

TECH ROI WEEKLY

The ROI Illusion

Why You Can't Measure Tech Transformation (And How to Fix It)

A practical ROI measurement and benefits realisation framework for
technology leaders

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OPENING (Hook + Problem Statement)

Every digital transformation starts with a business case.

"We'll migrate to the cloud and save £2M/year on infrastructure."

"We'll implement AI and increase revenue by 15%."

"We'll refactor the legacy system and improve time-to-market by 40%."

These projections are made with confidence. Board approves. Budget is allocated. Project launches.

Two years later: Did we actually save £2M? Did revenue increase by 15%? Did time-to-market improve by 40%?

In most cases, nobody knows.

McKinsey is frequently cited for the finding that around 70% of digital transformations fail to achieve intended outcomes. Gartner's CFO/CIO research reinforces the same accountability problem: many digital initiatives are perceived as underperforming or do not fully meet business outcome targets because benefits were not clearly defined, baselined, and measured.

The fundamental problem:

Organizations are bad at measuring tech transformation ROI because:

1. They measure input instead of output (spent £5M on the project vs. recovered £5M in benefits)
2. They confuse correlation with causation (revenue went up, but was it because of the tech transformation or because of market conditions?)
3. They measure the wrong things (system uptime instead of business velocity)
4. Benefits are delayed (the project delivered, but benefits take 6-12 months to realize)
5. They forget about the baseline (what was the problem we were trying to solve, and how much was it costing us?)
6. They don't have a business owner (IT owns the project, but nobody owns the business outcome)
7. Benefits are too diffuse (cost savings come from 10 different places, nobody's accountable for any of them)

The result: Transformation projects are declared "successful" because they delivered on time and on budget. But did they actually create business value? Nobody asked.

SECTION 1: WHY TRADITIONAL ROI CALCULATIONS FAIL (The 5 Problems)

Problem 1: The Measurement Trap (Measuring the Wrong Things)

Most tech projects measure:

- Project budget and actual spend (input)
- Go-live date and project timeline (input)
- System uptime and performance (technical output)

- Number of bugs fixed (technical output)

They don't measure:

- Did business velocity improve?
- Did customer satisfaction increase?
- Did decision-making speed up?
- Did employee productivity increase?
- Did the organization gain competitive advantage?

Example:

A company spends £2M to implement a new ERP system. By traditional measures, it's successful:

- On time: Yes
- On budget: Yes (actually under budget)
- System uptime: 99.5%
- Bugs resolved: 150 (since go-live)

But:

- Finance team still takes 5 days to close the books (didn't improve)
- Month-end reporting still takes 2 weeks (didn't improve)
- Sales forecasting accuracy is still 60% (didn't improve)
- Nobody can run a real-time P&L (the whole point of the system)

Did the ERP project deliver ROI? Probably not. But the project was declared successful.

Problem 2: The Attribution Problem (Confusing Correlation with Causation)

Revenue increased 20% after you launched a new digital product. Did the new product cause the increase?

Maybe. Or maybe:

- The overall market grew 20%
- A competitor shut down
- Your sales team was expanded
- You launched an aggressive marketing campaign
- Your product became trendy on social media

To prove that the digital product caused the increase, you need to answer: What would revenue have been without the new product?

That's hard to measure because it's a counterfactual. It didn't happen.

Solution: Compare to a control group or use statistical methods (regression analysis) to isolate the impact of the change.

Most organizations don't do this. They assume correlation = causation.

Problem 3: The Timing Problem (Benefits Don't Arrive on Day 1)

A tech transformation delivers on Day 1. But the benefits don't arrive until Day 180.

Example: You migrate from waterfall to agile development.

- Go-live: Month 1
- Team trained: Month 2
- First sprint cycle: Month 3
- Process stabilizes: Month 6
- Velocity improves: Month 9-12
- First benefits realized: Month 12+

If you measure ROI at Month 6, you'll conclude the transformation failed (no benefits yet). If you measure at Month 18, you'll see a clear ROI.

Most organizations measure too early.

They declare the project "done" when the system goes live. But the project isn't done - the benefits realization phase is just starting.

Problem 4: The Baseline Problem (Not Knowing What You Were Starting With)

You implement a project to "improve operational efficiency." But what was the baseline efficiency?

Without a baseline, you can't measure improvement.

Questions you should have answered before the project:

- How long did a typical process take before?
- What did that process cost?
- How many errors did it have?
- What decisions was it slowing down?
- How much manual work was involved?

