

The Rise of AI Engineering Squads

How SaaS companies are escaping
the AI talent bottleneck





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Part I: The Problem

The AI Talent Gap

AI demand is accelerating faster than engineering supply.

Every SaaS company is becoming an AI company.

From copilots and predictive analytics to intelligent agents and automation, artificial intelligence is rapidly becoming a core layer of modern software products.

But the engineering talent required to build these systems is scarce.

AI job postings continue to grow rapidly.

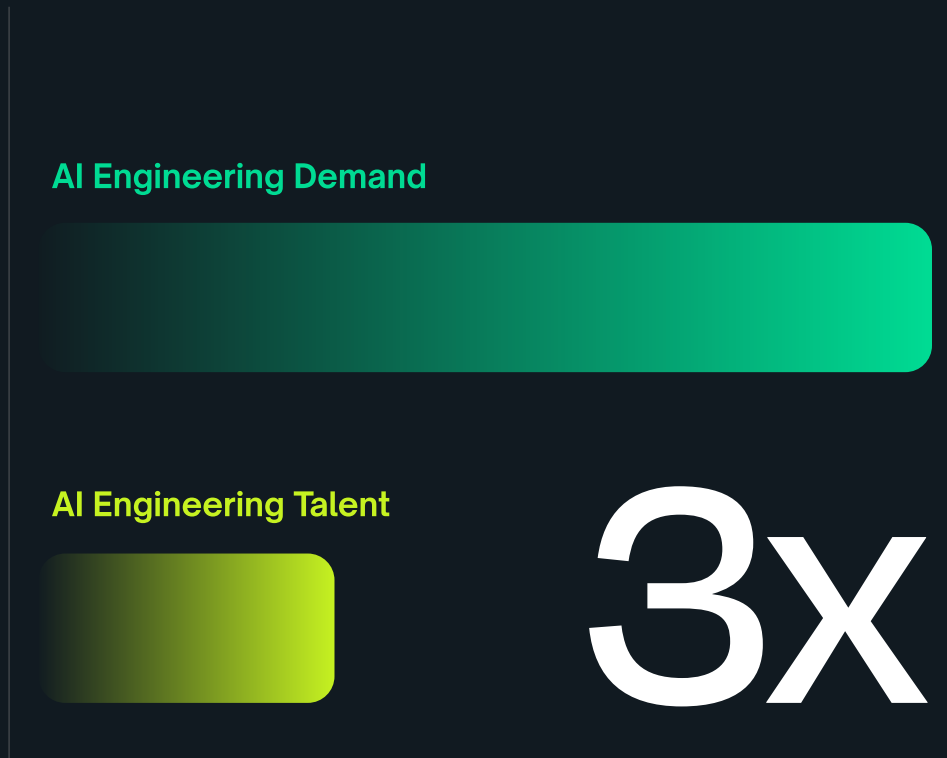
AI engineers command median salaries above \$150,000.

Demand for AI talent significantly exceeds supply.

The result is a widening capability gap between companies that want to build AI - and the teams required to make it real.



AI Demand Is Growing Faster Than Talent Supply



For every AI engineer available, multiple roles remain unfilled.

Artificial intelligence is one of the fastest-growing areas of software development. AI is compressing delivery but expands demand. Resulting in fewer engineers per project, but many more AI-driven initiatives - leaving critical roles unfilled.

This means the talent required to build AI systems is not expanding at the same rate.

AI roles are among the fastest-growing jobs globally.

Median AI engineer salaries exceed \$150,000.

Demand for AI talent significantly exceeds supply.

Sources:

Stanford AI Index Report WEF Future of Jobs Report Glassdoor Salary Insights



The AI Talent Equation

AI capability isn't a hire. It's a system.

Many organisations approach AI as a hiring problem.

They search for “the AI engineer” who will unlock new capabilities.

