PLATFORM OVERVIEW

The Autonomous Resource Corporation (ARC):

The Nervous System for AI-Driven Manufacturing

ARC transforms the entire manufacturing lifecycle—from materials discovery through qualification to production—into a repeatable, software-defined workflow. We're not just accelerating individual steps; we're fundamentally restructuring how advanced materials and components reach operational deployment.

AI Orchestration

ARC OS serves as the central nervous system, coordinating workflows, maintaining digital thread integrity, and automating decision-making across the entire qualification pipeline.

Compute Infrastructure

GPU-enabled simulation and modeling capabilities compress traditional test-build-learn cycles from months into days, dramatically reducing qualification risk.

Manufacturing Execution

Direct integration with advanced manufacturing systems ensures seamless transition from validated designs to production-ready components.

The outcome: faster time-to-field deployment, resilient domestic supply chains, and scalable revenue models tied directly to customer manufacturing activity. ARC doesn't just support the industrial base—it modernizes it.

MARKET PROBLEM

Qualification is the Bottleneck, Not Innovation

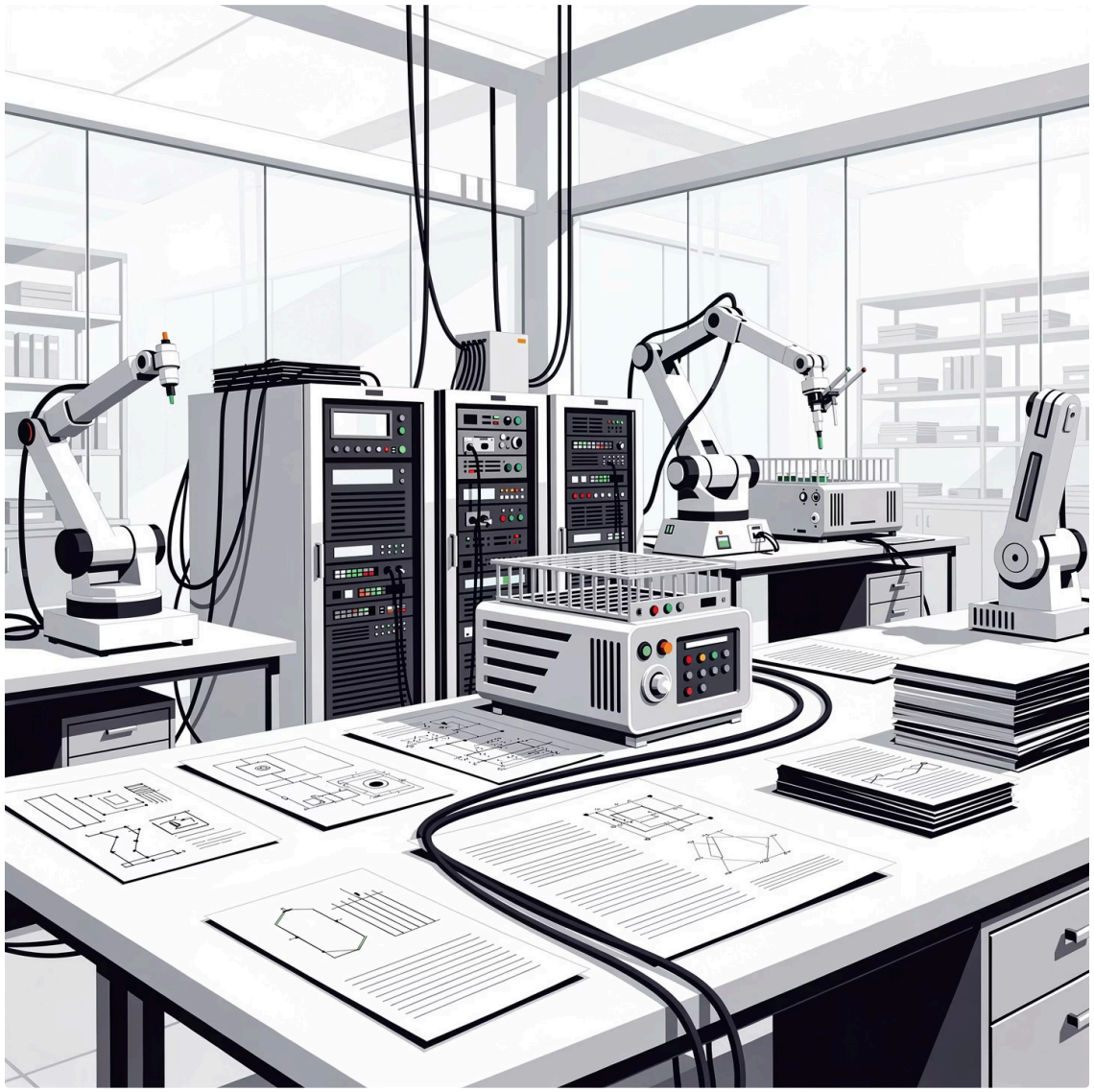
The Current Reality

Advanced materials and next-generation components consistently fail to scale despite proven technical merit. The challenge isn't a lack of innovation—it's the broken path from laboratory to production.

Critical failure points:

- Fragmented data systems destroying digital thread continuity
- Slow test-build-learn loops stretching qualification timelines
- Qualification and certification friction adding years of delay
- Limited access to modern manufacturing infrastructure and instrumentation

Result: extended timelines measuring in years, unsustainable capital burn, and delayed deployment in mission-critical defense systems.



