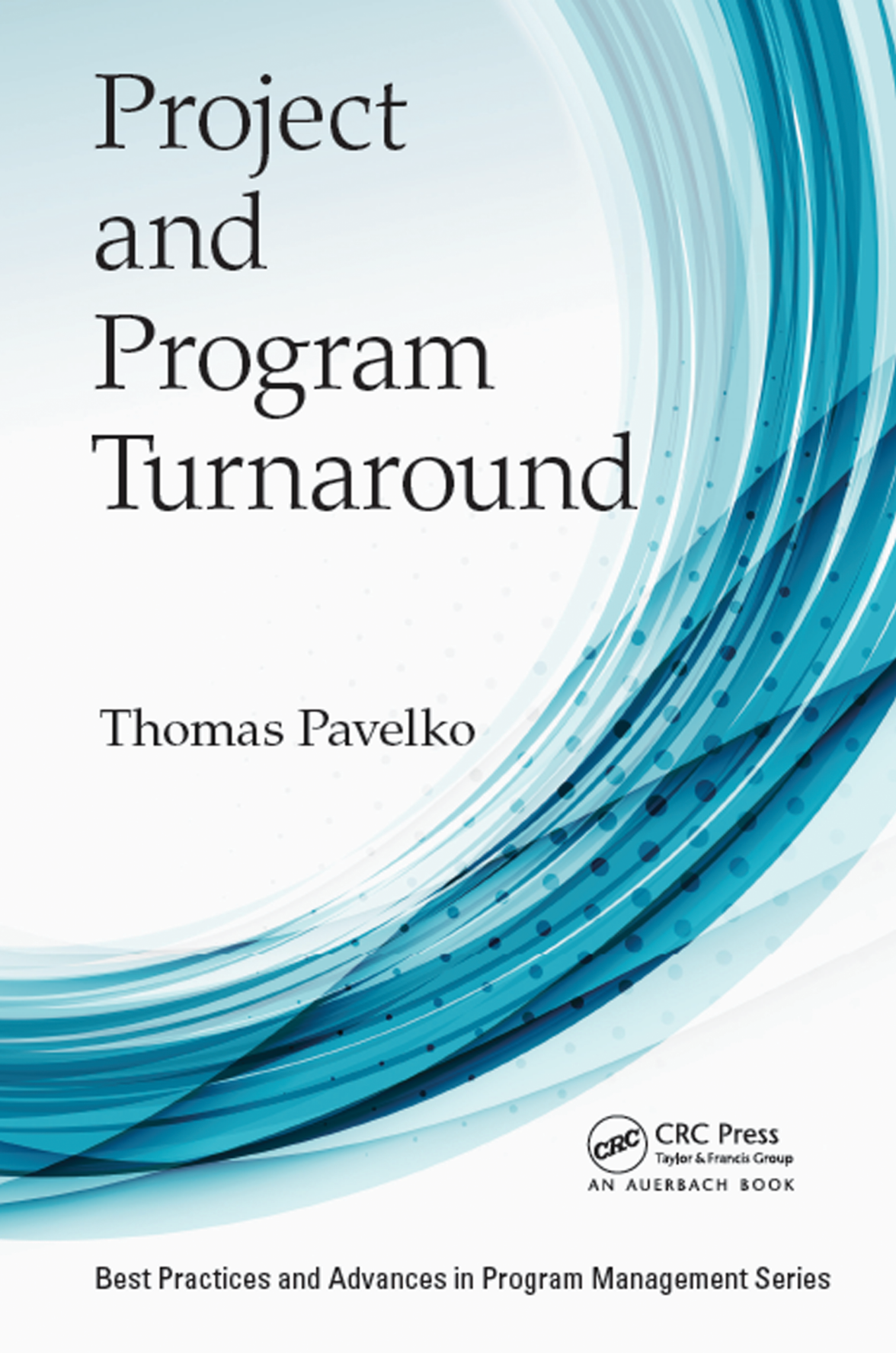


Project and Program Turnaround

Thomas Pavelko



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Project and Program Turnaround



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CRC Press

Taylor & Francis Group
Boca Raton London New York

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CRC Press
Taylor & Francis Group
6000 Broken Sound Parkway NW, Suite 300
Boca Raton, FL 33487-2742

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Printed on acid-free paper
Version Date: 20161201

International Standard Book Number-13: 978-1-138-62680-5 (Hardback)

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Dedication

I wish to dedicate this book to my mother, Adelyn (Stecki) Pavelko, and my father, Francis Pavelko, members of the Greatest Generation, which fought for the safety of the USA. They inspired me to always serve.



