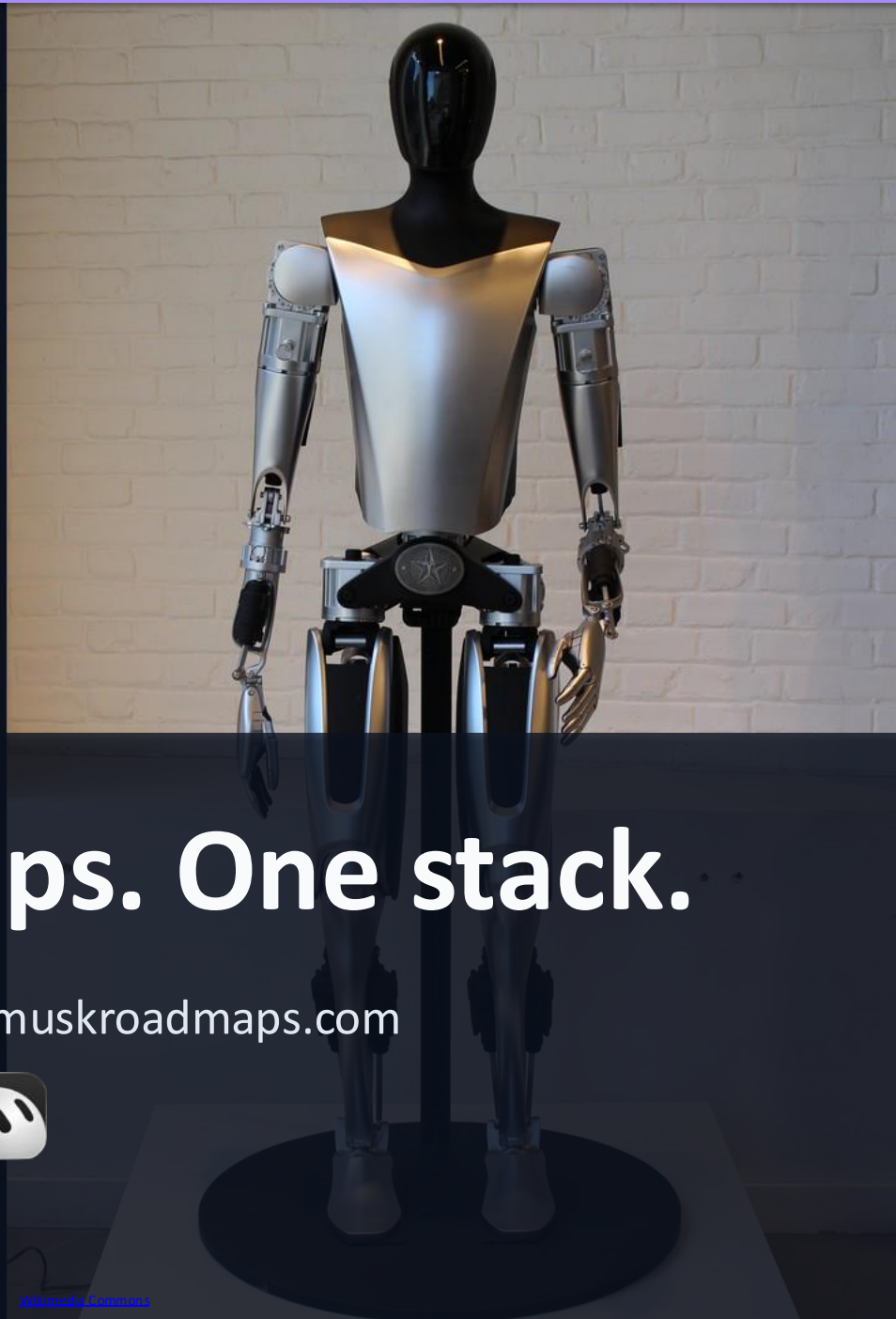




Nine roadmaps. One stack.

Musk Technology Roadmaps · muskroadmaps.com

Author: Bernard de Groot, assisted by [Grok Bots](#)



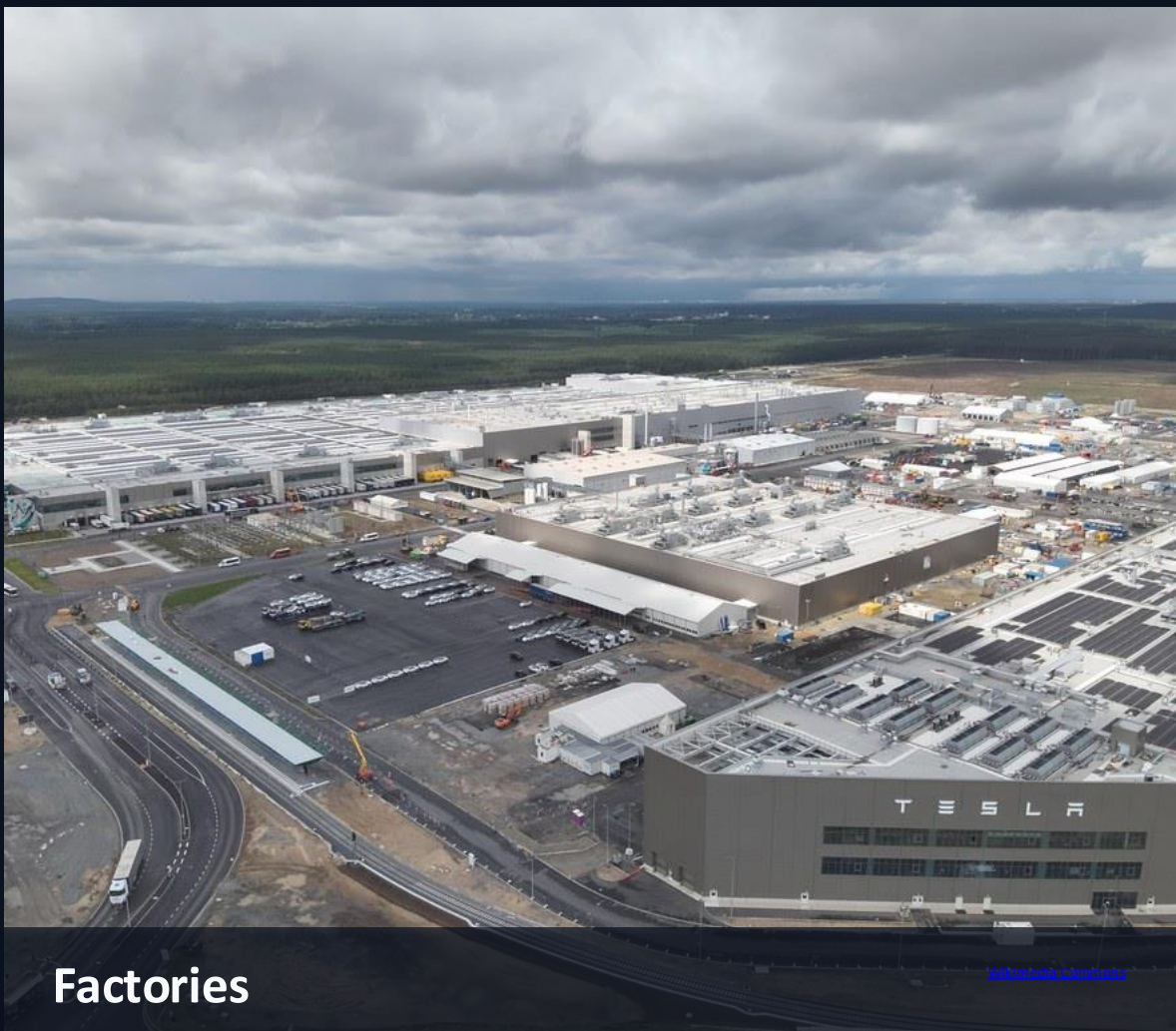
Three layers. Nine roadmaps.

Climb Earth → space. Ground, intelligence, reach.



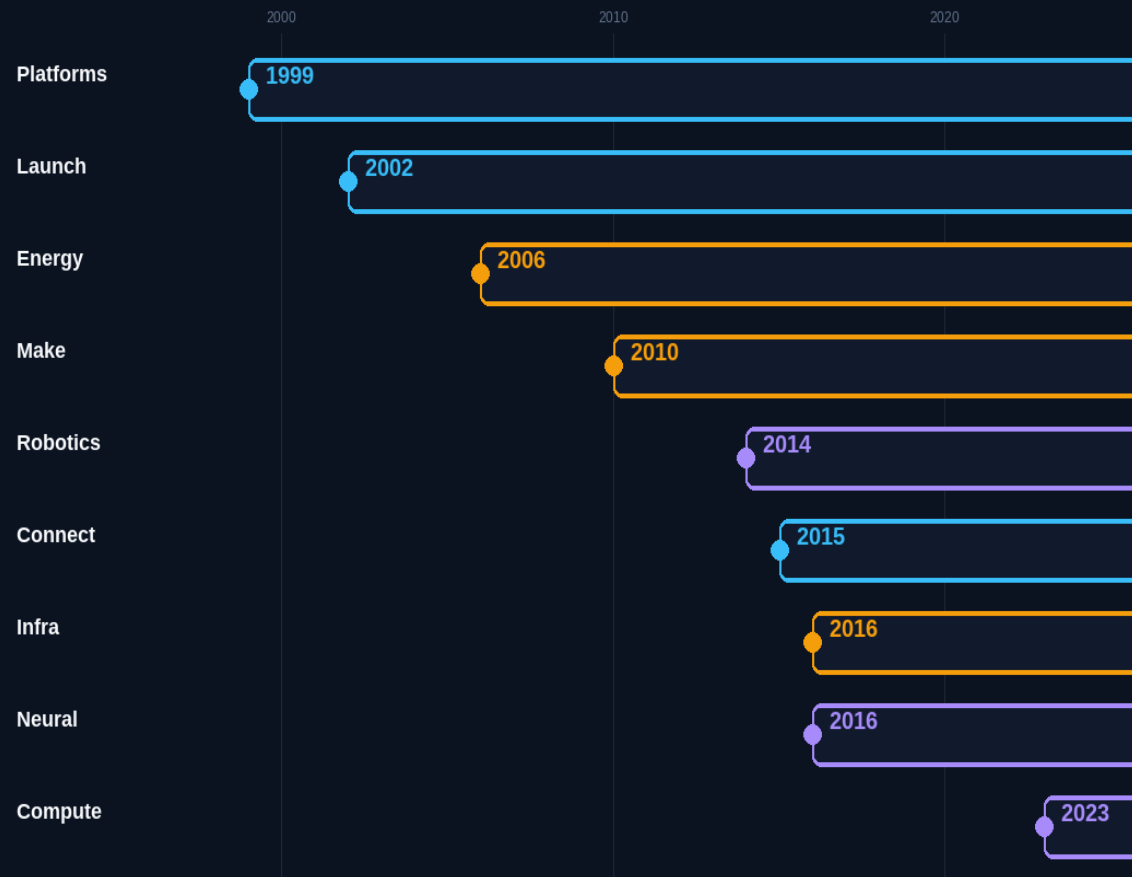
How to read this

Public sources. Engineering, not politics. Photo + start years.

