



Datacenter – boomender Markt und Hochtechnologie für neues Wachstum

OA Grüner wird's nicht, 2026-09-17

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Datacenters → AI Factories

AI computing and modeling are driving foundational technology shifts

Cloud



MW to GW
Increase in scale

10x to 40x
Increase in density

Years to months
Innovation cycles

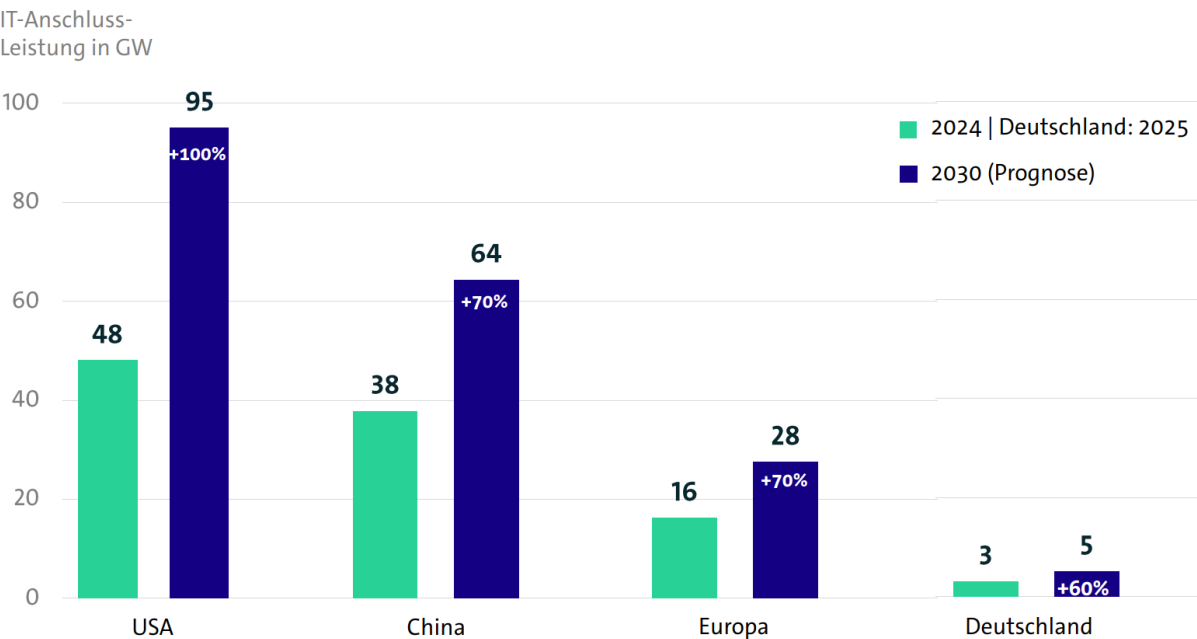
Air to liquid
Cooling

AI



Deutschlands digitale Infrastruktur hält nicht Schritt

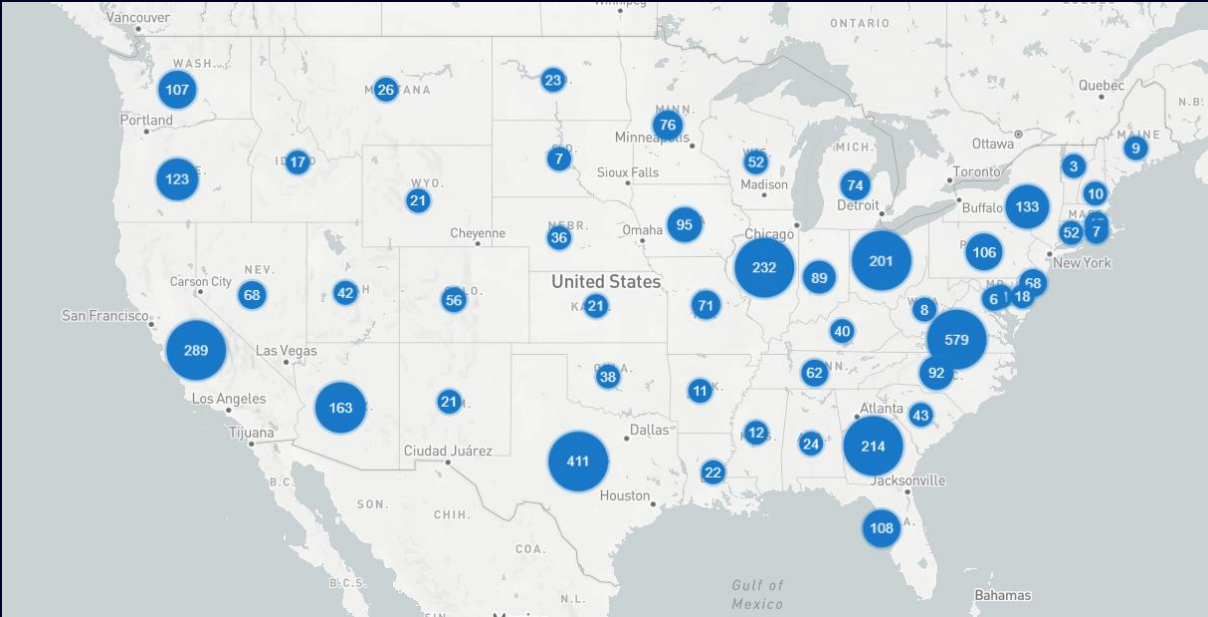
Rechenzentrums-Kapazitäten in den USA, China, Europa und Deutschland



In den USA werden jedes Jahr 2-3 x so viele RZ-Kapazitäten neu hinzugebaut, wie in Deutschland insgesamt installiert sind.

13 Quelle: Bitkom-Studie »Rechenzentren in Deutschland: Aktuelle Marktentwicklungen 2024« und Bitkom-Studie »Rechenzentren in Deutschland: Aktuelle Marktentwicklungen 2025« , durchgeführt vom Borderstep Institut

Global Data Center locations (source: [Data Centers – Database](#), currently 11.102 listed)



ATOS Fürth Data Center

Atos Group
Pflanz, Wehlauer Str. 3
90766 Fürth
Germany

[Visit Website](#)

[Overview](#) [Specs](#) [Ecosystem](#) [Location](#) [Request Quote](#)

