E2 MUD · MANUFACTURING

# Don’t Add the Third Shift

*Before you scale with AI, fix what’s broken with the people you already have.*

In 2003, General Motors was trying to resurrect Cadillac.

The plan was audacious: a brand-new plant in Lansing, Michigan — Lansing Grand River — built on Toyota production principles, launching three vehicles that would prove Cadillac wasn’t finished. The CTS. The SRX, one of the first full-size luxury SUVs, with a panoramic glass roof. The STS, the flagship. And eventually a third production shift to hit the volume the market was already screaming for.

I was a shift leader on the trim line. Within weeks of launch, we were drowning.

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The metric that matters in an assembly plant is first-pass rate — the percentage of cars that clear end-of-line inspection, water test, and dynamic vehicle testing without needing any repair. We were running about 25 cars an hour. Cars were getting knocked off at every hurdle.

The SRX was the worst. That glass roof was a beautiful design — a flat piece of glass sealed to the body with a two-part epoxy, applied by hand on a moving line. If the placement was even slightly off, it created a path for water. We were flooding brand-new Cadillacs. Our first-pass rates were in the 20s and 30s. They needed to be in the 90s.

Here’s how the system was supposed to work. When a team member found a defect they couldn’t fix in the moment, they’d pull the andon cord and the defect would be written on a repair ticket. The team leader would then chase the car down the line — jogging through the plant, looking for a gap between stations where they could sneak in with tools, make the repair, and buy off the ticket. By the time the car rolled off the flat top, the ticket was clean. First-pass. Good car.

When it worked, it was beautiful. When too many defects overwhelmed the team leaders’ ability to chase them down, you drowned.

We’d planned for a small rework lot — 30, maybe 40 cars. But the launch curve had its own logic. Marketing was already out. Dealer commitments were locked in. So when the lot

filled up, we didn’t stop the line. We kept pounding cars off. By midweek, we’d have 300, 400, sometimes 500 brand-new Cadillacs sitting in lots around the plant, in the weather, waiting for someone to find time to fix them.

The pressure to launch the third shift was enormous. More people, more hours, more volume — that was the path to the numbers. From 30,000 feet it made sense. Demand is there. Capacity isn’t. Add the shift.

But anyone standing on the floor could see the truth: we weren’t capacity-constrained. We were quality-constrained. A third shift of new workers would introduce an entirely new wave of defects on top of the ones we couldn’t fix. We wouldn’t triple our output. We’d triple our rework.

So leadership made a decision that went against every instinct the launch curve was demanding. They pulled four out of five of us shift leaders off third-shift training. All of our horsepower was redirected to one thing: floor-level problem solving on the first two shifts.

We brought the crisis to the floor.

I got my five group leaders and thirty-odd team leaders together and told them exactly which defects were coming off our section of the line. Not abstractions. Specific defects on specific cars. Then I asked them: what are you going to do about it?

Every team leader took that question back to their team members — the people whose hands were on the epoxy, on the wiring harnesses, on the trim panels. The instruction was simple: if you see yourself producing a defect, pull the andon cord. Stop the line. Fix it at your station.

We’d been saying this in theory since the plant opened. Now we had to live it.

The first few days were brutal. Out of a hundred cars scheduled, we booked twenty. Leadership had to stand in front of the workforce and say something counterintuitive: Twenty is good. Twenty is a win. Because those are twenty good cars that don’t need repair.

That was the moment the culture shifted. Team leaders did overtime with the repair crews — not just to clear backlog, but to study the defects, bring the knowledge back, revise their standardized work, and solve problems at the station so they’d never be produced in the first place.

The SRX water leak — the one engineering couldn’t design their way out of — was killed in a week. Not by engineers in a conference room. By production workers who figured out how to ensure complete urethane adhesion to the metal, right there on the floor.

The intelligence had been there the whole time. It just needed a system that asked for it — and leaders brave enough to stop the line while it was deployed.

First-pass rates climbed. The rework lot shrank. We launched the STS. We launched the third shift. Lansing Grand River won JD Power Gold. Not despite the slowdown. Because of it.

I think about that parking lot every time I hear a CEO talk about scaling AI.

An assembly plant makes the invisible visible. You can’t hide 500 defective cars in a parking lot. But the same dynamics play out in every frontline business in America — they’re just harder to see. A nurse running patients through a ward is running an assembly line: triage, diagnosis, treatment, discharge. A restaurant on a Friday night is a production line: greet, seat, fire, plate, serve, turn. Retail, construction, hospitality — all production systems with their own first-pass rate, their own chase-and-repair, their own rework lots. These sectors represent roughly half of America’s GDP. And in every one of them, the people closest to the work are carrying intelligence nobody has asked for.

Right now, every company in these industries is trying to add the third shift. Buying AI agents, deploying automation, launching agentic workflows — all to get more volume, faster.

But walk the floor of most organizations and you’ll see the rework lot filling up. Failed implementations. AI tools producing confident nonsense because nobody asked the frontline what the actual process looks like. Their first-pass rate — if they were honest enough to measure it — is in the 20s and 30s. And the plan is to add more capacity.

This is the same mistake we almost made at Lansing. The fix is the same too.

Stop. Triage. Deploy the intelligence you already have.

Before you add the AI, ask your people what’s broken. Bring the crisis to the floor. Show them the specific defects and ask them what they’re going to do about it. Then give them the authority to pull the andon cord.

This will feel like going backwards. Your first few days will look like twenty cars instead of a hundred. Leadership will have to stand up and say: Twenty is good. Twenty is a win. And

mean it.

Here’s what we discovered at Lansing that should keep every CEO up at night. When we fully deployed our people’s intelligence, we didn’t just fix the defects. We transformed the economics of the entire operation. Same scale, radically better cost structure. The capacity wasn’t missing. It was being consumed by dysfunction.

In a physical plant, you still need the third shift if you want more cars. But in the digital world — in the processes AI is poised to transform — deployed intelligence changes the math entirely. When your people’s intelligence is fully engaged, and you hand them AI as a power tool, you get three shifts’ worth of output from two shifts’ worth of people. Not because AI replaced them. Because AI multiplied them.

Siemens proved this at Amberg, Germany. Over two decades, they held their workforce steady at roughly 1,100 people. By systematically deploying their workers’ intelligence alongside automation — not instead of it — they increased output eightfold. Not 8%. Eight times.

But the detail that makes the difference: those 1,100 weren’t interchangeable bodies. They were formed. They’d come up through Germany’s Handwerk apprenticeship tradition — years of disciplined capability-building, the kind of formation that produces a worker with thirty years of compounding judgment, not thirty years of repetition. The automation didn’t replace that formation. It multiplied it.

Hand the same technology to a workforce whose intelligence has been suppressed for decades, whose judgment has never been asked for — and you won’t get 8x. You’ll get a faster version of the same dysfunction.

The people who can transform your business are already on your payroll. The AI that will multiply their impact is ready. The only question is whether leadership is brave enough to stop the line, deploy the intelligence, and put the power tools in the right hands.

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Written with AI assistance. The argument, the judgments, and the floor testimony are the author’s own.

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