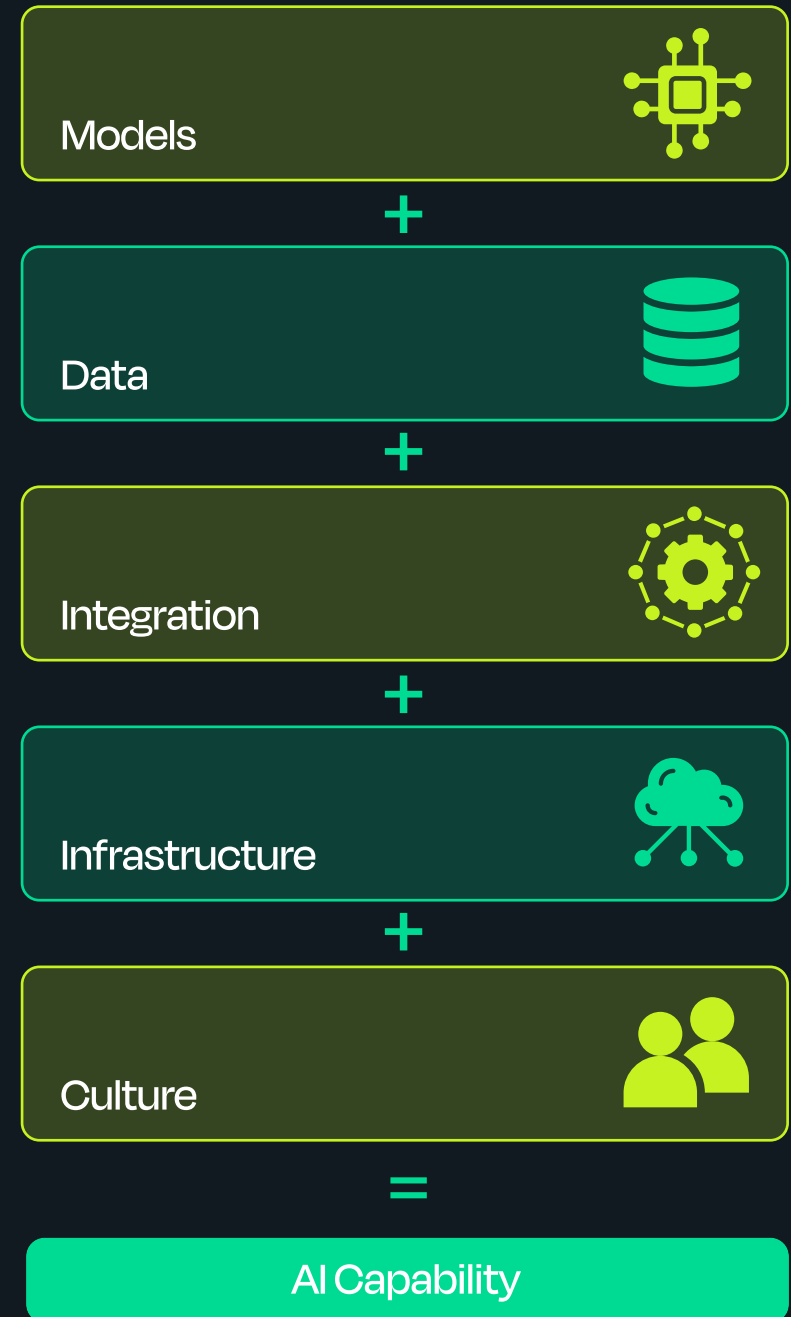
But modern AI systems require expertise across multiple layers:

- Model experimentation
- Data pipelines
- Backend integration
- Infrastructure and deployment

That combination rarely exists in a single role.

Which means the real constraint isn't finding one engineer.

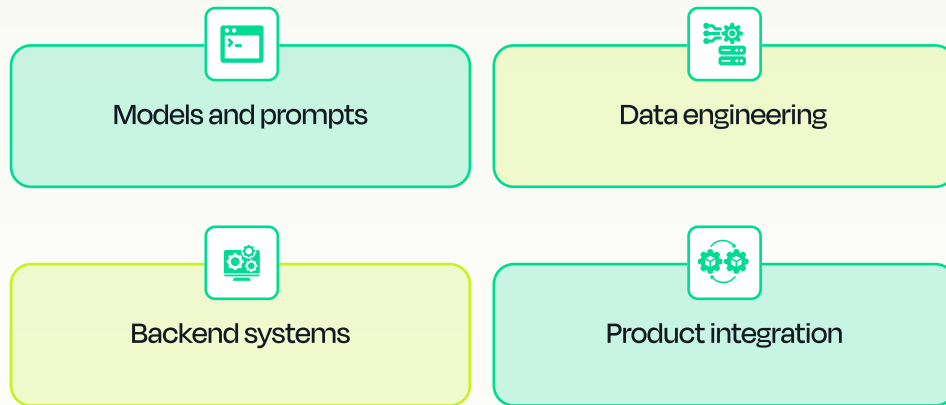
It's assembling a **working AI squad**.





The AI Squad Model

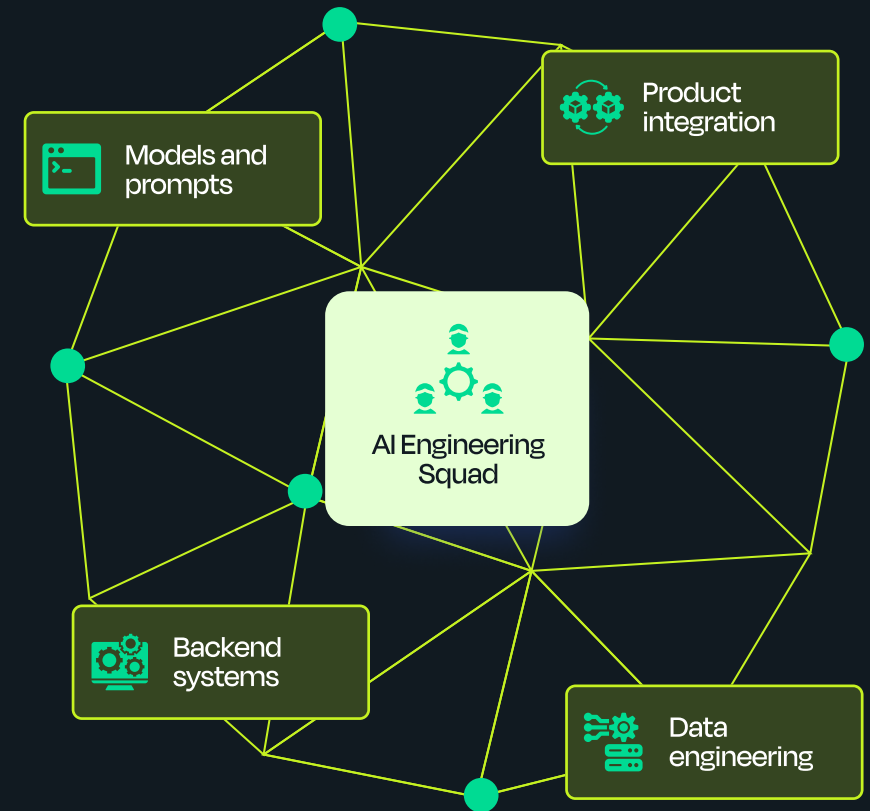
To ship AI features into production, companies must combine expertise across multiple domains.