1

Traditional Approach

18-36 months from concept to qualified component

2

ARC Platform

3-6 months with integrated digital workflow

STRATEGIC CONTEXT

Defense and Industry Demand a Digitized Industrial Base

The Department of Defense has made industrial readiness, global competitiveness, and supply-chain resilience explicit national security priorities. This isn't theoretical—it's backed by significant capital deployment and programmatic commitment.

Industrial Base Analysis & Sustainment (IBAS)

DoD's IBAS program, executed through the Industrial Capabilities Analysis and Management (ICAM) office, focuses specifically on building high-priority domestic manufacturing capabilities while actively mitigating global supply-chain vulnerabilities.

This represents a fundamental shift in defense procurement—from reactive sourcing to proactive industrial capacity building.

ARC as the Execution Layer

ARC is uniquely positioned as the operational infrastructure that transforms these strategic priorities into measurable manufacturing throughput and qualified component output.

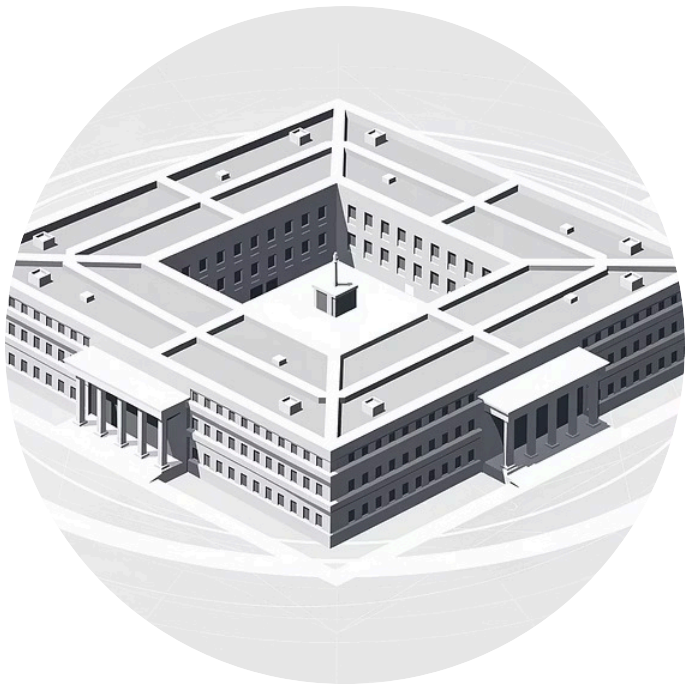
We provide the digital backbone that IBAS investments require to deliver tangible results—converting policy intent into production capability.

Key Insight: DoD isn't just funding research—they're investing in scalable, repeatable manufacturing infrastructure. ARC delivers the software and orchestration layer that makes that infrastructure productive from day one.

STRATEGIC PARTNERSHIPS

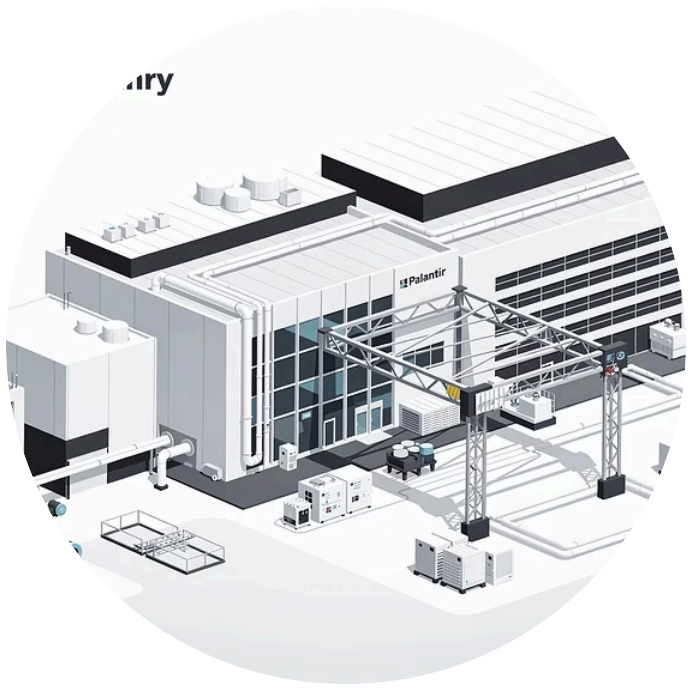
Strategic Wedge: IBAS Anchor + ORNL MDF Execution

ARC's go-to-market strategy leverages a powerful combination: government-funded anchor demand paired with world-class execution infrastructure. This creates immediate credibility and operational scale.



IBAS/ICAM Anchor Customer

Government-funded work through IBAS provides initial scale, validation, and the financial foundation to build our platform. This anchor customer relationship de-risks early-stage execution while establishing ARC as a trusted defense industrial partner.