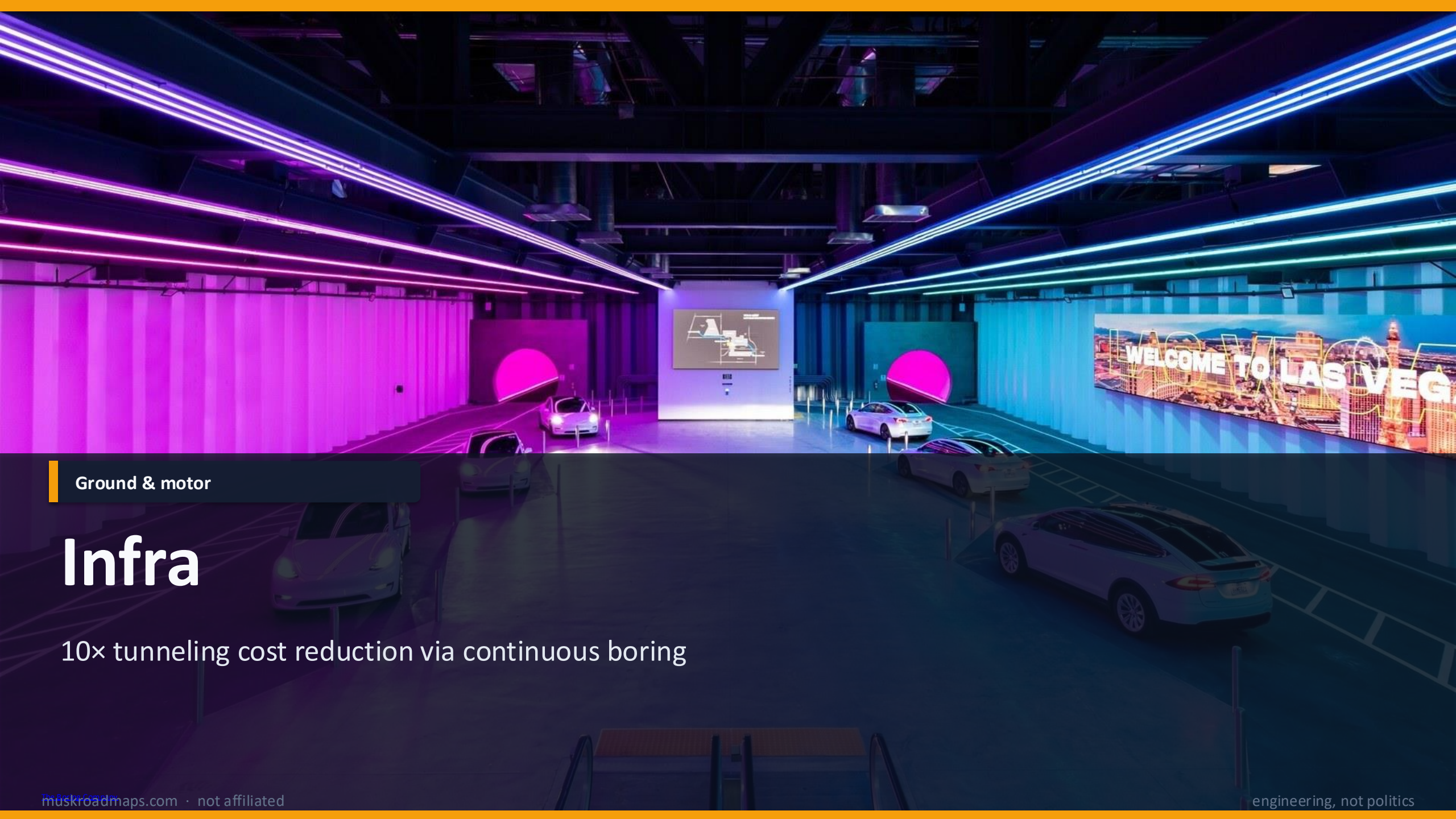


Nine starts

Start dates from muskroadmaps.com data, 26 Aug 2026



Bars run start — 2026. No invented dates.



Ground & motor

Infra

10× tunneling cost reduction via continuous boring

Ground & motor

Infra · vision

10×

GOAL · tunneling cost reduction

Stated goal, not a measured KPI · muskroadmaps.com, 26 Aug 2026

VISION

10× tunneling cost reduction via continuous boring. Make tunneling a manufactured product: faster TBM cycles (Prufrock), modular tunnel segments, and standardized station interfaces — capex per meter as the primary metric.

NOW

Vegas Convention Loop operational; Prufrock TBM iterations.

END

3D transport: underground highways that decongest cities — dig lots of holes.

Infra · now

START

2016-12

The Boring Company

NOW

Vegas Convention Loop operational; Prufrock TBM iterations.

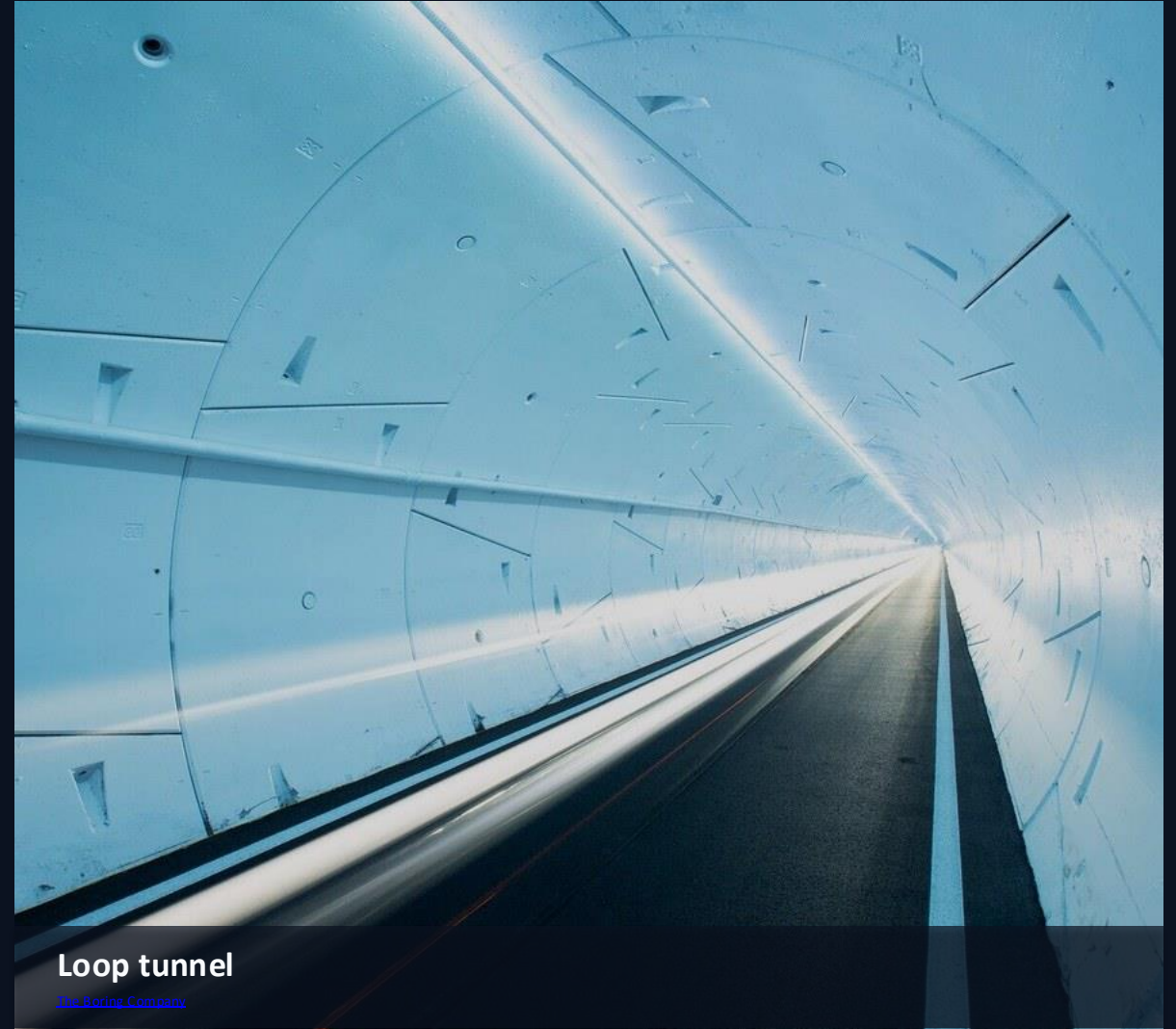
WHY IT MATTERS

Cheaper meters so cities can tunnel.



Loop station · Vegas

[Steve Jurvelson](#)



Loop tunnel

[The Boring Company](#)