This creates a new unit of delivery:
The AI Engineering Squad.

Small cross-functional teams capable of experimenting quickly and shipping AI capabilities rapidly

AI features aren't built by individuals.
They're built by squads.





Why AI Teams Are Being Rewritten

AI development requires continuous experimentation. It interacts with the entire product stack.

And the competitive window for shipping AI capabilities is shrinking. These forces are restructuring engineering organisations around small autonomous squads.

AI isn't a feature. It's a capability.



Experimentation



Integration



Speed



One Hire Won't Close the Gap

Launching AI capabilities often requires multiple roles:

- ML engineer
- Data engineer
- Backend engineer
- AI integration engineer

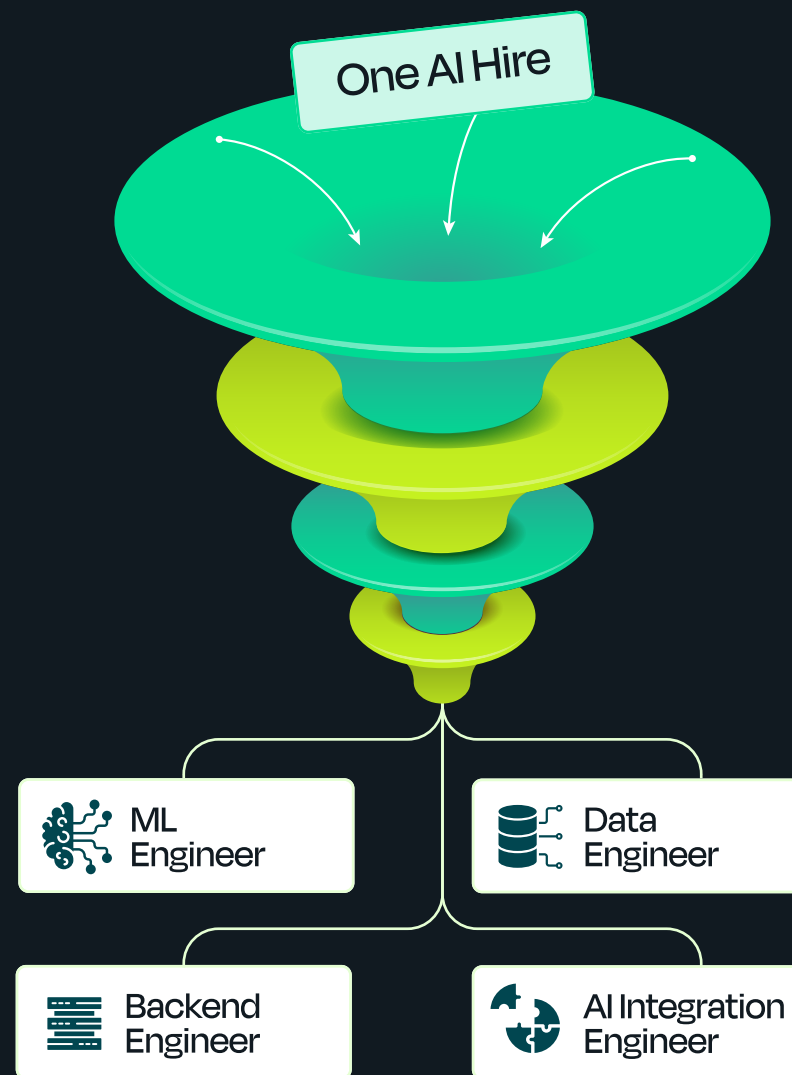
Across advanced economies:

78% of ICT roles now reference AI skills.

28% of organisations report AI skill shortages affecting business outcomes.

For many SaaS companies, assembling these teams through hiring alone can take 6–12 months.

Hiring one AI engineer isn't enough.





Part II: The Old Model Breaking

The Outsourcing Trap

Traditional outsourcing often results in **Black Box** delivery.

Work disappears behind vendor contracts.

Delivery slows.

Knowledge remains external.

And the capability companies hoped to build never becomes their own.



The Outsourcing Instinct

When internal hiring cannot keep pace with demand, companies turn outward.

Outsourcing appears to solve the problem:

- Access global talent
- Increase engineering capacity
- Reduce hiring pressure

But AI engineering introduces new requirements that traditional outsourcing struggles to support.