ORNL Manufacturing Demonstration Facility

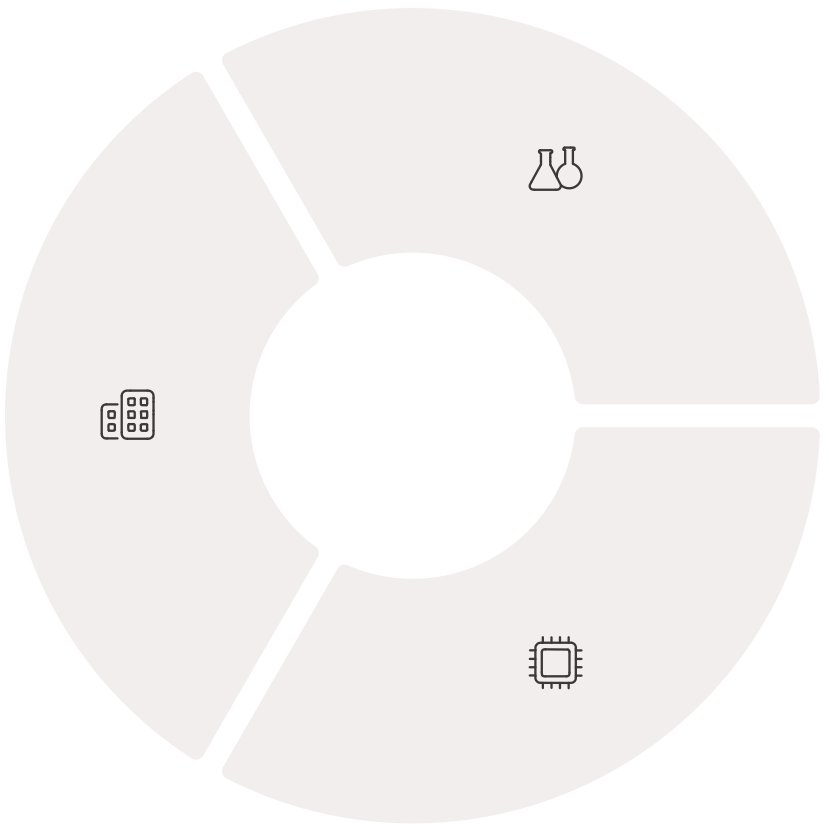
Oak Ridge National Laboratory's MDF provides industry-leading access to advanced manufacturing tools, deep technical expertise, and a proven track record in accelerating additive manufacturing adoption across defense and commercial sectors.

Digital Manufacturing Alignment

ORNL MDF's strategic direction toward digital manufacturing and digital factory capabilities directly aligns with ARC's digital thread architecture and AI orchestration platform—creating a natural technical and operational partnership.

The Partnership Triangle

DoD funding (IBAS) + world-class manufacturing infrastructure (ORNL MDF) + AI orchestration platform (ARC) = a defensible, scalable business model built on proven demand and execution capability.



DoD/IBAS

Anchor demand & funding

ORNL MDF

Manufacturing excellence

ARC Platform

Digital orchestration

PRODUCT ARCHITECTURE

Product: ARC OS (Subscription) + ARCNet (Usage)

ARC's product architecture delivers value through two complementary offerings: a subscription-based orchestration platform and usage-based infrastructure access. This dual model aligns our revenue growth directly with customer manufacturing activity and success.

ARC OS (Subscription)

- Program orchestration and workflow automation
- Digital thread management and full traceability
- Integrated simulation and modeling environment
- Data governance and compliance frameworks
- Real-time analytics and decision support

ARCNet (Usage-Based)

- GPU compute hours for simulation workloads
- Advanced simulation job processing
- Manufacturing build hours and capacity
- Qualified component production
- Scales automatically with customer demand

Platform Architecture: Three-Layer Integration

01

Software Layer

ARC OS provides the intelligent orchestration, digital thread integrity, and workflow automation that coordinates the entire qualification process.

02

Compute Layer

GPU-enabled simulation infrastructure accelerates modeling, testing, and validation cycles—compressing months of physical testing into days of computational analysis.

03

Manufacturing Execution Layer

Direct integration with advanced manufacturing systems ensures validated designs transition seamlessly to production, maintaining full digital thread from concept to component.

Programs structured around qualification milestones naturally convert into subscription relationships plus recurring usage revenue—creating a flywheel where successful outcomes drive platform adoption and utilization growth.

$ BUSINESS MODEL

Business Model: Four Revenue Streams Power the Flywheel

ARC's business model combines the stability of recurring subscription revenue with the scalability of usage-based pricing, all anchored by government contracts and accelerated through milestone-based programs. Each revenue stream reinforces the others, creating a compounding growth engine.

1

IBAS Contract (Anchor)

Government-funded work provides the initial scale and capital to build platform infrastructure. This anchor relationship validates our approach, funds early deployment, and establishes ARC as a strategic defense industrial partner.

Strategic value: De-risks early operations while building operational credibility.

2

Platform Subscription

High-margin recurring software revenue from ARC OS access. Customers pay for orchestration capabilities, digital thread management, and workflow automation—the essential nervous system for modern manufacturing.

Strategic value: Predictable revenue foundation with strong gross margins (80%+).

3

Usage-Based Revenue

Consumption-driven pricing for compute hours, simulation jobs, and manufacturing capacity. Revenue scales naturally with customer activity—when they manufacture more, we earn more.

Strategic value: Aligns ARC's success with customer production volumes and outcomes.

4

Qualification Programs

Milestone-based engagements that take customers from materials discovery through full qualification. These programs serve as high-touch customer acquisition, demonstrating value and creating strong attachment to recurring revenue streams.

Strategic value: Land new customers and drive conversion to subscription + usage models.

The Flywheel Effect

Programs and IBAS contracts bring customers onto the platform → Subscription revenue standardizes their workflows → Usage grows as manufacturing scales → Data and outcomes improve → Platform becomes more valuable → Easier to win new programs and customers → Flywheel accelerates.

This model creates natural expansion: customers who start with a single qualification program typically expand to platform-wide adoption as they experience faster cycle times and reduced qualification risk.