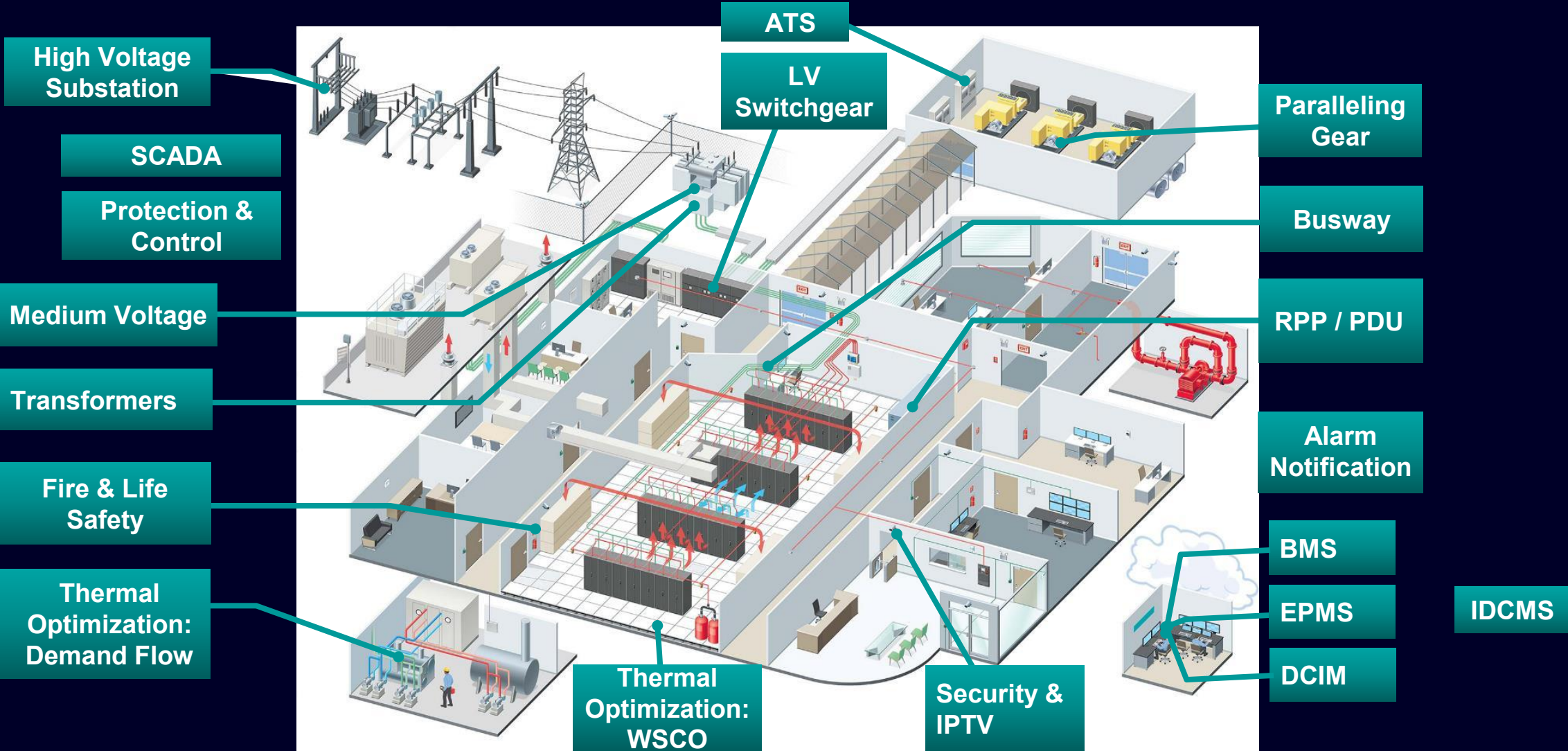
Satellite

Karte **Satellit**

Google

Kurzbeschreibung | Kartendaten ©2020, 30 m | Nutzungsbedingungen | Fehler bei Google Maps melden

Examples of Siemens products / systems / solutions going into Datacenters