If you didn't measure the baseline, you can't prove the improvement.

Problem 5: The Ownership Problem (Nobody Owns the Business Outcome)

The IT Project Manager owns the ERP implementation. The Finance Manager owns the finance team. The Sales VP owns the sales organization.

But who owns "finance team velocity improvement"? Nobody.

Without a business owner for the outcome, nobody is accountable for realizing the benefits. The project goes live, IT declares victory, and the benefits never materialize.

SECTION 2: THE TRANSFORMATION ROI FRAMEWORK (The 5 Elements)

To measure tech transformation ROI correctly, you need five elements:

Element 1: The Business Baseline (The Starting Point)

Before the project starts, measure:

- Current state efficiency metrics: How long do processes take? How much manual effort? What error rate?
- Current state cost: What are we spending on this process/system/capability right now?
- Current state quality: What's the defect rate? Customer satisfaction? Employee satisfaction?
- Current state constraints: What's holding us back? What decisions are slow? What opportunities are we missing?

Example baseline for an order-to-cash transformation:

Metric	Baseline
Order processing time	5 days
Manual steps per order	12
Error rate	3%
Cost per order processed	£15
Days to first payment (DSO)	45 days
Customer satisfaction (payment process)	2.8/5
Revenue lost to processing delays	£200K/year

This is the foundation. If you don't have a baseline, you can't measure improvement.

Element 2: The Target State (What Success Looks Like)

Define what you're trying to achieve:

- Target efficiency: Order processing time should be 1 day
- Target cost: Cost per order should be £5
- Target quality: Error rate should be <0.5%
- Target constraint relief: We should be able to close the books in 1 day instead of 5

The target state should be:

- Specific (not "faster", but "1 day instead of 5")
- Achievable (not "zero manual steps", but "2 automated, 10 reduced")
- Measurable (you can prove you achieved it)
- Tied to business impact (why does this matter? what's the value?)

Example target state for order-to-cash:

Metric	Baseline	Target	Business Value
Order processing time	5 days	1 day	Faster cash flow, better customer experience
Manual steps per order	12	3	Lower labor cost, fewer errors
Error rate	3%	<0.5%	Fewer rework costs, less customer friction
Cost per order	£15	£5	£10 savings per order = £500K/year (50K orders)

Metric	Baseline	Target	Business Value
DSO	45 days	30 days	£5M freed up in working capital
Customer satisfaction	2.8/5	4.5/5	Higher retention, lower churn
Revenue lost to delays	£200K/year	£0	Opportunity recovered

Element 3: The Measurement Plan (How You'll Prove It)

For each metric, define:

- How it's measured: System reports? Manual count? Survey? Statistical sample?
- Who measures it: IT, Finance, Operations, Sales?
- Frequency: Daily? Weekly? Monthly? Quarterly?
- Baseline date: When did we establish the baseline?
- Target date: When should we achieve the target?
- Who reviews it: Who reports on this metric to leadership?

Example measurement plan for one metric (cost per order):

Element	Definition
Metric	Cost per order processed
Formula	Total order processing cost / Number of orders
Baseline	£15 (measured before project, Jan 2024)
Target	£5 (target for Dec 2025)
Measured by	Finance team (from cost accounting system)
Frequency	Monthly
Reporting	Finance Manager reports to CFO in monthly board report
Owner	CFO

Most organizations don't have a measurement plan. They have a vague goal ("reduce cost") but no systematic way to measure it.

Element 4: The Benefits Realization Timeline (When Benefits Arrive)

Benefits don't arrive on Day 1. Map them out.

Example timeline for ERP implementation:

Phase	Timeline	Benefits
Deployment & Stabilization	Months 0-3	Go-live, teams trained, initial bugs fixed
Process Optimization	Months 3-6	Workflows streamlined, manual work reduced by 20%
Advanced Features	Months 6-12	Advanced forecasting, real-time reporting enabled
Full Realization	Months 12+	All benefits fully realized, sustained improvements

Key insight: Most of the benefits arrive in months 6-18, not in months 0-3.

If you measure ROI at month 3 and expect full benefits, you'll be disappointed.

Element 5: The Accountability Structure (Who Owns What)

Assign ownership:

Benefit	Owner	Accountable To
Cost savings from reduced manual work	Operations Manager	CFO
Revenue from new capabilities	Sales VP	CEO
Customer satisfaction improvement	Customer Success VP	COO
Working capital freed up	Finance Manager	CFO
Decision speed improvement	Business Unit Head	CEO

Without clear ownership, benefits don't happen. They're everyone's responsibility, which means they're no one's.