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Preface

The U.S. economy thrives on the development of new products, new systems, new processes for organizing and managing people, and new ways of teaching. Usually, these advances come about as a result of a flash of inspiration by highly creative individuals.

However, there is a discrete change in development emphasis when the decision is made to implement their invention. Now, they must take on the grueling details of product capitalization, profit plans, development/manufacturing facilities, talent management, subcontract management, supply line development, development tracking, etc. The leadership culture must realign.

Unfortunately, about one out of every four development programs fail. Sixty-five percent of those that survive do not achieve all their goals.

A development program or project in trouble is distinct from a program encountering typical development difficulties. Each day its performance seems to get worse, even when team members do not think it possible. The program or project can appear to be in free fall.

I spent years at a major aerospace company leading the successful recovery of important development programs in trouble. I experienced firsthand what causes programs to stop achieving major performance, cost, schedule, and quality commitments. I refined ways to evaluate these programs, reorganize them to achieve their commitments, and resurrect the morale of the team. I strove to lead these teams to enter a high state of productivity that I refer to as being “on step.” In the years after these programs were saved, former team members enthusiastically volunteered to be assigned to similar programs.

There are other books written about saving troubled programs. But few authors have actual experience planning and leading a program save. Many of these books propose determining the root cause of a failing program from a wide range of theoretical possibilities, when in fact the possible causes are few

in number. They often recommend responding with a detailed program plan, when actually planning is not what these programs lack.

This book identifies the essential fundamentals for executing a program turnaround effectively. These fundamentals include assigning responsibility for each program task to one person, capitalizing on colocation and face-to-face communication, recruiting problem solvers, establishing team member commitments, using team accomplishments to propel high team morale, among others. All of these are necessary to get the Program Team on step and successful.

The guidance provided in this book is applicable to all program or project genres, including manufacturing, nonprofit work, education, medicine, investment management, and municipal management.

A special chapter is devoted to dispelling misconceptions about and providing guidance for software development. Software has become a great part of both providing product functionality and assisting with managing product development.

This book is a highly valuable source of insight and guidance for a wide range of readers, including management professionals, students of business, and executives of corporations. Every member of a product or project development team will find its recommendations to be of high value.

If you are a member of such a team, you have been given the special privilege of embarking on a memorable effort that may change the world.

Acknowledgments

I would like to acknowledge the support and patience of the extraordinary leaders and managers in my life. Their examples have highly inspired me and helped me develop my leadership behavior and the success of the programs I have led. They include Vance Coffman, PhD, Danial Tellup, Alfred Smith, Thomas Tadano, Emanuel Dimiceli, Michel Henshaw, Tory Bruno, Anthony Tuffo, Kenneth Dwyer, Julie Sattler, Richard Campbell, Rudy Kuehn, Stanley Hall, Lloyd April, Gregory Caucus, Michel Brieden, Thomas McGrath, Ronald Harten, PhD, Charles Christensen, George Burk, and Professor John Nicholas.

I also would like to thank those who stood beside me and gave me the confidence to move on. They include Helen Danna, Thomas Greenwood, Thomas Dougherty, John Bjeletich, Christopher Thomas, Dr, Ronald Watson, MD, George Eger, John Kowalchik, PhD, Chad Rowe, Gwynn Sparks, Paul Anderson, Al Gegaregian, Barry Baumgardner, Michael Inman, Lonnie Crawford, Mihn Tran, Russel Friedenthal, Thomas Donahue, Mark Waterman, Donald Navarini, Barry Jaynes, Bernadette Ertle, and all the very extraordinary team members of the programs I have had the privilege of leading.

