



Why 99.5% IT projects fail to deliver

ENKI, LLC

*Article – Research Proof and How To Fix It From ENKI LLC's
Summary of Client Experiences*

WHY DO IT PROJECTS FAIL TO DELIVER

*This article below was originally consolidated in 2017 from a three-part series ENKI LLC's CEO, Lawrence Dillon, wrote in 2016 with Piematrix CEO, Paul Dandurand. We have updated the information based on the book, *How Big Things Get Done*.*

Research

Technology Transformation efforts seem to fail all the time and the research has confirmed this challenge for decades. Consider a 2018 McKinsey & Company report found that although 80% of enterprises have attempted a digital transformation project, less than 30% have succeeded at improving company performance. Another data set from [How Big Things Get Done](#) relied on 17,000 projects and found that 99.5%¹ of technology projects “partially or completely fail.” Meanwhile, [the Dell Technologies Digital Transformation Index](#) claimed a mere five percent of firms had attained “digital leader” status.

Background

In late 2016, we hosted an [ITMPI](#) webinar based on the 2015 Standish Chaos Report titled "70% OF YOUR PROJETS ARE LIKELY TO FAIL" to spearhead the conversation in our combined communities around what we keep doing wrong. As you can see, just in the last 6 years the probability of failing to deliver has increased from ~70% to ~99.5%. In this updated article, we will share our experience of why the failures keep occurring and why they are increasing.

© 1997 Randy Glasbergen. E-mail: randy@glasbergen.com www.glasbergen.com



“Every computer has been equipped with a compass to help keep our team on course.”

We also ask you to consider how your organization does with project success versus failure rates. Before answering, let's consider our simplified definition of project success and failure.

¹ Bent Flyvbjerg and Dan Gardner (2023). *How Big Things Get Done*. Penguin Random House LLC

SUCCESS – A project delivers expected business value such as measurable improvement to revenue, profits or net income, automation to improve productivity, new product release, reduce inventory costs or some other targeted outcome.

FAILURE – A project that did not meet or exceed expected business value.

Our view of project success is relatively straightforward. If you do what you say you're going to do, then you should be on-time and on-budget. If you deliver what you say you're going to deliver, then you should achieve or exceed the business value promised.

Now we'll be blunt: Executives don't care about PowerPoints, Excel spreadsheets, Gantt charts, task lists, stoplight reports, or SharePoint files. Executives care only about the positive financial impact of the project. If that is achieved, the company's bottom line should improve. It doesn't matter if the project is an IT project, a new building, a new product, an inventory rationalization effort, or any other effort. The reason executives seem to care about the documents is because projects rarely succeed, so leaders feel they need to engage to help improve the chance of project success.

THE SHOCKER!

The Standish Group 2015 [CHAOS Report](#)² showed that out of all 50,000 projects in the study, 71% failed to meet these three criteria: on time, on budget, and with satisfactory results. The updated dataset of 17,000 projects from [How Big Things Get Done](#) published in 2023 shows this problem has only gotten worse with a failure rate of 99.5%³ The problem is even higher for projects that are big and even worse if they include a goal to improve quality. Medium-sized projects failed at 91% and large projects at 94%.

Note: The Chaos Report has three criteria for project states: Success, Challenged, and Fail. Our view is that in the business world, you either succeed or you fail. If you're challenged, you have yet to succeed.

² Dr. Robert Klein, 1998, Stephens, 2008; Wong, Chau, Scarbrough & Davison, 2005, Standish Group 2015

³ Bent Flyvbjerg and Dan Gardner (2023). How Big Things Get Done. Penguin Random House LLC

So, where does your organization fit based on the above success definition? Do you find your success rate to be similar to the averages above? Do you see any improvement trends? What is your company doing differently to improve project success?

WILL THE REAL ROOT CAUSE PLEASE STAND UP?

