Episode Book

EPISODE #5764

What Does Siemens Actually Make?

PUBLISHED	7 October 2026 at 22:21 UTC
DURATION	23:44
LISTEN	myweirdprompts.com/episode/what-siemens-actually-makes/
HOSTS	Corn, Herman
SCRIPT MODEL	deepseek-flash
VOICES	chatterbox-regular (chatterbox-local)
PIPELINE	V5.2
BOOK GENERATED	19 October 2026 at 17:39 UTC

SYNOPSIS

Siemens books more revenue than the GDP of a mid-sized country, yet most people couldn't say what it makes. This episode walks through a factory floor, a commercial building, a railway, and a national power grid to show where Siemens technology actually sits — and why it stays there for decades. We trace the four core businesses, the SIMATIC controllers and TIA Portal software that become a plant's institutional memory, the Desigo CC building platform that now earns money through demand response, and the thirty-year train contracts that look more like marriages than purchases. Then we go back to 1847 Berlin, to a telegraph workshop, to understand how a company gets this large and this consequential while staying almost entirely out of sight.

TRANSCRIPT



Corn

There's a name you've seen a hundred times this year and couldn't tell me what the company does. It's on a circuit breaker in a basement, a train in Egypt, a scanner in a hospital, the controller running a bottling line. And if someone asked you at a dinner party what Siemens actually makes, you'd stall.



Herman

You'd say appliances. And you'd be wrong, or at least forty years out of date.



Corn

Daniel wrote in with basically that exact problem. He says he keeps running into the name — on electrical equipment, factory automation, trains, building systems, enormous industrial infrastructure — and that it's surprisingly hard to explain exactly what Siemens is. So he wants two things. First, a tour. What does Siemens make, and where does its technology actually sit in the environments around us, using real places — a factory, a commercial building, a railway, a big infrastructure project. Second, the bigger question: why did Siemens get this enormous and this influential, how did it build that position, and why does its technology stay in service — shaping purchasing and engineering decisions — for decades at a time.



Herman

And the paradox he's poking at is right there in his own framing. Products invisible to ordinary consumers, and one of the most consequential industrial firms on earth. Both true at once.



Corn

So let's start with the tour. Best place to start is a factory floor.



Herman

Before we walk in, you need the scale, or the tour doesn't land. Siemens is the largest engineering company in Europe. Munich and Berlin headquarters, about three hundred twenty-seven thousand employees. Fiscal 2025, which ended September thirtieth last year, they booked orders of eighty-eight point four billion euros, revenue of seventy-eight



Herman (continued)

point nine billion, net income ten point four billion. That's a third consecutive record. Free cash flow ten point eight billion.



Corn

Put that in perspective for me. What does seventy-eight point nine billion euros of revenue actually mean?



Herman

It means Siemens alone books more revenue than the GDP of a mid-sized country. Luxembourg, for instance. And it does it selling things most people will never see, touch, or hear about.



Corn

And here's the part that makes Daniel's question good. If you went looking for Siemens in tech-enthusiast venues, you'd find almost nothing. Somebody pulled the Hacker News archive — there's a 2015 comment from a guy saying, quote, "just check how much stuff worldwide is using Siemens tech, including almost all power grids, train infrastructure." That's it. A phone UX gripe here and there. No threads.



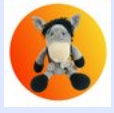
Herman

Because it's not developer tooling. It's enterprise and industrial. The importance is inversely proportional to the visibility.



Corn

Give me the map before we go in the door.



Herman

Four core businesses. Smart Infrastructure, twenty-three billion euros revenue, up nine percent. Digital Industries, seventeen point eight billion. Mobility, twelve point four billion, up ten. And Healthineers, where Siemens holds about sixty-seven percent and is now



Herman (continued)

planning to spin thirty percent off to shareholders, taking itself down to a minority stake. Those are the four legs.



Corn

And those four legs don't really talk to each other at the customer level, do they? A hospital buying a scanner isn't the same buyer as a factory buying controllers.