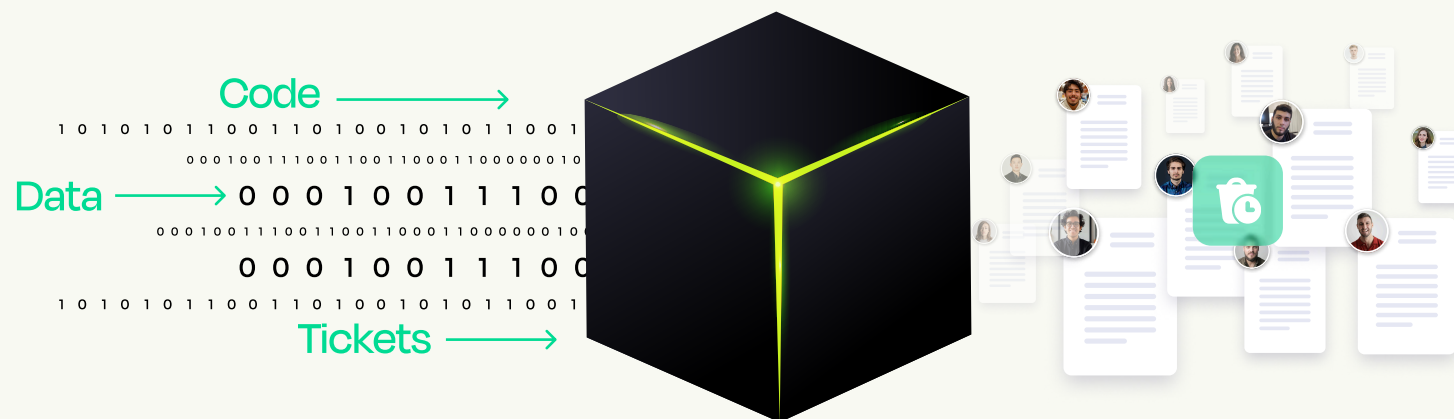
AI-assisted development is compressing team size and shifting value away from pure headcount.

Projects now require fewer engineers, reducing demand per engagement and pressuring revenue models. This disproportionately impacts junior roles, while increasing reliance on senior, specialist talent.

At the same time, AI fluency is becoming a baseline expectation. Firms must demonstrate real, measurable productivity gains across AI tooling to remain competitive. Traditional outsourcing models make this shift opaque

The Outsourcing Trap

Work disappears. Visibility evaporates.





AI Adoption Is Accelerating Faster Than Talent Supply

78%

of organisations already use AI

AI specialists

#1

the fastest-growing job category globally

28%

of organisations say AI skills shortages affect outcomes

Sources:

McKinsey State of AI 2024, UK AI Labour Market Survey

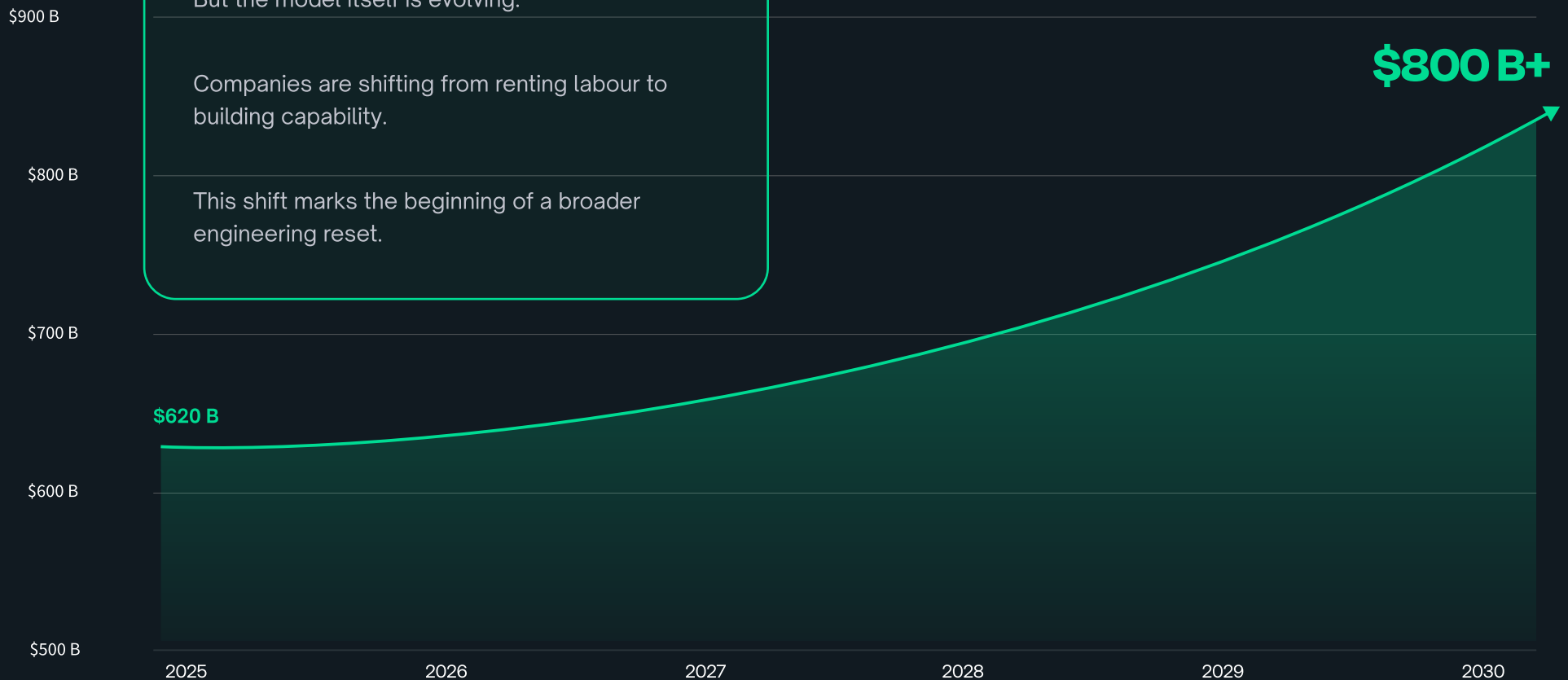


The Engineering Reset

The outsourcing market continues to grow. But the model itself is evolving.