Finally, I want to offer special thanks to John Wyzalek and Ginger Levin, PhD, of Taylor & Francis, Ginger for picking my book proposal and John for leading the entire publishing effort. And a very special thanks to Marje Pollack and Susan Culligan, who both worked tirelessly with Theron Shreve, of DerryField Publishing Services, to complete this book.



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About the Author

Thomas Pavelko worked for 37 years for Lockheed Aircraft and Lockheed Martin. He started as an engineer organizing and leading teams to develop embedded computer systems that performed critical flight control and data reduction functions. Eventually, he was promoted to the level of Program Director. He reported to a wide variety of divisions, including Satellites, Missiles, R&D, Electronics, Propulsion, Advanced Astronautics, Commercial Space, Human Spaceflight, and the Skunk Works. During the latter part of his career, he was assigned to assist large commercial and government programs in trouble. For some of these, he became the new Program Manager. All the programs he led were successful.



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Chapter One

Great Program! But What's Wrong?

“What happened? When I took this job, the future looked so bright. It’s my life’s goal to lead a team and be a part of developing something brand new. I was given the job to lead this development program months ago. We were all so thrilled and optimistic when it started. Finally, we could reveal the brilliance of this new idea. I wasn’t worried about my personal acclaim but rather the happiness of this exciting new team.

“But now we’re stuck. In fact, each day seems to be getting worse! Can this be true? Like were falling into some desperate black hole with no end in sight. We’re not achieving any of our promised completion dates. We’re overrunning our budget more and more each week. We’re even having a terrible time meeting all our basic performance requirements! How long can we continue to ask our customer for relief?

“It seems like when we believe the condition of the program could not be more dire, we fall into deeper trouble. Do we have the wrong team? Did we just somehow miss some big chunks of the planning? Am I somehow blind to what’s most important? I’m straining my mind around the clock to figure out what’s wrong!

“My team leaders look bewildered. They keep telling me, ‘This is just the reality of a new program,’ ‘It will get better,’ ‘Every team goes through a challenging time.’ But I keep thinking we’ve exhausted our margins. I can’t imagine we’ll ever get back on track.

“There seems to be some team sense that it’s ok to keep plugging away as we have. I know few team members will come in this weekend or work any extra

2 Project and Program Turnaround

hours. I think they're trying to tell me to stop getting up tight. The future will eventually work out. 'No need to kill ourselves.' Right?

"My team probably thinks I'm obsessive. One of those 'hyper-achievers' who easily gets up tight. But I've been in this business a long time, and I just can't imagine how any part of this program could be viewed as successful. I thought this job would be a big step forward. It's like I have no idea what to do to make this better. How did I get into this? Are we doomed?"

• • •

Does any of this sound familiar to you? Are you suffering this pain now?

Leading a team of people developing something that has never existed before is one of the most exciting things you can do. Successfully making a brilliant new idea a reality can leave you with a special pride that lasts a lifetime.

All such development programs and projects are tough. In the fire of hope and optimism, they have their setbacks. Sometimes it may feel like the problems are insurmountable. Yet with the tenacious execution of process and persistence, they get through and succeed.

But some development programs or projects fall into deep trouble. They have a discreetly different tone. The bottom seems to fall out of team morale. The program or project cannot achieve any of its performance, schedule, or financial promises. For a long time, each day has been worse than the last. And there is no consistent plan to end it. Team members sense that the failures that are accumulating will not be resolved without a big change.

This book provides insight and guidance for determining the specific deficiencies in a development program in trouble and then putting it back on track. It distinguishes "commitments" from "goals" and shows how to achieve them. It discusses the changes necessary not only in leadership approach and program processes, but also in the self-esteem of the team. It identifies the many long-term collateral benefits to the enterprise by saving the program.

In this book, I define in detail what a development program is. I compare what poor and successful development programs look like. I review the typical symptoms of a program in trouble. I discuss the major reasons I have observed that cause these problems.

