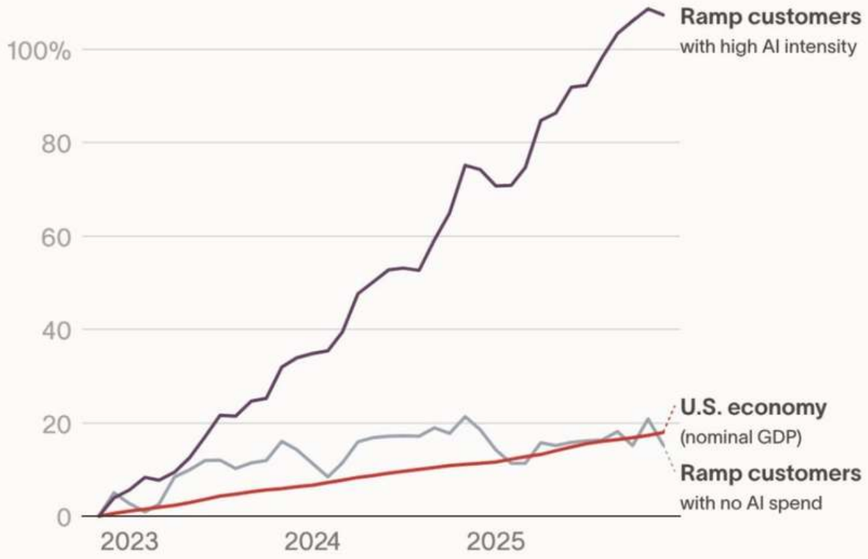
AI Diffusion Lessons From The Frontier

What early movers are teaching us about the next performance gap for NZ firms

AI is creating a compounding gap that looks like a structural change in progress

Ramp data tracks actual spend, not executive surveys. Many of their customers are small to medium businesses so this is not just tracking the Mag 7 stocks.

Median revenue growth of Ramp customers by AI spending intensity, indexed to November 2022



Source: Ramp Economics Lab (ramp.com/data); card and bill pay data from 50K+ businesses on Ramp's spend platform. High AI intensity firms are the top 25% of spenders on AI as a share of revenue.

Foundation Capital talked to 25 companies, from 50-person startups to 1,000+ enterprises. **This is structural change already in progress, not forecast.**

120→25

One company's engineering team. Planned, not projected.

0.75→0.1

Engineers per microservice. One person now overseeing what used to need eight.

1:6→1:100

Expert-to-generalist ratio. One company's 12-month target: 1:25. Eventual goal: 1:100.

13×

Task-level productivity increase across teams that fully adopted AI workflows. Rokt, 12 months in.

Good companies are getting much more out of AI than average companies

Startups (n=515) were given access to information about how AI is working for others (treatment) and their performance was measured against startups that didnt get the information (control). AI didn't give every startup a similar boost. Instead, it expanded the upper tail of possible outcomes. **A small number of ventures were able to reach outlier-level revenue for less inputs that simply wasn't seen (or was much rarer) without the AI help.**