Companies are shifting from renting labour to building capability.

This shift marks the beginning of a broader engineering reset.



Source: Statista 2025

Build. Operate. Transfer.

Build-Operate-Transfer enables companies to build engineering capability rather than rent capacity.





Proof in Every Dollar

01

Transparent
structure



02

Compounding
efficiency



03

Zero
sunk cost



04

Measured in
proof, not hours.



In short:

Traditional outsourcing buys labour

B-O-T builds leverage.

Every dollar contributes to capability
you will eventually own.



Five Ways Companies Use the B-O-T Model

BEST
FIT FOR
SAAS



The Builder

Scaling Product Engineering

Trigger

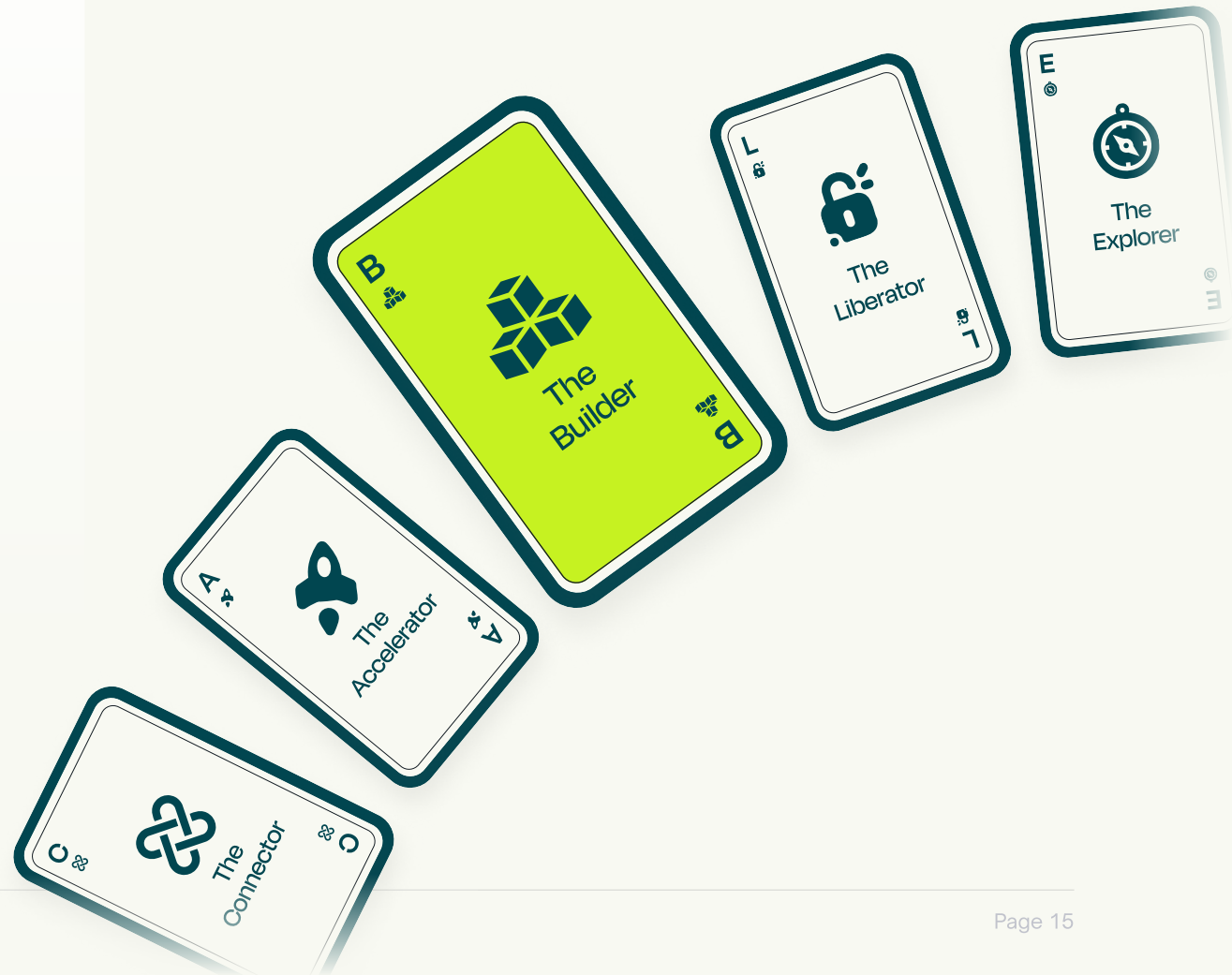
Product demand exceeds the capacity of the internal engineering team.