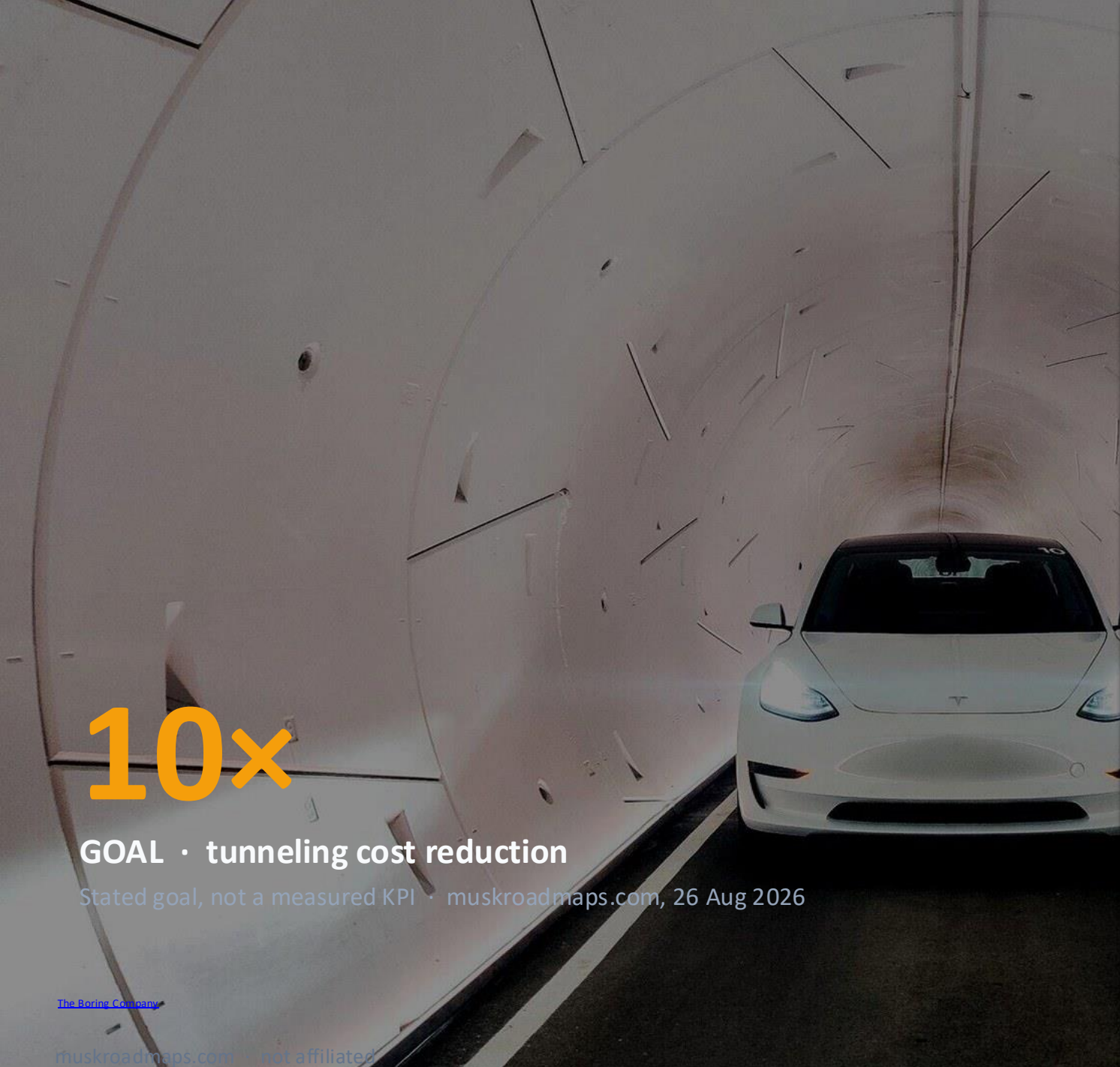
Prufrock TBM

[Steve Jurvelson](#)



Boring Company TBM

[Steve Jurvelson](#)



10x

GOAL · tunneling cost reduction

Stated goal, not a measured KPI · muskroadmaps.com, 26 Aug 2026

[The Boring Company](https://theboringcompany.com)

muskroadmaps.com · not affiliated

Next

Infra · next

Prufrock-4 — cheaper meters, so cities can actually tunnel

Vegas Loop expansion — more stations, less surface traffic

3D urban transport — a second street grid underground

engineering, not politics



Ground & motor

Energy

Mine-to-grid storage at utility scale

Energy · vision

VISION

Mine-to-grid storage at utility scale. Own the chain from lithium refining through cell, pack, and grid dispatch (Megapack/Megablock) so energy density and \$/kWh become controllable design parameters, not supplier.

NOW

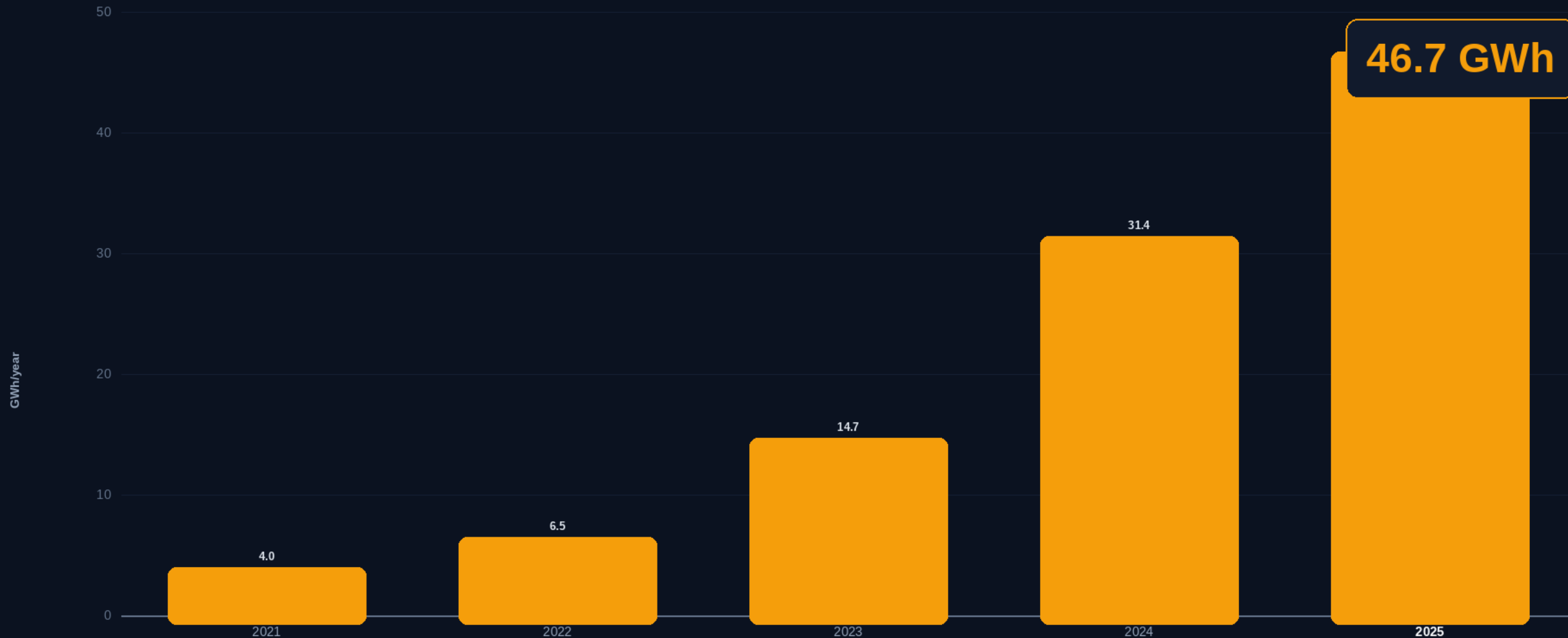
Megapack and Megablock deployed globally; Powerwall v3.

END

Sustainable world energy: terawatt-scale storage and generation replacing the grid.

Energy · growth

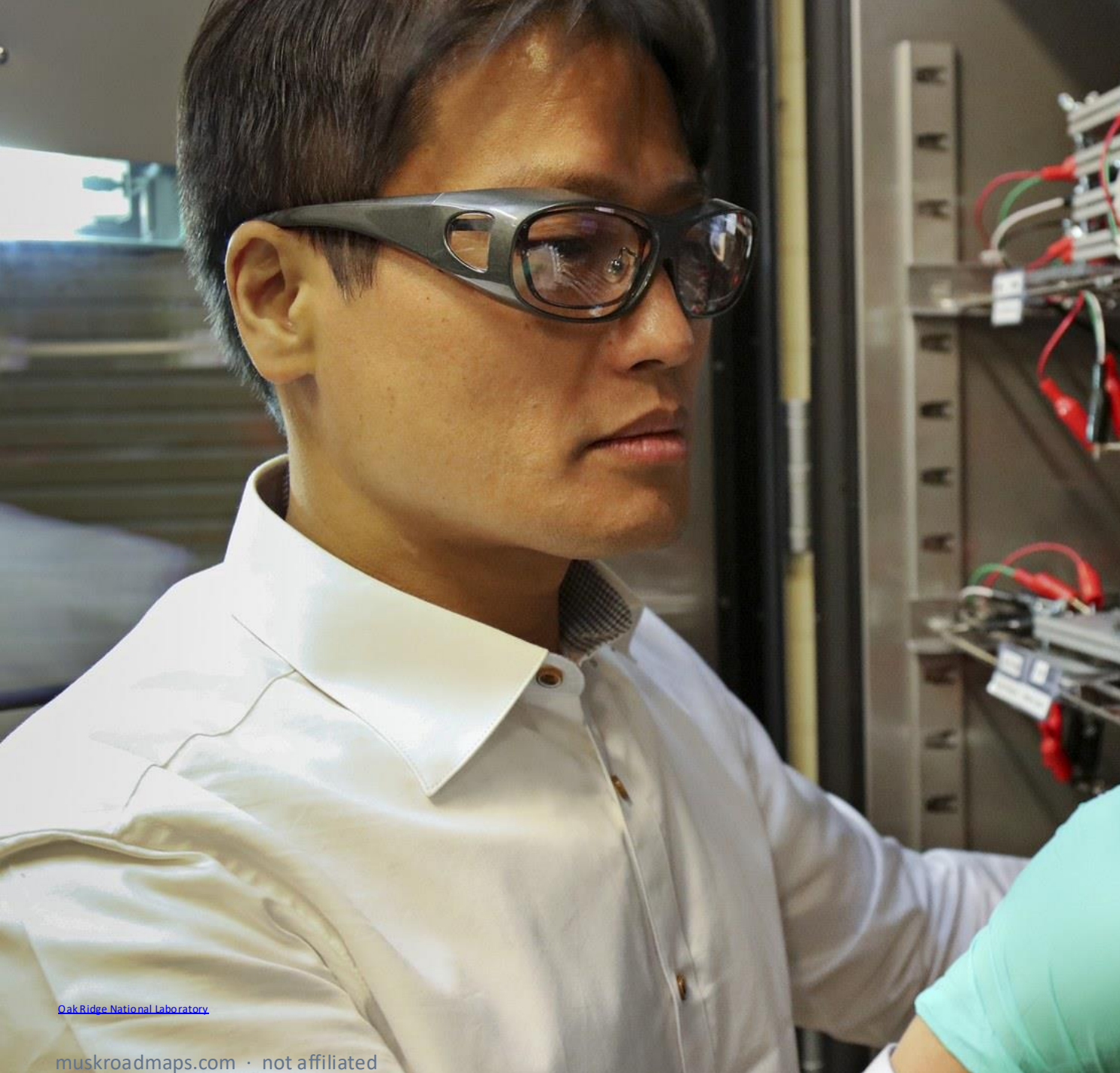
Tesla energy storage deployed



[Tesla Q4 2025 Update.](#)







[Oak Ridge National Laboratory](#)

[muskroadmaps.com](#) · not affiliated

Next

Energy · next

Denser 4680 cells — more range, lower pack cost

Megablock bundles — utilities plug storage in as one unit

TWh-scale grid — firm power for AI campuses and cities

engineering, not politics



Ground & motor

Make

Copyable factory OS — design change to line in days

Make · vision

VISION

Copyable factory OS — design change to line in days.
Standardize gigafactory as a repeatable product: giga-casting, rapid line retool, 4680/semis integration — same playbook for vehicles, rockets, chips, and robots.