I must clarify that, depending on the subject matter being developed and/or the enterprise sponsoring the activity, a "program" may instead be called a "project," often a big project. Either reference is fine. I will use them interchangeably.

Also, please note that I have developed some terminology that I use throughout the book. I have listed these with their definitions in Figure 1.1.

I will then describe how to reorganize and re-plan the troubled program, how to make the transition in the program, and what high-value fundamentals are important during execution—fundamentals that include closely teaming

TERM USED IN BOOK	DEFINITION
TURNAROUND	Saving a program or project in trouble and making it successful.
PROGRAM or PROJECT	Product implementation effort, 30- to 500-member team with potential subcontractors and suppliers. Terms used interchangeably in book. Detailed definition in the text.
ENTERPRISE	The organization, company, or corporation the Turnaround Program may exist in. The organization can be the Program investors and/or business peers for a "startup."
ON STEP	The highest level of execution success and efficiency a program or project may operate at.
TURNAROUND PLAN	The new Program Plan for a program being saved.
CUSTOMER	The individual or agency that has asked for the program or project to be conducted. Usually the source of compensation.
TURNAROUND LEAD	The person who organizes and leads the program or project Turnaround.
TURNAROUND LEADERSHIP	The leaders of the Turnaround program tasks and other program work. They report to the Turnaround Lead.
TURNAROUND COMMITMENT	The first accomplishment the Turnaround must achieve next for the program or project to remain solvent. Often the first of a series of steps to successfully complete the program.
TURNAROUND TEAM	The Program team plus enterprise executives, customer team, subcontractor team(s), and critically important suppliers.

Figure 1.1 Terms and definitions frequently used throughout this book.

with the customer, selecting the best leaders, setting the right priorities and expectations, motivating innovation, encouraging continuous improvement, managing risk, emphasizing the importance of ethics, providing good subcontract management, maintaining accurate progress tracking, establishing the powerful use of metrics, deriving successful corrective action, maintaining scrupulous control of product configuration, knowing what to look for when recruiting talent, and much more.

There is even a chapter on modern software development and how to manage it. All of this is to get the program team to be like a speedboat skimming on top of the water, efficiently reaching its destination. The reader will agree that this excellent state of operation is of the highest benefit to the customer, the team members, and the sponsoring enterprise.

Other books written about saving troubled programs and projects provide a simple paradigm of determining root cause, correcting the deficiencies found, and monitoring the progress of the recovery. This book goes into greater depth to find the common root causes for program failures. This allows the planning of remedies to be more precise and effective.

The reader will learn that the typical causes for program failure are actually few in number. In addition, the reader will see that programs rarely get into trouble because of incompetent staff. Usually the deficiency lies in a confusing program organization, lack of some program planning, low performance expectations from leadership, lack of positive feedback to the team members, and other reasons not related to the competence or commitment of the staff. There is also usually little, if any, change needed in who is assigned to perform the work on the program team. However, what the new task assignments end up becoming, to whom they are assigned, and what the expectations are to accomplish them may change.

1.1 Programs Are Like Speedboats

After participating in and leading a wide range of development programs, I have observed that they operate much like a speedboat (see Figure 1.2).

Imagine you are leaving the dock on this kind of boat. The skipper pushes the throttle forward. You can hear the motor get louder as it provides more power and the boat moves forward. Let's say the skipper applies enough throttle for the engine to produce 10% of its maximum power. In addition, let's say that for this boat this power results in it moving through the water at 10 mph.

As the skipper heads out to open water, he increases the power output to 20%, and you note that the speed is now 15 mph. You're a little disappointed, because you thought that with twice the power you would travel at twice the 10 mph speed, not just 5 mph faster.

<u>Displacement</u> Performance – Good	<u>On Step Performance –</u> Excellent!
	
• Achieves average cost and schedule commitments. • Product quality and performances promised are reasonable. • Leadership is evaluated as good and consistent. • Organization design and program process seem to have a terminal velocity.	• Achieves product quality and performances at a higher level than many believe achievable. • Issues and failures solved in shorter than expected times. • Consistently delivers ahead of schedule and at lower costs than anyone predicted. • How do they do that?