Figure 8: Revenues by Quantile: Treatment vs. Control

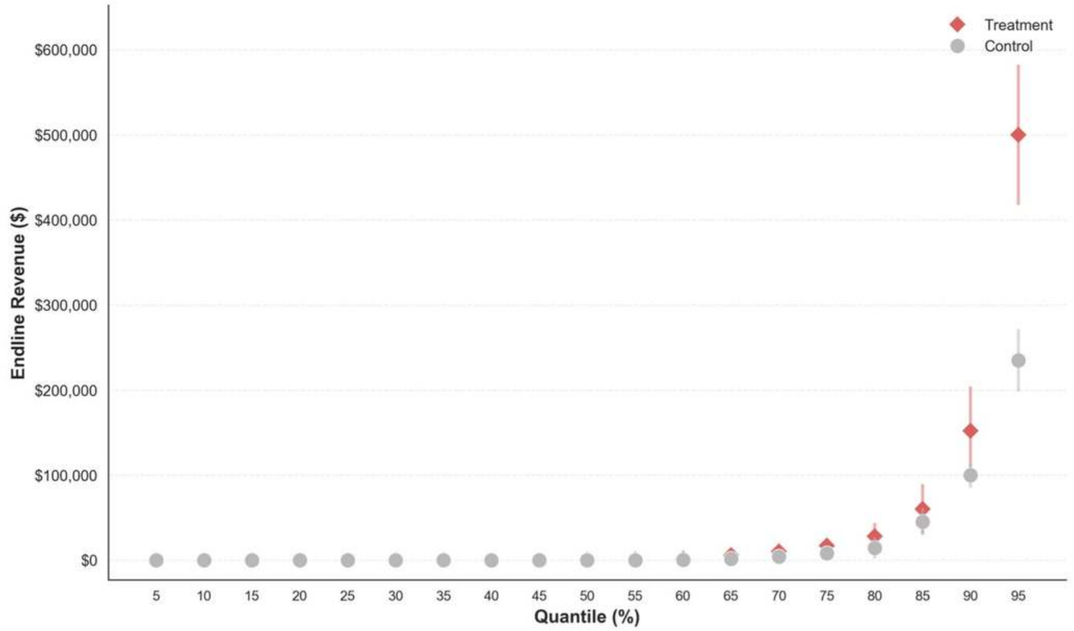
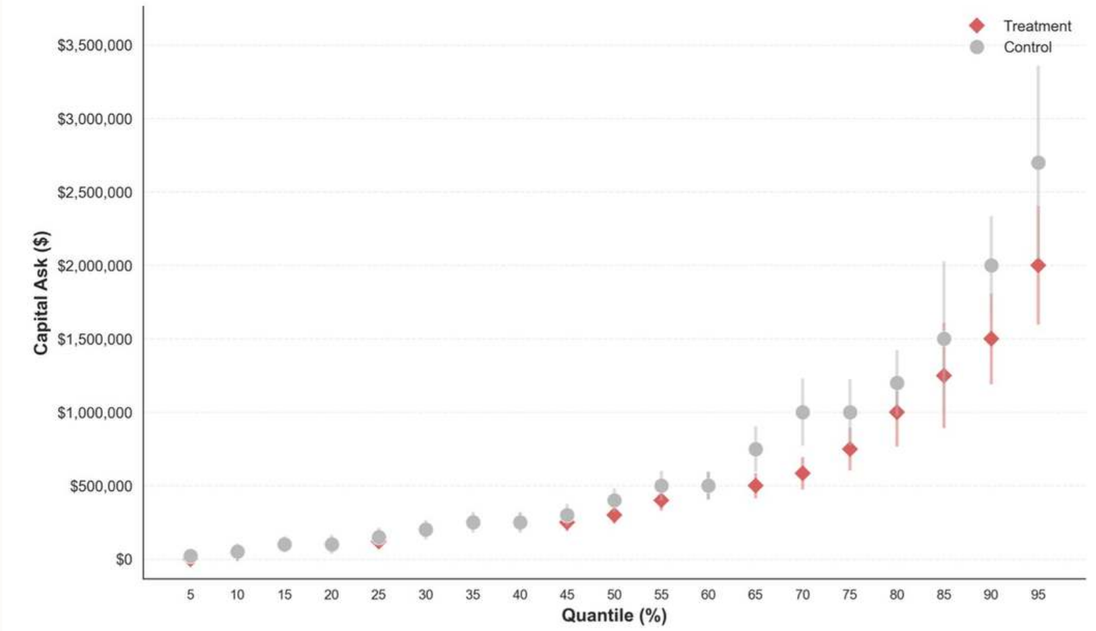


Figure 10: Capital Demand by Quantile: Treatment vs. Control



Source: Mapping AI into Production. Kim, Kim & Koning. 2026.

AI Diffusion means redesigning work, not just adopting AI tools



Most firms are still in the “cars on dirt roads” phase, where individuals get faster but the organisation does not yet become structurally better.

Plugging in a new technology produces modest gains; redesigning the system around it produces the real gains.