CHALLENGES

An [article in InfoQ](#) explains the Standish Group 2015 CHAOS survey results. It shows that project failures come from the following five (5) areas:

- Lack of executive support. Financial and emotional backing is missing.
- Missing emotional maturity. Behaviors of how people work together is weak.
- Poor user involvement. Decision-making and information-gathering process is not there.
- No optimization. Structured means of improving business effectiveness is not executed.
- Not enough skilled staff. Highly proficient people are promoted or retire.

The book, **How Big Things Get Done**, highlights a learning that projects failing to meet expectations have a pattern. The pattern is that the thinking and planning stages of project planning are rushed so the rest of the project takes longer, i.e., goes slower, than anticipated, regardless of the effort expended.

Since this article is about improving project success, we believe that we must look at where most of the effort has been with project management training and technology enablement over the past 30 years, we should agree that it's around:

- IIL and PMI – Work Breakdown Structures (WBS): Phases, Stages, Activities, Tasks.
- Task management – list of everything you can think of, often captured in Excel or on an electronic Kanban
- Project Execution Metrics (Velocity, drawdown, etc.)
- Resource allocation
- Time and budget management
- Project Status Reports (PowerPoint, MS Word)
- Business value of the project – Return on Investment (ROI), Internal Rate of Return (IRR), Payback, etc.

After reviewing the findings, we asked ourselves if previous training and technology enablement efforts have been the right ones to focus on given hindsight. Are we missing something more fundamental? **Are we skipping the real root cause and focusing only on the symptoms?**

The high failure rate tells us our past understanding and approaches to improvements are not valid and hence, not working. We believe there are a few important reasons:

- Checking off a task as 'done' doesn't mean it was done right.
- Knowing what happened doesn't provide insight on what to do to make the outcome better the next time.
- Knowing who's available and doing the work doesn't help us understand if they're doing the work right.
- Getting a project done on time and on budget doesn't mean it created real business value.

Our approach spun the research on its head and asked two different questions.

1. What is common for all the successful projects?
2. What is the pattern of success?

The Standish Group highlighted what they concluded in 2015; however, we boiled it down to a simple common thread for success ---- **people experience**.

WHAT ABOUT PEOPLE EXPERIENCE?

A highly experienced project manager...

- Knows how to gain and maintain executive support;
- Has a high level of emotional maturity;
- Takes time to plan and design the project before engaging a bunch of team members and spending a bunch of money;
- Actively engages user involvement with sharing ideas, helping others, and asking for help;
- Understands the importance of repeatable processes and frameworks;
- Knows how to optimize the project and its future process with lessons learned;
- Maintains the structure given the dynamics of the company's internal and external influences; and,

- People are pattern learning organisms and can assert patterns of positive outcomes, or negative outcomes, from complex non-linear efforts with enough experience.

We found that as good project managers tend to move on, with job promotions, different companies, or retirement, they're replaced with less experienced project leads. These new project leads tend to deal with trial-by-fire or, figuring it out on their own. In addition, the problem is increased by cultures that push only deadlines or budgets, leaving little room for cooperation, idea sharing, and problem-solving. Also, this issue is compounded by the fact that the number of complex projects are increasing and more people are working remotely, further complicating the communications needed for successful execution of complex non-linear projects.