NOW

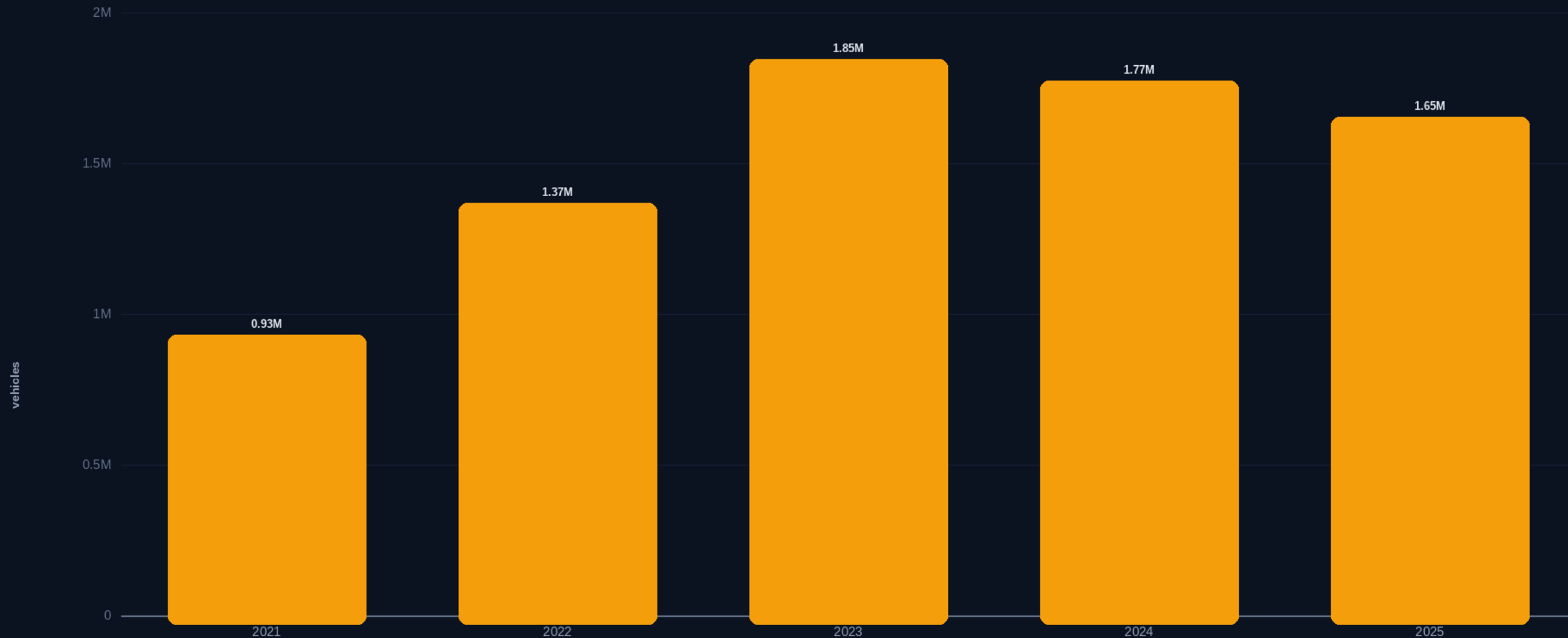
Gigafactory blueprint: giga-casting, 4680 lines, Optimus on the line; Starbase Starship production.

END

Extreme manufacturing velocity: every Giga is a copyable product — cars, rockets, chips, robots on one philosophy.

Make · growth

Tesla vehicle production



[Tesla Q4 2025 Update, 2024–2025 declined; the chart shows that.](#)



Giga Shanghai

[China News Service](#)



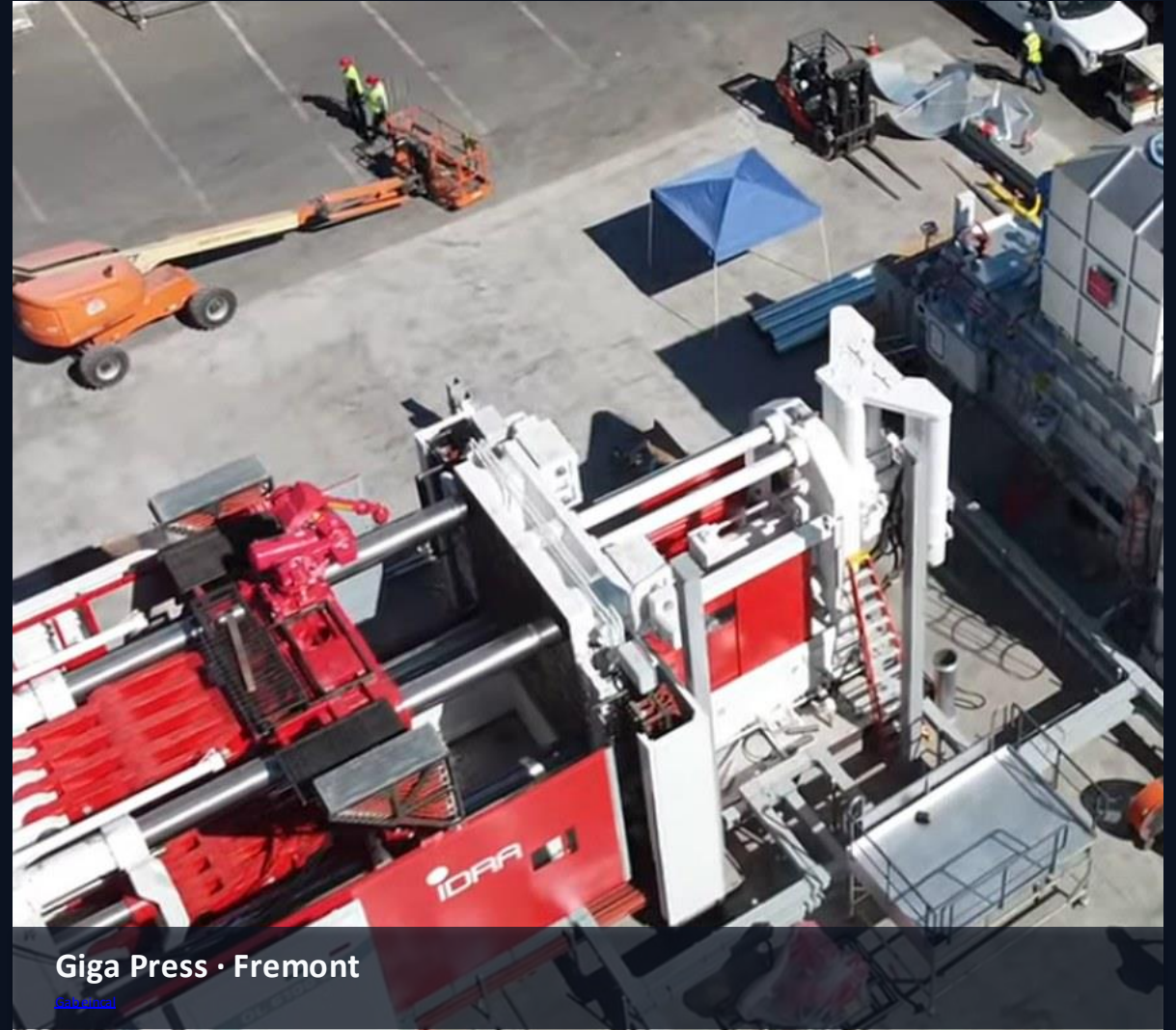
Giga Shanghai · night

[China News Service](#)



Giga Shanghai · line

[China News Service](#)



Giga Press · Fremont

[Reuters](#)



Next

Make · next

Terafab phase-1 — own the chip supply, not just the cars

Optimus on the line — robots that build the next robots

Every Giga is a product — copy the factory, not just the car



Intelligence & action

Neural

Clinical-grade BCI — implant, surgery, production

Neural · vision

VISION

Clinical-grade BCI — implant, surgery, production. Deliver a regulated implant platform: high-channel electrodes, robot-assisted surgery (R1), and multi-site manufacturing (Fremont R&D, Del Valle production, South SF lab) — FDA.

NOW

FDA Breakthrough Device; 21+ trial participants (early 2025).

END

Human–AI symbiosis — BCI as the default interface after phones; neurological conditions treated at scale.

Neural · now

START

2016-07

Neuralink

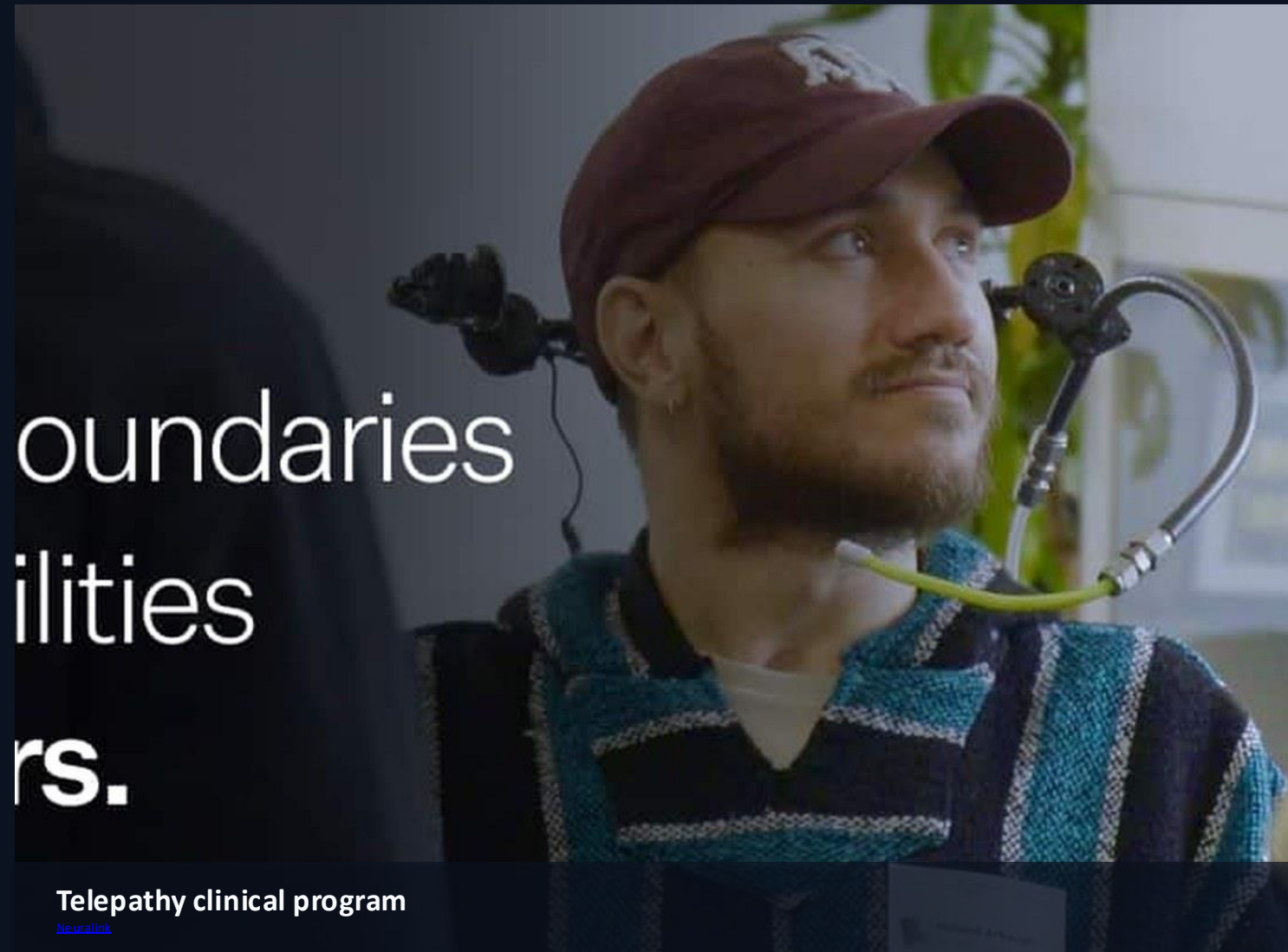
NOW

FDA Breakthrough Device; 21+ trial participants (early 2025).