Best Fit

SaaS companies scaling their core platform.

Impact

- Dedicated product squad
- Faster roadmap delivery
- Long-term internal capability





Five Ways Companies Use the B-O-T Model



The Connector

Building a Nearshore Engineering Hub

Trigger

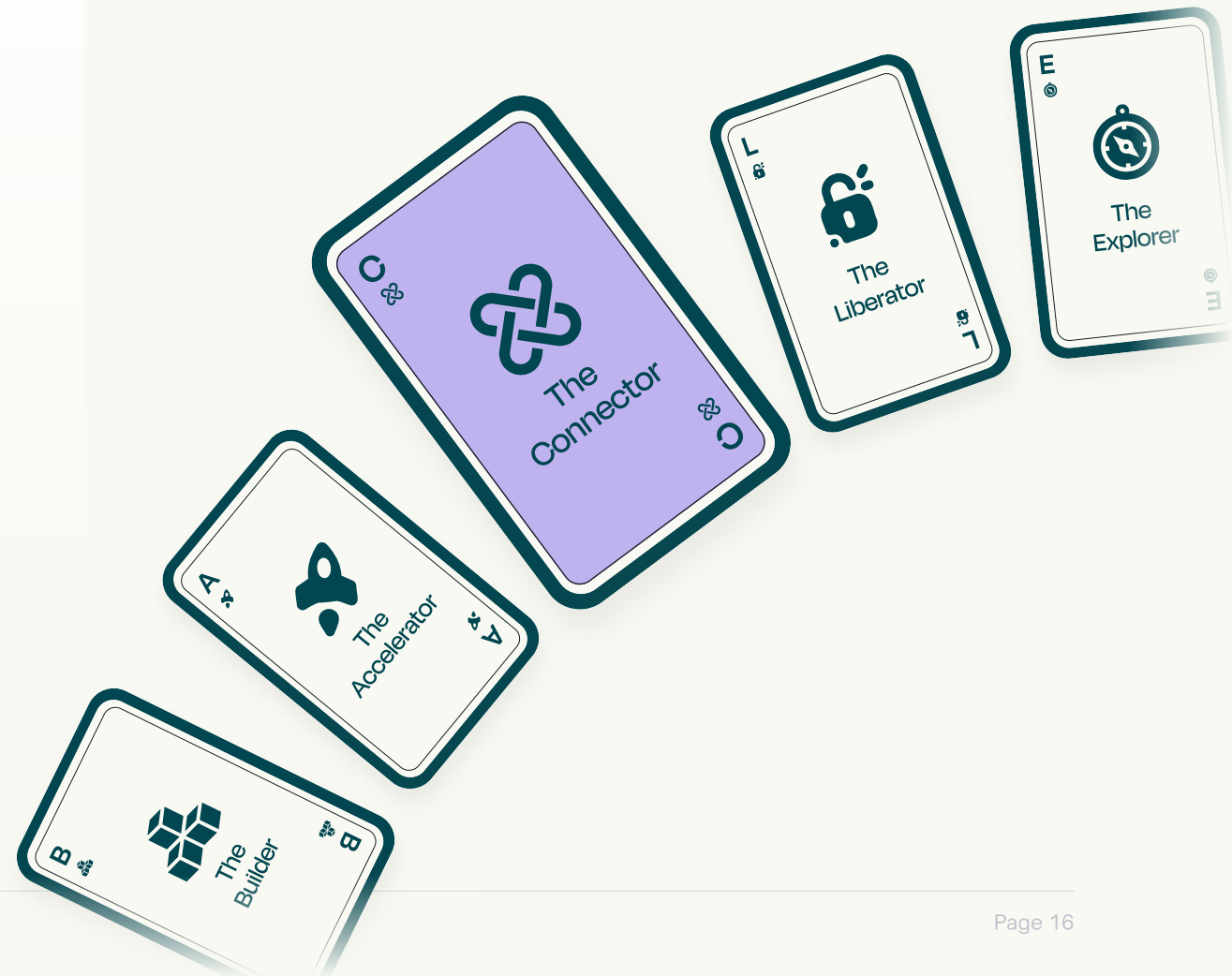
Company wants access to international engineering talent without building local infrastructure.

Best Fit

Companies expanding engineering capacity globally.

Impact

- Rapid regional expansion
- Access to global talent pools
- Operational infrastructure provided





B-O-T Use Cases:



The Accelerator

Deliver Strategic Initiatives Faster

Trigger

Critical project requires engineering capacity beyond the current team.