ROOT CAUSES & PEOPLE EXPERIENCE

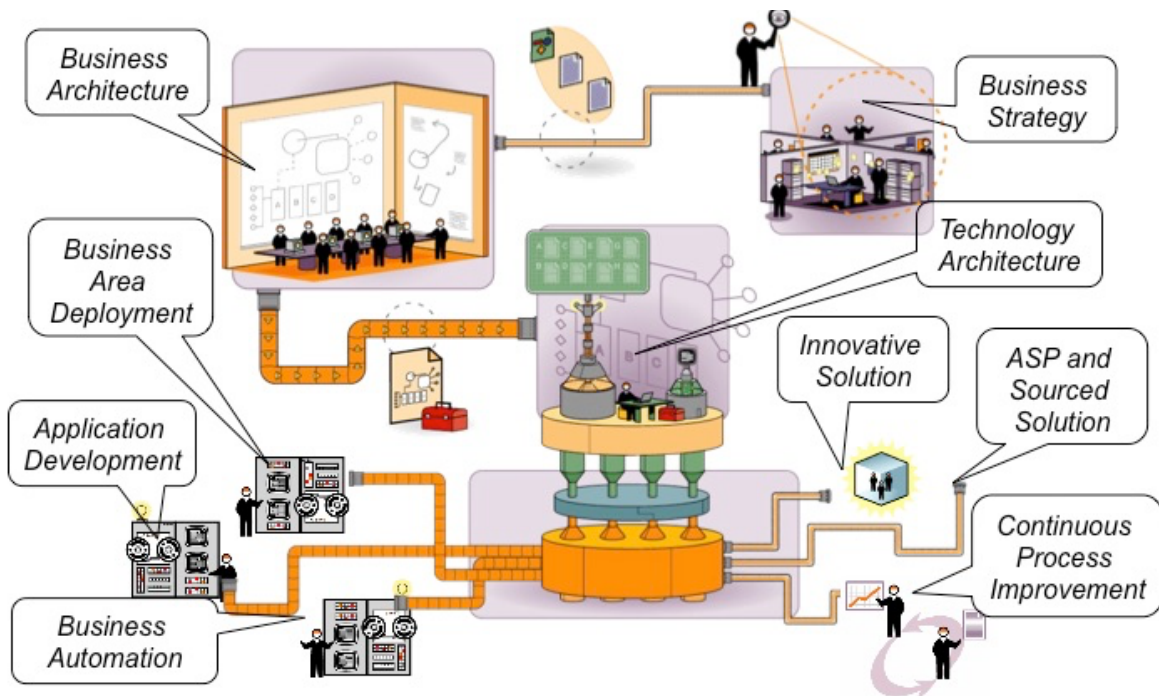
Given our hypothesis that people experience leads to the project success or failure, we thought about the underlying reasons that might be the case of the 84% project failure rate.

We have come to the conclusion that the process of project execution is missing the “how-to” content. This lack of real-time information prevents the novice project manager (PMs) from learning how to succeed from previous successful efforts performed by experienced PMs. It also makes it harder with real-time team collaboration and cooperation since there's no foundation to build upon and discuss when working on important tasks. If the project execution process is limited to just task labels, the only thing to do is to check it 'done', 'in process' or 'not started'. There's no opportunity to learn about the right or better ways to get it done well. And there's little chance for team idea sharing during the execution phase of work.

The data shows an inconsistency of execution from project to project. We applaud [PMI](#) and [IIL](#) for their efforts in creating standard project management guidelines (i.e., [PMBOK](#)) and training, but we have witnessed that their approach is often a one-and-done view of the world. Business projects come in flavors. Whether a monolithic, light agile, heavy agile, or hybrid approach, there's a lack of good execution consistency for each specific need. Each company has a different culture and they require different techniques and levels of engagement. Also, each project type requires different framework combinations that could never be covered by standard project management guidelines, such as PMBOK. These nuances are not baked into

processes that are ready to execute and re-execute as flexible frameworks made specifically for a given organization. As a result, execution becomes as varied as the project managers' skills and experiences and many of these projects rely on the remake of a list of tasks from other projects regardless of success. Consider the varying quality and cost impacts of this approach for manufacturing a product - task lists to build something without a process in mind.

Why should building business value, i.e., executing a project, be any different from building a product?