Herman

Completely different sales forces, different procurement cycles, different regulators. But underneath, they share the same engineering culture and the same basic bet — that the physical world and the digital world should be one system, not two.



Corn

Factory first.



Herman

Digital Industries is the nervous system of a modern plant. SIMATIC controllers and PLCs, TIA Portal engineering software, drives, sensors, RFID, and a digital platform they call Xcelerator. Siemens describes it as connected automation — every component talking to every other component instead of sitting as an island of control.



Corn

Make it physical. What am I looking at on the line?



Herman

A SIMATIC controller sequencing a drive, reading a sensor, reporting up into TIA Portal. The controller is a grey box in a cabinet. The interesting part is the software. A plant's engineers build the logic, the HMI screens, the documentation inside TIA Portal. That environment becomes the plant's institutional memory. Everything anybody knows about how that line is supposed to run lives in there.



Corn

So the metal isn't the product. The metal is a dongle for the software.



Herman

That's blunt but it's close. Siemens says ninety-two percent of Fortune 500 companies use its software, and thirty-three percent of machines worldwide run on a Siemens controller. Automotive, machine building, pharma, chemicals, food and beverage, electronics, semiconductors. If you have ever stood next to an industrial robot, the odds are decent a Siemens controller was counting its cycles.



Corn

Give me a concrete case. Pick one industry and walk me through what Siemens actually does inside it.



Herman

Take automotive. A car plant has hundreds of robots on a body-in-white line — welding, sealing, moving panels. Each robot has a controller. Those controllers have to be sequenced so that robot A finishes its weld before robot B moves in, or you get a collision. That sequencing logic lives in a Siemens PLC. Above that, the plant's overall production schedule — which model, which color, which trim — gets pushed down into the line through software that talks to those controllers. When the plant wants to add a new model, the engineers don't rebuild the line. They rewrite the logic in TIA Portal and push it out.



Corn

So a car plant can change what it builds without changing the physical equipment.



Herman

Within limits, yes. And that flexibility is the whole selling point. The hardware is standardized. The differentiation is in the software layer, and that layer is Siemens'.



Corn

Thirty-three percent of machines on earth. That's one company.



Herman

One company.



Corn

Okay. Out of the factory, into a building.



Herman

Smart Infrastructure. Building automation, fire safety, HVAC control, power distribution, switchgear, grid control, EV charging. Seventy-nine thousand four hundred employees, twenty-three billion revenue, eighteen point three percent operational margin. And the flagship product for this tour is Desigo CC.



Corn

Which is?



Herman

An open, multi-discipline building management platform. One interface that unifies HVAC, lighting, fire safety, security, and power management. Separate Desigo Fire Safety handles addressable fire detection. Then Building X is the digital building platform for data-driven sustainability and operations decisions, and Electrification X and Gridscale X handle energy network management and autonomous grid control.



Corn

So in a big commercial building, the controls room has one screen that knows the temperature, the lights, whether a door is open, and how much power the building is pulling.



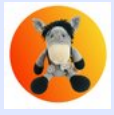
Herman

All at once, from one chair.



Corn

What does that actually look like day to day? Who's sitting in that chair?



Herman

A facilities manager, usually. And here's the thing — before systems like this, that person had a wall of separate panels. One for the HVAC, one for the fire alarm, one for the lights, one for the access control. If something went wrong, they'd have to figure out which panel was complaining. With Desigo CC, it's one screen, one alarm list, one place to look.



Corn

And the efficiency gain isn't just convenience. It's that you can see relationships you couldn't see before.



Herman

You can see that the HVAC is running hard in a zone where the windows are open, because the access control system knows the windows are open. That's a cross-discipline insight you'd never get from separate panels.



Corn

Here's the freshest thing in Daniel's direction, and it's from last week. September thirtieth — Siemens and a company called Voltus integrated building energy monetization with Siemens building controls. Large commercial buildings in the US — real estate firms, universities, state and local government — can now enroll in virtual power plant demand-response programs. The building cuts its peak demand through the Siemens controls, and it earns money for doing it.