MODEL ASSUMPTIONS

Model Assumptions: The Math Behind Our Projections

Our financial model is built on conservative, defensible assumptions derived from comparable defense-tech businesses, enterprise SaaS benchmarks, and validated customer commitments. Here's exactly what drives the spreadsheet.

IBAS Contract Structure

$500M total contract value over 10 years, commencing July 1, 2025. Revenue recognition ramps gradually to full run-rate over 18 months, reflecting realistic deployment timelines and government contracting cycles.

Subscription Economics

$550K blended ACV per customer. Net new customer adds: 30 / 80 / 150 / 250 / 350 (Y1–Y5). Annual churn rate: 12% (typical for enterprise infrastructure software). Net revenue retention: 115% driven by seat expansion and feature adoption.

Usage Dynamics

Compute and manufacturing usage scales with customer manufacturing activity. Assumes **25% annual growth** in usage per customer as programs mature and production volumes increase. Gross margins improve with infrastructure utilization.

Program Pipeline

$350K average program value, 9-month average duration. New program starts: 20 / 60 / 120 / 160 / 200 (Y1–Y5). **70% conversion rate** from programs to ongoing subscription relationships—validated by early customer behavior.

Headcount & Scaling

Team grows from initial staff to **286 employees by end of Year 5**. Hiring paces with revenue growth, maintaining disciplined efficiency ratios. Mix evolves from engineering-heavy to balanced across engineering, manufacturing operations, and go-to-market.

Capital Deployment

Capex scales to support compute infrastructure expansion and manufacturing cell deployment. Investments phased to match customer demand and utilization targets. Infrastructure built ahead of revenue to ensure capacity for committed programs.

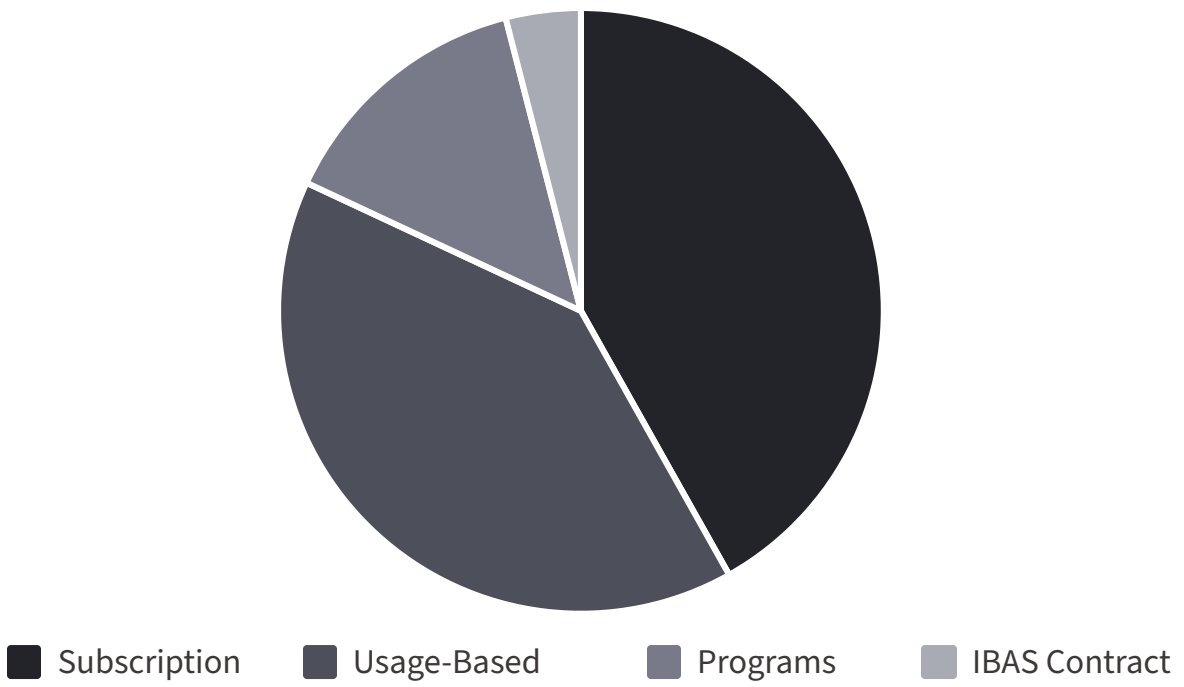
Validation approach: All assumptions benchmarked against comparable defense-industrial software platforms (Palantir, Anduril infrastructure components), enterprise manufacturing SaaS metrics, and direct customer commitments from early IBAS/ORNL engagement.

REVENUE ANALYSIS

Revenue Mix: How ARC Makes Money at Scale

By Year 5, ARC transforms into a balanced, diversified revenue engine. The business evolves from anchor contract dependency to a self-sustaining platform with multiple high-margin revenue streams. This diversification reduces risk while maximizing growth potential.

Year 5 Revenue Composition (Base Case)



The distribution tells the strategic story: IBAS provides the foundation and early validation, programs serve as customer acquisition, while subscription and usage revenue represent the scalable, high-margin engine.