Everyone knows there should be a lesson learned step at the end of a project yet this step is rarely followed. Even if it was followed then the “how-to” process content and practices need to be well documented or ongoing improvement is impossible. If the project process is not designed with a learning process in mind, and it's not established as frameworks for constancy, then what are we improving? How many times have we sat in a meeting after discussing lessons learned from serious issues and risks and then have no place to really document the improvements we need to make for the future? How will the future project leaders and project managers get updated on the better ways to get the work done? How will they continue to learn?

Without a repeatable and improving library of frameworks, processes, and best practices, scaling is not possible. As your numbers of projects grow and as you add

more junior project managers, it will be impossible to scale the knowledge that inexperienced people will need to succeed.

Since project managers cannot access project execution process options for best-case needs, they miss opportunities to pick and choose the right framework or guideline to help with their immediate objectives. They are forced to stick with a top-down list of tasks that someone once threw into a folder and named it “Project Management Template”.

MAKING THIS REAL IN YOUR COMPANY

REMEMBER PEOPLE, PROCESS, AND TECHNOLOGY

In your work history, you may have heard or talked about the three pillars of people, process, and technology. Large consulting firms, such as Accenture, IBM, PwC, KPMG, Deloitte and Ernst & Young have been consulting with strategies around these three pillars for decades.

We outlined five failures pointed above from the Standish Group CHAOS survey results. This includes lack of executive support, missing emotional maturity, poor user involvement, no optimization, and not enough skilled staff.

Our experience and research have found that people experience was the root problem in all of these failure points. Since 2016 when this article was first written, ENKI LLC hired an **expert in adult learning to build and run the “Learning Architecture” portion of our transformation methodology. This Learning Architecture works in conjunction with our Business and Technology Architecture pillars.** Each of these pillars are more robust and inclusive than the traditional people, process, and technology as our pillars are supported by sound methods, research, and decades of deliverables and client references. Together they provide the cornerstones of **Project Transformation - a repeatable approach to program, and project, management and continuous improvement of success over time across the enterprise.**

PROCESS SOLUTION & PEOPLE

There are two issues with missing the adult learning journey in the Learning Architecture™, reflected in the gaps of the people experience mentioned above.

First, many organizations miss the "how-to" content needed from lessons learned. If you don't integrate your lessons learned into your process, then your people will continue to struggle solving the same issues. Second, is the lack of a framework library that allow project leads and managers to pick and choose the best process for their specific projects or programs. Dr. Harold Kerzner calls this "[cafeteria-style project management](#)". So, a lack of continuous improvement (not leveraging lessons learned) and no guiding frameworks to start from immediately inhibit a managers' ability to jump start successful projects from the beginning.

With this in mind, managers need to think about the learning journey they are on, current projects, and how they will impact or add value in the Learning Architecture™, the future projects, they will be building later. ENKI LLC's Learning Architecture™ is built on the science of Adult Learning

1. Capture lessons learned while your projects are in progress.
2. Turn those lessons learned into project process change as soon as you can.
3. Build and document multiple light versions of your project execution processes for different project types. These become your project frameworks.
4. Make your frameworks readily available to all project leads and managers to easily choose from. This is how you implement a Learning Architecture for Project Management improvements in the people doing the work.

A process solution is a people solution since your processes will not execute themselves unless we're talking about automated workflow systems which have not been developed yet for managing projects. We're talking about manual processes where your knowledge workers make the project process happen.

PEOPLE SOLUTION & ENGAGEMENT

In this section we introduce a cultural challenge reflected in the lack of sharing good people experience. To ensure the process solution gets well implemented, you need a purposeful culture that proactively engages people. Many would say you need to hire the right person with the right experience, but that may not always work. Or you may just have to "play the hand you're dealt", and make the best of the people you have.

Here are some key steps to get started on a purposeful culture:

1. Encourage people to ask for help when they feel they may need it or might want a second eye or opinion.
2. Reward those who help others when they see someone who needs help.
3. Get everyone to express new ideas no matter how simple or silly they may seem.
4. Recognize and celebrate those who take the initiative to be more engaged with asking, helping, and innovating.
5. Provide a safety environment for your people to take calculated risks to learn of a better way to structure projects. We call this Freedom within Fences. This is where adults can practice what they intellectually learned and think they know. Scientific research shows that what we practice with good outcomes we learn to do again.