Herman

That's the moment the hardware becomes a financial instrument. A building management system that used to just keep people comfortable now has a revenue line attached.



Corn

Walk me through the mechanics. How does a building earn money by using less power?



Herman

Grid operators pay for demand response because they need to shave peaks. If a heat wave is coming and the grid is going to strain, they'll pay large consumers to reduce load for a few hours. A university campus with a Siemens building management system can pre-cool its buildings before the peak, then let the temperature drift up slightly during the peak window. Nobody notices. The grid gets relief. The university gets a check.



Corn

And Siemens is the layer that makes that possible because it already controls the HVAC.



Herman

Right. The controls were already there. Voltus is the market interface. Siemens is the hands.



Corn

And the pattern across both tours is the same. In the factory and in the building, Siemens isn't selling you a product. It's selling you the layer everything else plugs into.



Herman

That's the factory and the building. Now let's go somewhere Siemens moves people. And then ask how it got this big in the first place. Mobility. Twelve point four billion revenue, up ten percent, eight point eight margin. They build the trains and the systems around them. Velaro high-speed sets, Vectron locomotives, Desiro regional trains. Rail automation and signaling, ETCS, digital station services.



Corn

Numbers.



Herman

Egypt. Roughly two thousand kilometers of high-speed system. Forty-one Velaro trains, ninety-four Desiro sets, forty-one Vectron locomotives, eight depots, a fifteen-year maintenance agreement. About three billion dollars initially, later expanded.



Corn

Egypt bought a rail network and a maintenance contract that outlasts most political cycles.



Herman

Then Deutsche Bahn, a consortium contract around two point eight billion euros for digital control and safety technology, DSTW and ETCS, across Germany. Vietnam — VinSpeed signed a turnkey contract on September eighteenth for the Hanoi to Quang Ninh and Ben Thanh to Can Gio high-speed lines, valued at up to a billion euros. And Italo, July twentieth, twenty-six Velaro high-speed trains with an option for fourteen more. About three billion euros, and a thirty-year full-service contract that includes Railigent X, which is their AI-driven service layer.



Corn

Thirty years. That train order is a marriage.



Herman

And there's a software-defined hardware story here. RAILPOOL ordered a hundred Vectron X locomotives on September twenty-first, eighty of them firm. First customer for the Vectron X's app-based digital functions. A connected driver's cab, standardized interfaces, and applications that can be added the way you add an app.



Corn

A locomotive with an app store.



Herman

That's the direction. Now the grid. Gridscale X handles autonomous grid control, Electrification X handles energy network management. This is the layer behind national power grids. Which is why that Hacker News commenter could write what he wrote in 2015 and be correct.



Corn

Now the why. History.



Herman

Founded October first, 1847, in Berlin. A telegraph workshop. Werner von Siemens and Johann Georg Halske. The founding product was Werner's pointer telegraph.



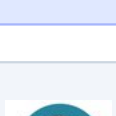
Corn

Everything on this show eventually traces back to a telegraph.



Herman

1848, Europe's first long-distance telegraph line, five hundred kilometers, Berlin to Frankfurt. 1867, the Indo-European telegraph line, eleven thousand kilometers, London to Calcutta. 1879, the first electric locomotive. 1881, a Siemens alternator powered one of the world's first electric street-lighting systems, in Godalming in the UK. The present-day Siemens AG is a 1966 merger of three Siemens companies.



Corn

Hold on. Eleven thousand kilometers of telegraph line in 1867?



Herman

Through the Ottoman Empire, across deserts, under the sea in places. It was one of the largest infrastructure projects of the century. And it made Siemens a global company before most of its future competitors existed.



Corn

And then the spin-off pattern, which I think is the most interesting structural fact here. Infineon in 1999. Siemens Mobile in 2005. Osram, 2013. Healthineers, 2017. Siemens Energy, 2020.



Herman

Twenty-five years of it. Incubate a business to global scale, then shed it. The Healthineers deconsolidation now is the continuation of that exact pattern.