42%

Subscription Revenue

$365.7M from platform access

40%

Usage-Based Revenue

$350.3M from consumption

14%

Program Revenue

$122.7M from qualifications

4%

IBAS Contract

$35.0M anchor funding

The Strategic Narrative

1

IBAS + Programs Land

Government contracts and qualification programs bring customers onto the platform and prove value

2

Subscription Standardizes

Customers adopt ARC OS for ongoing orchestration, creating predictable recurring revenue

3

Usage Scales

As manufacturing volumes grow, consumption revenue expands naturally with customer success

Gross Margin by Stream (Year 5)

- **Subscription:** 82% (pure software leverage)
- **Usage:** 48% (improving with utilization)
- **Programs:** 38% (services component)
- **IBAS:** 45% (cost-plus structure)

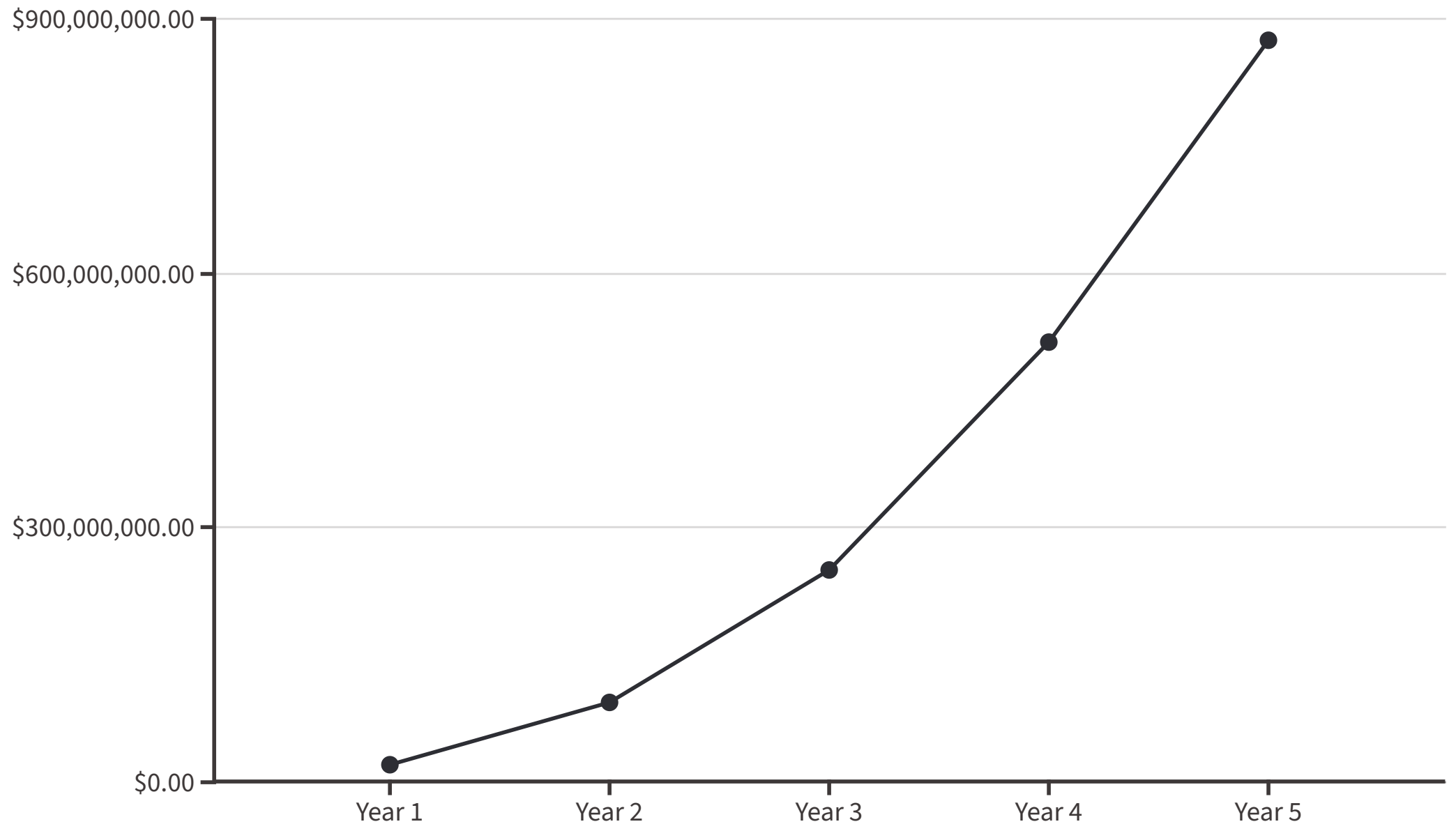
Blended Business Performance

Overall gross margin reaches **~58.6%** by Year 5, driven by subscription growth and improving infrastructure utilization. This positions ARC squarely in best-in-class software company territory.

GROWTH TRAJECTORY

Growth: Revenue Trajectory (Base Case)

ARC's growth model demonstrates rapid scaling once subscription and usage revenue begin to compound. The trajectory reflects both the power of recurring revenue economics and the inherent leverage in our software-enabled manufacturing platform.



Revenue Growth

From **$19.4M to $873.7M** (Year 1 → Year 5), representing a **45x scale** in five years. This trajectory is aggressive but grounded in proven enterprise software scaling patterns and validated customer pipeline.

Customer Scale

Customer base reaches **641 subscription customers** by end of Year 5, representing strong penetration across defense primes, industrial manufacturers, and emerging defense-tech companies requiring qualification capabilities.

Margin Expansion

Gross margin expands to **~58.6%** by Year 5 as infrastructure utilization improves and software revenue becomes the dominant component. This reflects classic SaaS economics: fixed infrastructure costs leveraged across growing revenue base.