WHY IT MATTERS

Thought-to-text in human trials.





boundaries
ilities
rs.

Telepathy clinical program

[Neuralink](#)

SOURCED

21+

trial participants

early 2025

Neuralink clinical program. Figure from
muskroadmaps.com data, 26 Aug 2026.



Next

Neural · next

N2 implant — more channels, so thought-to-text gets usable

Blindsight — restore vision through the implant

BCI after phones — a computer you don't hold



Intelligence & action

Robotics

Close sim-to-real — factory lines and autonomous fleets

Robotics · vision

VISION

Close sim-to-real — factory lines and autonomous fleets. Ship perception, planning, and actuation as one deployable stack: factory automation (Optimus), supervised then unsupervised driving (FSD), and surgical robotics (R1) on shared.

NOW

Optimus Gen 2 demos; pilot lines at Giga Texas; FSD supervised rollout across US.

END

Physical AI workers: factories run largely autonomously; robotaxi network; humanoids in homes.

Robotics · now

START

2014-10

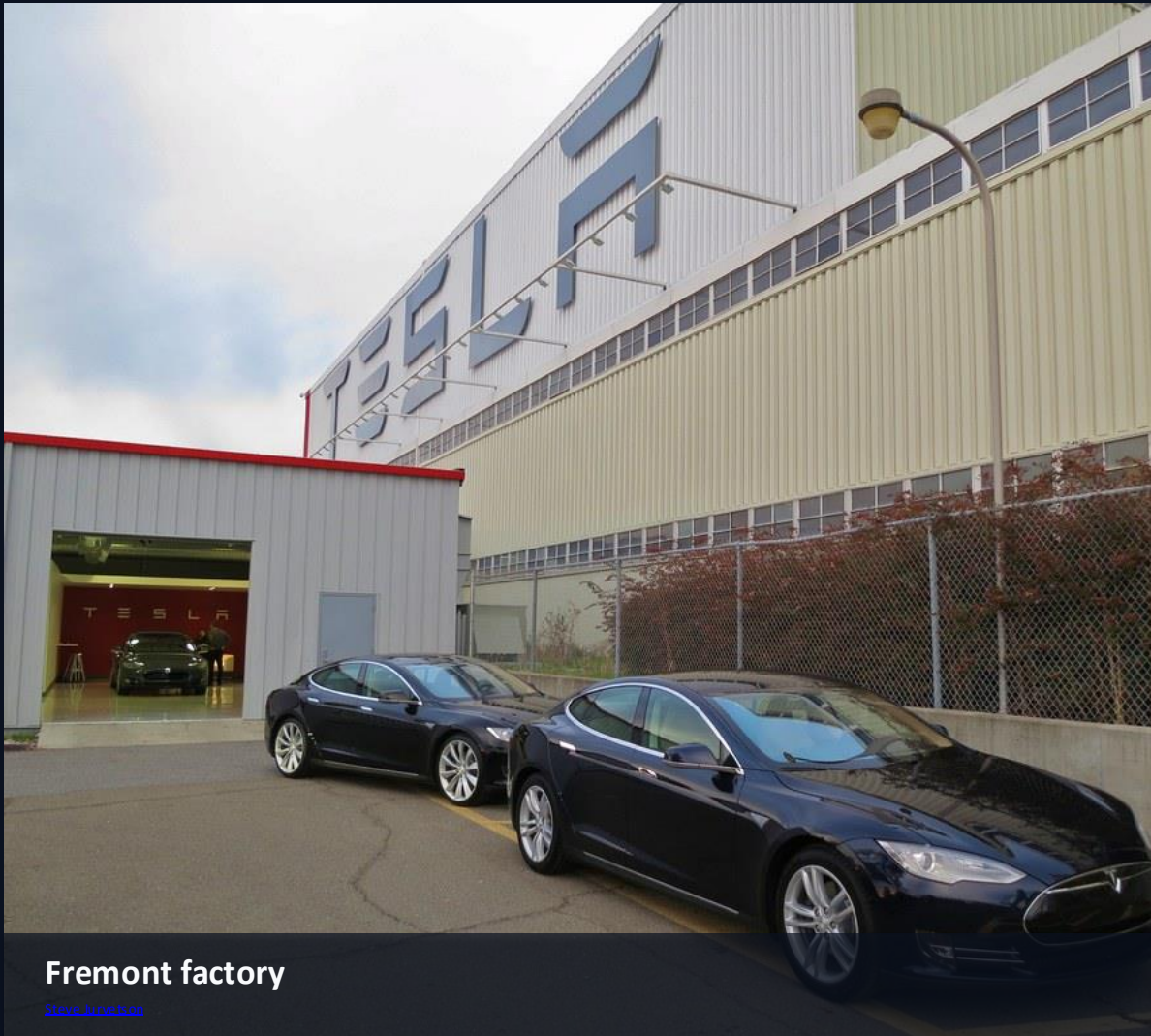
Tesla

NOW

Optimus Gen 2 demos; FSD supervised in the US.

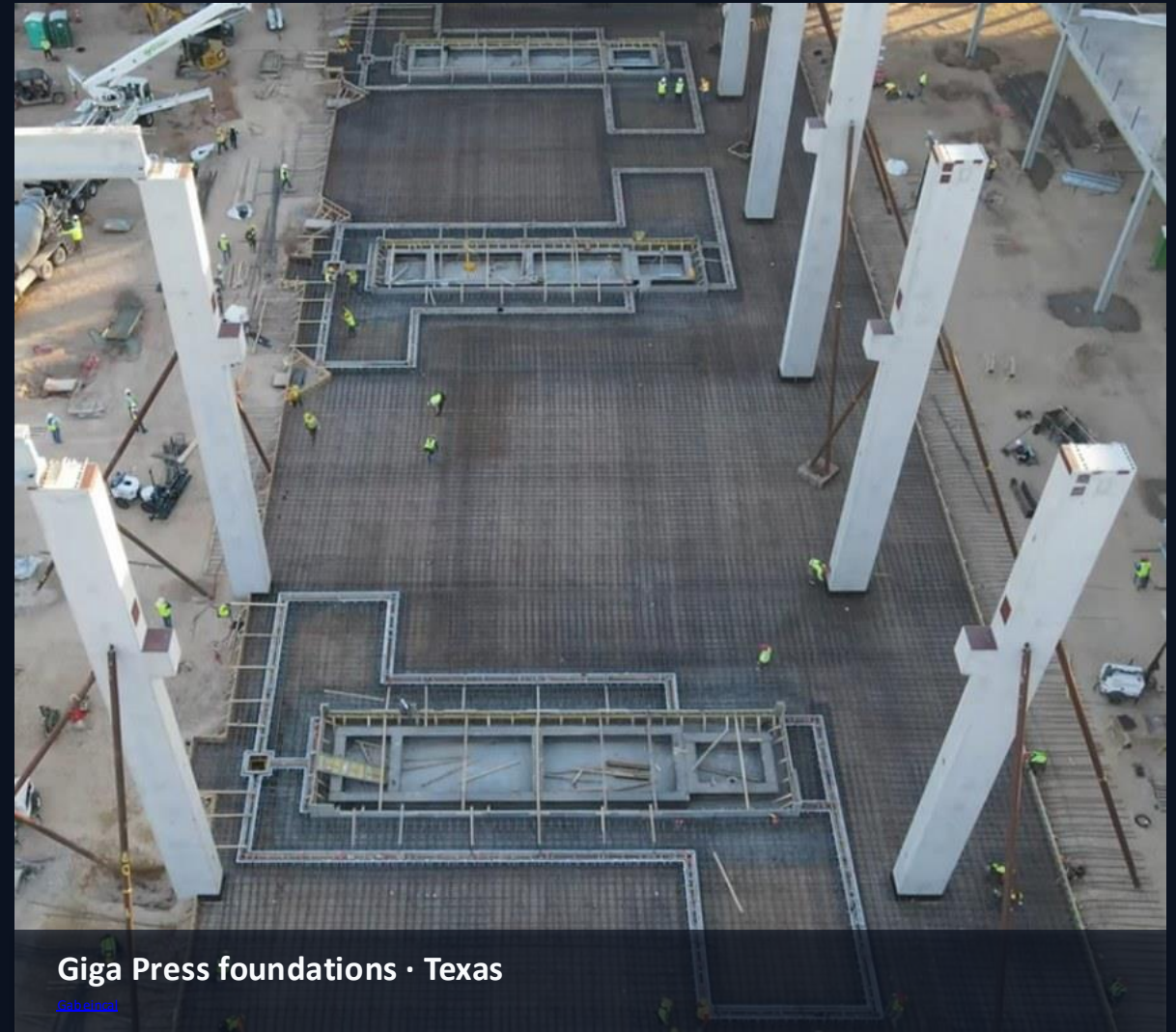
WHY IT MATTERS

Factory hands and unsupervised driving still ahead.



Fremont factory

[Steve Jurvelson](#)



Giga Press foundations · Texas

[Gahmpei](#)





[Steve Jurvetson](#)

[muskroadmaps.com](#) · not affiliated

Next

Robotics · next

Optimus v3 — factory hands that earn their keep

Unsupervised FSD — driving without a safety driver

Physical AI workers — labor that scales like software

engineering, not politics



Intelligence & action

Compute

Own the full AI stack — training through inference

Compute · vision

VISION

Own the full AI stack — training through inference. Vertically integrate GPU clusters, proprietary data pipelines, and product inference so model iteration does not depend on third-party cloud or closed datasets.

NOW

Grok live on X; Grokipedia launched Oct 2025.

END

AGI that understands reality — central to the everything-app (X) and autonomous space operations (SpaceX).