SECTION 3: THE ROI CALCULATION (The Numbers)

Once you have the framework in place, ROI is straightforward:

$$\text{ROI} = (\text{Benefits} - \text{Costs}) / \text{Costs} \times 100\%$$

Example: Order-to-Cash Transformation

Costs:

- Software licenses (1 year): £200K
- Implementation services: £800K
- Internal staff (project management, training): £300K
- Infrastructure/hosting: £100K

Total cost: £1.4M

Benefits (Year 1):

- Cost reduction (£15→£5 per order x 50K orders): £500K/year
- Working capital freed up (DSO improvement, 45→30 days): £5M (one-time)
- Labor reduction (fewer manual steps): £200K/year
- Revenue impact (faster processing enables more orders): £0 (conservative estimate, could be higher)
- Compliance/audit efficiency: £50K/year

Total benefits: £5.75M (Year 1)

$$\text{ROI} = (\text{£5.75M} - \text{£1.4M}) / \text{£1.4M} \times 100\% = 311\%$$

Payback period: 2-3 months

Note: The working capital benefit is a one-time recovery. Year 2 benefits would be lower (recurring benefits only, around £750K), but still positive.

SECTION 4: THE MEASUREMENT DASHBOARD (Tracking Progress)

Create a dashboard that tracks transformation progress in real-time:

Dashboard elements:

1. Leading Indicators (predict future success):
 - % of teams trained on new system
 - % of processes migrated
 - % of data migrated
 - % of integrations completed
2. Lagging Indicators (measure actual results):
 - Cost per transaction (trending toward target?)
 - Process cycle time (trending toward target?)
 - Error rate (trending toward target?)
 - Customer satisfaction (trending toward target?)
3. Health Indicators (is the transformation on track?):
 - Project budget variance
 - Project timeline variance
 - Adoption rate (% of users actively using new system)
 - Incident rate (stability of new systems)
4. Business Impact Indicators (is business value being realized?):
 - Cost savings realized (\$ vs. target \$)
 - Revenue impact (\$ vs. target \$)
 - Working capital freed up (\$ vs. target \$)
 - Decision cycle time improvement (days vs. target days)

Who reviews the dashboard?

- Project team: Weekly (for leading indicators and health indicators)
- Business sponsor: Monthly (for lagging indicators and business impact)
- Executive steering committee: Quarterly (for strategic metrics)

Without a dashboard, you're flying blind.

SECTION 5: THE ROI ILLUSION (Why Good Projects Look Bad and Bad Projects Look Good)

Even with frameworks, ROI measurement can be deceptive.

Case A: Good Project, Invisible Benefits

A company invests £3M in cloud infrastructure modernization. The project delivers:

- ✓ Systems are 30% faster
- ✓ Uptime improves from 98% to 99.5%
- ✓ Scalability increases 10x
- ✓ Security posture improves
- ✓ Code deployment accelerates from monthly to weekly

But what's the ROI?

- Direct cost savings: £0 (cloud costs are similar to on-premise, maybe slightly higher)
- Revenue impact: Hard to measure (faster systems might enable better customer experience, but you need months to see the impact)
- Time-to-market improvement: Valuable, but not quantified

Conclusion: Project looks bad from an ROI perspective (£3M cost, uncertain benefits), but it's actually a strategic investment that enables future capabilities.

How to fix it:

- Measure leading indicators (deployment speed, development team velocity)
- Measure leading metrics that predict revenue impact (time-to-first-feature)
- Set a 12-18 month measurement window instead of expecting ROI in year 1
- Quantify the "option value" (what new products can you build now that you couldn't before?)

Case B: Bad Project, Visible Benefits

A company implements an expense management system. The project delivers:

- ✓ Employees can submit expenses in 5 minutes (instead of 30)
- ✓ Finance can process expenses in 1 day (instead of 5)
- ✓ System catches duplicate expenses (£50K/year savings)
- ✓ System integrates with accounting (eliminates manual reconciliation, £100K/year savings)

Reported ROI: 150% (£150K savings vs. £100K cost)

But there's a hidden cost:

- The system is inflexible. Employees hate it. Adoption is only 60%.
- The system integrates with one accounting system (when the company has two).
- The system is a vendor lock-in (switching costs are £500K+).
- The system doesn't scale to the company's growth plans (will need replacement in 3 years).

True ROI is actually negative when you factor in future costs.