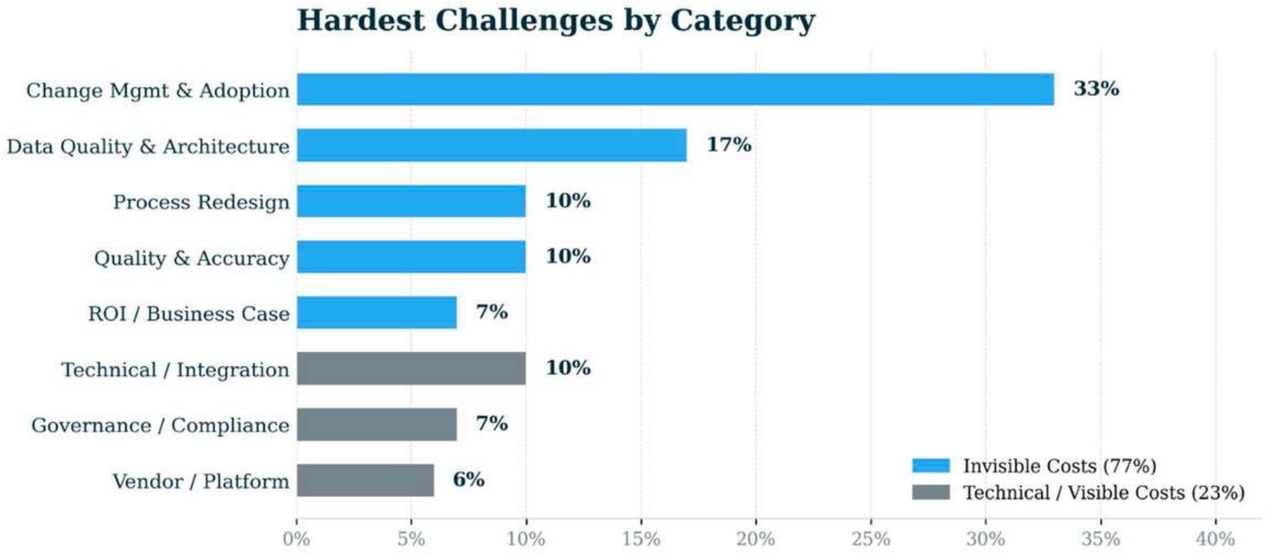
AI diffusion matters when work is reorganised around it, not when chat tools are layered onto old processes.

- Mandatory tool building by non tech staff
- Peer-led learning, not top-down training
- Prototypes instead of slides

This is more art than science so focus on the soft stuff and persist through failure

77% of the hardest challenges are "invisible costs"

When we asked practitioners, "what was the hardest thing to fix?", the answers reveal where AI budgets actually go.



61% Most successfull AI Implementation projects had already experienced a failure

100% All successfull projects persisted with the senior leader that previously failed

100% **Active** executive sponsorship
Building on existing foundations
Iterative approach

Source: The Enterprise AI Playbook: Lessons from 51 Successful Deployments. Pereira, Graylin & Brynjolfsson. 2026.

No category is insulated, but the first point of impact differs by business model

Two axes determine how much work AI can touch, and how quickly: **what you produce and how you deliver it.**

	Produce Products	Produce Services
Deliver Digitally	**Happening Now** **Smaller teams, higher leverage** Nine functions collapsing into three: R&D, GTM, G&A. A 120-person engineering team planning to cut to 25. Agents draft, execute, analyse. Humans set direction, design systems, own relationships, validate outputs. Scales with work, not headcount. Examples: Xero; Trademe; Hnry	**Highest pressure** **Agents do the work** The product is the work itself — and increasingly agents are doing it. Large human delivery floors shrink to a thin human layer wrapped around an agentic core. Two roles remain: relationship experts and accountability officers. AI-native challengers have no legacy floor to unwind — that advantage is hard to close. Examples: Marketing agencies, Consulting, Law firms
Deliver Physically	**Most value still ahead** Longer timeline because atoms are harder than bits. No equivalent of Claude Code for mechanical engineering — yet. Agents compress design feasibility, simulation, and supply chain optimisation. Validators sign off on prototypes and safety certifications. The org structure mirrors digital products, plus Supply Chain Management. Examples: Food Processors; Clothes Manufacturers; Chemicals	**Human is the product** A cleaner has to show up. A doctor has to examine you. The transformation here is everything around them: scheduling, routing, paperwork, dispatch logistics. That's what agents are absorbing fastest, freeing humans to focus on the work itself. In restaurants, hotels, and care settings, human interaction is central. That preference won't change. Examples: Doctors, Hospitality, Trades

US Parts Manufacturer

Worked example: 5 weeks instead of 5 months

A 400-person precision parts manufacturer losing 6% of raw material to scrap — an $8M problem.

AFTER workflows designed around AI

- SENSE AGENT monitors machine telemetry across 12 CNC lines. Surfaces pattern: scrap spikes 40% on Lines 3 and 7 when humidity exceeds 62% on batches from one supplier.
- DIAGNOSTIC AGENT retrieves 18 months of data: humidity-alloy interaction costing $3.2M annually. Frames two options: climate control ($180K) or switch supplier ($90K/yr premium).
- DECISION AGENT recommends supplier switch for immediate deployment. QA flags one aerospace customer exception.
- ACCOUNTABLE HUMAN agrees with recommendation.
- ORCHESTRATOR reroutes purchase orders, adjusts production schedule.
- REVIEWER tracks 30 days: scrap drops from 9.1% to 2.8%. Updates scheduling model permanently.

