FREE PREVIEW · THE INTRODUCTION

Business Savvy Engineers

Profitable Projects. Stronger Engineers.

Sold at 12–15%.
Closed at 4%.
Where did the profit go?

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BusinessSavvyEngineers.com

Introduction

The project review went quiet when the Director pulled up the final profit report. Delivered on time. Client signed off. Technical quality beyond dispute. And yet the number on the screen was less than half of what had been estimated at bid.

Nobody spoke, not from surprise exactly, but because seeing it written down made it real in a way the warning signs along the way had not.

“But we sold at double-digit margin. Where did the rest go?”

The Director looked at the young engineer who had asked and said something he would hear many times over the following years, in different rooms, at different firms, on different continents.

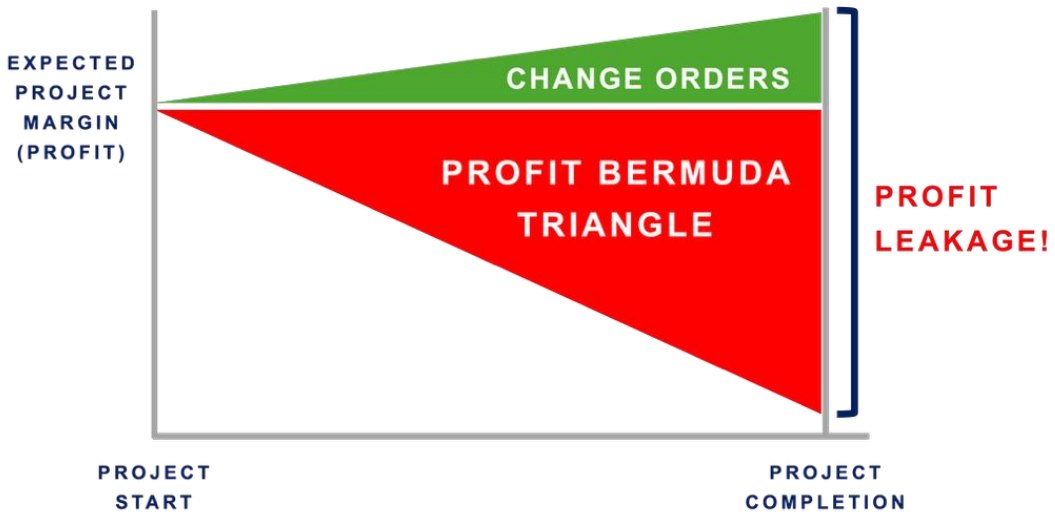
“That’s just how it works in engineering.”

It does, far too often. It doesn't have to. We refuse to accept that excuse any longer.

That refusal is what this journey is built on. Too many capable engineers have been conditioned to repeat it as if it were a law of the profession, when in truth it is nothing more than a convenient lie. We are here to challenge it, dismantle it, and do better.

We know that room because we have sat in it. For years, working first in engineering business development and later in organizational transformation across the energy sector, we watched projects being sold at margins of 12, 13, sometimes 15 percent, and more, and come back at 4 or 5, or less. The technical work was often excellent. The client relationship was often intact. The delivery teams were not careless, lazy, or under-qualified. And yet the commercial result kept collapsing.

At first glance, that looks like an exception. It is not. It is a pattern.



That pattern is the reason we started the Engineering Savvy program.

Duncan's grounding is in the deal itself: more than a decade in engineering business development and senior commercial leadership, inside EPC(M), Engineering, Procurement and Construction Management, organizations, which showed him firsthand where a bid's promises and a project's delivered reality start to diverge.

Aart brings a rigorous financial lens, built over decades as a CFO, consultant, and board adviser, capable of translating recurring commercial disappointment into language leaders can measure, track, and improve.

The practitioner foundation comes from Henk, whose career leading global Project Delivery in major EPC(M) organizations gave him a front-row seat to the exact moments where technically strong projects begin to lose their commercial shape.

Between us, this work reflects more than seventy years of combined experience in engineering, commercial performance, and organizational change.

That experience taught us something simple and uncomfortable. Most engineering organizations do not have a profit problem because their engineers lack intelligence or commitment. They have a profit problem because they train engineers to stick to budget rather than to train to look ahead to see and act on financial and commercial impact of technical challenges.

A Structural Problem, Not a Personal Failure

The engineers in that room were not to blame. They had been trained to solve technical problems, and they were good at it. But most had never been shown the commercial logic of the projects they worked on: how profit is protected or eroded decision by decision; how a scope change can save or destroy a month of earnings; how the timing of an invoice affects the firm’s ability to invest in the next hire, the next software platform, the next salary review.