AI Factories represent a fast-growing market opportunity

Planned gigawatt capacity for AI infrastructure significantly outpacing cloud

4x vs. cloud

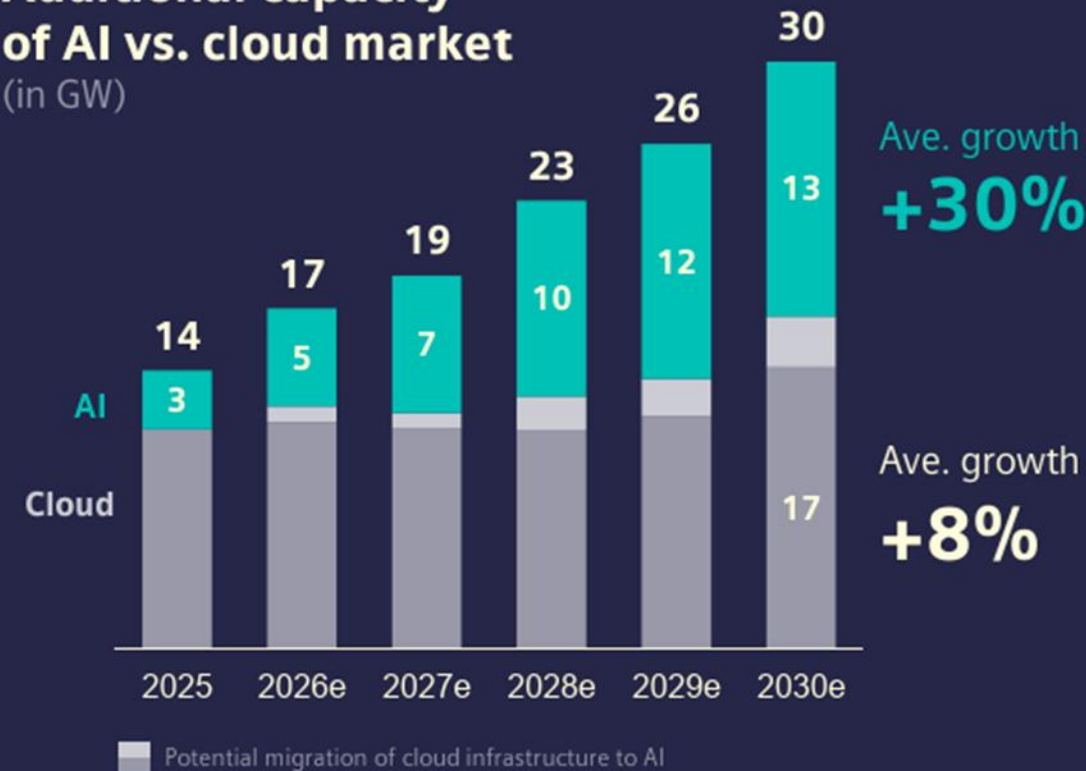
AI share of market is expected to rapidly increase