Total elapsed time: 5 weeks. Traditional company: 5+ months while $3.2M bleeds.

The Intelligence Stack doesn't replace machinists or quality engineers.
It replaces the coordination overhead between them.

Director’s Starting Point



Pick A Workflow

Resist the temptation to start with a grand AI strategy.
Pick a consequential workflow first: high volume, recoverable if AI fails, clear what good looks like, data available somewhere

Mindset Matters

The strongest workforce lesson from the frontier is that urgency and support have to travel together.
Support people to reinvent jobs 1st, redesign org model 2nd

Organisational Drag

If you’ve tried to create change and failed to deliver it in the past, thats a sign of your organisation’s immune system.
Carve out a small Tiger team building AI workflows on the side



AI Diffusion Phases

SEE THE WORK

- Tell the workforce honestly. Map the cost of every workflow. Pick one to rebuild.
- Three moves, three weeks, almost no spend. Highest leverage in the playbook.
- Output: a workflow with a writable target, a named team, and a six-week clock.

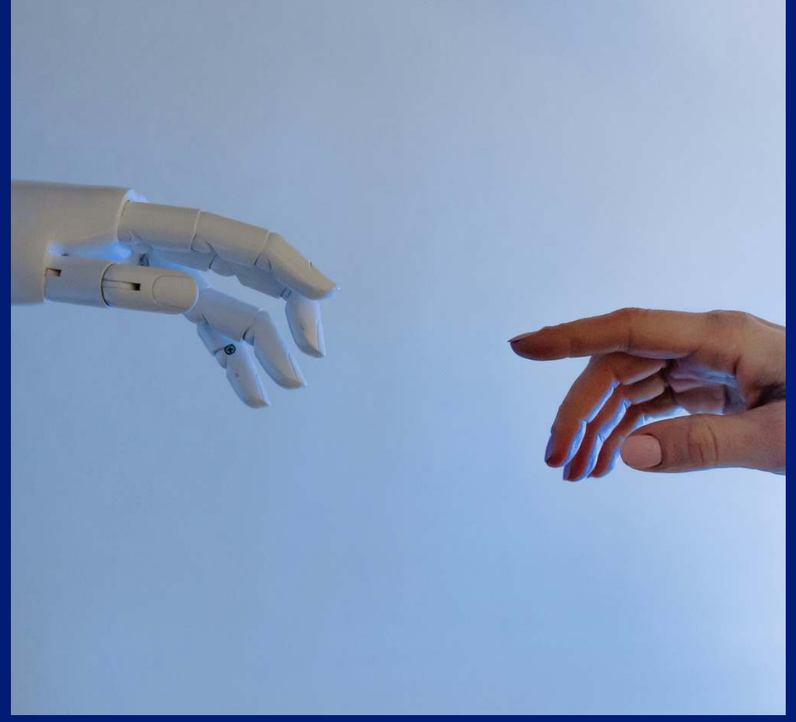
BUILD THE LOOP

- Rebuild one workflow
- Name three roles: accountable person; target writer; mechanic/builder. Everything else tries to find these people.
- Six weeks per rebuild. Build on top of the systems you already pay for, not on a vendor's stack.
- Run universal access in parallel. Re-rate the cost map.
- Output: one workflow in production. Three more queued. Three roles filled, paid, developed.

REDRAW THE DEAL

- Earn the new org chart with data from the rebuilds. Do not draw it on a slide first.
- Three populations have sorted themselves: leaners, watchers, refusers.
- Three different deals for each group. Follow through.
- Output: a structure that fits the new coordination cost. Honest exits for those who don't fit.

Rebuild the next workflow + Restock the team with leaners



The Honest Deal

What To Say To Your People

“We will retrain everyone who chooses to reinvent. The programme will show us who that is. The org we build at the end will be shaped around the people who made the shift. Tt will be a fundamentally different org and roles doing fundamentally different things, not just a smaller version of the old one.”

- This doesn't promise no one leaves. It promises the decision will be based on demonstrated reinvention.
- Skipping the commitment and go straight to org redesign will destroy the cultural conditions that make the transformation work.
- A 10% headcount reduction that trims the edge of the org chart and leaves the machine intact is the **weak form - a failure mode.**
- The **strong form** is a redesign of the machine: Flattened layers, reinvented leaders, structure rebuilt around how work actually gets done now.



Duane Fernandes

Thank You.

Find the Playbook at
www.theexponential.agency/ai-playbook