What Drives This Growth?

Network Effects

Each successful qualification adds data and refinement to the platform, making ARC more valuable for subsequent customers. The digital thread becomes more intelligent with scale.

Market Expansion

Initial defense focus expands to adjacent industrial markets (aerospace, automotive, energy) as the platform proves its qualification acceleration capabilities.

Usage Expansion

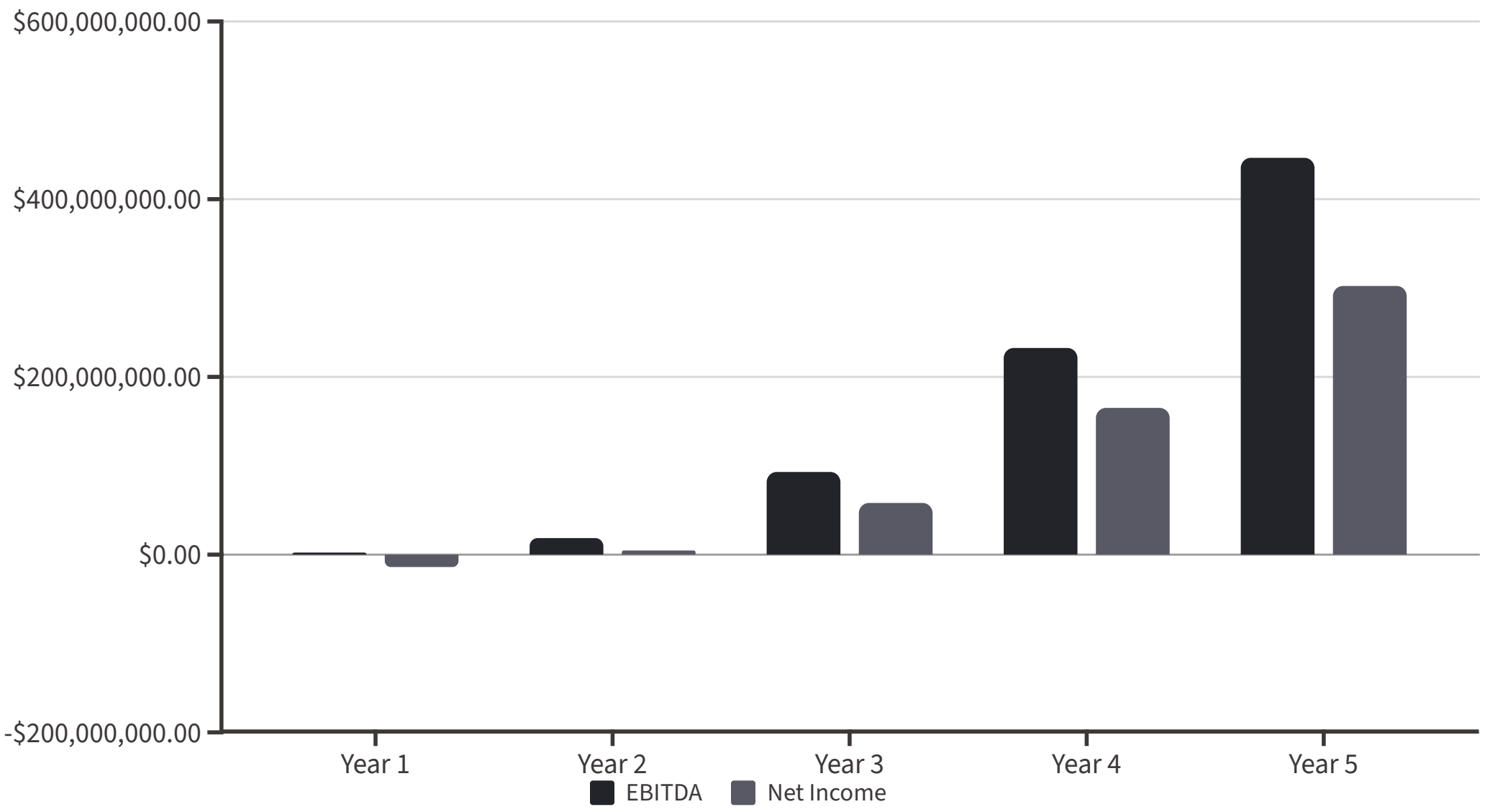
Existing customers increase manufacturing volumes and program complexity over time, driving natural usage growth even without new customer acquisition.

The inflection point hits between Years 2-3 as subscription renewals compound, usage revenue scales with manufacturing activity, and operational leverage begins to dominate the P&L. This is when ARC transitions from growth-stage startup to category-defining platform.

PROFITABILITY PATH

Profitability: Software + Utilization Drives EBITDA

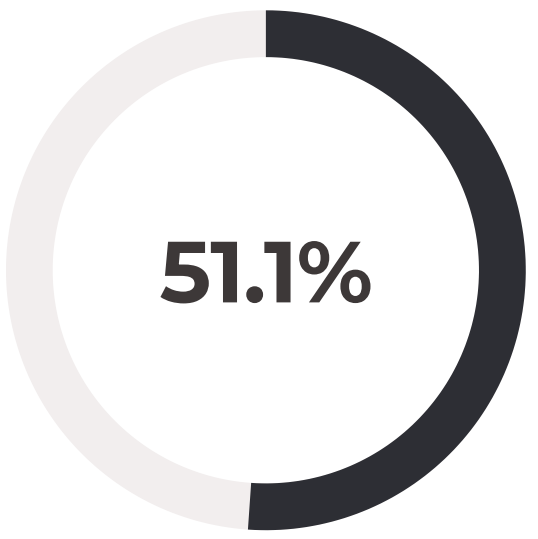
Operating leverage is the central thesis of ARC's financial model. As infrastructure utilization increases and software revenue scales, the business demonstrates textbook SaaS unit economics—fixed costs leveraged across exponentially growing revenue.