Figure 1.2 With the right organization and operation, a project or program will achieve a discretely much higher level of performance than will others in all areas of cost, schedule, promised results, and risk management. I have studied this throughout my career. I call this high level of program performance being “on step.”

Now you're farther into open water, and the skipper increases the power output to 40%. The boat is going 18 mph. Real big wake, moving big amounts of water aside, and things are getting exciting. But only 3 mph more? Does everyone else on the boat see that we aren't going much faster with all this power being expended?

But now, the skipper nudges the throttle forward so the engine is creating 50% power. Suddenly the boat moves up out of the water and the speed jumps to 30 mph. Then when he applies 70% power the boat is skimming on top of the water at over 50 mph! At these high speeds the wake actually now looks smaller, but you seem to be flying on top of the water! What happened?

With 50% power, the boat discretely assumed a different mode of performance that allowed it to gain large amounts of speed with the added power. In this mode, the engine power is being used much more efficiently.

In the first mode of operation, the speedboat is simply pushing the water aside as it moves forward. The drag from the water increases quickly with added speed. But our boat is designed so that the water flowing under it causes it to lift up and skim on top of the water when the power is 50% or above. A boat moving in this second mode is said to be “on step.” The transition from displacement to being on step is discrete. Being on step requires a minimum power level and the right design.

These two modes of operation for a speedboat apply directly to development programs. Some programs plow through their schedules, sometimes just barely accomplishing their milestones on time. These types of programs are often severely hampered by unexpected adversities.

But then there are programs that somehow perform *better* than their commitments. They deliver early and resolve problems with highly creative solutions. These programs often complete their tasks with unprecedented speed. While doing so, they perturb the rest of the enterprise very little. These programs are on step.

The purpose of this book is to provide guidance to save a development program or large project in trouble and get it on step!

Let’s review in more detail what a program on step looks like.

- The program on step achieves or beats all performance, cost, and schedule commitments. It sometimes makes this appear easy. New risks to the program are detected and mitigated early. All team members clearly focus their work on achieving a simple list of promises to the customer. All program estimates have margins built into them, and the use of these margins is tracked through program completion. All program team members are favorably recognized for bringing forth an improvement idea or suggesting a new approach for the program. All improvement suggestions from the team are thoroughly evaluated by program leadership. Team members volunteer to make personal sacrifices to avoid taxing program margins. All team members know exactly what their assignments are and how their work supports the rest of the program. The team members are often found to smile while working. They may be under pressure but rarely look oppressed. There is respect, pride, and trust among the team members.
- Team member confidence is high. There is a high level of cooperation among the different program task teams. The person with the most expertise regarding a particular subject is known to everyone on the program. No one is ever punished for failing with a new solution they believed would help the program. Confidence and pride among the team members are ramped.

- The innovations and new processes developed and applied by the on-step program often set new performance standards for the enterprise. New tools and development methods are carefully introduced by the program to improve productivity, product knowledge, and product quality. The program on step performs quick and systematic evaluations of proposed innovations and improvements. New methods and tools that do not clearly prove to be beneficial are discarded.
- The program on step often exceeds its profit targets. This would seem unlikely, given the many unanticipated issues that occur during the development of something new. Yet often the innovations, process improvements, and team focus of a program on step results in completing the work faster than past program or project performance actuals and experiences would predict. This performance ends up establishing a higher level of demonstrated productivity by the enterprise, which often provides valuable performance actuals for winning future work. A program on step may even result in promoting a higher level of esteem for the enterprise in the business community.
- As mentioned, the program on step often establishes a higher level of documented enterprise performance capability. Its success can greatly increase the estimated value of the enterprise.
- Program team members volunteer to make large sacrifices in their personal time and effort to achieve critical program milestones. They do so because of the importance of what the program is creating and to support the challenging progress their team members are making. Individual contributors take tremendous pride in being known as a member of the program team. Weekends are sacrificed, long days are worked, vacations are postponed, and more. In a program on step, all the team members know and appreciate what must be done to achieve program commitments. There is little need for leadership to communicate program priorities more than once.