By 2030, **70% of data center capacity demand** will be for facilities capable of handling AI workloads

Technological shifts creating **opportunities** to bring further Siemens technology to the market

Opportunity for **differentiation** specifically in digital, electrification and automation

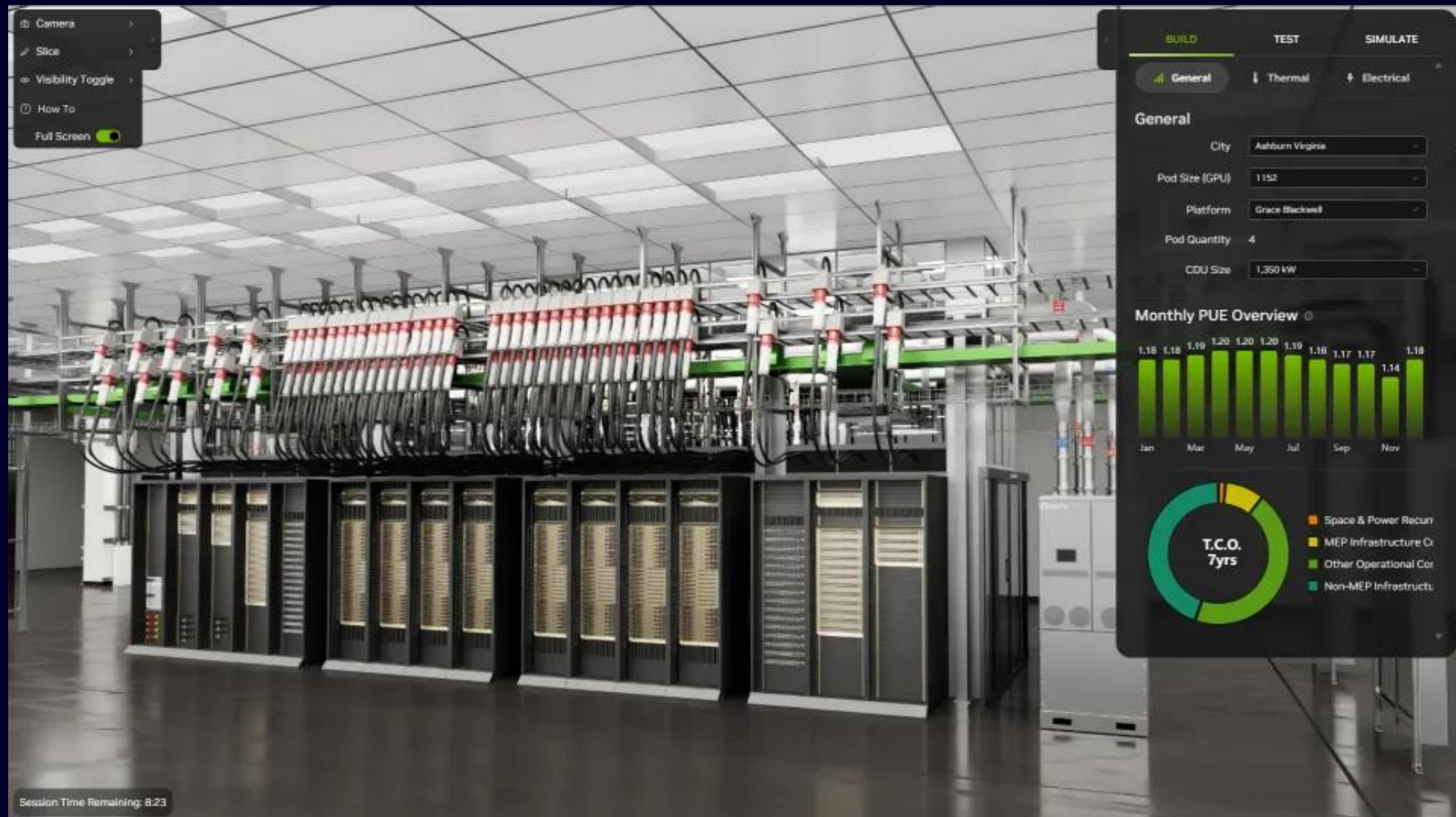
Additional capacity of AI vs. cloud market (in GW)