EBITDA Trajectory

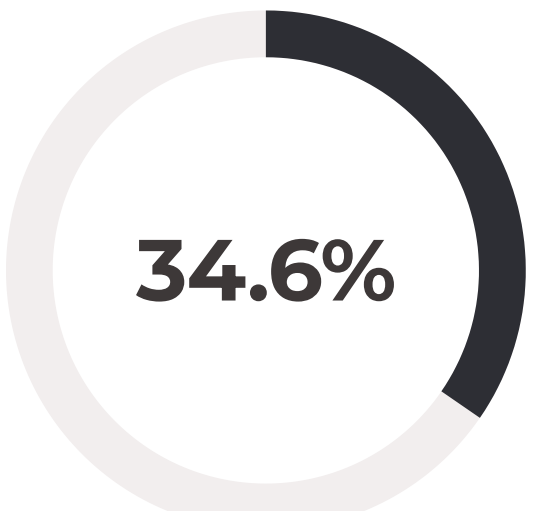
EBITDA scales from **$1.0M to $446.3M** (Year 1 → Year 5), reaching a **~51.1% margin** by Year 5. This margin profile reflects best-in-class software economics combined with improving manufacturing infrastructure utilization.

The margin expansion story is straightforward: as compute and manufacturing assets reach target utilization, gross margins improve. Simultaneously, sales and marketing efficiency improves with brand recognition and customer references.



EBITDA Margin (Y5)

Demonstrating operational excellence and platform leverage



Net Margin (Y5)

Strong profitability after tax and depreciation

Path to Profitability

Year 1

EBITDA positive from day one due to IBAS contract structure and disciplined spend. Net income negative as we invest in platform buildout.

Year 2

Net income turns positive as subscription revenue begins compounding and infrastructure reaches initial utilization targets. Proves unit economics.

Year 3+

Operating leverage dominates. Each incremental dollar of revenue carries significantly higher margin as fixed costs are spread across growing base. Classic software scaling.