What has surprised me is the high level of enthusiasm and nostalgia that team members have for an on-step program long after it has been completed. We all strive to find a professional opportunity that lets us contribute the most value we can. We all want to “make a difference” for something important. This contribution can be in the form of a breakthrough in something like a new pharmaceutical product, a better way to deliver information on the internet, a new spacecraft for humans, or countless other programs or projects. For many of us, the passion to achieve the promise of a new development can even temporarily trump our focus on career promotion, compensation, or job security.

I have interviewed many professionals who were members of past on-step program teams. Most had completed their contribution to this program three to ten years before we met. I observed that:

- Most past members referred to this experience as “one of the best times in my career.” Often their role required completing large amounts of work and solving more problems at one time than they and many others would consider normal. This work was often accomplished in a new and rapidly changing program organization for customers who were often very demanding. These past team members acknowledged they had never worked as hard as they did for this on-step program. Yet, they recalled that because they were given exclusive responsibility for completing a specific task, they poured their hearts into providing the highest quality work they could and to deliver it on time. They told me they knew they had all of the program team and leadership ready to step in and get them out of a jam if they made a mistake. They felt confident the team would not punish them or dilute their role. In almost every case, these former team members said their experience on the on-step program was one they would never forget. Many said they would immediately volunteer to be on a similar team if the opportunity became available.
- In fact, many team members from past on-step programs I talked to volunteered to wrap up their current professional commitment or come out of retirement to work on a similar program or project. I was very surprised to witness this. I had seen the hard challenges they had had with their on-step assignments. I have never observed such high a level of sustained program dedication in any other programs or projects in my career.
- Team reunions have been conducted for the on-step program ten years after its completion! These are often organized by the “grass roots” of the team. They often include folks from a wide range of specialties and personalities who were in the trenches together for long times to complete their important work. It is hard to envision a higher complement to the leadership of the on-step program and its sponsoring enterprise.

1.2 How a Development Program Is Defined in This Book

This book discusses how to turn around failing programs that are developing and implementing something new. I provide guidance for getting them back on their committed track.

This includes programs that are providing services or performing steady-state manufacturing. In these cases, they are often implementing a new work model or change of process.

The product being developed does not have to be a completed physical item you can see and hold. For example, it could be a new algorithm for computer software, a detailed design of a new mechanical device or system, a new process design to increase the benefits of a non-profit organization, a new teaching method to increase the math test scores for fifth graders, or a lower cost approach for a growing municipality.

A development program will often implement something that was earlier shown to be achievable with proof-of-concept demonstrations, simulations, or analysis. Development programs bridge the gap between a new concept and its successful implementation. The proof-of-concept or feasibility demonstrations usually only validate the approach. Therefore, creating a detailed design of the new idea is usually a part of the development program. The following adds to this book's definition of a development program:

- Thirty to 500 people on the team (not including customer personnel, sub-contract personnel, or vendors). Any smaller and it is often a product team or concept demonstration team with a single task lead. Any bigger and it's usually multiple programs with a different program manager for each one.
- Typical program responsibilities include documenting and maintaining requirements for what is being developed; creating detailed designs and product development plans; managing the plans and tracking work completed to achieve cost, schedule, and performance commitments; and being vigilant for and managing new risks. Program work must include developing and executing plans to integrate and test product elements and establishing a test plan to verify and demonstrate the final product is completed as promised. The program must also select, organize, and manage all subcontractors and vendors. The program must certify that what they have developed is ready for use. The development program's leadership must be the customer's primary point of contact in the sponsoring enterprise.
- The development program may distribute program work from zero to up to thirty subcontractors. If more than thirty subcontractors report to the program, the work might be better managed with more than one program. The subcontractors will usually perform less than 80 percent of the total program work measured by cost.
- Piece parts and supplies are provided to the development program by vendors per supplier contract agreements. These agreements may include