That invisible gap between technical work and commercial consequence is what we call,

The Technical Comfort Zone

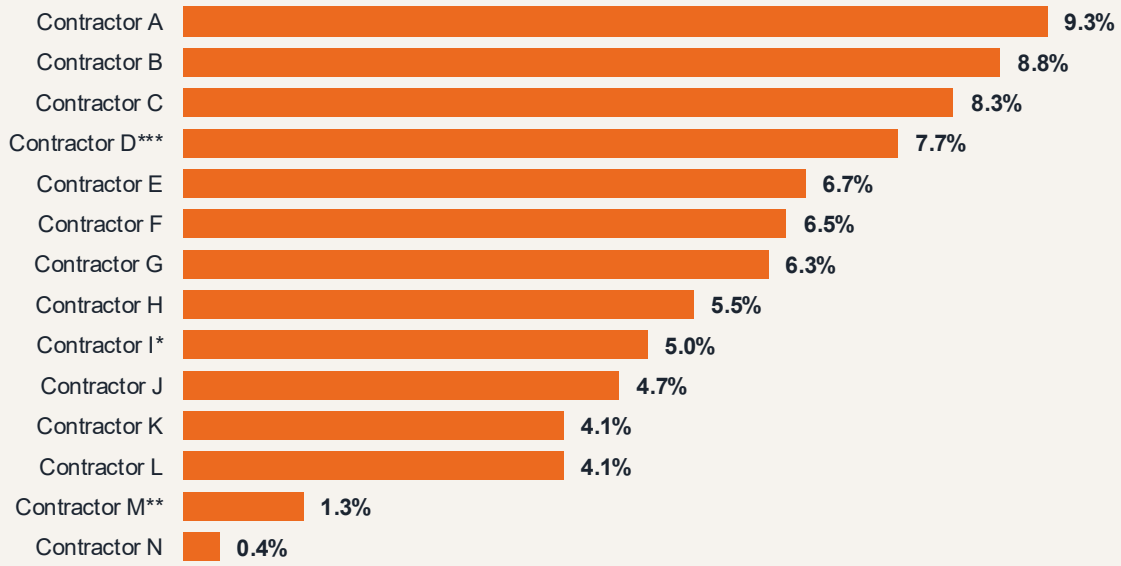
Inside it, an engineer’s identity is clear: solve the problem, meet the specification, deliver the brief. Commercial conversations happen somewhere else, handled by someone else, in a room most engineers are never invited into until the numbers have already gone wrong.

The Technical Comfort Zone is not a character flaw. It is a structural feature of how engineering organizations are designed. It allows firms to produce excellent technical delivery and chronic commercial underperformance at the same time. That is why so many engineers can look around at teams full of conscientious, high-performing professionals and still end up asking, at close-out, where the profit went.

The answer is measurable. The global engineering services market stands at roughly $1.81 trillion. Average realized profit is around 5-6 percent. Most projects are sold at margins above 12.5 percent. More than half of available profit disappears between contract award and project close-out, not because the work had no value, but because the organizations delivering it were not built to protect that value day by day.

Operating profit (EBIT) as % of revenue

14 global EPC contractors, average 2023–2025 · group average 5.6%



* EBITA ** Profit before tax *** Energy segment only. Profit measures and fiscal years differ by company; company names are not shown in this edition.

Source: OpenBook.Works analysis from published annual results of 14 EPC(M) services organizations.

We see this most vividly in an exercise we run with Project Teams around the world. We ask each person in the room, Project Director, Lead Engineer, Commercial Manager, Site Supervisor, to write down three numbers independently: the project's bid profit, the current forecast, and the biggest driver of the gap between them. Same project. Same meeting. Same data, in theory. The answers diverge by four, five, sometimes eight percentage points. The profit does not vanish in one dramatic mistake. It dissolves across a team that has never been given a shared commercial language for the work it is already doing.

This Journey Is About Building That Language.

More specifically, it is about expanding the Technical Comfort Zone so that commercial awareness becomes part of what engineering professionalism already means. Not a separate identity. Not a step away from technical excellence. A more complete version of the engineer who is already there.

Meet Alex

Throughout this journey you will follow Alex, a composite of the engineers we have worked with across four continents. Alex is a mechanical engineer, seven years into a career at a mid-sized EPC consultancy. She graduated near the top of her class. Eighteen months ago, she applied for her first Project Manager role and received feedback she found both vague and irritating: she needed to develop her commercial awareness. She assumed that meant finance. She was not a finance person; she was an engineer. She filed the comment away and got back to work.

What Alex did not know, and what many engineers have never been told clearly, is that commercial awareness is not a finance skill. It is an engineering skill practiced in commercial conditions.