Compute · now

START

2023-07

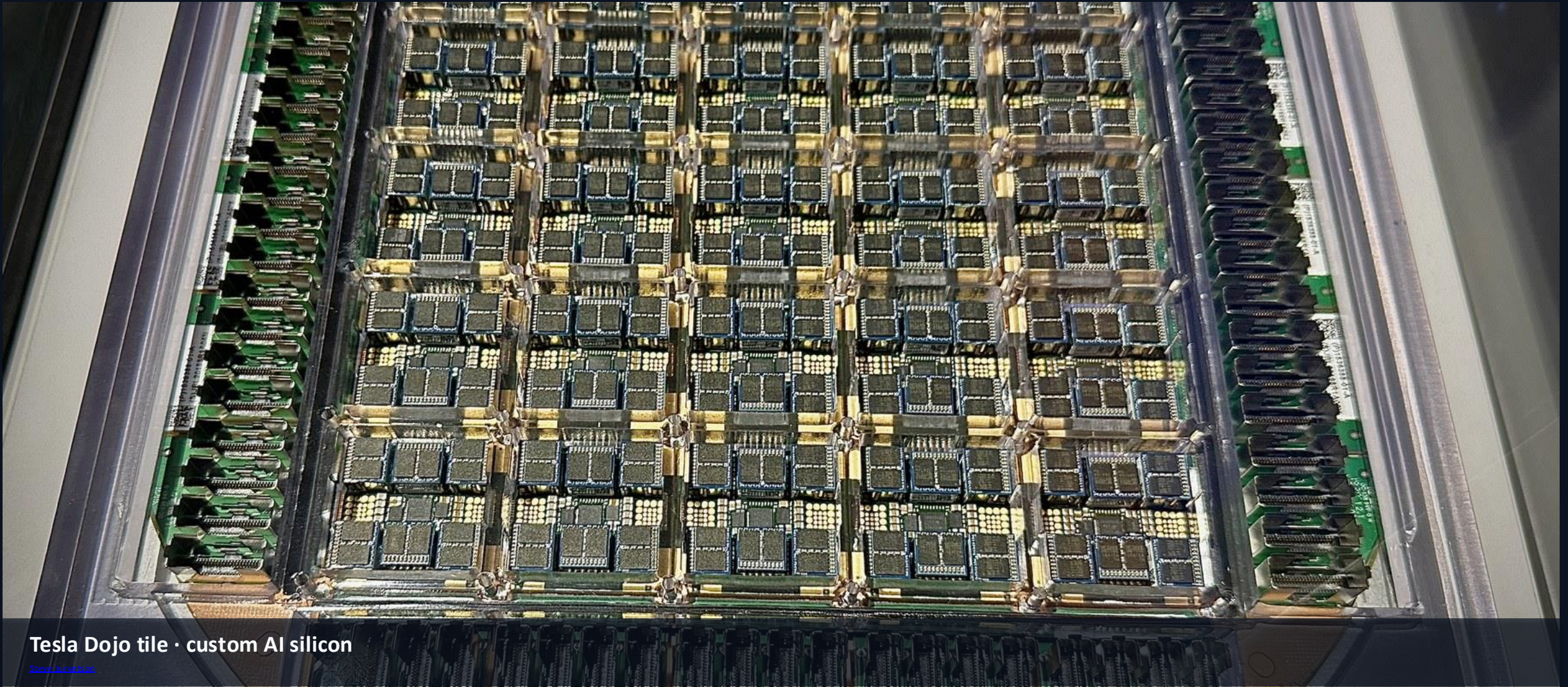
xAI

NOW

Grok on X; Colossus campus Memphis.

WHY IT MATTERS

Own training through inference.



Tesla Dojo tile · custom AI silicon

[Steve Jurvelson](#)

Grok 3

Describe Wikipedia in a thoughtful way

Thoughts

Expand for details

Wikipedia is a remarkable digital tapestry, intricately woven from the collective curiosity, knowledge, and efforts of countless contributors across the globe. It stands as a free, open-source online encyclopedia, accessible to anyone with an internet connection, embodying a truly democratized approach to sharing information. Launched in 2001 by founders Jimmy Wales and Larry Sanger, it has grown into an expansive repository of human understanding, with millions of articles spanning hundreds of languages. From the complexities of quantum mechanics to the cultural significance of obscure folk traditions, Wikipedia covers an astonishing breadth of topics, making it a go-to resource for learners, researchers, and the simply curious alike.

A Collaborative Creation

What sets Wikipedia apart is its deeply collaborative nature. Volunteers—ranging from academic scholars to casual enthusiasts—write, edit, and refine its content, creating a living document that evolves with the times. This crowd-sourced intelligence is a testament to the power of people coming together to build something useful and informative. However, this openness also introduces challenges. Since anyone can edit, there's a risk of misinformation, bias, or even the occasional "edit war" where contributors clash over details. To address this, Wikipedia relies on a system of community-driven principles—like verifiability and a neutral point of view—along with editors who review changes and cite reliable sources to maintain accuracy. It's a work in progress, striving for precision while embracing its imperfections.

Revolutionizing Access to Knowledge

Wikipedia has fundamentally transformed how we access and share information. Before its rise, learning about a new topic often required a trip to the library or the purchase of a specialized book. Now, a few keystrokes deliver instant access to a wealth of knowledge, revolutionizing education and curiosity-driven exploration. This highlights Wikipedia's role as a tool for empowerment, breaking down barriers to information and making it freely available to all.

THE STACK

Training → inference

Own the full AI stack. No capacity figures.



Source: roadmap goal — muskroadmaps.com, 26 Aug 2026

∴ DeeperSearch

15s

✓ Thinking

(Analyzing user question

🌐 Browsing results

- I'm checking the 2025 document releases, focusing on March mentions. These seem to be the "newly released" files you're after.
- Most articles say the files don't contradict Oswald acting alone. Still, there are hints of CIA and a few sources suggest they might relate.
- I'm looking at specific sources for historical insights. Fredrik Lohm shed light on CIA actions (Hacker News).
- Documents reveal CIA operations. There's mention of French and a direct assassination link.
- While files show CIA's Cold War activities, they don't point to conspiracies. Experts note transparency, but no major revelations yet.

Next

Compute · next

Grokipedia v1.0 — a live encyclopedia Grok can trust

Grok 4.x — see, hear, stay in the conversation

AGI for X and space — one model for the app and the fleet



Reach & integration

Platforms

X headquarters · 1355 Market Street, San Francisco

Former Twitter HQ — the public face of the everything-app

Platforms · vision

VISION

Unified identity, payments, and AI across endpoints. One platform layer binding social graph, Grok inference, payments (X Money), and device/satellite endpoints — single sign-on and transaction rail for the rest of the stack.

NOW

X rebrand complete; HQ at Bastrop; Grok embedded.

END

The everything app — communication, money, AI, and media in one platform (PayPal vision from 1999, resumed).

Platforms · now

START

1999-03

Zip2

NOW

X rebrand; Grok embedded; take-private 2022.

WHY IT MATTERS

Chat, cash, and AI in one login.



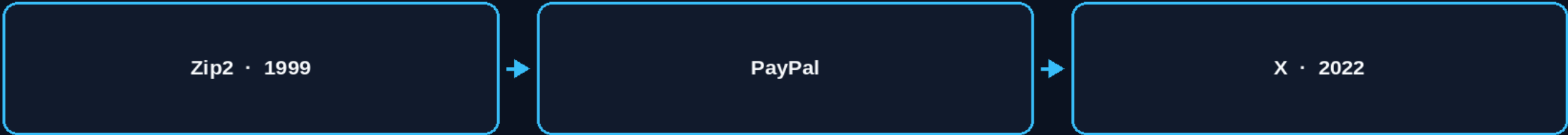
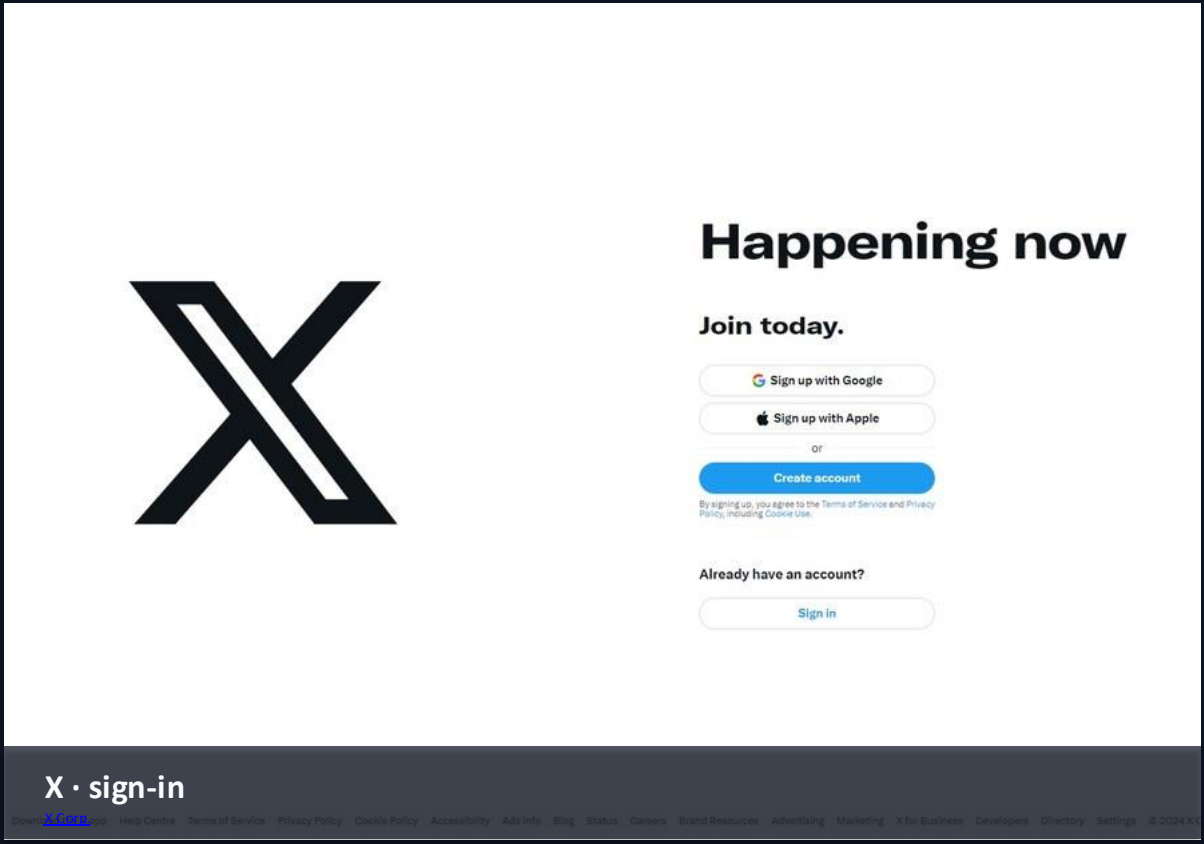
X HQ · staircase

[Runner1928](#)



X HQ · roof terrace

[Runner1928](#)



Years from muskroadmaps.com data: Zip2 start 1999-03 · X acquire 2022.