Note - Internal Siemens research inc. reference to external sources: IEA, McKinsey, Omdia, BNP Paribas, SVM DC Vertical

Source: Siemens Capital Market Day 2025

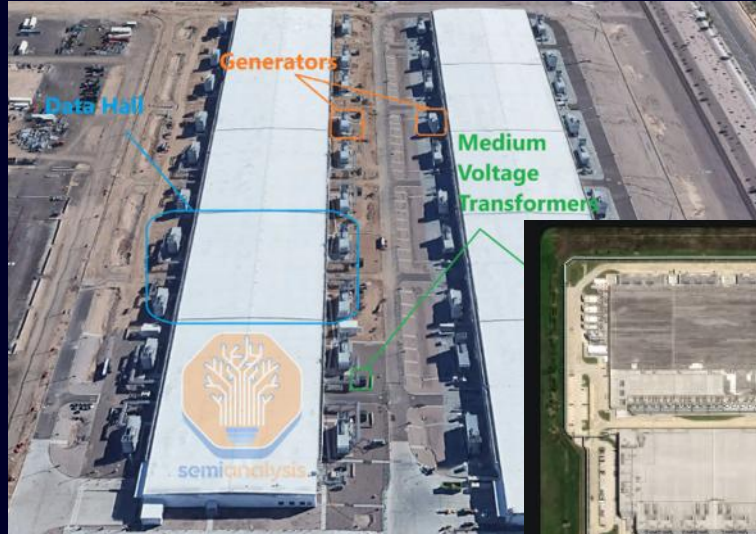
Innenansicht



Source: NVIDIA, [Build Digital Twins for AI Factory Design and Operations Blueprint by NVIDIA | NVIDIA NIM](#)

Außenansichten: Vom Datacenter zur >> AI Factory <<

48MW build from 3MW units (Microsoft)



300MW Data Center (Google)



1200MW Abilene Data Center
(Go live in 2026)



Source: [Datacenter Anatomy Part 1: Electrical Systems – SemiAnalysis](#)

New AI Factories have the scale of Manhattan



zuck 14.07.2025

For our superintelligence effort, I'm focused on building the most elite and talent-dense team in the industry. We're also going to invest hundreds of billions of dollars into compute to build superintelligence. We have the capital from our business to do this. Übersetzen



zuck 14.07.2025 · Autor

We're actually building several multi-GW clusters. We're calling the first one Prometheus and it's coming online in '26. We're also building Hyperion, which will be able to scale up to 5GW over several years. We're building multiple more titan clusters as well. Just one of these covers a significant part of the footprint of Manhattan.



