commercial Deployment

5
POC Projects

11000+
Robots with Letter of Intent



*As of Sept 2025

World-Class Team in **AI Robotics** and **GTM.**

WAYMO · cruise · amazon robotics · UBTECH · ABB

XPENG · RIVIAN · Carnegie Mellon University · M ROBOTICS · UCLA

Proven AI Robotics Expertise
Delivered 20+ robotics products, 100+ patents and publications, and 120+ years combined experience.

High-Performance Team
Lean and agile team with ~30 FTEs in the US and ~30 global manufacturing staff.

Global GTM Strength
Led by proven founders and B2B leaders across industrial markets.


TITAN
Physical AI-Powered
Robo Labor
For Demanding
Industrial Work

RoboForce

Leo Ma
Founder & CEO
leo@roboforce.ai

PLUG AND PLAY

SV SUMMIT

NOV 19TH 4:00 PM

CORPORATE INVESTMENT INSIGHTS

#PNPTCSiliconValley

Join us at **pnptc.com**

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Up Next...

TAIWAN DEEPTECH

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