Best Fit

AI initiatives
Platform rebuilds
Major product launches

Impact

- Dedicated squad for high-priority work
- Faster time to delivery
- Reduced pressure on internal teams





B-O-T Use Cases:



The Liberator

Escaping Vendor Lock-In

Trigger

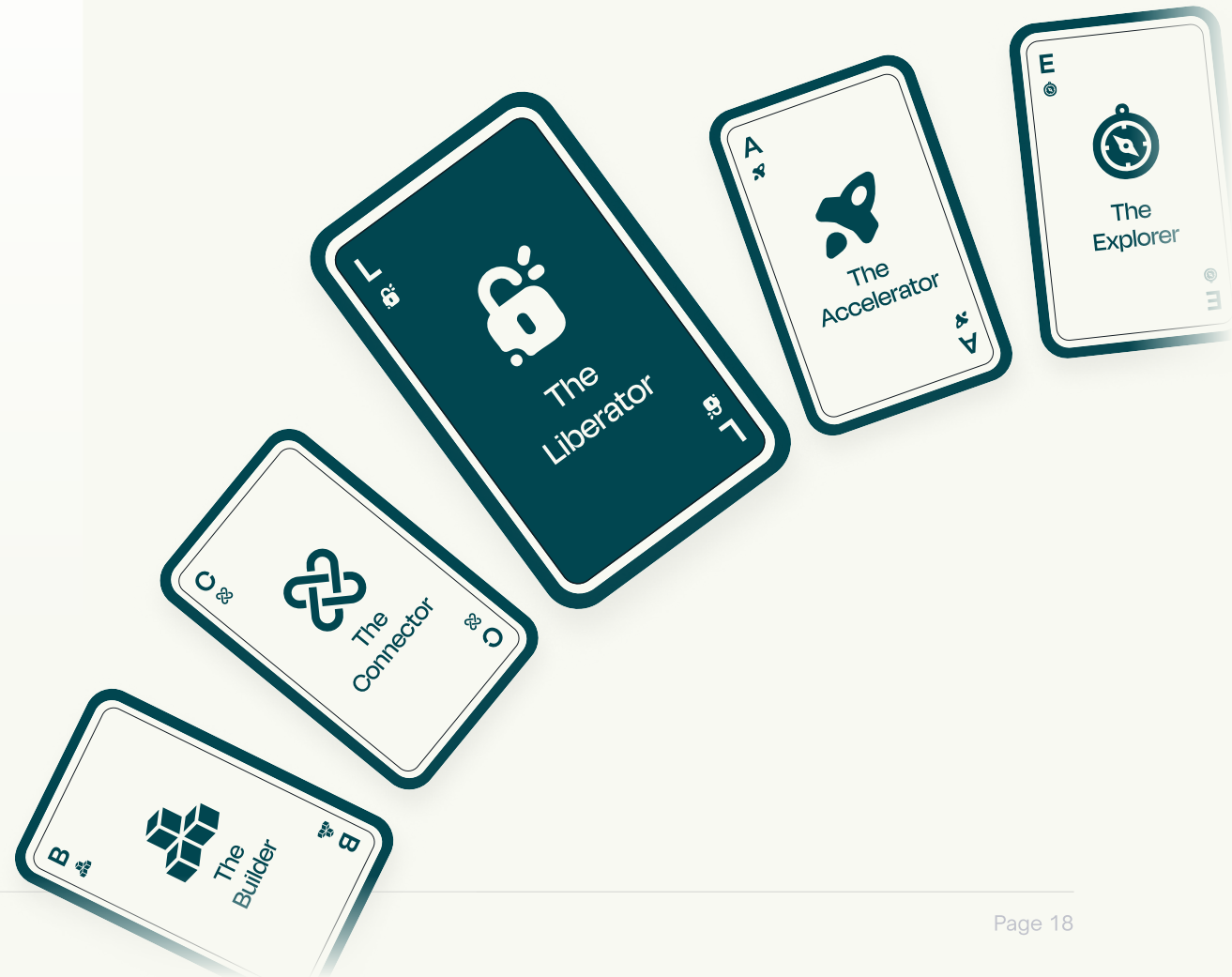
Engineering capability trapped inside outsourcing contracts.

Best Fit

Companies replacing traditional outsourcing vendors.

Impact

- Regain control of engineering teams
- Improve transparency
- Bring knowledge back in-house





B-O-T Use Cases:



The Explorer

Entering New Technologies or Markets

Trigger

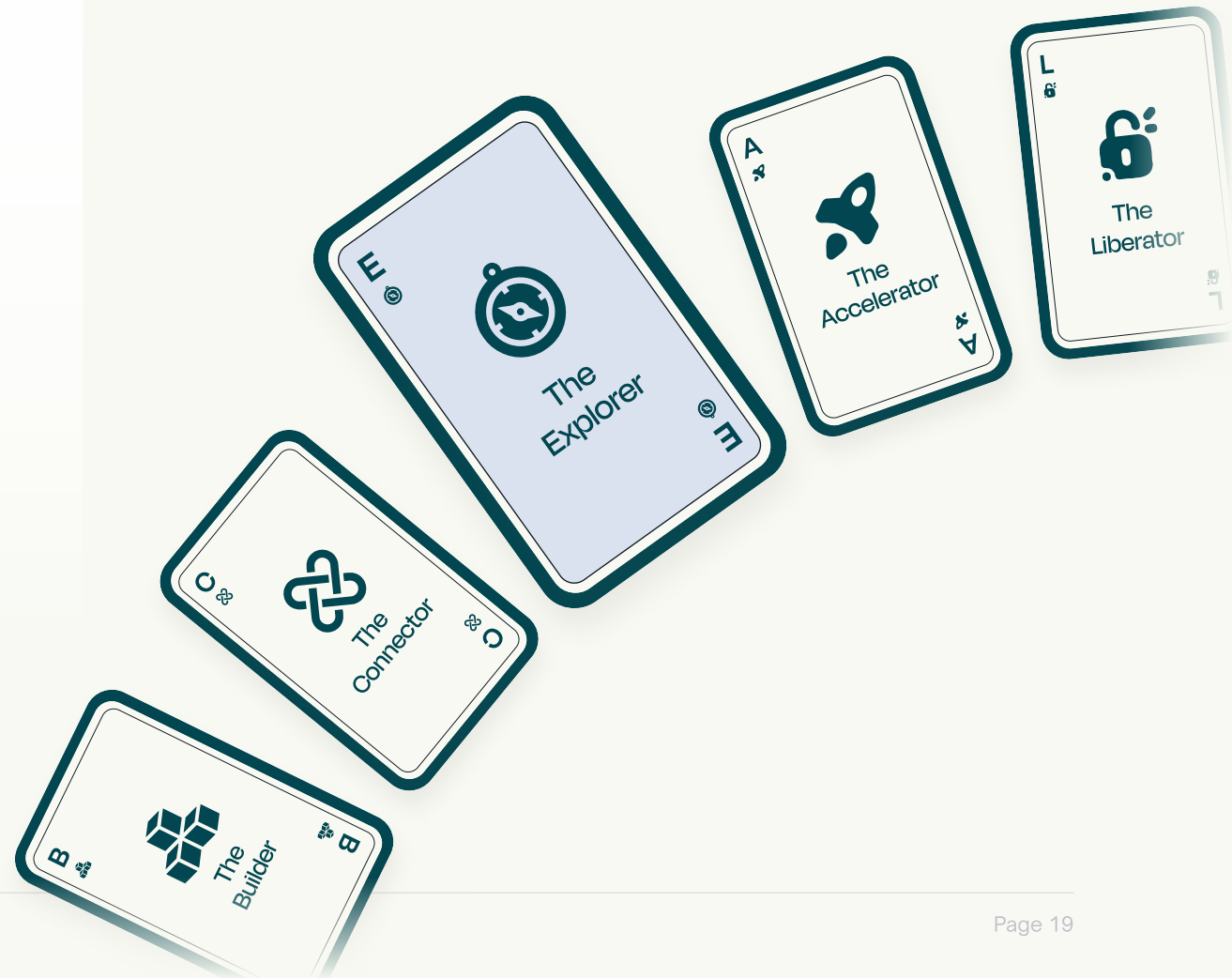
Company wants to experiment with new engineering capabilities without long-term hiring commitments.

Best Fit

AI capability development
New market entry
Early product experiments

Impact

- Lower risk exploration
- Rapid capability build
- Optional transfer to internal team

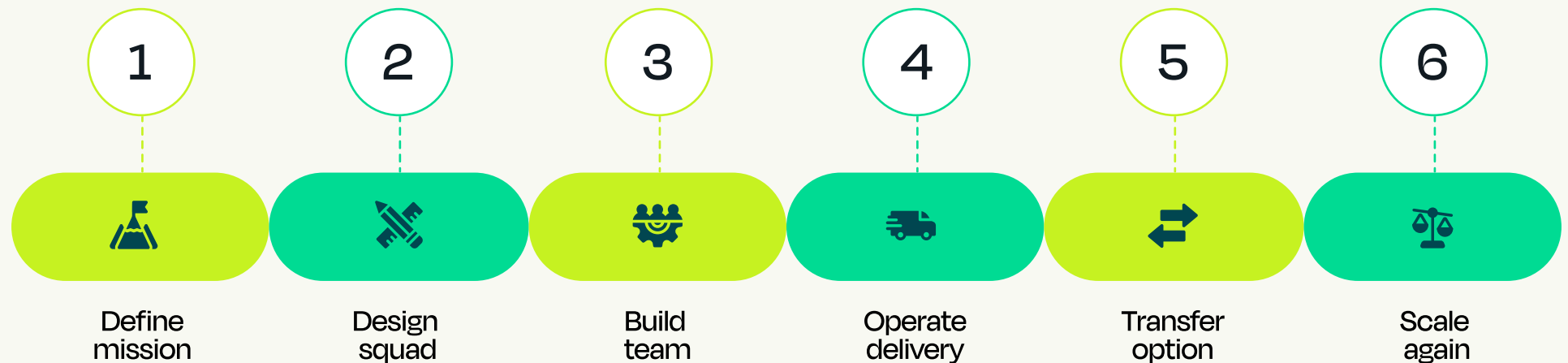




From Squad to Transfer Option

B-O-T is methodical.

By building squads transparently from day one, companies scale capability while retaining ownership.





The Squad Economy

Engineering is becoming modular.

The future of software development belongs to **autonomous engineering squads**.

Teams that experiment quickly.

Ship rapidly.

And scale globally.

AI roles could grow from **158,000 today to nearly 4 million by 2035**.

The companies that succeed will not simply hire faster.

They will **build capability faster**.





Escape the AI Talent Bottleneck

Hiring alone cannot solve the AI talent shortage.

Outsourcing cannot build long-term capability.
But co-building engineering squads can.

USoftware helps SaaS
companies build AI engineering
squads through the
Build-Operate-Transfer model.

Build your next engineering team in 30 days

Operate with full transparency

Transfer capability you own

The Escape from the Black Box has begun.

Let's build it together →

Visit our website
www.usoftware.co