How to fix it:

- Measure long-term ROI (3-5 years, not 1 year)
- Include switching costs and lock-in risks in the analysis
- Measure adoption rate and user satisfaction (are people actually using it?)

- Include reliability and stability metrics (does it support business continuity?)
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SECTION 6: THE BENEFITS REALIZATION PLAYBOOK (7-Step Process)

To actually realize benefits from a transformation, follow this playbook:

Step 1: Establish the Baseline (Before the Project)

- Measure current efficiency, cost, quality, constraints
- Document the business case and target state
- Get sign-off from business owner

Step 2: Define Measurement Plan (Before the Project)

- Identify metrics you'll track
- Establish baselines and targets
- Assign owners
- Create measurement discipline

Step 3: Communicate the Vision (During the Project)

- Help teams understand why the change is happening
- Connect the project to business outcomes
- Build adoption momentum

Step 4: Implement with Discipline (During the Project)

- Follow project governance
- Track health indicators weekly
- Anticipate adoption resistance
- Plan for stabilization phase

Step 5: Stabilize and Optimize (Months 1-6 After Go-Live)

- Focus on adoption (get users trained and confident)
- Fix critical issues quickly
- Don't declare "done" too early
- Plan for optimization phase

Step 6: Measure and Report (Months 3-12 After Go-Live)

- Track lagging indicators (the metrics that matter)
- Report progress monthly to business sponsor
- Identify gaps between target and actual
- Adjust plans if needed

Step 7: Sustain and Improve (Months 12+ After Go-Live)

- Measure benefits at 12 months (and 24 months)
 - Identify lessons learned
 - Plan next phase of improvements
 - Update the business case for the next transformation
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SECTION 7: THE BUSINESS CASE FOR ROI MEASUREMENT (Why This Matters)

Organizations that measure transformation ROI:

- Realize 2-3x more benefits than organizations that don't measure
- Have higher stakeholder satisfaction (because they track progress and communicate it)
- Have higher adoption (because the vision is clear and progress is visible)
- Can allocate future budgets more confidently (because they know what worked)

Organizations that don't measure:

- Guess at whether benefits were realized
- Have more transformation project failures
- Have lower stakeholder confidence (nobody knows if it worked)
- Allocate future budgets based on gut feel instead of data

Example:

Organization A invests £5M in a transformation and realizes £2M in benefits (40% ROI). They measure it carefully and report it to the board.

Organization B invests £5M in a transformation. They don't measure benefits carefully. Did they realize £2M in benefits? Nobody knows. The project was "on time and on budget," so leadership assumes it was successful.

Question: Which organization will get budget for the next transformation?

Answer: Organization A. Because they proved it works.

CLOSING

The ROI illusion is the gap between the benefits you projected and the benefits you actually realized.

Most organizations have a huge gap because they:

- Measure the wrong things
- Don't have a baseline
- Don't establish accountability
- Measure too early
- Don't have a measurement plan

This article gave you a framework to close that gap:

1. Measure the baseline (what was the starting point?)

2. Define the target (what success looks like?)
3. Create a measurement plan (how will you prove it?)
4. Assign ownership (who's accountable for benefits?)
5. Track progress (monthly measurement, regular reporting)
6. Measure at the right time (12-18 months, not 3 months)
7. Calculate real ROI (benefits realized vs. costs)

Do this, and your next transformation will be measurably successful.

KEY TAKEAWAYS

- 70% of digital transformations fail to achieve projected benefits, not because the technology failed, but because benefits were never measured
 - Five common mistakes: measuring wrong things, confusion of correlation/causation, benefits arrive late, no baseline, no accountability
 - ROI framework has five elements: baseline, target state, measurement plan, benefits timeline, accountability structure
 - Typical transformation ROI is 150%-300% in year 1, but only if you measure correctly
 - Most benefits arrive in months 6-18, not in months 0-3 (measure at the right time)
 - Dashboard should track leading indicators (adoption, progress), lagging indicators (actual benefits), and business impact metrics
 - Benefits realization playbook: baseline → measurement plan → communicate → implement → stabilize → measure → sustain
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RESEARCH & CITATIONS

- McKinsey: Why Digital Transformations Fail (2023)
 - Gartner: Digital Transformation Success Factors
 - PMI: Pulse of the Profession (2024)
 - Harvard Business Review: Transformation Is Everybody's Business
 - Author experience: 37 years in enterprise technology, experience with 20+ transformations ranging from £500K to £50M+
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