muskroadmaps.com

muskroadmaps.com · not affiliated

Next

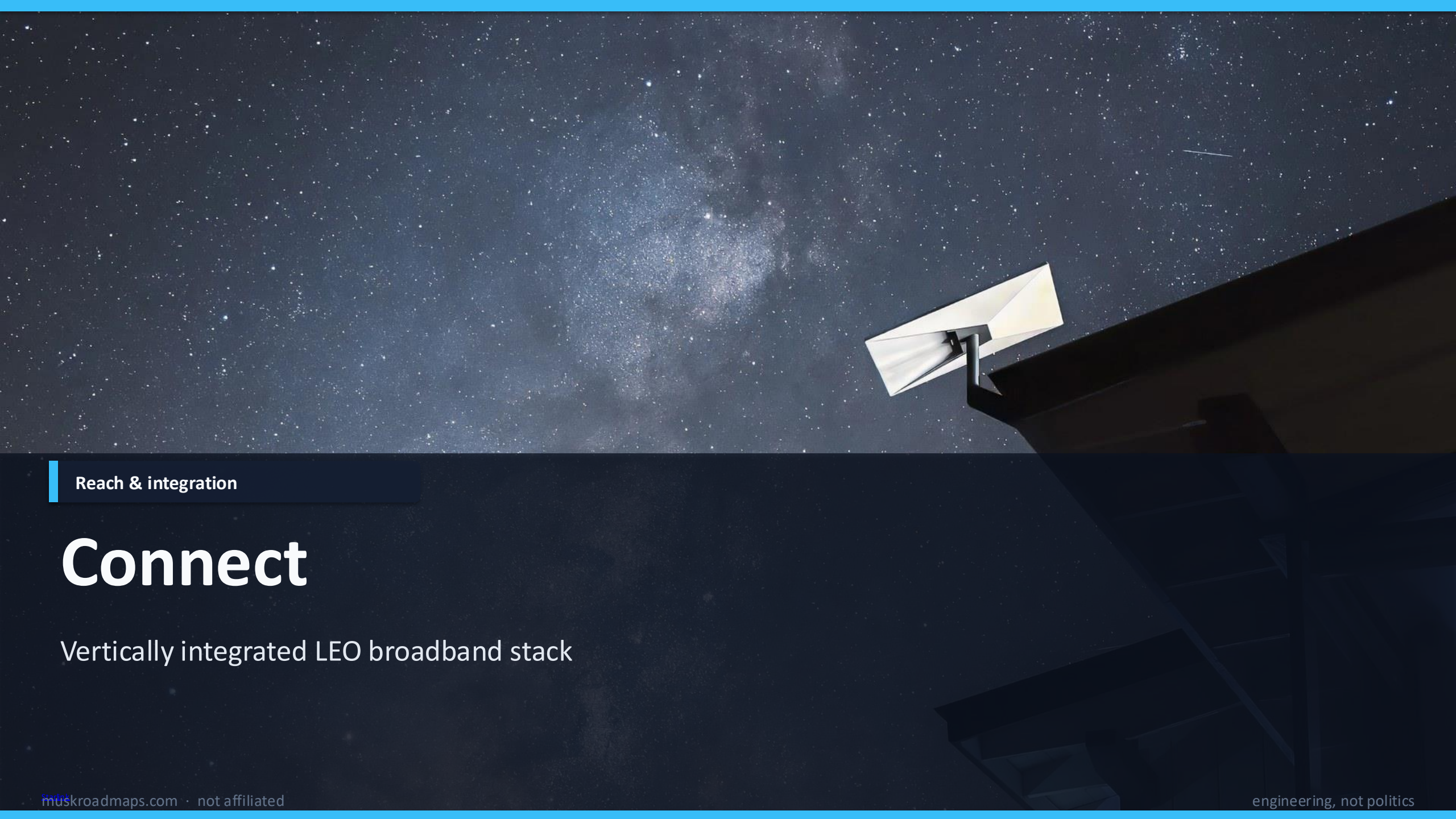
Platforms · next

X Money — send dollars inside the app

Payments and banking — the wallet under the everything-app

The everything app — chat, cash, and AI in one login

engineering, not politics



Reach & integration

Connect

Vertically integrated LEO broadband stack

Connect · vision

VISION

Vertically integrated LEO broadband stack. Own satellites, launch, user terminals, and ground segment as one network product — bandwidth cost and latency as engineering levers, not leased capacity.

NOW

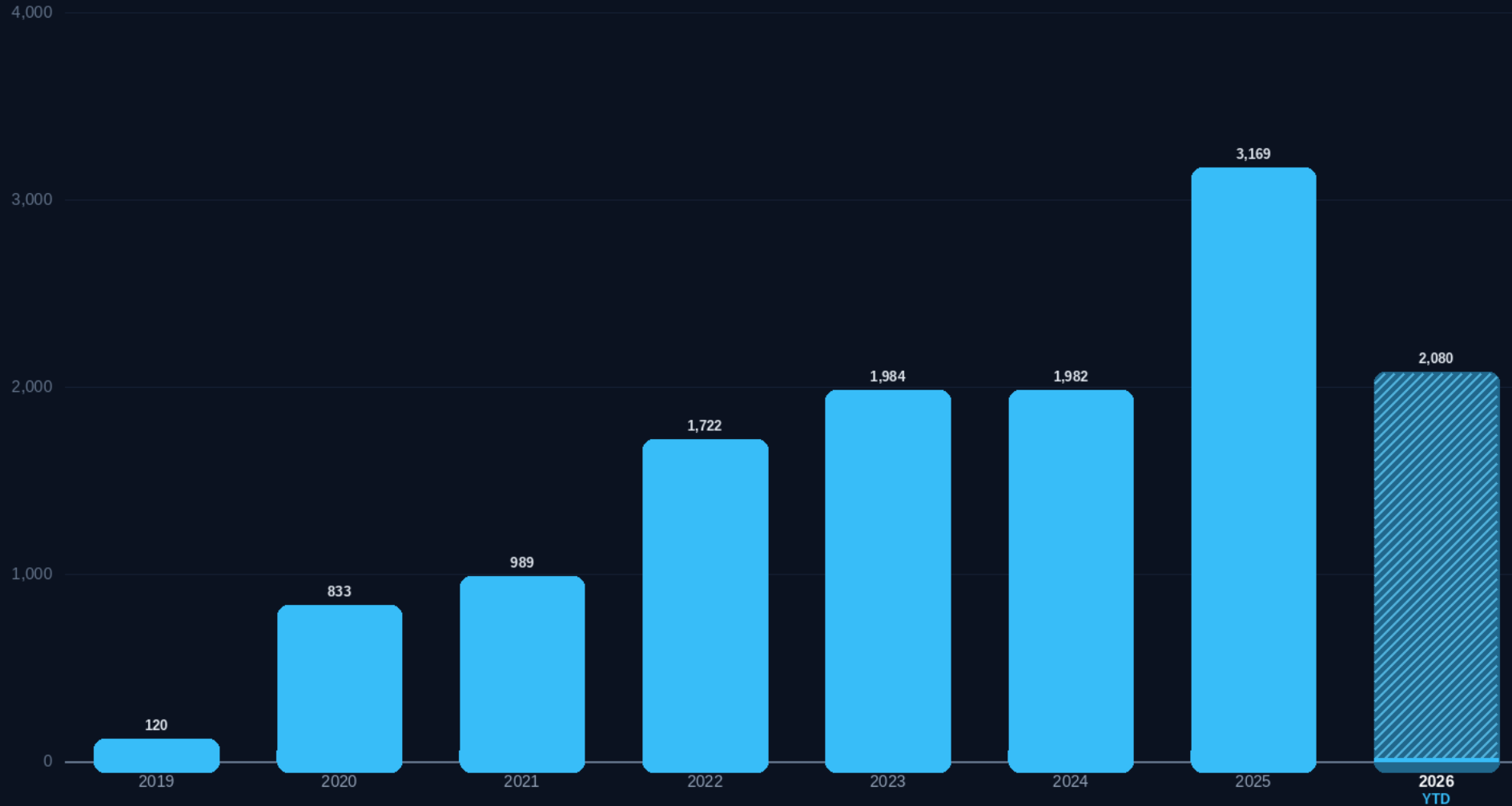
11,078 working LEO satellites (KeepTrack, 2 Sep 2026); global consumer service.

END

Internet everywhere — funds Mars missions; potential backbone for X after SpaceX / xAI integration.

Connect · growth

Starlink satellites launched



NOW

11,078working
satellites

KeepTrack

2 Sep 2026

Bars = launched/year (Jonathan's Space Report, 31 Aug 2026). Callout = 11,078 working, KeepTrack 2 Sep 2026. 2026 is YTD.



Starlink constellation

[M. Lewinsky](#)



SpaceX Hawthorne · Falcon 9

[Steve Jurvetson](#)



11,078

working satellites

KeepTrack, 2 Sep 2026 · muskroadmaps.com data



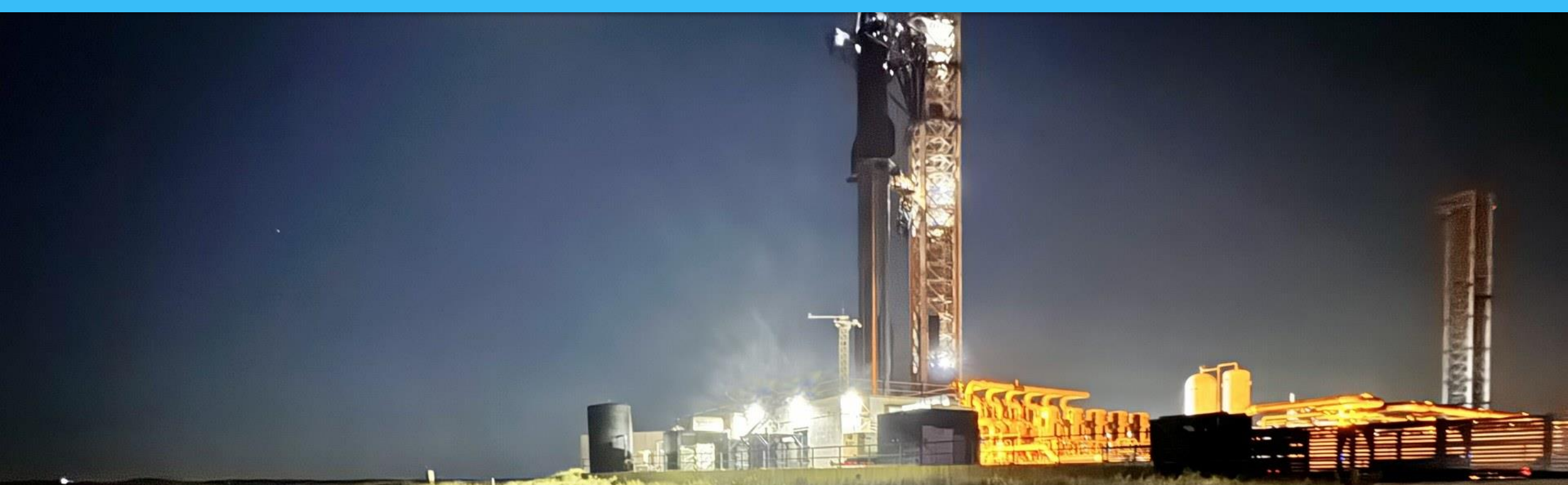
Next

Connect · next

Starlink v3 — more bits per satellite, cheaper rural internet

Polar coverage — no dead zones at the map's edge

Internet to Mars — the same network the ships will use



Reach & integration

Launch

Reusable heavy-lift at commodity \$/kg

Launch · vision

VISION

Reusable heavy-lift at commodity \$/kg. Drive \$/kg to LEO low enough that launch cadence becomes a scheduling problem, not a budget problem — enabling constellation deploy, refueling, and Mars cargo as downstream.