Corn

So is Siemens a conglomerate, or is it a company factory?



Herman

Honestly? I think the second one is closer and it's under-discussed. They don't sit on businesses. They grow them and let them go.



Corn

What's the logic? Why would you spend decades building a business to global scale and then spin it off?



Herman

Focus, mostly. A conglomerate has to allocate capital across wildly different businesses with different margins, different growth rates, different capital needs. If you spin off the semiconductor business, the semiconductor business can raise its own capital and the parent can concentrate on what it does best. It's a way of letting both halves run at their own speed.



Corn

And it means Siemens keeps refreshing itself. Every spin-off is a chance to shed a mature business and double down on the next one.



Herman

Which is exactly what's happening now with Healthineers and the digital pivot.



Corn

Now Daniel's real question. Why does the technology stay embedded for decades?



Herman

Two mechanisms. First, contracts. Egypt's deal includes fifteen years of maintenance. Italo's includes thirty years of service with Railigent X. Those aren't purchases, they're relationships with a defined lifespan longer than a lot of careers.



Corn

Second?



Herman

Installed-base economics. Thirty-three percent of the world's machines run a Siemens controller. Ninety-two percent of the Fortune 500 use the software. If you want to leave, you're retraining a workforce and re-engineering a plant around a rival's ecosystem. That's a switching-cost moat, and it's the strongest kind, because the cost isn't in the price of the replacement. It's in everything the plant built on top of the old system.



Corn

Give me a concrete example of what that switching cost looks like.



Herman

Picture a bottling plant that's been running on Siemens controllers for twenty years. The control logic, the HMI screens, the alarm configurations, the documentation — all of it is in TIA Portal. The maintenance techs know the system. The spare parts inventory is built around it. Now imagine a new plant manager wants to switch to a competitor. They have to rewrite every line of control logic. They have to retrain every technician. They have to rebuild the spare parts inventory. And they have to do it while the plant is running, because you can't shut down a bottling line for six months. That's the moat.



Corn

It's not that the competitor's product is worse. It's that the cost of switching is measured in years, not dollars.



Herman

And that's why the incumbency is so durable. The decision to stay is the default, and the default is almost always cheaper than the alternative.



Corn

And Siemens' own framing of it is interesting. Not hardware, not software. "Combining the real and the digital worlds." Hardware plus software plus services, so the relationship persists across the whole life of the asset.



Herman

Which shows up in the strategy. "ONE Tech," announced November thirteenth last year. Targets doubling digital business revenue by 2030, more than a billion euros of AI investment over three years, mid-term revenue growth of six to nine percent, and a total addressable market of six hundred fifty billion euros within five years, of which the digital portion is a hundred seventy-five billion by 2030.



Corn

And they put money behind it. Altair.



Herman

Altair Engineering, closed March twenty-sixth this year. About ten billion dollars. Largest acquisition in the company's history. Simulation software folded into Xcelerator. Plus partnerships with NVIDIA, Microsoft, and AWS on industrial AI. CEO Roland Busch, from the shareholder letter: "Siemens today is stronger than ever, with a record fiscal 2025. Our strategy works. We grow by combining the real and the digital worlds."



Corn

What does Altair actually give them?



Herman

Simulation. Altair's software lets engineers test a design virtually before they build it. Crash-test a car in software. Optimize a bracket for weight. Predict how a component will fatigue over a million cycles. That's the digital twin layer — the ability to model the physical world before you commit to it.



Corn

And that plugs directly into the factory and building businesses.



Herman

It does. If you're building a plant, you can simulate the whole thing in software before you lay a single cable. If you're designing a building, you can model its energy performance before you pour the foundation. That's the "combining" Siemens keeps talking about.



Corn

There's a tension worth naming before we move on.



Herman

The bribery scandal, 2005 to 2008. About one point three billion dollars in bribes, a settlement around one point six billion, largest ever at the time. And the WWII use of forced labor. Those sit in the same company's history as the engineering story, and they're



Herman (continued)

part of why a company this embedded attracts scrutiny rather than affection.