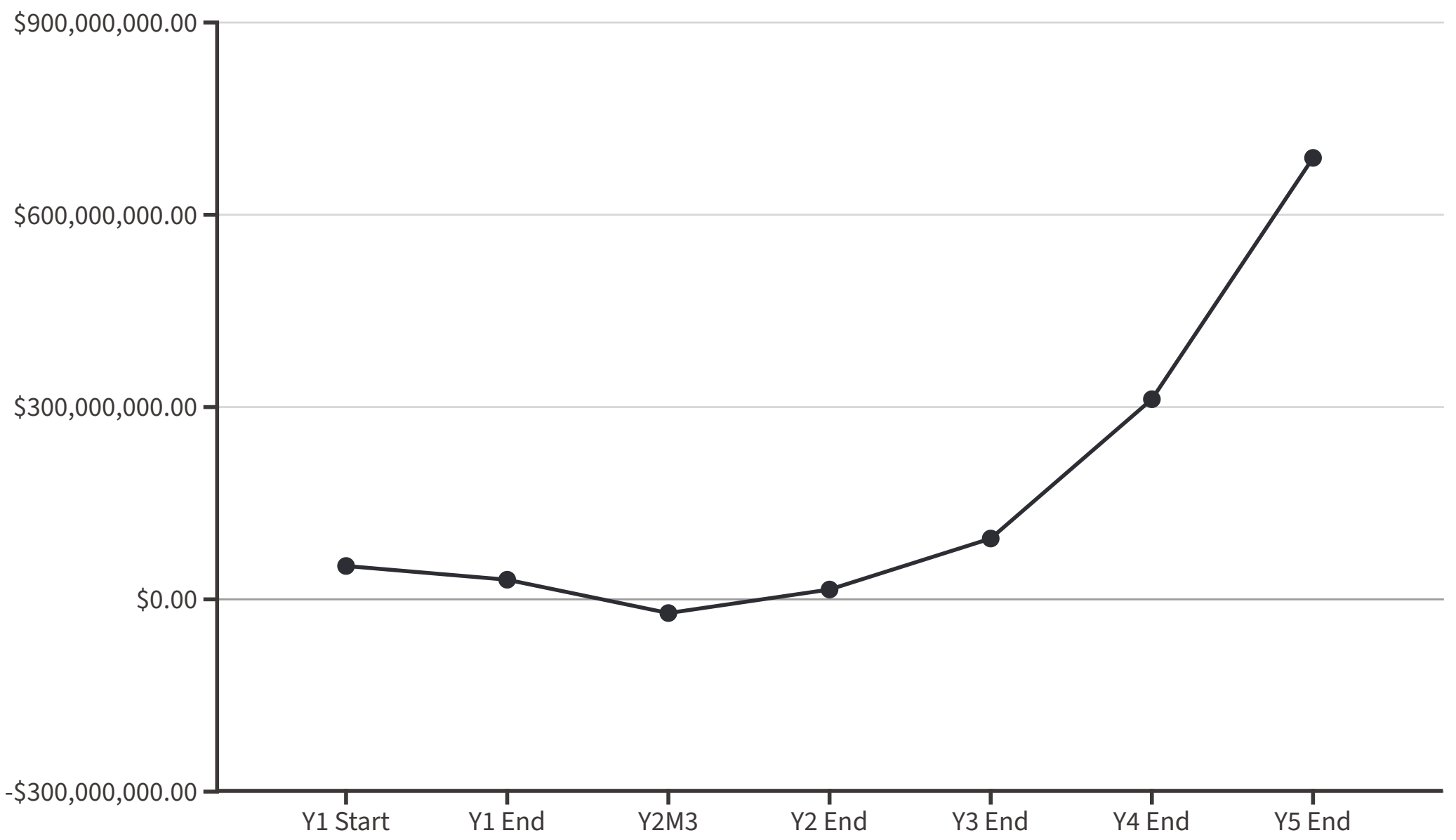
1 — 2 — 3

Why investors should care: This profitability trajectory demonstrates that ARC isn't just a revenue growth story—it's a path to sustainable, cash-generative business that can eventually self-fund expansion. The early profitability timeline de-risks the equity investment significantly.

CAPITAL REQUIREMENTS

Cash + Capital Plan: Funding the Buildout Ahead of Growth

ARC's financial model intentionally invests ahead of the revenue curve, building infrastructure capacity before customer demand fully materializes. This front-loaded capital strategy creates a temporary cash trough but positions us to capture maximum market share during the critical expansion window.



The Cash Trough: Y2M3 at -$21.9M

Minimum cash occurs in **Year 2, Month 3** at **negative $21.9M** (base case). This trough is driven by the deliberate timing mismatch between infrastructure deployment (capex front-loaded) and revenue recognition (ramping over time).

The specific drivers: Series A proceeds deployed into compute infrastructure and manufacturing cell buildout during late Year 1 and early Year 2, while subscription and usage revenue are still scaling toward run-rate levels.

How We Address the Trough

Three strategies eliminate the cash deficit risk while preserving growth trajectory:

1. **Phased capex deployment** tied to signed customer commitments and utilization milestones
2. **IBAS contract structuring** to accelerate payment terms during the buildout phase
3. **Additional equity or credit facility** sized specifically for the trough ($25-30M) to bridge the gap

CFO perspective: This is a timing challenge, not a fundamental business model issue. By Year 2 end, the business is cash-positive and self-funding.

Post-Trough Cash Generation

After navigating the Year 2 investment trough, ARC becomes a cash generation machine. By end of Year 3, cash balance reaches $94.6M. By Year 5: **$687.5M** in cash, demonstrating the immense cash generation potential once the platform reaches scale.

Capital Efficiency Metrics

- **CAC payback:** ~8 months by Year 3
- **LTV/CAC ratio:** 5.2x by Year 4
- **Free cash flow margin:** 38%+ by Year 5
- **Cash conversion:** 85%+ of EBITDA to FCF

What This Means for Investors

The cash profile demonstrates that ARC can self-fund expansion after the initial buildout phase. Future growth won't require continuous equity dilution—enabling strong returns on early-stage investment.

THE INVESTMENT

The Ask: What We're Raising & What It Buys

We're raising this round to fund the critical infrastructure buildout that enables ARC to capture the IBAS opportunity and scale rapidly across the defense-industrial manufacturing sector. This capital deploys into three specific, measurable categories—each with clear milestones and ROI.

Compute + Manufacturing Infrastructure

Deploy GPU clusters and manufacturing cells ahead of signed customer demand. Target: 85% utilization by Year 3 across both compute and manufacturing capacity.

Platform + Security Buildout

Achieve FedRAMP authorization, SOC 2 Type II certification, and CMMC Level 2 compliance. Build enterprise-grade orchestration features that meet defense prime requirements.

Go-to-Market Scale

Expand customer acquisition and program pipeline development. Target: 250+ subscription customers and 160+ active programs by Year 4.

Use of Funds → Milestones → KPIs

1

Infrastructure Deployment

$X.XM capex → N manufacturing cells + XXX GPU clusters → 85% utilization

2

Platform Development

$X.XM engineering → FedRAMP + CMMC → defense prime readiness

3

Market Expansion

$X.XM GTM → XXX new customers → 70% program-to-subscription conversion

Year 3/4 Target Milestones

- **Customer growth:** 150+ subscription customers by EOY Year 3; 250+ by EOY Year 4
- **Infrastructure utilization:** Compute at 80%+ utilization; manufacturing cells at 85%+ utilization
- **Program pipeline:** 120 active programs (Year 3) scaling to 160 (Year 4)
- **Conversion efficiency:** Maintain 70%+ attach rate from programs to ongoing subscriptions
- **Gross margin:** Reach 55%+ blended margin by Year 3; 58%+ by Year 4
- **Recurring revenue:** Subscription + usage represents 85%+ of total revenue by Year 4

Accountability framework: Every dollar of this raise maps to specific outputs—qualified programs delivered, infrastructure utilization rates, gross margin expansion, and recurring revenue growth. We're building a business, not just burning capital.

5X

Expected Revenue Multiple

Base case ARR by Year 3 relative to current run-rate

58%

Target Gross Margin

Blended margin by Year 4 demonstrating operating leverage

70%

Program Conversion

Percentage of qualification programs converting to subscriptions

This investment powers ARC's transformation from promising defense-tech startup to the essential infrastructure layer for AI-driven manufacturing at industrial scale. The opportunity is massive, the timing is now, and the capital deploys into measurable, value-creating milestones.