NOW

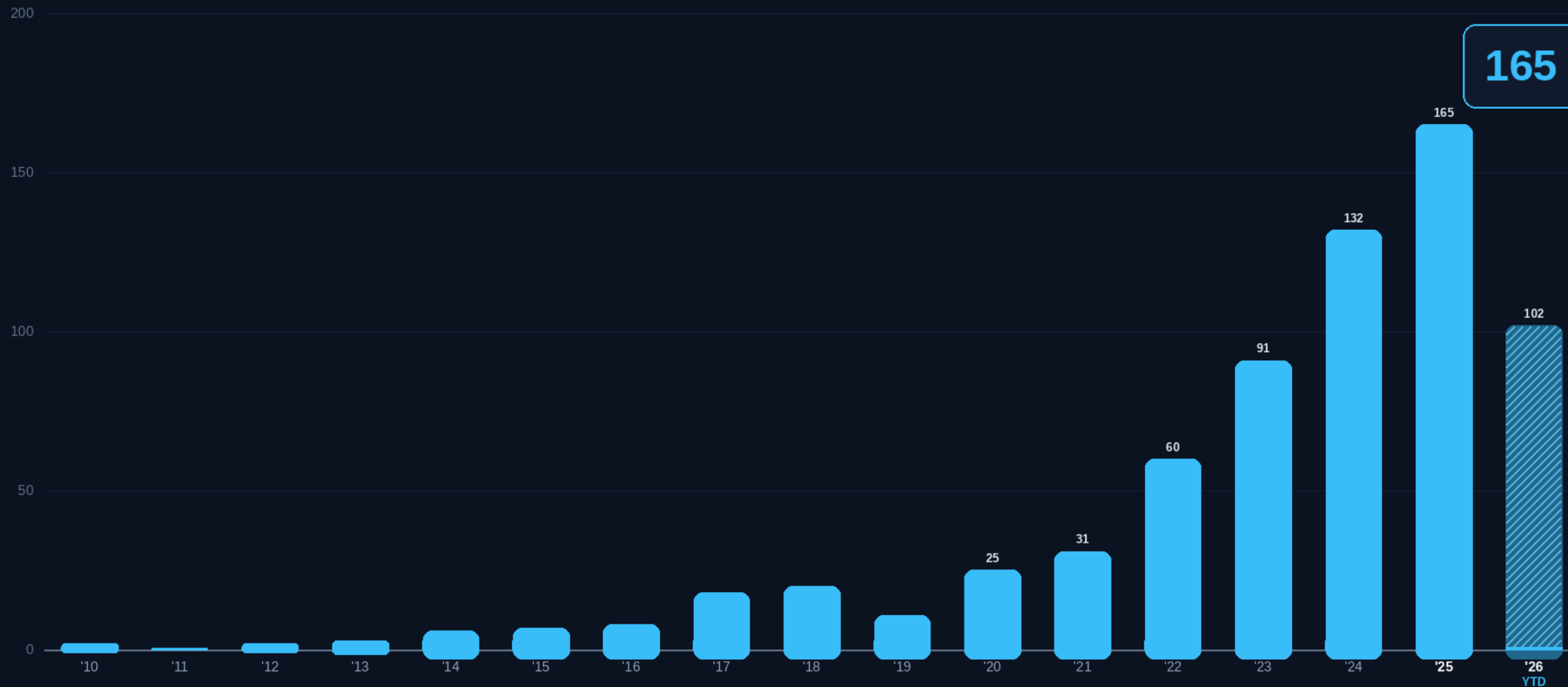
Falcon 9/Heavy dominate commercial launch; Starship test program at Starbase.

END

Make life multiplanetary — Mars settlement; Starship as the planet-hopper.

Launch · growth

Falcon 9 launch attempts



[KeepTrack · GCAT catalog - 2 Sep 2026, 2026 is year-to-date.](#)



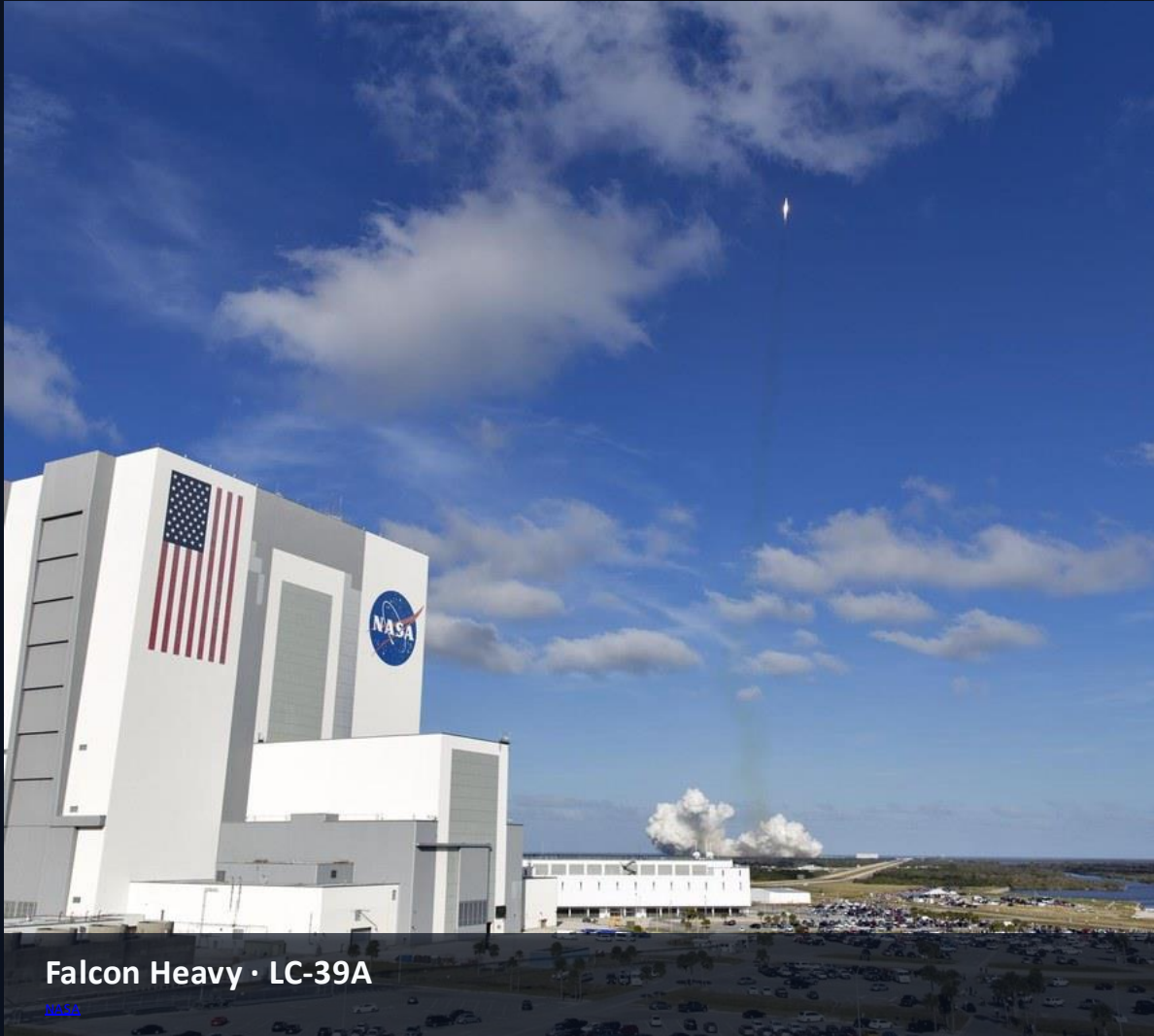
Starbase · Boca Chica

[Karl Plougmann](#)



Starbase launch site · 2026

[Mikemedia Commons](#)



Falcon Heavy · LC-39A

[NASA](#)



Crew Dragon

[NASA / SpaceX](#)



Steve Jurvetson

muskroadmaps.com · not affiliated

Next

Launch · next

Orbital refueling — tankers so Starship can leave Earth

Starship HLS Moon — land NASA crew on the surface

Life multiplanetary — a second place humans can live

engineering, not politics

It is one system

Cars, robots, energy, launch, and neural lean on each other.

EARTH



Starbase · Boca Chica

[SpaceFrom.Space](#)



Starbase · Boca Chica

[Mobilus In Mobili](#)



Optimus

[Steve Jurvetson](#)



SpaceX Hawthorne

[Steve Jurvetson](#)



Dragon · Hawthorne

[Steve Jurvetson](#)



TBM cutterhead

[Steve Jurvetson](#)



The factory is the product.

Every Giga is a copyable operating system.

[Larry D. Moore](#)

Follow the stack

muskroadmaps.com

Map

sites as one system

Developments

what moved

October 2026 journal

field notes

Harry (The Hague) & Bernard de Groot (Deventer) · TU Delft EEs

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[Steve Jurvetson](#) — Loop station · Vegas; Prufrock TBM; Boring Company TBM; Giga Nevada · construction; N1 impla

[dlly](#) — Cybertruck

[Wikimedia Commons](#) — Optimus; Giga Berlin · Grünheide; Giga Nevada · Sparks; Powerwall 3; Starbase launch site

[Kevauto](#) — Model Y

[The Boring Company](#) — Vegas Convention Loop; Loop tunnel; Tesla in Loop tunnel

[xAI / VulcanSphere](#) — Grok 3

[Wikideas1](#) — Megapack; Megapack + solar; Starlink terminal

[9yz](#) — X HQ · 1355 Market St

[China News Service](#) — Giga Shanghai; Giga Shanghai · night; Giga Shanghai · line

[xAI / Grokipedia UJ](#) — Grokipedia

[Runner1928](#) — X HQ · staircase; X HQ · roof terrace; X HQ · roof skyline

[X Corp.](#) — X · sign-in

[GabeIncal](#) — Giga Press · Fremont; Giga Press foundations · Texas

[Starlink](#) — Starlink night sky

[Larry D. Moore](#) — Giga Texas · 2021; Giga Texas · Austin

[M. Lewinsky](#) — Starlink constellation

[Neuralink](#) — Neuralink hardware; Telepathy clinical program

[U.S. Space Force](#) — Starlink launch · Cape

[xAI](#) — Colossus campus · Memphis; Grok DeepSearch

[Lars Plougmann](#) — Starbase · Boca Chica

[SpaceX](#) — Starlink mission; Starship · Mechazilla catch

[NASA](#) — Falcon Heavy · LC-39A

[Oak Ridge National Laboratory](#) — Li-ion cells

[NASA / SpaceX](#) — Crew Dragon

[Michael Wolf](#) — Giga Berlin · Grünheide

[SpaceFrom.Space](#) — Starbase · Boca Chica

[HaeB](#) — Neuralink · Pioneer Building

[Mobilus In Mobili](#) — Starbase · Boca Chica

[Leijunv](#) — Neuralink surgical robot

Not affiliated with Elon Musk or his companies. Unknown figures shown as — or ~. Updated from public sources, 26 Aug 2026.