Corn

It's the flip side of invisibility. You don't get to be a layer under half the world's infrastructure and also be a stranger.



Herman

The pattern doesn't repeat because a company is trustworthy. It repeats because the switching cost is real regardless.



Corn

I keep coming back to a specific piece of Siemens gear.



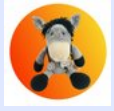
Herman

Which piece?



Corn

A particular model of controller I've seen in a building nobody thinks about. Part number format, the beige-grey enclosure, the way the terminal blocks are laid out along the bottom rail, and the sound it makes when it energizes — a click, then a low hum you can only hear if the room is quiet.



Herman

You know it well enough to describe the terminal layout.



Corn

I've stood next to it more than once. And here's the thing that sharpens the whole thesis. That unit was installed, forgotten, and it's still running long after the product line was discontinued. The documentation is gone. Nobody has the manual. The reason it's still running is that nobody can justify taking the line down to replace a component that has never once failed.



Herman

So the lock-in isn't the contract and it isn't the software ecosystem.



Corn

The deepest form is a working object nobody has a reason to touch. That's a different mechanism. The switching-cost moat is about the cost of leaving. This is about the absence of any event that would make leaving the question.



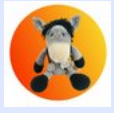
Herman

Inertia as infrastructure.



Corn

The part number, incidentally, is a four-digit series with a suffix that tells you the input range, then a second suffix for the output stage.



Herman

You have that memorized.



Corn

I have it memorized. There were six of them in that room, all energized, all past their official support window, and I could hear every one of them because the room was otherwise silent. That's what "embedded for decades" looks like at the level of one machine. Not a market-share statistic. A specific humming box everyone has agreed to ignore.



Herman

Wait.



Corn

That image, the machine nobody has a reason to touch, is probably the best answer to Daniel's question. Not the contract length, not the market share. The fact that the thing runs, and running is the argument against ever replacing it.



Herman

Which means the moat has two entirely different clocks. One is legal — fifteen years, thirty years, whatever the service agreement says. The other is mechanical, and it has no clock at all, because it's just an object that hasn't stopped.



Corn

So the strategy question gets stranger. If the moat moves to data and digital twins, you're abandoning the mechanism that never expires in favor of one that has to be renewed every time a customer looks at the bill.



Herman

Siemens is betting that way deliberately. Altair, Dotmatics, the NVIDIA and Microsoft and AWS work, "ONE Tech," all of it. They're trading installed iron for digital twins.



Corn

But the iron doesn't leave the room when the software arrives. It just gets another layer on top.



Herman

Which is why the invisibility probably doesn't break. A digital twin of a factory is still invisible to anybody who isn't inside the factory.



Corn

There's one more thing in Daniel's framing, and it's the piece people get wrong most often.



Herman

Go ahead.



Corn

The most common wrong belief is that Siemens is a consumer brand. That's the misconception. The Siemens name on a dishwasher is a separate joint venture, BSH, and it isn't the thing we've been talking about. The mobile phone business was sold to BenQ in 2005.



Herman

Correcting it crisply: the actual company sells layers inside factories, buildings, railways, and grids. That's why nobody can say what Siemens does at a dinner party, and it's also why almost nobody has to know.



Corn

Here's what I'll leave open. If the next moat comes from software and digital twins rather than installed iron, does Siemens finally become visible? Altair, the industrial AI partnerships, all of it points that way. But a twin you can't see is still a twin you can't see, so the bet might be on becoming more embedded, not less.



Herman

Which would make Daniel's paradox permanent rather than temporary. The bigger it gets, the less you notice. Not because it's hiding, but because the deeper you go into the stack, the fewer people stand at the surface and look down.



Corn

That's the show. Thank you to our producer, Hilbert Flumingtop. This has been My Weird Prompts, the human-AI collaboration podcast. If you enjoyed this one, a review wherever you listen really does help. We'll be back soon.