It is the ability to recognize when a client request changes scope, when a design decision has a margin consequence, when a cost trend needs escalating, when a subcontractor instruction should not remain verbal, when a variation should be raised now rather than explained sadly at close-out. It is the ability to connect the technical act to the commercial outcome while there is still time to do something about it.

That is the skill this journey is designed to build.

Before You Read: Your Starting Point

Before turning to Chapter 1, answer these ten questions honestly. Score each from 1 (rarely or never) to 5 (consistently and confidently). Add up your total, this is your Engineering Savvy baseline.

1	I understand the profit structure of my current project: what was estimated at bid, what is forecast now, and what is driving the difference.	1 2 3 4 5
2	When a client requests something outside original scope, I know whether it is commercially compensable and how to convert it into a change order.	1 2 3 4 5
3	I attend project financial reviews with genuine curiosity, not as a passive observer.	1 2 3 4 5
4	I can explain, in plain terms, how a billing delay affects the firm's ability to invest in its own people.	1 2 3 4 5
5	I have raised, or supported raising, a variation order in the past six months.	1 2 3 4 5
6	I know what the bid assumed about hours in my discipline, and I actively track whether delivery is running ahead or behind.	1 2 3 4 5
7	I have had a commercial conversation with a client, about scope, value, or entitlement, in the past three months.	1 2 3 4 5
8	I understand how my firm makes money: which project types and client relationships deliver the strongest returns.	1 2 3 4 5
9	When I make a technical decision, I consider its commercial consequence as part of the same thought process.	1 2 3 4 5
10	I feel equipped to raise commercial issues with clients without damaging the relationship.	1 2 3 4 5

SCORE	WHAT IT MEANS, AND WHERE TO FOCUS
40–50	Strong foundation. Use this book to systematize what you do intuitively and extend it across your team.
28–39	Commercially aware but inconsistent. Focus on Chapters 3 and 4, rhythm and levers.
16–27	The Technical Comfort Zone is present. Chapters 1 and 6 are your priority.
10–15	This book was written for you. The gap you are experiencing is structural, not personal.

What is your score? _____ / 50

What This Journey Does

Engineering Savvy does not ask engineers to become accountants. It asks them to see their work through two lenses at once: the technical lens they already trust, and a commercial lens that reveals how that work translates into value for the client, for the firm, and for their own career. Not a different kind of engineer. A more complete one.

“We call this Engineering Savvy.”

The journey ahead is practical. This journey names the ten moments in the project lifecycle where profit most often leaks and explains why those moments repeat. It introduces a framework for building commercial intelligence across engineering organizations rather than concentrating it in one overburdened Project Director. It shows how a 100-day rhythm can turn commercial awareness from a good intention into an operating habit. It examines the highest-leverage commercial decisions available to Project Teams, the leadership behaviors required to sustain them, and the identity shift engineers experience when they begin to understand not only what they are delivering, but the value they are protecting as they deliver it.

You will see Alex make that shift in the same place most engineers make it: not in a classroom, but inside live projects, with awkward conversations, imperfect information, conflicting pressures, and consequences real enough to matter.

One final note before we begin. Throughout this book, the word profit is used deliberately. Not margin, not EBIT, not contribution. Profit. It is the word everyone understands instinctively, the word that most clearly links daily project decisions to the financial health of the firm, and the word that makes the stakes of commercial awareness impossible to misunderstand.

A note on names. Engineering Savvy is the capability this book builds: the habit of seeing the commercial consequence of a technical decision while it can still be changed. Business Savvy Engineers is this book and the program built around it, at BusinessSavvyEngineers.com. OpenBook.Works is the company behind it and the research practice of the dataset of more than 25 organizations and 500 engineers that the recurring statistics in this book come from.

Some examples in the chapters ahead may sound exaggerated. They are not. They are drawn from real organizations, real portfolios, real reviews, and real losses collected over years of work in firms where the same patterns kept repeating with uncomfortable consistency.

If something strikes you as obvious, ask yourself a better question than whether it should happen. Ask why it keeps happening anyway.

That's where this journey begins.

Continue the journey

This was the Introduction. The book follows Alex through ten moments where profit leaks, the framework to stop them, and the 100-day rhythm that makes commercial awareness a habit.

→ **Read the full book**
Business Savvy Engineers – Profitable Projects. Stronger Engineers. Available on Amazon in paperback and Kindle.

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Free preview of Business Savvy Engineers – Profitable Projects. Stronger Engineers by Duncan Oyevaar and Aart Pellikaan (2026). You are welcome to share this document unaltered. Not for resale.