Quellen: <https://www.threads.com/@zuck/post/DMF6tMAxkX8>; Meta will KI-Rechenzentrum so groß wie Manhattan bauen | BR24
Meta to invest "hundreds of billions of dollars into compute to build superintelligence," with several multi-GW data center clusters - DCD

xAI-Rechenzentrum in Memphis (USA)



xAI has applied for permits for 15 turbines but they have yet to be approved. (Courtesy Steve Jones
Flight by Southwings for the Southern Environmental Law Center)



An aerial photo of the xAI facility taken with a thermal imaging camera showing heat coming from the turbines, in April 2025. (Courtesy Southern Environmental Law Center)

Quelle: [Elon Musk is building 'the world's biggest supercomputer.' It's powered with dozens of gas-powered turbines | CNN](#)



AI Factory Market Context

1

Growth Continues

Global market size projected at \$1,008.65 billion by 2034, expanding at a CAGR of 11.24% from 2025 to 2034¹.

2

With Change

AI workloads are driving rack densities of 50 kW to over 2 MW (40x)

3

Impacting Efficiency

Hyperscalers are shifting from AC to $\pm 400/800$ VDC, liquid cooling, modular builds

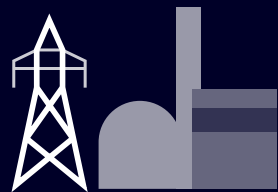
4

At a Different Speed

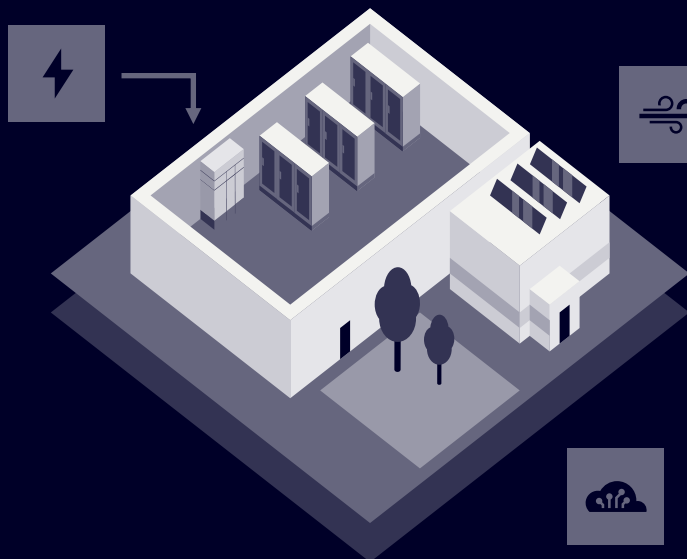
Nvidia + Open Compute Roadmaps show 3-5 tech shifts in 5 years impacting digital tool landscape (Digital twin, IT, OT)

The Data Center of the future

Now



Energy
consumer



**Air cooled
facilities**
Poor heat reuse



Sustainability requirements



Regulatory requirements

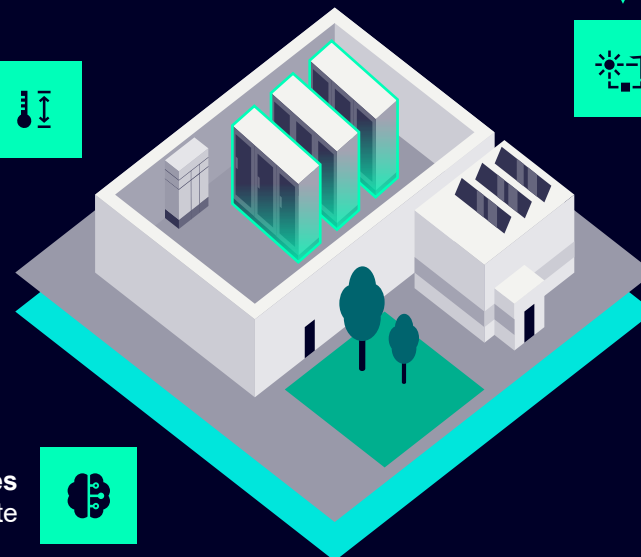


**Cloud services
dominate**

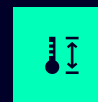
Energy
prosumer



2035



Grid
participant for
sustainability



**Liquid cooled
sustainable
district heating**



**AI services
dominate**