TECHNOLOGY SOLUTION

There are three foundational problems with traditional tools used for project execution. First, they are not process based. They are in fact list-based by design and follow the same pattern popularized by Microsoft Project in the 1990s.

Second, leveraging the more advanced features requires advanced technical skills and exponential amounts of data, making these tools very expensive and complex. The chase to the top is to get on [Gartner's Magic Quadrant](#), which mainly rewards heavy feature sets, rather than simplicity of execution by all team members.

Third, since these tools focus on lists, rather than process views, they are not made for real-time process improvement. They are not designed for a-la-cart framework libraries that can be actively updated from lessons learned in real time. These failure points are critical if you are trying to advance the level of people experience.

Metrics are good, but traditional tools are not designed to change processes based on metric feedback. Feedback loops from lessons learned get trapped with the experienced person and are hard to store and share in most tools. Look for tools designed for driving consistency, efficiency, and repeatability while sharing content that flexes in real time.

Here are some ideas on what kinds of technology enablers to look for:

1. Process based by design, not task list based. This is the only way to help junior managers get up to speed very quickly. A process tool should visually take you through your framework's phases. It should allow your team member

to quickly access the how-to knowledge for a particular task making every step a learning experience. Also, look for a tool that helps you build process frameworks and provides an easy way for project managers and leads to pick and choose their preferred framework from the process library as they kick off a new project. Caution should be exercised as your company will need process and cultural transformation to move from task list projects to process designed projects.

2. Stupid easy or very easy to use after a short (2-3 hours) training session. People are busy learning how to do their work better. Don't let the tool get in the way! If the tool is on top of Gartner's list, but difficult to use, it will end up on top of your back-office closet shelf. Also, look for tools that do a good job showing those robust features only when you need it, rather than cluttering up the window. Modern tools should also have an ample set of self-guides, such as context sensitive short tutorial videos and mouse tool tips. Access to support staff in real time coupled with embedded social collaboration for team engagement and support.
3. The tool should work well with your process improvement culture. It should allow you team members to comment on how to improve the project process as they use the tool. It should make it easy for your process owners to update the content and then to publish that change out to the projects in real time. If the tool makes it easy to share project process improvement content, then you will be on your way to helping less experienced project leads become your new stars.

SUMMARY & ENKI LLC'S TECHNOLOGY RECOMMENDATION

Projects are still failing by 99.5% and this trend is getting worse because of more complex projects with more people working remotely and experienced managers getting promoted or moving on. We found that this high failure rate continues because we don't have enough people with practical experience, who have capacity to solve problems; and are willing to share, help, and develop the ideas needed to solve project challenges.

You can still make a difference and increase your success rate. ENKI has found that a shift in project management style from task list micro-management to process management, cultural adjustments, and continuous improvement increases project success rate by over 30%, continuously. Over several years, we have helped companies drive up their success rates, reduce wasted investment and improve

employee performance while making it easier to deliver all aspects of projects and programs. Our customer outcomes surprised us in three ways: 1) the simplicity in which they were achieved, 2) the improvement results in project outcomes, 3) the ease of engagement by executives reviewing enterprise, real-time, project dashboards instead of demanding time-wasting PowerPoint slides.

We realize there are investments required to make change happen. However, consider our opening concern in the first part of this article. According to PwC, the amount of estimated cost resulting from a 16% project success rate could be in the trillions of dollars the next few years. We now know that the success rate is much lower at 0.5% so the cost is even worse. We believe in the saying "...you cannot solve a problem with the same level of thinking used to create it". Shifting from a traditional approach to an approach proven in manufacturing to be transformative does not seem so large a leap and given our customer results, is proving to be worthwhile.

The software we have settled on is found at www.Pie.me. If you get the chance, try it with the free version. The free version does not have the enterprise features we use at ENKI LLC but there is enough there to get you started. The enterprise version is also reasonably priced and if you reach out to us on our website in the Connect page with a note, ENKI will have the owner of www.Pie.me give you a discount of 10% for your first year. We will also give you a 10% discount on our fees to help with your enterprise project transformation and purposeful culture work needed to transform your project success rates. We created this deal for people that know a process framework approach to projects just makes more sense. If you need a quick walk through of Pie.me or would like to see a couple of ENKI's recipes, just drop us a note. We do not get paid by Pie.me but we love the software and can share why and what your challenges may be if you decide to embrace this new way of managing projects.

Our first effort was to define and then structure the program and subsequent projects and create a repeatable process where possible. We discovered that we had a global design/modeling process and then, a local country deployment process for the new organization. The way we did this work was to take the 1,000+ MS Project task list and break it into process steps and sub-steps. We did use the www.Pie.me software to help with this so it only took about two-three hours. Once completed we could then look for gaps in the process flow(s). Once found, we addressed those gaps, updated the MS Project task list, informed the team and moved forward on the project.

We used www.Pie.me to work the process model on a weekly and sometimes daily basis to make sure we were not missing a step in the process. We also used it as a modeling and validation tool to continually confirm the program and project structures while validating the tasks were being completed in the right sub-process step and in the correct order/time frame.

We did this for both the global modeling work and for the country deployment work. In all, over 16 months, there were 15 different projects (three global with one being 100% focused on IT engagement and 12 local) that were designed, modeled and planned. Only three were not deployed prior to the end of 2016, one year ahead of the initial plan. Our projects were under budget and only had an "Amber" status a couple times and only for one week due to client personnel falling behind on non-critical path deliverables.

Out of the 36 other projects for which we had visibility, all the OTHER projects were "RED" for an extended time.

Our program effort was halted because of budget issues associated with the other projects as they were 15 months behind schedule.

There was not a huge retooling and training program! Nobody invested a single dollar to transform the way the client or the other consulting firms did their project management work. If the client or other consulting firms wanted to make the improvements permanent, there is investment in helping the people think differently about project planning and project management - there is a change to the work. There is also a need for technology to support the different approach.

Side Note: After 3 different consulting firms ran the PMO organization for the business with which we were working, we witnessed the same structure and planning mistakes and the same questions from each of the firms. There was no real transition of PMO insight, lessons, processes, etc. Each firm taking over the PMO had to "reinvent" what the PMO was doing and how it was doing it.

HIGHLIGHTED OUTCOMES OF OUR APPROACH

- On budget
- On time
- Identified performance business improvement of 20% (zero was expected from our project without added automation – we identified 20% without automation)
- Never had a “RED” Status for our program
- We knew of issues and impacts (Amber status) prior to impact and had mitigation plan (Risk Management Process) defined and executing prior to project turning “Amber”
- Other projects and programs were a “RED” status for extended time frames.
- Global transformation program had to be redesigned due to budget overruns from other projects
- Delivered a \$145 million in additional unplanned savings to the client
- Identified a \$50 million a month in potential savings, not implemented at the client.

SELECTED REFERENCES:

1. Post by Shane Hastie and Stéphane Wojewoda (Oct 04, 2015). Standish Group - Chaos Report. Available: <https://www.infoq.com/articles/standish-chaos-2015>
2. Post by [PwC - Global Infrastructure report](#), annual report on infrastructure outlook
3. Post by Storm Thomas (Oct. 1, 2015). How to achieve project success by Piet Joubert (Da Vinci Faculty). Available: <https://www.linkedin.com/pulse/how-achieve-project-success-piet-joubert-da-vinci-faculty-thomas>

We have walked in your shoes. ENKI LLC is Transforming Transformation™.